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Content

Pg 2 - Welcome

Pg 4 - Pictures

Pg 64 - World News

Pg 71 - From the Archives

Submissions & Contributions

Railtalk Magazine Xtra, a magazine written by the Enthusiast for the Enthusiast. So why not join the team. We are always looking for talented photographers and writers to join us at Railtalk. Be it though pictorial submissions or via a written article featuring an event or railtour, we greatly appreciate any contributions to the magazine however big or small.

Photographic Contributions

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

All images should be provided at a resolution of at least 2400px x 1700px at 240dpi.

Welcome to Issue 170Xtra

By the time you read this most of Europe will be in lockdown again with a final 'nail in the coffin' of any thoughts of having a winter break. Lets hope that by the time 2021 arrives we will all be able to enjoy our travels again.

Interesting news from the European Parliament and Council where negotiators have announced new rights for passengers and help when there are delays and cancellations, improved access and assistance to people with reduced mobility, and help to create more dedicated spaces for bicycles.

"We managed to secure the same minimal passenger rights all over the EU when it comes to spaces for bikes, through-tickets and rights of passengers with reduced mobility," says EU rapporteur, Mr Bogusław Liberadzki. "Those are important improvements in making rail travel more convenient and passenger-friendly."

This includes **Rerouting and assistance in case of significant delays**: If delays of more than 1h 40min occur, the operators will be obliged to reroute passengers in any way possible and assist travellers to find the best alternatives, as is the case with airlines. Under the new rules, operators would have to provide through-ticketing on all their routes, covering all legs of the journey with a similar high level of protection.

Passengers with reduced mobility: The deal includes a shorter pre-notification obligation and better assistance for disabled passengers. Travellers with reduced mobility should notify the operator of their travel plans 24 hours in advance, down from 48 hours under the current rules.

Refurbishing trains for more bicycles: In an effort to provide more sustainable mobility and comfortable alternatives, all trains will have to be equipped with dedicated spaces and racks for bicycles.

The provisional agreement also ends the existing exemptions for long-distance domestic services by December 2024 and provides more clarity on what can be considered a force majeure. The new passenger rights will also cover regional services.

Also from Europe this month, the European Commission (EC) has informed state-owned Czech Railways (ČD) of its preliminary view that ČD breached European Union (EU) anti-trust rules by engaging in predatory pricing on passenger services operated on the Prague – Ostrava route between 2011 and 2019. ČD competes with private operators RegioJet and Leo Express on the route and the EC says its investigation, which commenced in 2016, shows that ČD's ticket prices have been insufficient to cover the cost of operating the service.

Following a complaint, the EC carried out inspections at ČD's premises in April 2016, subsequently opening a formal investigation into alleged predatory conduct by ČD in November of that year. The EC has now issued a Statement of Objections to the company, a formal step in the EC's investigation into suspected violations of EU anti-trust laws. If, after exercising the right of defence, the EC concludes that there is sufficient evidence for an infringement, ČD could pay a fine of up to 10% of its annual global turnover.

Prague – Ostrava trains are operated on a commercial basis, receiving no public subsidy. RegioJet and Leo Express entered the market in 2011 and 2012 respectively, helping to double traffic on the route within a few years. However, the EC says its investigations shows that ČD potentially felt RegioJet and Leo Express expanded too quickly on the Prague – Ostrava route and beyond. The EC says ČD subsequently reacted by starting to offer its services at prices that did not cover its costs with the aim of hindering competition in the market.

Until next month

David

This Page

On September 23rd, RTB Vectron Class 193.791 travels along the 'Bypass Lotharstraße' with a container shuttle and has almost reached its destination in Duisburg.

Erik de Zeeuw

Front Cover

On September 16th, Slovakian ZSSK Class 240.092 sits at Komarno with a service to Nove Zamky.

Mark Torkington

Aurizon's standard gauge Nos. Q4008 and ACB4402 on train No. 3430, the Kalgoorlie to Kwinana mixed freight, scares the pigeons away as they head through Midland. *Colin Gildersleve*

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With Thanks

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Australia

One of Transperth's 3'6" gauge A series EMU's No. 329 leads a 2-car classmate out of the Fremantle terminus and heads back to Perth. The line to the right is the dual gauge line that heads into the Fremantle container port. *Colin Gildersleve*

CBH Groups Nos. CBH015 and CBH013 are approaching Millendon Junction with a loaded grain train on the double track mixed gauge line. The line in the foreground is the old Midland Railway narrow gauge line which is still in use today for narrow gauge grain trains. *Colin Gildersleve*

Aurizon's No. Q4006 races through Herne Hill in the Swan Valley to the east of Perth with train No. 4430, the Malcolm to Kwinana empty Sulphur containers. *Colin Gildersleve*

On September 15th, Class 1142.707 is seen hauling the Regional Express service No. Rex3607 to Kleinreifling, pictured here close to Trattenbach.
Thomas Niederl

Austria

Producer gas tanks on sustainable railways

A total of six producer gas tanks from the company Air Liquide in France began their journey on September 23rd, by September 29th they had already reached their destination in Austria. Five of the producer tanks, each with a capacity of 63,000 litres, were brought first by truck from France to Dillingen-Saarbrücken. The Rail Cargo Group then transported them to Kapfenberg in Austria, where they will be used at the new voestalpine Böhler steel plant.

On top of this, one “smaller” tank with a capacity of 52,000 litres was also delivered to St. Pölten-Spratzen, where it is being used in the food industry. A specialist company loaded and secured the tanks on to DB flat wagons with a mobile crane. On account of the size of the containers, they were handled as special transport with the relevant route authorisations.

Since road transport would have led to considerably higher costs for this special transport, including the cost of escort vehicles and personnel, rail proved the most economical and environmentally friendly option thanks to rail freight’s smaller carbon footprint. What is more, this transport option has also been tested out for more potential transport services like it.

Producer gas tanks on the green railways
Air Liquide, which has its headquarters in Schwechat, is a global market leader when it comes to gas, technology and services for industry and health. The company places a special focus on optimising energy efficiency and reducing pollutant emissions. By choosing rail transport, the company not only takes a stand for environmentally friendly manufacturing, but also for efficient and sustainable transport in Europe.

Record capacity utilisation on TransFER Linz–Duisburg–Wels

After optimising departures, Rail Cargo Group’s connection recorded a sensational 95 percent capacity utilisation in both directions at the start of October.

In the week of October 5th - 10th, the TransFER connection between Linz – Duisburg – Wels achieved an unprecedented capacity utilisation of 95 percent. This result puts it on a par with connections that have consistently had an utilisation of around 90 percent for the past months like the TransFER Linz – Antwerp and Budapest – Balkans. This record result is owed not only to rising chemical volumes, but above all to the implementation of two block train concepts in this TransFER connection.

About the connection
The TransFER Linz – Duisburg – Wels runs between Austria and Germany and brings supplies to the vast industrial area in the Rhine-Ruhr, but it also links up all of Central and Southeast Europe.

Gebrüder Weiss and RCG extend cooperation in intermodal transport

In twelve years, Gebrüder Weiss and RCG have saved about 110,000 tonnes of CO2 emissions with “Orange Combi Cargo” (OCC). This cooperation will now be extended for a further three years and integrated into the RCG’s TransNET.

The contract for the joint freight train “Orange Combi Cargo” (OCC) is going to be extended for another three years on account of the successful cooperation between Gebrüder Weiss and the Rail Cargo Group. Since January 7th 2008, this exclusive block train service has been running daily between Vienna and Bludenz, making a stop at Hall in Tyrol en route.

Valuable contribution to protecting the environment
Thanks to the OCC, up to 60 truck trips a day in the Alpine region can be avoided on the route between Vienna and Western Austrian thanks to the OCC. This multimodal solution saves about 9,000 tonnes of CO2 emissions a year and has shifted about 180,000 loads of cargo from road to rail over the past twelve years. With plans to introduce noise-optimised container wagons, Gebrüder Weiss and the Rail Cargo Group are demonstrating their continued commitment to protecting the environment.

Network expansion with the TransFER Vienna–Hall–Bludenz
Integrating the OCC into TransNET will facilitate transport routes from Vorarlberg and Tyrol into Romania and Turkey on the environmentally friendly rails. It also provides the best possible connection for all other routes that are being scheduled to run via the intermodal hub of Vienna and with it the two West Austrian states and their bordering regions in Eastern Switzerland and the South of Germany from the word go.

Austria

OBB Class 1144.288 and 1144.119 with freight train No. 54960 heading to Linz, pass the Reichraming-Graben Brücke on September 22nd.
Thomas Niederl

On September 15th, Eurocity train No. EC334 from Linz to Prague is seen at the station of Gaisbach-Wartberg hauled by OBB Class 1144.041, because of a defect with the CD Class 380. The Austrian engine took the train to Summerau, where the loco from the on coming train from Prague was exchanged. *Thomas Niederl*

Czech Republic

CD Cargo commences operations in Hungary

On October 1st, CD Cargo Hungary became a fully-fledged carrier on the Hungarian railway network. Transports on its own license are to begin in the coming weeks. The new company operates 'Hungarized laminate' locomotives of series 230 and 240 as well as the series 742 locomotives for service on non-electrified lines.

CD Cargo Hungary is a 100% subsidiary of CD Cargo Slovakia and it will commercially and operationally connect the transports that are already transported on its own license in Slovakia.

Photo: ©Peter Melicher

Coronavirus complicates production and export, but Effishunter at CZ LOKO still targets customers

Although the coronavirus pandemic has narrowed some borders and significantly complicated the movement of goods and people, CZ LOKO is still able to deliver its locomotives to customers. "There are currently five locomotives. Two EffiShunters 1600 to Finland and Ukraine and three EffiShunters 1000 to Italy, " said Jan Kutálek, Sales Director of CZ LOKO. He describes the most complicated commissioning of locomotives, including operator training, directly at customers.

Two EffiShunters 1600, created by the complete modernization of the former "bumble-bees", will run at the Finnish carrier Fennia Rail and at the Ukrainian ironworks ArcelorMittal Krivoy Rog. Both locomotives left Česká Třebová in a regular ČD Cargo freight train. At the Slovak depot Haniska near Košice, they connected to the chassis of a wide gauge of 1520 mm (Ukraine) and 1524 mm (Finland) and continued to their destination stations via the Čierna nad Tisou / Čop crossing.

Three new EffiShunter 1000 machines, manufactured at the Jihlava plant, will be strengthened by the Italian railway carriers FNM (744.129 and 130) and EVM Rail (744.131). At the beginning of next year, FNM will take over two more locomotives. The new vehicles left Česká Třebová on their own to Břeclav, where they were taken over by an Austrian carrier.

CZ LOKO workers accompanying locomotives must pass the covid-19 test, as must the driver. However, the complete closure of the Ukrainian border makes it impossible to start training local staff at ArcelorMittal's ironworks. CZ LOKO must also cope with other complications caused by the coronavirus epidemic, especially delayed sub-deliveries of components. This also affects the production of ordered vehicles.

"We try to do our best to maintain a smooth production process, but it's very complicated. Every day new and new problems related to covid-19 are born. Once resolved, more will come the next day. It's really extremely frustrating. However, we are fully aware of the need to follow all measures without reservation so as not to endanger the health of our employees and other partners. That is the main priority today, " adds Jan Kutálek.

Beet campaign launched

On October 7th, 2020, this year's beet campaign was launched for ČD Cargo by loading sugar beet in Skalica, Slovakia.

Last year, CD Cargo transported almost 170,000 tons of beets to the sugar refinery in Hrušovany nad Jevišovkou, not only from the Czech Republic, but also from Slovakia and Austria.

In Slovakia, sugar beet transports are commercially provided by subsidiary CD Cargo Slovakia and ČD Cargo locomotives are used there.

Photo: ©CD Cargo

Czech Republic

Green electricity project for ŠKO - ENERGO

On October 9th, in the morning hours, a train composed of 28 dump trucks, headed by the TRAXX Class 388.001 locomotive left the Světec station. This state-of-the-art engine from the ČD Cargo fleet was used on the train to draw attention to the signing of an agreement between ČD Cargo and the Ministry of Industry and Trade on increasing energy efficiency.

The notices on the sides of the locomotive informed about the fact that ČD Cargo provided electricity produced from renewable sources for the transport of not only this train. Mr. Ivan Bednárik, Chairman of the Board of Directors of ČD Cargo, confirmed this by handing over the certificate to Mr. Jaromír Vorl, Chairman of the Board of Directors of ŠKO-ENERGO, after the train arrived at the Všetaty railway station. Ivan Bednárik emphasized that "ČD Cargo offered this option as the first railway freight carrier in the Czech Republic."

"As part of its strategy, ŠKO-ENERGO aims to produce heat and electricity that will be CO2-neutral from the second half of this decade," confirmed Jaromír Vorel, Executive Director of ŠKO-ENERGO, who added: "The share of biomass combustion is gradually increasing. Today, this share is about 70% of coal vs. 30% of biomass. I consider realization of the rail transport on green energy to be one of the steps towards the gradual decarbonisation of our activities."

"I see the Green deal from the position of a carrier in a somewhat contradictory way, because as a result we will gradually lose volumes of coal" commented Ivan Bednárik, Chairman of the Board of Directors of ČD Cargo. "But it is also a great challenge for us. Energy will still be needed and, of course, we are preparing a number of projects related to new fuels - wood chips, waste, etc. We have been transporting wood chips to a heating plant in Pilsen for many years." added Ivan Bednárik. He also specified that "the green energy project for ŠKO-ENERGO will continue next year and we will of course offer it to other customers as well."

Aware of its social responsibility, ČD Cargo secured the purchase of 160 MWh of electricity produced from renewable sources for Q4 2020. As part of the pilot project, this electricity will be used for the transport of brown coal trains for ŠKO-ENERGO recipients. These are about 35 trains in the period from October to December 2020. By purchasing 160 MWh of green energy, we have jointly saved more than 36 tons of CO2 emissions.

Photo: Michal Roh Jr., Gabriel Fragner

France

Two rather forlorn looking single SNCF Class 73000 DMUs led by No. 73664 are seen at Lyon Vaise depot on October 19th. *James Haywood*

Alstom's MP14 metro enters commercial service in Paris

Alstom's MP14 metro has been put into commercial service on Line 14, between the stations Olympiades and Saint-Lazare, by Valérie Pécresse,

"We are proud to see the MP14 metro running in Île-de-France after having designed and manufactured it in our centre of metro excellence in Valenciennes, with the contribution of seven other Alstom sites in France for the components. A project like MP14 will make it possible to ensure production at eight Alstom sites in France and its suppliers until around 2026," said Henri Poupart-Lafarge, Chairman and CEO of Alstom.

MP14, which has entered commercial service on Line 14 and is financed by Île-de-France-Mobilités, is an automated, rubber-tyred metro made up of eight cars. This state-of-the-art metro is designed to improve passenger experience while reconciling performance, energy efficiency and ease of maintenance, in order to keep costs under control throughout its lifecycle.

MP14 offers an unprecedented level of comfort and safety thanks to its interior layout and seats with a design based on the theme of the alcove, creating both conviviality and privacy. Vast reception areas offer accessibility to all passengers, with dedicated areas and boomerang-shaped seats to improve the fluidity and capacity of the trains. MP14 also has LED lighting efficiently distributed throughout the entire metro to provide a sense of security and banish all areas of shadow. The supports and steadying points are compliant with standards and increase comfort inside the train. Warm and cool ventilation helps to provide a sense of wellbeing, whatever the season.

MP14 also provides comprehensive video protection and dynamic passenger information on board. The design of this new metro is underlined by signature lighting on the front end of the train. MP14's 100% electrical braking system recuperates energy and re-injects it into the network as electricity, while limiting the emission of fine particles caused by the mechanical brakes. The system reduces the energy consumption of the metros, as well as air pollution, by up to 20%.[1] MP14 is also 40% quieter (-2 dB) with a 95% recyclability rate. The interior layouts are modular. It can therefore be modified over time, enabling maintenance throughout its lifespan. Some 20 automated metros destined for line 14, consisting of eight cars each, will be delivered in 2021. Production of the six-car automated metros for Line 4 is currently at the stage of pre-production and testing, notably for the CBTC system[2]. The manufacture of the five-car trains for Line 11 will begin in the last quarter of 2020, in time for qualification tests in 2021. Eight of Alstom's 14 sites in France are involved in this project: Valenciennes for the studies, integration, validation and testing, Le Creusot for the bogies, Ornans for the engines, Villeurbanne for the on-board computerised systems, Tarbes for the traction, Aix-en-Provence for the safety IT, Reichshoffen for the collision studies and Saint-Ouen for the design.

[1] In relation to the previous generation of comparable MP05 metros.
[2] Communication Based Train Control is an automatic rail traffic control system based on continuous communication between the train and computers in charge of controlling the traffic.

France

SNCF EMU 047C No. 55593 working the 16:55 service from Lyon Vaise to Villefranche sur Saone departs Gare Vaise on Ocrober 19th.
James Haywood

France

Alstom to supply 49 Citadis trams to Nantes Métropole

Alstom is to supply 49 Citadis trams to Nantes Métropole for the sum of nearly 200 million euros [1].

“The city of Nantes, which initiated the renewal of the modern tram in the 1980s, has made its mark on the history of urban transport in France. We are extremely proud that the city of Nantes has once again trusted us to equip its network with our state-of-the-art Citadis trams,” declares Jean-Baptiste Eyméoud, Senior Vice President of Alstom France.

These state-of-the-art Citadis trams have standardised, proven, more accessible components, providing the residents of Nantes with reliable, readily available way to move around the city. The Citadis trams for Nantes are particularly energy efficient and over 99% recoverable.

Seven of Alstom’s 13 sites in France will be involved in the design and manufacture of the tram for Nantes Métropole: La Rochelle (design and assembly of the trams and logistical support), Le Creusot (bogies), Ornans (traction motors), Valenciennes (interior layout), Aix-en-Provence (protection and driver assistance system), Saint-Ouen (after-sales service), and Villeurbanne (on-board electronic systems).

To date, more than 2,600 Citadis trams have been sold to over 50 cities in 20 countries around the world, including 23 in France, with nearly 20 years of experience and more than one billion kilometres travelled.

[1] contract registered in the 2nd quarter of the current fiscal year

Design of the future metros for lines 15, 16 and 17 of Île-de-France revealed

On Friday October 2nd, Valérie Pécresse, President of Île-de-France Mobilités and of the Île-de-France Region, Thierry Dallard, Chairman of the Management Board of the Société du Grand Paris, and Henri Poupart-Lafarge, Chairman and CEO of Alstom, revealed the design of the future metros for lines 15, 16 and 17 of Île-de-France at the inauguration of the exhibition Les lignes du design (Design Lines) which opens at the Fabrique du Métro where visitors were able to see a model of the future metro.

“Île-de-France Mobilités has made very specific requests for metros on the new Île-de-France region metro line (15, 16, 17): passenger comfort including air conditioning, a peaceful atmosphere, clear, accessible information, and optimal safety. This initial 1:1-scale model in the colours of Île-de-France Mobilités gives a stunning idea of the new metros that will be delivered by Alstom following monumental works by the Société du Grand Paris. I am certain that if their technical performance is as successful as their design, Île-de-France region passengers will be especially proud of their metro.” Valérie Pécresse, President of the Île-de-France Region and President of Île-de-France Mobilités

“We are very pleased to be able to reveal, with our partners Île-de-France Mobilités and Alstom, a full-scale mock-up of a metro car from the Grand Paris Express, which will allow future users to discover the new metro on a site open to everyone, the Fabrique du Métro. The exhibition “Les lignes du design” is a preview of what a journey on the Grand Paris Express will be like, from arrival in the station right up to the journey in the metro as of 2024. This new metro will be environmentally friendly, accessible to all, fast, reliable and comfortable, which is what’s expected of a means of transport today.” Thierry Dallard, Chairman of the Management Board of the Société du Grand Paris

“Two years after signing the rolling stock contract for lines 15, 16 and 17, we are proud and happy to present, alongside our partners, Île-de-France Mobilités and Société du Grand Paris, the design of this future metro. This phase concludes two years of engineering work just as we are launching the production of the metro. We have designed and will produce a state-of-the-art metro that benefits from the latest technologies, offering high performance and a renewed passenger experience.” Henri Poupart-Lafarge, Chairman and CEO of Alstom

Lines 15, 16 and 17 will be equipped with state-of-the-art driverless automatic metros developed from solutions from Alstom’s Metropolis range. These metros will guarantee the highest levels of availability, reliability and safety expected by passengers. With cars 2.8m wide, each metro will be able to carry approximately 500 passengers in its 3-car version and around 1,000 passengers in its 6-car version. Commercial speed will be between 55 and 65 km/h with peak speeds of up to 110 km/h. The automatic train operation will ensure travel comfort, with acceleration and braking controlled by automated driving systems combined with an efficient suspension system. In collaboration with Île-de-France Mobilités, the Société du Grand Paris, its prime contractor Systra and its design agency RCP Design Global, and taking the expectations of public transport users into account, Alstom’s Design&Styling office has created an interior design that offers a fluid, comfortable passenger journey. The interior layout of the metros is designed to be both high in capacity and comfortable.

With very wide interior circulation and a variety of grip fixtures, passengers can move around easily and choose the space that suits them. The design of the front end offers passengers a new comfort zone and a panoramic view thanks to a very wide windscreen, a panoramic console, and seating on both sides. The seats are comfortable with high backrests, wide legroom, isolating armrests, a transversal layout (solo seats and face-to-face duos) and a longitudinal layout (bench-style) to encourage passenger circulation on board the train and enhance the sensation of fluidity and space. Standing travel is also more comfortable with ischiatic supports at the rear of the seats and in the mixed areas, ergonomic hand holds, and circulation areas treated like travel spaces. Passengers in wheelchairs and people with children in pushchairs or with large suitcases are easily accommodated with two zones dedicated to wheelchair users per train and mixed spaces in each car. The priority seats are numerous and easy to identify by their specific colour.

The journey is also pleasant with the sensation of an enlarged space, thanks to clean-cut shapes associated with light colours, and lighting resembling natural light which varies according to the time of day, adjusting to the biological rhythm of the passengers to improve well-being. For greater comfort and safety, the metro is accessed underneath reinforced lighting on the platform and on the vehicle threshold. The spaces under the seats are completely unobstructed and equipped with lighting, which reinforces the feeling of security. Information is always within the passenger’s reach, via screens grouped together in a continuous strip throughout the entire metro. USB sockets for charging phones and tablets are also provided. Each car is equipped with powerful ventilation, air conditioning and heating systems to ensure thermal comfort in all seasons.

The metro’s environmental performance is guaranteed by a number of innovations. 100% electric service braking, a system for recovering the energy generated by braking and the widespread use of LED lighting will help to optimise electricity consumption. The use of electric braking will limit particle emissions. The rolling stock will be more than 98% recyclable. Finally, particular attention has been paid to optimising the maintenance of the new metro. The on-board diagnostic system will pass on information about the condition of the train equipment and give maintenance staff a complete overview of the condition of the fleet, making it easier to plan corrective and predictive maintenance tasks. These new metros will meet demands to optimise maintenance operations with the aim of reducing maintenance costs over the entire life cycle.

This rolling stock project, financed entirely by Île-de-France Mobilités, contributes actively to the solidity of the rail sector and its foothold in France. 350 Alstom employees at eight sites in France, including 150 engineers, will work on this project. The project will also provide 800 jobs for French suppliers. In total, around 1,150 jobs will be secured within the French rail industry.

Germany

A Schwebebahn service approaches the end of the suspended railway at Wuppertal Vohwinkel on September 12th. *Mark Torkington*

Schwebebahn No. 28 is seen at Wuppertal Schwebebahn - Altmarket. *Mark Torkington*

On September 10th, Class 143.064 stands in Frankfurt Hbf with a local service on line RB22. *Mark Torkington*

DB Class 111.209 pushes a train for Dortmund over the Rheine bridge at Dusseldorf Rheinpark on September 12th.
Mark Torkington

Germany

Schwebebahn unit No. 08 is seen at Wuppertal Schwebebahn - Bruch. *Mark Torkington*

Schwebebahn unit No. 15 passes above the river at Wuppertal Schwebebahn - Robert Daum Platz. *Mark Torkington*

Railflex 'Lok 7' passes 'Stellwerk Mathilde' in Oberhausen West with a unit cargo heading towards Duisburg on October 2nd. *Erik de Zeeuw*

The satisfyingly numbered Class 111.111 departs Monchengladbach with an RE4 service to Aachen on September 12th. *Mark Torkington*

With EVplus, DB Cargo launches door-to-door service

Door-to-door deliveries between Hamburg and Cologne are now available with DB's brand-new single wagonload product. This service will give customers without private sidings access to the rail network.

Collection today, delivery tomorrow – since the end of August, DB has been using overnight express service to transport freight from Hamburg to Cologne for its customer, Coca-Cola. This is a combined transport service, which means trains cover the long-distance leg of the route while lorries handle the short sections so freight is delivered straight to the warehouse. All this is possible thanks to EVplus, the new door-to-door product. With short transit times, this solution opens up the rail network to companies which don't have a private siding of their own, and it can be used to transport standalone consignments.

The service requires practically nothing of customers, as DB Cargo takes charge of organising every aspect of the service, such as supplying the single wagonload equipment (i.e. 45' swap bodies) and performing first and last mile deliveries by lorry.

Daniel Knaus is the project manager for EVplus. "EVplus combines the advantages offered by our dense network of single wagonload connections with the flexibility of road haulage," says Knaus. "Our customers see us as end-to-end logistics specialists. Not only do we transport freight by rail and road, but we also supply the equipment for it. This brings us closer to customers and enables us to respond better to their needs."

The solution that started with Coca-Cola is also available to all other customers, and demand is high. "We have identified a considerable need for intermodal solutions among our customers, especially in the consumer goods industry," says Knaus. "At the same time, this service offers other business sectors a fast and sustainable alternative to lorry transport. Many customers don't have a private siding, and we want to give them access to the rail network through EVplus."

DB Cargo is also planning to expand beyond Hamburg and Cologne. The company intends to use EVplus to link all nine major formation yards and shunting hubs. The ultimate goal is to shift some 170,000 lorry loads from the roads to the rails each year until 2030

Germany

On September 23rd, Rail Cargo Carrier Class 203.111-0 hauls a rake of tankers and meets DB Class 232.230-3 hauling a steel train at the 'Bypass Lotharstraße' in Duisburg.
Erik de Zeeuw

On September 23rd, Niag No. 9 (ex DB Class 216.055) passes Coking Plant Prosper in Bottrop and hauls a train loaded with petroleum coke from the BP Refinery in Gelsenkirchen. The train is on its way to the port of Orsoy where the coke is transferred to an inland vessel. *Erik de Zeeuw*

DB Class 232.654-4 ('Ludmilla') passes the Mathilde signal box in Oberhausen on September 23rd.
Erik de Zeeuw

Class 110.469 stands at Wuppertal Oberbarmen station with the famous National Express “vice” diagram to Koln on September 11th. *Mark Torkington*

Germany

DB Class 101.084 pulls into Koln Hbf on September 11th with an IC service as one departs behind it.
Mark Torkington

Siemens Mobility to deliver 109 light rail vehicles for Düsseldorf and Duisburg

Order worth almost €400 million
Avenio HF light rail vehicles provide highest passenger comfort
24-year contract for service and spare parts to guarantee availability

Düsseldorfer Rheinbahn AG and Duisburger Verkehrsgesellschaft AG have jointly ordered 109 Avenio HF high-floor light rail vehicles from Siemens Mobility, including an option for an additional 48 units. The contract also includes the maintenance and servicing of the Duisburg vehicles for 24 years and an option for a further eight years. A 24-year spare parts supply contract was signed for the Düsseldorf vehicles. The order has a volume of almost €400 million.

“This order has a very special meaning for us, since it marks our return to the market for high-floor light rail vehicles. Our trains will offer more than two million people in Düsseldorf and Duisburg the highest level of passenger comfort. Our services will also guarantee our customers optimal availability and a sustainable increase in value over the vehicles’ entire lifecycle,” said Michael Peter, CEO of Siemens Mobility.

The vehicles will be used on the approximately 85-kilometer long light rail network in Duisburg and Düsseldorf, and will also run to the cities of Neuss, Krefeld and Meerbusch. Delivery of the first vehicles is planned for 2025. Each train is equipped with 51 seats and has the capacity to accommodate 177 passengers in total. In order to serve different platform heights, all vehicles are equipped with folding steps. Air suspension, air conditioning and infotainment systems ensure maximum passenger comfort. The Siemens Tram Assistant digital collision warning system supports the driver with radar and video sensors that provide early detection of potentially dangerous situations, helping to avoid accidents.

Photo: © design buro+staubach berlin

Germany

On October 2nd, Wiener Lokalbahnen Cargo Class 193.284 and 193.213-4 pass Ossum-Bösinghoven with a cargo from Rheinhausen (D) to Wien Freudenau (A). *Erik de Zeeuw*

On September 23rd, Raildox Class 185.419-9 passes the yard at Oberhausen West with a set of tank wagons from Karlsruhe to Bremen Inland Port. *Erik de Zeeuw*

DB Class 185.167-4 passes the marshalling yard at Oberhausen-Osterfeld with a steel train on October 2nd. In the background DB is propelling freight cars over the 'Ostberg' hump. The gas tankers descending the hump are accompanied by a shunter. *Erik de Zeeuw*

Germany

Questions and answers with DB about rail traffic in times of Corona

Here you will find the most important questions and answers about the current situation of the coronavirus and rail traffic.

How does DB deal with the mandatory wearing of mouth and nose covers?
Passengers on Deutsche Bahn trains and buses are obliged to cover their mouth and nose. The vast majority of travellers still adhere to the mask requirement. If a very small minority disregards applicable rules, it is unacceptable to us. Should the railway have to pronounce an exclusion from transport in such cases, the Federal Police will implement this in conflict situations. Since the mask requirement existed, DB has been providing broad information about this in trains, stations and in all media (bahn.de, DB Navigator rail app) and appeals to passengers to observe this in order to protect all customers and DB employees. In addition to complying with binding regulations, it is also a matter of showing mutual consideration and feeling responsible for the health of each individual and of the population as a whole. The health and safety of employees and passengers have the highest priority. Further up-to-date information on checking the mask requirement can be found here .

Which goodwill regulations apply if travellers cannot start their journey?
DB has been actively recommending booking cancellable offers since spring. Both the flex prices and the saver prices can be cancelled within the scope of the regular tariff conditions. Those who have to be out and about during these months follow this recommendation for the most part. The majority of our customers therefore have the opportunity to react flexibly to current developments. Super saver fare tickets are unfortunately excluded from cancellation. In the past few months, DB has enabled the cancellation and flexible use of around 5 million journeys as part of the Corona special offer. Regardless of all tariff conditions, in the event of a delay or cancellation of the selected train, every traveller is of course entitled to the rights under the European Passenger Rights Ordinance - especially the reimbursement of the fare.

What hygiene and protective measures does DB take in its vehicles and stations?
Nationwide, more than 4,300 employees currently ensure clean trains and stations and compliance with hygienic standards every day. The DB spends high three-digit million amounts on hygiene and cleaning every year. In long-distance trains, the service staff mainly clean contact surfaces such as door handles, handles and handrails. Since the beginning of the pandemic, employees in on-the-go cleaning (mobile cleaning while driving) have been going through the trains every two hours, especially on particularly busy connections. It used to be every four hours. The number of on-the-road cleaning in long-distance traffic was doubled due to Corona. DB uses new special machines to clean the stations. Mobile devices - the “clean mobiles” - quickly and thoroughly disinfect large surfaces using the spray method. The disinfection of handrails on escalators ensures innovative treatment with UV-C light in the train stations in Frankfurt am Main and Düsseldorf as well as five other stations. This process kills 99 percent of bacteria and viruses. The procedure is now also testing the Berlin S-Bahn. A special paint that was applied to stair handrails and control buttons in elevators in the Siegen and Hagen stations also has a disinfectant effect. Automatic door opening has also proven itself on all S-Bahn trains in Berlin, Hamburg, Frankfurt, Stuttgart and Munich. The train doors open automatically in the stations. It ensures regular “ventilation” while driving. Interviewed travellers also rate contactless boarding and alighting as helpful and important.

The purchase and control of tickets is also contactless: Customers buy tickets via bahn.de or the DB Navigator. The train attendant checks without contact. In many long-distance trains there is also the option of using the convenience check-in, which means that there is no need for personal checks. On the subject of hygiene measures, DB is in constant contact with the federal and state health authorities, the Federal Ministry of the Interior and the Federal Ministry of Transport. DB’s existing pandemic plans are continuously adapted to the updates of the federal government and the federal states. DB also follows the precautionary recommendations of the Robert Koch Institute. In order to enable travellers to wash their hands regularly, DB has also made washing facilities accessible at 20 stations, which are located in front of the payment barriers to the toilet facilities. These systems are usually found at large train stations.

How is DB preparing to offer passengers more space on the trains?
DB is currently massively expanding its range of vehicles. As early as the timetable change in mid-December, DB will be able to offer its passengers significantly more long-distance trains - with more connections, more frequent trains and more new trains with 13,000 additional seats every day. Rail customers can also use the rail app, the DB Navigator, to find out about the expected capacity utilization of the trains at any time. With the growing long-distance fleet, DB is creating additional capacity and, with the new occupancy display via the DB Navigator, comprehensive information for safe travel by train, even during Advent and Christmas. During the journey, the on-board service staff also supports customers in distributing themselves as best as possible within the trains. The number of reservations is limited from the outset in order to give travelers the greatest possible flexibility and the opportunity to move around if necessary.

Why is there no reservation requirement at DB?
DB passengers should continue to have the option of spontaneously boarding every train. That is why DB is sticking to the open system that rail customers in Germany really appreciate.

Five reasons why DB refrains from making reservations:

1. Maintaining a large number of rail services : A reservation requirement that guarantees a distance between passengers of at least 1.50 m would reduce the number of seats in long-distance traffic to a quarter. This would mean that the rail system would already reach its limit on many connections - with significantly lower utilization - and would be a long way off from a stable basic offer.

2. Enable traveling with family and friends : Many of our customers would like to continue traveling together (for example as a family). To do this, it must remain possible to book seats next to each other.

3. Leave long-distance and regional transport as a unit : Long-distance and regional transport in Germany form an interlinked rail system with joint offers. One example is the Munich-Rosenheim-Salzburg route. The possibility of using both long-distance and regional trains on this route with a route time card would no longer apply if a reservation was required. In addition, more travellers would be distributed on fewer trains and achieve the opposite of the desired effect.

4. Let regular customers continue to travel flexibly : We want around 50,000 BahnCard 100 customers as well as commuters or annual and monthly ticket holders or travellers with tourist offers such as Rail & Fly, who are also deliberately not tied to a booking and a train Offer the possibility to travel flexibly. All these customers would have to book separate reservations for all trips.

5. Continue to allow uniform rail travel in the DACH region : The most important cross-border transports are to Austria and Switzerland. Both countries do not have a reservation requirement and the DB has well linked the information and booking systems with the partner railways so that customers from all three countries can use the railways on both sides of the border easily and without complications.

How is rail traffic going at the moment?
Train operations at DB are currently running as planned and without restrictions. As far as the utilization of our trains is concerned, DB recorded a gratifying increase in passenger numbers over the summer months. This trend continued until the end of September, so that by then around 75 percent of bookings from the pre-Corona period could again be achieved in long-distance traffic. Due to the worsening of the situation since the beginning of October and the appeal of the federal government not to travel if possible, the occupancy figures have now dropped to 50 percent. Converted to the occupancy rate of the ICE and IC, this means that an average of 30 to 35 percent of the seats are still occupied on the trains. Business trips and long-term bookings are particularly affected,which is not surprising given the current developments and discussions.

/continued on next page

Germany

/from previous page

When and how are voluntary corona tests carried out at train stations?
If, at the request of the state governments, the authorities want to carry out corona tests on travellers at train stations, DB will of course support this and will provide areas or rooms if possible. Corona tests are initiated and carried out in Germany by the municipal health authorities.

What happens if there is a suspicion of corona on the train?
In general, we follow the recommendations of the RKI and the European Center for Disease Control (ECDC) in our preventive and hygiene measures. If the authorities suspect Corona, the affected area on the train will be blocked and professionally cleaned and disinfected after the journey. The passengers are informed by the train staff that they should leave their contact details so that the authorities can contact them if necessary. Occasionally, on board the trains, passengers report to our employees about acute complaints. There are clearly defined processes for such situations: DB employees inform the emergency control center and call for rescue workers in this way. Fellow travellers who have been trained in first aid will be asked for support in the meantime.

What role do air conditioning systems play in the trains in connection with Corona?
The air conditioning systems in the trains provide “ventilation” during the journey. In an ICE there is a complete exchange of air every 7 minutes. The trains also have active air volume control, which regulates the supply of fresh air depending on the occupancy of the trains. The air exchange rate is significantly higher than that in buildings. Adequate air circulation is also guaranteed in DB Regio trains. This results on the one hand from the numerous stops in regional and S-Bahn traffic and the associated frequent opening of the doors. On the other hand, fresh air is added to the air conditioning systems. This admixture of fresh air is independent of the outside temperature and therefore also independent of the season. According to previous knowledge, the main transmission of the virus takes place via the smallest liquid particles that arise when coughing and sneezing and are absorbed by the person opposite via the mucous membranes of the nose, mouth and possibly the eyes. A transfer of such particles via the air conditioning of a train is extremely unlikely due to the very long ventilation routes, the drying of the air and the existing filters (class G4). This is reinforced by the way the air conditioning systems work. Air conditioning systems in long-distance trains pull the air vertically from top to bottom and then out of the train. In addition, a lot of fresh air is supplied.

In the ongoing evaluation of the corona situation and the derivation of measures, DB relies on the latest scientific findings. To this end, the company is in close contact with renowned scientific institutions and participates in relevant studies that were also initiated by DB. Together with the German Aerospace Center (DLR), DB is currently investigating possible routes of infection in rail vehicles. This is done with simulation calculations and tests in the laboratory and on an original vehicle. Results are expected by the end of this year.

How does DB protect its employees ?
All employees at the stations who have contact with travellers are equipped with face masks, disinfectants and disposable gloves. Local and long-distance transport employees all wear mouth and nose covers. All DB information and DB travel centres with open counters are also equipped with Plexiglas panes. To protect the bus drivers, plastic panes have been or will be installed in the driver’s workstation. After installing the plastic pane, the first door in the bus is opened again, the first row behind the driver is released and ticket sales begin.

A scientific study by DB and Charité on the corona risk among train staff has also shown that there is no increased corona risk for train staff. The figures have shown that DB employees on board are not exposed to an increased risk of contracting COVID19. The results of the study show that our protection and hygiene concept is effective.

Ready to go: trains roll into the newly opened BER airport station from October 26th

Clear the way for train traffic to Berlin-Brandenburg Airport. DB has given the kick-off and opened traffic to the new airport train station. To connect the new capital city airport, two new train stations were built: the underground, barrier-free airport train station, directly below the terminal - and the Waßmannsdorf train station. The station between the old Schönefeld train station and the new BER connects the Schönefeld district to the S-Bahn network with immediate effect. The new airport train station is now officially called “Airport BER - Terminal 1-2”.

To connect the airport train station to the Deutsche Bahn network, 18.5 km of lines were built for long-distance and regional traffic and 8.6 km for the S-Bahn. The total investment for stations and access routes amounted to 675 million euros.

Alexander Kaczmarek, DB Group Representative for the State of Berlin : “I am delighted that planes are finally taking off and landing at BER airport. Deutsche Bahn is ready to go, stations and routes are ready for use. We are now bringing guests from all over the world to the new BER airport on an excellent, high-performance infrastructure. With attractive, fast connections and a modern, barrier-free train station, we ensure comfortable and climate-friendly arrival and departure as well as a pleasant stay.”

Guido Beermann, Minister for Infrastructure and Regional Planning of the State of Brandenburg : “With the new train connection to BER Airport, Brandenburg residents have a fast and reliable connection to the world. Particularly noteworthy is the ideal location of the new train station directly under the BER terminal. That means: short distances from the rail to the aircraft and back again. Passengers as well as commuters can now leave their own car parked more often and instead take the train to and from the airport stress-free and quickly.”

Regine Günther, Berlin Senator for the Environment, Transport and Climate Protection:“The new BER airport is connected to the local public transport system at close intervals. The numerous connections by S-Bahn lines, the new Airport Express, other regional trains and buses enable a quick and comfortable journey, protect the climate and the environment and also link the Berlin-Brandenburg metropolitan region.”

Engelbert Lütke Daldrup, CEO of Flughafen Berlin Brandenburg GmbH: “We are delighted that the airport train station goes online today and would like to take this opportunity to thank our partners for the fact that a constructive and solution-oriented collaboration was possible even in difficult times . With the powerful train station directly below Terminal 1, BER has an important unique selling point compared to all other large German airports. The possibility of taking the elevator from the platform to the check-in hall is unique in Germany. The rail friendliness of BER sets standards for environmentally conscious travel.”

In future regional and long-distance trains as well as the Berlin S-Bahn will stop under the airport on a total of six tracks. Both the train station and the DB travel center are open to the public from Monday to Friday from 7 a.m. to 10 p.m. This is where passengers can get tickets and information.
In addition, two service guides support passengers at the machines from Monday to Friday between 9 a.m. and 5 p.m. The existing Schönefeld Airport will be incorporated as Terminal 5 in the new large BER airport. That is why the Berlin-Schönefeld Airport train station has been given a new name: “BER Airport - Terminal 5”.

S-Bahn makes the start • Local and long-distance traffic will follow
With the opening of the airport on October 31st, local and long-distance transport will also bring travellers to the airport. A total of three regional train lines (RE7, RB14, RB22) plus the airport express (FEX) will stop at BER Terminal 1-2 from October 31st. This means that there are fast connections between Berlin Hbf or Ostkreuz and BER four times an hour during the day. The S-Bahn also offers six travel options per hour.

Long-distance trains will also stop under the terminal in the future: with the Warnemünde - Berlin - Dresden intercity line, the BER airport station can also be reached quickly and without changing trains for passengers from Mecklenburg-Western Pomerania and Saxony. It takes two and a half hours from Rostock to BER, and one and a half hours from Neustrelitz. The journey from Dresden also only takes a little more than 90 minutes. The modern intercity double-decker trains run every two hours.

HSL Class 185.600-4 exits the Oberhausen West Yard with a rake of tank cars heading towards Duisburg on October 2nd. *Erik de Zeeuw*

Starting signal for first hydrogen filling station for passenger trains in Hesse

When the State Secretary of the Hessian Ministry of Economics, Energy, Transport and Housing puts a personal hand on the construction of a filling station, it must be a very special project. In fact, the filling station that will be built in Industriepark Höchst in the next few months is anything but ordinary: It is the first hydrogen filling station for passenger trains in Hesse and the second worldwide, where the world's largest fuel cell train fleet in passenger traffic will be supplied with hydrogen from December 2022. State Secretary Deutschendorf gave the starting signal for this project on Monday, October 26, together with RMV-Managing Director Prof. Knut Ringat, Dr. Jörg Nikutta, Managing Director of Alstom Germany and Austria, and Dr. Joachim Kreysing, Managing Director of the industrial park operator Infraserv Höchst. Alstom is supplying the fuel cell trains that RMV will use, while Infraserv Höchst, the operator of the industrial park, is building and operating the filling station.

Hesse as a pioneer in environmentally-friendly mobility concepts

"Hesse is a pacemaker on the way to climate- and environmentally friendly mobility, as the Taunusnetz project also demonstrates," said State Secretary Deutschendorf. "In 2022, pollutant-free fuel cell trains will replace the old diesel vehicles there - an electric operation without overhead lines, which could also be an interesting alternative for other regions. I would like to thank RMV and Industriepark Höchst for their courage in realizing this innovative project".

RMV: World record with fuel cell fleet

For the Rhine-Main transport association, the project has a very special significance. "With Alstom's fuel cell trains, we are opening up a new chapter of emission-free mobility at RMV," said RMV-Managing Director Prof. Knut Ringat at the ground-breaking ceremony. "With the 27 vehicles, we are setting a world record: Nowhere else is there such a large fuel cell fleet in local public transport." Prof. Ringat praised the excellent cooperation with the rail vehicle manufacturer Alstom and Infraserv Höchst: "I am delighted that we are able to complete this mammoth project on schedule and on budget." The total order volume is 500 million euros.

Alstom trains: Emisson-free and low-noise through the Taunus

"Today's groundbreaking ceremony heralds a new era in emission-free rail traffic in the Rhine-Main region. We are delighted that Infraserv will take over the refuelling of our series trains for RMV," said Dr. Jörg Nikutta. Alstom's "Coradia iLint" fuel cell trains, which thanks to a range of up to 1,000 kilometers can travel an entire day on RMV's network, will replace the diesel-powered locomotives ordered by RMV's subsidiary fahma on the lines (RB 11 Frankfurt-Höchst - Bad Soden), RB12 (Frankfurt-Königstein), RB15 (Frankfurt - Bad Homburg - Brandoberndorf) and RB16 (Friedrichsdorf - Friedberg). The world's first passenger train powered by a hydrogen fuel cell runs completely emission-free, is quiet and emits only water vapor and condensation.

Infraserv Höchst: Committed to hydrogen and fuel cell technology

Infraserv Höchst, the operating company of the 4.6 square kilometre Industriepark Höchst, has been active in hydrogen and fuel cell technology for many years. The first hydrogen filling station for cars was put into operation in 2006. "We are very proud that Infraserv Höchst and Industriepark Höchst can contribute to the further development of this technology of the future," said Dr. Joachim Kreysing, Managing Director of Infraserv Höchst. The chemical industry has traditionally been one of the industrial sectors in Germany that produces innovative technologies. "Even the pressing questions about energy supply and mobility concepts of the future can only be answered by the chemical industry," said Dr. Kreysing.

On October 2nd, ÖBB Class 1016.023-4 'GREEN POINTS' passes Meerbusch heading towards Krefeld with a set of tankers. ÖBB travellers collect Green Points with the Green Points Mobile App. With Location tracking the green points are collected, each kilometre travelled corresponds to a green point. With this virtual value users support jointly selected ÖBB environmental projects in Austria. *Erik de Zeeuw*

On October 2nd, RheinCargo No. DE805 passes Ossum-Bösinghoven with the 'DuKo Shuttle' from Köln Niehl Port & Düsseldorf Port to Rotterdam Maasvlakte. *Erik de Zeeuw*

Alstom becomes first company to achieve full certification for latest digital train control standard

Certification for the latest onboard and trackside ETCS standards reaffirms Alstom's leading position in digital rail technologies

Reaffirming its leading position in digital rail, Alstom has become the first company in the world to be fully certified for the latest onboard and trackside ETCS[1] standards. The certifications were issued by the independent railway certification and testing organisation Belgorail. The newest software evolution ensures interoperability with Baseline 3 Release 2 for the complete railway system.

"We are proud to have yet again set a new standard in rail. We are on track to gradually replacing all the existing incompatible systems throughout Europe and to optimising and boosting the international freight and passenger transport," says Jean Francois-Beaudoin, SVP Alstom Digital Mobility.

ETCS is arguably the most efficient train control system in the world, bringing significant advantages in terms of maintenance cost savings, safety, reliability, punctuality and traffic capacity. This explains why ETCS is increasingly successful outside Europe and is becoming the train control system of choice for countries such as Australia, India, Taiwan, South Korea and Saudi Arabia.

The first projects include the first one to apply the new standards on a conventional line in Monza-Chiasso, Italy, with revenue service planned for summer 2021, and the very high speed line Paris-Lyon, France, with revenue service planned for 2024.

Alstom is a major supplier of onboard and trackside ETCS equipment via its Atlas solution, representing 70% of the world's onboard rail systems in service and 18,000 kilometres of tracks worldwide.

In total, Alstom has been contracted to equip 9000 trains with Atlas onboard solutions, of which 1,100 vehicles will be equipped with the Baseline 3 Release 2 solution. Today, across 30 countries, Alstom has provided significant performance improvement for all ETCS standards, including the very first application of ETCS Level 3 in Germany.

[1] European Train Control System

ÖBB Class 1016.019 passes Ossum-Bösinghoven with a rake of tanks on October 2nd.
Erik de Zeeuw

DB Class 101.068-9 (BACK ON TRACK) has just passed Duisburg Zoo on 'Bypass Lotharstraße' (a freight only line) with diverted train No. IC627 from Dortmund Hbf to Munich Hbf on September 23rd. *Erik de Zeeuw*

Germany

DB Class 294.892-5 passes Ossum-Bösinghoven on its way to Neuss on October 2nd. *Erik de Zeeuw*

On October 2nd, Brohltalbahn Class 218.396-0 passes the signal box in Mathilde with aluminum rolling ingots coming from Trimet Aluminum SE in Voerde and destined for Aleris Rolled Products Germany in Koblenz..
Erik de Zeeuw

SNCF operated Class 185.557-6 has just departed Oberhausen-Osterfeld Yard with a set of Rs cars and is on its way to Woippy (F) on October 2nd.
Erik de Zeeuw

BLS Class 475.413 follows the Rhine downstream passing Leutesdorf (Germany) with train No. 40126 from Scalo Intermodale Melzo (Italy) to Rotterdam Maasvlakte (Netherlands). *Erik de Zeeuw*

Irish Rail 201 Class GM No. 234 approaches Portarlington, pushing the 11:35 Cork - Dublin service on September 17th. *Paul Quinlan*

Irish Rail 071 Class No. 080 approaches Portarlington with a Ballina - Waterford loaded timber on September 17th. *Paul Quinlan*

Following a loco change at Kildare, the Waterford bound timber continues its journey behind 071 Class GM No. 076, seen here near Carlow. *Paul Quinlan*

A Frecciarossa ETR 50 trainset arrives into Milano Centrale on September 17th under the now redundant Cabina A signal box. Cabina C is in the distance that implies there used to be a B too! *Mark Torkington*

Italy

On September 17th, an ETR 400 trainset stands under the roof at Milano Centrale. *Mark Torkington*

An unidentified Class E464 threads through the Cinque Terre with a local train, seen from the harbour at Vernazza on September 18th. *Mark Torkington*

At the bottom end of Sicily, Trenitalia Class E464.261 sits in Siracusa having just arrived with the overnight from Rome on September 21st. *Mark Torkington*

On September 15th, DB Class 189.065-6 passes the hamlet of Loo (near Bathmen) with the Nosta/Hoyer Shuttle from Osnabrück via Roosendaal to Sloe and Antwerp. *Erik de Zeeuw*

Netherlands

On September 5th, METRANS Class 386.032-7 passes Assel with train No. 43304, the Prague shuttle from METRANS Ceska Trebova (Czech Republic) to Rotterdam Rail Service Center. *Erik de Zeeuw*

On August 27th, RFO Class G2200 No. 1605 passes Oisterwijk with a container shuttle from Rotterdam Maasvlakte-West to Acht. *Erik de Zeeuw*

Netherlands

BLS Cargo Class 475.402 with a tank train heads through Oisterwijk and the Campina region, on its way to Switzerland on August 27th. *Erik de Zeeuw*

Two car sets, No. 273 (Class 46) and No.386 (Class 54) passes Hilversum on their way to the Leidschendam workshop for maintenance. *Erik de Zeeuw*

DB Class 189.025-0 is seen near Oisterwijk on its way to Kijfhoek yard with an empty styrene train. *Erik de Zeeuw*

Netherlands

On September 29th RFO No. 683 is on its way to VW importer 'Pon Logistics' to collect a BLG car train and unloaded it there. *Erik de Zeeuw*

Valleilijn 'Protos' No. 5034 arrives in Amersfoort to start its service there on September 29th.
Erik de Zeeuw

On September 29th, Strukton Rail 'Anneke' No. 302.282 shunts 'intelligent tamper' UTM-15. The contractor Strukton Rail and technology company System 7 have developed a tamping machine that extracts high-quality data from the track and converts it into predictions for track maintenance.
Erik de Zeeuw

LTE Class 193.263 hauls the Mannheim/Wörth shuttle past Oisterwijk and heads towards Venlo. *Erik de Zeeuw*

Netherlands

Rotterdam Rail Feeding Class 189.091 passes Rotterdam Short Sea Terminals in the direction of the Waalhaven yard and is not concerned about a downpour on October 3rd. *Erik de Zeeuw*

HHPI Class 1266.120-5 (Heavy Haul Power International GmbH) passes Rotterdam Short Sea Terminals heading towards the Waalhaven yard. *Erik de Zeeuw*

In a collection of water particles, Captrain Class 186.156-6 passes the RSC Terminal with a coal train from Oberhausen West to Europoort on October 3rd. *Erik de Zeeuw*

CP Class 1400 No. 1415 passes Ribadouro whilst working train No. IR865 09:20 Porto SB - Pocinho on September 15th. *Laurence Sly*

On September 9th, CP No. 1455 approaches Pinhao whilst working train No. IR861 07:25 Porto C - Pocinho.
Laurence Sly

CP Class 1400 No. 1424 approaches Pinhao whilst working train No. IR876 17:14 Pocinho - Porto SB on September 9th. *Laurence Sly*

Portugal

On September 12th, CP No. 1455 approaches Ferradosa whilst working train No. IR861 07:25 Porto C - Pocinho.
Laurence Sly

Portugal

CP Class 1400 No. 1415 passes Arnozelo whilst working train No. IR876 17:14 Pocinho - Porto SB on September 12th. *Laurence Sly*

CP No. 1438 approaches Ferradosa on September 13th whilst working train No. IR861 07:25 Porto C - Pocinho.
Laurence Sly

Portugal

CP No. 1413 approaches Freixo de Numao whilst working train No. IR865 09:20 Porto SB - Pocinho on September 13th. *Laurence Sly*

CP No. 5614 passes Ponte whilst working train No.IC524 12:37 Port C - Lisboa Oriente on September 14th.
Laurence Sly

Medway No. 5627 passes Alem da Ribeira whilst hauling a southbound hopper train on September 14th.
Laurence Sly

Class 240.137 in an unusual (and not very practical!) private owner livery passes through Vinohrady with a freight on September 16th. *Mark Torkington*

Slovakia

Class 362.011, 362.017 and 350.017 all line up for departure at Bratislava Hlavna Stanica on the morning of September 15th. *Mark Torkington*

Slovakia

Vectron Class 193.749 hauls a freight through Bratislava Hlavna Stanica on September 15th.
Mark Torkington

Slovakia

Class 362.017 stands at Galanta on September 16th with an express train heading towards Bratislava. *Mark Torkington*

Class 240.046 pulls into Nova Bana on September 14th with a service from Zvolen to Nove Zamky.
Mark Torkington

Slovakia

Class 240.115 waits time at Surany whilst working a Nove Zamky to Levice service on September 14th. *Mark Torkington*

Iraq

Alstom and the Iraqi Ministry of Transport sign a Letter of Intent for the implementation of the Baghdad Elevated Train

Baghdad Elevated Train will boost the Iraqi Economy thanks to the creation of thousands of direct and indirect jobs

BET connects Al Kadimiya city and Al Allawi Area to Al Shaab city in 23 min by passing Al Sarafiya Bridge and Al Sader City

The projected line is 20 km long and has 14 stations

An Alstom-led Consortium, together with its partner Hyundai Engineering & Construction, have signed a Letter of Intent with the Iraqi Ministry of Transport to define a framework for all the appropriate steps to accelerate the implementation of the Baghdad Elevated Train (BET). The Letter of Intent was signed during the Iraqi Prime Minister Mustafa Al Kadhimi's official visit to Paris. The signing ceremony was held in Matignon, the office of the French Prime Minister, in the presence of Jean Castex, the French Prime Minister and Mustafa Al Kadhimi, the Iraqi Prime Minister.

The Baghdad Elevated Train Project is a 20 km elevated metro in Baghdad with 14 stations, and includes the supply of rolling stock, electromechanical systems, tracks, as well as associated civil works. The light rail system would link Al-Khadumia, AlEtafia, Alsarafia bridge Al-Mustansirya, Wazyria and AlShab over 16km, and AlEtafia AlMuthana airport to Al-Alawi over 4km.

"We are extremely delighted to sign the Letter of Intent and develop our cooperation with the Republic of Iraq. We believe that with this important project together with the Iraqi government we will implement our latest innovative technologies to improve the mobility environment in Baghdad and reduce the current traffic congestion", said Müslüm Yakisan, Senior Vice President for the Africa, Middle-East and Central Asia region at Alstom.

Alstom's metros are world-leading, proven, safe and reliable trains that serve many of the world's great cities, including Amsterdam, Barcelona, London, Paris and Singapore. Alstom has more than 65 years' experience in the production of metros, having sold over 17,000 metro cars that operate in 55 cities around the world and carry 30 million passengers every day.
Alstom is already well established in the Africa, Middle East & Central Asia region with nearly 5,000 employees, 2,240 suppliers and present in more than 15 countries in the region with offices and manufacturing plants in Algeria, Morocco, South Africa and Kazakhstan. As well as delivering the Dubai tramway, the first fully integrated tramway system in the Middle East and the world's first 100% catenary-free line, which was opened in November 2014, the company has been tasked with the maintenance of Dubai Tram for a period of 13 years. The Alstom-led Consortium, ExpoLink, is also responsible for delivering the world's fastest-built turnkey driverless metro project, Dubai Route 2020 Metro, which was inaugurated in June 2020. In Saudi Arabia, Alstom, as part of FAST consortium, is supplying a fully integrated metro system for lines 4, 5 and 6, which includes 69 Metropolis-based Riyadh Metro trains, Urbalis signalling system, Hesop energy recovery station and tracks.

Switzerland

DB and SBB are further expanding the rail services between Germany and Switzerland

Passenger traffic is expanded • Twelve daily connections between Munich and Zurich • Signals for strengthening the railway

Deutsche Bahn (DB) and Swiss Federal Railways (SBB) are further expanding their international passenger transport services between Germany and Switzerland. Both railways have signed a Memorandum of Understanding. The demand for international rail traffic between the two countries has increased significantly: the number of travellers at the Basel border crossing alone has increased by over 25 percent in the last five years.

Richard Lutz, CEO of Deutsche Bahn: "2021 will be the European year of the railways. Projects such as the revitalization of the Trans Europ Express for cross-border transport and the expansion of our proven cooperation with SBB are examples of this. These are great signals for the strengthening of the railways on the entire continent, for the growing together of people and the economy in Europe, but above all for climate protection."

Vincent Ducrot, CEO of SBB: "We are clearly focusing on the further development of international transport. Sustainable and efficient mobility must also be viewed on a European scale. Infrastructure projects such as the Ceneri Base Tunnel and Stuttgart 21 are groundbreaking here. We want to make traveling by train in Europe much easier for our customers. The railway offers great advantages in terms of time and comfort and is getting a further boost with the climate debate."

Over the next few years, the two railways will gradually improve the offer, including new connections between Munich and Zurich, additional direct connections from Hamburg to Ticino with the option of continuing to Milan and new connections from Germany to Valais.

DB and SBB have been working closely together for long-distance cross-border transport between Germany and Switzerland for many years. With the new timetable from December this year, the offer between Munich and Zurich will be expanded to 12 connections daily. The travel time will be reduced by around 40 minutes to 4 hours compared to today. In a further expansion step, the travel time is to be reduced by a further 30 minutes to a travel time of 3 hours and 30 minutes. From June 13, 2021, the longest version of the ICE 4 with 13 cars and 918 seats will be used for the first time on the Hamburg – Frankfurt – Basel – Zurich – Chur ICE line. The SBB, in turn, will also use Giruno trains in traffic between Switzerland and Germany as part of the joint expansion of the service.

Norway

Successful first test runs for smarter and more efficient trains in Norway

Milestone reached for the implementation of newest signalling system onboard trains

By the beginning of 2021, trains equipped with the latest ERTMS Baseline 3 Release 2 (BL3R2) onboard train control system will be ready for commercial service in Norway. Now, the first locomotive equipped with the upgraded signalling system has started digital test runs monitored from the test lab at Bane NOR's Nyland facility outside of Oslo.

"Now beyond strategy and plans, I am proud to confirm that ERTMS BL3R2 signalling solution has made the move from paper specification to actual implementation in Norway. After further demonstration and tests, the first trains will be certified for commercial service in Norway in early 2021", says Rob Whyte, Managing Director Alstom Nordics.

Real run of the Di8 test locomotive will take place for 10 days on the test line between Roa and Hønefoss. Before the end of 2020, the very same locomotive will also be tested on a track with matching version (BL3R2) in Sweden.

Having received its certificate from an Independent Safety Assessor, Alstom Onboard ERTMS BL3R2 solution has been tested at the system lab at Bane NOR's Nyland facility during the last few months. A first DI8 locomotive has been fitted and is expected to demonstrate through the digital tests its compatibility with previous versions of the ERTMS trackside installations (B2 and B3MR1) in Norway.

To support efficient migration into a new national digital train control system in Norway, Alstom will provide an Onboard solution that will be integrating also the legacy ATC-2. This solution will be fully embedded with the Onboard Unit, with no extra hardware. There are several benefits of not having any extra hardware; less hardware means less installation issue, and better availability.

The contract for the on-board signalling project was signed in June 2018 and consists of frame contracts for 14 different railway vehicle owners, negotiated by Bane NOR on behalf of the participating train owners. The depot, where installation is performed, is located next to Campus Nyland; a test, training and competence hub recently inaugurated by Bane NOR for the implementation of ERTMS in Norway.

U.S.A.

Siemens to deliver 14 light rail trains to Phoenix

Valley Metro orders 14 additional light rail vehicles from Siemens Mobility

Improved availability and enhanced passenger experience

The Valley Metro Regional Public Transportation Authority has ordered 14 S700 light rail vehicles (LRV) from Siemens Mobility. The new trains will operate in Phoenix, Arizona, in the U.S. They will be built at the Siemens Mobility facility in Sacramento, California. Valley Metro previously ordered 11 light rail trains from Siemens Mobility in 2017.

"Additional light rail fleet supports our mission of connecting communities, especially as we close in on the 2024 completion date of South Central Extension/Downtown Hub," said Scott Smith, Valley Metro CEO. "As our transit system grows, so must our fleet to accommodate new miles of service and additional riders across metro Phoenix."

"Phoenix is currently the fifth largest city in the U.S. and is continuing to grow steadily. As urbanization accelerates, sustainable transport systems are becoming more important than ever – and we very much welcome Valley Metro's decision to expand the city's public transportation system. Siemens Mobility will deliver light rail trains that provide greater passenger comfort and improved availability," said Albrecht Neumann, CEO of Rolling Stock at Siemens Mobility.

The S700 light rail trains offer a spacious interior, energy-efficient LED lighting, generous storage space for bicycles, and a powerful air conditioning system that ensures passenger comfort even when dealing with high outdoor temperatures. The improved performance and optimized availability of the trains is achieved with condition-based monitoring, data analytics and predictive maintenance.

U.S.A.

Stadler takes on Staff of 12 and assumes responsibility for maintaining DCTA fleet

Stadler has become the employer of twelve maintenance employees and is now responsible for servicing and maintaining the Denton County Transportation Authority (DCTA) fleet in Northern Texas. Rio Grande Pacific Corporation (RGPC) is the prime contractor in this agreement with Stadler providing the vehicle maintenance portion.

The DCTA Board has approved the hand-over of the maintenance of the existing GTW fleet to Stadler and Rio Grande Pacific Corporation (RGPC). This is Stadler's second maintenance contract in the United States, as the company builds up the Service efforts outside of Europe.

Up until now, the previous contractor had been handling operations and maintenance of the eleven Stadler GTW DMU trains with services including train operations and dispatch, maintenance of equipment and facilities, maintenance of way, signals and communication.

Together, RGPC and Stadler are now contracted to provide all services to DCTA, including train operations and dispatch, maintenance or equipment and facilities, maintenance of way, signals and communication. According to the contract, RGPC is the prime contractor and provides Signaling, Dispatching, Maintenance of tracks and Operations. Stadler is covering maintenance of rolling stock and act as sub-contractor to RGPC.

The contract is a nine-year-fixed-price contract with five years left and a five year extension option for DCTA. Also included in the take-over are six management-level employees, 14 engineers and conductors, who are now all part of RGPC and 12 mechanical and support employees who are joining the Stadler team.

Robert Bach, President of Rio Grande Pacific, states «Rio Grande Pacific is enthusiastic about entering into this contract with Stadler. This relationship will assist us in providing a premium level of service to DCTA which will be a model for both companies as we look to the future in the commuter rail industry.»

«We really look forward to continuing our relationship with DCTA. Stadler offers some of the best service options and we are happy that our US customers are now able to take advantage of these maintenance services» says Jürg Gygax, Executive Vice President Division Service.

«For Stadler this is now the second service contract in the US, following our maintenance contract with DART in the Dallas area. It shows that we are growing stronger in this sector and that our customers not only value our partnership when it comes to supplying rolling stock, but also rely on our excellent service options» says Martin Ritter, CEO of Stadler US Inc.

Portugal

Stadler to deliver the bestseller FLIRT to the Iberian Peninsula for the first time

The state-owned railway company Comboios de Portugal (CP) and Stadler have signed a contract for the manufacture and delivery of 22 regional trains of the type FLIRT. The order value amounts to around 158 million euros. This is the first time that Stadler´s FLIRT train will be used for passenger service on the Iberian Peninsula. The contract includes the manufacture and delivery of ten electric multiple untis (EMU) and twelve bimodal multiple units (BMU) of the FLIRT type. The total order value of 158 million euros includes not only the delivery of the vehicles, but also maintenance services for at least four years and training services.

Stadler manufactures for the first time FLIRT for passenger service on the Iberian-gauge of 1668 millimetres. The twelve bimodal FLIRT (BMU) are equipped with an additional drive module, which includes the diesel-electric drive. This enables driving on non-electrified lines. Thanks to their modular design, a possible future refitting from bimodal to purely electric drive or the replacement of the diesel generators with batteries are simplified, depending on the railway operator's needs. Furthermore, 95 per cent of the material used is recyclable.

Ansgar Brockmeyer, sales director at Stadler, says: "We are proud that our FLIRT has been selected for the renewal of the regional train fleet. I am convinced that Portuguese passengers will appreciate the innovative and modern FLIRT – as millions of people in Switzerland, Germany and the Netherlands, among other countries, already do. The Portuguese market is extremely important for Stadler. We are happy that we can contribute to the modernization of the Portuguese railway industry".

More information on the vehicles

The 22 FLIRT are 63.2 metres (EMU) respectively 74.4 metres (BMU) long. They consist of three aluminium car-bodies with a maximum capacity for 375 passengers, 214 of them seated. These trains can reach a maximum speed of 160 respectively 140 kilometres per hour, depending on the power source used. Stadler has paid particular attention on optimising vehicle accessibility, enabling step-free access from platforms of different heights for all passengers – also for people with limited mobility. The trains also have areas reserved for wheelchairs, pushchairs and bikes.

Vending machines can be installed on board to enhance the passenger experience. Additionally, the FLIRT will have Wi-Fi which enables passengers to access operator content as well as multimedia content. An advanced passenger information system further contributes to a great travel experience in the new FLIRT.

More than 1900 FLIRT sold

The FLIRT is Stadler's bestseller and is extremely popular with customers all over the world. To date, Stadler has sold more than 1900 FLIRT trains in 21 countries. Currently, Stadler is manufacturing bimodal FLIRT for three further projects in Europe totalling 67 vehicles. Two of these projects are for costumers in Great Britain-namely Abellio East Anglia and KeolisAmey Wales & Borders – and one for Valle d'Aosta, Italy. Bimodal FLIRT, the FLIRT H2 and the FLIRT Akku are positioning Stadler as the leading manufacturer of environmentally friendly trains with alternative drives.

Singapore

Bombardier unveils next-generation MOVIA metro design for Singapore's Mass Rapid Transit Lines

Global mobility technology leader Bombardier Transportation has unveiled the next-generation design of its BOMBARDIER MOVIA metros for two of Singapore's longest Mass Rapid Transit (MRT) Lines. Inspired by the city's vibrant charm, the red and green pulse lines running along the exterior carbody provide a contemporary visual emphasis for passenger entry points, while the vehicles integrate the world's most advanced mobility technologies to boost Singapore's public transportation. The new 106 six-car MOVIA metro trains for the high-capacity North-South and East-West Lines (NSEWL) running at 102 km in length and serving 59 stations, will connect commuters all across Singapore.

"Together with LTA, Bombardier is pleased to showcase our design for the NSEWL trains. For the last seven years, the performance of our proven MOVIA metros has been moving millions of passengers on the Downtown Line making their daily commute greener, quieter and safer than ever before," said Jayaram Naidu, President of Southeast Asia, Bombardier Transportation.
He added, "We are looking to further collaborate with LTA to introduce our globally game-changing metro trains to help enhance the travel experience, reduce energy consumption and improve rail reliability in Singapore. With 636 metro cars ordered for this project, this will bring the number of MOVIA vehicles in Singapore to 912, making it one of Bombardier's largest metro fleets in the world."

"For the last seven years, the performance of our proven MOVIA metros has been moving millions of passengers on the Downtown Line making their daily commute greener, quieter and safer than ever before."
- Jayaram Naidu, President of Southeast Asia, Bombardier Transportation
The new vehicle interior features more open spaces for wheelchairs and strollers, supporting LTA's vision of a more inclusive public transportation system. Bombardier is responsible for design, engineering, manufacturing, assembly, testing, commissioning and delivery of the MOVIA metro trainsets for the NSEWL system. These next-generation new trains are scheduled to enter passenger service from 2022 to improve the reliability and performance of the system.

Thailand

Bombardier presents its first monorails for Bangkok's Pink and Yellow lines in Thailand

Global rail technology leader Bombardier Transportation has celebrated the delivery of the first state-of-the-art BOMBARDIER INNOVIA monorail 300 vehicles for Thailand. The monorails will run on Bangkok's new Metropolitan Rapid Transit (MRT) Pink and Yellow Lines, which will provide 64-kilometres of new rail-based urban transportation links across the city. The milestone was marked at a special event on October 1, 2020, attended by Thailand Prime Minister Prayuth Chan-o-Cha, as well as other senior government officials. H.E. Dr. Sarah Taylor, Ambassador of Canada to Thailand was also in attendance, along with representatives from Mass Rapid Transit Authority of Thailand (MRTA), Northern Bangkok Monorail Co. Ltd. (NBM) and Eastern Bangkok Monorail Co. Ltd. (EBM).

"The on-time delivery of our first INNOVIA monorail 300 vehicles for Thailand marks an exciting milestone in the history of Thailand's rail transportation and reflects our strong collaboration between our customers, our PBTS joint venture and our highly-skilled, 600-strong local team."- Claudio Tiraferri, Managing Director for Bombardier Transportation in Thailand

"The on-time delivery of our first INNOVIA monorail 300 vehicles for Thailand marks an exciting milestone in the history of Thailand's rail transportation and reflects our strong collaboration between our customers, our PBTS joint venture and our highly-skilled, 600-strong local team," said Claudio Tiraferri, Managing Director for Bombardier Transportation in Thailand. "Thailand is an important market for Bombardier where, over the last 23 years, we have grown from signalling supplier to the market leader in rail systems and we look forward to seeing the new rail lines become a reality."

Bombardier's scope on the 34.2 km Khae Rai-MinBuri (Pink) and 30.4 km Lat Phrao-Samrong (Yellow) Lines comprises 72 four-car INNOVIA monorail 300 trains, wayside systems and the automated BOMBARDIER CITYFLO 650 rail control and system integration. The monorails will be able to run at speeds of up to 80 km/h and with a maximum system capacity of over 28,000 passengers per-hour, per-direction. The system is being delivered from Bombardier's Bangkok Engineering Centre with vehicles manufactured by the CRRC Puzhen Bombardier Transportation Systems Limited (PBTS) joint venture, based on Bombardier's original design from Canada.

As the leading rail technology company in Thailand, Bombardier employs more than 600 employees to deliver multiple projects in country and across Asia Pacific. Its Bangkok hub hosts a global centre of excellence in digital mass transit solutions and rail systems integration working for projects worldwide. In addition to its iconic monorails, Bombardier is delivering its BOMBARDIER INNOVIA APM 300 automated people mover system for Thailand's first driverless mass transit system, the Gold Line. It is also the signalling supplier for the Bangkok Skytrain and MRT Purple Line and a section of the State Railway of Thailand's Northern Line upgrade.

Spain

New driving simulator for Metro Barcelona

Alstom has developed a driving simulator for Barcelona metro operator (TMB) that incorporates the latest virtualization, gamification and virtual reality technologies to train metro staff and automatic line operation technicians.

The simulator reproduces real situations (routes, conditions and obstacles) and create realistic scenarios employing virtual reality technology commonly used by video games developers. It also includes a full-scale reproduction of the driver's cabin of the Alstom Metropolis trains currently running on Barcelona Metro 9 & 10 lines, the only driverless lines in operation in Spain.

With this new technology, TMB will train its technicians teams on the rapid and efficient resolution of incidents on automatic lines, where the reaction time is key to preventing an impact to service. Throughout the trainings, instructors will be able to simulate traffic conditions and real situations, programming all kinds of variables, such as train breakdowns, signalling conditions, environmental incidents, and even the density of passengers.

Thanks to this simulation, technicians will be able to practice the skills required to solve incidents and maintain railway safety, without the need to stop traffic or perform power cuts on the metro lines. The tool will faithfully reproduce specific sections of the railway network with exact replicas of stations, junctions, signals, cables, points of interest, etc.

Bulgaria

Machining new rails at 60 km/h on Sofia's new metro line

To ensure a long rail service life, important new rail maintenance was carried out shortly before the opening of the first section of Metro Line 3.

Before the new No. 3 metro line in Sofia went into operation in late August of 2020, Vossloh gave the newly-laid rails an initial grinding to prepare them for service. Removing the factory mill-scale not only extends a rail's service life considerably, it also lays the foundation for preventive rail maintenance.

Over eight nightshifts in August of 2020 Vossloh successfully machined all the new rails of the recently laid, almost 8-km-long subsection of the new No. 3 metro line. This "green line" connects eight stations from Krasno Selo in the Bulgarian capital's south-west to Hadzhi Dimitar in the north-east and has two transfer stations for passengers to change to lines already in service. The 3.8-km-long extension west of Krasno Selo to Gorna Banya was also ground in anticipation of the second subsection's commissioning in early 2021.

Ensuring the rails have a long service life

Removing the comparatively soft external decarburized layer left over from the manufacturing process provides the basis for ensuring the rail has a long service life. Studies and research programs on the effects of mill-scale and decarburization prove that removing this layer reduces not only wear but also the formation and spread of fatigue damage caused by wheel-rail contact (e.g. head checks). Over the long term, this translates into enormous savings in time and money for the operator. The order called for the removal of 0.2 mm of material. Grinding wheels with two different grain sizes were used to grind the newly-laid rails: first a rough abrasive to remove material and then a fine abrasive in order to achieve a surface finish that although smooth still has the appropriate rail roughness to keep noise emissions low. The technology of a high feed rate and passively driven grinding wheels always results in a rail surface that is free of facets, corrugations, periodic grinding marks or "bluing".

The swivelling grinding units re-profiled the rail head to exactly z-12. These units are also compliant with track installations such as level crossings or electronic switching equipment, which consequently do not require removal before the rails can be machined. There was also no grinding residue left on the track to collect and therefore no subsequent clean-up necessary.

The machining of the new rails coincided with the test runs of the new metro vehicles, and in retrospect the HSG-city's performance in Sofia can be seen as a real gain. High operating speeds of up to 60 km/h and the Vossloh team's flexibility meant that the HSG-city was able to fit in easily with "normal operations", commuting between different sections of the line in the 4 and 8-km-long tunnels.

India

Alstom's WAG 12B e-locos become India's first freight locomotives approved to run at 120 kmph

Alstom-built 12000 HP electric locomotives have been officially approved by the Ministry of Railways and RDSO to run freight trains at a maximum speed of 120 kmph. Earlier this year, Indian Railways began inducting the WAG 12B e-locos, which are the most powerful locomotives to run on Indian tracks. Cumulatively, these electric locomotives have already clocked over 1 million kilometres, thus providing a significant fillip to the country's freight logistics landscape.

These electric locos will allow faster and safer movement of heavier freight trains capable to haul ~6000 tonnes at a top speed of 120 kmph. Planned to be deployed for operations on major freight routes of Indian Railways including the Dedicated Freight Corridors (DFCs), they are expected to increase the average speed of freight trains in India by at least 20-25 kmph.

Commenting on this achievement, Alain SPOHR, Managing Director, Alstom India & South Asia said, "The approval from RDSO is indeed a matter of pride for all of us at Alstom and a testimony of our technical expertise in partnership with the Indian Railways. In line with India's push towards self-reliance, we have successfully leveraged our local engineering and manufacturing capabilities.

Alstom is also committed to support IR in reducing its carbon footprint and adopt cleaner technologies in its quest to transform into the world's largest Green Railway network. India is a priority for Alstom, and we are committed to work closely with the Indian Railways for all their future modernization endeavours."

"Equipped with Insulated Gate Bipolar Transistors (IGBT) based propulsion technology, it would lead to considerable savings in energy consumption due to use of regenerative braking. The technology is also helpful towards making the acceleration process more efficient by reducing the heat generation and traction noise. Additionally, this move will not only bring down operational costs, but also reduce the congestion faced by Indian Railways", he added.

Despite challenges posed by the COVID-19 pandemic, with the advent of Unlock 1.0, Alstom restarted significant production at all its manufacturing facilities, ensuring all necessary permissions and adhering to government protocols. The company's focus is to give maximum support and protection to all teams and workforce in the present adverse situation.

Egypt

Alstom delivers the SIL4 electronic interlocking system to the “Matai” sector of the Beni Suef Assuyt railway line in Egypt

Alstom has successfully supplied, tested and put into commercial service it’s SIL4 Electronic Interlocking system solution Smartlock 400 GP for the Matai sector in the line linking Beni Suef to Asyut; with new buildings, new power supply, new telecom and new SCADA subsystems, ensuring effective performance and safe operation of railway traffic at train speeds up to 160 km/hour. The inauguration ceremony was attended by Eng. Hussein Rashidy Head of Signaling System at ENR, Eng. Shaban Mahmoud, Upper Egypt Zone Manager at ENR (Egyptian National Railways), Eng. Ashraf Khalifa Head of Operation Department, Mohamed Magdy BSA Executive Project Manager at ENR, Eng. Mohamed Fawzy, Operations Manager at ENR, Eng. Ahmed Essam, Head of Civil Works and Mr. Luca Pastorino, Alstom Egypt BSA Project Director.

Matai is the sixth sector of Beni Suef–Asyut line to enter commercial service with Alstom’s interlocking signaling system following the commission of the Mallawi section on 23rd of July 2020. It is an extended sector of over 18 km and includes two stations; Matai and El-Kofor with 116 track circuits, 10 SLO (Site Local Operation) cabinets, 6 level crossing, 36-point motors and 79 signals. With this new milestone, Alstom is putting into service over 80 km of mainline railways in Egypt all operable in contraflow mode.

“I am proud of the dedication of our teams who continue to progress with operations despite the current challenging context. They demonstrate their responsibility towards our Clients through presenting agility and adaptability in their ways of working. We remain committed to meet our customer’s expectations and to be an exemplary partner to them” said Mohamed Khalil, Managing Director Alstom Egypt.

Alstom has been present in Egypt for over 40 years and has continually engaged and supported railway infrastructure development in the country. Over these years, Alstom Egypt has employed around 420 employees and developed a local talent pool that is today in charge of a center of excellence related to Signaling, Power Supply and Depot Equipment. These facets support our projects in all Africa-Middle East-Central Asia regions.

Alstom remains fully committed to the principles of operating an ethical business and sets clear guidelines in order to deal with public authorities and customers.

India

Bombardier celebrates the delivery of the 800th MOVIA metro car to Delhi Metro

Since the first train was introduced on Delhi Metro’s network in 2009, Bombardier’s metro fleet has travelled around 150 million kilometres and moved more than four billion passengers safely and comfortably

Global mobility technology leader Bombardier Transportation recently celebrated the delivery of the 800th BOMBARDIER MOVIA metro car to India’s Delhi Metro Rail Corporation Ltd (DMRC). Together in partnership, Delhi Metro and Bombardier have been supporting Delhi’s National Capital Region’s ambitious expansion plans since 2007 and the new metros have delivered a huge capacity boost to Delhi’s metro network.

The 800th metro car left Bombardier’s state-of-the-art railway vehicle manufacturing site at Savli near Vadodara, India and it will now undergo rigorous testing and commissioning processes before starting passenger service.

“Delhi Metro is pleased to have received the 800th indigenously manufactured metro car from Bombardier for its network. Bombardier’s metro cars, operating across Line 2, 3 and 4, add to DMRC’s extensive metro network that has benefited passengers and society in terms of comfort and environmental sustainability. Delhi Metro’s vast network is a classic example of self-reliant India with significantly high local content and manufacturing, delivering Hon’ble Prime Minister’s Make in India programme,” said S. S. Joshi, Director for Rolling Stock and Signalling, DMRC.

“This achievement of delivering the 800th metro car highlights the large scale and magnitude of Delhi Metro’s operations and we are extremely proud to be Delhi Metro’s long-term partner.” - Rajeev Joisar, Managing Director for India at Bombardier Transportation

“We appreciate the tremendous effort from our Indian team to deliver 800 metro cars to Delhi Metro. We greatly value the trust and support received from Delhi Metro in this 13-year journey. This achievement of delivering the 800th metro car highlights the large scale and magnitude of Delhi Metro’s operations and we are extremely proud to be Delhi Metro’s long-term partner,” said Rajeev Joisar, Managing Director for India at Bombardier Transportation. He added, “These 100 per cent locally manufactured energy-efficient trains have been moving 1.5 million people in Delhi safely every day and the remaining 16 metro cars from the latest order (RS16) will be delivered to Delhi Metro by the end of this year.”

The high degree of localization at both the Savli and Maneja sites is in line with Delhi Metro’s indigenous procurement plan that encourages local manufacturing and the Indian government’s ‘Make in India’ program by delivering rail vehicles, products and solutions that are developed for both Indian and foreign markets. Bombardier is one of Delhi Metro’s largest suppliers of rolling stock and with over 140 km of lines operating with the globally proven BOMBARDIER CITYFLO mass transit signalling solution, installed on Delhi Metro’s lines 5, 6, 7 and 9, makes Bombardier the largest signalling supplier for Delhi Metro.

The new modern, high-capacity MOVIA metro vehicles for Delhi Metro integrate some of the world’s most advanced mobility technologies such as the BOMBARDIER MITRAC propulsion and control system and the BOMBARDIER FLEXX Metro 3000 bogies, an extremely robust and reliable design specifically adapted to suit Delhi’s infrastructure. The new vehicles accommodate up to 740 more passengers and once configured into eight-car trainsets, carry as many as 2,960 passengers per train on three of Delhi’s busiest metro lines.

From the Archives

Austria

On October 14th 1995, OBB Class 1044.021 arrives at Tauplitz with train No. R3408. Unusual for this local service, comfortable Intercity carriages, including first accommodation, were used. The stock returned later the day as through coaches to Vienna via Attnang. *Walter Niederl*

From the Archives

Austria

25 years ago, in the famous Salzkammergut, on the line between Stainach-Irdning and Attnang-Puchheim, Class 1141.014 with train No. E3410 is seen near to Bad Mitterndorf. *Walter Niederl*

From the Archives

Austria

On October 14th 1995, Class 1141.014 heads along the line between Stainach-Irdning and Attnang-Puchheim, near Bad Mitterndorf with train No. E3423. *Walter Niederl*

From the Archives

France

SNCF Nos. 66610 and 66615 are seen on an eastbound freight at Ales on August 20th 1987. *Mark Enderby*

From the Archives

Ireland

CIE No. 226 hauling the 12:50 Dublin - Limerick service is seen at Pallas Green on March 27th 1980.
Mark Enderby

From the Archives

Malawi

On August 30th 2012, No. 520 has its wagons loaded at Nayuchi (next to the Mozambique border) with the weekly mixed train to Balaka. The whole network was covered once a week by the same loco and stock working around one line per day over 4 days. *Mark Torkington*

From the Archives

Malaysia

Diesel loco No. 25111 arrives at Tapah Road on November 21st 2005. *Mark Enderby*

From the Archives

Netherlands

NS Class 1200 No. 1207 stands at Amsterdam on March 15th 1986.
Mark Enderby

From the Archives

Netherlands

NS Class 1500 No. 1502 is seen at Amsterdam Centraal on March 15th 1986. *Mark Enderby*

From the Archives

New Zealand

Kiwi Rail 'Low nose' No. 6324 is seen at Middleton Yard, Christchurch, South Island on November 30th 2010.
John Sloane

From the Archives

Peru

Enafer Preu No. 617 (Built by MLW in 1974) approaches Lima Desamparados station with the train over the Central railway to Huancayo on March 28th 1988.
John Sloane

From the Archives

Poland

On June 4th 2005, in faded PKP livery, No. ST43-365 prepares to depart Wolsztyn with a loaded train which it has brought down from the Prefbeton works at Powodowo.
Jeff Nicholls

From the Archives

Poland

Inside Leszno depot on April 26th 2003, EU07-235 shares the gloom with a 'Kriegslok' which had once seen use as a stationary boiler. *Jeff Nicholls*

From the Archives

Poland

Sounding remarkably like a British Rail Class 25, and in good external condition, Romanian built ST43-258 rolls into Wolsztyn station on June 5th 2004 passing derelict steam locos with a train of empty wagons which it will run round before taking them to the Prefbeton works at Powodowo.
Jeff Nicholls

From the Archives

Spain

RENFE No. 278.007 is seen being shunted by No. 276.086 at Madrid Atocha shed on August 4th 1982. *John Sloane*

From the Archives

Tunisia

Whilst DPs were the mainstay on the standard gauge, the EMD built GT class were solid on the metre gauge intercity trains into Tunis and across the gauges Nos. DP150 and GT551 wait departure times at Tunis Ville on March 1st 2009.
Mark Torkington

From the Archives

Ukraine

P36 4-8-4 No. 0050 storms along the line between Korosten and Novograd Volynsky on April 28th 1993. *John Sloane*