Railtalk Magazine Xtra

Issue 172x
January 2021
ISSN 1756 - 5030

Contact Us

Editor

david@railtalkmagazine.co.uk

Content Submissions

entries@railtalk.net

Technical & Subscription Support

admin@railtalk.net

Content

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 172Xtra

Well 2021 has finally arrived, a Happy New Year to all our readers and lets hope that this will be a better year for travel and photography than 2020 was.

We start this month with a look at brief news from around the world:

In China, rolling stock builder CRRC Tangshan has unveiled a prototype 350 km/h trainset aimed at the premium logistics market, derived from its China standard passenger EMUs.

In France, a Taxirail lightweight vehicle demonstrator with AI is to start trials in 2021. The self-propelled ultra-lightweight rail vehicle is intended for rural railways or lightly-used lines.

Czech operator Regiojet has announced that it is ready to launch a Polish sleeper service having obtained all the approvals needed to launch its planned overnight service between Praha, Kraków and Przemysl.

Slovakia's ŽSSK has announced fleet renewal plans with several rolling stock renewal projects planned. This includes the procurement of 20 electric multiple-units for the Košice region, along with the modernisation of 35 coaches and procurement of 17 new coaches and modernisation of 15 Stadler EMUs for the Tatra region.

News from Slovenia where the national railway holding company Slovenske Železnice and the EP Logistic International subsidiary of Praha-based energy, infrastructure and logistics group EP Holding have signed an investment and shareholder agreement to form a strategic partnership to take over the state railway's freight activities. The parties are to create a 51:49 joint venture to which SŽ will contribute a 100% share of rail freight operator SŽ-Tovorni Promet and multi-modal logistics business Fersped, with EP Logistics International contributing an unspecified amount of cash. 'Both partners have the ambition to jointly turn the joint venture company into a major rail and logistics operator in southeastern Europe, unlocking the full potential of SŽ-TP and Fersped assets', said EPLI Chairman Tomáš Novotný on December 18th. 'The underlying plan is to service region-wide customers through its own licensed structures operating modern and efficient rail hardware such as multi-system locomotives, and to create a profitable, cost efficient and dividend-paying business.' In addition to the Slovenian domestic market, the joint venture will target Croatia, Serbia, Bosnia&Herzegovina, Montenegro, Italy, Austria and Hungary. Plans include increasing the prominence of the Slovenian port of Koper as a local cargo hub. EPLI said that it was willing to commit additional financing to the joint venture should opportunities for expansion arise. EP Holding was the only company that submitted a binding offer to form a joint venture, in a process which has been underway since 2017. The national railway holding company is legally obliged to retain at least a 50% plus one share stake in all of its businesses, and so the state will remain the indirect majority owner of the freight operator.

And if your new VW car doesn't arrive then you know why, as in Mexico sabotage has derailed 11 rail cars carrying new vehicles. Extensive financial losses have been estimated after a sabotaged rail line led to the derailment of at least 11 rail cars carrying new vehicles for export to Europe. There were no casualties in the derailment, which took place in Acultzingo, Veracruz. The train was en route from the Volkswagen plant in Puebla to the port of Veracruz. Thieves removed almost two meters of tracks to halt the train and steal merchandise. It wasn't clear what they were able to steal, given that the cargo was brand-new vehicles. A railway union spokesman said six rail cars rolled over completely and some dropped into a ravine. He estimated damages in the millions of pesos.

Until next month

David

This Page

NS VIRM No. 9407 working train No. 8837 from Leiden to Utrecht Central station is running 5 minutes late whilst passing Woerden on December 7th. *Erik de Zeeuw*

Front Cover

On January 27th 2011, CD Cargo Class 753.774 and classmate head through a snowy Kralupy nad Vltavou. *Class47*

On November 14th, NS International Vectron Class 193.766 passes the Naardermeer and watermill ‘De Onrust’ with train No. IC148 from Bad Bentheim to Amsterdam. *Erik de Zeeuw*

Terms & Conditions

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

HAD-PRINT
Unit 2-4, France Ind. Complex,
Vivars Way, Canal Road, Selby
North Yorkshire YO8 8BE

info@had-print.co.uk | 01757 600211

With Thanks

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

These issues wouldn’t be possible without: Ray Anslow, Brian Battersby, Mark Bearton, Mark Bennett, Tim Blazey, Rob Boyce, Keith Chapman, Julian Churchill, Nick Clemson, Derek Elston, Mark Enderby, Tim Farmer, Dave Felton, FrontCompVids, Paul Godding, Richard Hargreaves, Jim Haywood, Keith Hookham, Colin Irwin, John Johnson, Anton Kendall, Mathijs Kok, Jyrki Lastunen, Ken Livermore, Michael Lynam, Peter Marsden, Phil Martin, Denzil Morgan, Thomas Niederl, Peter Norrell, Chris Perkins, Mark Pichowicz, David Pollock, Andy Pratt, Paul Quinlan, Railwaymedia, Alan Rigby, Bryan Roberts, Neil Scarlett, John Sloane, Stephen Simpson, Laurence Sly, Stewart Smith, Steamsounds, Steve Stepney, Mark Torkington, Gerard van Vliet and Erik de Zeeuw.

Commonwealth Bulk Handling Group's Nos. CBH005 and CBH025 with train No. 2K63, empty grain hoppers, slow for a speed restriction as they pass the Midland Hospital in the eastern suburbs of Perth. *Colin Gildersleve*

Aurizon's narrow gauge No. S3306 in old and tatty ARG livery is seen at Keysbrook to the south of Perth with empty coal hoppers which have been recently returned to service from storage. *Colin Gildersleve*

Pacific National's Nos. NR36 and NR45 pass through Midland with a very late train, No. 6SP7, a Sydney to Perth freight. This train was delayed, along with many others due to a preceding train having loco trouble on the single line section out on the Nullarbor Plain. *Colin Gildersleve*

Austria

New RCG production concept

Rail Cargo Austria and Rail Cargo Carrier - Italy have teamed up to launch the “Arnoldstein” project as a way to speed up cross-border traffic at the border bottleneck between Austria and Italy.

The Rail Cargo Group’s successful Arnoldstein production concept got underway with train No. 45201 early on December 14th. This is the first time a Rail Cargo Carrier - Italy (RCC-IT) locomotive driver has been trained on the infrastructure belonging to ÖBB-Infrastruktur.

Alterations to train path for train No. 45201 and a stopover in Arnoldstein that includes shunting have been arranged for live operations.

Smooth handling of the production concept
Train No. 45201 left Villach as early as 05:07 and made its way to Arnoldstein, where the Austrian-trained RCC-IT locomotive driver uncoupled the tandem locomotives. The driver manoeuvred the train round as part of shunting operations and then coupled, or “banked”, the locomotive to the back of the train.

After this, the bank engine helped take train No. 45201 from Arnoldstein to Tarvis. It crossed the Austrian-Italian border at 06:16. After the bank engine was decoupled and the train ready message was issued, it continued on its journey to Santo Stino at 06:29. With the help of this Italian-speaking locomotive driver who trained in Austria, it was possible to cross the border in just 13 minutes and all procedures went off smoothly.

Perspectives
German-speaking Slovenian locomotive drivers at the Rail Cargo Group have already been trained how to handle Austrian infrastructure. They will be helping manage diverted traffic during the Karawanks Tunnel diversions to Leibnitz.

Alstom’s hydrogen train successfully completes three months of testing in Austria

Alstom’s Coradia iLint, the world’s first hydrogen fuel cell train, has just completed three months of successful test operation on ÖBB’s (Austrian Federal Railways) regional lines. This comes just after it received official approval from the highest railway authority in the country, the Austrian Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology (BMK).

These important milestones make Austria the second country in Europe, after Germany, to fully approve of the Coradia iLint as an emission-free alternative to diesel multiple units. Alstom once again underlines its world-leading position in hydrogen mobility by rail - no other train manufacturer can currently offer a proven, tested hydrogen train ready for series production.
“We are immensely proud to confirm that the Coradia iLint has proven that it is suitable for all service routes – even on steep sections its performance is convincing. Not to mention our pride in the fact that the train has now received official approval in Austria. I also congratulate OBB for being a pioneer in testing hydrogen technology on rail in Austria,” said Gian Luca Erbacci, Senior Vice President of Alstom Europe.

During the three months of testing on four demanding routes in southern Lower Austria, Vienna and eastern Styria, ÖBB and its passengers witnessed operability and performance of the new drive technology based on fuel cells - even on steep track sections and under the most varied climatic conditions. ÖBB is very positive about the hydrogen train and the test run.

Following the successful operation in Austria, the data collected will now be analysed to further perfect the technology for the context.

An overview of Alstom’s hydrogen train milestones:

- 27 November 2020
Successful end of a three-month test operation by ÖBB in regular passenger service

- October 2020
Approval of the Coradia iLint as the only hydrogen train for the Austrian railway network by the Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology (BMK)

- March 2020
Alstom has successfully tested its Coradia iLint fuel cell train for ten days on the 65 km route between Groningen and Leeuwarden in the Dutch province of Groningen.

- May 2019
RMV‘s subsidiary fahma orders the world’s largest fleet of fuel cell trains from Alstom. 27 fuel cell trains will replace diesel multiple units on four regional train lines in the Taunus region from 2022. This brings the total number of vehicles sold to 41.

- January/February 2019
Coradia iLint at “Rail Show” in six federal states

- September 2018-February 2020
After 530 days and more than 180,000 driven covered, the successful trial operation of the world’s first two hydrogen trains in the Weser-Elbe network comes to an end.

- July 2018
Approval for passenger transport on the German public network

- March/April 2017
First test runs of the Coradia iLint on the company’s own track in Salzgitter at 80 km/h and in Velim (Czech Republic) at up to 140 km/h.

- November 2017
Alstom and the Local Transport Authority of Lower Saxony (Landesnahverkehrsgesellschaft Niedersachsen, LNVG)sign a contract for 14 Coradia iLint trains to replace the existing diesel trains from the beginning of 2022.

- September 2016
Alstom unveils its Coradia iLint zero-emission train at the InnoTrans fair.

Austria

70,000 train kilometres for Kaindl

The Rail Cargo Group is developing a new concept for the existing Kaindl shuttle and will be transporting 1,700 tonnes of raw and finished products a day by rail between Wals and Lungötz for the domestic industrial business from 2021.

M. Kaindl OG's own-account transport has been running between the factories in Wals and Lungötz for 17 years. The Rail Cargo Group are improving with a shorter route and a new train configuration. From 2021, the RCG will be transporting 1,700 tonnes of raw and finished products a day for the domestic industrial company with transport services that are even more efficient and even more environmentally friendly.

Four trains with 14 wagons each at a total length of 420 metres will be travelling the 56 kilometre long route between Wals and Hüttau every day. With this service, the Rail Cargo Group is able to transport 500,000 tonnes a year by rail for Austria's leading manufacturers of floor and boards. This avoids 20,000 trucks having to drive on the Tauern motorway.

CO2 neutral transport
As part of the new RCG concept, the Kaindl shuttle is now "CO2 neutral" and uses electricity made from hydrogen. Shifting the transport to rail avoids 4,000 tonnes of CO2 emissions a year. This rail transport service is also important in terms of reducing traffic volumes; it helps relieve the Tauern motorway of heavy traffic. The change in traction services also brings significant benefits when it comes to quality: rail transport brings more predictability for production, is unaffected by weather conditions, is flexible, and makes a real contribution to protecting the environment.

Environmentally friendly transport for AGRANA

AGRANA's sugar beet campaign relies on rail transport and avoids 50,000 truck journeys. The Rail Cargo Group has delivered 1.25 million tonnes of beets to the sugar refineries in Leopoldsdorf and Tulln.

AGRANA is relying on the Rail Cargo Group's raw material transport as part of its current sugar beet campaign to support environmentally friendly, sustainable transport development. This year, 1.25 million tonnes, or 58 percent, of Austria's sugar beets were transported in freight wagons to the two sugar refineries in Leopoldsdorf and Tulln.

Out of the total transport volumes, the amount transported by rail has risen by around ten percent more than last year. The annual ecological impact of this transport volume is just as significant. All the sugar beets transported by rail have avoided around 50,000 truck journeys and in turn, have spared the environment 8,150 tonnes of emissions (CO2 equivalent).

Top of the league in rail transport
When it comes to the number of kilometres the sugar beets travel within Austria, rail transports share comes in at 80 percent this year. In its two sugar refineries in Leopoldsdorf and Tulln, AGRANA processed around 2.1 million tonnes of domestic sugar beets this year. With a daily throughput of around 24,000 tonnes of sugar beets, the campaign will be completed by the middle of January.

Austria

RockTainer SAND success story at Rohrdorfer

In the summer, transport for Rohrdorfer was shifted to Innofreight's innovative wagon equipment. Furthermore, the Rail Cargo Group was able to increase its transport volume capacity even further and now takes care of all raw material transport for the Rohrdorf cement works. The Rail Cargo Group shifted its transport for Rohrdorfer to innovative wagon equipment belonging to Innofreight, one of the Rail Cargo Group's partner companies – the "RockTainer SAND" was developed together with the Rohrdorfer Group. This equipment has an impressive high load capacity, and efficient unloading technology and, what's more, they are quiet. Their high-performance system enhances capacities when it comes to delivering raw materials.

The "RockTainer SAND" equipment has been transporting granulated slag from Linz to Rohrdorf for three years now. Another ten InnoWaggons and 20 RockTainer SAND wagons were delivered to Rohrdorfer this summer and have replaced the old freight wagons.

Raw material deliveries for Rohrdorfer

An additional 300,000 tonnes in annual tonnage have increased transport volumes for the factories in Rohrdorf and Gmunden to around 1.5 million tonnes this year. As of 2020, the RCG, including Rail Cargo Carrier - Germany (RCC-DE) has taken over all raw material transport for the Rohrdorf factory RCC Germany. Both traction along the Salzburg – Rosenheim route and shunting services from Rosenheim to Rohrdorf are handled in-house by RCG. RCC–DE also takes care of the sections within Germany between Nordhausen and Fischbach. Locomotive and locomotive driver changeovers are no longer needed in Kirchbichl, and this is another way RCG are optimizing our services.

Together for Europe: New lines for night train services

Europe should grow closer together - also on the railways. To this end, the already successful cooperation between the four railway companies Deutsche Bahn (DB), the Austrian Federal Railways (ÖBB), the French SNCF and the Swiss Federal Railways (SBB) are to be further expanded.

The first concrete results of this expansion of the cooperation are four new Nightjet lines that will connect a total of 13 European metropolises with one another overnight over the next few years:

- December 2021: Vienna – Munich – Paris and Zurich – Cologne – Amsterdam
- December 2023: Vienna / Berlin – Brussels / Paris
- December 2024: Zurich – Barcelona

The declaration of the four railway companies marks the beginning of the European Year of the Rail. On December 1st, the MEPs of the Transport Committee agreed to dedicate the coming year to strengthening rail transport. A strong rail network is therefore essential in order to achieve the EU's climate targets. This also includes a strong night train network, which is the key to sustainable and environmentally friendly mobility. Working closely together with politicians, the four partner railways have now committed to even closer cooperation at all levels in a clear commitment to night trains.

Federal Transport Minister Andreas Scheuer: "Get on the train in Munich or Berlin in the evening and arrive relaxed in Paris or Brussels in the morning - with our Trans-Europ-Express TEE 2.0 and attractive night train offers, we will be even more climate-friendly and environmentally friendly in Europe. That is a very specific result of our rail summit and our EU Council Presidency."

Climate Protection Minister Leonore Gewessler: "Night trains are the future of climate-friendly mobility within Europe. It is our common task to provide a good offer for the people in Europe. In order for this to succeed in the long term, the framework conditions for European night train traffic must be well designed in the coming years. I am happy about this common commitment across Europe."

Minister of State Jean-Baptiste Djebbari: "We all firmly believe that night trains will play a key role in tomorrow's Europe. They are environmentally friendly and will increase our citizens' interest in traveling by train."

Peter Füglistaler, Director of the Swiss Federal Office of Transport: "I am pleased with this internationally coordinated decision of principle. Now the railways have the political support they need to win over customers with attractive new offers."

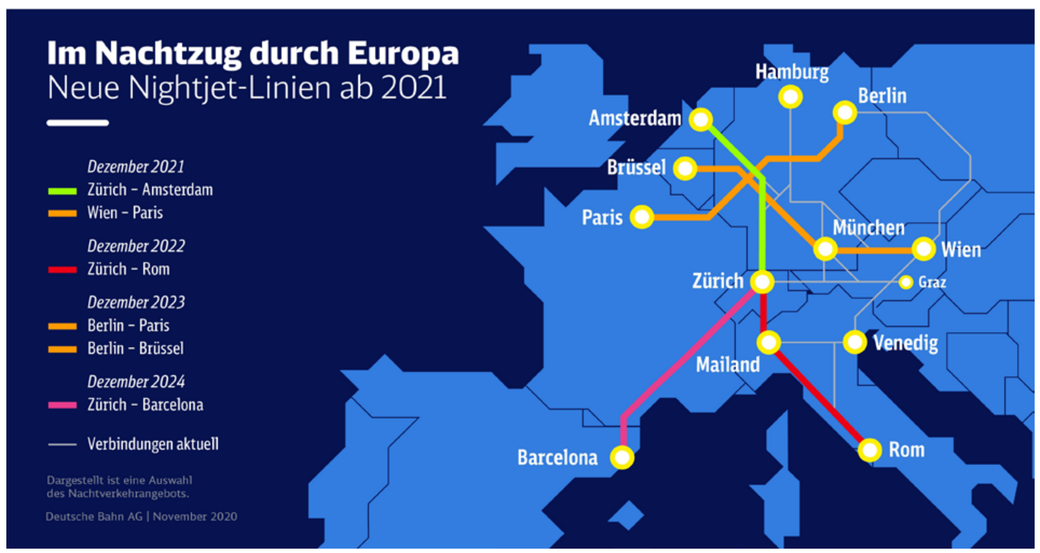
Richard Lutz, DB CEO: "Europe's leading railways are pooling their forces for the night train. This is a good day for the climate, our customers and the growing together of Europe on the rails. The night train is a business between partners. If every railway were to do 'a little night train', nobody would be of any help. The solution is a clear division of labour, embedded in real team play."

Andreas Matthä, CEO of the Austrian Federal Railways (ÖBB): "Only through intensive cooperation between the railways in Germany, France, Switzerland and Austria can we significantly expand the Nightjet network and thus offer even more climate-friendly mobility in Europe. With Paris, Berlin, Amsterdam, Brussels, Zurich, Vienna and Barcelona, even more European metropolises will be connected overnight with the Nightjet in an environmentally friendly way."

Jean-Pierre Farandou, Chairman of the Board of Management of the SNCF: "For the SNCF, this cooperation is a good opportunity to complement the national night train service with an international offer. Night trains are historic for the SNCF. The interest and enthusiasm of the passengers and the authorities are great, because these trains are essential for connecting our regions. We are convinced that, together with our European partners, we can benefit from the experience with the Nightjet in order to promote an attractive European night train offer"

Vincent Ducrot, CEO of SBB: "The expansion of international connections in day and night rail traffic is very important for Switzerland. This cooperation enables us to implement our expansion plans quickly. In night traffic, we will expand the offer from Switzerland from six to ten lines to 25 destinations by 2024. That is a very important contribution to promoting climate-friendly mobility."

DB SBB CFF FFS ÖBB SNCF eu2020.de



Czech Republic

Conversion of the locomotives series 163

ČD Cargo is launching the second project of conversion of locomotives series 163 into dual-system locomotives series 363. The winner of the public tender for the conversion of 18 locomotives series 163 was Českomoravská železni opravna, sro. The main reason for the conversion is the gradual transformation of the DC power supply system to an AC power supply system on the railway lines of the Czech Republic.

The locomotives will be further equipped with the European Train Control System, the supplier of which is ČD Telematika as and AŽD Praha sro. Locomotive No. 363.075, ie. the first locomotive of this series equipped with this system, will become a model for the installation.
CD Cargo has received financial support for this project from the Transport Operational Program.

Photo: ©CD Cargo/Tomas Sagner

Signing of an agreement with the European Investment Bank

The joint-stock company ČD Cargo has signed an agreement with the European Investment Bank (EIB) on securing funds through an investment loan. The signing of the contract is fully in line with the company's approved business plan for 2021 and will enable it to continue fulfilling its strategic goals, which include the renewal of the rolling stock and expansion abroad.

Therefore, the funds will be invested, inter alia, in the acquisition of up to 50 interoperable locomotives, 140 wagons for combined transportation or the equipping of other locomotives with ETCS. The maximum loan amount approved by the EIB is 130 million EUR. These funds can be drawn for a period of 36 months from the effective date of the contract. Under EIB conditions, these funds can cover up to 50% of the investment costs of specific projects. The signing of the agreement was preceded by an extensive financial analysis by the EIB, on the basis of which ČD Cargo was assessed as a reliable and suitable partner for drawing an investment loan.

"The signing of this agreement completed an extensive, almost annual approval process of verification by the EIB, where the overall economic condition of the company was assessed and ČD Cargo was evaluated as a reliable and suitable partner for drawing an investment loan. The positive assessment of ČD Cargo was also reflected in very favorable credit conditions." said Tomáš Tóth, Chairman of the Board of Directors of ČD Cargo, as.

Photo: ©CD Cargo/Lubemir Novak

Czech Republic

Part of the Line from Pardubice to Hradec Králové Will Become Double-track

Správa železnic will start modernising another part of the busy line between the two most important centres of Eastern Bohemia in2021. Therefore, it announced a tender for the contractor for the reconstruction of the line section from Pardubice-Rosice nad Labem to Stéblová. Its main benefit will be the construction of the second track, including the bridge over the Elbe in Pardubice.

The line speed will increase at the same time. Completion of the construction is planned for the end of 2023, its estimated total investment costs are close to CZK 2.6 billion.

The planned action follows the already started reconstruction of the Pardubice main station. The 7.5 km long section will be modernised, including double-tracking. The original single-track bridge over the Elbe will be replaced by new one, with two tracks. At the Pardubice-Rosice nad Labem railway station, the track branches will be modified for the connection of double-track line sections. The configuration of the track will be also changed due to the creation of new platforms.

The connection between the outer and island platform will be through a new pedestrian tunnel.

The Pardubice-Semtín stop will also undergo modernisation; it will gain two new outer platforms and a platform shelter. The main change will be the abolition of the current foot level crossing and its replacement by a pedestrian tunnel. A new stop will be created at the railway level crossing in Stéblová.

ŠKODA TRANSPORTATION GROUP WILL DELIVER A TOTAL OF 79 LOW FLOOR TRAINS FOR ČESKÉ DRÁHY

A large fleet of new trains from the Škoda Transportation group's workshop will help modernize the rolling stock of the Czech railways over the next four years. Škoda will gradually supply 79 units based on two concluded framework contracts for České dráhy. These are 50 two-car RegioPanter trains and 29 three-car trains of the same type. Important vehicle refurbishment helps meet higher passenger comfort requirements.

In the following years, passengers in the Olomouc, Moravian-Silesian and South Bohemian regions can look forward to the new low-floor RegioPanter trains from Škoda Transportation, which is part of PPF Group, where České dráhy will gradually deploy them in 2023 and 2024.

"RegioPanter trains contribute to significantly improving the quality of domestic rail travel. However, our modern, ecological and comfortable vehicles not only operate on the lines of many regions in the Czech Republic, but also in Slovakia and soon in Latvia. Thanks to new contracts at our plants in Plzeň and Ostrava, we are investing hundreds of millions in expanding and innovating production and also hiring more employees," says Petr Brzezina, Chairman of the Board and President of the Škoda Transportation group.

In the new vehicles, passengers will appreciate the comfortable interior, modern equipment, the possibility of comfortable transport of people in wheelchairs and space for strollers and bicycles. Compared to the previous RegioPanter trains, they have many technological improvements. They are equipped with a modern information system, Wi-Fi, cameras and the possibility of automatic train control, and they will be equipped with the most modern ETCS train protection equipment from the factory. The maximum speed of the trains is 160 km/h, and the first of a series of previously ordered two-car trains is currently undergoing tests at the VUZ test center.

"We concluded the first contract for the delivery of up to 50 trains with České dráhy in February 2019. Within this contract we are now producing two-car RegioPanter trains, which have 140 seats. The second framework agreement, up to 60 units of this kind, was recently concluded. From this new contract, České dráhy has already ordered 29 three-car units with a capacity of 234 seats. After the delivery of these newly ordered trains, a total of 167 modern low-floor Panther units will be in operation in the Czech Republic," adds Tomáš Ignačák, Deputy Chairman of the Board of Directors of the Škoda Transportation group. Single-deck trains from Škoda are also successful abroad, and last week the first train out of a total of 25 trians supplied for ŽSSK was put into operation in Slovakia. Soon, similar low-floor trains will also be supplied for the Latvian Railways, specifically 32 pieces.

České dráhy is already operating dozens of these types of trains, namely 12 RegioPanter trains of the 440 series and 8 trains of the 640 series (both types are three-car), 17 trains of the 650 series (two-car) and 14 trains for long-distance transport InterPanter of the 660 and 661 series (three-car and five-car).

Správa železnic opened new Praha-Eden station on December 13th

On December 13th, simultaneously with the beginning of the validity of the timetable for 2021, a new stop 'Praha-Eden' was opened for passengers. The stop is located at the line relocation between the stations Praha-Hostivař and Praha-Vršovice. Together with this change, the trains will leave off serving the existing line, including the stop at Praha-Strašnice.

Deputy Prime Minister and Minister of Transport Karel Havlíček inspected the progress of the construction. "I am glad that the railway in the metropolis is changing for the better. It is not only thanks to this construction, but also thanks to the modernisation of the line from Smíchov to Radotín, work is also beginning between Vysočany and Mstětice. All of them will bring faster and more capacitive train connection and significantly better comfort for passengers in the stations," Minister Karel Havlíček said.

"The railway will play a more important role in Prague's public transport. Thanks to the opening of the stop in Eden, there will be better transfer connections between trains, trams and buses. Another benefit for passengers will be the transport terminal in Zahradní Město, which will start operating next summer," Jiří Svoboda, Director General of Správa železnic, said.

The construction of the so-called Hostivař Corridor was started by Správa železnic in May 2018 and its completion is planned for October next year. About three quarters of the construction is completed; the builders were constructing among others the first track in the section Praha-Hostivař – Praha-Zahradní Město in the currently ending process. The station in Zahradní Město has a development of switches and three new tracks now. Along with this, the construction of the Zahradní Město traction converter station and other technological facilities were completed. "I am very pleased that despite the challenging conditions, whether due to work in dense build-up area, during almost uninterrupted railway operation or coronavirus, our team manages to meet the schedule for building the first four-track railway in the Czech Republic," Jaroslav Heran, Director General of Metrostav, said. "The project is considered a railway construction of a decade, in addition it leads to increase of transport services, which will be welcomed for example by fans of football team Slavia, it is an urban element, as it will free up large areas for further development of the wider centre of Prague."

"The new Eden railway station will become part of the modernised line between Vršovice and Hostivař after the entire section will be put into operation. Apart from this stop, Prague will get a new railway station in Zahradní město soon. The railway transport is extremely important for Prague. Its speed, transport comfort and full integration into the Prague integrated transport system make it an attractive alternative to other modes of transport in the city. I am glad that together with Správa železnic we can open a new stop," the Mayor of Prague Zdeněk Hřib said.

Czech Republic

The ETCS project continues

Another milestone in the project of equipping ČD Cargo traction vehicles with the ETCS train control system took place on November 30th 2020.

On this day, a contract was concluded between ČD Cargo and CZ LOKO for the equipment of 30 locomotives of the 753.7 series with this system (level 2, Baseline 3, version 3.4.0). Under this agreement, ČD Cargo will use financial support from the Transport Operational Program, where the maximum financial support according to the conditions of call No. 75 is 6.75 million CZK / locomotive (including the prototype).

The call then also sets a deadline for the completion of the physical implementation, which is 31 December 2022.

The contract follows on from the already concluded contracts for the equipment of locomotives of the series 163, 363 and 742.71 with ETCS mobile parts.

Photo: ©CD Cargo

EVROPSKÁ UNIE
Evropské strukturální a investiční fondy
Operační program Doprava

Ministerstvo dopravy
Státní fond dopravní infrastruktury

KombiRail Europe Class 185.699-6 runs through Meerbusch-Bösinghoven with a shuttle from Rotterdam Maasvlakte (Netherlands) to Duisburg/Dortmund and Neuss on November 18th. *Erik de Zeeuw*

Germany

On October 29th, Class 101.124-6 hauls a diverted Metropolitan rake through Misburg, near Hannover. *Anton Kendall*

PRESS owned Class 140.845-9 (carrying internal number 140.008-6) hauls a rake of new ARS owned cartics through Misburg, near Hannover. *Anton Kendall*

On October 28th, Class 120.205-0 (D-RLC) works a rake of Ermewa owned grain hoppers through Misburg, near Hannover. *Anton Kendall*

Germany

RRX fleet complete: Siemens Mobility delivers 84th and final train on time

The 84th train for the Rhine-Ruhr Express (RRX) infrastructure and mobility project was handed over right on schedule. The trains were originally ordered from Siemens Mobility in 2015. The RRX order, consisting of trains and a service contract, has a total volume of €1.7 billion and marks the largest order received by Siemens Mobility to date in the sector of regional rail passenger transport in Germany.

The state-of-the-art double-decker trains, which won the German Mobility Award in 2020, are serviced in the Siemens Mobility Digital Service Center in Dortmund in order to ensure nearly 100-percent availability. Once the infrastructure project's extensive construction work has been completed, the trains will operate at 15-minute intervals between Dortmund and Cologne.

Normally operating in double traction, the trains provide 800 seats, some 200 more than in the previously used double-decker cars. The trains feature platform-level entries, air conditioning, power outlets at the seats, and free WLAN service. In addition, they have an intelligent and predictive train diagnostics system and an advanced passenger information system. Generous sight lines and large windows create a pleasant interior atmosphere. Specially coated windows optimize cell phone reception.

Everything related to the RRX trains is digitally networked: trains, service center, logistics center and employees. The trains were built in Krefeld, tested in Wegberg-Wildenrath, and are maintained and serviced at the RRX depot in Dortmund.

North-Rhine Westphalia's Ministry of Transport initiated the project and is working closely with the Federal Ministry of Transport and Digital Infrastructure. Five authorities are partners in implementing the RRX project: the Verkehrsverbund Rhein-Ruhr (VRR), the Nahverkehr Rheinland (NVR) and the Zweckverband Nahverkehr Westfalen-Lippe (NWL) for the state of North-Rhine Westphalia (NRW); and the Zweckverband Schienenpersonennahverkehr Rheinland-Pfalz Nord (SPNV-Nord) and the Nordhessische VerkehrsVerbund (NVV). Working with the support of the state of North-Rhine Westphalia, these authorities were responsible for the Europe-wide tenders for procuring and servicing the RRX trains and for the operation of the future RRX lines. They also share a central role in the project's operational implementation.

The RRX is operated by National Express Rail GmbH and Abellio Rail NRW GmbH. DB Netz AG and DB Station&Service AG are jointly responsible for the extensive expansion and upgrading of the RXX infrastructure.

Once the project's related infrastructure expansion has been completed, the RRX network will consist of seven lines, allowing 15-minute headways in the core stretch between Dortmund and Cologne. The Rhine-Ruhr Express will significantly improve the mobility of travelers and commuters in the state of North-Rhine Westphalia and also offer cross-border connections to North Hesse, Rhineland-Palatinate and Lower Saxony. The new RRX trains are already being used on several regional lines in the network.

Eight million people living in cities and communities with RRX stations benefit from the RRX – representing roughly 45 percent of the NRW population. Extensions of the lines, which cover a large part of the NRW route network, ensure that people here will reach their destinations even faster and more punctually than in the past. In addition, the modernization of numerous train stations in NRW is enhancing the comfort and convenience for travelers. Travelers in the states of Rhineland-Palatinate, Hesse and Lower Saxony can also look forward to the RRX trains, since individual lines in the system extend to the cities of Coblenz, Kassel and Osnabrück.

Hendrik Wüst, Minister for Transport in North Rhine-Westphalia: "Germany must once again become a railway country. This requires providing comfortable and attractive alternatives to private transport – like the RRX. By expanding and upgrading our rail infrastructure and ensuring faster headways, we are offering all commuters in the state of North Rhine-Westphalia an attractive opportunity to move to rail. For cleaner and better mobility in the state."

Michael Peter, CEO of Siemens Mobility: "We are proud to be handing over the 84th RRX train and having delivered the entire RRX fleet right on time. The RRX is a showcase project for digital mobility. The state-of-the-art double-decker trains, maintained in our fully automated service center, achieve nearly 100 percent availability, higher service frequencies, improved punctuality, and provide greater comfort and convenience for the passengers."

Ronald R.F. Lünser, CEO of Verkehrsverbund Rhein-Ruhr (VRR): "Our joint decision to acquire such a large and uniform train fleet for the RRX and to hold separate tenders for the trains' procurement and maintenance, and for operating services, was not only cost-effective, but ensured high reliability and quality for the passengers. The punctual delivery of the RRX trains and their high level of performance also explicitly underscore this."

Heiko Sedlaczek, Managing Director, Nahverkehr Rheinland (NVR): "The punctual handover of the last ordered RRX train sends a strong signal showcasing the efficiency and performance of the entire industry. Everyone involved here has done a very good job. With the takeover of the RE 4 by National Express in December, the modern trains running on five lines in North Rhine-Westphalia will ensure higher quality, comfort, and accessibility. The considerable amount of positive feedback coming from passengers shows that the new RRX trains are well received by the public."

"I'm especially pleased that the 84th RRX train has been handed over right on schedule, since this event marks a milestone for the continued success of the entire RRX project. The connection to the RRX network via the RE 5 line is particularly important for the state of Rhineland-Palatinate. As of February next year, the RRX will also stop in Oberwinter (Remagen)," said District Adminstrator Dr. Jürgen Pföhler, head of SPNV-Nord.

Steffen Müller, Managing Director, Nordhessischer Verkehrsverbund: "We in North Hesse were the first to benefit from the new trains operating at two-hour intervals, and recorded a 35-percent increase in passenger volumes after just a short time. This strong growth shows just how important the connection between the ICE stops in Kassel and Westphalia is. The hourly RRX service scheduled between Kassel and Düsseldorf beginning in December 2022 will mark the next milestone in this successful project."

Joachim Künzel, Managing Director, Nahverkehr Westfalen-Lippe (NWL): "Along with their modern appearance, the new trains score above all with their strong acceleration and reliability – technical advantages that benefit thousands of passengers every day on our state's heavily frequented rail corridors and that are already making the entire mass transit system more attractive. As the upcoming infrastructure expansion is completed, the trains will guarantee significantly improved and demand-driven connections between Westphalia, the Ruhr region and the Rhineland."

Rainer Blüm, CEO of Abellio Rail NRW: "We've been able to transport our passengers throughout NRW with the Desiro HC since December 2018. The ultra-modern RRX trains have significantly contributed to the optimized mass transit service in our region. By early January 2019, the RRX Line RE 11 had climbed from 29th place to 2nd place in the ranking of our responsible authority VRR. Many smaller delays in journeys have now been eliminated thanks to the trains' outstanding technology. It's a plus for our passengers, and also benefits us as a railway operator. We congratulate Siemens Mobility on this prestige product in the railway industry!"

Marcel Winter, Managing Director, National Express: "I'm happy that the fleet is now complete and that we've also punctually started service on our third line using the RRX trains. We'd like to thank Siemens Mobility for supporting this project with great commitment and engagement."

HectorRail Class 151.027-0 (carrying internal number 162.003 and name Metropolis) hauls a rake of powder wagons through Misburg on October 29th. *Anton Kendall*

Germany

Automatic and digital: BMVI is promoting new technologies for the marshalling yard of the future in Munich-North

The Federal Ministry of Transport and Digital Infrastructure (BMVI) is supporting two innovative DB Cargo projects with 7 million euros. With the “Automated Shunting Locomotive” and “Automated Brake Test” projects, the “Train formation system of the future” test field is starting in Munich-North. Europe’s largest rail freight operator is thus accelerating automated train formation in single wagon traffic.

The funding is a measure from the federal program “Future Rail Freight Transport” of the BMVI, which was passed in May 2020. The program advances the digitization and automation of environmentally friendly freight transport by rail. From 2020 to 2024, the federal budget has earmarked 30 million euros annually for this. The average funding rate is a maximum of 50 percent.

Federal Transport Minister Andreas Scheuer: “We want to bring more freight traffic to the environmentally friendly rail. To do this, freight trains must be able to be put together efficiently, quickly and inexpensively. That is why we promote the practical test of automatic and digital technologies in shunting operations. Our goal is: strong rails. And that also means: heavy freight traffic.”

“The Munich-North marshalling yard will be our test site for the future. We will strengthen single wagon traffic as the backbone of the economy, and digitalization and automation will help us in this. It is the right step that this innovation surge is now getting financial start-up support,” says Dr. Sigrid Nikutta, DB board member for freight transport at Deutsche Bahn.

Innovations benefit customers and employees alike: through faster and more efficient processes and less physically demanding work.

The economically highly significant single wagon traffic, which is characterized by frequent train formation and break-up as well as regular shunting, will benefit from this in particular.

In the north of Munich, further innovative technologies are to be tested with which damage to freight wagons can be automatically detected or work processes can be organized more efficiently using artificial intelligence (AI). The digital automatic clutch (DAK) is also to be tested here in shunting operations.

Change of timetable: more trains, more seats, more connections

With the timetable change on December 13th, Deutsche Bahn (DB) is expanding its long-distance service. Rail customers benefit from this especially on the central axes - Hamburg – Berlin, NRW – Berlin and Munich – Zurich.

“Everything that can roll is rolling for our customers around Christmas. For a relaxed trip, we definitely recommend reserving a seat, ”says DB long-distance transport manager Michael Peterson.

Every half hour between Berlin and Hamburg
Between the two largest cities in Germany, Hamburg and Berlin, there will be a half-hourly service for the first time, offering a foretaste of the German service. The number of journeys is growing from 46 to 60 trains a day. This means that 6,000 additional seats are available for the journey from the Elbe to the Spree.

Three times as many direct ICE connections between Bonn and Berlin
From December 13th, Bonn and Berlin will be connected by 14 ICE trains without changing trains. That is ten connections more than today. Neuss and Mönchengladbach are connected daily. Erkelenz is a brand new ICE stop.

New Eurocity Express between Munich and Zurich
The three major railway companies DB, ÖBB and SBB are pushing ahead with European integration with a new, attractive service between Munich and Zurich. Completely green - on the newly electrified route - the Eurocity Express takes over operation with ICE comfort. More frequently and faster than before: with twelve trips a day and a travel time of four hours, it now connects the metropolises. From the end of 2021, the travel time will be further reduced to just 3.5 hours.

The expansion and modernization of the long-distance fleet for 8.5 billion euros are also making progress. DB puts 15 new ICE 4 into service at once, which is a record. The seven-part trains run on the ICE line between Cologne and Berlin. They offer 444 seats, 17 percent more than the trains previously used. In addition, for the first time it is possible to take bicycles on the ICE between the Rhine metropolis and the federal capital. At the end of the year, a total of 13,000 additional seats will be available on new trains every day.

On June 13, 2021, the XXL ICE will be used for the first time on the ICE line Hamburg – Frankfurt (Main) –Basel – Zurich – Chur. The first trains between North Rhine-Westphalia and Munich will then run from September 2021. The XXL ICE 4 consists of 13 cars and offers 918 seats - more than ever before in an ICE. DB has ordered 50 of these trains.

The additional ICE and Intercity services for Christmas traffic will operate between Berlin – Hanover – Cologne, Berlin – Braunschweig – Kassel – Frankfurt (Main) –Mannheim – Stuttgart, Berlin – Erfurt – Nuremberg – Munich, Hamburg – Hanover – Frankfurt (Main) - Karlsruhe and Munich – Nuremberg – Frankfurt (Main).

Information and tickets for the new timetable are available on bahn.de, in the DB Navigator, in DB travel centres and DB agencies as well as at DB machines.

PKP Cargo Class EU46-501 (193.501) hauls a container train from Poland through Misburg on October 29th.
Anton Kendall

Germany

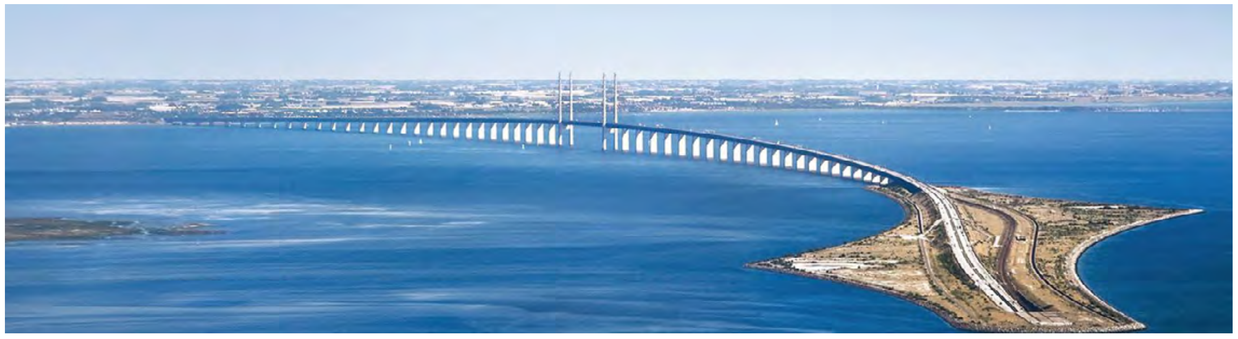
On October 27th, EGP's Class 225.030-6 hauls a rake of ARS cartics through Dedensen-Gümmer. *Anton Kendall*

Crossing Europe's north in 14 hours

Eco-friendly and fast - is it possible to have both? Yes! The DB Cargo family supplies Denmark and Sweden with consumer goods, paper and steel within just half a day. The Scandinavian Rail Shuttle, a new, direct rail transport solution offered by DB Cargo Scandinavia as cross-border operator, has been running since November.

The Scandinavian Rail Shuttle is an exciting addition to the DB Cargo family's product portfolio. Since the beginning of November, the shuttle has been operating between the freight hub Taulov on the Jutland peninsula in Denmark and Katrineholm near Stockholm in Sweden. The rail transport solution was launched by the subsidiary DB Cargo Scandinavia, the first provider ever to offer direct and regular intermodal rail transport between Denmark and Sweden. DB Cargo Scandinavia here assumes the very particular role of operator, managing booking, capacity utilisation and operation all from a single source - even across the border.

It takes the Scandinavian Rail Shuttle just 14 hours to transport trailers, swap bodies and containers between the main economic centres in Denmark and Sweden overnight, with a capacity of up to 38 load units. The three round trips per week begin and end in Taulov on Jutland in Denmark and Katrineholm, near the Swedish capital Stockholm.



Consumer goods are transported to Sweden, and paper and steel are transported back to Denmark in the opposite direction. The intermodal direct connection is not only fast, but is also kind to the environment. Carbon emissions are about 80% lower than if the transport took place by road, with savings of 1.2 tonnes of CO_2 per trailer and route.

"Rail offers an appealing green transport solution, and we issue customers with a carbon footprint certificate that documents the CO_2 savings they make as they contribute to protecting the environment," says Maarten de Ridder, Head of International Sales at DB Cargo.

The Scandinavian Rail Shuttle is suitable for companies that want to shift traffic from road to rail and thus transport goods in a more eco-friendly and cost-efficient way. Ad-hoc bookings can be made conveniently online. The shuttle product will be available in five round trips per week from autumn 2021.

"It is a transport service that we have created and launched with great commitment and attention to detail. And we achieved it in these very challenging COVID times," says Oliver Gesche, CFO of DB Cargo Scandinavia. "With the connections to our European network, and indeed all the way to China, I see great potential for our Scandinavian Rail Shuttle."

On October 29th, Raildox Class 185.419-9 hauls a rake of tanks through Misburg, near Hannover.
Anton Kendall

Bombardier wins contract to provide up to 117 new FLEXITY trams to BVG in Berlin

Global mobility provider Bombardier Transportation has received a new order for a framework agreement with the Berliner Verkehrsbetriebe (BVG) for the delivery of up to 117 BOMBARDIER FLEXITY trams and their spare parts supply for up to 32 years. The total amount of the framework contract is valued up to around 571 million euro ($693 million US). At the same time, the BVG placed an initial firm order for 20 trams and their spare parts supply for up to 32 years. This call-off is valued at around 115 million euro ($140 million US).

“I would like to thank our customer BVG, for the confidence they have placed in us, and for the opportunity they have given us, to open yet another chapter in our thirty-year partnership, with this new order. We look forward to continuing to supply BVG with modern FLEXITY trams. For the first time with BVG, Bombardier is taking over the complete supply of spare parts and materials over the entire service life of the vehicles. We offer a fixed price per kilometre which gives BVG security in their long-term planning and calculations,” said Marco Michel, Head of Bombardier Transportation Germany.

The new FLEXITY vehicles are a consistent and continuous development of the proven trams. Equipped with innovative bogies, they will move more quietly and more efficiently and are therefore an important step in achieving Berlin’s climate protection goals,” added Dirk Wunderlich, Head of Business Unit German Cities at Bombardier Transportation.

With this firm order, Berlin’s FLEXITY tram family will grow by three five-car and 17 nine-car trams. The extra-long trams are 50 metres long, 10 metres longer than all other BVG trams. They also offer capacity and are equipped with an equal level floor above the bogies, as well as wider passageways. The reduced entry height also enables barrier-free access to the tram, allowing fast boarding, which can positively impact the adherence to the timetable.

Generous, barrier-free multifunctional areas offer plenty of space for passengers, strollers, wheelchairs or bicycles. Seated passengers can look forward to an unobstructed view of the outside. In addition, the trams will feature state-of-the art safety technology such as the world’s first approved Obstacle Detection Assistance System (ODAS) to avoid collisions.

The driver’s large vision field and his spacious and ergonomically optimized workstation with touchscreen displays enable a good overview and thereby also ensures increased safety.

The number of FLEXITY trams in Berlin will grow to a total of 251 trams. The last tram of the current fleet of 231 trams is expected to be delivered in 2021. Around 1,000 Bombardier FLEXITY trams are in operation in 42 German cities. More than 5,000 trams and light rail vehicles from Bombardier are successfully used or ordered by passengers around the world.

Germany

On October 28th, Class 218.105-5 (D-NESA) hauls a selection of SPENO vehicles through Misburg.
Anton Kendall

Premiere on New Year's Eve: First new S-Bahn Berlin train starts passenger service

The New Year is starting off with a premiere! Shortly after midnight on January 1st, the first train of the new series 483/484 S-Bahn will start passenger service in Berlin. Residents of Berlin and Brandenburg can now look forward to brand new trains providing more space, large panoramic windows, air conditioning, security cameras in all cars, direct voice connections with the security center, fingertip service access for wheelchair users, and modern passenger information displays. The premiere train (serial numbers 484-001 and 483-001) with six cars will roll out of the Schöneweide station on New Year's Eve. A paired male and female team of drivers will operate the new S-Bahn train on line S47 to Spindlersfeld. During the day, two more new trains will supplement service on the route between Spindlersfeld and Hermannstrasse.

S-Bahn CEO Peter Buchner: "Our passengers can look forward to a completely new travel experience - gliding on rails. These are the most comfortable trains in the long history of the Berlin S-Bahn. Together with Siemens and Stadler, we have been working towards this moment for five years - we closely accompanied the production, testing and acceptance of the trains and prepared ourselves intensively, including training train drivers and employees in the Grünau workshop on the new trains."

A total of ten pre-series trains will enter passenger service beginning with the New Year. These trains will provide a stream of further data and experience that can flow into the series production, which has already begun. The new trains will operate on the Ringbahn system based on the new transport contract with the states of Berlin and Brandenburg that takes effect on January 1st, 2021. S-Bahn Berlin has ordered a total of 382 cars (21 two-car and 85 four-car units) from the manufacturing consortium of Stadler and Siemens that are to be delivered by the end of 2023. In addition to operating on the S47 line, the new trains will also be used on the S46, S8 and S41/S42 lines. Regine Günther, Senator for Environment, Transport and Climate Protection: "With the new generation of S-Bahn trains, comfort, reliability and performance are significantly increased. S-Bahn travel will become more attractive and even more barrier-free. More modern S-Bahn carriages will follow in the coming years and make it easier for passengers to switch to public transport. This will accelerate climate protection and the change in modes of transportation."

Guido Beermann, Minister for Infrastructure and Regional Planning for the State of Brandenburg: "The brand-new S-Bahn trains are good news for commuters in the capital region. The new series adds additional vehicles to the S-Bahn fleet as well as are creating more transport capacity. The customer will notice it. The trains are modern, more comfortable and safer. This also shows how a participation of customers and associations in the development process of the vehicles can be implemented successfully."

Susanne Henckel, CEO, Verkehrsverbunds Berlin-Brandenburg (VBB): "The new S-Bahn will not only enrich Berlin in terms of transport, but will also bring much better quality, especially for passengers. Especially now in times of crisis, it is important to set an example. With more space, safety and punctuality, the new S-Bahn will make public transport in the VBB region more attractive and better. This makes it easier to switch from the car and also helps the important and necessary change in transport. Congratulations to the Siemens / Stadler manufacturing team and of course to the entire S-Bahn team around Peter Buchner!"

Albrecht Neumann, CEO of Rolling Stock, Siemens Mobility: "Siemens Mobility and Stadler are both deeply rooted in Berlin, and together we have designed and built a train for S-Bahn Berlin that will operate with the highest reliability for decades and have top technologies. The new trains combine cutting-edge technology and robust redundancy-assured quality with improved passenger experience and greater comfort for Berliners."
Jure Mikolčić, CEO of Stadler Germany: "With the new S-Bahn trains, Stadler and Siemens are delivering ultra-modern "Made in Berlin" units that are precisely tailored to the requirements of S-Bahn Berlin and its passengers. The first-time use of air conditioning systems, improved options for storing luggage and packages, and a significantly quieter ride make traveling in the trains more comfortable and convenient. And thanks to their redundant traction system, the trains are far more robust and reliable."

Ecco rail Class 193.201 on its way with a grain train from Krefeld Linn to Hegyeshalom (Hungary) passes Meerbusch-Bösinghoven on November 18th. *Erik de Zeeuw*

Faster by train from Munich to Zurich

Starting with the December 2020 timetable change, the two cities will be connected by rail twice as often as before, with 12 daily train journeys. Deutsche Bahn, the Austrian Federal Railways (ÖBB) and the Swiss Federal Railways (SBB) are cooperating on the new offer and using modern trains with ICE comfort. In the past three years, Deutsche Bahn had expanded and electrified the line on the German side. Around 500 million euros flowed into the 155-kilometre section in the Allgäu. For noise protection alone, 100 million euros were spent. The Free State of Bavaria contributed around 177 million euros to the project.

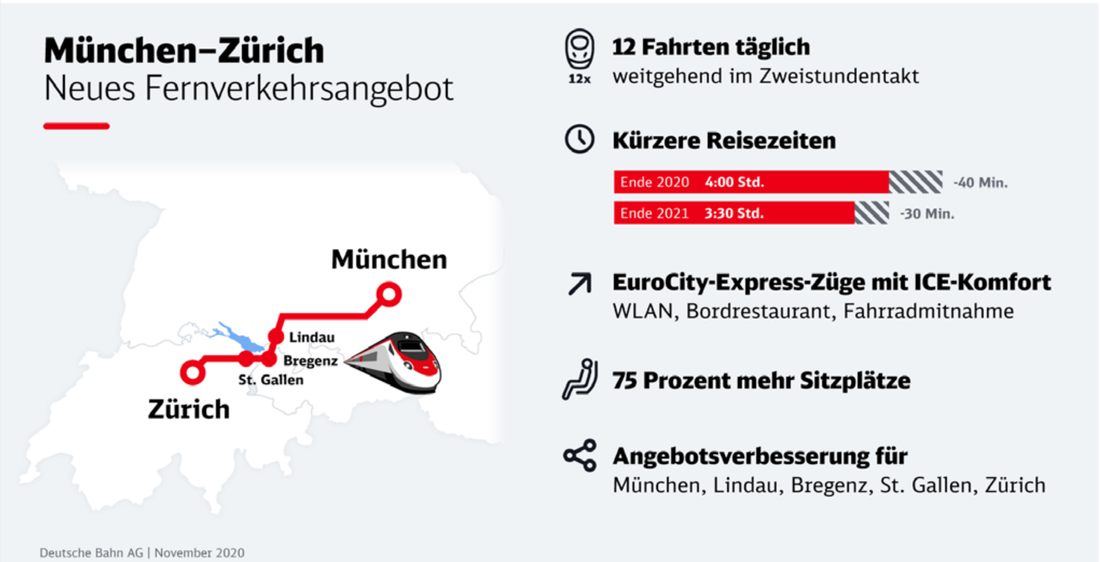
DB Infrastructure Board Member Ronald Pofalla : "This is a very important gap in international rail traffic. With our construction work completed on time, we ensure an attractive travel offer between the metropolises of Munich and Zurich. Thanks to electrification, our travellers travel in a climate-friendly way. And even faster in just over a year: Then the travel time will be reduced by another 30 minutes. "

Andreas Scheuer, Federal Minister for Transport and Digital Infrastructure : "Munich - Zurich in four instead of five hours and soon even in three and a half: Our idea of a TransEuropExpress 2.0 is within reach. We network the metropolises of Europe. This is a win for Bavaria, Germany and Europe. Much more people will want to take the train. Especially since they travel in an absolutely environmentally friendly way. Because from now on we are driving electrically through the Allgäu. That is pure climate protection. It is also the first connection of our Germany clock. This makes rail travel a convincing alternative to flights and long car journeys. Not a pipe dream, but solid proof that we are tackling this very specifically."

Vincent Ducrot, CEO of SBB: "The train, an environmentally friendly and attractive means of transport in Europe. We are underlining this ambition by expanding the Zurich-Munich route. Together with DB and other partners, we have been working towards this moment for a long time and are all the more pleased that we can now put this attractive offer between Zurich and Munich into operation for our customers with the new EuroCityExpress."

Michaela Huber, Head of ÖBB-Personenverkehr : "We as ÖBB are constantly working on making rail travel even more attractive. This includes top connections such as we have here from Vorarlberg to Germany and Switzerland. From now on, our passengers can travel more often and more comfortably from Bregenz to Munich and Zurich. With shorter travel times and more frequent frequencies, we want to motivate even more people to switch to the train. "

DB SBB CFF FFS ÖBB



So far, the train journey between Munich and Zurich has taken up to 4.45 hours. The new offer also improves the connection to other cities and regions between Lake Constance and the Alps, including Lindau, Bregenz and St. Gallen.

On November 18th, Railtraxx Class 185.615-2 passes by Kaarst with P&O-Shuttle DGS No. 40675 from Zeebrugge (Belgium) to Oradea (Romania). *Erik de Zeeuw*

Railpool locos Class 151.036-1 and classmate 151.068-4 (both former DB), were rented to DB Cargo on November 18th, seen here passing Kaarst with a steel train from Oberhausen-West to Koblenz-Lützel Nord. *Erik de Zeeuw*

On November 18th, Captrain Class 185.556-8 and a rake of 'Falns' runs through Kaarst. *Erik de Zeeuw*

Siemens Mobility Mireo wins German Sustainability Award Design

The Mireo is the new, eco-friendly and economical regional and commuter train from Siemens Mobility, which offers a comfortable and inspiring riding experience. The first fleet has been in operation since June 2020 in the Rhine Valley in Baden-Württemberg and over 180 trains have already been ordered in the meantime.

Albrecht Neumann, CEO Rolling Stock at Siemens Mobility: "We are delighted that our Mireo train has won the German Sustainability Award Design in the Pioneers category. The Mireo combines cost-effectiveness and sustainability and is characterized by a very comfortable, barrier-free travel experience for passengers. In addition, the variants Mireo Plus H (use of hydrogen from electrolysis) and Mireo Plus B (use of batteries) give operators the opportunity to switch to climate-friendly alternatives – and therefore actively protect the environment."

The Mireo unites high energy efficiency with minimizing resource usage across the entire life cycle and therefore has an impressive impact on climate and resources.

At the same time, providing an eco-friendly and resource-conserving train coupled with innovative design, increases the attractiveness of rail traffic overall for passengers. This promotes broader public acceptance of rail traffic, which in contrast to other means of transportation, represents a far more sustainable form of mobility. The Mireo completely takes into account the needs of passengers with reduced mobility and offers a comfortable travel experience across generations.

In addition, the Mireo is also offered with alternative drive technologies (hydrogen and battery systems). An order for 20 trains has already been placed for the battery operated Mireo Plus B. Together with Deutsche Bahn, Siemens Mobility is developing a new overall system comprised of hydrogen train and special filling station. Furthermore, Siemens Mobility is creating a fuel cell drive together with the Canadian company Ballard Power Systems and RWTH Aachen.

Eco-friendliness:
Thanks to the combination of proven technology and innovations, we have been able to reduce energy consumption by 25% compared to previous models. The materials used ensure a recycling rate of over 95% at the end of the life cycle. The Mireo will also be available with alternative hydrogen (H2) and battery drive technologies. The H2 version is currently being developed in collaboration with Deutsche Bahn.

Passenger experience:
Together with our partners, our goal is to ensure that people enjoy a comfortable and inspiring travel experience before reaching their destinations reliably, sustainably and safely. Our modular vehicle concept enables different car body lengths and train configurations as well as entrance heights. Internet on board, passenger information systems and monitoring systems (CCTV) increase travel comfort and safety. The interior design is flexible and can be tailored and adapted throughout the entire life cycle. Thanks to the innovative construction ("empty pipes concept"), the same train length offers more available seats compared to previous models. The resulting usable space completely benefits passengers and can be used for bicycles, strollers and wheelchairs when needed.

On October 28th, No. 98 80 3942 101-7 (D-SHH), working for Hannover Hafen, hauls a rake of Pannonia Ethanol tanks from the sidings at Misburg into the terminal. *Anton Kendall*

DB MOBIL is now also taking off digitally on its 20th birthday

For its 20th birthday, Deutsche Bahn's DB MOBIL customer magazine is now available in a double pack: still printed on all ICE, Intercity and Eurocity trains, in the travel centres and in the DB lounges, and now also digitally as a new portal in the network at dbmobil.de. In addition to numerous new content, the DB MOBIL podcast "Unterwegs mit ..." can also be heard there for the first time. The anniversary edition and the new digital content platform also feature an exclusive interview with Chancellor Angela Merkel.

"With the new digital version of our DB MOBIL, we not only offer a lot of additional content on the topics of travel, culture, society and lifestyle, which is now also available online anywhere and anytime outside the train," says Jürgen Kornmann, Head of Marketing and PR for Deutsche Bahn. "With this new offer, we want to become even younger, more feminine and more interactive and thus open up new target groups." The print edition of DB MOBIL reaches an average of more than 1.3 million readers every month, making it one of Germany's most far-reaching customer magazines.

"With the relaunch of dbmobil.de we are offering the many fans of DB MOBIL the opportunity to digitally experience the popular columns and exciting stories about people, traveling in our country, the climate and sustainability wherever they are ", Explains Sandra Harzer-Kux, spokeswoman for the management of the Territory agency, which implemented the new portal together with DB. New formats such as the food series "Provisions from the Chef", in which famous chefs such as Tim Raue or Johann Lafer serve recipes that are easy to recreate for on the go, or the family column by the bloggers from "Stadt Land Mama" will be available exclusively online on dbmobil .de give. At the start of the new website there is also a big anniversary competition with more than 300 prizes worth over 36,000 euros.

The heart of the digital offer from DB MOBIL is the new podcast "Unterwegs mit ...". For this audio series, the journalist and presenter Michel Abdollahi accompanies well-known personalities on their train journeys. "No catalog of questions, no agenda, but real conversations, as they happen thousands of times between people sitting next to you," promises Jürgen Kornmann. "Michel Abdollahi stands for the perfect combination of entertainment and socially relevant attitudes as well as the personal reality of the guest." What is special: The conversation is recorded on a route selected by the celebrity. The guests of the first episodes: comedian Carolin Kebekus, singer Ina Müller, singer Clueso and the actors Clemens Schick and Christian Berkel.

All of this is just the beginning. "Our editorial team already has many more ideas in the pipeline," says Territory's Sandra Harzer-Kux. "We are thinking about further audio and moving image formats and are preparing an even broader range of services for those who love to travel, which should start when we are heading towards the end of the corona pandemic."

Germany

On October 29th, HSL Logistik's Class 187.538-4 hauls a rake of tanks through Misburg, near Hannover, returning to Großkorbetha. *Anton Kendall*

Train Europe's Class 193.755-6 hauls a colourful rake of grain hoppers through Misburg. *Anton Kendall*

On October 28th, ÖBB Class 1293.043-6 is a long way from home as it hauls a rake of grain hoppers through Misburg. *Anton Kendall*

Germany

DB Schenker Class 185.388-6 hauls a rake of empty container flats through Dedensen-Gümmer. *Anton Kendall*

On October 28th, Akiem's Class 186.383-6 (working for HSL Logistik) hauls a rake of VTG grain hoppers through Misburg, near Hannover. *Anton Kendall*

DB Vectron Class 193.385-2 hauls a car parts working through Misburg, near Hannover on October 28th. *Anton Kendall*

Schweerbau Logistik GmbH Class 1277.031-1 is seen in Kaarst heading in the direction of Neuss on November 18th. *Erik de Zeeuw*

2020 survey: satisfaction among DB employees at an all-time high

Top values among customers, in terms of image and now among Deutsche Bahn employees: Despite the Corona crisis year 2020, Deutsche Bahn employees are more satisfied than ever before. According to the latest group-wide survey among DB employees, satisfaction has risen to an all-time high compared to previous years. At Group level, it is 3.9 points, 0.2 points higher than in 2018. On a scale from 1 to 5 (best possible value), the DB index is therefore in the good range. 3.9 is the highest value that has been achieved so far. The index has improved across all departments, business areas and companies, in some cases by as much as 0.4 points. Three quarters of all participants are proud to work for DB and at the same time are satisfied with DB as an employer.

DB boss Richard Lutz emphasized that in 2020, according to the best values in terms of customer satisfaction and image, DB has now also made significant gains in employee satisfaction: “That we are going into the new year with such great support is great confirmation. The giant leap in satisfaction shows that our “strong track” is taking hold and that we are spot on. For us, the feedback is a requirement and an obligation to stick with it and continue to work together on the consistent implementation of the Starke Schiene strategy.”

DB Human Resources Director Martin Seiler: “We as DB have moved even closer together during the crisis. Our employees feel a great cohesion and see themselves as part of a bigger whole. The task now is to use the results to develop concrete improvements.”

Three out of four employees are satisfied with their job and their employer. This corresponds to an increase of 8 or 10 percentage points. Two thirds of DB employees are optimistic about the future. 83 percent are convinced that they are doing something useful for society.

Further results of the survey: In the Corona crisis, job security has become more important and is rewarded by two thirds of employees. In addition, trust in digitization and the actions of management has visibly increased. Compared to 2018, the ratings on all questions have improved. The greatest upward trend can be observed in the overarching cooperation within the group. The employees see a need for improvement in processes and feedback. Decisions have to be made faster and implemented more consistently.

DB has been surveying its employees on a regular basis since 2012. The external service provider Ipsos evaluates the data.

Between September 9th and October 2nd, 2020, almost 340,000 DB employees around the world were asked to take part in the survey - in 83 countries and in 36 languages.

Around 199,000 employees answered the questionnaire. At 58.5 percent, the participation was at a level comparable to 2018.

At the height of Nettetal-Breyell, Lineas Class 186.387-7 and classmate 186.508-8 pass with gas tank train No. 41765 from Geleen-Lutterade (Netherlands) to Marl/Dormagen on November 25th. *Erik de Zeeuw*

On November 25th, BLS Class 475.416-4 passes Nettetal-Kaldenkirchen with an empty tankertrain from Trecate (I) to Rotterdam (NL). *Erik de Zeeuw*

The federal government and Deutsche Bahn decide on further measures for more safety at stations

“Safety in trains and stations has the highest priority”

After the homicides in 2019 in Frankfurt am Main main train station and in Voerde train station, the Federal Ministry of the Interior, Building and Home Affairs and the Federal Ministry of Transport and Digital Infrastructure, as well as Deutsche Bahn AG and the Federal Police, initiated additional measures to further improve safety in train stations increase. In the report that has now been drawn up, the specially established working group recommends technical, structural, personnel and conceptual options at seven selected project stations, some of which are already being implemented.

Federal Minister of the Interior Seehofer: “The train is one of the safest means of transport. For this I would like to thank everyone responsible, above all our federal police officers. However, the terrible events in Voerde and Frankfurt am Main last year have shown that there is a need for action to make our stations and trains even safer. With the measures that have now been agreed, we are increasing safety in stations and trains. Because the safety of our citizens has top priority.”

Federal Transport Minister Scheuer: “Even more safety in train stations - that is our common goal. To this end, we have developed a package of measures: better video surveillance, clearer design of the platforms, more information and awareness-raising among travellers, as well as a practical check for new technologies. In short: better protection of passengers when stopping, getting on and off and while waiting for the train.”

Infrastructure director of Deutsche Bahn Pofalla : “Safety is our top priority. Together with the federal government and the federal police, we are ensuring that travellers are now even safer when traveling to train stations. This includes significantly increasing the number of video cameras: by around 30 percent to 11,000 across Germany.”

Expansion of video technology

The federal government and Deutsche Bahn are primarily focusing on expanding video technology and are investing around 180 million euros in this. Over the next four years the number of video cameras on platforms will be increased by around a third to around 11,000 cameras. Around 8,000 cameras are currently in use at 800 train stations. At the same time, the new cameras mean a leap in quality when it comes to recordings: they create high-resolution images.

Project “Safety Station” Berlin Südkreuz

Over a project period of three years, Deutsche Bahn will set up a “safety station” at Berlin’s Südkreuz train station from 2021. There, different variants of protective barriers for travellers on a platform as well as “intelligent video analysis technology” to increase security are tested and examined over the long term with scientific support. It is also analysed how safety can be increased without incurring disadvantages for passengers - for example, whether safety measures could have a negative effect on the punctuality or capacity of the trains.

Safety campaign and road safety in schools

In addition, Deutsche Bahn will start an awareness campaign in the first quarter of 2021 with a focus on traffic accident prevention and moral courage, with which travellers are made more aware of prudent behaviour in the train station, especially on the platform. In addition, additional hatching on the platforms of large train stations should better identify areas that must be kept clear. In addition, the existing school framework curricula of the federal states on mobility and traffic safety are to be supplemented by the correct behaviour in connection with rail traffic, also against the background of the traffic turnaround that is targeted in Germany and the findings from the incidents of 2019.

On November 25th, at the height of Nettetal-Kaldenkirchen, DB Class 189.054-0 runs with the Albatros Express (TFG Transfracht) from KTL Kombiterminal Ludwigshafen & Duisburg Trimodal Terminal in Germany to Rotterdam ECT Delta, World Gateway & Euromax in the Netherlands. *Erik de Zeeuw*

Digital rail Germany is picking up the pace:
Deutsche Bahn is making trains more punctual with sensors

Smart technology for more punctual trains: Deutsche Bahn (DB) relies on sensors to make infrastructure and vehicles more robust and rail traffic more reliable. DB is investing 15 million euros in smart switches on busy routes. The turnouts automatically report to the maintenance staff when a fault is looming. In the Hamburg S-Bahn, sensors on the vehicle ensure that the trains will be able to travel one behind the other faster and more frequently in future.

Since the middle of the year, sensors have been checking over 28,000 turnouts around the clock to see whether their electric drives are working properly. With success: 4,600 defects have already been prevented. A third of the point heating systems that are monitored remotely are also connected to the railway's own diagnostic platform DIANA. What is new is that digital technology now also monitors the situation and the material. To this end, 1,300 turnouts are initially being fitted with two partners on heavily used routes.

The Sensors4Rail project has started at the Hamburg S-Bahn. Together with industrial partners, Deutsche Bahn is equipping a Hamburg S-Bahn vehicle with digital technology. State-of-the-art sensors precisely perceive the area around the train. By comparing it with a digital map, the vehicle can precisely locate itself in real time. The trains run at shorter intervals. This creates more space on the route without additional infrastructure upgrading.

Deutsche Bahn will continue to drive digitization with innovative technologies in the coming years. Smart tools help to make the network and vehicles more reliable and to create urgently needed capacity for the traffic transition.

Independant Rail Partner's Vossloh No. 2103 hauling gas train No. 44797 from Geleen (Netherlands) to Kralupy (Czech Republic) runs through Nettetal-Kaldenkirchen on November 25th. *Erik de Zeeuw*

NS Sprinter No. 2968 departs Dordrecht while working a service from Dordrecht to Arnhem Central station on November 23rd. *Erik de Zeeuw*

Netherlands

On November 23rd, DB Class 186.496-6 and No. 6516 pass Dordrecht with a unit cargo from Kijfhoek Yard to Antwerpen (Belgium). On the other track Lineas Class 186.231-7 is seen with a container train from BASF Ludwigshafen (Germany) to the Rubis Terminal in Rotterdam. *Erik de Zeeuw*

Netherlands

On December 29th, VolkerRail transported several old double-decker trains from Amersfoort to Houtrakpolder in Amsterdam for storage. Here the train passes Spiekerweg in Soest Netherlands with Volkerrail No. 203-4 hauling DDM1 Nos. 6905, 6901, 6902, 6904, 6911, 6903 and 6913. *Andre Pronk*

At the height of Tiburg-Reeshof on November 23rd, Rail Force One Class 193.623-6 is on its way from Tilburg to Rotterdam with a container shuttle.
Erik de Zeeuw

At sunset on November 23rd, Lineas Class 186.386-9 passes Hulten with a rake of tankers from Cologne Eifeltor (Germany) to Antwerp (Belgium).
Erik de Zeeuw

At sunrise on November 23rd, RTB Class 193.732 is seen nearby America with the 'Blerick-shuttle' from Rotterdam to Venlo. *Erik de Zeeuw*

Netherlands

On November 23rd, Rotterdam Rail Feeding Class 189.099-5 passes Horst with container shuttle No. 41717 from Rotterdam to Rheinhausen (Germany).
Erik de Zeeuw

Near Dordrecht on November 27th, DB Vectron Class 193.366-2 and a rake of 'Shimms' are on their way to Tata steel in Beverwijk. The slogan on the locomotive stands for 'I am diverse'. *Erik de Zeeuw*

Lineas Class 186.233-3 with the slogan ‘e-drivers 30% less energy’ passes Baambrugge with Czech Xpress train No. 40950 from Ústí nad Labem (Czech Republic) to Antwerp (Belgium). *Erik de Zeeuw*

On December 5th, NS Class 1700 No.1739 is seen near Bathmen with train No. IC148 from Berlin (Germany) to Amsterdam. *Erik de Zeeuw*

On December 7th, Independent Rail Partner Nos.101003 and 2105 are seen at Waarder on the way from Rotterdam to Coevorden. *Erik de Zeeuw*

The Dolime train with Calcium Magnesium Carbonate has been crossing almost the entire country since 1981. Starting in Veendam (Groningen) it heads to Belgium, and over the years numerous companies have provided the traction. For the last few year it has been Lineas with Class 7700 series locos, however these Belgium locos will be replaced with other traction in December 2020. Here the Dolime train passing the town of Putten on November 21st on its way to Veendam. *Andre Pronk*

India

Siemens Mobility to provide CBTC and automated train technology for Bengaluru's Metro

Siemens Mobility and Siemens Limited India is partnering with Bengaluru Metro Rail Corporation Limited (BMRCL) to implement a comprehensive set of automated train solutions for phase 2 of the Bengaluru metro expansion project. This will be the first CBTC project in India with GoA 4, the highest grade of automation that allows for trains to be automatically controlled and operated. Siemens Mobility will install its communications-based train control (CBTC) system across 18.8 km of the Yellow Line, which will feature electronic interlockings, an automatic train protection and supervision system, as well as a telecommunication system. The automated signalling and train operations will allow BMRCL to run trains 90 seconds apart, providing greater availability and an enhanced passenger experience.

"Siemens Mobility is excited to partner with Bengaluru Metro Rail on this groundbreaking project that will provide this new rail line with the highest grade of signaling technology and automation services, said Michael Peter, CEO of Siemens Mobility. "Our state of the art CBTC signalling at GoA 4 will allow trains to operate driverless, as they will be automatically controlled and supervised without any onboard intervention. This will deliver a truly modern system featuring superior availability, reliability and passenger experience."

Bengaluru is the capital of the Indian state of Karnataka and its urban area population is estimated at more than 12 million. Bengaluru is widely regarded as the "Silicon Valley" or IT capital of India because of its role as the nation's leading IT exporter.

The Bengaluru metro system, commonly called the Namma Metro, is being built in stages. Phase 1 was made operational in June 2017 and has a daily ridership of 450,000. The system covers 42.3 km and serves 40 stations, with lines running north/south and east/west. The currently under construction Phase 2, plans to cover 72.1 km and add two new lines that will further extend the system on its existing grid. The 18.8 km on the Yellow Line that will be equipped with Siemens Mobility CBTC technology will have 16 elevated stations.

The Siemens Mobility high-performance CBTC system lets operators maximize their network capacity and throughput. The radio-based technology provides real-time data on vehicle position and speed conditions, allowing system operators to safely increase the number of vehicles on a rail line. Additionally, the technology precisely locates each train on the tracks and controls speed, improving safety for riders and employees, while also providing the ability for continuous updates on system status that results in fewer delays and up-to-date travel information.

The Siemens Mobility CBTC solution is the most extensively deployed automatic train control system and is used by operators around the world, like Sao Paulo, Paris, Beijing, Singapore, and New York.

Italy

Trenitalia, Sicily now has 10 new Pop trains

As of December 14th, two new Pop trains are in service between Palermo-Messina-Siracusa The two new Pop trains have been consigned by Trenitalia (FS Italiane Group) to the Sicilian region. The number of new Pop trains in circulation on the Palermo-Messina and Messina-Siracusa lines reaches 10, following the delivery of 3 new trains in October, adding to the 5 from 2019.

There will be 43 new trains for Sicily in total, as confirmed with the May 2018 signing of the service contract by the Sicilian Region and Trenitalia, foreseeing investments totalling over 426 million euro, of which some 325 million is destined to the purchase of new trains to enhance regional and metropolitan mobility on the island. The operation confirms the importance given to regional transport in the FS Italiane Group's 2019-2023 Business Plan. The long-term service contracts that Trenitalia has signed with the individual regions allow the FS Group Company to make important investments that generate positive repercussions both in the quality of the service offered to travellers and on the entire Italian industrial sector. Trenitalia continues with its contribution during this difficult time for the country, in the belief that the situation will improve shortly.

Pop - greater comfort, sustainability and accessibility

Technologically advanced, spacious and eco-friendly, the Pop reaches a top speed of 160 kilometres/hour and can carry up to 500 passengers. With over 300 seats, it is equipped with larger windows for admiring the beauty of the landscape.

Up to 97% recyclable with a 30% reduction in energy usage compared to previous trains, the Pop boasts high standards of reliability and safety, with on-board cameras and monitors for live recording.

There are also two spots dedicated to disabled travellers. Additionally, 8 bicycles can be transported in the dedicated racks. At the request of the region, the convoys destined for Sicily are also fitted out with handy tables to render the trip even more comfortable.

France

First hybrid TER train in France - Successful tests: start of production in anticipation of trials from early 2021

The prototype for the energy storage system of the first hybrid TER train has completed its trials on the test bench at Alstom's Tarbes site (departmental code 65), a centre of excellence for "green" traction systems. The tests have made it possible to finalise the design and start manufacturing the pre-series systems in September. They will be installed on the first experimental hybrid TER train in early 2021.

A French first

This hybrid TER represents France's first project to produce a hybrid Régiolis[1] train. The project to hybridise a train was launched by Alstom in 2018 in partnership with SNCF and the French regions of Centre-Val de Loire, Grand Est, Nouvelle-Aquitaine and Occitanie. The hybridisation involves replacing half of the thermal engines with storage systems made up of lithium-ion batteries.

Working towards a greener TER rail fleet

The targeted objectives are a 20% reduction in energy consumption and greenhouse gas emissions, as well as a reduction in operating and maintenance costs. The lithium-ion batteries will make it possible to recover and store braking energy for reuse. The traction will be more economical, combining thermal energy and stored energy. Representing another benefit, the thermal engines can be stopped during extended halts in stations, with the train then being powered by its batteries. Finally, this technology will help to maintain performance in the event of low catenary voltage.

Successful bench tests

After an engineering phase, the storage system prototype was installed on the test bench at Alstom's Tarbes site at the end of 2019. The aim was to validate the system by simulating the train's operating conditions. Journeys were simulated in 'zero-emission' mode, using batteries only, as were journeys in 'hybridisation' mode, using thermal engines and batteries. Several months of tests have made it possible to finalise the design of the traction box – the energy storage system comprising the lithium-ion batteries and a power converter.

First modified train to undergo tests from 2021

The manufacture of the pre-series traction boxes started in September 2020 at Alstom's Tarbes site. At the same time, SNCF and Alstom are continuing their work on regulatory safety demonstrations and development. The first train, a Regiolis Occitanie train already in service, will be hybridised as of early 2021 at Alstom's Reichshoffen factory; tests will take place over the course of the year. The trials will then continue in commercial service from 2022 to validate the functions and performance of the solution in real conditions, with a view to mass deployment.

"The tests and validation of the energy storage system conducted at our centre of excellence for traction in Tarbes already demonstrate that the hybridisation of thermal trains is a technically and economically feasible solution for reducing emissions and costs. Alstom is particularly proud to be contributing to cleaner and more sustainable mobility alongside SNCF and the regions of Occitanie, Grand Est, Nouvelle-Aquitaine and Centre-Val de Loire," declares Jean-Baptiste Eyméoud, President of Alstom in France.

"We are today taking a new step towards a form of rail mobility that is increasingly respectful of the planet. The hybrid TER is part of the range of solutions to which we are committed, alongside the regions, in order to produce more TERs and less CO2, with our programme PLANETER. Because each situation is different, we have multiple solutions. My thanks go to Alstom and the regions of Occitanie, Grand Est, Nouvelle-Aquitaine and Centre-Val de Loire for the quality of our partnership." Frank Lacroix, TER Managing Director

"The goal of 'zero emission' transport is a powerful driver for innovation. Rail is already a mode that does not emit much CO2, and it will soon be even better thanks to the hybrid TER. It's what the passengers, as well as the regions, are very much expecting. Hybridisation is now entering the production phase: it deserves everyone's utmost determination because it is a promising solution for making rapid, significant progress." Carole Desnost, Director of Research and Innovation at SNCF

"The challenge of mobility throughout the Centre-Val de Loire region is our priority. It involves safeguarding and renovating local lines, to which we are strongly committed with the State, but also the fundamental issue of renewing trains. We have therefore decided to make an ambitious commitment to the hybridisation of existing material. The programme's entry into the production phase demonstrates how relevant it is and provides a glimpse of cleaner trains in the near future, close to the local regions and the inhabitants!" François Bonneau, President of the Centre-Val de Loire Region.

"With this shared initiative, we are developing a new alternative to the trains and locomotives that run entirely on fossel fuel on non-electrified lines. Thanks to hybrid, rail mobility is taking a decisive step towards reducing its greenhouse gas emissions. This is a promising new technological challenge and a real step towards carbon-free mobility." Jean Rottner, President of the Grand Est Region.

"Making the TER train fleet greener is one of the major objectives laid out in the roadmap of the Nouvelle-Aquitaine Region, Néo Terra, intended to speed up the ecological transition. Our goal: to make TER trains diesel-free by 2030. To achieve this, various technologies are being considered in the region: trains with rechargeable batteries, hydrogen trains, trains that run on bioNGV and of course hybrid trains, for which I am delighted to see the start of production. Very soon, a hybrid TER will be on the rails, which is excellent news for our users, for the industry, and for the planet." Alain Rousset, President of the Nouvelle-Aquitaine Region.

"Hybridisation, hydrogen trains or trains with rechargeable batteries, all these developments must be supported to commit our rail network to an even more virtuous approach. Of course, the train is the cleanest form of transport, but maintaining the very highest standards is essential if we are to maintain our position as a leader. In addition to acquiring less polluting material, we must also, collectively, fight for the development of the network. Let the train be accessible in every local region, let the TGV allow the inhabitants of Toulouse and Perpignan to reach Paris, let the night train win back its former glory." Carole Delga, President of the Occitanie / Pyrénées-Méditerranée Region.

[1] The Régiolis train belongs to Alstom's Coradia Polyvalent range of regional trains. More than 300 state-of-the-art Coradia Polyvalent trains for Régiolis are currently in operation in France. The train concerned by the hybridisation project is a so-called "dual-mode" train (electric and thermal).

France

Alstom's new automatic MP14 metro enters commercial service on the Line 14 extension in Paris and its region

Alstom's automatic MP14 metros have entered commercial service on the extension of Line 14 to the station Mairie de Saint-Ouen. The extension was inaugurated on December 14th by Jean Castex, Prime Minister, Barbara Pompili, Minister of Ecological Transition, Jean-Baptiste Djebarri, Minister Delegate to the Minister of Ecological Transition in charge of Transport, Valérie Pécresse, President of the Île-de-France Regional Council and Île-de-France Mobilités and Catherine Guillouard, CEO of the RATP group, and in the presence of Henri Poupart Lafarge, CEO of Alstom. The MP14 metro now serves the whole of line 14, from Olympiades to Mairie de Saint-Ouen, next to which many companies are located, including the Île-de-France Regional Council and the global headquarters of the Alstom group.

"We are particularly proud to see the MP14 metros entering commercial service as far as the station Mairie de Saint-Ouen. These metros, which we designed and manufactured at eight Alstom sites in France, now serve the head office of the Alstom group. The arrival of the MP14 metros will directly improve the daily lives of tens of thousands of people, including the 3,000 employees of the Alstom group based in Saint-Ouen. This site is the group's global headquarters and the biggest centre of railway expertise in Europe," declared Henri Poupart-Lafarge, Chairman and CEO of Alstom.

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

MP14 offers unprecedented levels of comfort and safety thanks to its interior layout and seats designed like an alcove to create both conviviality and privacy. Vast reception areas offer accessibility to all passengers, with dedicated areas and boomerang-shaped seats to improve the fluidity of passenger flows and capacity of the trains. MP14 also has LED lighting efficiently distributed throughout the metro to provide a sense of security through consistent luminosity. The handrails and steadying points are compliant with standards and enhance comfort inside the train. Warm and cool ventilation controls the ambient temperature, whatever the season. MP14 also offers comprehensive video protection and dynamic passenger information on board. The design of the new metro is underlined by signature lighting on the front end of the train.

MP14's 100% electric braking system captures energy and re-injects it into the network as electricity, while limiting the emission of fine particles caused by the mechanical brakes. This system reduces the overall energy consumption of the metros, as well as air pollution, by up to 17%[1]. MP14 is also 40% quieter (-2 dB) with a 95% recyclability rate. The interior fittings are modular. The metro can therefore be modified over time, enabling maintenance throughout its entire 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 pre-production and testing stage, notably for the CBTC[2] system. The manufacture of the five-car metros 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 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] Compared to the previous generations 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.

Uruguay

Stadler to manufacture locomotives for Uruguay

Marking its first order in Uruguay, Stadler has signed a contract with PORTREN SA to supply seven locomotives for the freight railway it will operate for the Finnish bio-tech business, UPM, in their new factory.

PORTREN SA, a company owned by the Uruguayan logistics group Christophersen and the Spanish company, Cointer Concesiones has commissioned Stadler to supply and deliver seven EURO4001 diesel- electric locomotives. It is Stadler's first contract in Uruguay. Deliveries are expected to start by the end of 2022. The locomotives will be designed and manufactured at its plant in Valencia, Spain.

This contract signing follows the announcement in mid-October that UPM had selected the consortium comprising Cointer Concesiones (a subsidiary of local logistics group, AZVI) and Christophersen, along with Deutsche Bahn International Operations, to operate and maintain freight trains between the new pulp mill at Paso de los Toros and the port of Montevideo.

The new vehicles will make the trips from the new factory to the port, a route comprising 273 kilometres of track, known as Ferrocarril Central. Each convoy, which will be about 475 metres long, will be made up of one locomotive and 26 wagons carrying wood pulp. On the way back, vehicles will transport the chemicals and fuel required to produce cellulose.

Iñigo Parra, CEO of Stadler Valencia, commented: "Thanks to this cutting-edge technology, locomotive rail operators will be able to secure sustainable and profitable rail freight services. Drivers will enjoy a comfortable working environment and lineside neighbours will appreciate the reduced noise and emission levels. We are convinced that our vehicles will contribute to promoting rail transport in Uruguay, as we are already seeing in other South American countries."

More information on EURO4001 locomotives

Specially adapted for freight service, EURO4001 locomotives boast high levels of performance and reliability. Co'Co' locomotives are state-of-the-art and enable goods to be transport efficiently and sustainably. Fitted with a powerful 2800 kW and low emissions diesel engines, they meets EU emissions standard, EC 26/2004 Stage V. The latest bogie technology and efficient asynchronous traction motors help reduce wear and tear on the infrastructure, as well as cut noise pollution. To enhance driver comfort, they feature two acoustic and heat- insulated driver's cabs, which have been designed in accordance with the latest ergonomic and safety standards.

France

SNCF and its partners run the first semi-autonomous train of the national railway network

For the first time in France, a locomotive has run in partial autonomy, under real operating conditions, with fully automated acceleration and braking functions. This trial, conducted on October 29th, marks a key stage in the Autonomous Train project.

A MAJOR STEP FOR THE AUTONOMOUS TRAIN PROJECT

Two years after the launch in 2018 of a consortium to develop the prototype of an autonomous train, a Prima BB 27000 locomotive ran in partial autonomy on the national rail network between Longwy and Longuyon, in eastern France, on a line equipped with the European signalling system ERTMS, under the supervision of a driver.

The consortium, consisting of Alstom, Altran, Apsys, Hitachi Rail, Railenium and SNCF, carried out all the steps that made this important trial possible: from the design to the description of the computer systems, cabling and software programming. As a result of this work, to which nearly a hundred people from all the partner companies contributed, the schedule announced in 2018 has been met and the ambition for 2020 achieved.

THE NEXT STAGES OF THE PROJECT

The next key stage of the project will be the circulation, at the end of 2021, of a train with the same level of partial autonomy on a line equipped with lateral signalling without any modification to the infrastructure. This step will allow SNCF and its partners to manage all the possibilities of partially autonomous operation, regardless of the signalling system. Meanwhile, engineering work is continuing in order to develop the various functions required for full autonomy, such as obstacle detection or environment monitoring. Twelve test sessions have been scheduled,
which should enable the gradual addition of the functions required to increase the level of autonomy. These stages will then take the consortium towards its final objective: running a prototype in complete autonomy in 2023.

AUTONOMOUS TRAIN: REAL BENEFITS FOR TRANSPORTING CUSTOMERS AND GOODS

Train automation means real benefits for rail customers:
Increased capacity, because running more trains means being able to transport more passengers and more goods;
Greater fluidity and regularity thanks to harmonised traffic flow and optimised speed, making it easier to react to unforeseen circumstances; More environmentally-friendly transport, thanks to reduced energy consumption and the shift from road to rail. Autonomy thus provides rail transport with new perspectives: more flexible organisation, with the possibility of rapidly changing the number of trains in line with changing needs. These benefits will encourage a modal shift from road to rail, thereby contributing to a more environmentally-friendly mode of transport.

“Our shared project has just passed a key stage, in adherence to the schedule that was announced. It’s a success. The research and tests conducted with our partners over these two years have allowed us to make rapid progress towards the autonomous train, and we are overcoming the technical obstacles one by one. Our work is aimed at making the rail mode more competitive and will contribute to developing a more environmentally-friendly mode of transport.” Luc Laroche, Director of the Autonomous Train project at SNCF

“As the technical leader of the project, Alstom is particularly proud to have contributed to achieving a new stage of autonomous operation in France. This project is a major opportunity for Alstom to promote its skills and innovations in the field of rail automations and autonomous transport, thereby developing its leadership in new forms of autonomous and digital mobility.” Jean-Baptiste Eyméoud, President of Alstom France

“These first dynamic tests of an autonomous train, in GOA2 under ETCS on the national rail network, showcase two years of studies and partnerships based on the expertise of our engineering teams, the trustful relationship with SNCF and a common desire to innovate and promote safe, available and greener transport solutions. As part of this ambitious and innovative SNCF programme for the French and European rail sectors, Hitachi Rail is providing its technological components, its expertise and its experience commissioning the first autonomous freight train in Australia to contribute to the standardisation of a smart, sustainable railway world.” Gilles Pascault, President of Hitachi Rail STS France

“We salute the work of the teams and are very happy to contribute to this project, which is putting our engineers to work on the challenges of intelligent, connected, autonomous mobility. Above and beyond the technological challenge of the autonomous train, the entire sector can envisage new perspectives for its economic models, its activities and its environmental footprint.” Arnaud Maury, CEO France, Altran

“The chapter on cyber security is an essential part of the Technical Architecture file. It provides the guarantee that the requirements of cyber security are verified at the very deepest level of technology of the systems concerned. APSYS’ collaboration with ANSSI in this project has been particularly successful, and enables us to anticipate the issues related to the future certification of these autonomous systems in a proper manner. APSYS is very proud to contribute to the cyber securisation of this project.” Christian Forestier, CEO of APSYS.

France

Vossloh signs several multiyear service contracts for tram networks in France

Vossloh, a leading supplier of solutions, technologies and services for rail infrastructure, has signed multiyear contracts for the maintenance of tram networks with the respective operators in the French cities of Le Havre and Valenciennes. The contracts have an initial term of three years. As part of the contracts, Vossloh will provide the network operators with a condition guarantee for the rail tracks and the switch systems at a fixed price.

Vossloh’s unique service spectrum is united in one complete offer, from track analysis to continuous monitoring of the track’s condition to optimal maintenance measures based on the condition of the rail line.

The services and products not covered by the guarantee are covered for the time being at standard rates by a service catalogue that can be called up by the customer. The maintenance contracts provide the operators with a high degree of cost certainty and, at the same time, increased track availability.

Vossloh is positioning itself as a central contact point for customers for questions about, and solutions to, maintenance of rail lines.

With the goal of collaborative development of an efficient and targeted maintenance strategy, comprehensive audits and customer meetings preceded the conclusion of the contracts in Le Havre and Valenciennes. For this purpose, Vossloh used cutting-edge measuring technology and proprietary analysis software to compile a detailed condition report for the entire rail network in order to assess the wear behavior of respective track sections in close consultation with the operators. The contracts were concluded based on these findings.

France

Alstom wins the contract to design, build and maintain the transport system for Toulouse Metropole's third metro line

Alstom has been awarded the contract by Toulouse Metropole for the system for the third and new 27 km metro line, called Toulouse Aerospace Express, for the sum of more than €470 M. The contract could eventually be worth €713 M, including all options. The line consists of 21 stations and will serve the aviation labour pool. The firm tranche of the order guarantees a transport capacity of 5,000 passengers per hour in each direction (pphpd), with options for up to 10,000 pphpd. It includes Alstom's efficient, proven "Systems" solutions: Metropolis™ trains and Urbalis™ 400 CBTC solution for driverless operation and Hesop™ reversible substations. The scope also includes platform screen doors, including a dynamic system for load indication, and the track including the laying with the automated solution Appitrack™. Finally, the firm tranche of the order includes six years of maintenance, with 12 years of maintenance as an option.

"This order is excellent news for Alstom and I would like to thank Tisséo and Toulouse Metropole for their confidence! Alstom has submitted a very competitive system offer, while proposing its latest technologies and innovations on the various subsystems (vehicles, signalling, infrastructure and power supply). This order will enable us to continue developing our skills in France in all these areas, as well as our presence in the region of Occitanie, already in full expansion with our centres of excellence for Electrical component'in Toulouse and traction in Tarbes, and soon the Line 3 project team. We'll also be calling on a number of local partners," says Jean-Baptiste Eyméoud, President of Alstom in France.

The city of Toulouse is renowned for its economic vitality and the quality of life of the surrounding region. The Toulouse Aerospace Express project is part of a drive to increase the city's appeal with the help of sustainable, inclusive mobility. Alstom will contribute to the economic vitality of the local area with its site in Toulouse, which will be the nerve centre of the project. The site will consequently be developed for the construction and maintenance activities, thereby promoting local employment. In total, more than 600 people in France will work on this project, including up to 400 people in the Toulouse metropolitan area at the peak of the activity. 80% of the hours spent working on this project will be in France and 55% directly in the region of Occitanie. Jobs will also be created with our suppliers in France and in the city of Toulouse for the activities of installation, infrastructure and system deployment.

Alstom's integrated Systems solution provides a highly mature, efficient and comfortable transport offer, designed with maximum operability and reliability in mind, with record availability of 99.8%. Alstom has a global leadership position and fully proven experience in the successful construction, commissioning and delivery of new integrated metro systems, as well as in their safe, reliable and efficient operation. Alstom can boast more than 65 years' experience, having sold over 17,000 metro cars that carry 30 million passengers every day operate in 55 cities around the world. One of the most recent successes for Alstom in integrated metro projects being the 15-kilometre-long Dubai Metro Route 2020, completed and delivered in July 2020. The design selected for the system and the metro makes it possible to propose a solution that minimises waiting time in stations, with reduced traffic frequency from the moment of entry into service, but which, by increasing the number of metro cars from 2 to 3, increases the transport offer to 15,000 passengers per hour in each direction, without modifying the infrastructure. Indeed, Alstom will design the system to be able to go up to 15,000. The base contract is for 5,000 with options to go up to 10,000. The rolling stock belongs to the Métropolis™ range of trains. It benefits from the innovations and continuous improvement brought to this product for more than 15 years, through numerous R&D programmes and contracts executed throughout the world. This state-of-the-art metro has been designed to improve passenger experience as well as reconcile performance, energy efficiency and ease of maintenance, in order to control costs throughout its life cycle.

For passengers, as it is a new line, the train will be characterised in particular by increased volumes on board and large openings to the exterior. The experience of the journey will be made more pleasant with an atmosphere that is air-conditioned and quiet, LED lighting that adjusts to travel conditions, reinforced air filtration and antibacterial coatings on the handholds for a healthier interior. Travel will be made easier from the moment you step on board, with, for example, platform facades indicating the density of people on board the cars.

Urbalis™ 400 is a proven, efficient CBTC (Communication Based Train Control) automatic operation solution, in commercial service in many cities around the world. Deployed or in the process of being deployed on more than 100 metro lines, notably in Lyon and Marseille, Urbalis 400™ is a generic solution, managed as a platform, to ensure optimum safety and reliability as well as long-term durability. The solution has also demonstrated its operational robustness and modular capabilities, enabling it to control sensitive interfaces such as those of the train or the centralised control centre.

The transport system solution provided by Alstom has also been designed to reduce operational costs, achieving major energy savings through a combination of reversible Hesop™ substations with regenerative braking, efficient traction and braking systems and improved CBTC automatic train control strategies. And finally, the project also includes the construction of a rail track that reduces friction and fine particles to a minimum, thanks to steel-on-steel operation and offers guaranteed performance over time. With this contract, Alstom is making a long-term commitment to mobility in Toulouse by ensuring the construction and maintenance of this third line on behalf of Tisséo.

Turkey

Cooperation between Alstom and ASELSAN on Rail Systems

Alstom and ASELSAN entered into a collaboration agreement to establish a framework of cooperation and coordination in the field of ETCS Signalling Onboard. This collaboration agreement was signed by Dr. Ibrahim Bekar, Vice President of ASELSAN, and Mama Sougoufara, Alstom Middle East and Turkey Managing Director.

Main objective of this collaboration agreement is set as establishment of a long-term partnership to allow the two leading companies in the field of rail systems cooperate on both modernization and new product development in both global and local markets. "We are thrilled to collaborate with a major Turkish technology company like ASELSAN. With this long-term partnership, Alstom will contribute to the modernization of railways in Turkey in compliance with the international standards. I strongly believe this partnership will achieve productive and innovative results in terms of deployment of ERTMS On-Board solutions for safe operations in the Turkish and global railway networks",

says Mama Sougoufara, Alstom Middle East and Turkey Managing Director. "I strongly believe that Alstom's experience in the field of rail systems and ASELSAN's technological capabilities will create synergy. This cooperation is intended to enable our country to reach the targets set in the 11th Development Plan and then, get into the global markets to be able to export technological products in the field of rail systems", says Dr. Ibrahim Bekar, Vice President of ASELSAN.

Alstom has been operating in Turkey for over 60 years. Its Istanbul Office serves as a regional headquarter for the AMECA region and Alstom Digital Mobility (ADM) as well as System & Infra projects. Activities of the Regional Center include bid management, project management, engineering, sourcing, training and maintenance services among many others.

Italy

FS Italiane, Roma Termini: 70 years of history and innovation

December 20th 1950 saw the inauguration of the Dinosaur – the canopy over Piazza dei Cinquecento that changed the face of the capital's station

Seventy years of the new Roma Termini. The station of the Capital, the largest railway hub in Italy in terms of size and traffic, as well as one of the main stations in Europe, celebrates its seventh decade of a history that began on December 20th 1950, with the inauguration of the Dinosaur, the canopy over Piazza dei Cinquecento. As a symbol of the desire to make a new start in Italy, still grappling with the consequences of the war, the Dinosaur and the new Station changed the face of the old Termini that had been operating since April 20th 1873 and represented an example of modernity in the world. On the occasion of its 70th anniversary, the new Roma Termini recalls the past whilst looking to the future, ready to change face yet again with a significant redevelopment plan carried out by the FS Italiane Group.

From December 20th – until January 2021, Roma Termini tells its tale with a photographic exhibition scattered throughout the station. Installations, videos and images – most of which are conserved in the Fondazione FS Italiane archive – recall the stories, anecdotes and curiosities of the capital's station. Amongst the images exhibited are also some social media snaps from Railway Heart, Ferrovie dello Stato Italiane's photographic column. The atrium and the "Galleria Gommata" house 5 installations, of which 4 are hexagonal and one pentagonal, each with a specific theme, whilst from Piazza dei Cinquecento, on the outside of the windows of the Atrium, 15 stained glass windows feature historical images in black and white. The journey continues also on social media networks, through the hashtag #Termini70, with which memories about the station can be shared.

"History and innovation have always coexisted in the Roma Termini hub," declared Gianfranco Battisti, Chief Executive Officer and General Director of the FS Italiane Group. "Over the past 70 years, the station has welcomed and received millions and millions of travellers departing and arriving. Now it is ready to accompany them into the future with new services. Train stations will be at the heart of the smart cities of the future, being places of integrated and sustainable mobility called to express cultural, social and economic value. Putting the person and their needs at the centre, as the FS Italiane Group does, also means making the stations safer, more accessible, intermodal, pleasant and technological."

Amongst the various operations, the plan for expanding and upgrading Roma Termini foresees the new LED lighting of the station and the Servian wall as well as the opening of the Innovation Hub of the FS Italiane Group on the occasion of the 70th birthday of the hub, and the opening of a new elevated parking lot in the first quarter of 2021.

The celebrations for the 70 years of Roma Termini are also an occasion to revive and reinterpret the role of the station in terms of its relationship with the city through an international competition that the Grandi Stazioni Rail (Gruppo FS Italiane) will launch in collaboration with FS Sistemi Urbani (FS Italiane Group), RFI (FS Italiane Group) and Roma Capitale for the redevelopment of Piazza dei Cinquecento and the annexed public spaces.

Turkey

Alstom completes interlocking work on 5 sections in Turkey

Alstom has completed and put into service the interlocking system of 5 sections on Eskisehir-Kutahya-Balikesir line of the Turkish State Railways Administration (TCDD).

All Interlocking system works in the first 182 km long 5 sections including Telecommunications and Traffic Control Center (CTC) have been completed and commissioned on December the 4th, 2020.The project of 328-km long mainline signaling project work is continuing with the target to open the whole line by end 2021.

"We are extremely happy as we have reached such a significant milestone in this project that is very important to equip the railway network of Turkish State Railways Administration (TCDD) with the cutting-edge technology solutions to improve the safety and efficiency of the line operations, and increase the travel experience of passengers.

As Alstom, we trust that we bring safer mobility solutions in Turkey with this achievement. We will continue our effort jointly with TCDD by extending the signaling system of the line with the EU Standards through European Railway Traffic Management System (ERTMS), Also, we elevate the safety of the line with the high safety technologies such as Automatic Train Supervision (ATS) system" said Mama Sougoufara, Alstom Middle East and Turkey Managing Director.

Countless projects in Turkey since 1950s

Having realized countless railway projects such as Project for Supply of EMU Vehicles for TCDD, Kayseri Northern Pass Signalling and CTC Project, Ankara CTC Control Center Project, Supply of 80 Metro Vehicles for Bagcilar - Olimpiyat Metro Line, Maintenance of 12 High Speed Train Sets, Supply of 37 Tramway Vehicles for Kabatas - Bagcilar Metro Line since 1950s in Turkey, Alstom has provided system and subsystem design, production, installation, testing and commissioning services, training and maintenance services for TCDD within the scope of turnkey delivery project. Alstom designs, produces and supplies European Railway Traffic Management System and European Train Control System (ERTMS/ETCS) L1 and L2 AtlasTM signaling system, Smartlock200TM electronic interlocking and integrated control center IconisTM equipment for the railway line.

There will also be the GSM-R system between Alayunt - Afyon on the line that Alstom has supplied the distribution and uninterrupted power supplies as well as the level crossing systems and technical equipment structures. In addition, Alstom will install ERTMS/ETCS L2 onboard equipment on 27 TCDD vehicles.

In addition to Alstom's projects in the country, its Istanbul office serves as the regional headquarter for Africa, Middle East, and Central Asia (AMECA) region and a regional center for Alstom Digital Mobility (ADM) as well as System & Infra projects. Activities of the Regional Center include bid management, project management, engineering, sourcing, training and maintenance services among others.

Algeria

Alstom conducts first test-run in Algeria for Mostaganem tramway

Alstom has successfully conducted the first test-run for Mostaganem tramway project. During this phase, Alstom's tramways have run from the secondary storage park T2 section to SNTF station, around 2km.

The length of Mostaganem tramway project is 14-km long and includes 24 stations. For this project, Alstom and Cosider Travaux Publics/Cosider Ouvrages d'Art are in a single lot configuration. The test was attended by the Algerian Minister of Transport, Lazhar HANI, the Governor of Mostaganem, Isaa Boulahia and representatives from Alstom Algeria.

"Mostaganem tramway is a very important system project for Alstom and was expected by the public since a long time. We are pleased to have achieved this significant milestone despite the various delays as well as the COVID-19 pandemic. The next steps will be the rigorous dynamic tests to ensure smooth running and guarantee maximum safety for both the passengers and the operator. We will pursue our long-term partnership in the country to better address the customers' mobility needs and offer them smart, green & innovative solutions fitting with their expectations", said Amar Chouaki, Managing Director for Alstom Algeria.

Alstom supplied the integrated system, tracks, catenaries, telecommunications and signalling, substations and ticketing equipment. Each line has been equipped with the Citadis tramways manufactured at the Annaba site (in the north-east of Algeria) by Cital, Alstom's local joint-venture founded in 2010.

Alstom has been present in Algeria for nearly over 30 years, with around 250 employees, Alstom has always supported the local railway industry and infrastructure developments, especially in the tramway market with several trams already in service (Algiers, Oran, Constantine, Ouargla, Sétif, Sidi Belabes). In addition, Alstom has always considered the development of its industrial and engineering activities in the country as a strategic priority, including the transfer of technologies as well as the development of local competencies. Through its Cital JV, Alstom is well placed to meet the growing mobility needs for tramway systems across the country and continue to support the development of the cities in Algeria.

Israel

Alstom invests in railway cybersecurity specialist Cylus and signs strategic cooperation agreement

Alstom has finalised a deal to invest US$7 million in Cylus, an Israel-based cybersecurity specialist, thus acquiring a minority stake in the company. The investment will give Alstom one seat on the board of Cylus. The deal also includes a strategic cooperation agreement to build a commercial partnership allowing the companies to combine their respective strengths and provide best-in-class cybersecurity solutions for the rail market. Cylus, based in Tel Aviv (Israel) and founded in 2017, is specialised in cybersecurity solutions for the railway sector. Cylus has developed a portfolio of solutions and services, collectively named CylusOne, for the protection of railway assets against cyber threats.

Together, Alstom and Cylus will integrate cybersecurity technology into railway processes, components, and solutions. The technology will be implemented first in the Tel Aviv metropolitan light rail system with a capacity of 200,000 passengers a day. Alstom previously won a contract to supply the signalling and train control systems for the Tel Aviv Red Line tramway in 2017. With this agreement, the companies are joining forces to ensure that the rail industry is equipped to tackle cybersecurity challenges all over the world. The partnership will enhance existing rail systems' cybersecurity capabilities and boost the ongoing development of cybersecurity solutions designed for mobility, to ensure a rapid and resilient response to operator demands.

"Alstom is reinforcing its position in cybersecurity by making sure that it is at the core of all our systems. The expansion of connectivity, the Internet of Things and Big Data require new measures to protect transport systems. In response to this challenge, we are sure that the partnership with Cylus will create new cybersecurity standards for the mobility sector," says Eddy Thésée, Vice President of Cybersecurity at Alstom.

"The rail industry increasingly requires cybersecurity solutions for its particular needs. As a pure rail-cybersecurity company, we are proud to cooperate with Alstom, the world leader for innovative rail solutions, to help rail companies protect themselves against growing cyber threats. We are convinced that the partnership will drive the rail industry towards a cyber-safe future," says Amir Levintal, CEO of Cylus.

CylusOne is the first cybersecurity solution designed from scratch for the unique diversity and complexity of rail and metro environments. It is designed to be integrated into both mainline and urban networks and is compatible with communication-based train control (CBTC), as well as the European Train Control System (ETCS) – in both cases maximizing performance, capacity and availability. The technology uses machine learning to speed up detection of malware and malicious behaviour. The system employs artificial intelligence to determine the behaviour once a threat is identified and effectively handle the response. CylusOne detects cyber threats over signalling and control networks, communications networks and trackside and onboard systems, facilitating a timely and effective response.

India

Alstom & Indian Railways mark five years of signing largest FDI in railway sector

In 2015, Alstom bagged the order to supply 800 double-section electric locomotives of 12,000 HP to improve freight movement

This year, Alstom completes 5 years since it won the contract worth €3.5 billion from Indian Railways to supply 800 fully electric super powered double-section locomotives of 12,000 HP capable of hauling ~6000 tonnes at a top speed of 120 kmph. Planned to be deployed for operations on major freight routes, including the Dedicated Freight Corridors (DFCs), these e-Locos are transforming the heavy freight transportation landscape of India. Over these 5 years, major progress has been made on the largest Foreign Direct Investment (FDI) project in the Indian Railway sector.

Certified by the Ministry of Railways and Commissioner of Railway Safety / RDSO earlier this year, the first WAG 12B e-Loco was inducted for commercial services in May 2020. So far, Alstom has successfully manufactured and delivered 50 such e-Locos to the Indian Railways. These e-Locos have covered close to 2 million kilometres on the railway network till date.

“Alstom is proud to partner in India’s growth story. Today, as we look back at an eventful five-year journey, it gives me immense pride to state that we have made progress across a spectrum of spheres – technological, infrastructural and socioeconomic – alike”, says Alain Spohr, Managing Director, Alstom India & South Asia.

Basis the contract, which includes an associated maintenance of the e-Locos for over a period of 13 years, a joint venture was formed between the Indian Railways, Ministry of Railways (26% equity) and Alstom (74% equity) to set up one of India’s largest integrated greenfield manufacturing facilities at Madhepura, Bihar. Spread across 250 acres, with a production capacity of 120 locomotives per annum, this industrial site is built to international standards of safety and quality. Alstom will deliver 75 units in FY 20/21 & 100 units annually starting next fiscal.

Flagging off the first e-Loco from the Madhepura facility on April 10, 2018, Hon’ble Prime Minister Shri Narendra Modi had said, “I am thrilled to flag off the first-ever 12000 HP engine. There are very few countries across the world that use locomotives of this scale and power for freight transport. These engines will upscale the speed of freight transport in India to two times faster”.[1]

Highlighting India’s Green Railways dream, Shri Piyush Goyal, Minister of Railways, Commerce & Industry, Consumer Affairs and Food & Public Distribution, Government of India had said, “Our PM has approved a program for 100% electrification of Indian Railways. We’ll be the largest railways in the world to be 100% electrified with 120,000 track kms across India. By 2030, we hope to be the world’s first 100% green railway with net-zero emission.”[2]

With these powerful e-Locos being manufactured within the country, India has become the 6th country in the world to join the club of countries producing high horsepower locomotives indigenously.

The project also includes setting up of two ultramodern maintenance depots in Saharanpur, Uttar Pradesh and Nagpur, Maharashtra. These depots are equipped with latest technologies and features to anticipate breakdowns and take proactive measures, thereby playing a substantial role in maintaining India’s most advanced freight locomotives at significantly lower costs. The depot in Saharanpur is currently operational and comes with a ‘Training Centre’ equipped with a loco simulator and smart classrooms for skill development of railway employees and loco pilots. Till date, more than 500 loco pilots from Indian Railways have been trained and going forward, an additional 500 will be trained annually. The Nagpur depot will be functional soon.

“The relationship between India and France, dating back to many decades, is imbued with a shared vision in across many fields. This joint venture, the largest FDI project for Indian Railways, has only strengthened our spirit to employ world-class technology for a safer, faster and more carbon-efficient service. As we continue to strengthen the Indo-French partnership, we hope to see our collaborations bring real-time impacts on the lives of the people”, said Emmanuel Lenain, Ambassador of France to India.

“Globally, Alstom is associated with almost every prominent Railway organization and Indian Railways, is one of the largest Railway entities in the world. The joint venture combines innovation with responsibility and together we are committed to deliver safe, reliable and efficient solutions. India is at the cusp of a logistics revolution and we are excited to be part of this journey”, added Alain Spohr.

Technical Superiority & Localization

Locomotives manufactured at Madhepura are of 12,000-horsepower with a twin Bo-Bo design, engineered to run at a speed that is twice as faster than regular locomotives and are built to carry 6000 tonnes of goods in one go. Equipped with Insulated Gate Bipolar Transistors (IGBT) based propulsion technology, the WAG 12B uses regenerative braking, reducing energy consumption. Moreover, with this e-Loco, Alstom is introducing freight trains that emit lesser heat and traction noise. With 1676mm of Broad Gauge, the e-locos are designed to take smooth turns even at the sharpest of curves.

The e-Locos designed at Alstom’s Engineering Centre in Bengaluru, use an eight-axle design that would enhance performance of a locomotive. The Prima T8 technology makes operation comfortable and flexible in extreme temperatures, ranging from −50 °C to 50 °C. With this, Alstom introduces novel features into Indian freight trains, such as climate control systems, air conditioners, food preparation and storage facilities and toilets. The WAG 12B e-locos are also equipped with spacious cabins for pilots to work comfortably. Localization has been made a reality with over 85% of indigenization.

Socio-economic effect

Alstom’s joint venture with the Indian Railways has created over 10,000 direct and indirect jobs in various Indian states. To support the local communities, Alstom is actively investing into the upliftment of the community across seven villages in and around Madhepura, covering education, healthcare, women empowerment and skilling. More than 20,000 lives have been touched through various initiatives in the region.

[1] [2] from media archives

Qatar

Alstom on right track with CSR initiatives in support of local start-ups, entrepreneurs, students and communities across Qatar

Alstom prides itself on being a socially responsible company – a global organisation that cares for people and the planet. In line with the Qatar National Vision 2030 to provide a high standard of living for its people, and, in the spirit of Qatar National Day, Alstom has reiterated its ongoing commitment to improving the lives of people in the regions it operates in, by sustaining a proactive approach to corporate social responsibility (CSR) across Qatar in 2020. In doing so, the global leader in rail transport and sustainable mobility has supported local communities and empowered start-ups, entrepreneurs and students through multiple initiatives – ensuring its CSR efforts continue to be positioned at the core to its strategy.

"At Alstom, our CSR policy is a key component of who we are as a company. We place our commitment to positively impacting the communities we operate in at the forefront of our strategy here in Qatar, and, indeed, across the Middle East. In alignment with the Qatar National Vision 2030, we will continue to ensure that our proactive approach to CSR carries on evolving for the benefit of all stakeholders, guided by our unwavering belief in integrity, transparency, and responsibility," says Tamer Salama, Alstom's Managing Director for GCC.

Local Start-up & Entrepreneurship Support

In April 2020, Alstom, in collaboration with Qatar University's College of Business and Economics – Centre of Entrepreneurship (CFE) and Qatar Development Bank, inaugurated a four-day long intensive pre-incubation programme to prepare candidates to enter the Business Incubator, under the theme of 'From Innovation to Commercialisation – Digital Edition'. The aim of the event was to provide hands-on training to the teams through strategic co-operation with leading local universities in the country. Participating candidates included Qatar University students, staff, and faculty. The online training programme started on 19th of April and concluded on 22nd of April. Collaboration Qatar University & Stenden University. In October 2019, Alstom Qatar (Lusail LRT project team) organised a technical seminar, entitled 'Introduction to Lusail LRT Project Traction Power Distribution', for engineering students at Qatar University. The seminar showcased Alstom's status as a leader in integrated transport systems, while informing students about the Lusail LRT project and introducing them to the various innovations Alstom has contributed to the project. Qatar University subsequently invited Alstom back in September 2020 to conduct an online seminar on Lusail LRT Traction Power Distribution and present for the 2nd consecutive year for the benefit of the students in attendance.

In June 2020, Alstom Qatar hosted a seminar on Project Risk Management for students of Applied Sciences at Stenden University. During the insightful and enlightening session, Alstom and the Lusail LRT Project was introduced to the students, and real-world risk management applications were demonstrated. Alstom Qatar joins hands with INJAZ

Pandemic Support

In an effort to help out students during the COVID-19 pandemic, Alstom donated 30 laptops to The First Ihsaan School, now known as First Assalam School, and Cairo Private School in Doha. These laptops have since been utilised by students who have not had access to the devices needed for remote learning while their schools have been closed because of the pandemic.

CSR Days

Alstom is always on the lookout for positive ways to socially impact the communities it operates in, which has resulted in the Alstom Qatar team's participation in various community support initiatives across the country. These initiatives have included a 'Beach Clean-up Campaign and blood donation drive, in addition to providing voluntary service and donating eight fire extinguishers, flooring material and maintenance parts to Qatar Animal Welfare Society (QAWS). Alstom also facilitated access to complimentary wellness check-ups and distributed free meals to Alstom Qatar subcon workers.

Global Community Support Initiative

Alstom Qatar mobilised to help Taal Volcano victims in the Philippines in January 2020. In coordination with Alstom Philippines, the Alstom Qatar team distributed face masks to help victims, near the volcano in the Philippines, who were struggling to breathe after the eruption. Alstom Qatar shipped 28 boxes full of masks, and Alstom in the Philippines successfully coordinated the distribution with the evacuation centres.

Myanmar

MITSUBISHI CORPORATION SELECTS CAF TO SUPPLY TRAINS FOR THE MYANMA RAILWAYS PROJECT

Mitsubishi Corporation has subcontracted CAF for design and supply 246 modern Diesel Electric Multiple Units (DEMU) in the framework of the contract the Ministry of Transport and Communications of the Republic of the Union of Myanmar awarded to Mitsubishi Corporation. The contract comprises of the supply of eleven 6-car units for the Yangon circular railway upgrading project, and the supply of a further thirty 6-car units for the Yangon-Mandalay II railway upgrading project.

The volume of the operation with CAF exceeds €500 million and is being funded through an international loan, in yen, pursuant to an agreement between the governments of Japan and Myanmar. This agreement not only covers the supply of the trains, but also the comprehensive upgrading of the infrastructure on both lines, including signalling system modernisation, work on tracks and station improvements.

Eleven of the new units will be supplied for the first line, called the circular line, which runs 46 km through the centre of Yangon, Myanmar's largest commercial city. As a result of this project, the plan is to reduce by 60 minutes from the current 170 minutes travel time required to travel along this line. The other 30 units will also run on the 620 km long Yangon-Mandalay line, which connects Yangon city to the country's capital, Naypyidaw, and the second largest commercial city, Mandalay. The journey time will also be significantly reduced, going from approximately 15 hours to around 8 hours once the project is completed.

Both projects form part of the Myanmar government's plans to upgrade the country's infrastructure network to improve the quality of life, contributing to the modernisation of domestic transport and strengthening the country's socio-economic development, whilst also dedicating efforts to more sustainable means of transport equipped with the cutting-edge technology to optimise passenger safety and comfort.

Over the past few years, the CAF Group has solidified a close strategic relationship with Mitsubishi Corporation, involving a number of highly successful projects, some of which are already in operation. Specifically, worth mentioning are the supply of rolling stock for Manila LRT Line 1 in the Philippines, the Istanbul Metro and building a transport system in Canberra, Australia.

The CAF Group operates in all five continents, and this new contract reinforces its standing in the Asian continent, where it has executed projects which have involved the supply of metro units for Hong Kong (China), trams for Kaohsiung in Taiwan, and metro units for New Delhi, India, all being countries which are on the cutting edge when it comes to transport systems.

From the Archives

Argentina

On the 75cm Esquel line, 2-8-2s Nos. 6 and 1 take a pause at Lapa on November 6th 2004. *John Sloane*

From the Archives

Austria

On February 21st 2013, a local train stands in the station at Kammer-Schörfling operated by OBB Class 1144.092 which has a special livery. Today this duty is operated by Class 4023 EMUs, Kammer station is completely demolished and the line ends with a single platform a few hundred meters ahead of this picture. *Thomas Niederl*

From the Archives

Belgium

SNCB No. 7503 is seen stabled at Antwerp Dam depot on June 11th 1994.
John Sloane

From the Archives

China

China Rail No. DF4.0021 heads a freight at Hengyang station on April 1st 1987.
John Sloane

From the Archives

Cuba

Brush built Class 47 derivative No 52505 is seen stored derelict at Cardenas on February 10th 1992. *John Sloane*

From the Archives

Czech Republic

On October 4th 2011, CD Cargo Class 181.115 heads through Studenka with an empty coal working. *Class47*

From the Archives

Czech Republic

On Janaury 23rd 2011, Class 749.162 is seen upon arrival at Cercany with a service from Praha hl.n. *Class47*

From the Archives

Czech Republic

CD Class 163.073 calls at Usti nad Orlici on January 26th 2011 with a local service to Ceska Trebova.
Class47

From the Archives

Czech Republic

Polish EMU No. EN57-1951 is seen at Usti nad Orlici on January 26th 2011.
Class47

From the Archives

Czech Republic

Class 742.185 stands at Jaromer on July 2nd 2008. *John Sloane*

From the Archives

Czech Republic

Unipetrol's Class 740.784 and 740.803 stand at Pardubice on January 24th 2011. *Class47*

From the Archives

France

1955 built 'Dakota' Co-Co No. 65530 rests in the open part of the large roundhouse at Villeneuve St Georges on the southern side of Paris on October 31st 1986. *John Sloane*

From the Archives

India

India (Southern Railway) No. YP2525 departs Bangalore City station on November 18th 1977. *John Sloane*

From the Archives

Poland

1967 built Co-Co No. SP45-097 departs from Wolstyn towards the east on March 7th 1989.
John Sloane

From the Archives

Poland

An early Polish diesel-hydraulic railcar, No. SN80-12 stands apparently abandoned in the shed yard at Leszno on May 27th 2011. Built in the early 1960s, this machine had been 'preserved' at various venues since withdrawal and is now at Jaworzyna Slaska. *Jeff Nicholls*

From the Archives

Poland

No. ST 43-407 rests outside Leszno depot on May 22nd 2011 alongside Wolsztyn's Ol49-59 which has been watered, serviced and turned before its return trip to base.
Jeff Nicholls

From the Archives

Poland

PKP No. SU45-195 erupts into life at Wolsztyn station in the early hours of June 7th 2007. The loco was working the 05:32 to Poznan, standing in for the regular steam loco. *Jeff Nicholls*

From the Archives

Ukraine

On May 2nd 1993, a Russian two-section electric No. VL82m-073 calls at Debalchevo in what is now the Russian rebel held part of the country. *John Sloane*