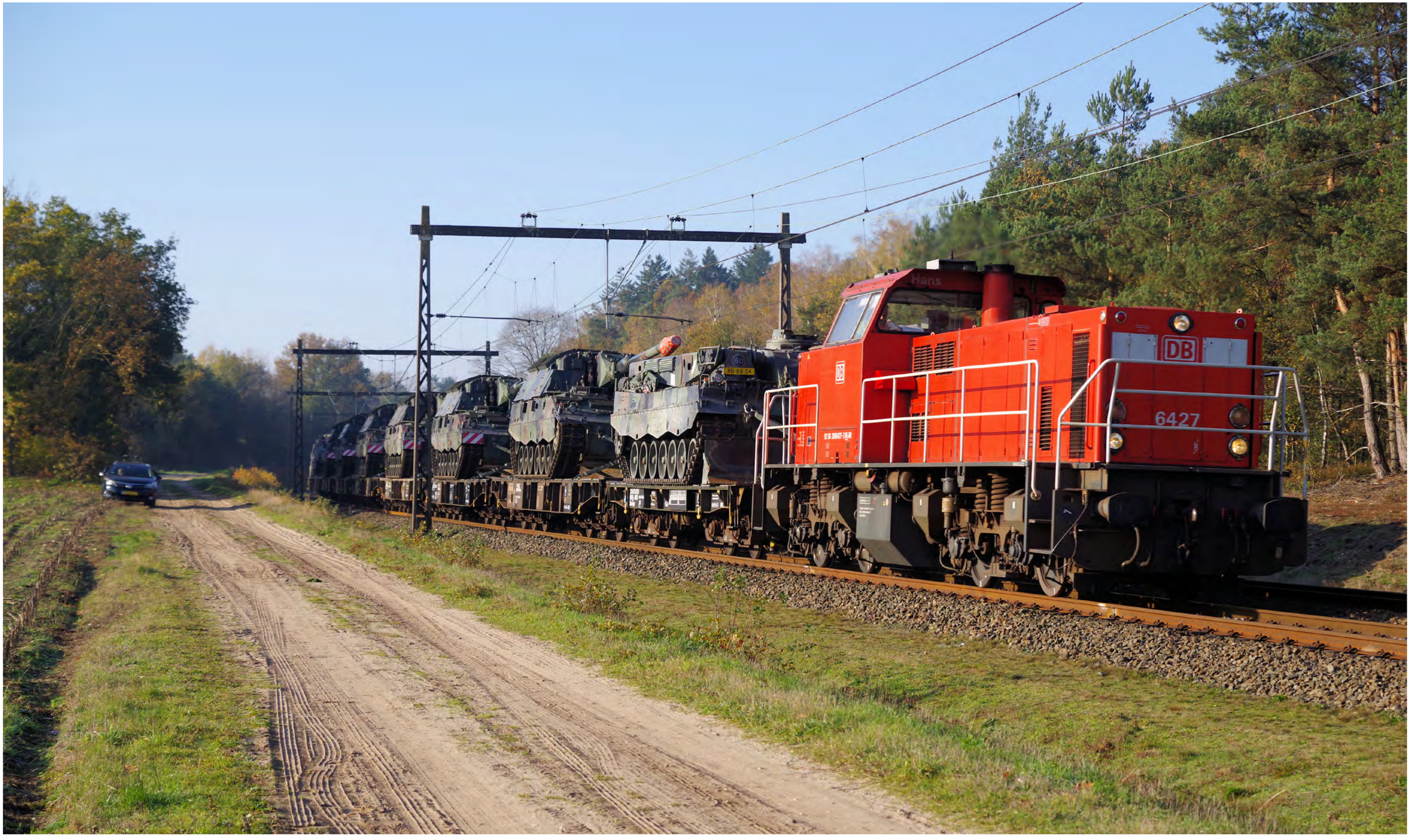

Railtalk Magazine *Xtra*

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Content

Pg 2 - Welcome

Pg 4 - Pictures

Pg 66 - World News

Pg 72 - From the Archives

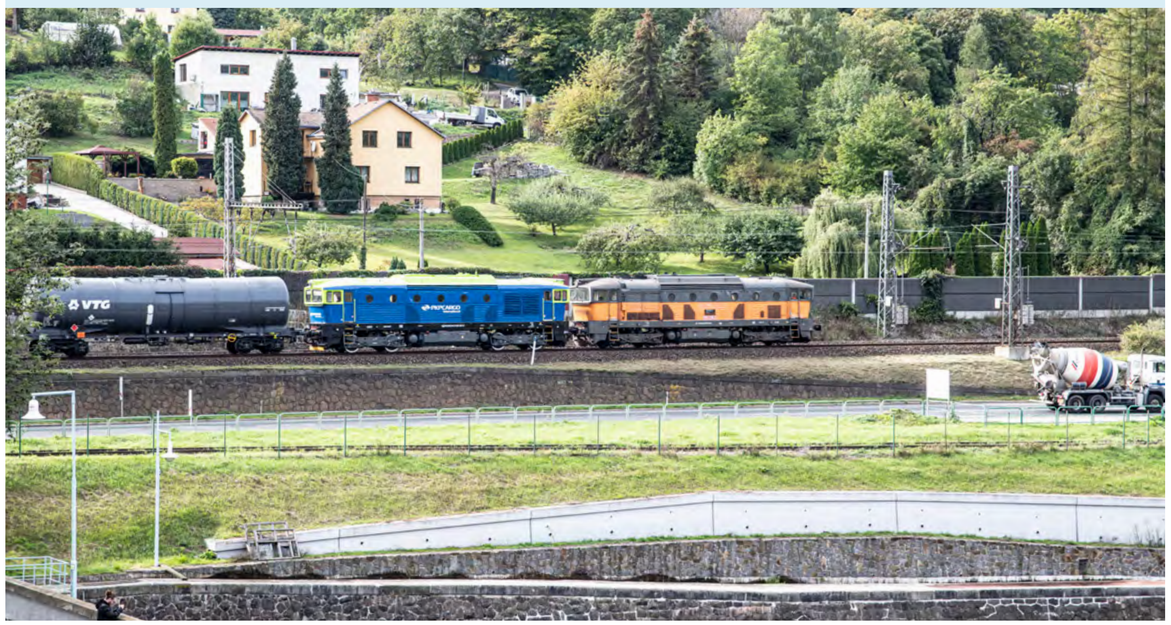
Submissions & Contributions

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

Photographic Contributions

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

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



Welcome to Issue 195Xtra

It's that time again when we wish all of our readers and contributors a very Merry Christmas and a Happy New Year. And what a year it has been, with most countries retiring some of their older fleet in favour of newer and cheaper to maintain stock, quite often to the enthusiasts disgust as most of the new stock is nowhere near as pleasant to travel in.

This month, another piece of potentially good news for those trying to escape dreary UK by Eurostar with the announcement that Hitachi Rail has signed two new contracts to equip digital cab signalling technology on-board trains operated by SNCF and Eurostar on French national and cross-border rail networks. The contracts will enable passengers to more easily travel by train across European borders and help achieve the goal of a better-connected Europe, using sustainable transport. The agreement will see Bi-Standard cab signalling installed to upgrade eight trains operated by Eurostar and the development of a new version of the Bi-Standard on board high-speed trains operated by SNCF in Italy and Switzerland.

The Bi-Standard combines TVM (Transmission Voice-Machine) and ERTMS (European Rail Traffic Management System) technologies to enable the Eurostar E300 and SNCF high-speed trains to operate safely on both the French and cross border high-speed networks. Hitachi Rail's Bi-Standard product line was first introduced into revenue service in France in 2007 for SNCF on the Paris-Strasbourg line. In 2009 it equipped Thalys trains to run in ERTMS mode on the Dutch and Belgian networks.

Since these first milestones, approximately 1,000 Bi-Standard products have been put into revenue service, on board different types of trains, mainly in Europe (France, England, Belgium, Holland, Italy, Luxembourg and Germany) and in Asia (South Korea and China). Hitachi Rail continues to evolve this product family to gradually integrate ERTMS developments, meeting the highest standards of interoperability, safety and sustainability, and contributing to as the rail industry's position as the leader of smart and sustainable transport.

Also this month some good news from Germany where the eastern German state of Saxony has allocated more than €100m to fund investment in new passenger transport routes in 2023-24 including €28.6m to fund planning work for the re-opening of up to six regional railway lines.

The routes prioritised have wide-ranging cross-party support in the state parliament and were selected following earlier feasibility studies undertaken in 2021, which considered 22 potential routes. The selected lines are:

Döbeln - Meissen
Pockau-Lengefeld - Marienberg
Beucha - Brandis - Trebsen
Löbau - Ebersbach
Oberoderwitz - Niedercunnersdorf
Grossbothen - Rochlitz - Narsdorf via Colditz
Muldentalbahn / Mulde Valley Line

All of the lines except the 15.2km Oberoderwitz - Niedercunnersdorf line close to the Czech border remain in use for freight traffic, and all lost their passenger services in the last 30 years.

Separately, planning is underway to use financing from the German federal government's coal mining transition fund to re-open the Kamenz - Hosena line in northeastern Saxony.

Another €5m of additional funding from the Saxony state budget has been allocated to cover cost inflation, with substantially more being provided by the federal government as part of the introduction of the new €49 national monthly ticket.

Until next month...

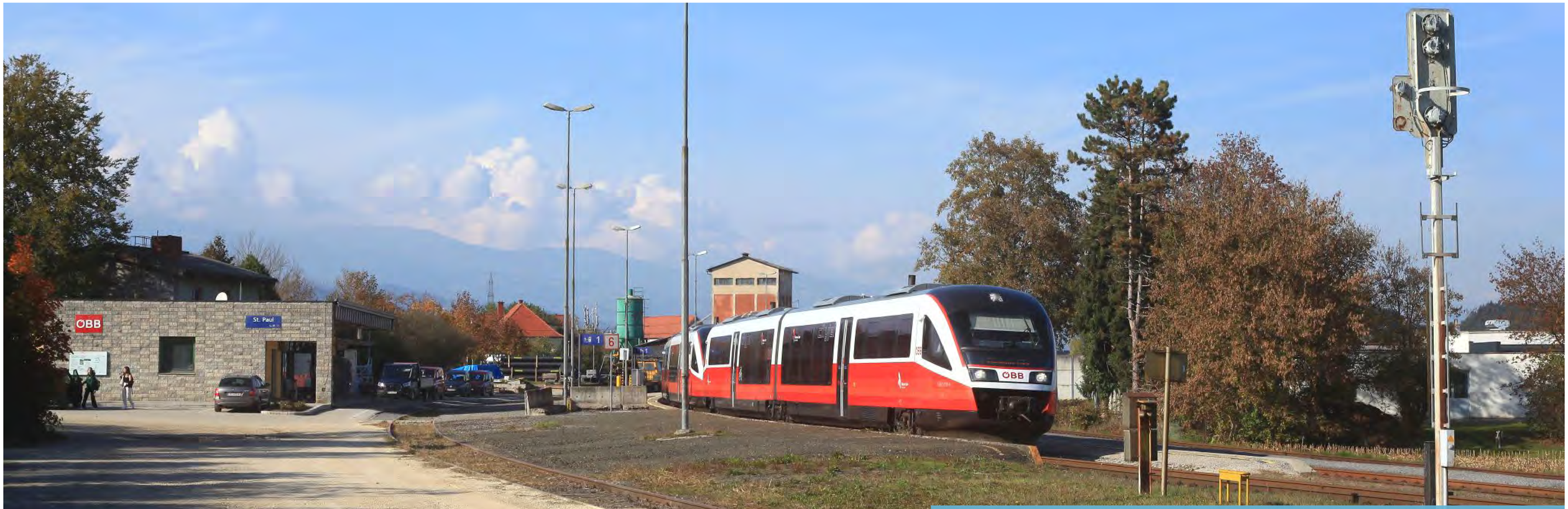
David

This Page

PKP Class 753.727 and 753.728 head north towards Usti nad Labem with a rake of VTG tanks. *Class47*

Front Cover

DB Cargo No. 6427 with one of the military transport trains after the NATO exercise 'Autumn Falcon' passes Holten on November 14th. *Gerard van Vliet*



OBB Class 5022.027 and 5022.032 calls at St. Paul with train No. S4523 Wolfsberg - Klagenfurt on October 13th. *Thomas Niederl*

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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.

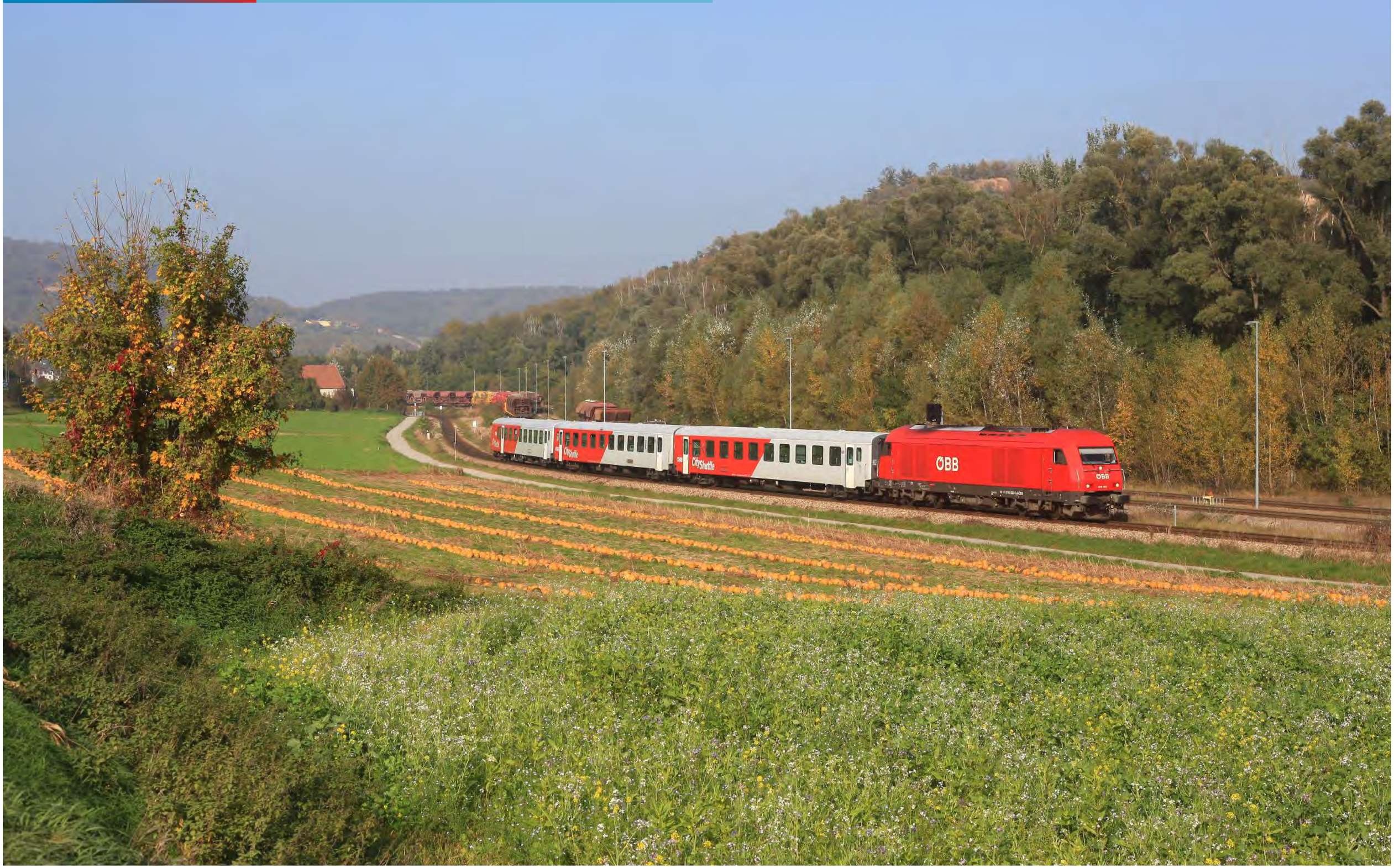
These issues wouldn't be possible without: Ray Anslow, Mark Armstrong, Brian Battersby, Mark Bearton, Mark Bennett, Tim Blazey, Rob Boyce, Keith Chapman, Julian Churchill, Nick Clemson, Derek Elston, Mark Enderby, Tim Farmer, Dave Felton, FrontCompVids, Colin Gildersleve, Vernon Goodey, Richard Hargreaves, Jim Haywood, Keith Hookham, Colin Irwin, John Johnson, Anton Kendall, Mathijs Kok, Jyrki Lastunen, Ken Livermore, Michael Lynam, Peter Marsden, Kevin McCormick, Thomas Niederl, Peter Norrell, Chris Perkins, Mark Pichowicz, David Pollock, Andy Pratt, Andre Pronk, 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, Wilko Wieffering, Takeshi Yoshimoto and Erik de Zeeuw.

On October 3rd, Class 1142.667, one of the last remaining 12 locos of this class, hauling the Regional express No. Rex3607 Linz to Kleinreifling, passes the now closed halt at Rohrbachgraben. *Thomas Niederl*

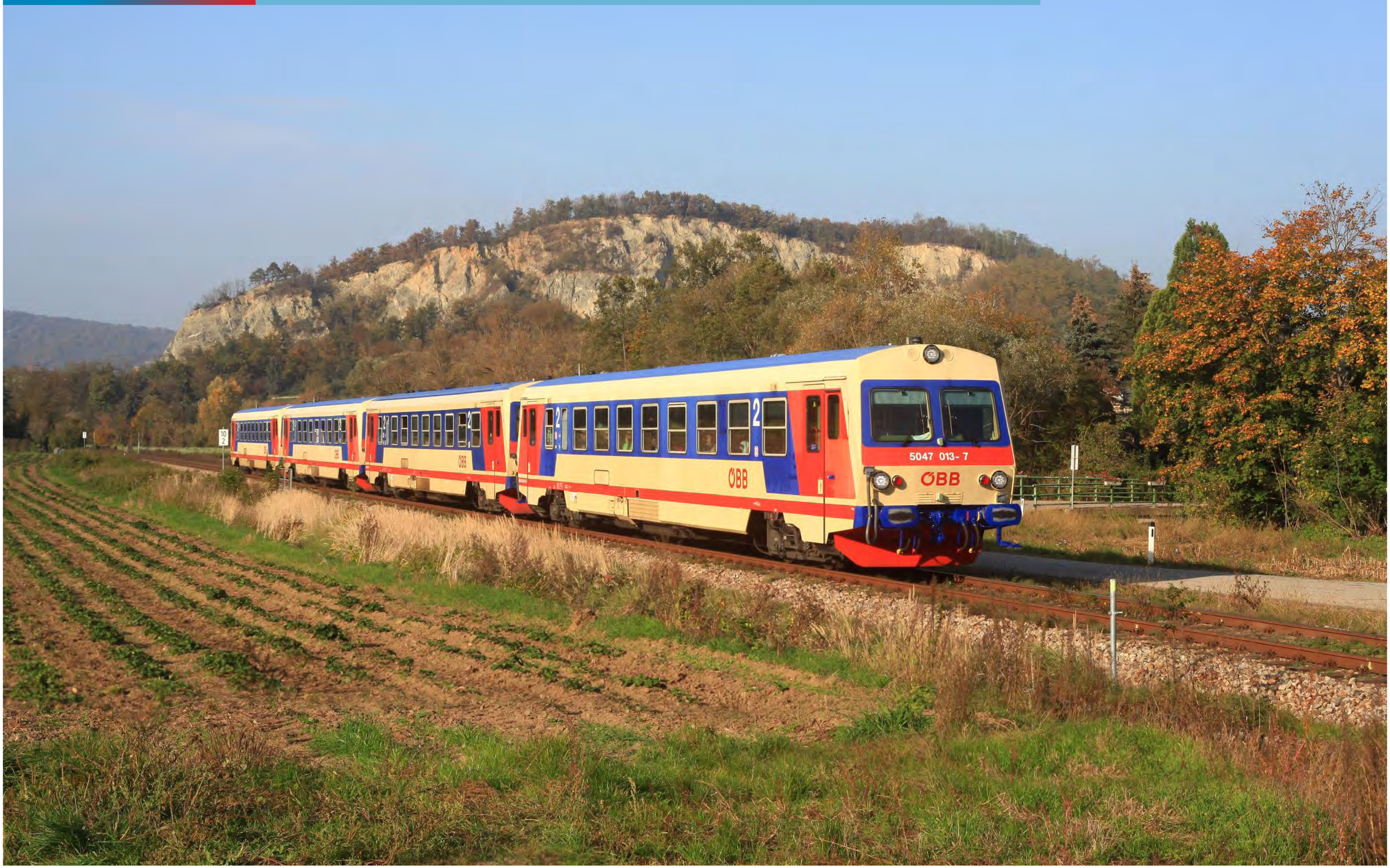
On October 9th, there was a special photo charter on the remaining kilometres of the 'Krumpe', a branch line of the Mariazellerbahn. About four kilometres from Obergrafendorf the line is operated by volunteers, here the photo charter is seen hauled by Class 2091.011 near St. Margarethen-Rammersdorf. *Thomas Niederl*

In the south of Carinthia there is now a new line being built to connect Klagenfurt with Graz. This line will partly replace the existing Jauntalbahn around St. Paul. In this photo OBB Class 5022.029 passes Granitztal halt working train No. S4519. This section will be closed in December and replaced by buses in 2023 before the new line opens in 2024. *Thomas Niederl*

In the afternoon of October 18th, after fog had lifted, it was a beautiful autumn day as Class 2016.025 passes a pumpkin field with its train No. R6036 Krems to St. Pölten. *Thomas Niederl*



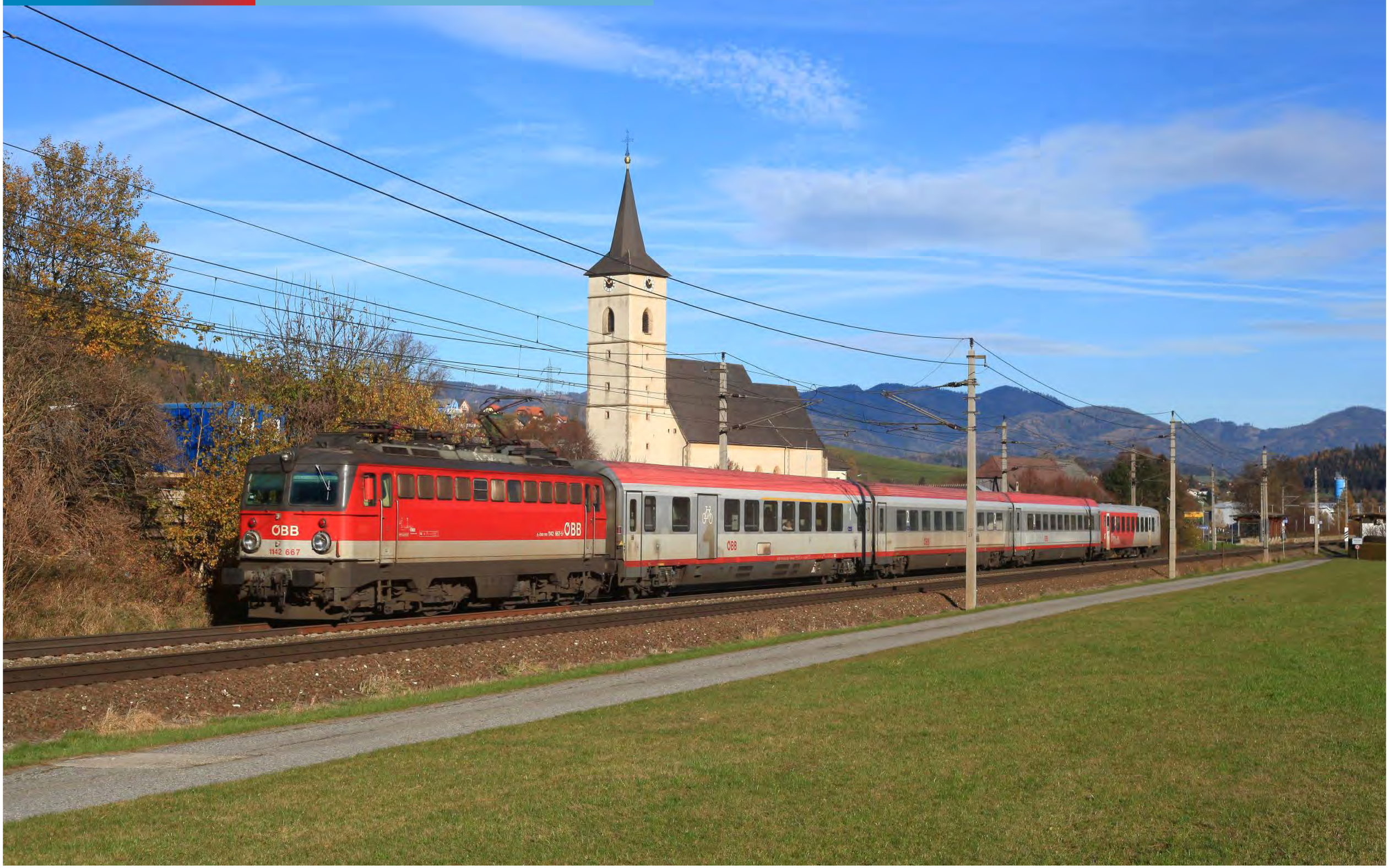
Train No. R6038 from Horn to St. Pölten is on weekdays operated by four Class 5047 DMUs. It's a rarity that all four DMUs carried the same old beige livery, but here are Class 5047.013, 5047.001, 5047.016 and 5047.010. *Thomas Niederl*



On October 13th, Class 2016.046 arrives at St. Paul Station with train No. S4514 from Klagenfurt to Wolfsberg. *Thomas Niederl*

On October 25th, Class 2016.020 and 2016.022 are seen between Statzendorf and Herzogenburg hauling diverted freight train No. NG63205 from Krems to Vienna. *Thomas Niederl*

On November 12th, Class 1142.667 is seen passing Kammern hauling Intercity train No. IC506 ‘Kremstal’ from Graz Hbf to Linz. *Thomas Niederl*

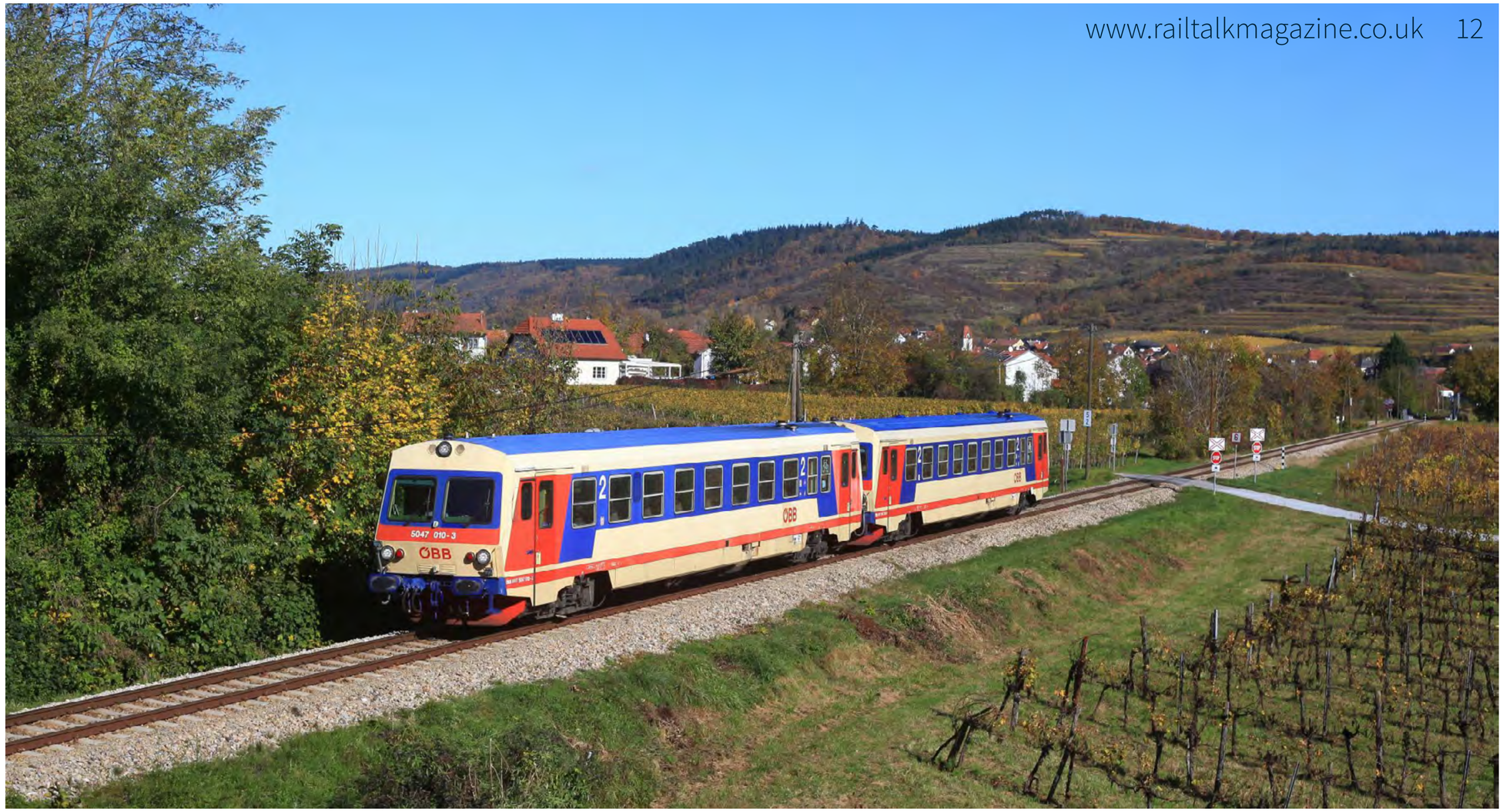


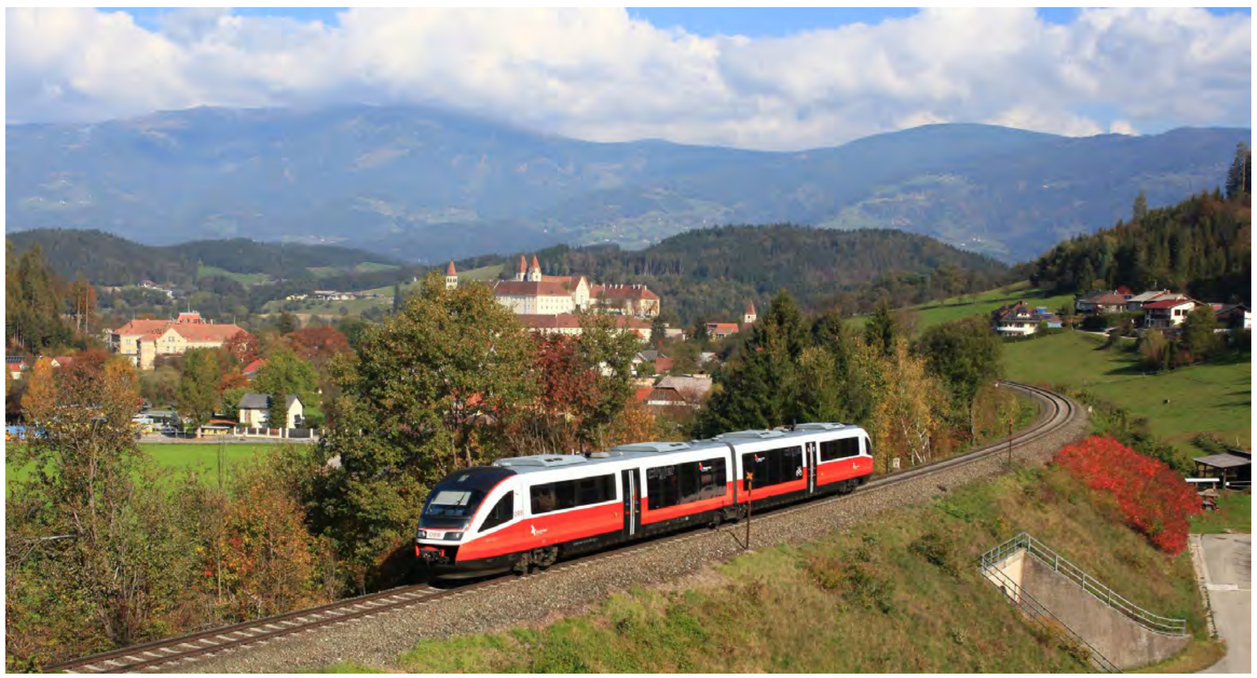
Austria

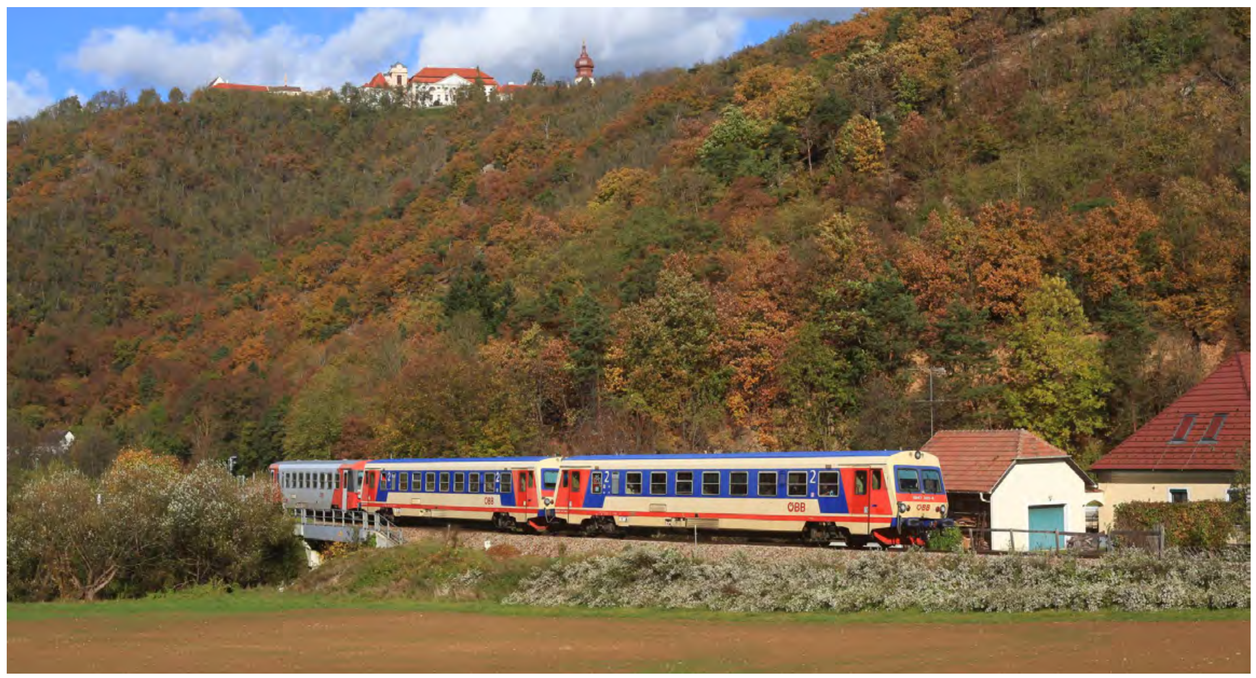
OBB Class 5047.010 and 5047.001 are on their way with train No. R6026 from Horn to St. Pölten as they pass near Zöbing on October 25th. *Thomas Niederl*

On October 25th, Class 5047.022, 5047.016 and 5047.014 working train No. R6030 Horn - St. Pölten pass below Göttweig Abbey heading for their next stop at Paudorf. *Thomas Niederl*

Class 5022.047 working train No. S4521 is seen near St. Paul Bad on October 13th. *Thomas Niederl*







Austria

RCG awarded quality seal as a top training company

Having already received the honour in 2014 and 2018, ÖBB Rail Cargo Group (RCG) has been declared a top training company for the third time, in recognition of the exemplary quality of its teaching. This is sure to pique the interest of young talents who can now apply for apprenticeships.

Birgit Schmöller (Head of HR at RCG) and Franz Heißenberger (Head of Apprentice Training) attended the awards ceremony on November 16th at Vienna City Hall, along with the who's who of Viennese politics. But the real stars of the evening were the two RCG apprentices, Nisa Korkmaz and Elisabeth Pasca. They stand for a new generation of motivated, self-confident and empathetic young people – and by extension, for the future of rail transport itself.

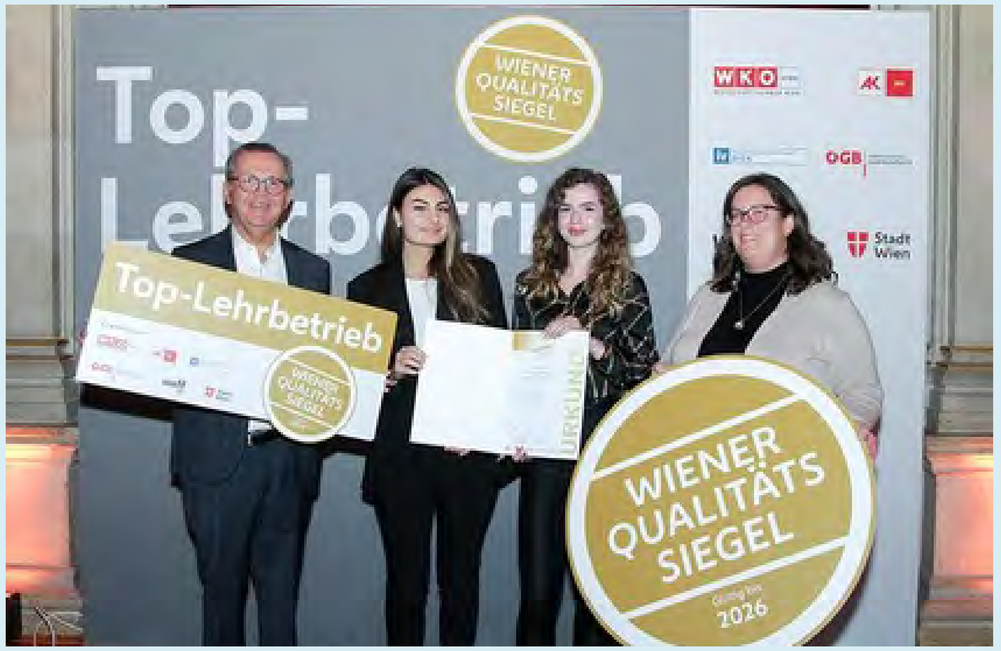
Top training company – a strong, shiny seal of approval from the city of Vienna
The top training company quality seal can only be awarded according to strict guidelines: as well as fulfilling eligibility requirements, a company must also be evaluated against a set of other assessment criteria. These include, among other things, regular feedback meetings, special training initiatives, further professional training or personal development, and the success of apprentices in national or international professional competitions. The renewal of the award means that RCG can use the seal up to and including 2026.

Apply now to become a climate logistics specialist of tomorrow!
Each year, up to 35 young apprentices have the chance to start an apprenticeship in the freight forwarding profession at ÖBB Rail Cargo Group throughout Austria.

As future climate logistics specialists, they get to experience the many different aspects of transport and railway logistics first hand and develop into top logistics specialists for the various entry-level positions in the company.

Internationalisation, digitalisation, sustainable transport systems and cutting-edge teaching methods are the guiding principles behind the multi-award-winning and professionally sound vocational training that our apprentices receive. The need for motivated talent is high; apprentices are particularly sought after in the western states of Vorarlberg, Tyrol and Salzburg. RCG offers apprentices the very best future career prospects in a sustainable, crisis-resilient company.

Those interested can apply at any time online, at nasicher.at.



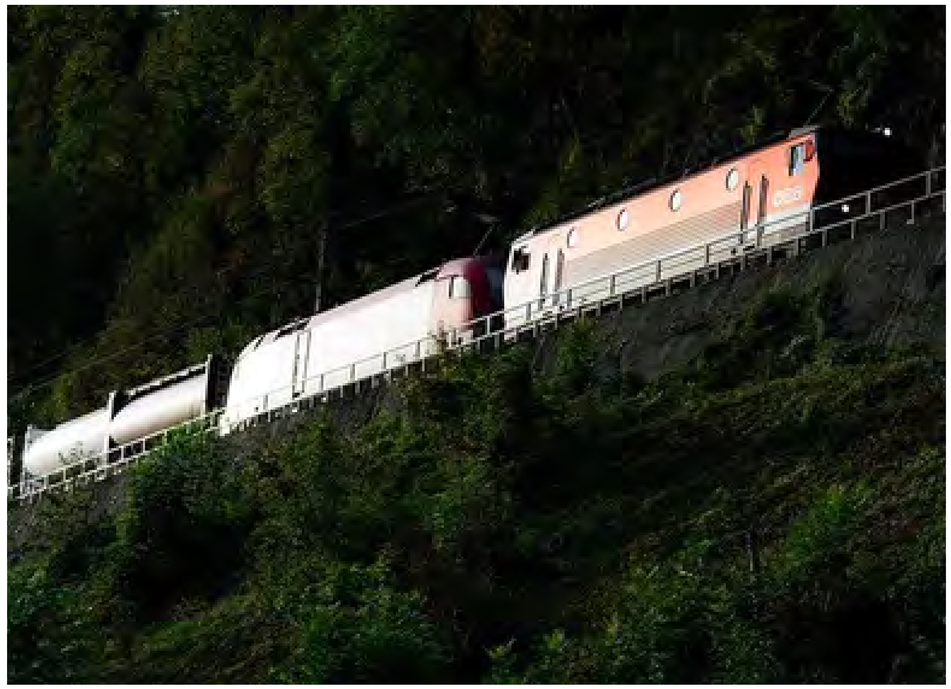
RCG has maintained fuel supply in Austria

After the Schwechat refinery broke down, ÖBB Rail Cargo Group (RCG) organised new transport services from the surrounding foreign countries at short notice, making a significant contribution to ensuring security of supply.

Rail freight transport is essential to the system and to supply. The freight railways have repeatedly proven this to be true, especially in 2022, a year of crisis. This can also be seen in the OMV refinery outage from June to October 2022. ÖBB Rail Cargo Group (RCG) organised 330 additional replacement transports from Germany at very short notice and in so doing maintained the fuel supply.

Efficient collaborative planning of new transport concepts
The international presence of RCG with its own locomotives and personnel and its close cooperation with partner railway companies were critical to its success. Together with OMV, we responded to the supply situation on a weekly basis and planned train schedules to the fuel depots. Joint coordination meetings involving all the operational units concerned were held on a daily basis to ensure efficient organisation of the new transport concepts.

Damage to the OMV refinery in Schwechat
At the beginning of June 2022 following a mechanical incident, considerable damage was caused to the crude oil distillation plant during the legally required water pressure test carried out as part of the final work required for the general overhaul of the OMV Schwechat refinery. This plant is responsible for processing most of the crude oil into its components and thereby preparing it for further processing in the refinery. Since mid-October 2022, the OMV Schwechat refinery has been running at full capacity again despite the incident in June 2022.



On October 19th, Railtraxx Class 66 No.653-07 is seen in Voeren with the Linz shuttle coming from Antwerpen. In Aachen an electric locomotive takes over the train to Austria. *Erik de Zeeuw*

Czech Republic

CD Cargo Class 123.025 heads north towards Usti nad Labem with a rake of loaded car transporters. *Class47*

CD Class 362.110 arrives at Cheb with an interjet service from Praha hl.n. *Class47*

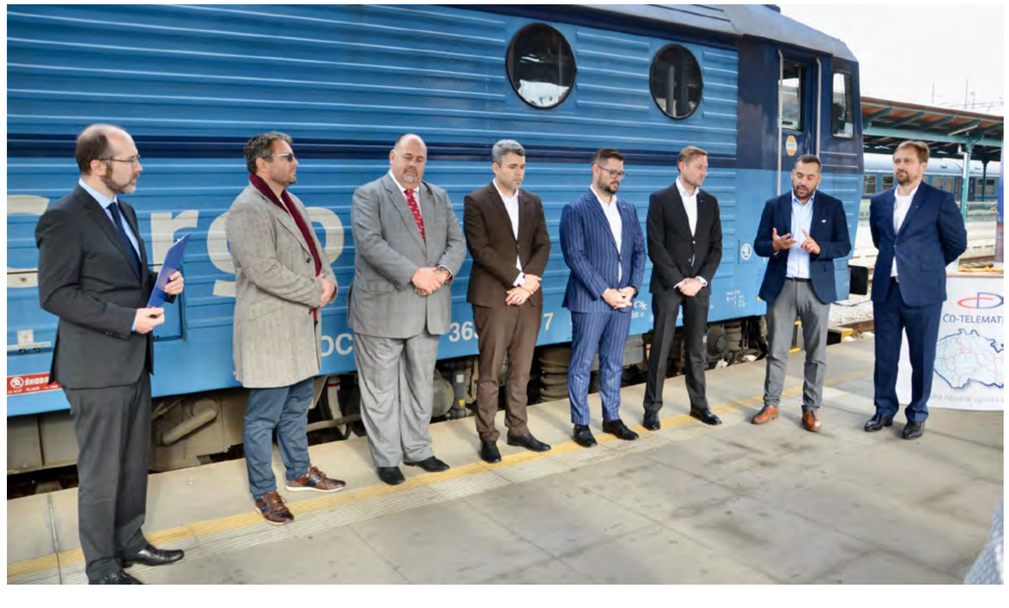
Last retrofitted vehicle handed over

ČD – Telematika retrofitted the on-board unit of the European Train Control System ETCS to the last of a total of 78 locomotives of series 163 and 363 of the carrier ČD Cargo and thus successfully completed an important contract. The entire project was implemented by the supplier association ČD – Telematika (leading partner) and AŽD. Vehicle 363.256 became the very last locomotive retrofitted with the ETCS system as part of this order.

Representatives of the companies ČD – Telematika, AŽD, Alstom, ČMŽO – elektronika and, of course, ČD Cargo took part in the symbolic handover at Pilsen main station on November 1st.

"The takeover of the last serial locomotive 363.256 means for us that we now have 78 very promising locomotives ready for the exclusive operation of trains under the supervision of ETCS which will be launched on a larger scale in the Czech Republic beginning 2025," commented Tomáš Tóth, chairman of the board of ČD Cargo on the event and continued: "This is a success that was preceded by a lot of effort and very good cooperation with the supplier. I firmly believe that the supplier will also be able to complete the " last step", which is to finalize the approval procedure for the operation of 13 locomotives of the 163 series with the active ETCS in Poland."

The implementation of the safety device in locomotives of series 163 and 363 that belong among the key traction vehicles of ČD Cargo began in March 2019 and the deadline for the completion of the contract was the end of this year. From January 1st, 2025, the Czech Republic plans to introduce so-called exclusive operation under the ETCS on selected backbone corridors. The exclusive operation mode means that traction vehicles without ETCS on-board units will no longer be admitted to these lines. The company ČD – Telematika is currently working on retrofitting of 30 multi-system electric locomotives of the series 363.5 belonging to the carrier ČD Cargo that developed by reconstruction of the original 163 series locomotives in years 2010-2013.
Photo: ©CD Cargo



Czech Republic

CD Cargo Class 742.409 and 742.190 are seen stabled at Mlada Boleslav. *Class47*

Czech Republic

LIBEREC TRAMS UNDERGO MAJOR OVERHAUL AT ŠKODA GROUP PRODUCTION SITE IN OSTRAVA

The first three trams from the Liberec fleet have started their major overhaul at the Škoda Group production site in Martinov, Ostrava.

Škoda Group won the tender for the repair of a total of six T3 trams worth almost EUR 2 million. The work includes mainly repairs to the cabinets and electrical parts of the vehicles, but the plan is also to completely renovate the interiors, including the driver's cabins. The planned overhaul will allow the trams to maintain their capabilities for the next 15 years.

The trams undergo several repair procedures during the process. One of the most important of these is the repair of vehicle skeletons affected by corrosion. This requires the removal of the outer cladding, windows, door systems and interior elements. After a thorough inspection and a series of measurements, the experts will replace all damaged parts and reassemble the vehicle. Finally, the trams will be given a new paint job.

ANOTHER 15 YEARS IN OPERATION

Škoda Group has entered a contract with the Liberec Transport Company for the repair of a total of six T3 trams, worth approximately CZK 46 million.

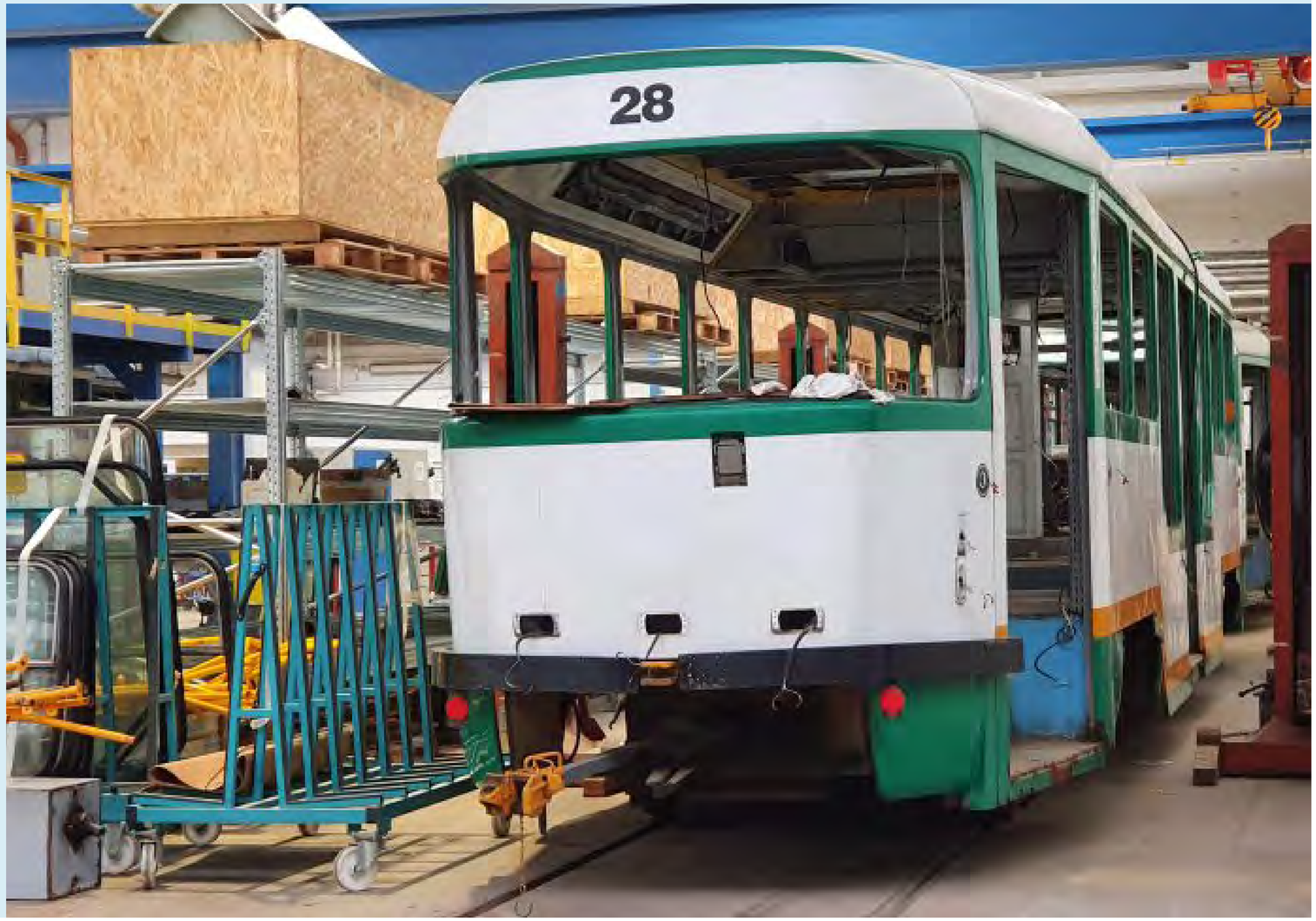
Repairs and modernisation of public transport vehicles have long been popular among operators. They allow to increase safety and reliability while saving financial resources. This option is mainly used in cases where the purchase of new vehicles is not economically profitable.

"By following an appropriate procedure for planned overhauls and replacing some key elements, we are able to maintain the tram's capabilities for the next 15 years of its life cycle," adds Marek Herbst.

The Škoda Group's production site in Martinov, Ostrava, is currently working on several orders for the Czech and foreign markets. Important foreign orders include, for example, a contract to repair 80 trams from Gothenburg, Sweden.

The Swedish operator Västtrafik AB has ordered the revision and repair of M31 trams from the Group for a total value of CZK 1.84 billion. The work will take place in Martin until 2027.

Photo:©Skoda Group



Správa železnic looking for designer of high-speed line in Prague

Správa železnic has launched another public procurement for a supplier of documentation for zoning decision (DZD) for a new network of high-speed lines. The designer shall prepare the technical design for the eighth section of the network between Vršovice and Běchovice in Prague.

The high-speed line (HSL) in the area of the capital is part of the planned branch 'RS 1' Praha – Brno – Ostrava. The section provisionally called 'VRT Praha' (HSL Prague) will be connected to the already planned line in Polabí (Elbe Flatlands), which will also be used by trains in direction of Pardubice, Hradec Králové or Wrocław in the future. In addition to the DZD, the contractor will also prepare documentation for environmental impact assessment (EIA), a digital model of the HSL Prague in BIM standard and a reliability and safety design of the line in accordance with RAMS system.

The contract also includes the design of the fourth track between the stations Praha-Libeň and Praha-Běchovice and facilities for maintenance of high-speed trains in Strašnice.

Správa železnic has announced the public procurement based on the innovative best value method. Its principles are applied throughout the entire procedure, even during the evaluation of offers.

With this approach, it seeks to find a high quality, independent and inventive contractor who can cope with the complex urban environment.

HSL Prague will increase the railway capacity of the capital. It will be designed as a double-track line equipped with European Train Control System (ETCS). Train speed in this section will range between 160 and 240 km/h.

Správa železnic expects the documentation for zoning decision to be completed in 2025 and to start the construction in 2029.

France

From 2025, Nestlé Waters France will use the first hydrogen-powered freight train through an innovative solution developed by Alstom and ENGIE

In line with its supply chain decarbonization roadmap, Nestlé Waters will be the first company in Europe to benefit from the hydrogen fuel cell solution for massified rail freight, including renewable hydrogen supply, developed by Alstom and ENGIE. It is estimated that this project will reduce[1] emissions by 10,000 tons of CO2 equivalent per year, in the long term, i.e. the reduction of 90% of its current emissions. This is the equivalent to the annual emissions of more than 30,000 round trips from Paris <> Nice by car[2].

As a significant innovation, the new hydrogen solution will be developed from a high-powered fuel cell system that can power electric locomotives in non-electrified areas. This solution will be able to transport goods over long distances, on a national and European scale.

From 2025, this freight train powered by electricity from the rail network and from hydrogen in non-electrified sectors will aim to progressively ensure the transport of VITTEL® natural mineral water between the factory located in the Vosges and its various distribution centres in France (i.e Vittel/Arles 600 kms and Vittel/Montreuil-Bellay 760 kms). The dual-mode solution will be composed by a generator wagon incorporating a high-power fuel cell system powered by renewable hydrogen and a line-electric locomotive, all connected by an electrical power cable. The generating wagon will be able to supply the locomotive with electricity in the without the need for any catenary.

“At Nestlé Waters, we favour rail freight whenever possible. We are constantly looking for efficient solutions to reduce the carbon impact of our supply chain,” said Sophie Dubois, Chief Executive Officer of Nestlé Waters in France. “We are very proud of this project as it represents a significant investment by our railway team to find innovative solutions to answer to climate and environmental challenge. This collaboration with Alstom and ENGIE will accelerate the development of a decarbonized/carbon-free supply chain”, concluded Sophie Dubois.

An innovative decarbonization system developed by Alstom and ENGIE

Nestlé Waters will be the first company to benefit from the hydrogen fuel cell solution for rail freight, including renewable hydrogen supply, developed by Alstom and ENGIE under a partnership announced in April 2022. This solution aims to replace the diesel-powered locomotives, currently used on most lines in France and most European countries. The high-power hydrogen fuel cell system developed by Alstom will power electric locomotives in non-electrified areas and offer a 100% electric solution for rail freight, end-to-end, including to the first and last kilometres, which are rarely electrified.
This innovative solution will make it possible to carry out all freight journeys with the same electric locomotive, powered by the catenary on electrified main lines and by the hydrogen generator wagon in non-electrified areas.
In terms of performance, the solution will provide all the power of a catenary-based mainline electric locomotive and enough power with hydrogen energy to pull a freight train over non-electrified line segments.
ENGIE will supply the renewable hydrogen for this solution through the deployment of an innovative supply chain.

“Alstom has been a pioneer in hydrogen trains by developing the first hydrogen train in commercial operation worldwide.” said Marc Granger, Chief Strategy Officer of Alstom. “Our ambition is to accelerate the adoption of hydrogen in the rail industry and to develop innovative solutions for the greening of mass mobility, including rail freight. Therefore, we are looking forward to the first circulation of a freight locomotive powered by renewable hydrogen in 2025. To go further, this solution, which is more environmentally friendly and generates less noise than diesel, will make it possible to develop the modal share of rail freight by offering an end-to-end electric solution, a real alternative to freight transport.”

“Following the announcement of our partnership with Alstom to supply hydrogen to this new European rail decarbonization solution, Nestlé Waters becomes the first prime contractors for our offer, and the first future user of our solution. This is a key step in the development of this project. Hydrogen plays an essential role in the transition of industrial companies towards reducing their emissions, a dynamic in which ENGIE is fully involved.”
Sébastien Arbola, Executive Vice President of ENGIE in charge of Thermal Generation, Hydrogen & Energy Supply activities.

Nestlé Waters puts rail as a strategic part of its carbon reduction roadmap

This project with Alstom and ENGIE is the latest for Nestlé Waters, which has long favored rail in its logistical approaches to minimize the environmental impact of transport, equivalent to a quarter of its carbon footprint[1]. While for French industry, the share of rail freight represents on average [2]8% to 10% of the volumes transported, for Nestlé Waters in France, it represents nearly 45% of the volumes of the Vosges factory.

In 2018, Nestlé Waters joined the FRET21 approach and signed an agreement with the French Agency for Ecological Transition (Agence de la Transition Ecologique - ADEME) to take action to reduce the carbon footprint of its product transport flows in France. In 2020, the group set a further target of reducing its transport-related CO2 emissions in France by 13% by the end of 2022. This ambition is based on the following concrete actions:

- In 2018, the opening of a railway line between its PERRIER® plant and the port of Fos-sur-Mer, reducing the passage of 27,000 trucks per year.
- In 2019, the introduction of the EURODUAL hybrid locomotive, which has saved 1,920 tonnes of CO2 equivalent per year compared to a diesel locomotive.
- In 2021, the Glass Train project, which promotes the transport of VITTEL® and S.PELLEGRINO® returnable glass bottles by train, reduces the passage of 1,000 trucks per year.

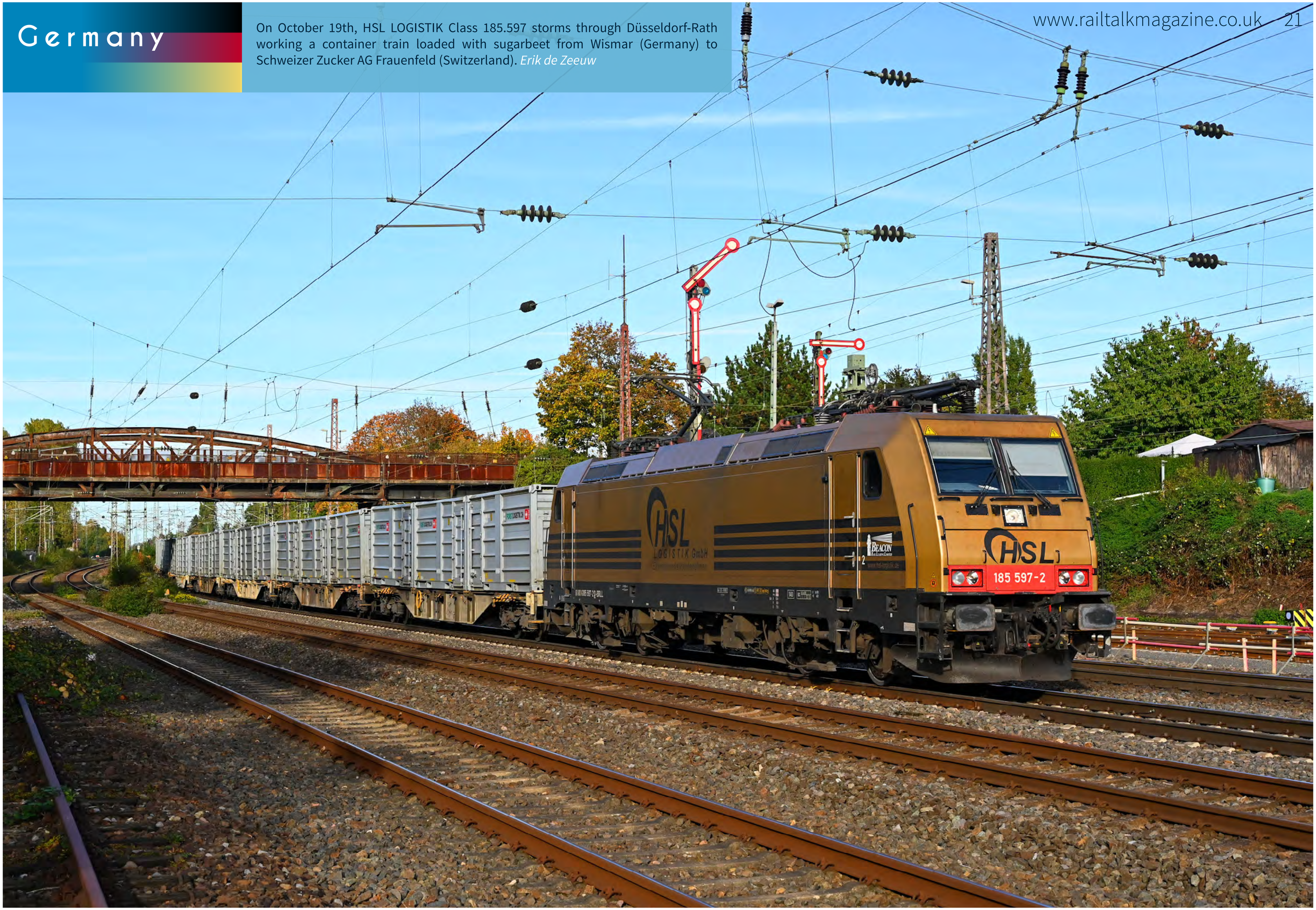
The initiatives led by Nestlé Waters since 2020 have already made it possible to reduce almost 11% of the carbon emissions from transport, or about 5’900 tons of CO2 equivalent by the end of 2021.
All these actions contribute to the Nestlé Group’s ambition of zero net greenhouse gas emissions by 2050 at the global level.

[1] [2] Compared to the current solution (diesel locomotive)
[3] Que représente (réellement) une tonne d’équivalent CO2 ? - Carbo (hellocarbo.com)
[4] Life cycle analysis study, 2018-2021, Cabinet RDC
[5] Chiffres clés du transport - édition 2019 (developpement-durable.gouv.fr)

Image: Non contractual design for illustration purposes | © Alstom Advanced & Creative Design

On October 19th, SBB Cargo Class 482.030 has just crossed the Rhine in Cologne (South Bridge) with a Hupac intermodal from Domo II Gallarate (Italy) to Rheinhausen (Germany). *Erik de Zeeuw*

On October 19th, HSL LOGISTIK Class 185.597 storms through Düsseldorf-Rath working a container train loaded with sugarbeet from Wismar (Germany) to Schweizer Zucker AG Frauenfeld (Switzerland). *Erik de Zeeuw*

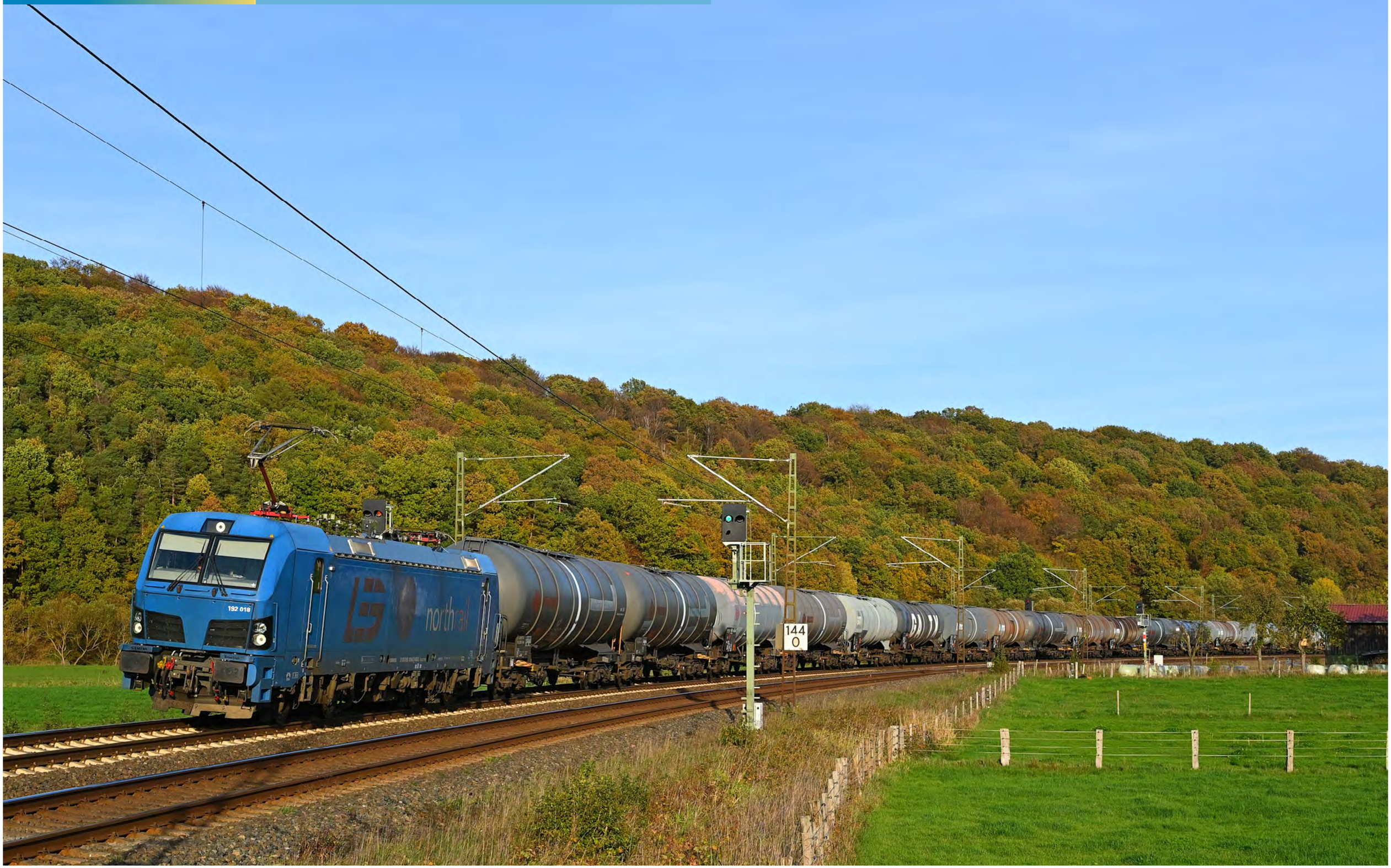


EGP Class 192.103 in ‘Dragon’ design passes Kaarst heading a Mannheim to Duisburg liner on October 19th. *Erik de Zeeuw*

On October 26th, SEL (Martin Schlünß Eisenbahnlogistik) Class 181.204 named 'RÜGEN' approaches Elze with a Mercedes Benz car train from Kirchweyhe to Freilassing and onwards to Koper Tovorna in Slovenia. *Erik de Zeeuw*

Class 146.554 at the head of a DB Bombardier-Twindexx-composition is seen near Ahlen working train No. IC2046 from Dresden Hbf to Cologne Hbf on October 26th. *Erik de Zeeuw*

LEG (Leipziger Eisenbahnverkehrsgesellschaft) Class 192.018 hauling a rake of tankers passes Odensachsen with a Stendell to Neustadt an der Donau service. *Erik de Zeeuw*



On October 12th, EBS Class 143.056 heads through Hünfeld with EBS Class 156.003 heading towards Hanau. *Erik de Zeeuw*

Germany

Successful start: Maxi Terminal Hamm opens for business

Part of Germany's second largest canal port, the new Maxi Terminal Hamm (MTH), which opened in September, offers a large combined transport portfolio and specialises in handling chemicals and dangerous goods. The year-round connection to the seaports in Antwerp and Rotterdam, the large dangerous goods storage facility with capacity for up to 1,200 containers and the ability to handle load units of any size are making Hamm a logistics hub for chemicals and dangerous goods.

First successful transhipments
The terminal can already look back on its first successful weeks of transhipment and storage for dangerous goods. Right from the test phase, the MTH team were able to demonstrate their strengths by setting up, at short notice, a solution to help companies cope with low water levels. The location of the transhipment terminal on the Datteln-Hamm Canal played an important role in this.

The Hamm hub connects rail and road and has the infrastructure needed to handle liquid goods. If necessary, inland navigation can be integrated into the multimodal concept using a pumping system. The terminal is operated by Maxi Terminal Hamm GmbH, which was founded in 2021 by four partners: DB Cargo BTT, Lanfer Transporte, Stadtwerke Hamm and Weilke Logistik.

Maxi Terminal Hamm passes first acid test with flying colours
But the MTH not only benefits customers in the chemical industry. Although the terminal's services are specifically geared towards this segment, it can efficiently handle other goods, too. The terminal has already scored some high-profile successes by implementing rapid logistics solutions in the first few weeks since its opening. This has included receiving traffic temporarily diverted from another logistics centre further south. The MTH quickly designed and implemented a transhipment concept for the goods. Three entire trains carrying 300 swap bodies were transhipped in this "rescue operation".

Outstanding cooperation from all sides
"The swift, straightforward and smooth collaboration of everyone involved was particularly important here," says Maik Rehmer, Managing Director of Maxi Terminal Hamm GmbH. Rehmer puts the success of the rescue operation down to the outstanding cooperation between the companies involved: "I'm proud to say that we got all the containers on their way to their destinations on time to the customer's complete satisfaction. This was thanks to the great collaboration between everyone involved and above all thanks to the hard work of the MTH employees." Regardless of the type of goods, it has been a successful launch all round for Maxi Terminal Hamm.

New terminal built at former port site in Osnabrück

Together with the new Container Terminal Osnabrück (CTOS), TFG Transfracht is shifting more cargo away from the roads and onto Strong Rail. The DB subsidiary is broadening its range of services on shorter routes, known as 'shortland feeders'. CTOS has been served by TFG Transfracht freight trains since January 2022. Starting in September, the frequency of service between Osnabrück and Hamburg and to the seaports of Wilhelmshaven and Bremerhaven was boosted from six departures per week to eight.

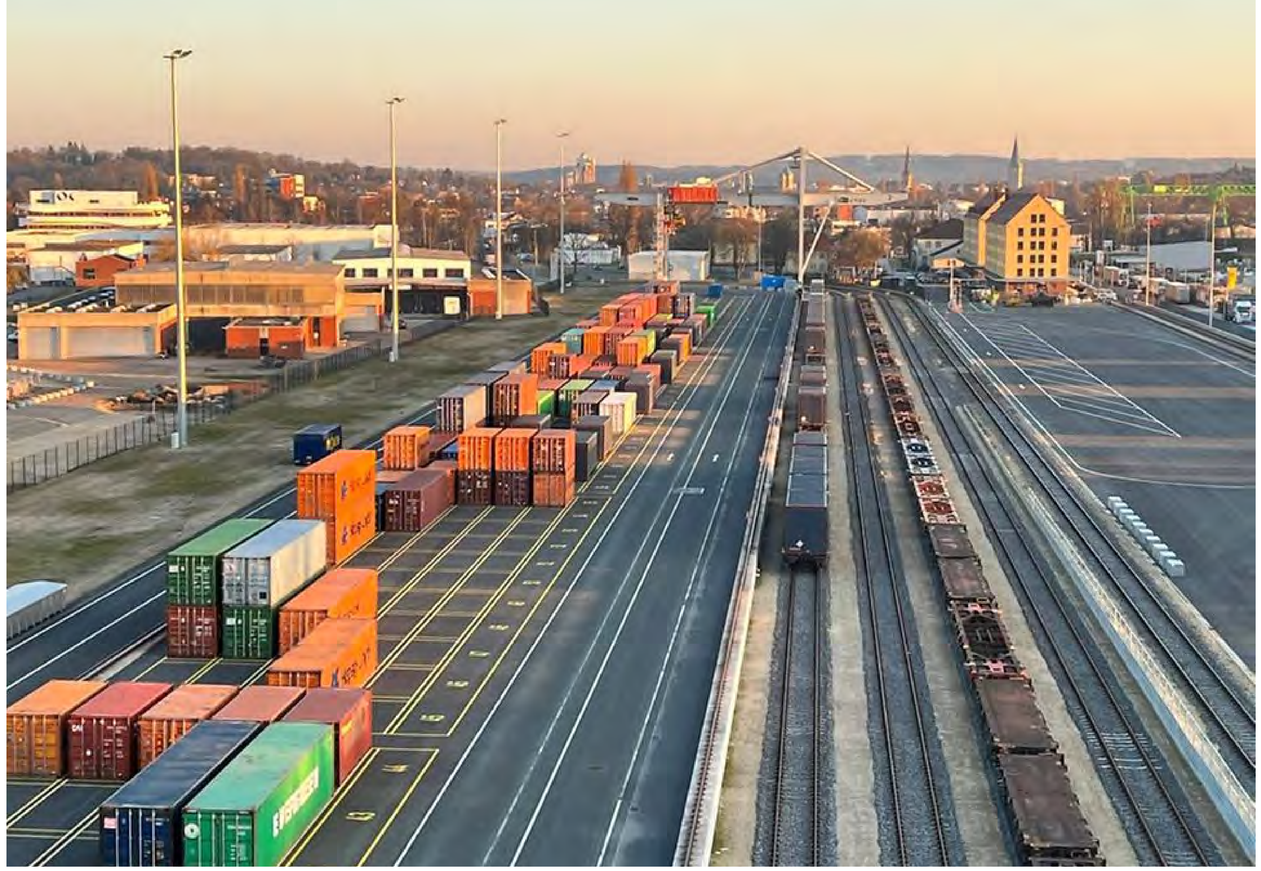
Logistics on the way to climate neutrality
The Hamburg–Osnabrück route alone shifts up to 40,000 TEUs a year from road to rail. This reduces the burden on road infrastructure while actively fostering a climate-neutral supply chain. The scheme keeps up to 7,000 tonnes of CO2 out of the atmosphere every year.

The transports between Osnabrück and the northern ports are 100 per cent zero-carbon. The TFGeco train product, which runs on renewable power, makes this possible. CTOS itself is powered exclusively by green electricity, too. This makes every journey and every load an investment in the environment and a smaller carbon footprint.

An innovative site for more efficient container handling
CTOS has been housed at the old Osnabrück port site since autumn 2021. Container handling at its large railway sidings makes full use of modern technology and digitalisation. Gantry cranes hoist the containers onto the freight trains.

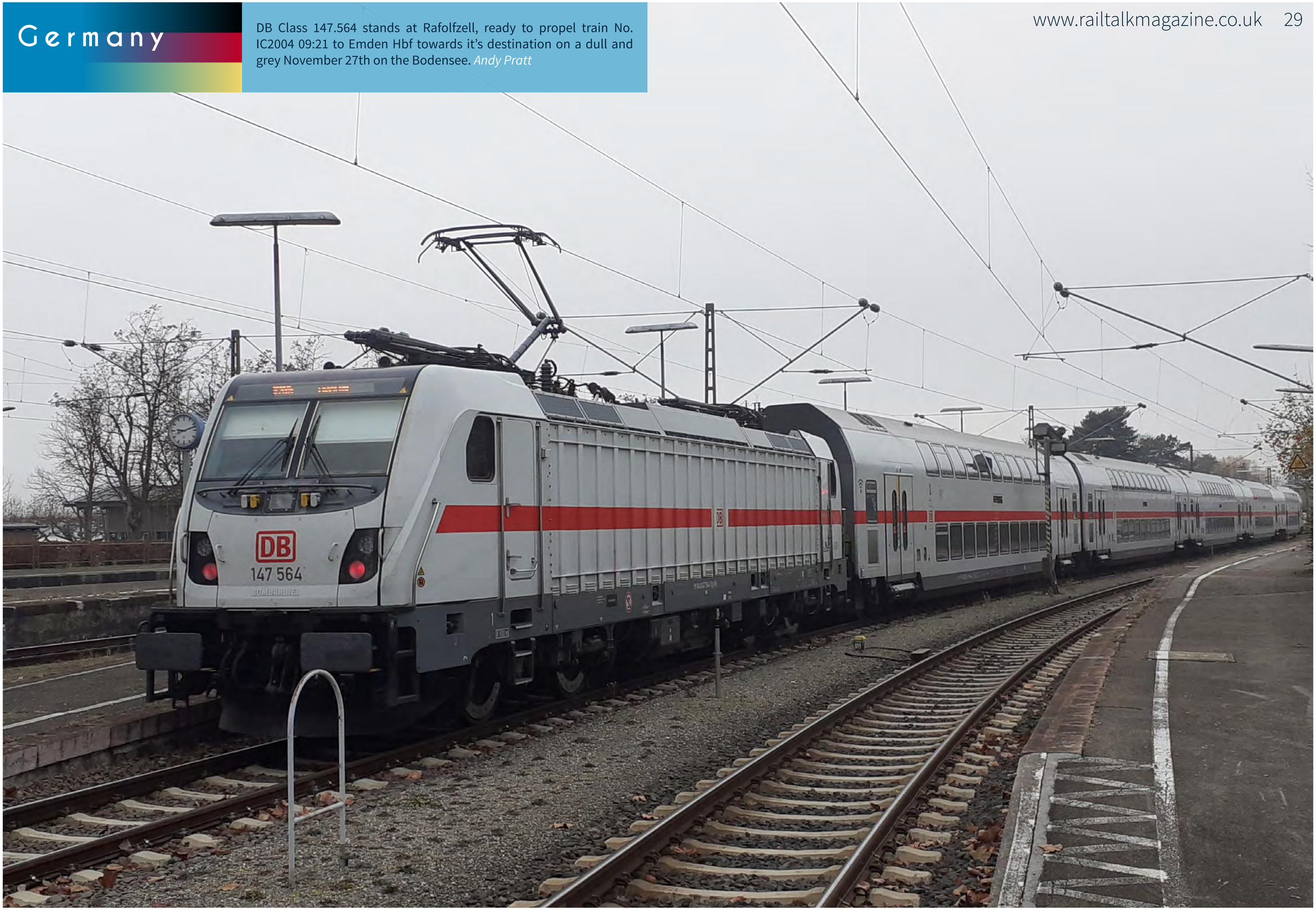
The facility's capacious grounds boast a storage capacity in excess of 6,000 TEUs for customers to park their goods temporarily when the need arises. This is a particularly valuable service in a time of crisis when many warehouses are short of capacity. CTOS benefits from the potential of the Osnabrück area, where many large trading companies and logistics providers have settled.

International seaports: Gateways to the world
TFG Transfracht's AlbatrosExpress provides a round trip service to a range of seaports, all hotspots for international container handling. This means that the train travels first from CTOS to the relevant seaport to unload its containers, and afterwards, the goods are returned to Osnabrück, where they are stored or sent directly to customers by truck over the last mile.



On October 26th, SRS (Salzland Rail Service) Class 159.222 is seen in Elze with a Bokeloh to the Kali-Region Werra lye empties. VTG/retrack has subhired the loco to SRS. *Erik de Zeeuw*

DB Class 147.564 stands at Rafolfzell, ready to propel train No. IC2004 09:21 to Emden Hbf towards it's destination on a dull and grey November 27th on the Bodensee. *Andy Pratt*

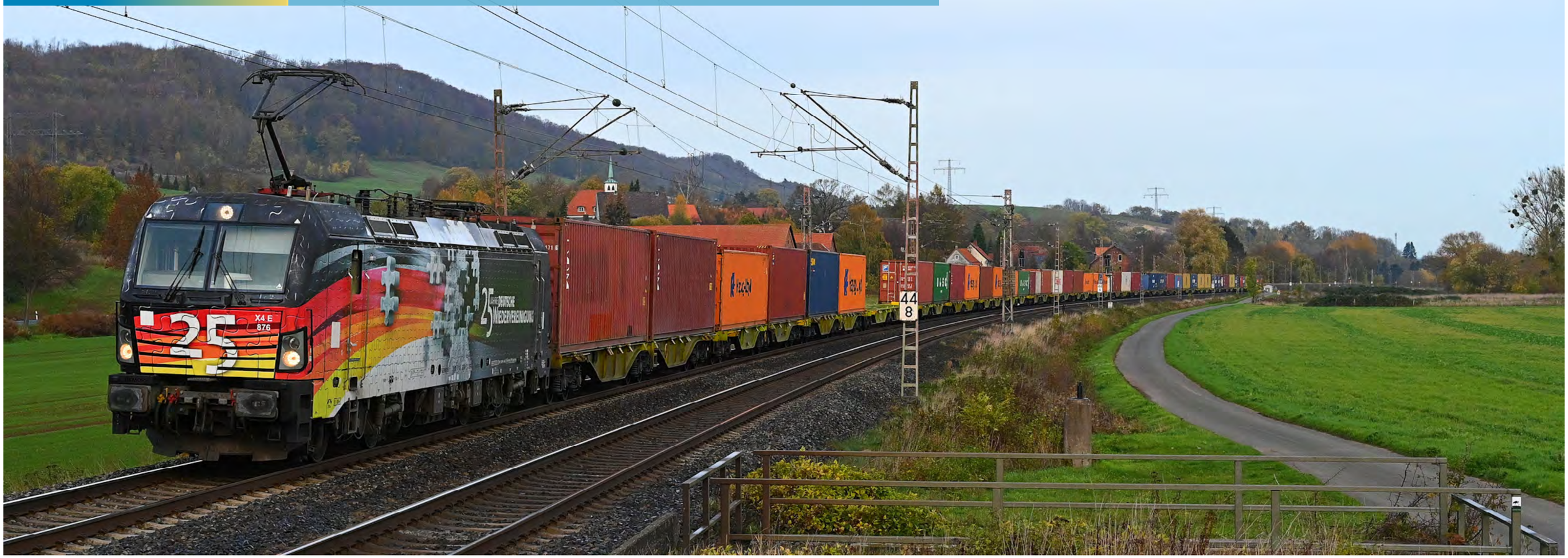


The branch from Friedrichshafen Stadt to Friedrichshafen Hafen is just 792m long and connects with the many boats that operate across and around the Bodensee on the German/Austrian/Swiss borders. Class 612.067 waits to depart on November 27th with train No. IRE3052 10:29 to Singen (Hohentwiel). The branch was electrified in December 2021.
Andy Pratt

Germany

On October 28th, cantus Verkehrsgesellschaft Class 428.553 passes the hunter's cabin in Rhina working a Kassel via Bebra to Fulda service.
Erik de Zeeuw

Wiener Lokalbahnen Cargo Class 193.876 '25 YEARS GERMANY TOGETHER AGAIN' approaches Alfeld working a deep sea container train from Hamburg-Waltershof Dradenau to Enns in Austria on November 11th. *Erik de Zeeuw*



Moving together towards green steel

DB Cargo and ArcelorMittal show how to do climate-neutral steel production

As it heads towards zero-carbon steel production, DB Cargo AG has taken a key stride towards green logistics with ArcelorMittal, the world's leading steel group. The logistics company is investing in multifunctional double wagons and special containers to bring incoming materials such as ore, coke and limestone to the Eisenhüttenstadt steelworks with even greater efficiency and less climate impact. The steelworks has also commissioned two new unloading facilities, which produce significantly less dust when incoming materials are delivered and handled.

Trimming carbon footprints with cutting-edge technology

DB Cargo and ArcelorMittal's cooperation brings green steel production and efficient transport logistics into a perfect symbiotic relationship. Partially automated unloading facilities with extraction units are in operation at the Eisenhüttenstadt steelworks.

When combined with innovative double wagons, these systems can do a great deal to slim down the firm's carbon footprint.

Larger loads, faster shunting

The multifunctional double wagons from Austrian manufacturer Innofreight have easily removable special containers that can be transhipped at unloading terminals while producing next to no dust. They also allow each train to pack 20% more freight.

Automating the unloading process yields tangible time savings by educing the workload needed for shunting.

ArcelorMittal and DB Cargo draw on decades of cooperation

Dr Sigrid Nikutta attended the unveiling of the new logistics system at the Eisenhüttenstadt steelworks today. "Environmentally friendly rail is enabling the green transformation of the German and European economy," she said. "It is the basis for green supply chains and for reducing carbon emissions in production. DB Cargo is leveraging the new logistics concept to secure a steady supply of raw materials for one of Germany's largest steel sites between now and 2031, while supporting ArcelorMittal on its path to climate-neutral steel production."

The partnership is a good fit for DB Cargo, since the logistics partner shares the same goal of climate neutrality. It aims to become climate-neutral by 2040. DB Cargo and ArcelorMittal's innovative project is making an already close partnership between the two companies even stronger. From the Eisenhüttenstadt works alone, DB Cargo transports an annual 700,000 tonnes of steel flat bars and steel coils by rail for industrial and automotive customers.

ArcelorMittal is planning further investments in Eisenhüttenstadt, such as building two electric arc furnaces to produce crude steel from recycled scrap and sponge iron made with green hydrogen. The sponge iron will first ride the rails to Eisenhüttenstadt's unloading facilities from a site ArcelorMittal plans to create in Bremen.

Germany

Additional capacity for Hamburger Hochbahn's U2 and U4 lines

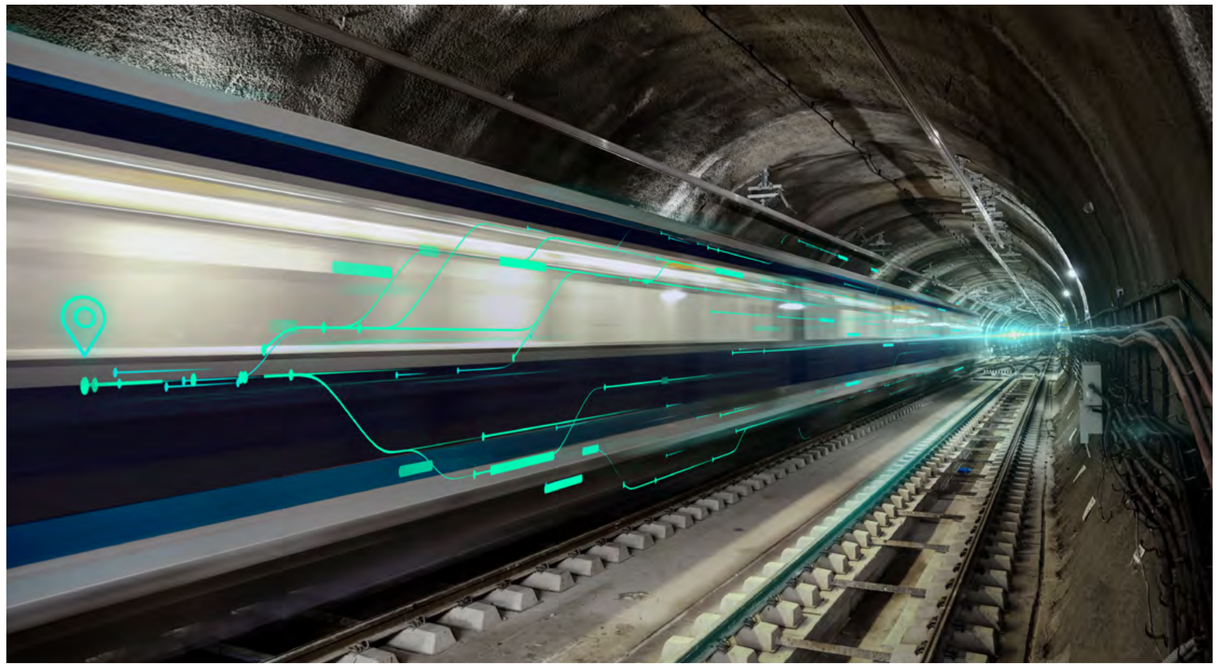
Between now and 2030, a state-of-the-art digital train control system from Siemens Mobility will be installed as an upgrade to the conventional train control system used by operator Hamburger Hochbahn (HOCHBAHN) on its U2 and U4 subway lines. The new technology, known as CBTC (communication-based train control), will allow trains to run at shorter intervals of only 100 seconds, which will put significantly more trains on the track in the future, thereby increasing capacity. In addition, CBTC also improves punctuality, reliability, and energy consumption.

Henrik Falk, CEO of HOCHBAHN, commented: "For the mobility transition, we need powerful and reliable systems that create real customer benefits. Through the U-Bahn100 project, we're creating a service for our passengers that is simply unbeatable: a subway train every 100 seconds – on time, reliable, environmentally friendly, and effectively available at all times."

"This project is an important milestone on the road to transforming mobility in Hamburg. In the future, trains on the U2 and U4 lines will be able to run every 100 seconds," said Andre Rodenbeck, CEO for Rail Infrastructure at Siemens Mobility. "Siemens and Hamburger Hochbahn have a long history together, and we're extremely proud to be able to implement our innovation here in Hamburg. Our technology combines greater track capacity, maximum availability, and lower energy requirements with the highest possible level of safety."

What is being upgraded?
Siemens Mobility will supply and install its digital Trainguard MT CBTC solution for the conventional Sicas ECC interlockings currently in service on the two subway lines. In addition, the company is also supplying the relevant technology that needs to be installed in the subway cars. Trainguard MT will then be available on the U2 line between the Christuskirche and Mümmelmannsberg stations and on the entire U4 line. Siemens Mobility's Trainguard MT is the most widely deployed train control system in the world. It is used by numerous operators around the globe, including in Paris, Beijing, New York, London, Hong Kong, and Buenos Aires.

What is communication-based train control?
Communication-based train control, or CBTC, for short, refers to a complex system of digital signals and messages that vehicles and the line itself permanently exchange with each other in real time. Various components along the line and in the vehicles make this radio-based, bidirectional data communication between the train and the infrastructure possible, in which track information is wirelessly transmitted to the trains.



What are the benefits of digital train control?
Digital train control increases the capacity of the subway lines, especially in tunnels. The key aspect driving such modernization is ultimately the expansion of services – i.e., more trains on the track and at shorter intervals, both of which play an essential role in the transformation of the mobility system, including the switch from cars to public transportation. This is because a CBTC system allows rail vehicles to operate at actual braking distance intervals rather than on the basis of predefined block section lengths, as has previously been the case. This will enable shorter train sequences, increasing transport capacity by more than 20 percent – without the need for expensive track and tunnel widening or the construction of completely new tracks altogether.

The state-of-the-art, high-performance train control technology doesn't just allow more trains to use the track, however, but also enhances the accuracy and reliability of the schedule. Furthermore, it makes subway operation more energy-efficient – with savings of up to 20 percent possible – and improves passenger comfort through smoother acceleration and braking.

All in all, communication-based train control will increase the capacity and overall attractiveness of the subway system, thereby increasing rail-based public transit's total share of urban transport. This, in turn, will directly contribute to a reduction in harmful exhaust emissions, thereby improving the city's air quality.

New ICE generation: Deutsche Bahn commissions Siemens Mobility with concept development

Deutsche Bahn AG (DB) has concluded a development partnership for long-distance rail transport with Siemens Mobility following a tender. In the first half of 2023, the two companies will work together on developing their vision of a new-generation high-speed train. Once the concept has been completed, a further tender is expected to follow in the second half of 2023 for the development, construction and certification of the new fleet.

"We are especially pleased that Siemens Mobility is one of two competing suppliers to be commissioned to develop a new concept for high-speed trains. This will give us the opportunity to continue our long-standing partnership with Deutsche Bahn.

Even the form of cooperation is forward-looking: Rather than delivering a specific catalog of requirements, the most important features of the new generation of ICE trains will be developed in close cooperation with the customer," said Albrecht Neumann, CEO Rolling Stock at Siemens Mobility.

Through the holistic approach of this partnership, the specific needs of the operator as well as passengers will be aligned with state-of-the-art technologies. This will help foster new ideas that make rail travel even more attractive, comfortable and convenient.

The new generation of trains will make a decisive contribution toward meeting Deutsche Bahn's declared goal: doubling the number of passengers using long-distance rail transport by 2030.

To achieve this, DB is relying on single-deck trains that are a maximum of 400 meters long, have a seating capacity of around 950 passengers, and a top speed of at least 300 km/h. In addition to providing enhanced passenger comfort, the new trains are also expected to set new standards in energy efficiency and technical availability.

Siemens Mobility is an industry leader in the field of single-deck high-speed trains. More than 1,000 Siemens trains based on the high-speed Velaro platform are already in service around the world.

On November 11th, MEG Class 145.031 passes Nordstemmen with a rake of tankers from DOW Terneuzen (Netherlands) to Schkopau. *Erik de Zeeuw*

Class 218.415 and 218.446 arrive at Immenstadt with train No. IC2012 09:52 Oberstdorf to Bochum Hbf on November 26th. *Andy Pratt*

DB Regio Class 612.625 in Baden Württemberg livery has just terminated at Aulendorf on November 26th and will now form train No. IRE3260 13:06 to Stuttgart Hbf via Sigmaringen. *Andy Pratt*

Germany

With the ICE to Brussels: record with over 1 million passengers

Deutsche Bahn (DB) celebrates 20 years of ICE Brussels. And more and more passengers use the cross-border high-speed traffic between Germany and Belgium. For the first time in 2022, DB expects more than one million passengers to use the ICE Brussels to travel to Belgium or Germany.

DB boss Richard Lutz: “Never before between Germany and Belgium have so many people opted for the climate-friendly rail as this year. With one million travellers to and from Brussels, we are aiming for a record. Setting the right course twenty years ago is paying off today. And from 2024 we will make rail travel to Brussels even more attractive with new trains and more comfort.”

SNCB CEO Sophie Dutordoir: “Once a pioneer, the ICE is now a pillar of sustainable mobility. This experience connects us with Deutsche Bahn every day: our teams have been working together for 20 years, and the ICE connects Brussels directly with Frankfurt via Aachen and Cologne. And now up to 7 times a day with many connections to other cities such as Berlin or Munich. Trains stand for safe, sustainable and comfortable travel and are an important tool for achieving climate goals. And with more than 3,600 international destinations, of which more than 1,000 can be reached in less than 6 hours, Brussels is positioning itself as an international rail hub.”

Federal Transport Minister Dr. Volker Wissing: “If we want to achieve our climate goals in transport, we have to convince significantly more people to travel by rail in a climate-friendly manner. With high speed, interval timetable, attractive journey times and contemporary comfort. This is also what the new ICE 3neo stand for, which as multi-system vehicles should again significantly improve punctuality on this route in the future. Really good news for all travellers.”

Georges Gilkinet, Minister of Transport of Belgium: “The cooperation between DB and the Belgian railways on the ICE route is a success story that makes me very happy. Whether for business trips, family visits or a city break: 1 million passengers have chosen the sustainability, comfort and user-friendliness of these high-speed trains since the introduction of this route. Twice as many bicycle parking spaces as the European minimum and a law that shows the federal government’s strong support for night trains: As Transport Minister, I would like Belgium to play a leading role in the switchover to night trains, both at national and European level. An ICE on the track means two fewer planes in the sky!

DB and SNCB/NMBS are extending their successful cooperation on the ICE Brussels for another five years. The SNCB is responsible for the operation of the ICE Brussels on the Belgian route section and also offers onward travel options in its own country. It is also a partner for ticket sales and customer service. From 2024, the ICE 3neo will be used between Germany and Belgium. The new ICE has 439 seats and offers even more space and comfort for the passengers; These include frequency-permeable panes for stable mobile phone reception, eight bicycle parking spaces on each train, newly designed luggage racks, lighting with colors that change depending on the time of day, tablet holders on the seats and sockets at all seats, including in 2nd class. Additional doors speed up boarding and alighting at the stations. A new lift makes access easier for wheelchair users.

In total, DB currently offers seven direct connections in each direction between Frankfurt/Main and Brussels. At around three hours, the journey time is unrivalled. In addition, there is also a pair of trains on Sunday evenings that still connect Brussels and Cologne after 8 p.m.

For a high-performance rail network: Further high-performance corridors have been identified

Deutsche Bahn (DB) is taking the next steps on the way to the future high-speed network. In order to enable more traffic on the climate-friendly rail and at the same time increase quality and punctuality, DB will tackle two more corridors in 2025: Hamburg-Berlin and Emmerich-Oberhausen. One of the busiest routes for passenger traffic and an important freight traffic axis will be among the most modern and efficient routes in Germany in the future.

Federal Transport Minister Dr. Volker Wissing: “I am very pleased that the coordination with the industry is progressing and that we can take the next steps on the way to a high-performance network. The general refurbishment will improve the conditions for freight traffic in particular on the heavily used section of the Rotterdam-Genoa line. Hamburg-Berlin, on the other hand, has already proven in the past what potential a well-functioning rail service has for climate protection on this route. Here, too, the goal is clear: to achieve as much improvement as possible for the overall system with a short, concentrated intervention.”

DB CEO Dr. Richard Lutz: “The Hamburg-Berlin route connects the two largest German cities and, with 30,000 passengers a day on long-distance trains, is the front-runner among direct city connections in Germany. The trains already run here every half hour according to the Germany cycle. We also focus on freight transport. With Emmerich-Oberhausen we are rehabilitating the transport artery Rotterdam-Genoa. Both corridors are central building blocks in the future high-performance network. Our clear goal is to attract even more people and companies to the climate-friendly rail system through the combined renewal of the most important corridors.”

The Hamburg-Berlin corridor will be closed to train traffic from June to December 2025 for the so-called general renovation. During this time, DB bundles numerous works on tracks, points and overhead lines on the approximately 280-kilometre route and further advances the equipment for the digital railway operation of the future, among other things by modernizing signal boxes. DB is expanding the track infrastructure in Hagenow-Land and Wittenberge.

Additional overtaking opportunities for trains create more flexibility in long-distance, local and freight transport. As a result of the general refurbishment, numerous route closures can be avoided in the years to come. In addition, the DB upgrades the stations. They will receive modern platform roofs, weather shelters, new wayfinding systems and will be equipped for more accessibility.

Travellers and goods reach their destination reliably and predictably during the work. To this end, DB is working with the affected rail transport companies and countries to develop a comprehensive replacement concept. The detour routes will be upgraded in advance.

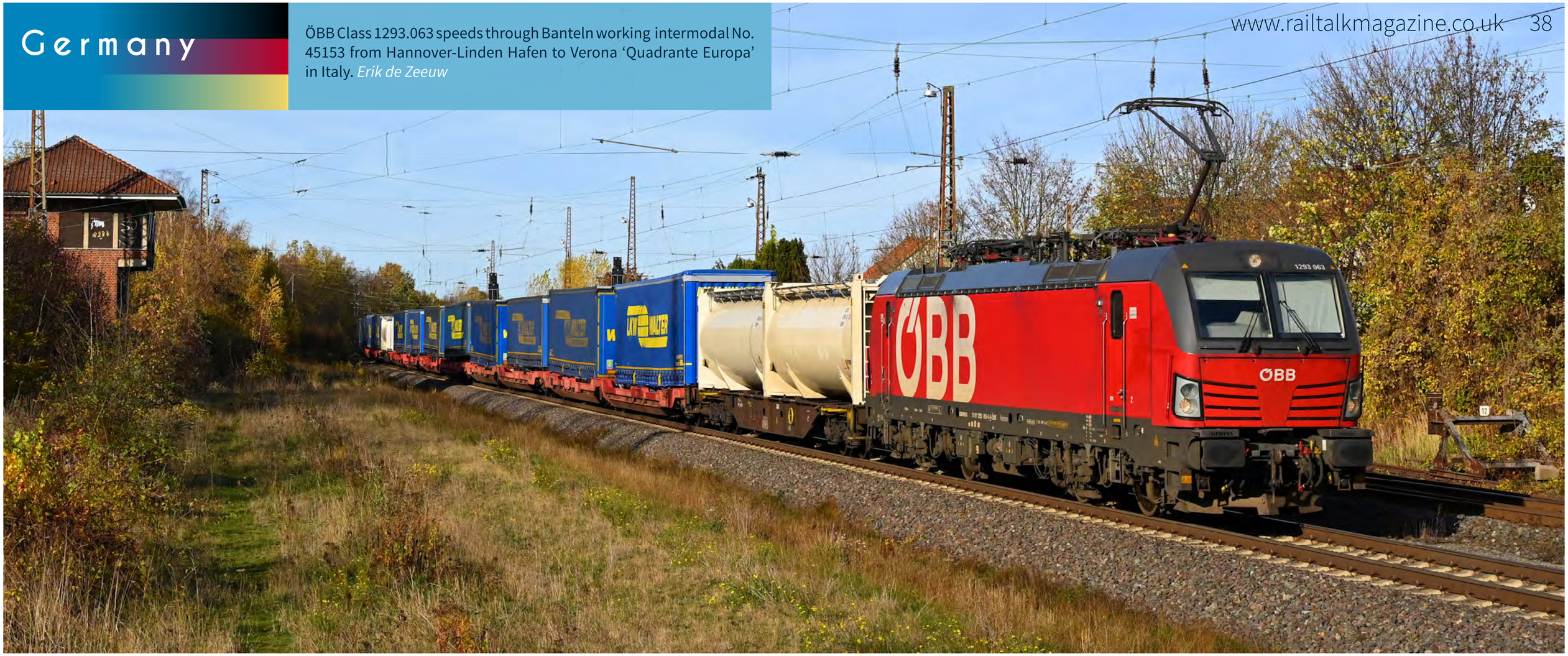
A rehabilitation and expansion concept specially adapted to this corridor is being planned for the Emmerich–Oberhausen route.

The 72-kilometer route cannot be completely closed for a longer period of time because the many international freight trains cannot be completely relocated to the existing detour routes. For this reason, the renovation will be carried out between November 2024 and June 2026 with scheduled closures and predominantly single-track operation on the basis of the agreements made with the Netherlands. During this time, DB implements as many measures as possible in parallel. This includes the construction of the already planned third track and the necessary renovation of the existing systems.

Once the work has been completed, the positive effects will be noticeable for passengers and freight transport companies across the entire rail network beyond the Hamburg-Berlin corridor and the Emmerich-Oberhausen route: more efficient routes, more punctual trains, fewer infrastructure-related disruptions and more capacity for passenger and freight transport. At the same time, DB will avoid or reduce restrictions due to recurring construction work in the future.

In 2024, DB will start the general renovation of the heavily used corridors on the route between Frankfurt/Main and Mannheim, the so-called Riedbahn. By 2030, DB wants to tackle at least two more corridors a year. The routes are selected and prioritized in close coordination with the federal government and its authorities, as well as the railway companies, authorities and associations.

ÖBB Class 1293.063 speeds through Banteln working intermodal No. 45153 from Hannover-Linden Hafen to Verona 'Quadrante Europa' in Italy. *Erik de Zeeuw*



Deutsche Bahn takes over operations on new high-speed network in Egypt

The Egyptian government has awarded the contract to Deutsche Bahn to operate the country's first high-speed rail network. The contract between Egypt and Deutsche Bahn was signed at the UN climate conference. The order volume of the contract, which will initially run for 15 years, is in the single-digit billion range.

For DB, its subsidiary DB International Operations (DB IO) will take on the largest rail project in Egyptian history and, with 2,000 kilometres of track, the sixth largest high-speed network in the world. A consortium led by Siemens Mobility is building the infrastructure and delivering the vehicles for passenger transport and freight locomotives.

Niko Warbanoff, CEO of the DB ECO Group: "We help millions of people in Egypt to achieve modern mobility and ensure climate-friendly rail freight transport. The new railway system drives Egypt's economic development and ensures more climate protection, from which we all benefit."

The first line of the transport network will connect the metropolitan regions of Alexandria, Cairo and New Administrative Capital ("Suez Canal on rails") as early as 2025. With two more routes and 60 stations, Cairo and Abu Simbel as well as Luxor with Hurghada on the Red Sea will be developed for rail traffic. In the end, 90 percent of the Egyptian population should have access to the new network. The population is forecast to increase from around 105 million to 160 million by 2050 - combined with road traffic congestion.

DB IO takes over the operation of infrastructure and vehicles for high-speed, regional and freight traffic as well as the maintenance of stations and depots. To this end, DB IO is entering into a joint venture with the Egyptian company Elsewedy Electric (EE).

Warbanoff: "We are pleased that by operating the new railway system in Egypt we are making a significant contribution to shifting traffic to rail, to active climate protection and to economic development in Egypt. In addition to the political relevance, especially in active climate protection and economic development, the project offers potential for Strong Rail Germany in the areas of technology cooperation and securing skilled workers."

The new, high-performance rail system is a central pillar in the sustainable expansion of Egypt's public transport infrastructure. In addition to halving the travel time for 30 million people with Line 1 alone, the project also makes a contribution to road safety and reducing air pollution.

The German railway system will benefit from the mega-project: The technology and knowledge transfer and the knowledge gained from the cooperation with Siemens Mobility will benefit domestic projects. The profits generated are reinvested in Germany.

As a specialist in the operation and maintenance of rail transport systems, DB IO is responsible for international operator projects outside of Europe. After the major orders in Canada and India, the project in Egypt is the third major international transport project for DB IO in 2022.

Hungary

H-Start Class 431-339 stands at Budapest Déli on September 24th.
Mark Pichowicz

Italy

FS Group lands in Spain, with Frecciarossa making its maiden voyage. From November 25th, the first trains run between Madrid, Barcelona and Zaragoza

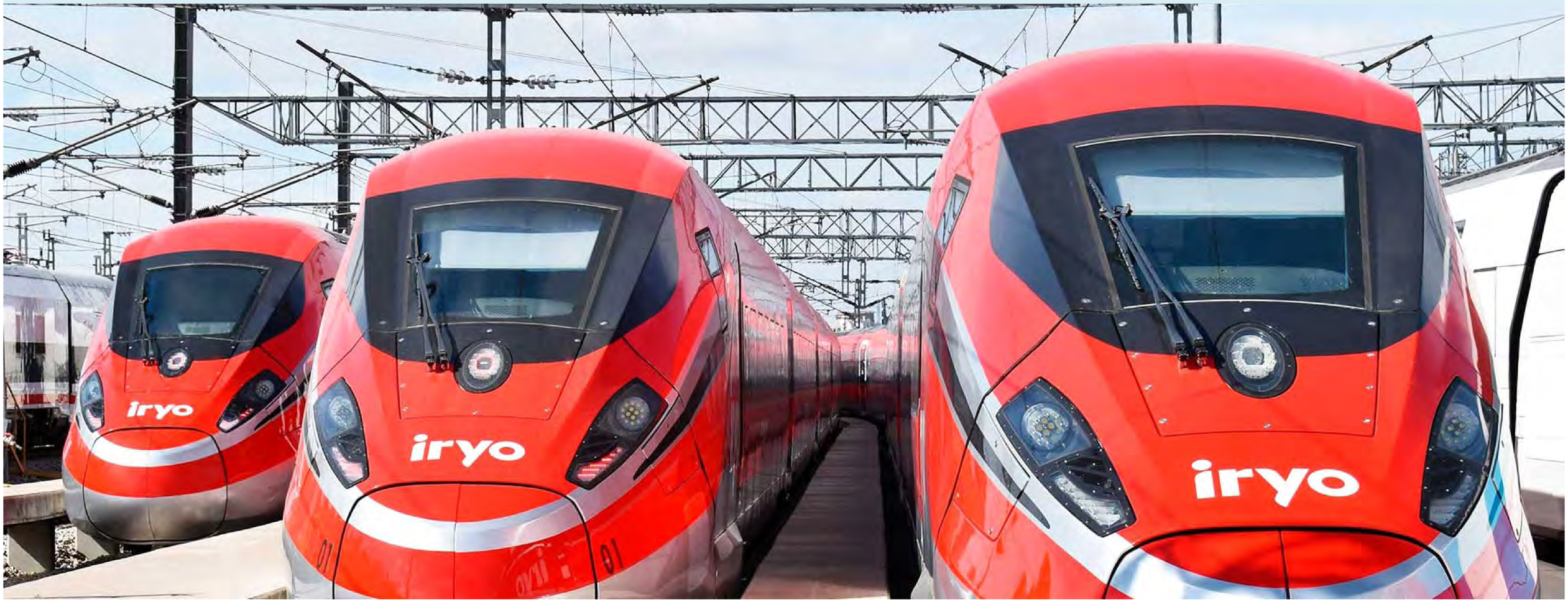
On November 21st, the maiden voyage of iryo, the company owned by Trenitalia – parent company of the FS Group's Passenger Hub – departed at 10:30 from Madrid's Chamartìn station in Spain. The trip, on a Frecciarossa 1000 with Valencia as destination, anticipated by a few days the first commercial connection that shall commence on November 25th with the initial Madrid-Zaragoza-Barcelona journeys. Additional connections between Madrid, Valencia and Cuenca are then planned from December 16th.

The inaugural journey was attended by Raquel Sánchez – Minister of Transport, Mobility and Urban Agenda of the Spanish government, María Luisa Domínguez – President of the Spanish railway infrastructure manager ADIF, Carlo Palasciano Villamagna – Chief International Officer and Chief Transformation Officer of the FS Group, Fabrizio Favara – Chief Strategy Officer of the FS Group, Luigi Corradi – CEO of Trenitalia, Carlos Bertomeu and Simone Gorini – President and CEO of iryo respectively, as well as representatives from the Italian Embassy, the Italian Chamber of Commerce in Spain and the Spanish business community. Upon arrival at the Joaquin Sorolla station at 12:10, the delegation was received by Ximo Puig, President of the Generalitat Valenciana.

"Our Frecciarossa landing in Spain and the launch of the commercial activities of our subsidiary iryo are the latest steps, in chronological order, in a strategy that sees the FS Group increasingly active in an integrated European railway market that is now open to competition. One of the Group's missions is to contribute – in Italy and in Europe – to enhancing the virtuous role of the train as a green means of transport par excellence and, thanks in this case to the collaboration with Spanish institutions, to offer a concrete contribution to the construction of an intermodal, digital and sustainable transport model. We intend to make the experience gained in the Italian high-speed market available to Europe and Spain, so as to replicate the positive results and models that have proved successful, also and above all for travellers and the territories," declared Luigi Ferraris, CEO of the FS Group.

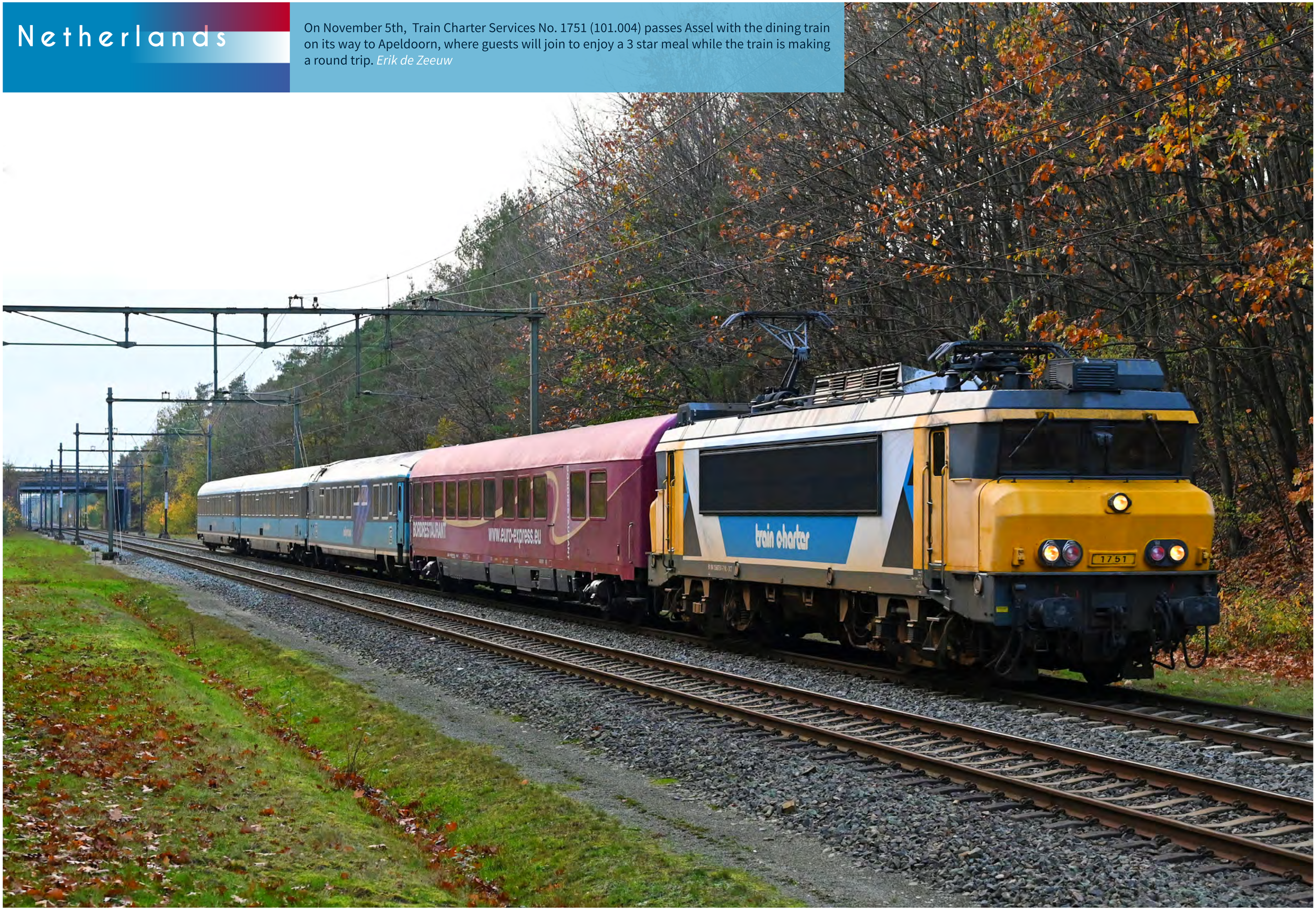
From March 31st next year, iryo will operate connections between Seville, Malaga, Antequera and Cordoba, then on June 2nd of next year, it will also reach Alicante and Albacete thanks to 20 Frecciarossa 1000 trains – the fastest, most sustainable and environmentally-friendly in Europe. Frecciarossa trains are made of 95% recyclable materials, have reduced fuel consumption compared to previous-generation trains and are able to limit CO_2 emissions per passenger-kilometre to 28 grams. For such reasons, these are the first trains to have obtained an Environmental Product Declaration (EPD).

In addition to Spain, the FS Group is already present in France with Trenitalia France and through connections along the Paris-Lyon-Milan route, in the UK with Avanti West Coast and c2c, in Greece with Hellenic Train through medium- and long-distance connections, in Germany with regional passenger transport operator Netinera and logistics operator TX Logistik, as well as being in the Netherlands with road transport operator Qbuzz.



Netherlands

On November 5th, Train Charter Services No. 1751 (101.004) passes Assel with the dining train on its way to Apeldoorn, where guests will join to enjoy a 3 star meal while the train is making a round trip. *Erik de Zeeuw*



Netherlands

On November 14th, DB Cargo No. 6424 is seen shunting at the Westhaven yard. *Erik de Zeeuw*

On November 12th, RFO Class 193.627 in RAILLOGIX livery passes Hulten with a Venlo Gekkengraaf to Rotterdam liner.
Wilko Wieffering

Lineas/Railpool Class 186.256 with a container train passes Holten, Netherlands on November 14th. *Gerard van Vliet*

Netherlands

Alstom demonstrates fully autonomous driving of a shunting locomotive

Alstom, global leader in smart and sustainable mobility, has demonstrated the highest grade of automation on a shunting locomotive near Breda, the Netherlands, in partnership with Dutch infrastructure manager ProRail and Belgian rail freight operator Lineas. This grade of automation, known as GoA4, means fully automated starting, driving, stopping, and the handling of unanticipated obstacles or events without the direct involvement of any on-train staff during shunting activities. This demonstration concludes a series of tests that are part of an ongoing partnership between Alstom, ProRail and Lineas.

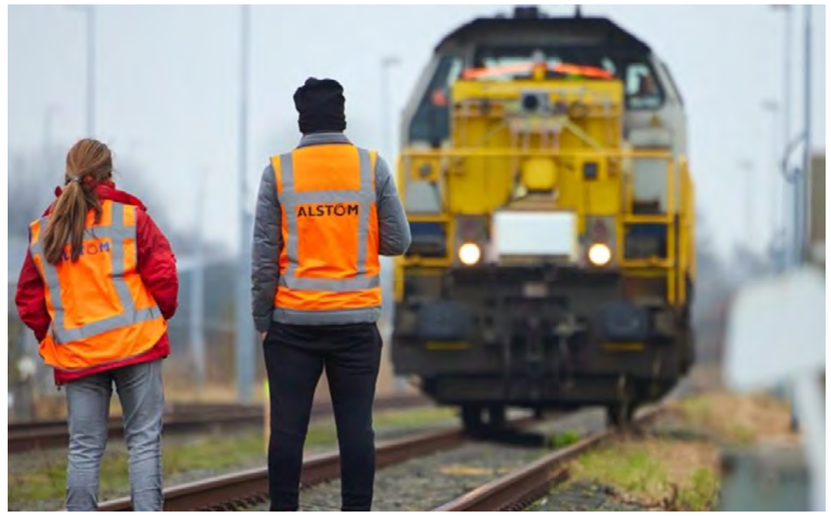
The objective of the demonstration was to showcase how the intelligent obstacle detection and recognition system (ODS) works seamlessly with Alstom's Automatic Train Operation system (ATO) to allow the train to react autonomously to various obstacles. This paves the way for the broader usage of autonomous driving into shunting operations, with the goal of increasing the capacity of freight operations; an example of advanced digital technologies driving cost-effective and sustainable mobility in the face of growing demand for freight and passenger services.

"By integrating advanced obstacle detection into our autonomous driving systems, we have shown that it possible to make trains "see" ahead and cope safely with the unexpected. The positive results prove that Alstom possesses the technology required to support operators with autonomous driving technologies that will ultimately improve the operational performance on freight lines. Through digitalisation, we will accelerate the transition towards more efficient, seamless, and sustainable transport systems," says Stéphane Féray-Beaumont, Vice-President of Innovation & Smart Mobility at Alstom.

For the demonstration, a diesel-hydraulic shunting locomotive owned by Lineas was equipped with the Alstom ATO technology interfacing with an intelligent obstacle detection and recognition systems (ODS) developed by NIART by Elta[1]. The locomotive, running autonomously, was presented with various obstacles – a person, a car, a rail wagon and an incorrectly-positioned switch – and reacted entirely autonomously and without the intervention of any active staff aboard. The ODS proved to be effective up to 500 meters away from obstacles in real-world conditions, providing a significant safety buffer in shunting yards.

NIART's ODS is a perception system based on high resolution digital radar fused with multi-spectral electro-optics powered by classical and machine learning algorithms to detect and classify obstacles on the train route in all weather and visibility conditions. The system is a complete, self-contained on-board solution able to provide the ATO system with the information it needs to make autonomous driving decisions.

Alstom is leading the development of ATO systems in the railway sector. The Group has carried out successful ATO tests in France, Germany, Belgium, the Netherlands, Switzerland, and the UK. The current tests at GoA4 being carried out in the Netherlands are designed to prepare the terrain for a wide range of applications in commercial operation on main lines across all grades of automation.



Alstom has demonstrated the advantages of ATO in metro transport systems around the world. Experience shows that automation leads to network capacity increase, cost reduction, energy savings and flexibility of operations. Automatic trains can run closer together, effectively increasing network capacity. Trains also operate more uniformly, leading to more effective use of energy. Automation in rail is a way for operators to maximise the productivity of their networks without making expensive changes to the infrastructure.

[1] NIART by Elta is an automotive systems spin-off created by Elta Systems.

Arriva Group announces first Open Access night trains to start operations in the Netherlands

Arriva Netherlands will start operating its first night trains from Maastricht to Schiphol on December 16th this year, following its successful Open Access application, made just eighteen months ago. The night train will connect Maastricht in the south of the country with major cities in the Netherlands and with Schiphol Airport. Services will run weekly on a Friday night through into Saturday morning. A second service is launching from Groningen in the north-east to Schiphol in January 2023. It is the first-time Open Access services have launched in the Netherlands.

Domestic Open Access in the Netherlands became possible for the first-time in 2021, following the implementation of EU legislation and regulatory reform. The services will be the first domestic Open Access service in the Netherlands and Arriva's first market outside of the UK to be given approval for domestic Open Access operations. This operating model means the train operator carries all the associated costs and risks with the services, without any government concession or subsidy.

The new service will mean that travel by rail during the night is available for the first time, connecting with early morning flight departures from Amsterdam's Schiphol Airport. This has not previously been possible and has the potential to take cars off the road, reducing local airport traffic and pollution.

Anne Hettinga, CEO Arriva Netherlands and Management Board member of the Arriva Group said: "This is a historic moment for the Netherlands and for Arriva and I'm proud that we seized this opportunity and have managed to mobilise in record time by using trains that would otherwise be idle during the night - and just eighteen months after making our original application. Through these services, Arriva is growing the national rail network and providing additional options for people to make use of public transport connections, instead of cars".

Arriva expects to be able to offer more rail connections in Open Access within a few years. Anne Hettinga points out that: "The introduction of Open Access has already proved a successful strategy in other European countries. For example, in Spain, Italy, France and the United Kingdom, prices have fallen because of Open Access, while the quality of service has improved as a result of increased competition and new entrants to the market".

Arriva already has considerable experience operating domestic Open Access routes through its train operating company Grand Central, which is part of its UK Trains business unit. Grand Central has connected London Kings Cross, Yorkshire and the Northeast since 2007.

Lineas Class 186.385 heads a Ludwigshafen/BASF to Rotterdam empties, past Hulten on a sunny November 12th.
Wilko Wieffering

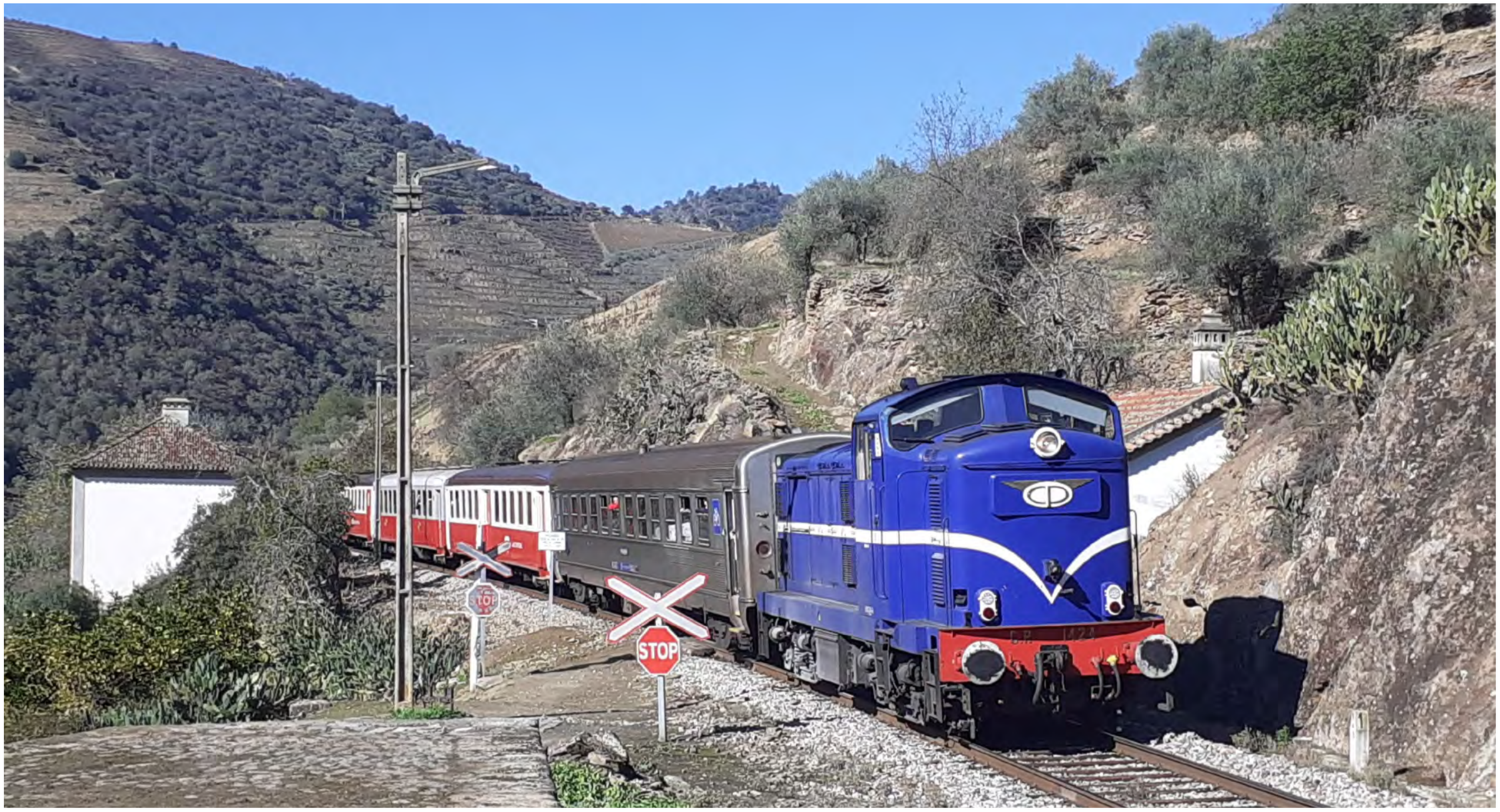
CP Class 1400 No. 1461 stands at Tua station at the head of train No. IR868 the 13:08 Pocinho to Porto Campanhã on November 4th.
Andy Pratt

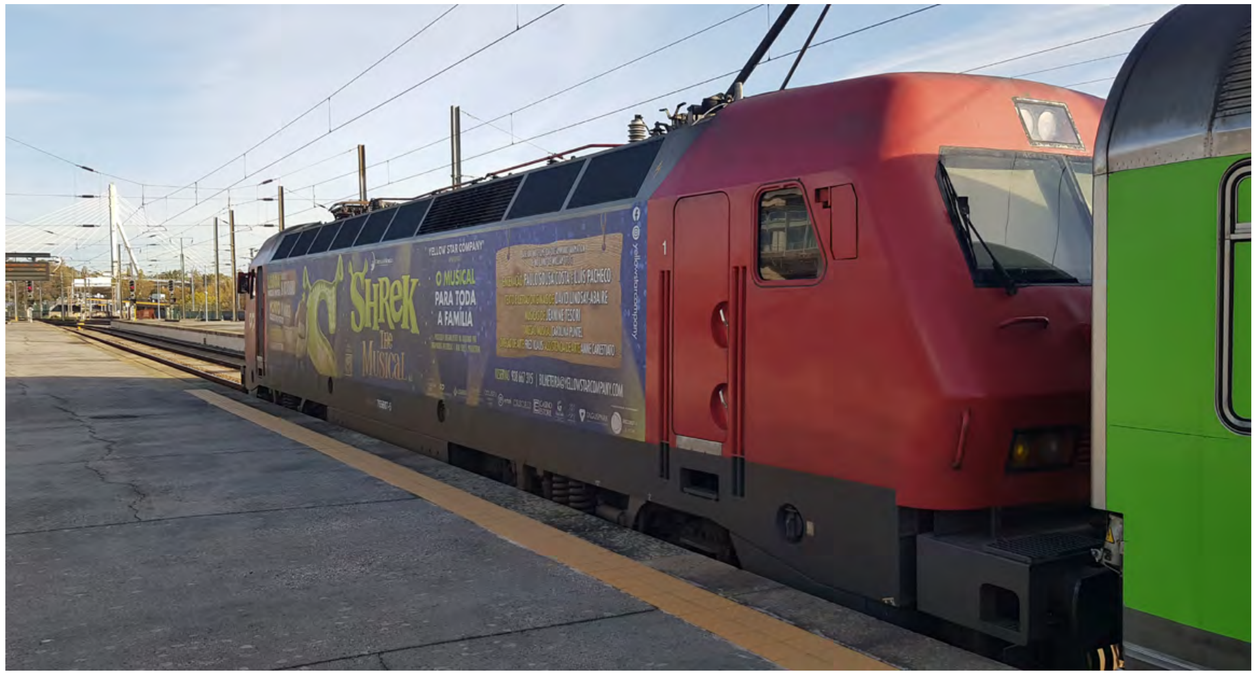
Portugal

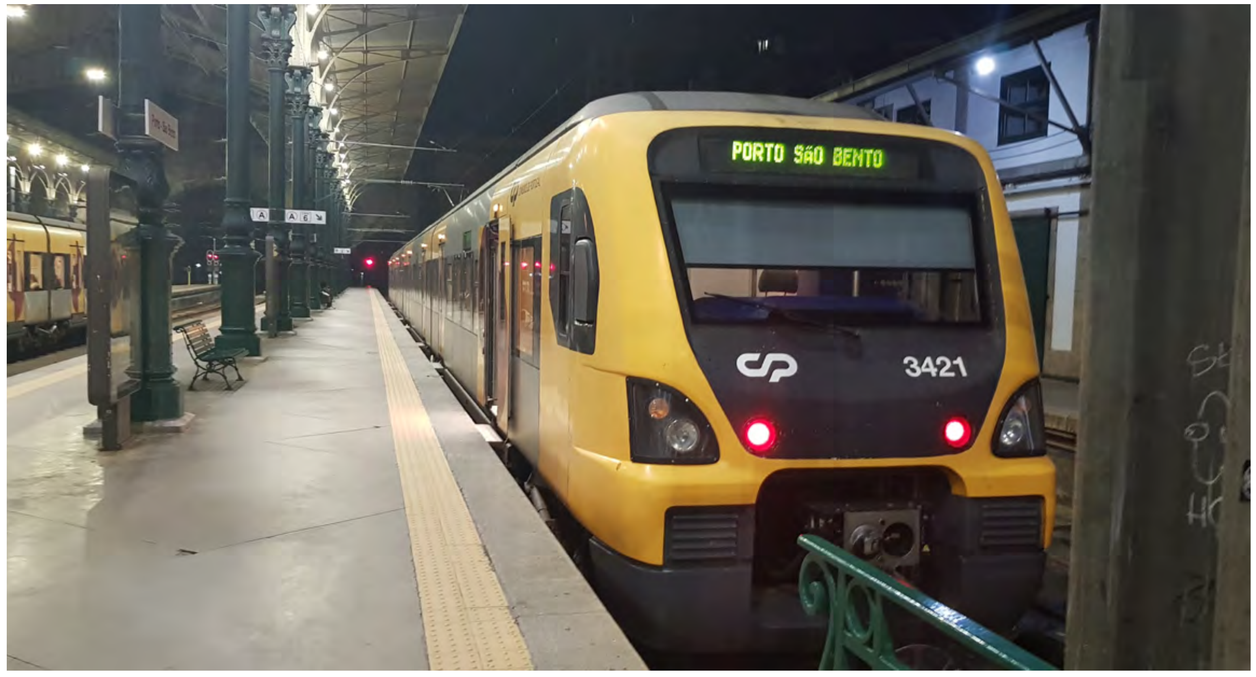
CP ‘Moose’ No. 1424 runs into the tiny shack at Alegria on the scenic Douro valley with train No. IR865 09:20 Porto Sao Bento to Pocinho on November 5th. *Andy Pratt*

On November 24th, CP Class 3400 unit No. 3421 is seen at Porto Sao Bento Station.
Mark Armstrong

On November 26th, CP Class 5600 No. 5607 in Shrek livery is seen at Porto Campanhã station.
Mark Armstrong

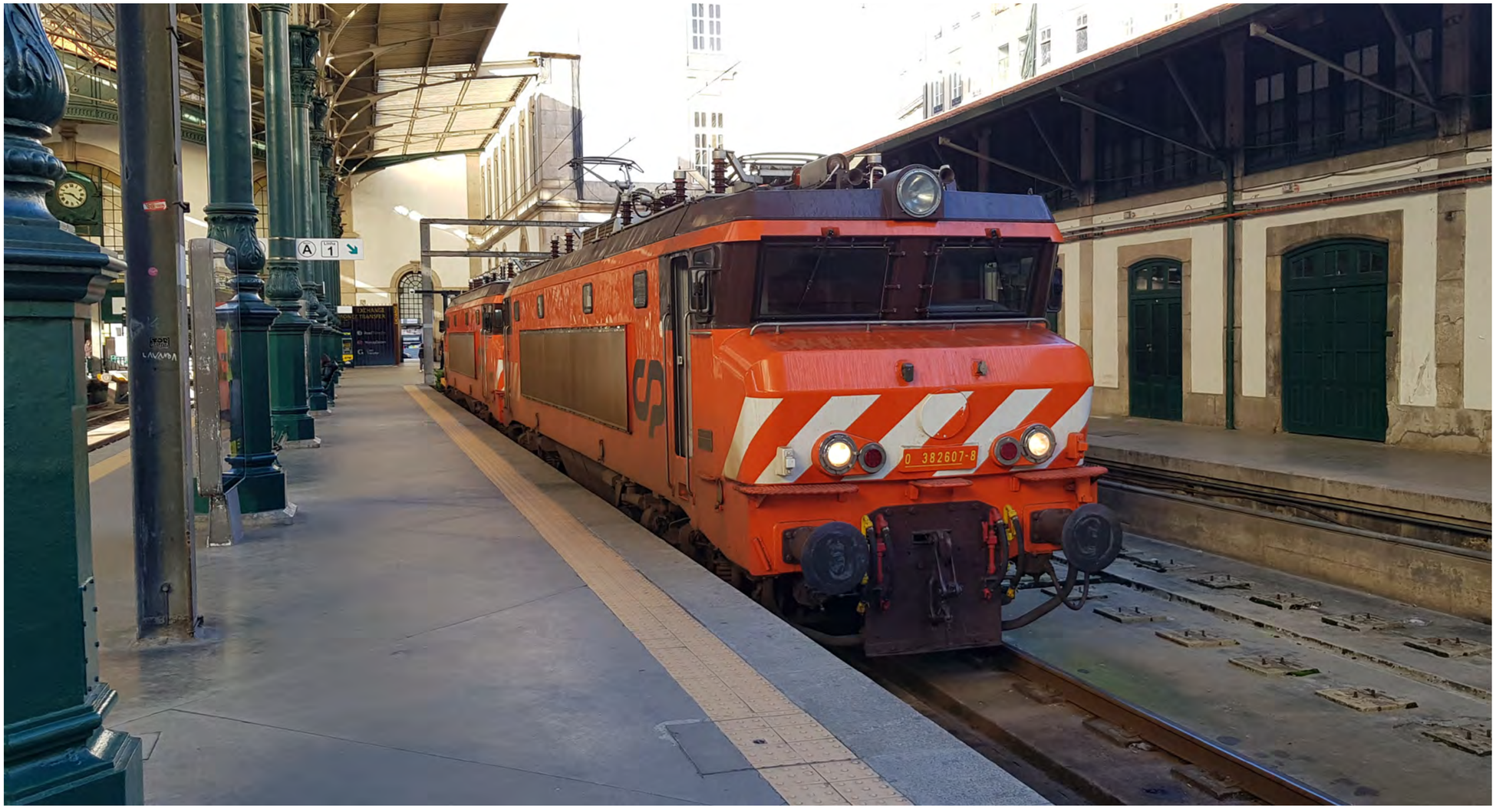






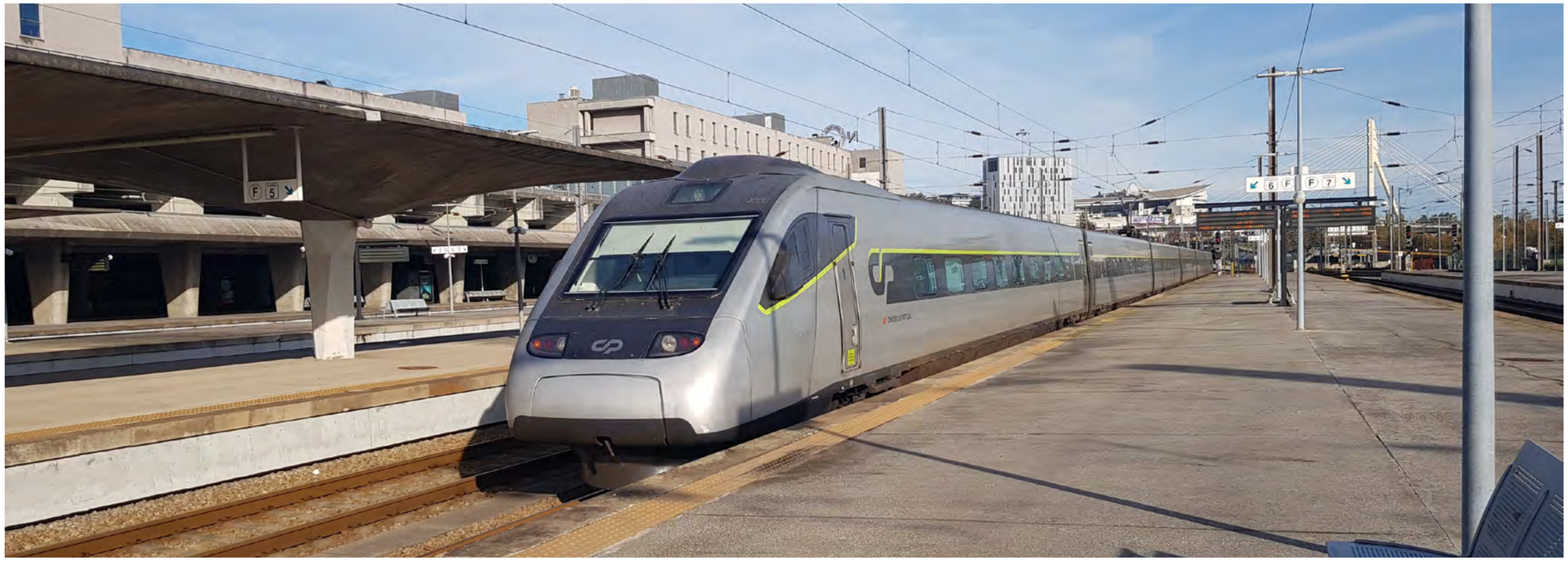
Portugal

CP Class 2600s Nos. 2602 and 2607 are seen at Porto Sao Bento on November 25th. *Mark Armstrong*

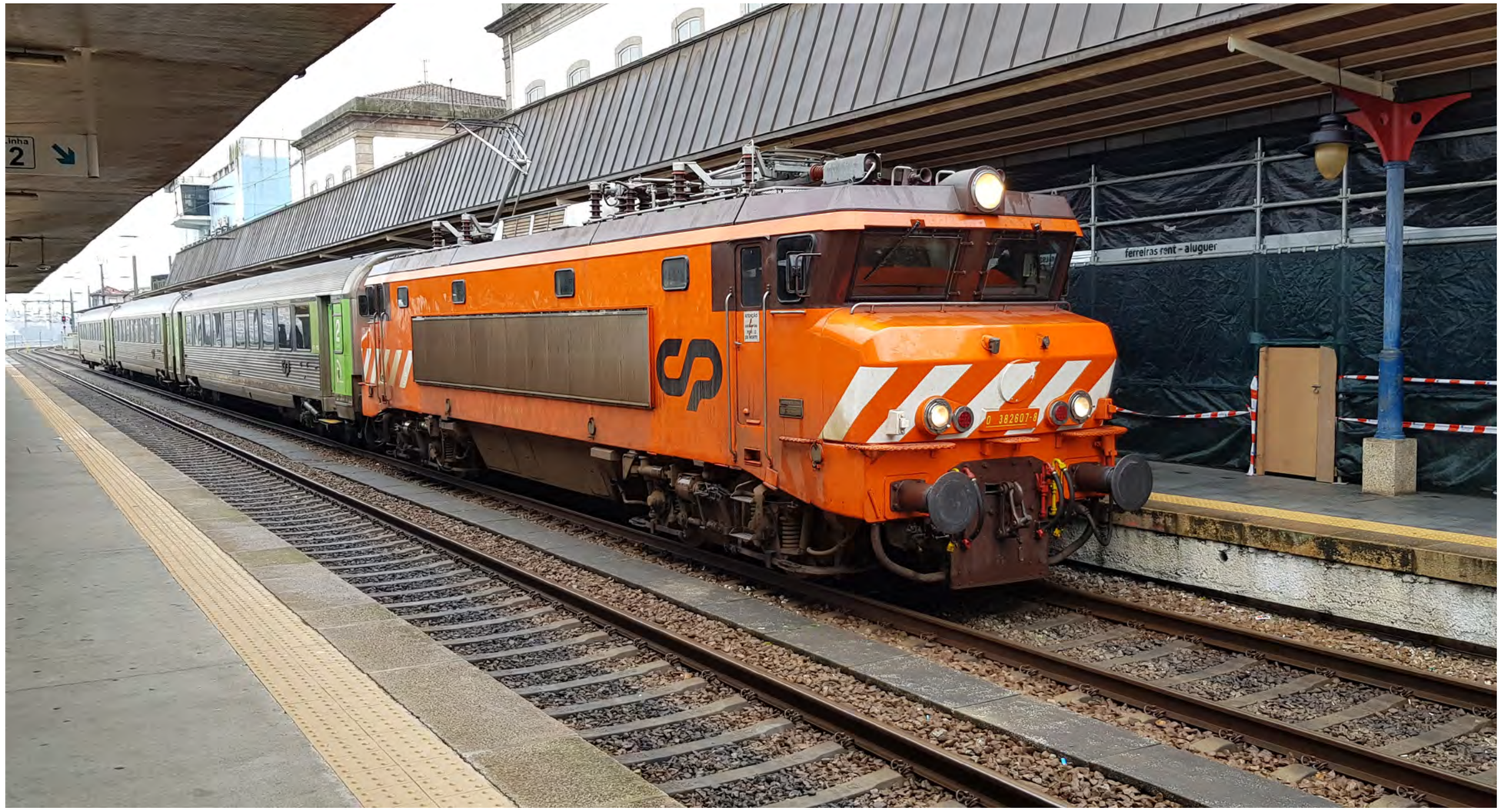


CP Class 4000 No. 4008 stands at Porto Campanhã station on November 25th. *Mark Armstrong*

Looking like it's ready for a bogie swap, CP No. 1424 is framed by the old goods crane at Pocinho on November 5th. *Andy Pratt*



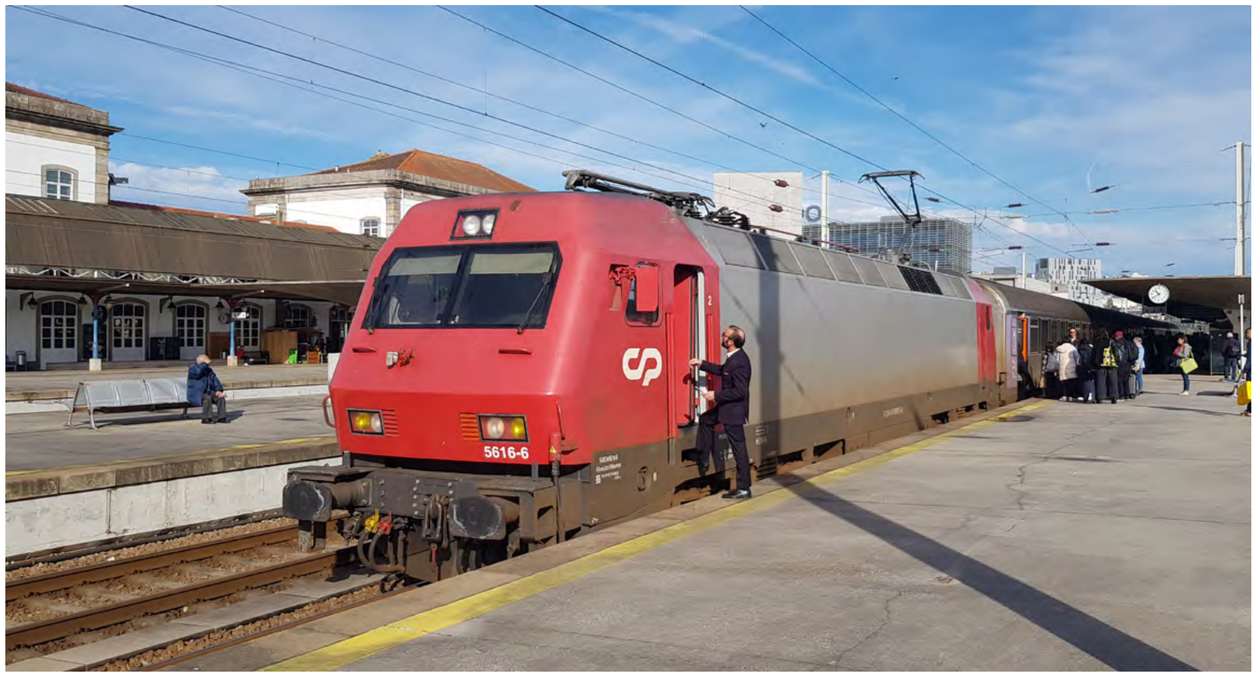
Portugal

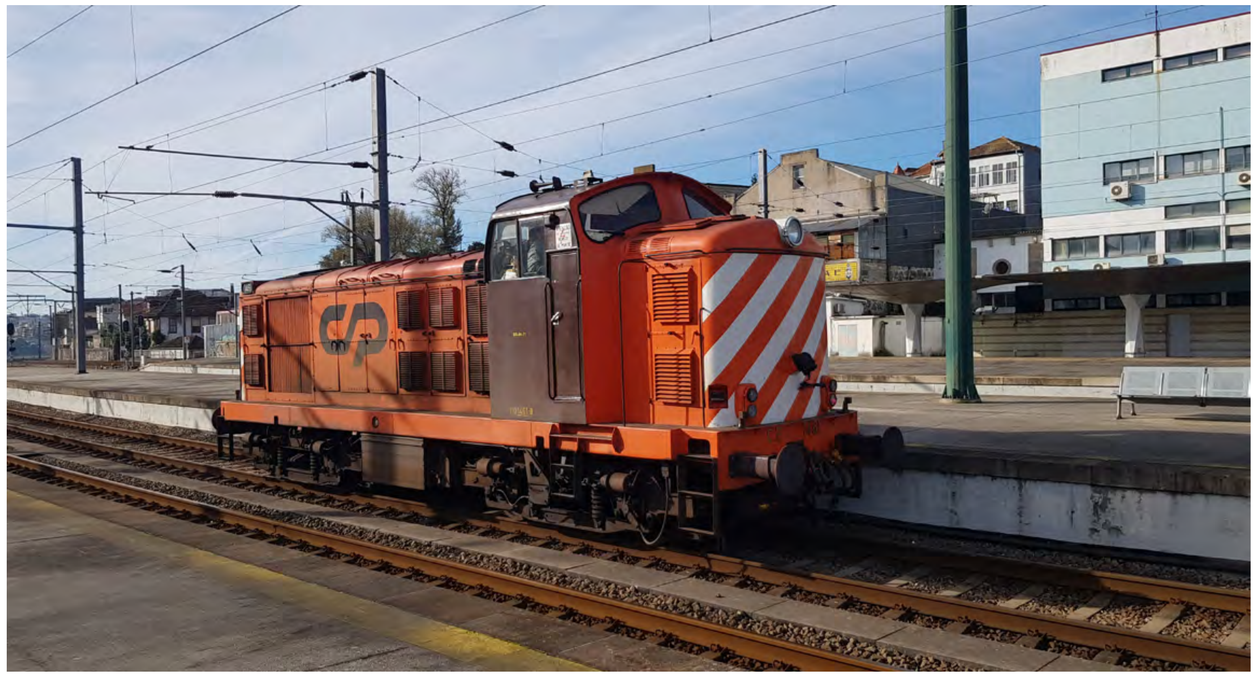


CP Class 2600 No. 2607 stands at Porto Campanha on November 27th. *Mark Armstrong*

On November 26th, CP Class 1400 No. 1461 runs light engine through Porto Campanhã. *Mark Armstrong*

CP Class 5600 No. 5616 stands at Porto Campanhã on November 26th. *Mark Armstrong*



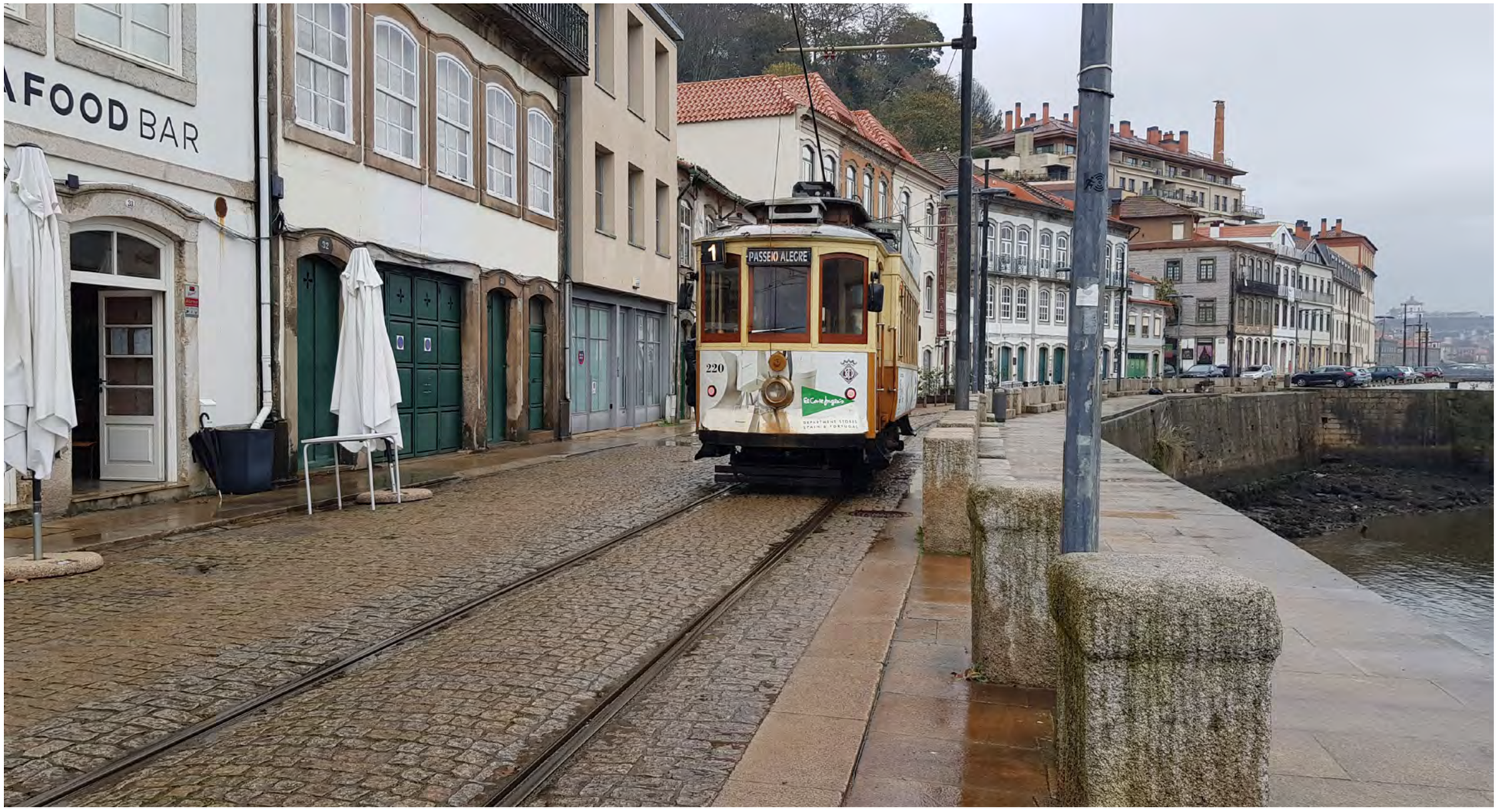


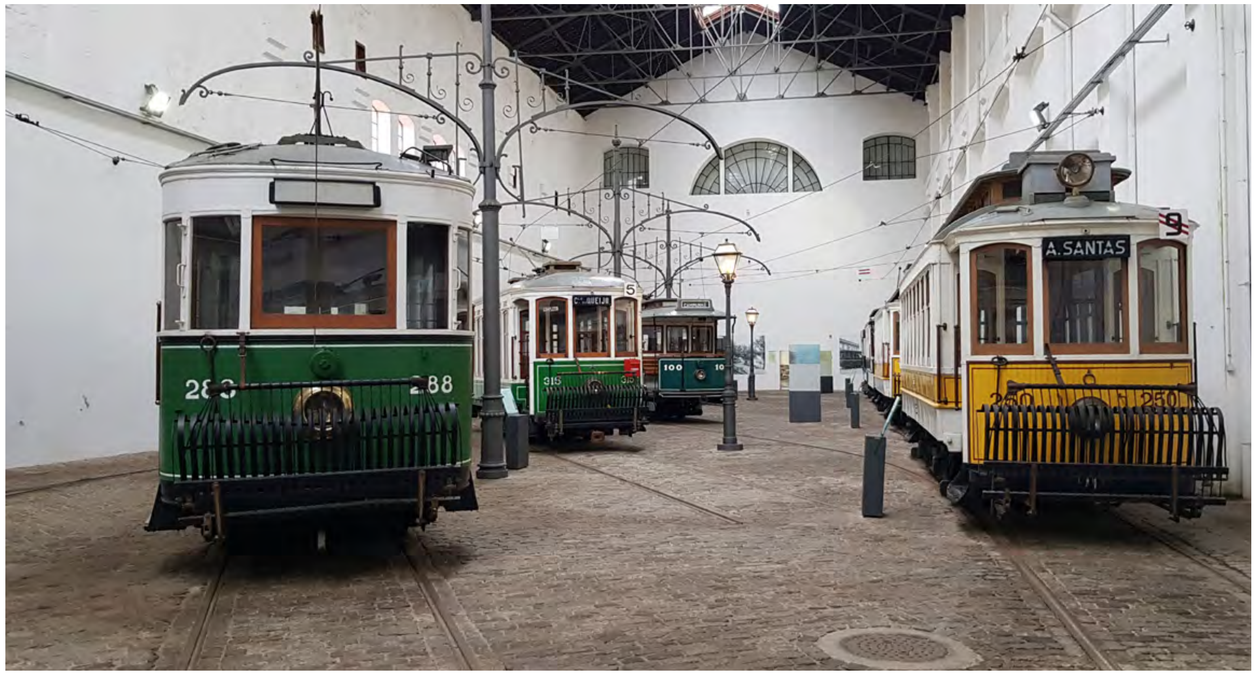
Portugal

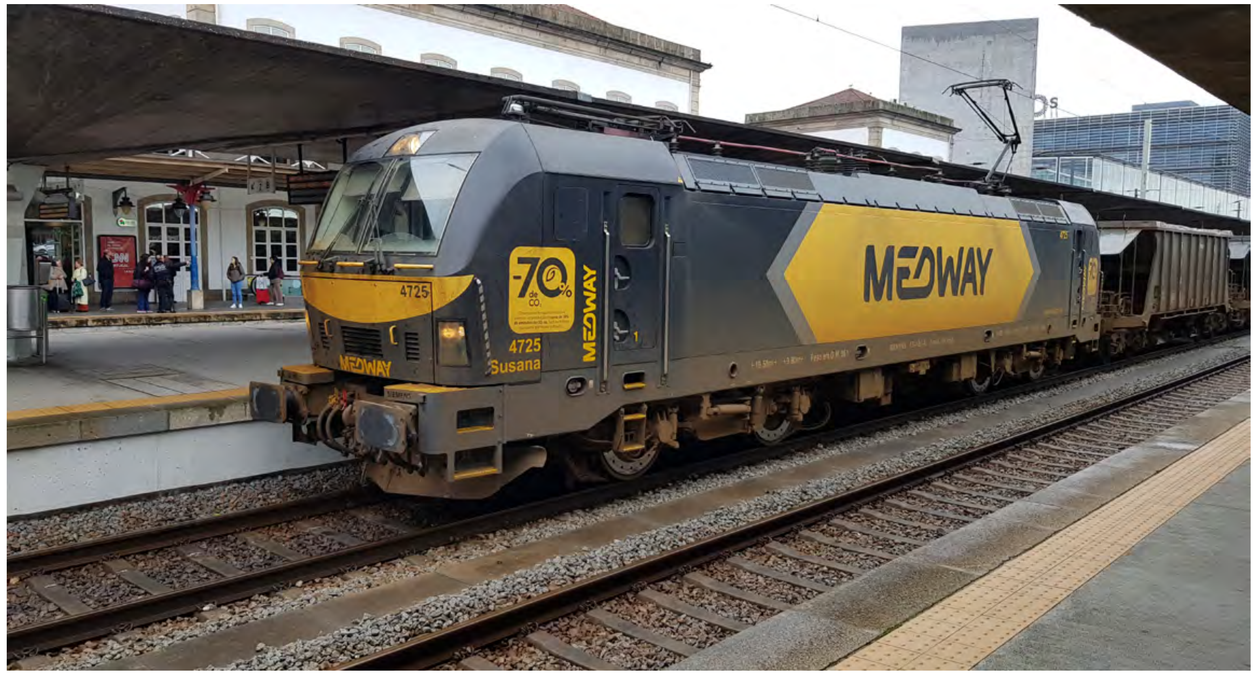
Porto tram No. 220 is seen running alongside the river on November 27th. *Mark Armstrong*

On November 27th, Medway Class 4700 No. 4725 passes through Porto Campanha. *Mark Armstrong*

Some of the trams in the Museu do Carro Eléctrico, Porto. *Mark Armstrong*







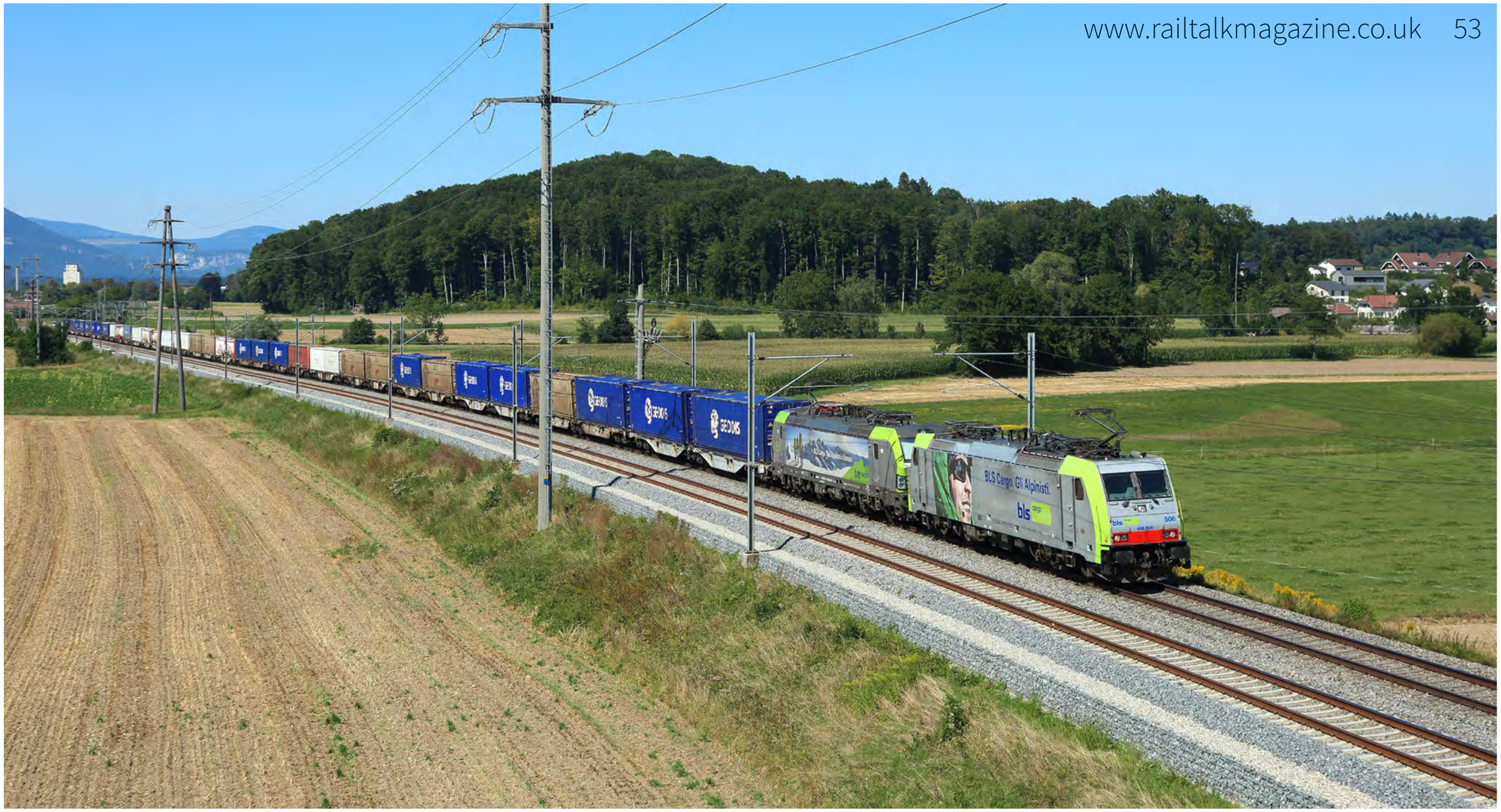
ZSSK Vectron Class 383.109 approaches Bratislava Vinohrady with train No. R604 07:57 Košice to Bratislava on September 26th.
Mark Pichowicz

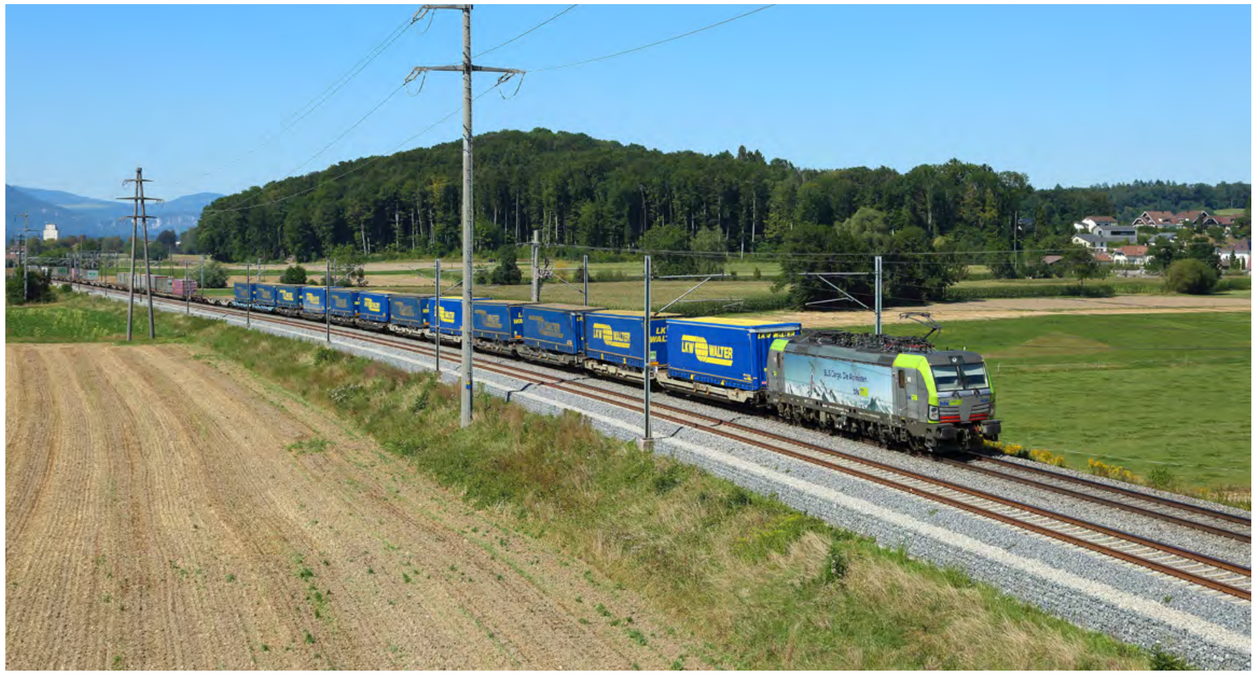
Switzerland

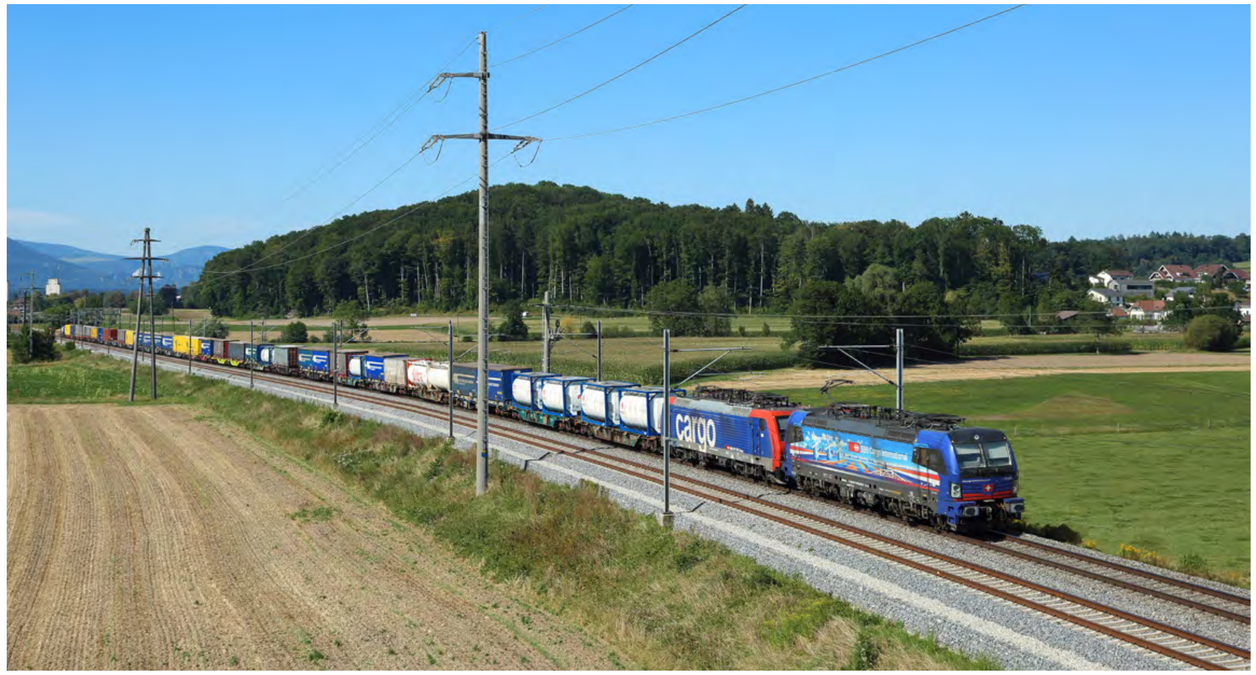
BLS Cargo Class 486.506 and 475.422 pass Bollodingen whilst hauling train No. 41665 to Novara. *Laurence Sly*

SBB Cargo Class 193.525 and 474.015 pass Bollodingen whilst hauling train No. 40317 from Gent to Piadena. *Laurence Sly*

BLS Class 475.404 passes Bollodingen whilst hauling train No. 43557 to Gallarate. *Laurence Sly*







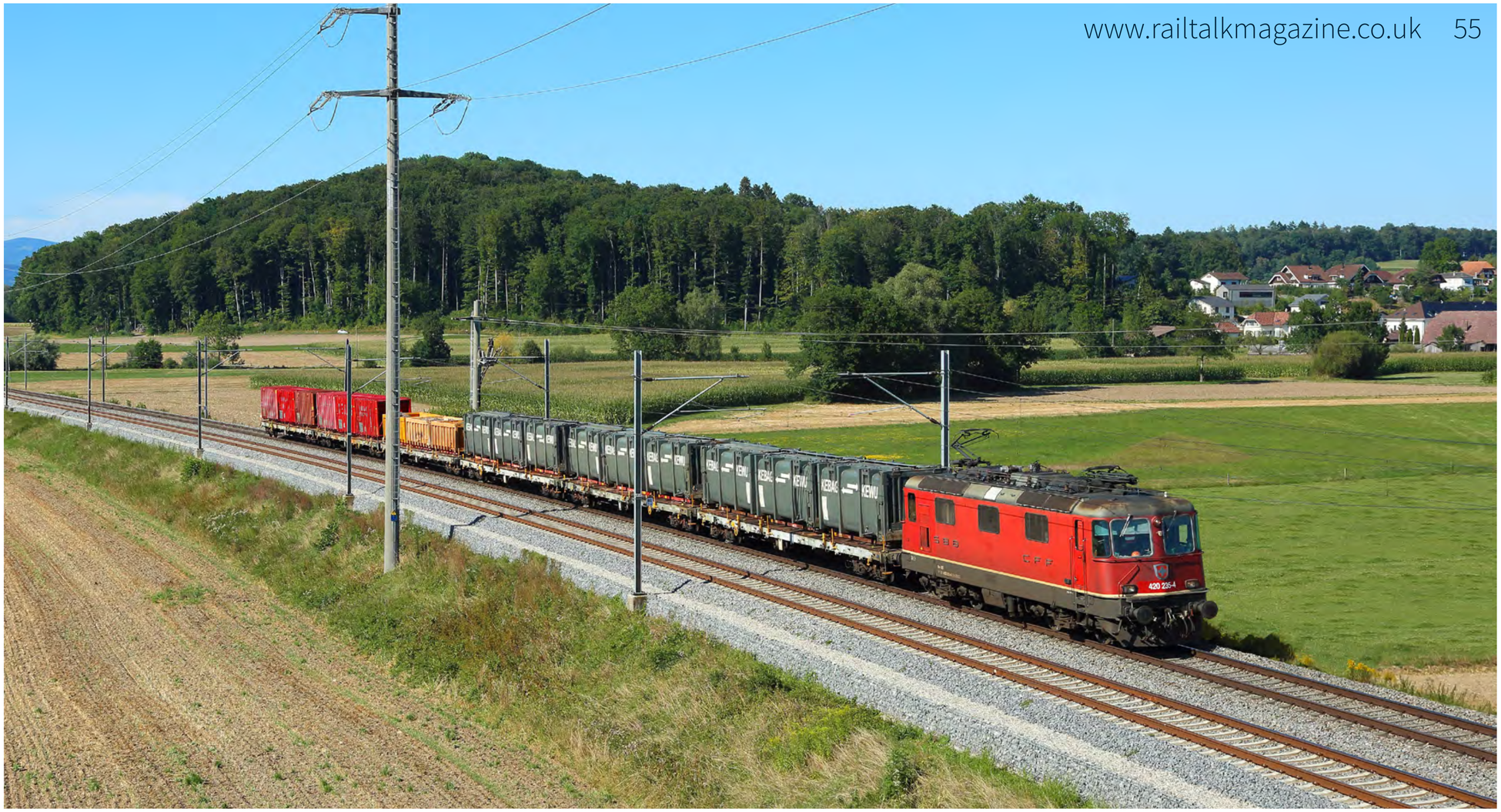
BLS Cargo Class 475.419 passes Kiesen whilst hauling train No. 43529 to Novara. *Laurence Sly*

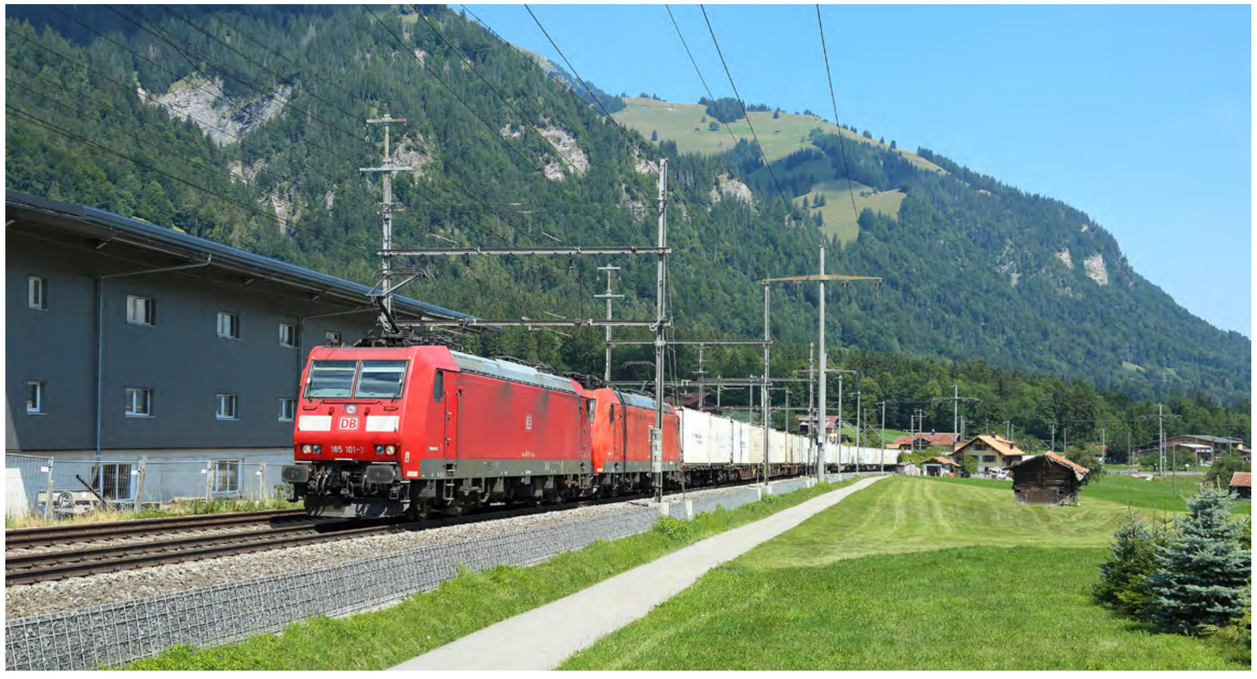
Switzerland

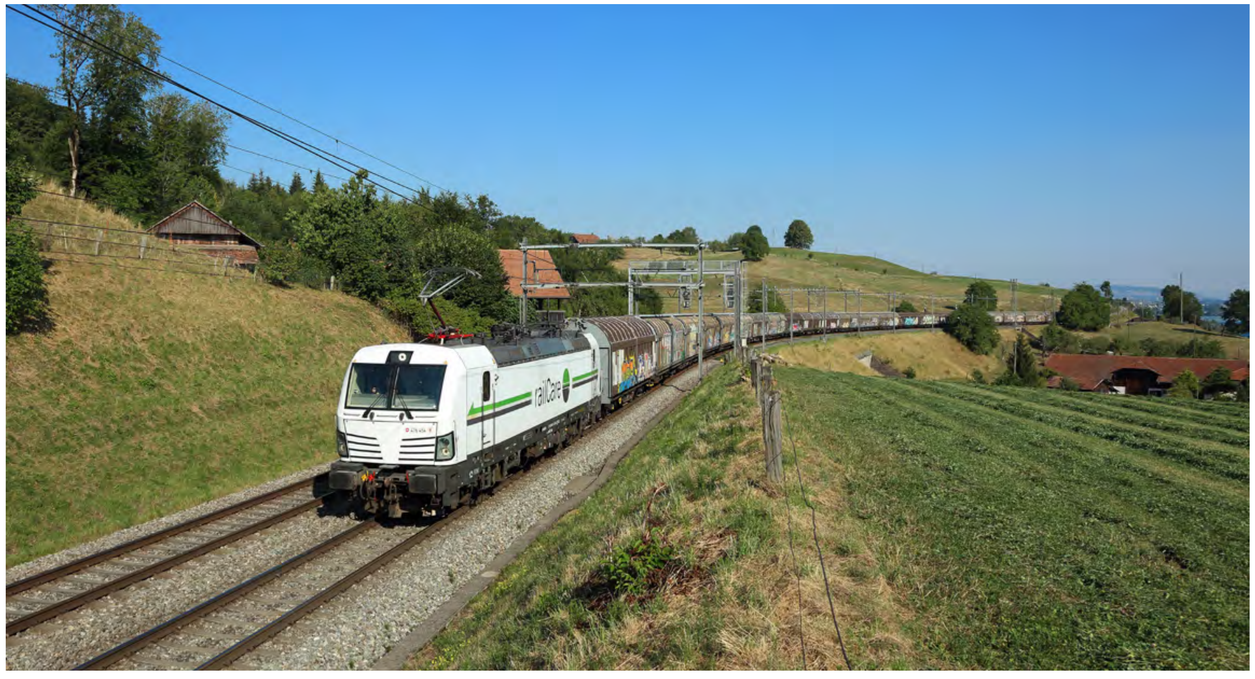
SBB Class 420.235 passes Bollodingen whilst hauling train No. 62442 from Solothurn to Oberbeurg. *Laurence Sly*

Class 476.454 passes Einigen whilst hauling train No. 63659 to Brigg. *Laurence Sly*

DB Class 185.101 and 185.140 approach Frutigen whilst hauling train No. 41609 from Leipzig to Novara. *Laurence Sly*





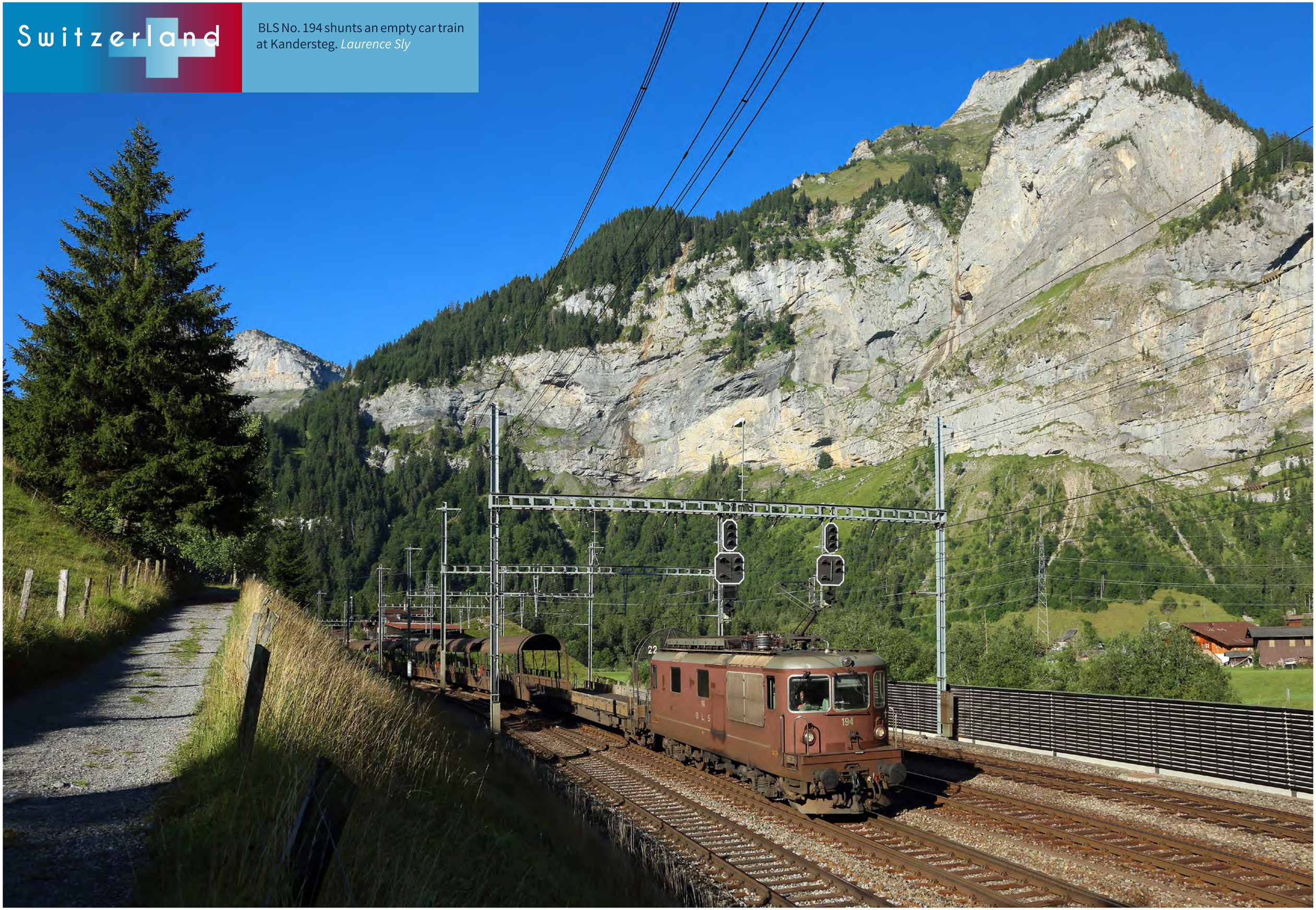


Switzerland

SBB Cargo Class 620.062 passes Burgdorf with a consist of mixed tank wagons. *Laurence Sly*

Switzerland

BLS No. 194 shunts an empty car train at Kandersteg. *Laurence Sly*



Switzerland

BLS Class 465.018 and 193.713 pass Frutigen whilst hauling train No. 43526 from Piacenza to Zeebrugge. *Laurence Sly*

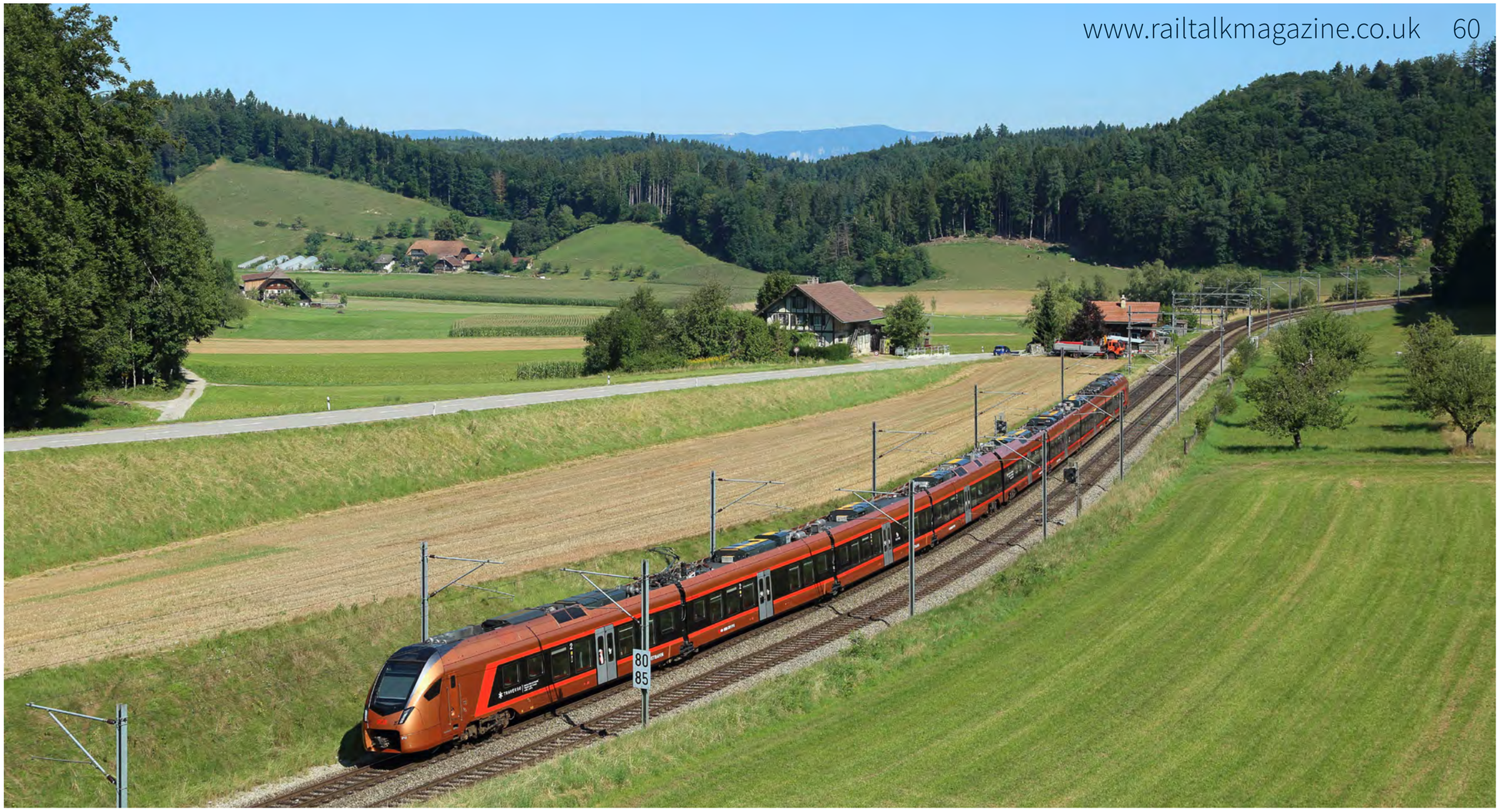
SBB Class 193.477 and 186.908 approach Munsingen whilst hauling an intermodal train. *Laurence Sly*

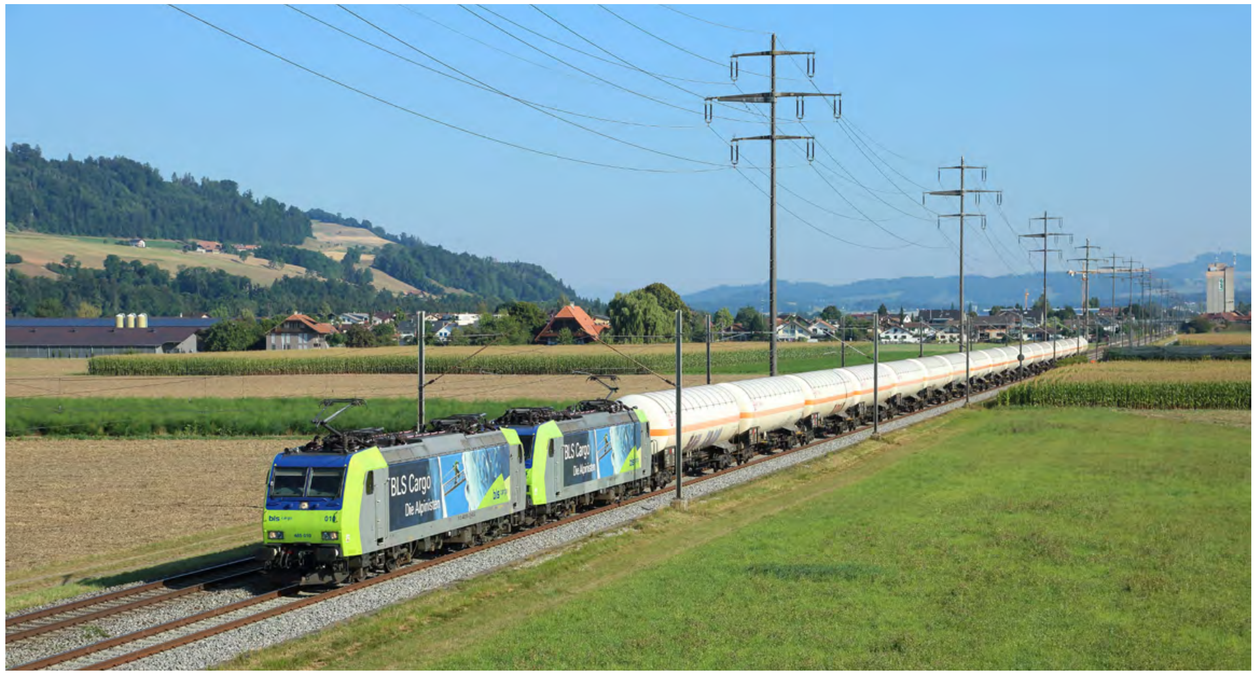
Switzerland

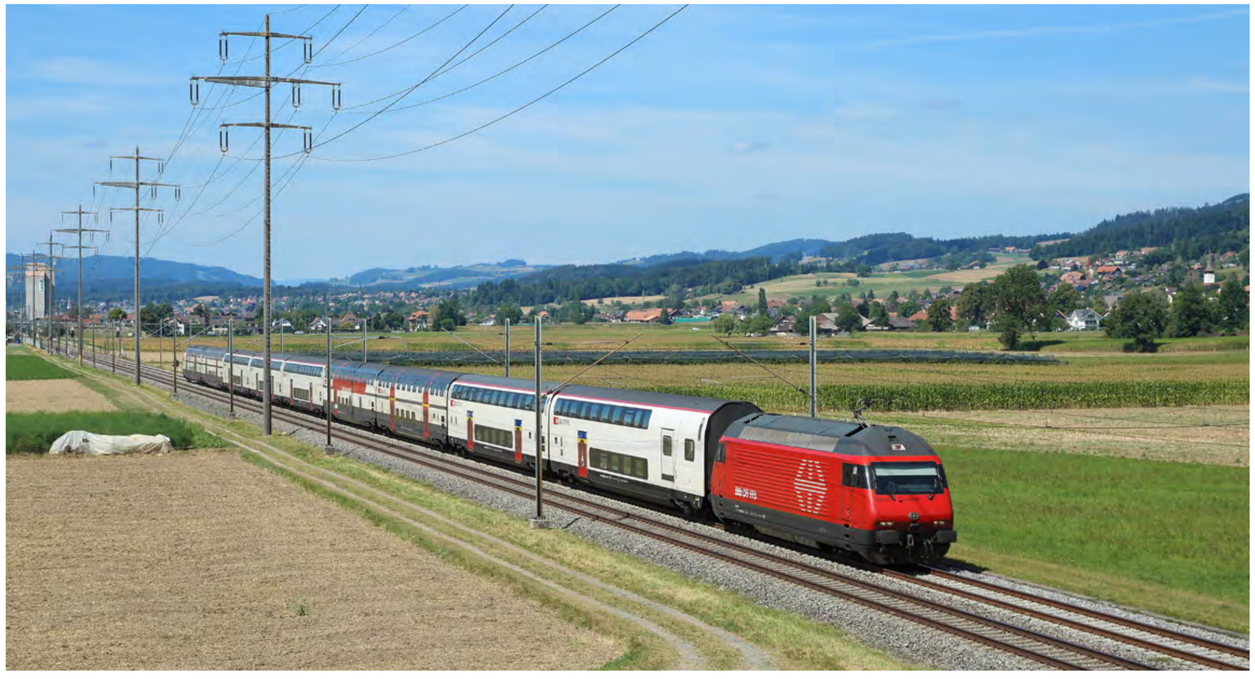
A RABe Class 526 EMU passes Burgdorf whilst working train No. IR2367 10:38 Bern - Chur. *Laurence Sly*

An SBB Class 460 passes Kiesen whilst working train No. IC820 12:48 Romanshorn - Brig. *Laurence Sly*

BLS Cargo Class 485.010 and 485.017 pass Kiesen whilst hauling train No. 47031 from Antwerpen to Visp. *Laurence Sly*







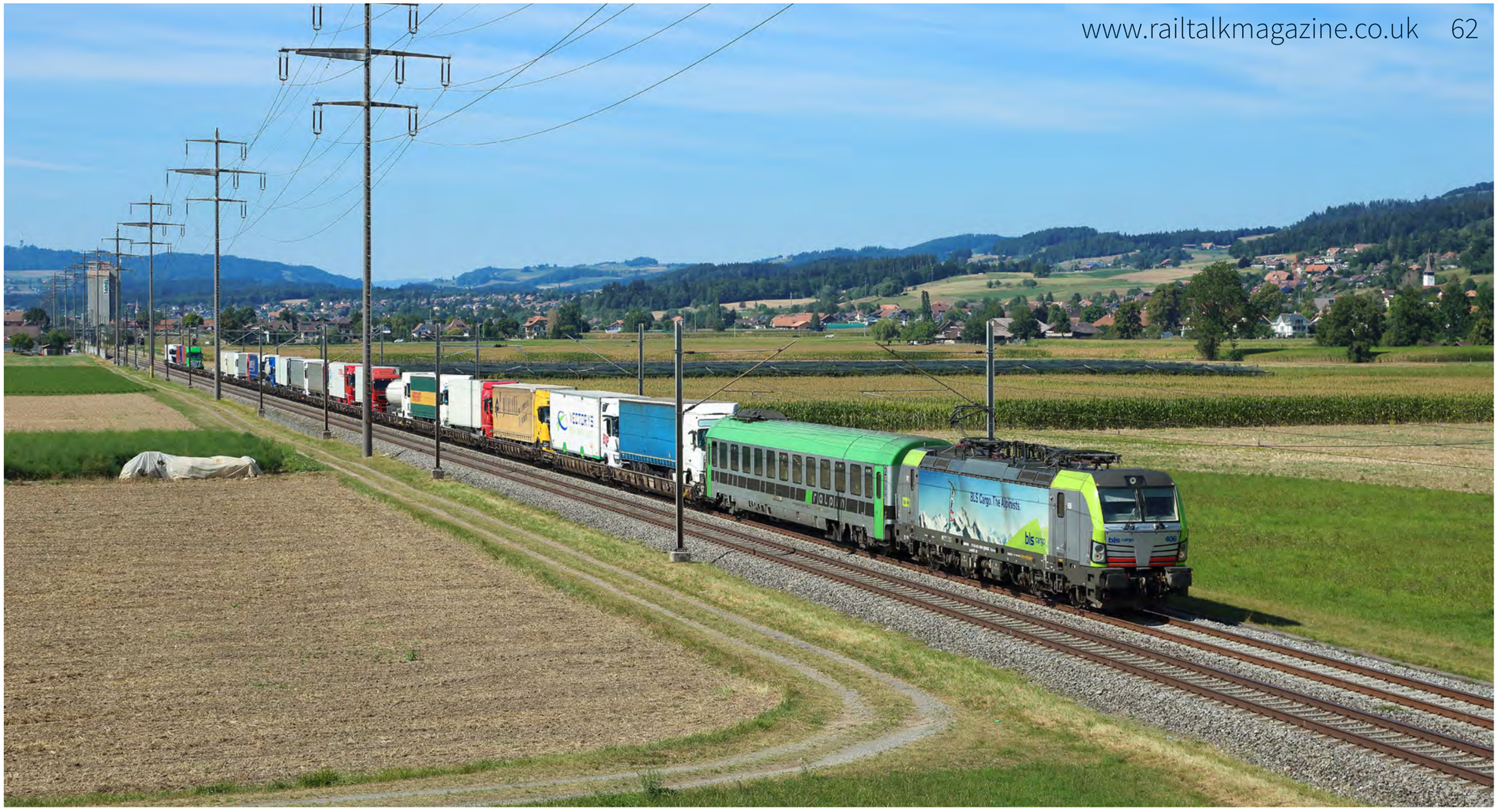
SBB Class 193.478 and a second unidentified Vectron pass Burgdorf whilst hauling train No. 43721 to Novara.
Laurence Sly

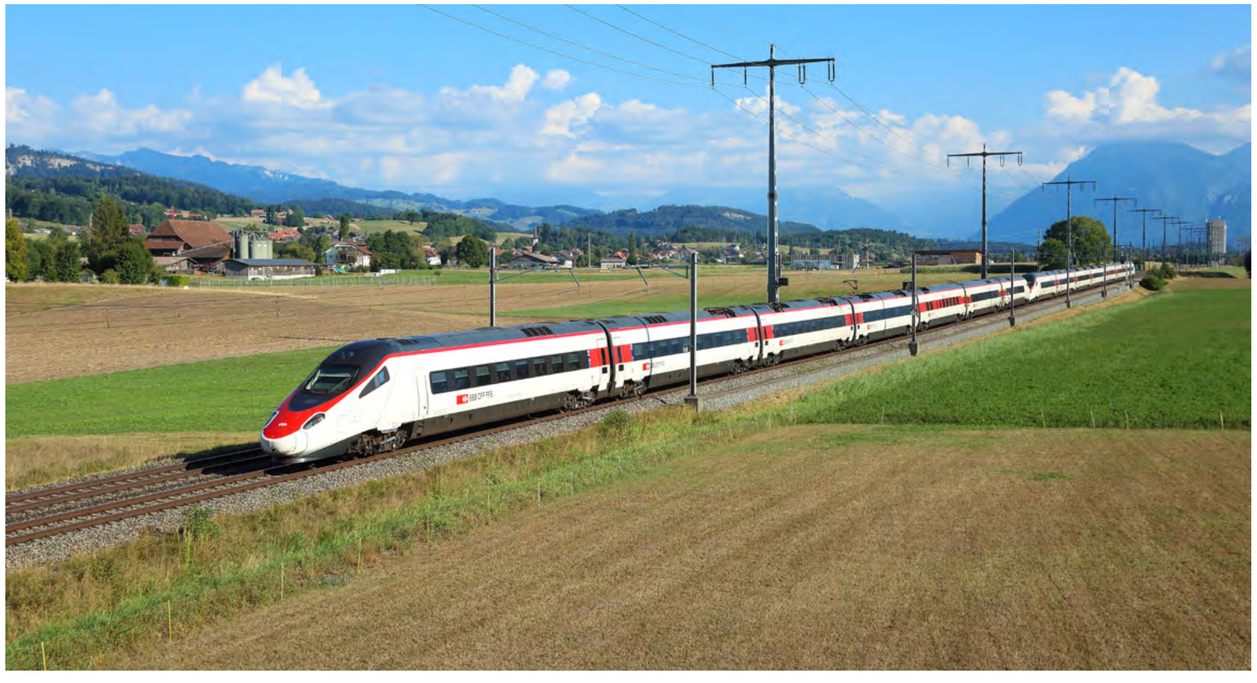
Switzerland

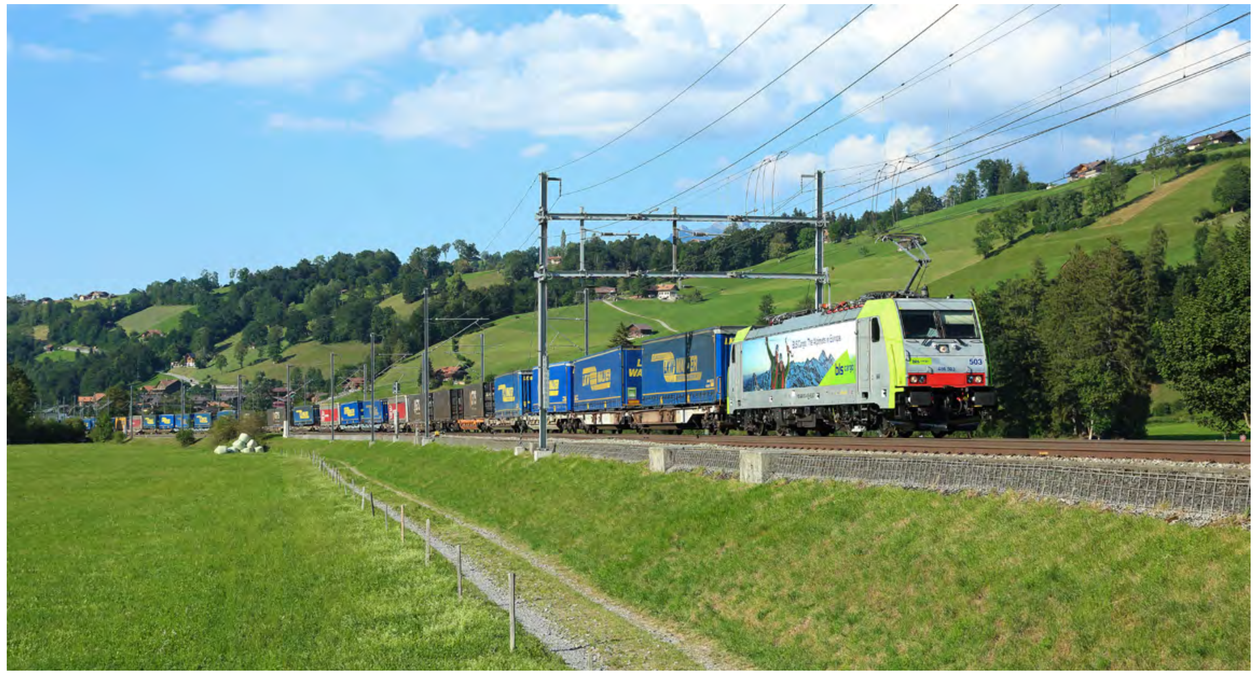
BLS Cargo Class 475.406 passes Kiesen whilst hauling Rola train No. 43623 from Fribourg to Novara. *Laurence Sly*

BLS Cargo Class 486.503 approaches Reichenbach whilst hauling a container train from Zeebrugge to Novara. *Laurence Sly*

A SBB ETR610 EMU approaches Munsingen whilst working Eurocity train No. EC54 from Milano Centrale to Basel SBB. *Laurence Sly*





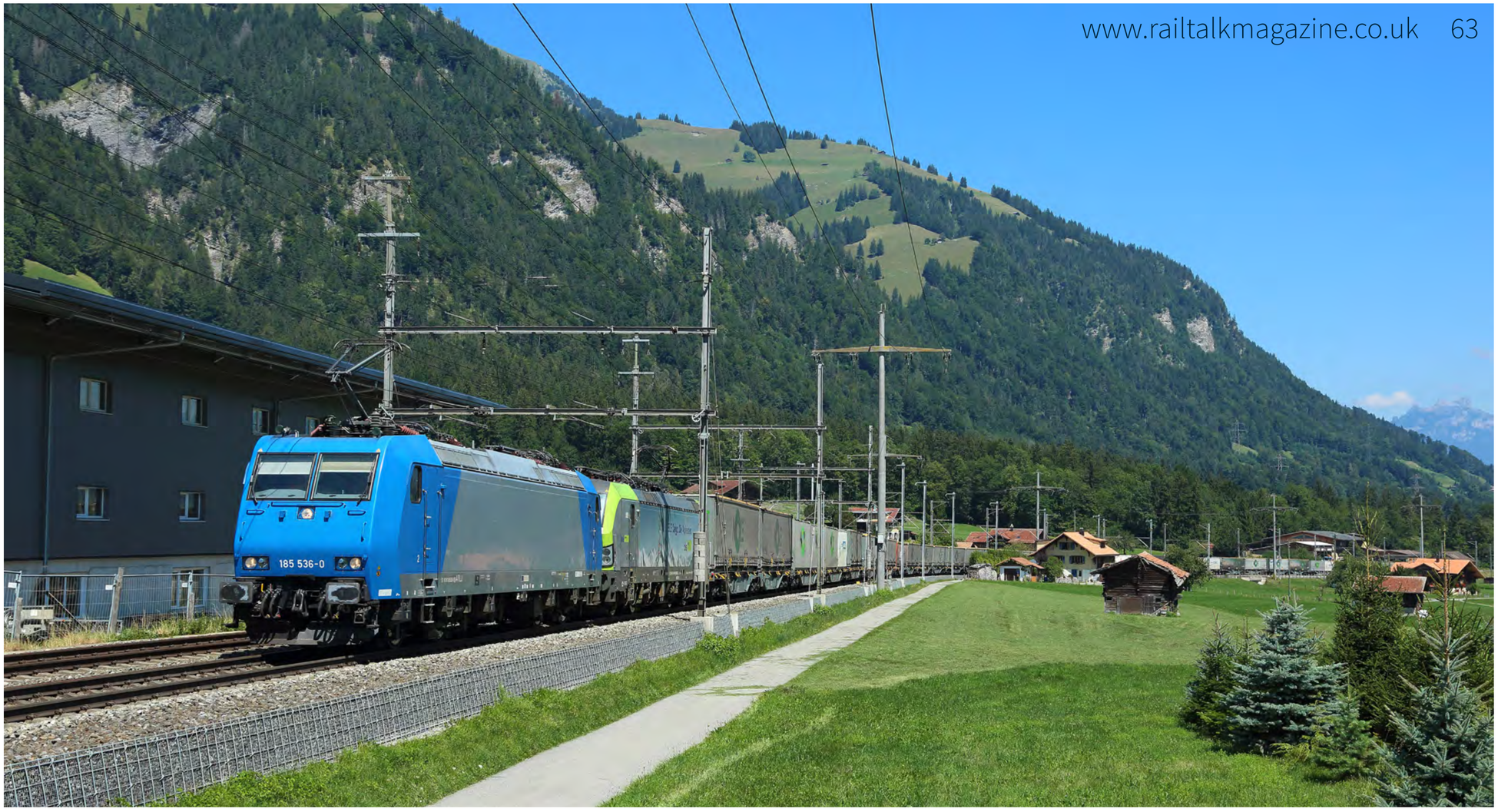


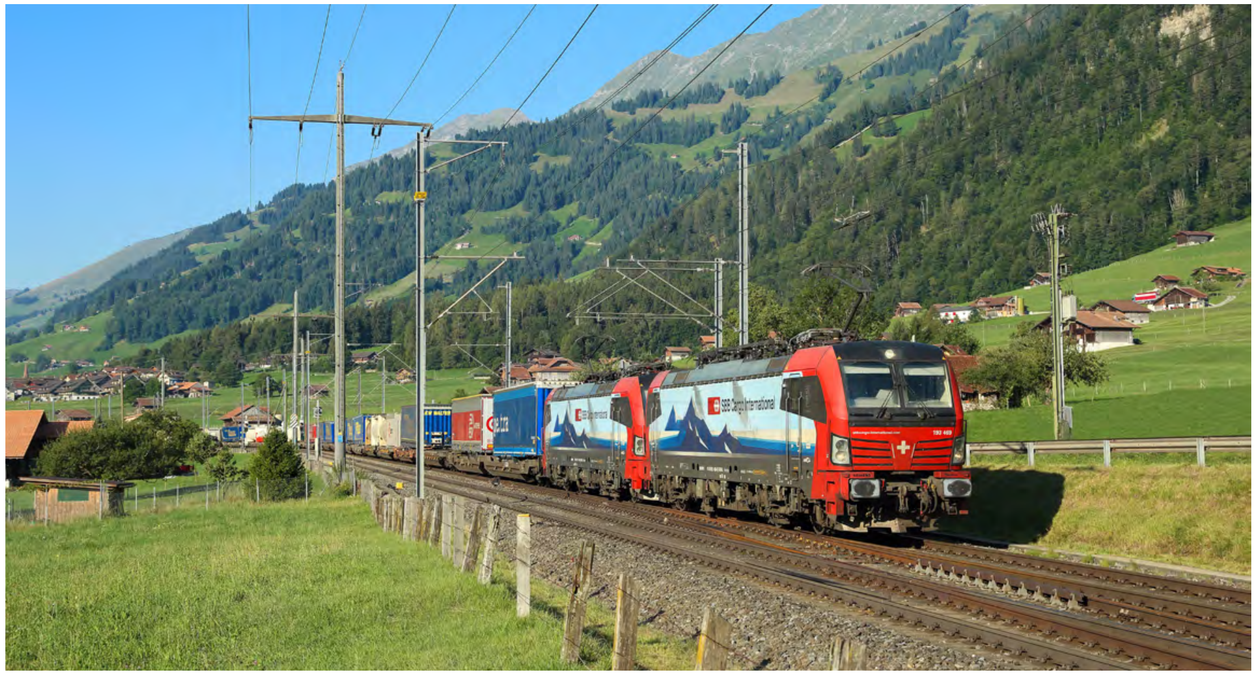
Switzerland

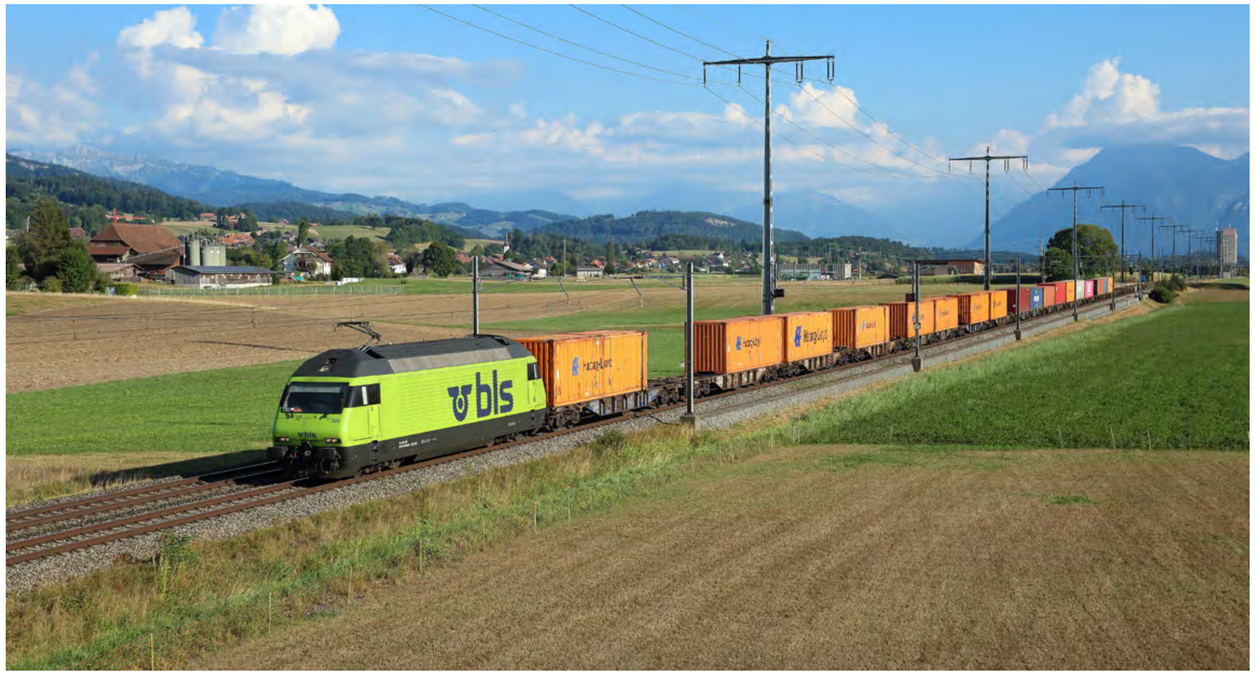
Class 185.536 and 475.404 approach Frutigen whilst hauling a southbound intermodal train. *Laurence Sly*

BLS Class 465.005 approaches Munsingen whilst working train No. 41601 from Genova to Frekendorf. *Laurence Sly*

SBB Cargo Class 193.469 and 193.476 pass Frutigen whilst hauling an intermodal train from Novara. *Laurence Sly*





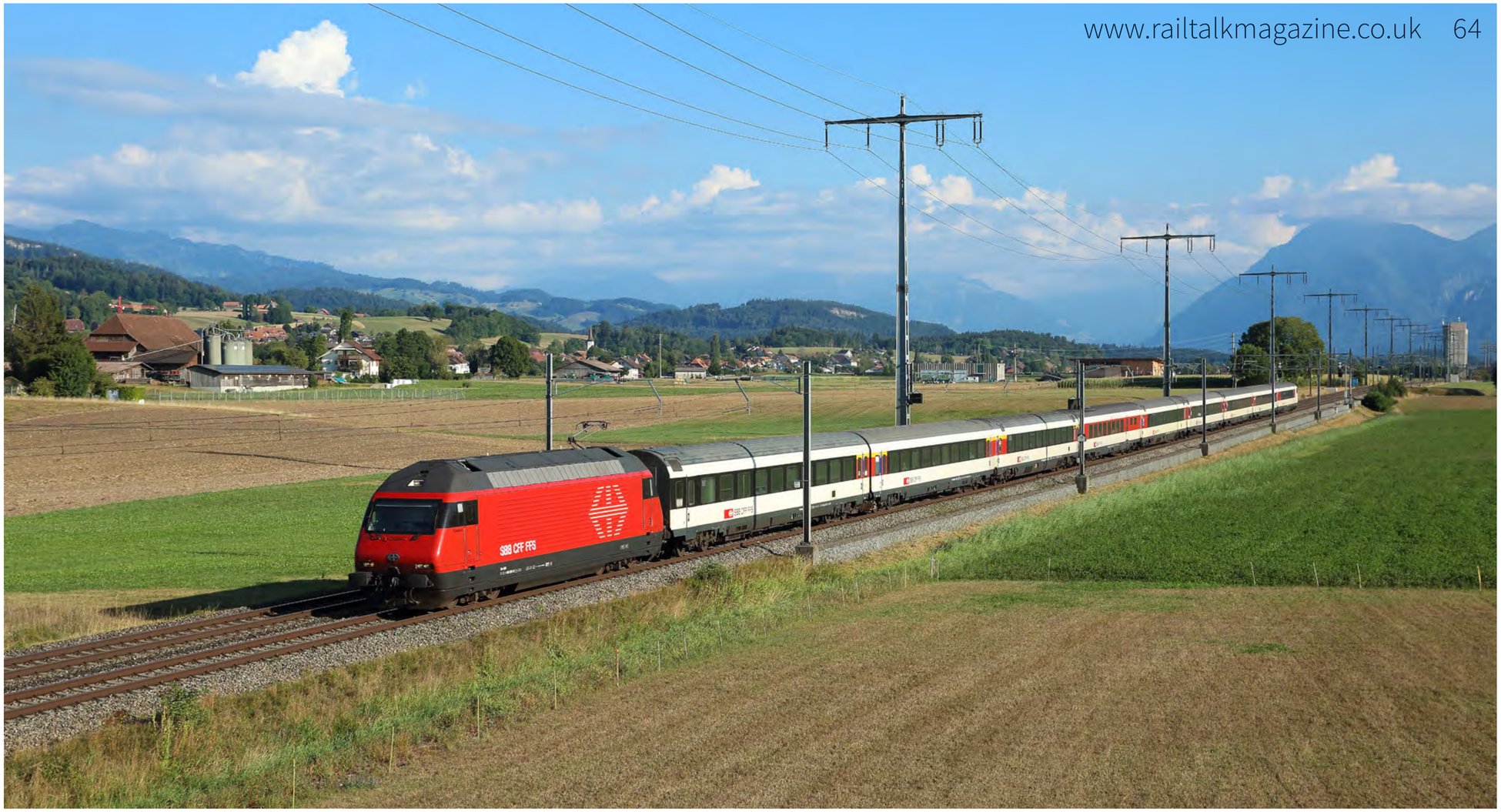


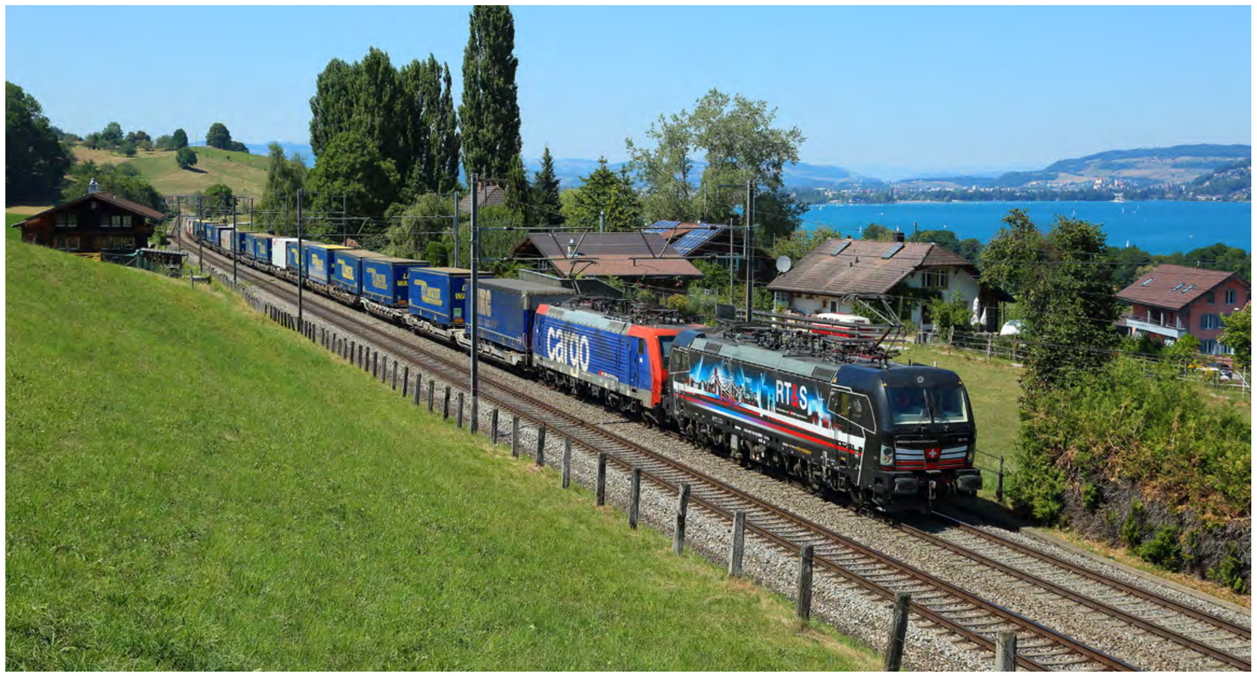
Switzerland

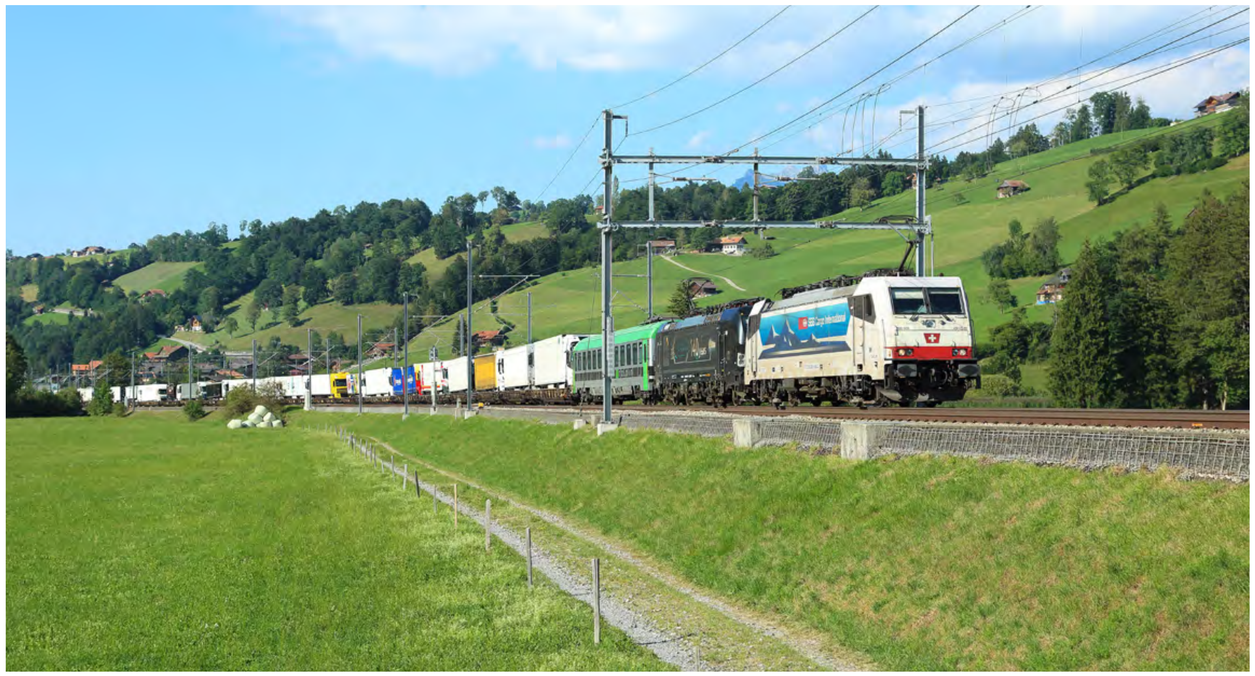
Class 460.067 approaches Munsingen whilst working train No. IC982 18:00 Interlaken Ost - Basel SBB. *Laurence Sly*

Class 186.908 approaches Reichenbach whilst hauling Rola train No. 43623 from Freiburg to Novara. *Laurence Sly*

SBB Cargo Class 193.701 and 474.115 pass Einigen whilst hauling train No. 43739 to Novara. *Laurence Sly*





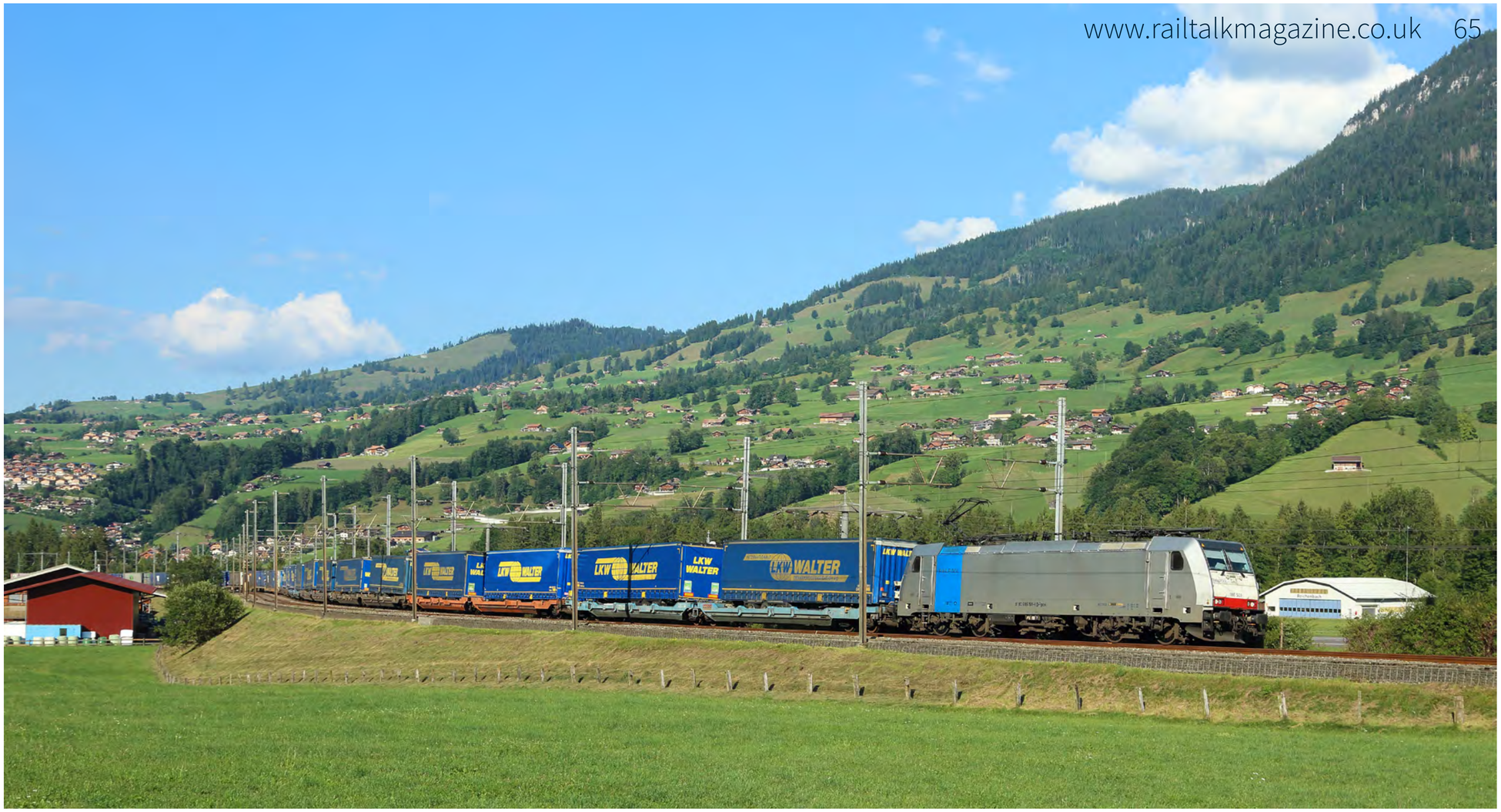


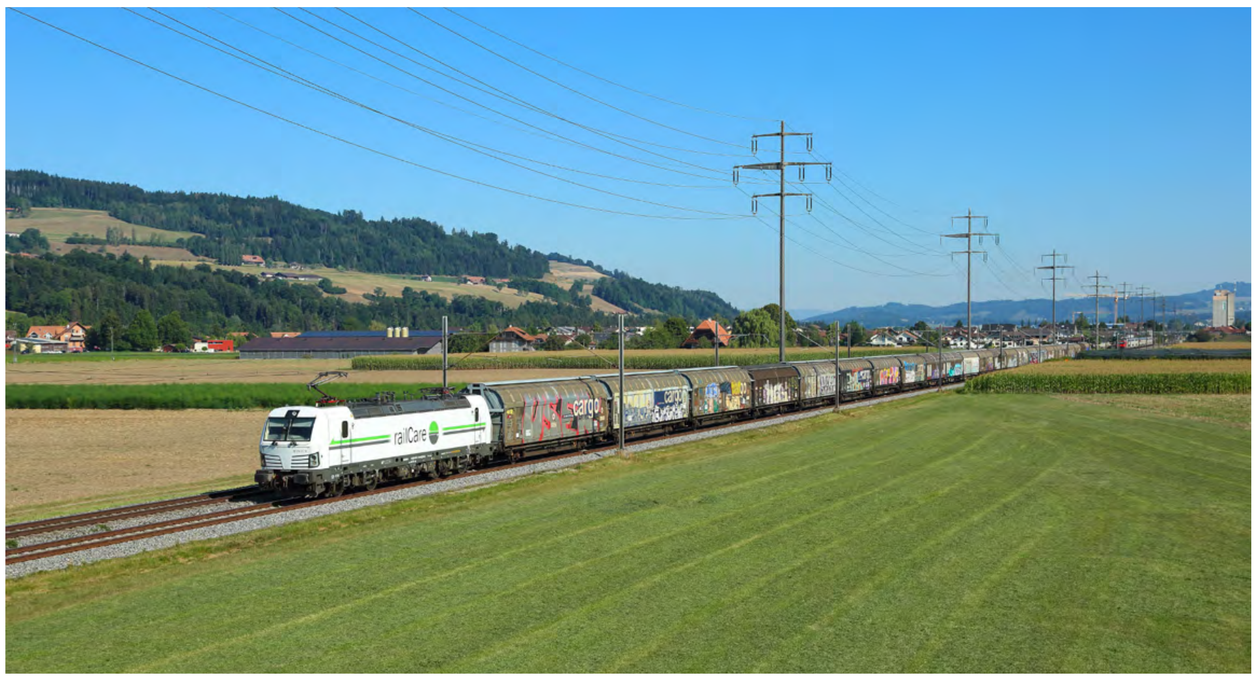
Switzerland

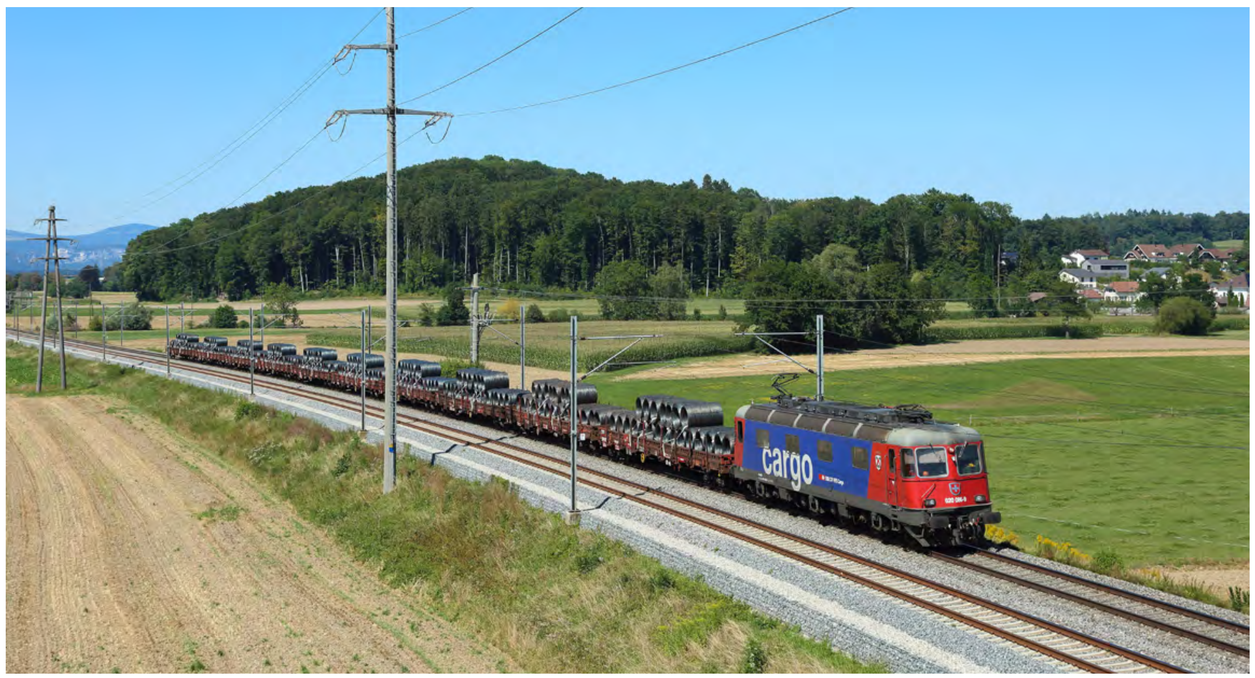
Railpool's Class 186.509 approaches Frutigen whilst hauling an intermodal train to Novara. *Laurence Sly*

SBB Cargo Class 620.086 passes Bollodingen with a train of steel wire coils. *Laurence Sly*

Class 476.451 passes Kiesen whilst hauling freight train No. 63659 to Brig. *Laurence Sly*







Kazakhstan

Alstom and Kazakhstan Railways expand their partnership

Fleet renewal to include next generation locomotive KZ8A(NG)
Grow supplier base to increase localisation rates of locomotives
Launch of an interlocking centre of excellence in Kazakhstan

Alstom, global leader in smart and sustainable mobility, and Kazakhstan Railways (KTZ) signed a cooperation agreement during the visit of His Excellency Kassym-Jomart Tokayev, The President of the Republic of Kazakhstan to France. The agreement was signed by Andrew DeLeone, President of Alstom in Africa, Middle East and Central Asia and Nurlan Sauranbayev, CEO of KTZ.

Alstom and KTZ reinforced their cooperation for the renewal of KTZ's locomotive fleet and maintenance support, which includes the next generation locomotive KZ8A(NG). To date, 90 freight and 39 passenger locomotives are in commercial operation with 160 freight and 80 passenger locomotives to be produced and delivered for KTZ. Both parties agreed to join efforts to grow capacity and rail know-how within the supplier base in the country to increase localisation rates. Over the last 12 years, Alstom has developed a strong supplier base with over 340 local partners and plans to expand this base further and increase localisation rates.

Alstom and KTZ agreed to diversify their partnership and create an interlocking centre of excellence in Kazakhstan with the goal of establishing EBI Lock 950 product (signalling) expertise in the country. Alstom is taking a considerable step towards the rail of tomorrow and is a vital player in the framework of sustainable development. Additionally, Alstom will work with KTZ on implementing low emission rail technologies with a focus on hydrogen and battery trains to reduce transport related emissions in the country.

"Alstom's work in Kazakhstan goes beyond addressing the immediate transportation needs of the country to support KTZ, as they build a strong and sustainable rail industry. We see a growing future in Kazakhstan, one with increased localisation, a larger and diverse employee base and new export opportunities. We remain committed to being a major contributor to the revitalisation of the country's rail industry and the development of its economy," said Andrew DeLeone, President of Alstom in Africa, Middle East, and Central Asia.

Alstom in Kazakhstan employs over 1,000 people and has four service sites and two production plants. One plant is EKZ in Astana for freight and passenger electric locomotives and production of on-board transformers and bogies, and the second is KEP in Almaty to produce point machines to serve the rail network in the country. Alstom is a major contributor to the revitalisation of the country's mobility industry and the development of its economy.

The solutions selected have a considerable impact on the day to day lives of Kazakh residents and are an integral part of the modernisation of the country's rail network. In addition to being faster, offering more capacity and high availability rates, the components for the 250 freight and 119 passenger Prima locomotives are 97% recyclable. Based on Alstom's operational data, Alstom trains operated in Kazakhstan have 89% less gCO2/passenger.km compared to cars and the country will see further reduction on CO2 emissions as they increase the use of renewables in the energy mix.

Panama

Alstom will provide maintenance for Line 2 of the Panama Metro

Alstom, global leader in smart and sustainable mobility, has signed a new maintenance contract with the Panama Metro (MPSA) which includes preventive and corrective maintenance of the rolling stock, signalling and power supply system of Line 2 of the Panama Metro.

The 21km viaduct line with the capacity to transport 16,000 passengers per hour in each direction and designed for a horizon-year capacity of more than 40,000 passengers per hour in one direction, has been operating successfully since April 2019, during which time Alstom has also provided maintenance services.

Under the terms of the contract, work has already begun and will last three years. The services will be managed mainly with Panamanian technicians and specialists, all contracted, prepared and trained by Alstom.

The contract includes maintenance of 21 Alstom Metropolis trains, covering the overhaul of the bogies, the brake system, the coupling system and the pantographs. This maintenance work will help improve the performance and extend the useful life of the trains, guaranteeing the quality of service and their safety.

Alstom will also oversee the maintenance of the Urbalis communications based train control (CBTC) signalling system, a proven and reliable train control system based on radio communication. The Urbalis solution allows for precise control of the train route to manage traffic efficiently and safely, and for 90-second headways between trains on Line 2, thus increasing the capacity of the system.

The contract also includes maintenance service of the traction and auxiliary substations, and the Hesop power system, an Alstom reversible substation solution that allows for the recovery and transfer of more than 99% of the energy generated by the braking of trains for re-use in the electrical network of the stations for services such as escalators, lighting and ventilation.

"With this new maintenance contract, Alstom reinforces its presence and commitment to Panama by providing quality services that contribute to the improvement of the country's rail infrastructure and logistics," said Iván Moncayo, General Director of Alstom Panama, adding "At Alstom we are proud and grateful to Panama Metro for having selected us to provide maintenance services for Line 2, a service that we will provide based on our technological leadership and world-class experience, which allow us to guarantee a reliable and safe operation for the comfort and convenience of Metro users."

Alstom has been present in Panama actively, contributing to the development of urban transport in the country since 2010. During this time, Alstom has signed different transport contracts, such as the development, construction and implementation of the integrated rails systems for Lines 1 and 2 of the Panama Metro, and maintenance of Line 1 of the metro, which includes an innovative train driving simulator.

India

Alstom wins order to design and manufacture 312 metro cars for Delhi

Alstom, a global leader in smart and sustainable mobility has been awarded the contract to design, manufacture, supply, test, commission 312 standard gauge metro cars for Delhi Metro Phase IV expansion, by the Delhi Metro Rail Corporation (DMRC).

The order, worth €312 million includes:

- Design & manufacturing of 234 standard gauge metro cars for Line 7 extension (Pink Line 12.558 km) on the Mukundpur – Maujpur corridor and the Line 8 extension (Magenta Line 28.92 km) for the Janakpuri West – RK Ashram corridor.

- Design and manufacturing of 78 standard gauge metro cars for the 23.622 km Silver Line between Aerocity and Tughlakabad, including 15-year maintenance of these 78 cars.

Alstom will supply its class-leading Metropolis trainsets for this order. Metropolis trains offer a unique design, a wide range of configurations and ensure the highest performance due to the perfect combination of proven and reliable components and innovations.

With its extensive track record, low lifecycle costs, and keen focus on passenger experience, Alstom's Metropolis metros set the standard in reliable and attractive metro services around the world.

Alstom has delivered more than 800 metro cars that are in service for the Delhi Metro network. The new trains will be built at Alstom's largest Urban Rolling Stock manufacturing site in Sricity (Andhra Pradesh), which has a strong portfolio of delivering for major domestic and international projects.

Commenting on this win, Olivier Loison, Managing Director, Alstom India Cluster said, "Delhi NCR is amongst the largest urban clusters in the world. Faced with the realities of climate change, such megacities need reliable and sustainable public transport solutions. Alstom is pleased to continue the partnership with Delhi Metro, one of Asia's largest rapid transit systems. Our trains have a high recyclability of all materials and low-weight design to reduce energy consumption that will greatly contribute to minimising environmental impact in the region."

Presently, the Delhi Metro network consists of about 391 km. with 286 stations. The network has now crossed the boundaries of Delhi to reach Noida, Greater Noida and Ghaziabad in Uttar Pradesh, Gurgaon, Faridabad, Bahadurgarh and Ballabhgarh in Haryana.

In addition to providing rolling stock, Alstom has in the past partnered with DMRC for several other projects, including successful implementation of supply and commissioning of train control and signalling system for DMRC's Red line(L1), (Yellow Line (L2), Green Line (L5), Violet Line (L6), Pink Line (L7) during Phase I, II & III.

Alstom has also delivered metro trains for the cities of Delhi, Chennai, Lucknow, Kochi and is currently delivering trains & signalling for Bhopal–Indore Metro project, Kanpur-Agra Metro project, Mumbai Metro Line 3 and for India's first semi-high-speed rail network, NCRTC-RRTS that connects Delhi – Ghaziabad – Meerut.

Finland

VR FleetCare supplied City Transport Ltd with a tunnel cleaning wagon

As the number of kilometres in the metro tunnel has increased fourfold, Metropolitan Area Transport Ltd has invested in more efficient maintenance equipment. Sustainability was the starting point for the procurement of the new tunnel cleaning wagon; it is environmentally friendly as it is built on top of a recycled frame and it uses only biodegradable and ecological washing agents. The new tunnel cleaning wagon was supplied to City Transport Ltd by VR FleetCare.

The metro tunnels accumulate dirt and dust which air currents then spread to the station areas. For example, the brakes of metro trains create iron particles that accumulate in the air and on the walls, and the maintenance work carried out at night creates ballast, stone and soot dust.

The accumulation of dust in the wrong places affects the air quality, but can also cause a risk of short circuits due to the presence of technical equipment, such as traffic control equipment, sensors and cameras in metro tunnels. Careful cleaning of the tunnel also improves safety and the durability of the track and equipment. The tunnel cleaning wagon is used to wash all sections of the metro tunnel. The cleaning wagon can wash all fixed tunnel surfaces, such as walls, fire doors, ceilings, rails, points circuit housings and escape levels.

Pieksämäki machine shop – the place for freight wagon and special batch manufacture

VR FleetCare was tasked with designing a tunnel cleaning wagon that combines the circular economy, environmental friendliness, and user ergonomics. Cooperation partners Citec and Suomen Ekopesu were also involved in the design. The cleaning wagon that has now been commissioned is built on top of a 2-axle freight wagon. The construction work was carried out at VR FleetCare's machine shop in Pieksämäki, where other freight wagon manufacturing is also carried out.

The frame of the machine is based on a modified freight wagon, and the washing equipment is operated from a cabin equipped with cameras. The device is equipped with a water tank of 11 cubic metres filled with water from fire hydrants and a nozzle that can reach up to six metres, with pumps operated by a diesel generator. Furthermore, the wagon is equipped with front bristles suitable for washing the protective housings of the conductor rails.

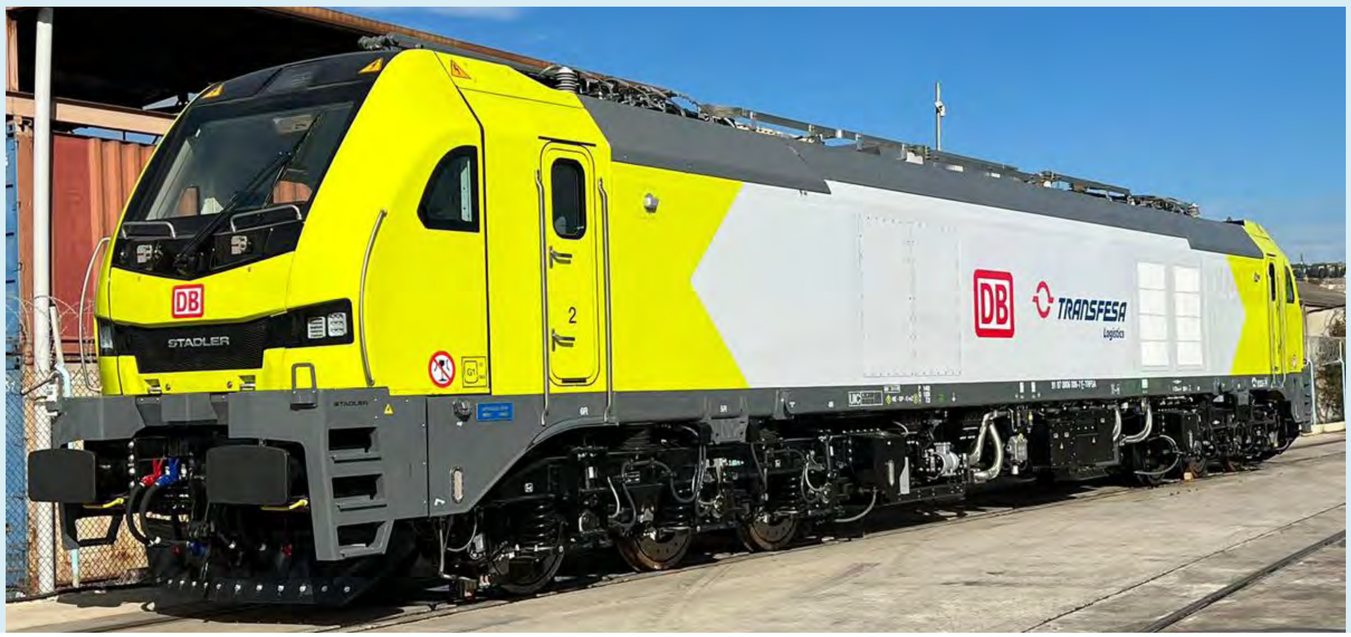
Jaakko Laurila, Procurement Engineer at City Transport Ltd, is satisfied with the device: "Unlike with the previous cleaning wagon, the user now has a well-illuminated closed cabin where they sit instead of standing. The new machine is also more reliable and cost-effective: the washing tip has a range of 360 degrees, the washings are more efficient, and the water tank needs to be filled less frequently. In addition, the detergent in the conductor rail housing is now applied by the machine, whereas it was previously done by manual spraying."

Luxembourg

First EURO6000 UIC delivered for Transfesa

Alpha Trains Group is happy and proud to extend their long-term relationship with DB Cargo AG/Transfesa Logistics with the lease of new EURO6000 locomotives. The first locomotive was delivered to them in Barcelona in November. Alpha Trains thank DB Cargo AG and Transfesa Logistics for their trust and Stadler for the excellent collaboration.

Photo: EURO6000 for Transfesa



Eurostar

Michelin-star chef Raymond Blanc, OBE, celebrates 10-year milestone as Eurostar's Business Premier Culinary Director with highest rating from Sustainable Restaurant Association

Eurostar, the high-speed rail service connecting the UK to mainland Europe, has been awarded the highest possible rating from the Sustainable Restaurant Association (SRA) for its on-board catering, as it celebrates ten years in partnership with Michelin star chef, Raymond Blanc OBE.

Since its earliest days, Eurostar has championed the environmental benefits of high-speed rail and strived to bring sustainability to every area of its business. In recognition of its commitment to serving sustainable, responsibly sourced food on board, Eurostar has been re-awarded the highest rating of three stars from the Sustainable Restaurant Association (SRA) which it first received in 2019. This demands a very high standard of sustainability with ingredients that are seasonal, Fairtrade or organic, not air-freighted and sourced from farmers with high environmental and welfare standards. Raymond Blanc's expertise in this field and commitment to locally sourced, sustainable ingredients has played a significant role in reaching this achievement.

Limited edition menus from November 10th

From 10th – 23rd November, nearly 10,000 customers will enjoy a limited-edition menu served in Business Premier, with Raymond Blanc carefully curating the most popular dishes from his Eurostar menus over the last ten years.

The new menu includes mains such as, Charolais beef braised in Irancy wine, Jerusalem artichoke purée, roasted Jerusalem artichoke and shallot. As well as sustainably sourced smoked pollock and smoked salmon with red cabbage, red onion and Granny Smith apple salad, topped off with dill and pink peppercorns. As a digestif, a financier will be served made using honey from Eurostar's bees, which have been lovingly reared by Eurostar colleagues in three beehives. These have been located close to the high-speed line in Kent for the past decade – the same amount of time Raymond has been on-board with the rail company.

Research commissioned by Eurostar shows the important relationship between cuisine and travel, with 61% of Brits saying that one of their biggest drivers for city breaks is the food. Over half of those surveyed (61%) declare themselves as 'foodies' and almost a third (28%) want to try Michelin starred restaurants whilst on holiday.

Raymond Blanc OBE, Business Premier Culinary Director for Eurostar says: "I am very proud of my partnership with Eurostar and all that we have achieved in the last ten years. To be awarded a three-star SRA rating once again is testament to our shared commitment to quality and service, with sustainability at the heart of all of the recipes we bring to the table. Together, we want to ensure that passengers can enjoy local, fresh quality dishes and start their culinary journey in style."

Andrew Robinson, Head of Onboard Services for Eurostar says: "It is an absolute privilege to have had ten years of Raymond Blanc's expertise and influence over the development of our on-board menus, which are a much-loved part of the Eurostar Business Premier experience. After a challenging period during the pandemic, we are incredibly proud to have secured a three-star rating from the SRA today. As the greener way to go between the UK and the continent we are passionate about sustainable travel and we will continue to challenge ourselves to reflect this commitment though our on-board service delivery."

Juliane Caillouette-Noble, Managing Director of the Sustainable Restaurant Association, says: "Eurostar have, ever since they started working with the SRA ten years ago, demonstrated a total commitment to constantly improving every aspect of their catering operation. Achieving a Three Star rating for the third time is evidence of that and their dedication to serve their customers food that not only tastes good but does good too."

Luxembourg

Alpha Trains' Vectron fleet continues to grow

More Vectron locomotives for Alpha Trains

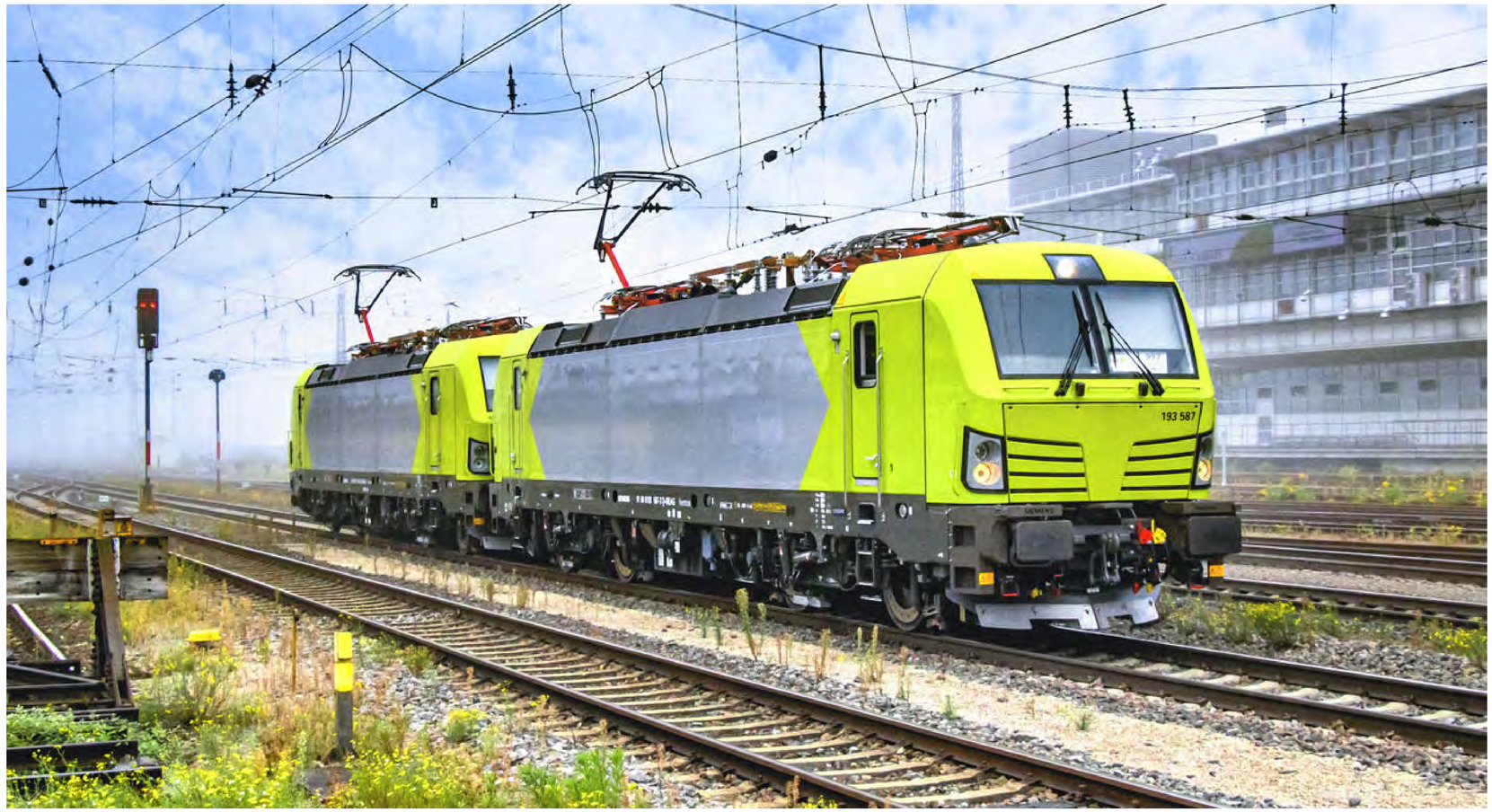
Alpha Trains, Europe's largest leasing company for locomotives and trains, has ordered 15 additional Vectron locomotives. The locomotives have been called from the existing framework agreement with Siemens Mobility, signed in November 2021.

With this latest order, Alpha Trains provides its customers with more than 80 Vectron locomotives and increases the Alpha Trains Locomotives fleet to 478 and with homologations for 21 European countries.

The new Vectron MS and AC locomotives with a maximum power of 6.4 megawatts and a top speed of 200 km/h complement the existing Alpha Trains fleet of Vectron MS, AC and Vectron Dual Mode models. The Vectrons will be manufactured at the Siemens Mobility plant in Munich-Allach.

"We are delighted to be increasing our fleet of Vectron locomotives yet again and to further strengthen our market position. There is a growing demand among our existing and new customers for efficient and state-of-the-art multisystem locomotives. With this latest order, we can ensure that our customers have the highest possible operational flexibility on all their routes, as they can be operated in up to 18 countries." said Fernando Pérez, Managing Director of the Locomotives Division of Alpha Trains.

Image: Alpha Trains' Vectron fleet continues to grow - more Vectron locomotives for Alpha Trains © Alpha Trains / Siemens | Christian Bauer



Latvia

LDz and Polish Railways agree on cooperation in transportation of coal and other freight

On November 8th, a meeting between the management of SJSC 'Latvijas dzelzceļš' (LDz - Latvian Railways) and Polish Railway (PKP – Polskie Koleje Państwowe S.A.) took place in Riga. During the meeting, the heads of the two companies discussed prospects for future cooperation in logistics, as well as agreed on regular shipments of coal by rail from Riga Port to the Małaszewicze station in Poland.

"Thanks to intensive work of the both parties, SJSC 'Latvijas dzelzceļš' has managed to reach an agreement with Polish Railways on coal transportation by Latvian railway infrastructure and through our port.

Considering the current changeable situation with freight transportation in our region, such an agreement is highly important – Poland's interest in directing its regular coal freight and freight of other types through Latvia will allow for increasing freight volumes already now and also in the future," said LDz Chairman of the Board Māris Kleinbergs.

Polish Railways CEO Krzysztof Mamiński indicated that the Polish company is interested in developing freight transportation through Latvian ports. "We are very pleased about our Latvian colleagues' ability to ensure greater transportation volumes.

At present, we are planning to ship at least two shiploads of coal via the Latvian port and by Latvian railway infrastructure per month. One ship has already been unloaded and the cargo is on its way to Poland.

We are truly interested in increasing the amount of rail freight shipped through Latvia and to expand the range of freight types. We hope that this will be a new transport channel connecting Europe," Mamiński said.

M.Kleinbergs stressed: "This is a start of successful cooperation, and we are determined to continue this cooperation in this way – LDz has the capacity to transport significant amounts of freight between Latvia and Poland."

Finland

Success in Scandinavia: Stadler delivers FLIRT model to Finland again

In the Finnish capital of Helsinki, the VR Group and Stadler have signed a contract for the manufacture and delivery of 20 FLIRT electric multiple units. In addition to the supply of spare parts, the contract also includes options for 50 additional multiple units and the expansion of services to Stadler's full-service model. The new trains are intended for use in regional transport e.g., around the capital Helsinki and in Tampere region. With their efficient electric drive, they will allow even more sustainable rail operations and support the VR Group in its mission to implement environmentally friendly public transport in Finland. The FLIRT vehicles can also be used as intercity trains if required in the future. Delivery of the first vehicle is scheduled for spring 2026.

Stadler has extensive experience in the manufacture of rolling stock for challenging climatic conditions. With over 2,500 units sold, the FLIRT model (Fast Light Intercity and Regional Train) is Stadler's proven bestseller. 81 FLIRT vehicles are already in service in Finland, for example – as well as in Sweden, Norway and Estonia. In these countries in particular, the FLIRT model is proving its excellent suitability for severe winter conditions.

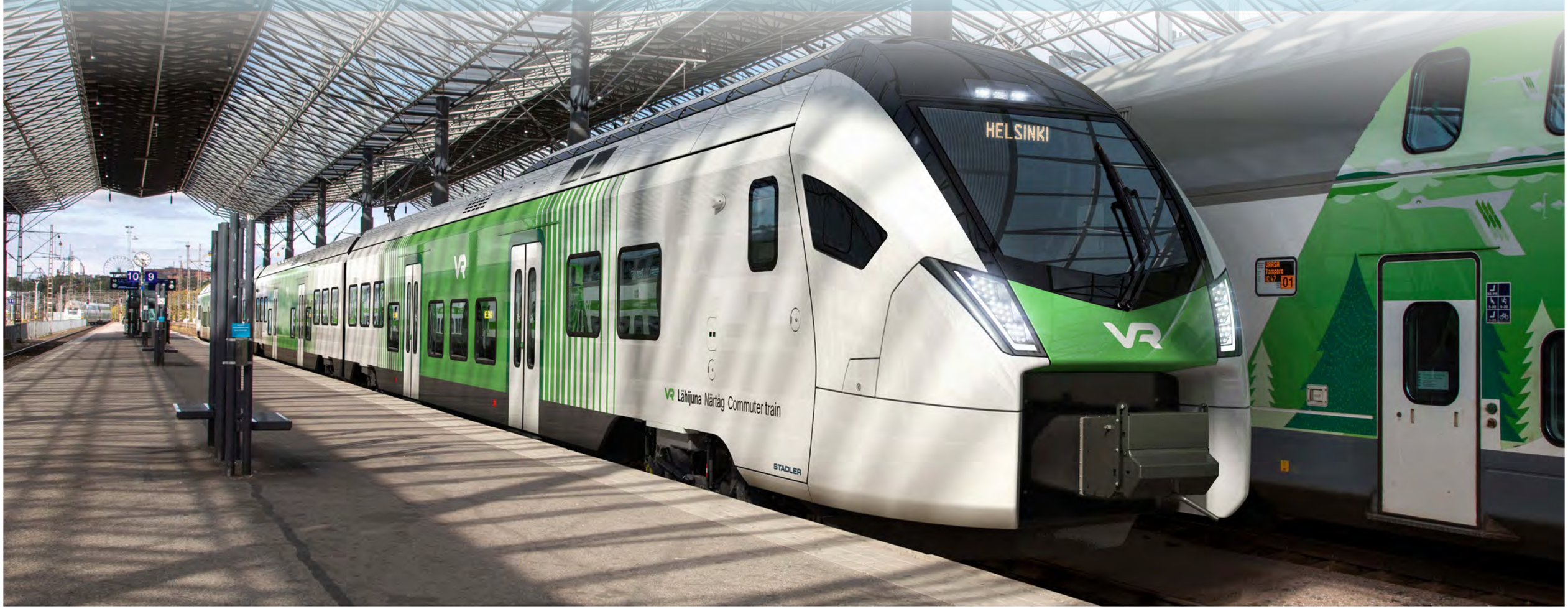
Just like the previous vehicles, the new FLIRT trains are being specially adapted for the Nordic climate in Finland. Equipment includes large snow ploughs, efficient air-conditioning technology featuring underfloor heating in the vestibules, as well as special heat insulation and well-sealed traction compartments to protect the drive technology.

"After supplying 60 locomotives, we are now proud to be delivering our best-selling FLIRT model to the VR Group. The FLIRT train has already proven its versatility and robustness thousands of times – from the Arctic Circle to Africa. The new vehicles will provide VR's commuter traffic passengers with an environmentally friendly, reliable and comfortable travel experience – even in harsh winter weather conditions," says Dr. Ansgar Brockmeyer, Executive Vice President Sales & Marketing and Deputy Group CEO of Stadler.

"Stadler's proposal responds to our needs. This is what we at VR Group want trains in the future to be like: energy-efficient, accessible for everybody, spacious and comfortable to travel in. We are happy to have Stadler as our partner in our mission, getting there together for a better world," says Elisa Markula, the CEO of VR Group.
More about the new trains

The four-car trains offer space for 796 passengers, with seats for 356 of them. They can reach a maximum speed of 160 km/h. Like all FLIRT vehicles, they have step-free entrance areas, low noise emissions inside and outside the trains and spacious multifunctional zones for pushchairs, wheelchairs, bicycles and luggage. Finland is one of the most important hotspots in Europe for outstanding design. For this reason, Stadler has worked with a local agency to ensure that the new trains reflect the Finnish design. The interior is elegant and stylish, yet modular so that it can easily be reconfigured or replaced during the lifetime of the trains.

The new FLIRT trains will support VR Group's commitment to sustainable mobility. The lightweight aluminium construction typical of Stadler, combined with the latest converter technology, will significantly reduce the energy consumption of the trains. The choice of propane as a coolant, the use of oil-free air compressors and the possibility to recycle a large part of the materials at the end of their service life are just a few examples.



Switzerland

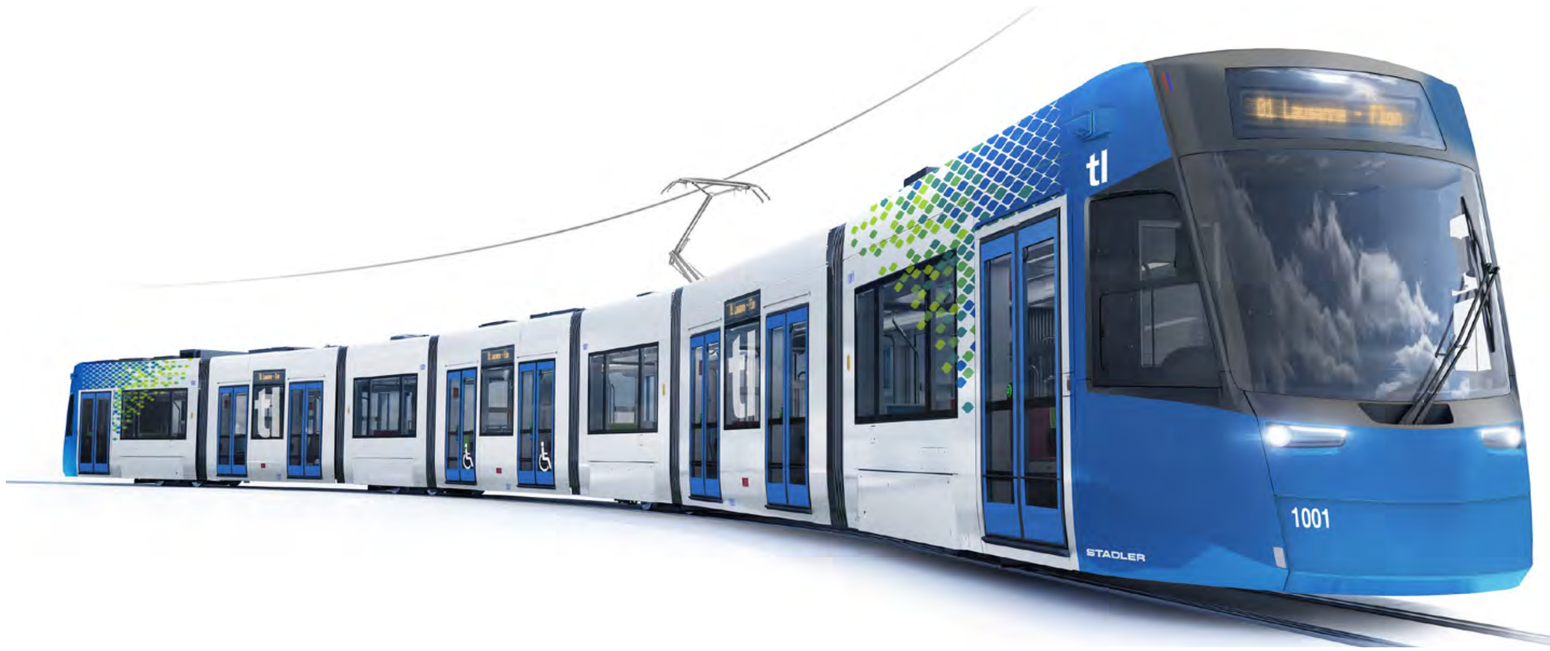
Stadler to supply 10 TRAMLINK trams to Lausanne

Stadler and the Swiss operator Transports publics de la région lausannoise (tl) have signed a contract for the supply of 10 new trams type TRAMLINK to be operated on the new tram line between Lausanne and Renens. The contract also includes the supply of spare parts and special tools.

Already six tramway operators in Switzerland have choosen the TRAMLINK of Stadler. They have been in operation in Lugano since last year and will soon start operating in the canton of Aargau, Basel and Bern. The innovative, high-capacity, low-floor multi-articulated trams are characterised by an innovative real axle bogie that guarantees a quiet and comfortable ride and maximum seating capacity over the bogies. It will be the first standard gauge TRAMLINK in Switzerland.

The new Lausanne TRAMLINKs are fully accessible. They offer bright, spacious, barrier-free compartments with wide aisles. They have three multipurpose areas next to the doors with space reserved for wheelchairs, trolleys and bicycles. Eight double-leaf doors per side, with sliding step to avoid gaps between the platform and the tram, ensure a fast and safe flow of passengers. Its exclusive interior design, as well as the complete acoustic and thermal insulation of the new trams and their efficient air-conditioning system, guarantee the comfort and safety of the passengers. With a length of almost 45 m and a width of 2.65 m, they offer a large passenger capacity of up to 316 persons. The optimised, extremely light, high-strength stainless steel structure meets the high structural requirements without compromising on weight and provides the best possible protection for passengers and drivers. Optimum all-around visibility for the driver ensures maximum safety in unpredictable urban environments. The front design improves pedestrian protection.

Dr. Ansgar Brockmeyer, Executive Vice President Sales & Marketing and Deputy Group CEO at Stadler, said, “We are very proud that Lausanne, strongly committed to green and sustainable mobility, has chosen our innovative TRAMLINK for its first tramway line. Passengers and drivers will enjoy a safe and comfortable ride and residents will appreciate the lack of noise. TRAMLINKs are fully accessible vehicles particularly attractive for urban traffic.”



Poland

Arriva Group signs new rail contract in Poland

Rail contract signed in city of Toruń with representatives of the Kuyavian-Pomeranian Voivodeship region
New contract begins in 2023 and will run for eight years up to 2030
Contract secures Arriva’s position in the Polish rail market

Arriva Group has signed a new contract in Poland for rail transport in the mid-north of the country’s Kuyavian-Pomeranian Voivodeship region. The new contract will see Arriva transport passengers in the region for the next eight years, starting from 2023 and running up until 2030. At the signing, local government representatives were present alongside Arriva’s management team.

The contract was awarded in recognition of the strength of Arriva’s tender which responds to the needs of the passenger transport authority in the region and, most importantly, for passengers who will enjoy continuity of service with Arriva.

Arriva acknowledges that its experience in the region would have been a positive factor in the decision to award this new contract. Commenting on the recent win, Sian Leydon, Arriva Group’s Managing Director for Mainland Europe, said:- “I’m delighted that Arriva has been successful in winning this contract in Poland. We have demonstrated long-standing success in rail operations in the region and this award provides continuity for passengers and for our colleagues within Arriva.

We look forward to working closely with the local government to share our expertise in passenger transport across Europe and ensure sustainable growth of rail transport in this part of Poland”.

The region of Kuyavian-Pomeranian Voivodeship was the first in Poland to open up the passenger rail transport market to competition. Over the last 15 years, Arriva has worked in close co-operation with the local government, demonstrating how effective a public/private partnership can be, especially when both organisations share a vision for effective transportation which connects communities in the right way.

Arriva has always prided itself on delivering high levels of commitment which comes from a great working culture. Employees demonstrate this commitment in their day-to-day roles and take pride in the service they provide to passengers. Furthermore, punctuality and modern standards of transportation are amongst the reasons why Arriva remains a popular choice and amongst the best-rated in Poland.

Arriva expects to intensify its growth activities and continue to invest in passenger service initiatives. The contract brings stability and continuity for the years ahead.

From the Archives

Belgium

SNCB Quadri-current No. 1803 stands outside Brussels Midi station on March 6th 1982. *John Sloane*

From the Archives

Brazil

RFFSA railcar set No. M207 arrives at Sao Paulo Luz station on November 26th 1981. *John Sloane*

From the Archives

Cuba

Former Hershey Railway railcar No. 3007 runs through a very damp Havanna Casablanca station on February 16th 1985. *John Sloane*

From the Archives

France

Stainless steel set No. Z5170 departs from Paris Montparnasse station before the last rebuilding on October 24th 1984. *John Sloane*

From the Archives

France

SNCF BB No. 17010 brings a commuter train for Paris St. Lazare past Pont Cardinet station on October 27th 1983. *John Sloane*

From the Archives

France

SNCF No. 80010 stands at Paris Austerlitz with empty stock for Boulevard Massena carriage sidings on October 29th 1997. *John Sloane*

From the Archives

Germany

ZSB No. 199018 arrives at Bertsdorf on May 1st 2012. *Mark Enderby*

From the Archives

Germany

DLC Class 66 No. PB14 is seen at Koln West on May 5th 2005. *Mark Enderby*

From the Archives

Germany

ZSB Nos. 99.731 and 99.749 are seen on simultaneous departures at Bertsdorf on May 1st 2012.
Mark Enderby

From the Archives

Greece

On the former SPAP metre gauge system 2-8-2 No. Z7120 nears Olympia with the early morning train from Pirgos on August 23rd 1973.
John Sloane

From the Archives

India

Indian Railways ZDM3 No. 182 is seen at Kandh on the line to Shimla on November 22nd 2005. *Mark Enderby*

From the Archives

Indonesia

Krupp built 2-8-2 No. D52080 stands at Maos station with a stopping service on February 5th 1980. *John Sloane*

From the Archives

Luxembourg

B & L Bo-Bo diesel No. 910 runs into Luxembourg station hauling a single coach on October 28th 1986. *John Sloane*

From the Archives

Portugal

CP Bo-Bo electric No. 2563 runs through Entroncamento station with an engineer's train of rails on August 21st 1974. *John Sloane*

From the Archives

Spain

On the Valencia Suburban System, electric unit No. 508 waits to depart Valencia Puente Madera station with a stopping service on August 2nd 1982. *John Sloane*

From the Archives

Switzerland

SEZ (part of the BLS group) loco No. 177 stands ready to depart Brig for Spiez on August 29th 1990.
John Sloane

From the Archives

Thailand

General Electric ‘Shovel nosed’ loco No. 4046 backs onto its train at Bangkok Hualampong station on April 14th 1981.
John Sloane

From the Archives

U.S.A.

New Jersey transit diesel No. 4208 races past Harrison NJ on April 2nd 1997. *John Sloane*