





# Welcome

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

Well I know that us Brits are famous for talking about the weather but wow what a month it has been here in the UK, firstly we had some snow and then towards the end of the month some fairly tropical sunshine. Both kinds of weather that really make for nice photographic conditions.

I normally comment on the successful orders gained by Siemens, Bombardier or Alstom but I'm happy to say that one of the smaller locomotive manufacturers has won an order this month. Open access freight operator Lotos Kolej has signed an 80m zloty contract with Newag on February 28 for the supply of five electric locomotives. Newag is to supply three six-axle Dragon 2 locos and two four-axle Griffin locos by the end of May, and will provide seven years of maintenance. All the locos will be equipped for operation with ETCS Level 2. The 20.3 m long Dragon 2 is a Co-Co loco with a maximum speed of 120 km/h and an axleload of 20 tonnes. It is equipped with silicon carbide converters and is TSI 2014 compliant. Lotos Kolej already has five first-generation Dragon locos in its fleet.

Another smaller loco manufacturer who has also had success this month is CRRC Qishuyan who have won a contract to supply diesel locomotives and multiple-units for

## Content

- Pg 2 - Welcome
- Pg 4 - Pictures
- Pg 62 - World News
- Pg 66 - From the UK
- Pg 69 - From the Archives

## Submissions & Contributions

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

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

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

## Contact Us

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

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

**Content Submissions**  
entries@railtalk.net

**Technical & Subscription Support**  
admin@railtalk.net

### Front Cover

United States Sugar Corporation GP40-2 Nos. 504 and 502 depart Fort Pierce and head for home. *Laurence Sly*

### This Page

On a wet and dull day, Pacific National's No. NR39 and a classmate pass through Brigadoon with an intermodal train from Melbourne to Kewdale (Perth). *Colin Gildersleve*

### Next Page

OBB Class 1144.072 pulling Regional Express No. Rex3912 from Selzthal to Liezen stops here at Windischgarsten on February 17th. *Thomas Niederl*





use in Nigeria. The order covers four NDJ3N diesel multiple-units, two DF7GN shunting locomotives, six DF11GN passenger locomotives and nine DF8BN freight locomotives. The first batch of 10 locomotives is scheduled to be delivered in October. The fleet is to be used on the 187 km standard gauge line between Kaduna and Abuja which was inaugurated in July 2016, and the 156 km standard gauge line between Lagos and Ibadan which is under construction for opening in 2020. CRRC Qishuyan said the contract signed last month was the largest locomotive export order that it had won. It hoped this would open the West African main line locomotive market for its products.

And if you are heading to Germany this year expect to see some disruption and Mole works as DB has announced plans to spend €10.7bn on infrastructure and station works during 2019. This includes 50 separate projects covering the modernisation of 1 500 km of track, 1 500 turnouts, more than 300 bridges and around 650 stations. Management board member for Infrastructure Ronald Pofalla said DB was 'on the right path', and ongoing investments in the rail network was having a positive effect. A total of 16 000 route-km has been modernised since 2010, amounting to almost half of the 33 400 km network. Pofalla said DB had improved the way it manages major works, with a 27% reduction in delays associated with engineering works despite a 20% increase in construction activities. business.

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

**David**  
Editor

## Terms & Conditions

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

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

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

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

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

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



## With Thanks

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

These issues wouldn't be possible without: Ray Anslow, Brian Battersby, Mark Bearton, Mark Bennett, Tim Blazey, Keith Chapman, Julian Churchill, Nick Clemson, Derek Elston, Mark Enderby, Tim Farmer, Dave Felton, FrontCompVids, Paul Godding, Richard Hargreaves, Keith Hookham, Colin Irwin, John Johnson, Anton Kendall, Jyrki Lastunen, Ken Livermore, Michael Lynam, Peter Marsden, Phil Martin, Denzil Morgan, Thomas Niederl, Peter Norrell, Chris Perkins,

Mark Pichowicz, David Pollock, Andy Pratt, Paul Quinlan, Railwaymedia, Alan Rigby, Bryan Roberts, Neil Scarlett, John Sloane, Stephen Simpson, Laurence Sly, Stewart Smith, Steamsounds, Steve Stepney, Mark Torkington and Erik de Zeeuw.







ACN No. 4174 takes the Bunbury line at Brunswick Junction with loaded Alumina destined for the docks at Bunbury.  
*Colin Gildersleve*

## CAF AWARDED ANOTHER RAIL PROJECT IN AUSTRALIA

Transport for New South Wales has awarded Momentum Trains consortium comprised of CAF, Pacific Partnership and DIF Infrastructure V, an availability based public private partnership contract to supply and maintain for 15 years the new regional train fleet for New South Wales (NSW).

CAF's scope in this contract exceeds €500M and comprises of the supply of 29 regional diesel electric units, two simulators and the construction and fit out of a new maintenance facility in Dubbo, north-west of Sydney. In addition, CAF is also providing equity financing and the first units expected to be commissioned for revenue service in 2022.

With a population of over 7 million, New South Wales is one of the six states of Australia and Sydney is its capital city. With this project the NSW government sets out to replace the old regional train fleet with new trains to improve passenger safety and comfort for regional and intercity rail services to the cities of Canberra, Melbourne and Brisbane.

Late last year, the same transport authority awarded CAF, as part of the Great River City Rail Light Consortium, the contract to supply, operate and maintain for an initial term of eight years thirteen URBOS 100 LRVs, maintenance facilities and systems for the Parramatta light rail line.

CAF has successfully implemented other projects in the past for Transport for New South Wales as well, such as the supply of twelve URBOS 100 LRVs and their maintenance for the Inner West line in Sydney, and the supply of 6 URBOS 100 LRVs fitted with CAF's Greentech Freedrive system which will be the first entirely catenary-free light rail line in Australia when operation commence in February 2019.

CAF's long track record in Australia, with a local subsidiary set up in 2010, includes the contract signed in 2016, as part of the Canberra Metro Consortium for the supply of 14 URBOS 100 LRVs and their maintenance for a term of 20 years for the Canberra Metro light rail line.













## Freight trains become “smart”

### RCG equips wagon fleet with telematics in cooperation with A1 Customers benefit from comprehensive transport information

#### Rail freight transport of the future: SmartCargo to be implemented by 2020

The Rail Cargo Group RCG started the “SmartCargo” project in cooperation with A1 and A1 Digital: special telematics on the RCG wagons enables new services for customers as well as significantly improved and even more efficient maintenance coordination. By the end of 2020, RCG freight wagons will have position detection, motion sensors and shock detection. With the additional development of an IT platform, RCG together with A1 is gradually putting intelligent freight trains on track.

#### End-to-end information provision

The SmartCargo project was officially presented at the kick-off event on February 4th at the ÖBB headquarters. RCG CEO Clemens Först and A1 CEO Marcus Grausam presented the wagon technology of the future. A SmartCargo device is attached to each of around 13,700 RCG wagons and provides comprehensive information throughout the entire transport of goods. The position sensor provides the exact GPS coordinates of the wagon at predefined intervals. Another sensor provides reliable motion detection independent of GPS reception, while the 3D acceleration sensor is used to detect impacts and monitor the transport of sensitive goods. In addition, the system can use geofencing to send an immediate message when

crossing predefined zones, such as national borders. If there is no network coverage for data transmission, the hardware also has an SMS fallback level.

As part of initial tests, around 300 wagons are currently being equipped with SmartCargo. At the same time, an IT platform is being set up where all information relating to a specific transport can be called up digitally in a clear and compact manner. It will also be possible to integrate third-party wagons that are part of the train formation but not owned by RCG. Thus, RCG and A1 are taking an important step towards rail freight transport of the future.

#### A1 – Internet, telephony, TV and IT solutions from a single source

A1 is Austria’s leading communications provider with more than 5.3 million mobile customers and more than 2.1 million fixed-network lines. Customers benefit from a comprehensive, one-stop offering consisting of voice telephony, Internet access, digital cable television, data and IT solutions, wholesale services and mobile business and payment solutions.

#### A1 Digital

Digital advises companies on questions of digital transformation and supports them in the digitalization of their business areas. The focus is on industry-specific applications in the area of Internet of Things (IoT) as well as on cloud-based products for the modern workplace and security solutions for the cloud and IoT. A1 (legal entity: A1 Telekom Austria AG) and A1 Digital are part of the A1 Telekom Austria Group – a leading provider of digital services and communication solutions.

Every year, a few special trains connect Germany and the Netherlands with the Austrian Ski resorts. This photo shows train No. 13187 ‘Alpen-Express’ from Utrecht Central to Bischofshofen heading between Hochfilzen and Leogang on February 16th hauled by No. E10.1309.

*Thomas Niederl*









 Barbados



▶ Saint Nicholas Abbey Heritage Railway Ingo No. 1 is photographed on February 8th at Cherry Tree Hill, St Peter, Barbados, West Indies. This 0-6-0 2ft 6" gauge diesel engine No. 50 was built by Hudswell Clarke in 1971, works No. D1419. Its previous operator was John Summers and Sons steelworks, Shotton, Flintshire and it was supplied by the Statfold Barn Railway, Tamworth, Staffs to the railway in late 2018.

*Allison Twycross*

▶ Another loco is No. 6 'Badger' seen here on the manual turntable. Both locos are powered by Gardener 6LXB diesel engines.

▶ The railway is a new venture by the owner of St. Nicholas Abbey, Larry Warren, it took 12 months to excavate the route, the two diesels arrived in October, and have only been running since January 2019. *Allison Twycross*



Photographed on February 11th, from inside the engine shed, just four days after delivery from Dover, England, to Saint Nicholas Abbey Heritage Railway, Cherry Tree Hill, St Peter, Barbados, West Indies. 0-4-4-0T 'Tjepper 5' was built in 1914 by Arnold Jung Lokomotivfabrik (Germany), works No. 2279. The gauge is 750mm (2ft 5 1/2") and it is an articulated locomotive of the 'Mallet' design with four Steam Cylinders driving 8 wheels. Its previous operator was the Ceper Baru Sugar Works, Java, but this engine has undergone redesign of specifications by Statfold Barn Railway, Tamworth, Staffordshire. (Modifications include supply of a tender, with a compartment at rear containing batteries for the brakes, alteration to the chimney spark catcher and large headlight on the front.). *Allison Twycross*







# Arriva secures its biggest rail contract yet in the Czech Republic

**A new rail contract, worth €45m, has been awarded to Arriva  
The three-year contract, starting in December 2019, will add four new  
express lines to Arriva's existing rail portfolio  
Passengers will see the introduction of 27 newly refurbished trains**

Arriva has signed a new three-year contract operating four express rail lines from Prague to the Czech cities of Tanvald, Novy Bor, Rakovnik and Ceske Budejovice.

The contract was awarded by the Czech Ministry of Transport following a direct award. Arriva will operate services for three years from December 2019 with the option of an extension of up to two years

It will mean that Arriva will expand its train fleet in the Czech Republic from 8 to 35. 27 newly refurbished trains will be sourced from Deutsche Bahn, Arriva's parent company, with passengers set to benefit from wider and more comfortable seats, WiFi and power outlets. This latest win builds on Arriva's existing success in the Czech Republic. Arriva entered the emerging Czech rail market in 2013 and today operates urban rail services in Prague and a long distance service to Slovakia. In December 2018, Arriva started operating the S49 line in Prague for the next 10 years.

Jana Siber, Managing Director, Mainland Europe, said: "The addition of these four express lines to our rail portfolio is a testament to how we're continuously developing successful transport solutions for our clients. We look forward to delivering the fast and reliable services that our passengers expect of us."

Photo: ©Arriva



## LKW Walter semi-trailers newly routed via Štúrovo

Since the February timetable change, the Rostock - Curtici trains of LKW Walter semi-trailers have been rerouted through the border crossing station Štúrovo.

This measure should improve the quality of this service. In Slovakia, the carriage is provided by Carborail.

Photo: ©CD Cargo



## Delivery of the Sgnss series wagons

In recent days, the first wagon of the new 60' Sgnss series designed for the transport of Innofreight containers and superstructures has arrived at Praha-Libeň.

Recently delivered wagons are already transporting goods on ČD Cargo trains.

Based on competition tender, the Ostrava repair and engineering plant should deliver altogether 100 wagons of this series to ČD Cargo.

Photo: ©CD Cargo





## The last tram has been delivered to Prague

Plzeň-based Škoda delivered the last of 250 ForCity Alfa trams to representatives of the Prague Public Transport Company. This was the end of one of Škoda Transportation's largest orders in history.

"It's been almost ten years since the first red-silver, low-floor tram with a timeless Škoda design was launched in Prague. Since then, our vehicles have successfully carried passengers for over fifty million kilometres. ForCity trams are high-quality trams and there is great interest in them, as evidenced by last year's orders for up to 176 ForCity Smart trams for Ostrava and Plzeň, and especially the three German cities of Mannheim, Ludwigshafen and Heidelberg," says Petr Brzezina, Chairman of the Board of Directors and CEO of Škoda Transportation.

"Now we have received the last of a total of 250 15T trams from Škoda Transportation. This was one of our key long-term contracts, and we have concluded an important stage in the modernization of our tram fleet," says Petr Witowski, Chairman of the Board of Directors and CEO of DPP, adding: "We are glad to have modern and comfortable trams for Prague citizens as well as tourists. They are also 100% low-floor, offering problem-free transport for passengers with reduced mobility. This is in line with Prague's strategic priority to ensure barrier-free access throughout the city's public transport network by 2025."

The ForCity Alfa Praha tram is the world's first serially produced 100% low-floor tram with a pivoting bogie, and it is the first with a unique drive with permanent-magnet, gearless motors driving all wheels of four axle-less bogies. The location of the bogie under the bellows transition and under the end of the vehicle allows for maximum variability in the interior layout.

With a length of 31.4 m and a width of less than 2.5 m, this uni-directional, three-section tram with a gauge of 1,435 mm can carry 180 passengers (4 persons/m<sup>2</sup>) - with

61 seats. Six wide, double wing doors allow for very fast exiting and boarding, and the tram's ability to smoothly drive through bends reduces travel time and speeds up traffic. "The first tram was delivered to the transport company on January 28, 2011.

The 100th tram was delivered in 2014, and the 200th tram with a new design was delivered in 2017," adds Radek Elhota, Project Manager of Škoda Transportation. In 2015 there was a change in the tram's design and interior, and several technical innovations that increased travel comfort were made. Škoda has since delivered 125 of these innovated vehicles, which also include air conditioning and Wi-Fi. The new design is particularly noticeable in the front of the vehicle, where the color of the tram was significantly modified; the center section of the front of the tram and the windscreen frame are now yellow-orange.



Photo: ©Škoda Transportation

CD Class 362.125 waits for its next passengers at Praha hl.n. *Class47*



## First tests for the future train of line 14

Tests began in January on the future MP14 train destined to circulate on line 14 of the Île-de-France metro. Currently undergoing tests on line 1, at night and out of passenger service, this new material consisting of eight cars (compared to six currently) will be placed into service between the end of 2019 and the beginning of 2020. Financed by Île-de-France Mobilités and manufactured by Alstom, it will be more comfortable, with greater capacity, thus keeping pace with the developments of line 14 in the context of ongoing extensions.

After arriving at the RATP workshops in Fontenay-sous-Bois in December 2018, the first MP14 train is currently undergoing tests on line 1, a line with driverless trains, like line 14. Following static tests designed to validate the basic functions of the material, dynamic tests are being carried out until summer 2019 to check the train's performance (braking, traction, electromagnetic compatibility, acoustic comfort, climate comfort, etc.) more precisely.

Finally, RATP will carry out tests on the trains' automatic control system and on-board audio-visual equipment, this time on line 14. Only once these tests have been completed and the authorisation for entry into service has been obtained will the first fully-equipped, fitted train carry passengers. Depending on how the tests progress, this entry into service will take place between the end of 2019 and the beginning of 2020.

### A more comfortable train with greater capacity

The arrival of an eight-car train (compared to six currently on line 14) will make it possible to support developments on line 14 up until 2024, notably in terms of traffic, with extensions to the north towards Saint-Denis Pleyel and south towards Orly likely to increase the

number of daily passengers from 500,000 to 1 million. The material will also reduce the trains' energy consumption by 20% (compared to the previous-generation MP05 train) and provide greater comfort to passengers, notably with interior noise levels diminished by 40% and new, more ergonomic seating. The MP14 will also offer a number of seats reserved for people with reduced mobility, surpassing the regulations in force.



In total, 72 new trains will be delivered over the next five years, at a cost of €1,096.22 M in current euro terms, entirely financed by Île-de-France Mobilités. The MP14 material will also equip lines 4 (a six-car train) and 11 (a five-car train with a driver) of the Île-de-France metro from 2021 and 2022 respectively.

▶ Eurostar E320s Nos. 4018 and 3211 stand at Paris Gare du Nord. *John Sloane*



## Alstom regrets European Commission's prohibition decision for the merger of its business with Siemens Mobility

The European Commission (EC) has announced its decision to prohibit the proposed merger of the Siemens and Alstom mobility businesses. As a result of this prohibition, the merger will not proceed.

Alstom regrets that the remedies offered, including recent improvements, have been considered insufficient by the Commission. The remedies were extensive in scope and addressed all the concerns raised by the Commission in respect of Signalling or Very High Speed trains. In addition, a number of credible and well-established European players expressed strong interest for the remedy package, thereby fully confirming its viability.

This is a clear setback for Industry in Europe. Alstom, together with Siemens, is convinced that the transaction would have created substantial value for the global mobility sector, the European railway industry, customers, travelers and commuters, without harming European competition. It would also have allowed the creation of a European player having the ability to cope with the growing competition from non-EU companies.

The Board of Directors has unanimously thanked Alstom's team for its outstanding management of this project and has highlighted the company's very strong performance during this period.

Looking ahead, Alstom will focus on pursuing its growth path as a global leader in the mobility sector supported by excellent business fundamentals: a global footprint, a record €40 billion backlog, sales constantly outperforming market growth, and a very solid balance sheet. With a successful 2020 Strategy that delivered results ahead of target, Alstom remains today uniquely placed to offer customers and ultimately passengers, competitive, clean, and innovative mobility solutions. Alstom will now project itself into a new future and define a strategic roadmap including appropriate capital allocation.

DB Regio Class 143.194 arrives at Köln Hbf.  
*John Sloane*

























▶ Vectron's Class E193.668 and E193.551 pass Fleres whilst hauling an intermodal train from Brennero to Verona Quad Europa on January 22nd. *Laurence Sly*

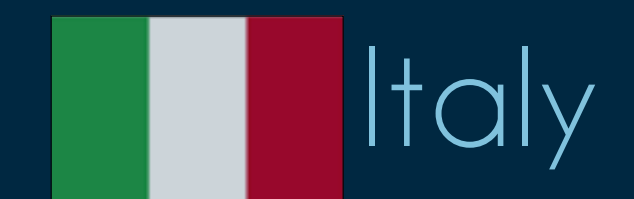
▶ FS Class E402.121 passes Mezocorona whilst working train No. EXP13421 from Krakow to Firenze SMN on January 24th. *Laurence Sly*

▶ Trenitalia's Class E412.008 and E412.003 approach San Michele all'Adige whilst hauling a Walter logistics train from Brennero to Verona Quad Europa on January 24th. *Laurence Sly*









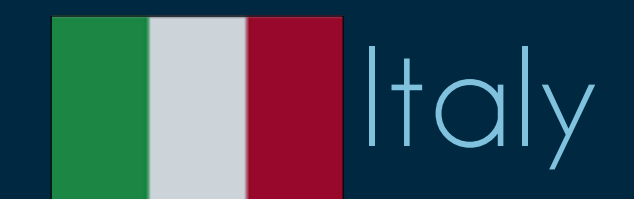
▶ Rail Traction Companies' No. EU43.004 passes Terme di Brennero whilst hauling a RTC freight train from Brennero to Brescia on January 22nd. *Laurence Sly*

▶ OBB Class E190.022 passes Terme di Brennero whilst working train No. EC87 11:34 Munich - Venice Santa Lucia on January 22nd. OBB Class E190.012 is being hauled in the consist. *Laurence Sly*

▶ RTC's Class E186.444 and E189.988 pass Vipiteno whilst hauling an intermodal train from Brennero to Verona Quad Europa on January 22nd. *Laurence Sly*



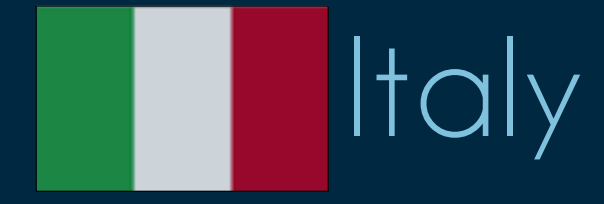




▶ OBB Class E190.016 passes Campo di Trens whilst working train No. EC81 07:34 Munich - Bologna Centrale on January 25th.  
*Laurence Sly*

▶ RTC's Class EU43.001 passes Mezzocorona whilst hauling a freight train from Brennero to Brescia on January 25th. *Laurence Sly*

▶ OBB's Class E190.019 approaches Mezzocorona whilst working train No. EC81 07:34 Munich - Bologna Centrale on January 24th.  
*Laurence Sly*



▶ RTC's Class 193.776 passes Mezzocorona whilst hauling an intermodal train from Brennero to Verona Quad Europa on January 24th.  
*Laurence Sly*

▶ Trenitalia's Class E412.017 and E412.016 pass Campo di Trens whilst hauling an intermodal train from Brennero to Verona Quad Europa on January 25th. *Laurence Sly*

▶ Rail Traction Company's Class EU43.008 passes Fleres whilst hauling a freight train from Brennero to Brescia on January 22nd.  
*Laurence Sly*

































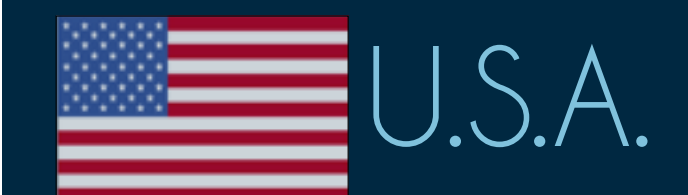


▶ Florida East Coast's Nos. 804 and 433 pass Miami Shores whilst working train No. FEC109 from Bowden to Hialeah. *Laurence Sly*



▶ Florida East Coast's No. 431 passes Saint Augustine whilst working train No. FEC905. *Laurence Sly*

▶ Florida East Coast's Nos. 806 and 802 pass St. Augustine whilst working train No. FEC226-25 from Miami Hialeah to Bowden Yard Jacksonville. *Laurence Sly*



## Houston, Texas orders 14 light rail vehicles to meet future ridership needs

### **S70 low-floor light rail vehicles** **After delivery, Houston will have 51 Siemens Mobility vehicles**

Siemens Mobility has been awarded a contract from the Metropolitan Transit Authority of Harris County (METRO) for 14 light rail vehicles that will operate in Houston, Texas. This marks Houston METRO's third order for Siemens Mobility vehicles, which will bring the total number in Houston to 51. The S70 low-floor light rail vehicles will supplement the vehicles currently servicing the city's three light-rail lines, which account for nearly two million trips per month. This will ensure the system's reliability, efficiency and passenger experience.

"We're proud to support Houston's METRO since 2004 as they deliver environmentally-friendly and efficient transportation options to one of the largest cities in the U.S. With a growing population, it's important to constantly improve availability and passenger experience and we're confident that our light rail vehicles will support the city's expansion and sustainability goals," said Sabrina Soussan, CEO of Siemens Mobility.

The S70 will have a new and improved modern design, with a centralized low-floor configuration offering full low-floor access between all doors along the length of the vehicle, allowing for more accessibility, particularly for wheelchairs and strollers. It widens aisles, which

will optimize passenger flow throughout the vehicles. In addition, drivers will experience an increased field of vision on the sides of the vehicles. These features improve safety and efficiency, making it one of the most accessible vehicles of its kind in the market today.

Houston was the first to select the S70 low-floor vehicle design, which was successfully inaugurated on its first 12-mile line in January 2004, on time to transport more than 64,000 fans to and from Super Bowl XXXVIII. Since then, more than 600 S70 vehicles have been ordered by 11 cities throughout the U.S.

The light rail vehicles will be Buy America-compliant and built by the more than 1300 employees at Siemens Mobility's solar-powered manufacturing facility in Sacramento, CA. In the U.S., Siemens Mobility provides rail vehicles, locomotives, components and systems to more than 30 agencies in cities such as Atlanta, Boston, Charlotte, Denver, Houston, Minneapolis, New York, Philadelphia, Portland, Sacramento, Salt Lake City, San Diego, Seattle, St. Louis and Washington, D.C.

Florida Central Railroad's No. 48 is seen receiving maintenance in the Florida Midland yard at West Lake Wales. *Laurence Sly*















▶ Florida Central Railroad's Nos. 55 and 57 propel a rake of wagons in to the Bartow Airport industrial complex. Bartow Airport is at the southern end of the Florida Midland Winter Haven branch. *Laurence Sly*

▶ USSC GP40-2 No. 506 passes South Bay whilst hauling a rake of empty sugar cane cars from Clewiston to Bryant. *Laurence Sly*

▶ Florida Central's No. 1802 is seen stabled near Silver Meteor Drive in Orlando. This loco shunts the local industries traffic in the early evenings. *Laurence Sly*





## Alstom to provide electrification for Phase II of Bangalore Metro

Alstom has been awarded a contract by BMRCL[1] to provide power supply and traction electrification for the 33-kilometre extension to Bangalore Metro under Phase II. Worth around €71 million, it is Alstom's largest third-rail electrification contract in India.

Phase II encompasses extension of Bangalore Metro's existing North-South and East-West corridors, translating to a substantial increase in the reach of the metro and reduction of road congestion.

The scope of the contract includes engineering, supply, installation, testing and commissioning of 750V DC third-rail traction electrification, the construction of 30 33kV/415V auxiliary substations, 26 33kV/750V DC traction substations and a 33kV cable distribution network along the viaduct. Alstom will work on integrating this new infrastructure with the existing system on the Phase I lines including augmentation of SCADA system. The execution of this project will be completed in five phases with the commissioning of the first 6.5-kilometre stretch expected by the end of 2019.

“Our significance of our relationship with BMRCL, going back to 2009, is underlined by the fact that Bangalore hosts one of Alstom's most significant sites. Alstom's footprint in systems and infrastructure is growing

rapidly, and this project will give us an opportunity to extend our cutting-edge capabilities and solutions to our customer,” said Alain Spohr, Alstom Managing Director, India & South Asia.

Ajay Seth, Managing Director of BMRCL, added: “The new line, once commissioned, will bring in much needed flexibility in the network while significantly reducing vehicular traffic in the city. It will enable Bangaloreans to traverse the length and breadth of the city hassle-free and also add positively to the environmental needs.”

This is the second major contract win for Alstom in the city of Bangalore. In 2009, Alstom won the contract to provide the U200 signalling and telecommunications solution for 42 kilometres of track comprising Bangalore Metro Phase I, completed in 2017.

Globally, Alstom designs, builds, delivers, tests and commissions all types of rail electrification infrastructure with a strong focus on customer needs and the capability of offering maintenance of the entire system.

[1] Bangalore Metro Rail Corporation Limited (BMRCL) is a joint venture between the Government of India & Government of Karnataka.



## Fundación ONCE and Alstom will work together to improve accessibility in transport

Fundación ONCE and Alstom have signed a collaboration agreement to improve universal accessibility in transport and achieve full inclusion of people with disabilities.

The agreement was signed by José Luis Martínez Donoso (General Manager of Fundación ONCE), José Antonio Rodríguez Pérez (Human Resources Director at Alstom in Spain) and Jaime Borrell (Business Development Director at Alstom in Spain). Signees agreed to highlight the importance that means of transport become more accessible and more comfortable for all passengers.

From this perspective, Alstom and Fundación ONCE commit to promote accessibility in design projects and create solutions “that improve usability and comfort for people with disabilities or for the senior population in transport”.

For this reason, Alstom will promote universal accessibility in all its products and services. Alstom will also participate in R&D projects that aim to provide added value for people with disabilities or with special needs. Likewise, Fundación ONCE and Alstom shall promote Smart Mobility, aligned with the Smart City concept, which places people at the centre of the ‘smart’ developments in order to provide solutions adapting to their needs.

Last of all, the signees will collaborate in promoting education and employment. Therefore, Fundación ONCE shall connect Alstom with Inserta - an expert in the development of training, employment, and consultancy programmes focusing on the integration of people with disabilities in the workforce.



## Members of Parliament pledge to support investment in rail for Liverpool and Manchester corridor

More than twenty cross-party members of Parliament from across the Liverpool and Manchester city regions have signed a pledge to support rail investment in the North West. MPs from the Liverpool and Manchester city regions pledged to support rail investment, more skilled jobs in the railway industry, work for local supply chains, and investment in skills, people and technology. What has united all these politicians of varying political inclinations is an interest in the vital role played by the rail industry in the north west.

The pledge, which was coordinated by Alstom, whose world class centre for train modernisation is in Widnes, has been supported by a group of local business and union groups. These include: Greater Manchester Chamber of Commerce, Hayley Group, Liverpool City Region LEP, Liverpool Chamber of Commerce, Northern Rail Industry Leaders, Riverside College, the TUC, Wabtec, and the Institute of Railway Research at Huddersfield University.

Mike Hulme, Customer Director at Alstom said: "The idea behind the pledge was to build a coalition of support in Parliament for rail investment in the region. There is such a great potential for the rail industry to be a force in the Liverpool and Manchester city regions, and encouraging local

MPs to pledge to support that potential will open the door for investment and jobs." The region has a huge amount of untapped potential in the rail industry, being the site of a key rail cluster.

With the right investment, the Liverpool and Manchester corridor can be a power-house for jobs and innovation in rail, with groups like Widnes-based Alstom

working closely with SMEs in the supply chain, unions like the TUC, and education institutions like nearby Riverside College.



## Alstom ships last metro trainset for Riyadh from Katowice

Alstom just shipped the last trainset for Riyadh Metro from its plant in Katowice, Poland. As part of the contract awarded in 2013 by Arriyadh Development Authority (ADA) to the FAST consortium[1] for the design and construction of lines 4, 5 and 6 of the Riyadh Metro, Alstom manufactured 69 Metropolis trainsets that will run on the new lines.

Alstom is providing to lines 4, 5 and 6 of the Riyadh Metro a full integrated metro system including the Metropolis trainsets, Urbalis - Alstom's CBTC[2] signalling solution, as well as the power supply and Alstom's energy recovery system Hesop. The metro system has been optimized to reduce energy consumption.

Since the delivery of the first train in January 2017, every step of the trains' production, including final static and dynamic tests, was carried out at the Katowice site. After having successfully completed all tests, the last Riyadh metro train passed factory acceptance by the customer.

"It is thanks to all the Alstom employees involved in the Riyadh metro project that we have managed to achieve this great milestone. I am very proud to say that Alstom's site in Katowice has become a worldwide centre of excellence for metro trains. Today, we employ over 2,300 people in Katowice and are manufacturing some of Alstom's most innovative projects," said Radoslaw Banach, Alstom's

Katowice Site Managing Director. The Metropolis trains for Riyadh are composed of two cars and are 36 meters long. Each train features three classes: first, family and single class. The trains are driverless and 100% motorized, allowing them to run on gradients of up to a 6% slope.

The trains will offer passengers a high level of comfort, ergonomic seating, LED lightning, air conditioning and advanced passenger information systems.

[1] The FAST consortium includes FCC (leader), Samsung, Alstom, Freyssinet Saudi Arabia, Strukton, Setec and Typsa. The overall contract value for the consortium is €5.8 billion.

Alstom's share in the contract amounts to more than €1.2 billion.

[2] Communication Based Train Control





## Bombardier and Yellow Window design agency win Van de Velde award for M7 train design

**Train design wins Gold Public award at the Henry van de Velde Awards ceremony in Brussels**  
**New M7 train merges modern design and compatibility with existing M6 trains**

Mobility technology leader Bombardier Transportation and the Yellow Window industrial design agency received the Gold Public award at the Van de Velde Award ceremony held January 29th in Brussels. The award recognizes both organizations' innovative design of the M7 double-deck commuter rail cars being built for Belgium National Railways (SNCB). "Yellow Window's unique design lends SNCB's M7 trains an iconic style while providing passengers with a new level of travel comfort. Thanks to a skillful design that blends with the existing M6 trains' interiors, passengers will eventually enjoy traveling on an entirely harmonized and modernized fleet," said Laurent Bouyer, President of Bombardier Transportation France and Benelux.

Under the direction of acclaimed Belgian industrial designer Axel Enthoven, Yellow Window designed the new Bombardier M7 double-decker train to offer SNCB's passengers a premium travel experience. As with the M6, passengers will enjoy a noticeably spacious interior area achieved through the use of back-to-back seating and a new LED lighting concept that further emphasizes its sense of space.

The redesigned seats will provide better ergonomic support and include an improved backrest complimented by personal reading lights and large tables that fold away for more space and accessibility. Expanded legroom between the face-to-face seats will improve comfort for passengers sitting opposite each other without reducing the corresponding luggage space. A pair of these new seats were featured in the award ceremony and will be on display until March 24th at Brussel's BOZAR Centre for Fine Arts.

On top of the physical and visual innovations, the new M7 train design is perfectly compatible with the current M6 trains, meaning SNCB will be able to upgrade the M6 fleet to the M7 fleet configuration with a minimum

effort and cost. The new seats, luggage racks and tables, as well as the semi-indirect lighting, are all compatible with the M6 carriage thanks to identical interfaces. From a technical standpoint, this requirement offers SNCB flexibility in train composition, maintenance and spare part requirements.

Named after the renown Belgian architect, and founding member of the Art Nouveau movement, the Henry van Velde award recognizes Flemish and international designers, projects and products that solve a specific problem while making a positive contribution to the economy and society as a whole.



## Motherson Sumi Systems Ltd. announces acquisition of Bombardier's UK rolling stock electrical component and systems business

**Transaction is another step in Bombardier's Transformation Programme**  
**Acquisition extends existing global relationship between Bombardier and Motherson Sumi Systems Ltd.**

Motherson Rolling Stock Systems GB Limited ("MRSS") (a wholly owned subsidiary\* of Motherson Sumi Systems ("MSSL") through PKC Group Ltd.) has signed a definitive agreement with Bombardier Transportation (Rolling Stock) UK Ltd. ("Bombardier") to acquire Bombardier's assets in connection with the production and installation of electrical components and systems for applications in the rail industry, comprising among others the manufacturing of wiring harnesses, panel and cabinet build and electromechanical assemblies in Derby, UK.

MRSS will enter into a lease agreement for the part of Bombardier's Derby site currently occupied by the business and will continue to operate the business with its current employees. Through this transaction, MSSL will expand its supply of electricals and wiring systems to Bombardier Transportation, to cover UK rolling stock projects. The transaction includes transfer of assets, employee and inventories, on a debt-free and cash-free basis and is valued at approximately £ 10.87 million (subject to customary adjustments). The revenue of said business was £ 36 million (provisional) during the calendar year ending December 31, 2018. The transaction is subject to customary closing events and expected to be

completed between April and June 2019.

MSSL, through PKC Group (acquired in March, 2017), is engaged with the manufacturing of wiring harnesses for rolling stock, mainly in Europe and North America. PKC Group entered the rolling stock business by acquiring Kabel – Technik – Polska Sp. z o.o. ("KTP") in 2015 and executed a global partnership agreement with Bombardier Transportation GmbH in 2016. Now, with the execution of this definitive agreement between MRSS and BTROS, the relationship will expand to the United Kingdom.

Mr. V. C. Sehgal, Chairman, MSSL said, "I would like to congratulate the team for enhancing the partnership between PKC and Bombardier under the global partnership agreement, and for continuing to win the confidence of our partners and customers in the rolling stock business." Mr. Bart Vantorre, President of Bombardier Transportation Rolling Stock Equipment said, "This milestone is testament to the progress we continue to make on the Bombardier Transportation transformation agenda. Our long-standing relationship with Motherson and their deep expertise in electrical distribution make them the ideal partner for us as we continue to tirelessly serve our UK customers."

Mr. André Gerstner, President, Rolling Stock Business, PKC Group said, "This is a great opportunity to expand our global partnership with Bombardier Transportation, strengthen our market position and our customer serving footprint. It is in line with our sustainable growth strategy through customer, geographical and product diversification. We are excited to add a new home for MRSS in the UK and look forward to welcoming the new team."



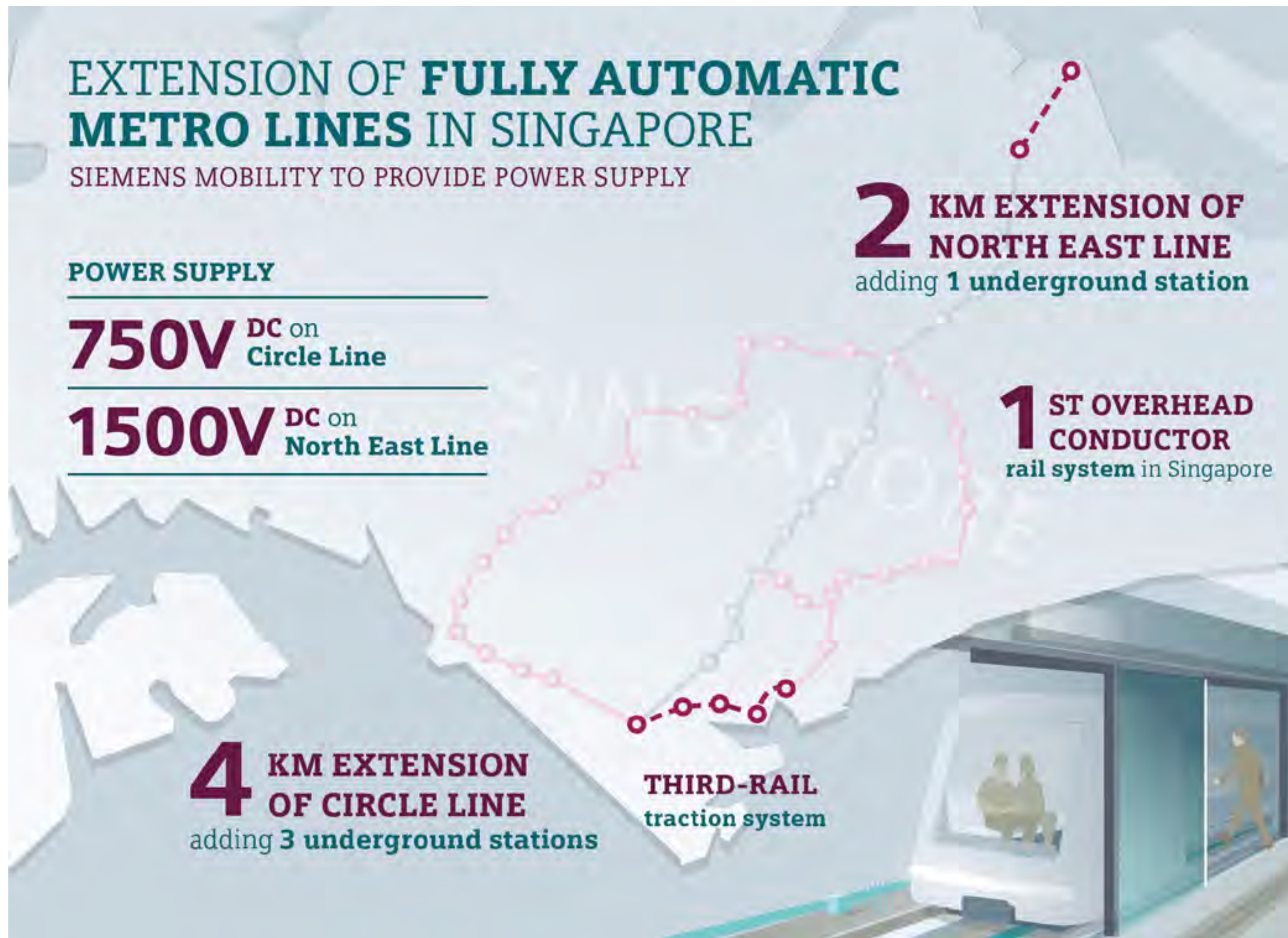


## Siemens Mobility delivers rail electrification for two metro lines in Singapore

**Siemens Mobility electrifies extension of the Circle Line Stage 6 and the North East Line**  
**Third order for Siemens Mobility in Singapore within one year**  
**Order worth around €70 million**

Siemens Mobility has been commissioned by Singapore's Land Transport Authority with the electrification of the Circle Line Stage 6 and the North East Line extension (NELe) in Singapore. The order is worth around €70 million and includes delivery of the rail electrification system (direct and alternating current) as well as the overhead power lines for the NELe.

"The extension of the Circle Line and the North East Line will expand the mobility options for millions of commuters in Singapore. With the electrification of the two lines, we will be making an important contribution toward decisively improving the availability of public transport in the city-state. Just last year, we won two key orders for signaling systems and digital services in Singapore," said Michael Peter, CEO of Siemens Mobility. In March 2018, Siemens Mobility was commissioned to deliver the signaling system for the extension of the Downtown Line 3. An order to supply a Rail Enterprise Asset Management System followed in September 2018.



Siemens will be supplying the Sicat SR (Siemens Catenary System Standard Rigid) aluminum overhead busbar system. Compared with conventional overhead power lines, Sicat SR has a lower installation height and has a low voltage drop. In addition, the system has a high current-carrying capacity, short-circuit resistance and reduced contact wire wear.



## Siemens Mobility to modernize Medellín, Colombia metro signaling

**Contract value of €42 million**  
**Modernization and automation of Line A and Patio de Bello depot**  
**Systems will be operational in 2021**

Siemens Mobility will install its advanced rail signaling technology on line A of the Medellín, Colombia metro and the Patio de Bello depot that serves the metro network. The €42 million contract will include the system design, implementation and certification for the wayside system.

In addition, it will optimize the interaction between the existing onboard system with the wayside system infrastructure. The project modernizes the technology installed more than 20 years ago for the city's first metro line. When completed in 2021, the new system will provide greater availability to passengers.

"We're proud to be delivering intelligent infrastructure to Medellín, Colombia's second largest city. Building on our relationship with the transit operator that started more than two decades ago, we're confident that this new system will increase capacity on the line and provide a safer passenger experience," stated Michael Peter, CEO of Siemens Mobility.

Line A is one of two lines on the Medellín metro system and spans 25.8 km long, conning 21 stations. The entire system carries about one million passengers per day and is known as one of the most avant-garde metro stations in Latin America.

The installation will take place at night to ensure normal operation of the line throughout the day. It will include installing the latest generation Westrace MKII interlockings, modernizing the LZB automated train control system, replacing the railway signals with LED technology and upgrading the communications and energy installations. The new Patio Bello Westrace MK2 interlocking will control a total of 111 track circuits, 58 point machines and 72 signals. It will be fitted with a specific Local Control system.

From the UK

## Churnet Valley Railway

The Churnet Valley Railway is a preserved standard gauge heritage railway to the east of Stoke-on-Trent in Staffordshire, England, that operates along a part of the former North Staffordshire Railway's (NSR) Churnet Valley Line.

◀ On February 23rd, visiting the line, Caledonian Railway 439 Class 0-4-4T No. 419 heads alongside the canal near Consall. *Richard Hargreaves*











