

Volume 180 No 8



Recognising that eco-friendliness and cost-efficiency go hand in hand, **Plasser & Theurer** is striving to create sustainable value. The company's E³ hybrid infrastructure maintenance machines with alternative drives are making a significant contribution to achieving these goals (p36).

CONTACT

Railway Gazette International

1st Floor, Chancery House, St Nicholas Way, Sutton, SM1 1JB, Great Britain

Tel +44 20 8652 5200

editor@railwaygazette.com

See p50 for full details

 www.facebook.com/railwaygazette

 @railwaygazette

Annual subscription in USA \$395.

Railway Gazette International (ISSN Number 0373-5346, USPS 5845) is published monthly by DVV Media International Ltd, 1st Floor, Chancery House, St Nicholas Way, Sutton, SM1 1JB, UK. Airfreight and mailing in the USA by agent named World Container INC 150-15, 183rd St, Jamaica, NY 11413, USA.

Periodicals postage paid at Brooklyn, NY 11256.

US Postmaster: Send address changes to Railway Gazette International, Air Business Ltd, c/o World Container INC 150-15, 183rd St, Jamaica, NY 11413, USA

Subscription records are maintained at Abacus E-Media, 107-111 Fleet Street, London, EC4A 2AB, UK

Worldnet is acting as our mailing agent.

IMAGE OF THE MONTH

- 4 Škoda EMUs begin journey to Estonia

COMMENT

- 5 'Not cheaper, just easier'

INTELLIGENCE

- 6 Caspian link commissioned
- 8 Hudson Tunnel funding finalised
- 9 Electric services launched in Tanzania
- 10 Paris Line 14 goes north and south
- 11 King inaugurates København M4 extension
- 12 Hydrogen co-operation accord signed
- 13 Dutch ministers appointed
- 14 Market

INNOVATIONS & RESEARCH

- 16 Carbon fibre trainset nears service

INFRASTRUCTURE

- 19 **Developing a rail resilience framework** Arup has developed a policy document aimed at helping the rail sector to reframe its approach to climate resilience by embracing 'whole-system' thinking. Co-author Juliet Mian explains to Nick Kingsley
- 22 **Delivering a high-capacity artery across northern England** A major upgrading programme is in progress to enhance resilience, raise capacity and cut journey times on Network Rail's busy east-west route through the Pennines between Manchester and Leeds
- 26 **Better planning can keep trains running** Long-term thinking and better planning could help alleviate disruption when infrastructure work is in progress. With a European Regulation on railway capacity due shortly, Forum Train Europe offers a blueprint for the future
- 30 **Understanding the performance of under sleeper pads** USPs have been used for ballast protection and improved track geometry over more than 20 years, but

a new contact pressure measurement technique has revealed significant differences in their ballast protection properties

- 36 **Electric drives offer energy-efficient tamping** Real operating data recorded over a long period have demonstrated the energy-saving potential of Plasser & Theurer's electric drive technology, as well as reducing exhaust emissions

SOUTH KOREA

- 40 **Seoul embraces the 'GTX era'** This year has seen the opening of the first phase of Seoul's Great Train Express commuter rail Line A, and the start of construction on lines B and C. Plans have also been announced for extensions of all three and three more lines, as the Executive Director of Korea National Railway's GTX Department Song Hye-chun explains to Benjámín Zelki

- 44 **Suburban networks take shape** Under pressure to reduce commuting time across South Korea, policymakers are developing suburban rail services around key conurbations, many making use of spare capacity on existing main lines

INTERVIEW

- 46 **'Open access works in Europe and it works here'** Martijn Gilbert, head of FirstGroup's Lumo and Hull Trains businesses, says the UK's open access model is a proven success, and makes the case for further expansion whatever rail reforms may lie ahead

IN FOCUS

- 48 **Innovation showcased in Ostrava** Battery-powered trainsets, bi-mode locomotives and promising developments in automatic train operation were among the highlights at the 2024 edition of the Rail Business Days trade show. Toma Bačić reports from the Czech Republic

SIDETRACK & CONTACT

- 50 Dieter; Driving change; Elephant trap



Logistics company EWSA has started delivering 16 electric multiple-units being built by Škoda Group for Estonian passenger operator Elron, under a programme expected to run until 2026.

The 1520 mm gauge EMUs are not yet able to operate under their own power, and are too large to be loaded onto wagons. The air brake system and electronics are untested, and cannot be used ahead of commissioning following delivery. The units are therefore being transported by road from Škoda's Ostrava factory in the Czech Republic to Latvia, with Operail handling the onward transfer by rail to Elron's depot at Pääsküla.

Special adapters are used to connect the EMUs' Scharfenberg-type automatic couplers to the diesel locomotive's SA-3 couplings, and five empty wagons are added to provide braking force.

'It was clear from the outset that this was going to be one our most complex projects', commented EWSA CEO Vassili Zavoronkov. 'During discussions with the manufacturer, we realised it would be even more complex than anticipated.'

COMMENT

Andrew Grantham, Head of News & Online, Railway Gazette International
andrew.grantham@railwaygazette.com



'Not cheaper, just easier'

In 1891, Oscar Wilde famously wrote that there is only one thing in the world worse than being talked about, and that is not being talked about. So it can hardly be a bad thing that in the political guidelines for the next European Commission, returning President Ursula von der Leyen specifically picked rail ticketing as a key barrier blocking the path to EU climate neutrality by 2050.

'To achieve our climate objectives, we also need to make it easier for people to shift to more sustainable options', she wrote in mid-July. 'This is notably the case with mobility. Cross-border train travel is still too difficult for many citizens. People should be able to use open booking systems to purchase trans-European journeys with several providers, without losing their right to reimbursement or compensatory travel. To this end we will propose a Single Digital Booking & Ticketing Regulation, to ensure that Europeans can buy one single ticket on one single platform and get passengers' rights for their whole trip.'

The fact that this specific issue was picked out among just a handful of topics to illustrate the scale of the climate change challenge is instructive. There is clear frustration among policymakers and stakeholders alike that access to accurate fares, real-time journey information and straightforward booking processes remains so elusive across much of the EU and wider European rail market.

The business travel industry is especially exasperated. At an event in London in June, senior figures from travel management companies pointed to the difficulty of incorporating rail options into their established corporate travel systems, reporting that the rail industry was missing a commercial opportunity by failing to respond to demand as their clients looked for alternatives to flying.

Travel management company insiders told *Railway Gazette International* that the European rail sector's fragmentation and incompatible — or even inaccessible — booking systems made it



very difficult for them to offer their clients trains as an alternative to flying. This was despite growing interest in rail travel as large companies took environmental issues more seriously and were increasingly willing to spend time and money lowering their impact.

Third-party ticket retailing platforms are making inroads into opening up the rail sector's booking systems and adding them to the platforms used in the business travel market. Yet this is proving a slow and difficult process with some train operators unwilling to work with outside companies and seemingly being more interested in protecting their current sales than in growing rail's market share.

A travel management company representative said there was a particular problem with the complexity of rail fares and ticketing, and a lack of access to full data about what was available and on what terms and conditions. Nevertheless, big corporate travel clients accepted this as the current reality and were willing to make allowances in support of wider aims to reduce flying. On the other hand, small- and medium-sized businesses wanted to be able to trust that their travel management company would always offer them the best available fare. This was not always possible at present, leading to reputational damage for the entire rail sector, which was viewed as being too complicated compared to the alternatives.



'To achieve our climate objectives, we also need to make it easier for people to shift to more sustainable options'

Ursula von der Leyen, President, European Commission

In the UK, reforms to the byzantine ticketing structure which would require government intervention have been discussed for many years, but so far have only led to tinkering around the edges. One person familiar with behind-the-scenes negotiations said the rail sector had been encouraging major travel clients to lobby for ticketing reform. This was because the British government had shown little interest in the views of rail and travel companies, but had been more willing to listen when financial services companies pushed the message that they would really like to make more use of rail but currently found it too difficult.

The change of government following the July election has brought fresh impetus to UK rail reform, but there seems little doubt that ticketing will be one of the hardest areas to address.

Another senior figure at a travel management company said corporate clients wanted 'confidence and consistency', which rail did not always offer; business travellers wanted to be sure that their booked train would actually run, and to know what facilities would be available.

He added that SNCF had won a significant share of the French domestic inter-city business travel market by meeting these needs. A boost was provided by the French government's decision to restrict domestic flights where there was a rail alternative taking less than 2½ h. While in practice this only affects a handful of routes, it attracted worldwide attention and was widely seen as a clear signal of government support for rail as a business travel mode.

However, this success has not been replicated in more fragmented markets or on international routes, where incompatible booking systems and inconsistent information still pose major hurdles.

'We are not asking for rail to be cheaper than the alternatives', a travel team leader at a major financial services company told *Railway Gazette International*. 'We are just asking for it to be easier.' ●

Briefing

The US Federal Railroad Administration is making available \$153m from its Restoration & Enhancement grant programme to assist with covering operating costs for projects to establish new **inter-city** passenger services, restore withdrawn routes or enhance existing operations.

EFE has introduced regional passenger services between Curicó, Talca and Linares, using a 114.7 km section of **Chile's** electrified main line between Santiago and Chillán. This is part of a programme to enhance links between regional capitals. A Llanquihue – Puerto Varas – Puerto Montt service is to be added shortly.

Montenegro and **Serbia** have introduced joint border controls at Bijelo Polje on the Beograd – Bar line, following an EU-funded upgrade of the Montenegrin station. Eliminating the separate checks at Vrbnica in Serbia is expected to save 30 min for passenger trains and 60 min or more for freight trains.

The Niedersachsen, Greater Braunschweig and Hannover transport authorities have awarded incumbent Metronom the next contract to operate **Elektro-Netz Niedersachsen-Ost** passenger services from December 2025 to December 2038, with an optional two-year extension. The ENNO contract covers the Hannover – Gifhorn – Wolfsburg and Hildesheim – Braunschweig – Wolfsburg routes, with some trains to be extended to Elze.

Under a project being backed by the Region of Emilia-Romagna and **Bologna** municipality, Trenitalia Tper has introduced cross-city suburban services linking Porretta in the southwest with Pianoro to the southeast, offering an end to end journey time of 1 h 40 min.

Following trials in Germany and Austria, ÖBB Rail Cargo Group has launched its **TransFLEX** service, offering flexible ad-hoc block trains tailored to freight customers' needs which augment its TransFER network of timetabled connections.

Caspian link commissioned

IRAN

The 37 km extension of RAI's Qazvin – Rasht line to the Caspian Sea port of Bandar-e Anzali was opened on June 20, with a ceremony attended by Iran's acting President Mohammad Mokhber.

Running through Gilan province, the Rasht-Caspian Railway completes a rail link across Iran from the Caspian Sea to the Gulf port of Bandar Abbas. As part of the International North-South

Transport Corridor, it is intended carry intermodal freight between northern Europe and the Indian subcontinent via rail and sea. It is expected to cut the transit time between St Petersburg and Mumbai to around 10 days.

Minister of Transport & Urban Development Mehrdad Bazrpash said the link would significantly boost the country's capacity to handle transit freight by rail. Kheirullah Khademi, CEO of the Iranian construction company that built the



line, told local media that it would be able to carry up to 7 million tonnes per year, along with 600 000 passengers. 🌐

Flytoget eyes open access

NORWAY

Flytoget has applied to Statens Jernbanetilsyn to launch open access services on the Sørlandsbanen between Oslo and Kristiansand from December 2027. The regulator must assess whether the proposal conflicts with any public service contracts, and the operator expects a response by the end of 2024, after which it would apply to Bane NOR for paths.

Passenger operations in Norway were nominally opened up to competition after the Storting adopted

the EU's Fourth Railway Package in 2021, although all services are currently operated through tendered or directly awarded contracts.

Flytoget said it intended to run its trains 'on commercial terms' without state support, using six of its Class 71 EMUs, which are currently deployed on airport express services between Oslo and Gardermoen. Its access rights for that service expire in 2028, when it is due to be bundled into the Østlandet package directly awarded to Vy last year (RG 4.23 p8).

Services on the Oslo –

Kristiansand line are currently operated by Go-Ahead Nordic under the Trafikkpakke 1 Sør contract, which runs until December 2027 with an optional two-year extension. Go-Ahead said it did 'not fear competition' from what it described as Norway's flagship operator. CEO Emil Eike said the Norwegian rail sector needed 'the dynamism and innovation that comes with competition and more train operators on the rails.' 🌐

Read the latest news at www.railwaygazette.com



Photo: ECRoy / Shutterstock

Tusk recommits to CPK

POLAND

Prime Minister Donald Tusk has recommitted to implementing the Centralny Port Komunikacyjny high speed rail and airport programme, following a review initiated after his government came to power at the end of 2023. Tusk explained on June 26 that the review had been needed to 'objectively evaluate the project status and remove the political

influence in it'.

He said the plan represented a 'triple jump into the modernity of transport'. Construction of a Y-shaped high speed rail network linking Warszawa, Łódź, Poznań and Wrocław would be accompanied by the development of a central hub airport at Baranów, 42 km southwest of Warszawa. Trains would initially run at up to 250 km/h, although some of the new lines would be designed

to permit 350 km/h.

Project delivery body CPK was formally folded into the Ministry of Infrastructure on July 1. Plenipotentiary Maciej Lasek said the timeline had been updated, with the opening date for the airport reset from 2028 to 2032 and the initial sections of high speed line to follow by 2035. Revisions to the alignments would reduce the amount of property acquisition required. 🌐

SHAPING THE FUTURE OF RAIL INFRASTRUCTURE



Visit us in Berlin,
24 – 27 September 2024
Hall 26, Stand 975
[vossloh-innotrans.com](https://www.vossloh-innotrans.com)

Paulista investment

BRAZIL

The Ministry of Transport, land transport agency ANTT and the Federal Court of Accounts have signed an addendum to Rumo Logística's Malha Paulista concession providing for the operator to invest an additional R\$600m, bringing the total commitment to R\$940m. The deal updates the 30-year agreement signed in June 2020 that extended Rumo's concession to 2058.

Changes include capacity improvement works, including yard extensions, signalling improvements and 'changes to the branch line recovery schedule', as well as measures to eliminate level crossings in urban areas around São Paulo.

The 1989 route-km Malha Paulista is strategically important for São Paulo state, as a key transit route to and from the port of Santos. It handles around 65 million tonnes a year, mainly agricultural products originating in the states of Mato Grosso, Mato Grosso do Sul, Goiás, Minas Gerais and Paraná or containerised general cargo.

Hudson Tunnel funding finalised

USA

The Gateway Development Commission has secured the \$16bn financing needed for the project to build a second pair of railway tunnels under the Hudson River between New York City and New Jersey.

Construction of 4 km of twin-bore tunnels and 2.2 km of new alignment by 2035, and rehabilitation of the 1910-built tunnels by

2038, is expected to increase capacity on a critical section of the Northeast Corridor.

The federal government will contribute 70%, with 30% coming from the states of New York and New Jersey and the Port Authority of New York & New Jersey.

On July 8 GDC signed a \$6.88bn Full Funding Grant Agreement with the Federal Transit Administration, augmenting the \$3.8bn from the Federal-State Partnership

for Intercity Passenger Rail programme and \$1bn from Amtrak. It has also reached financial close with the Build America Bureau for loans totalling \$4.06bn to support the local contribution.

The project promoter expects to have awarded construction contracts worth more than \$5bn by the end of 2024.

'After many false starts and obstacles placed in our way, Gateway is full speed ahead,' said Senator Charles Schumer. 'Gateway's future is assured and the most important public works project in America is all systems go.'

Read the latest news at www.railwaygazette.com

Liège – Maastricht – Aachen launch

EUROPE

A through regional service linking Liège in Belgium with Aachen in Germany via Maastricht in the Netherlands was finally launched on June 30. Journey time is 94 min, with trains running hourly throughout and every 30 min between Maastricht and Aachen.

Branded as Limax for the cities served, the Three Countries Service was originally expected to

start in 2018 (RG 4.23 p18). However, the launch was delayed by various issues including the need to retrofit eight tri-voltage Stadler Flirt 3 EMUs with ETCS.

The service is operated by Arriva, in collaboration with Dutch national operator NS, Belgium's SNCB and German transport authority goRheinland for the Maastricht – Aachen leg. It is staffed by crews from each of the three countries, with handovers at Maastricht and Heerlen.



Briefing

The former Go-Ahead Deutschland business acquired by Austrian Federal Railways in February has been rebranded as **Arverio Deutschland**. The company said it would continue to operate as a 'market-oriented and independent railway', with operating subsidiaries in Baden-Württemberg and Bayern; its headquarters has been transferred from Berlin to Stuttgart to reflect a business focus on southern Germany.

Heathrow Express has secured a track access agreement covering its non-stop services between London Paddington and the airport terminals until June 2028. Despite introduction of Elizabeth Line trains to and from the airport, the 15 min interval premium service is carrying 16 000 passengers/day.

Grampet Group has opened a grain transshipment terminal at Dornești near the **Romania – Ukraine** border. Developed under a public-private partnership, with Grampet contributing €10m, the terminal enables simultaneous transfers between eight pairs of 1520 mm and 1435 mm gauge wagons, with a capacity of 500 tonnes/h. Grampet President Gruița Stoica said it would be a 'strategic

point in streamlining the flow of goods' to the Black Sea port of Constanța.

California's North County Transit District has been awarded a \$10.2m federal grant to complete preliminary engineering for double-tracking 15 km of its 35 km **Oceanside – Escondido** line, enabling NCTD's Sprinter DMU service to run every 15 min.

ČD has put into revenue service the first of its 20 **ComfortJet** inter-city trainsets being supplied by Siemens Mobility and Škoda Group (RG 5.24 p6). The train is being deployed on the Praha – Bohumin route, with Bohumin – Františkovy Lázně services to follow once more sets are ready.

Emphasising that 'projects are complex, multi-year undertakings', the **US High Speed Rail Association** has published a 'first-of-its-kind action plan' designed to assist with the development of proposals for 300+ km/h railways. **High Speed Rail Project Initiation: A Roadmap for Advocates** focuses on five key building blocks: organisation, technical planning, strategic engagement, project funding, and compelling communications.

Niš bypass

SERBIA

Construction of a 22.5 km Niš bypass railway was launched by President Aleksandar Vučić on July 6. The single-track electrified line designed for 120 km/h will link Niš Ranžirna yard with Sicevo station on the route to Dimitrovgrad.

The line is to be built by a consortium of Extra Auto Transport and China Road & Bridge Corp under a €153.6m contract signed by infrastructure manager IŽS on June 27. Construction is expected to take 34 months. The EU is providing €35m for the project, plus €80m towards the ongoing modernisation of the Niš – Dimitrovgrad corridor.

IŽS CEO Jelena Tanasković said the bypass would solve a number of problems by removing trains from the city centre, increasing safety and providing more capacity for transit freight.

Electric services launched

TANZANIA

Passenger services have been launched on the 201.8 km standard gauge railway from Dar es Salaam to Morogoro, with President Samia Suluhu Hassan paying the fares for 1 400 passengers on the first trip.


Built by a joint venture of Yapı Merkezi and Mota-Engil Africa, the single track line is electrified at 25 kV 50 Hz and has been designed for passenger trains to

operate at up to 160 km/h. Intermediate stations are provided at Pugu, Soga, Ruvu and Ngerengere. The line is operated by Tanzania Railway Corp, and end to end journey time is less than 2 h.

The electric services launched in June were due to be extended to the capital Dodoma by July 25, reducing the journey time for the 460 km from Dar es Salaam from 8 h by bus to around 3 h.

Deputy Minister for Transport

David Kihenzile said Tanzania was the only country in Africa that was building 'a long, cheap and modern

railway'. He hailed the economic opportunities that it would create, including for trade with DR Congo, Rwanda, Burundi, Uganda, Malawi and Zambia. The standard gauge network is eventually expected to total more than 2 500 route-km. 



DAC concerns raised


EUROPE

Associations representing private freight operators in central and eastern Europe have raised 'serious concerns' about the competitive, economic, technical and operational

impact of deploying digital automatic couplers. Acknowledging that DAC offers numerous benefits, they said 'hasty and arbitrary solutions could further hamper the competitiveness of the rail freight sector and slow down modal shift.'

In a memorandum to the European Commission's Directorate for Mobility & Transport, the associations suggested that DAC implementation should be voluntary rather than mandatory, adding that lessons needed to be learned from other projects such as ERTMS.

The significant upfront investment required for DAC is seen as a

barrier for private operators, which would 'undoubtedly increase' rolling stock costs. The signatories believed uptake would remain 'highly questionable' without significant funding from the EU and member states, warning that 'the investment must pay off from the perspective of each individual company, otherwise competitiveness will be reduced'. 

First long-distance trainset

MALAYSIA

The first of 10 ETS3 trainsets to operate long-distance services on KTMB's electrified west coast corridor has been rolled out at the CRRC Zhuzhou factory in China.

Under a contract awarded in 2020, the first two trainsets are to be assembled in China, and the rest in Malaysia. Deliveries are to be completed by August 2025.

Designated Class 94 by the national operator, the metre-gauge unit is the third generation of electric trainset developed for KTMB by CRRC. It has 312 seats, including 36 in business class, and it is equipped with an intelligent driver assistance system to reduce energy consumption. 



Fleet renewal funding


CANADA

VIA Rail is to begin the competitive procurement of 'new, comfortable and accessible trains' for use across Canada following the confirmation of government funding under the 2024 budget.

Following the 2018 allocation, which supported the procurement of Siemens Mobility push-pull trainsets for the Québec City - Windsor corridor, the funding will enable VIA Rail to replace its trains used on other routes. The amount is not being released, to protect the government's negotiating position in the procurement.

This is 'the latest in a series of

significant investments supporting VIA Rail's transformation', explained President & CEO Mario Pélouquin. 'By renewing our fleet, we will be able to maintain our coast-to-coast services, continue to connect a multitude of communities, and encourage more Canadians to choose rail.'

The budget also includes C\$462.4m over five years to support VIA Rail operations, C\$63.1m over three years to renew the Remote Passenger Rail programme in Manitoba, Québec and Labrador, and C\$371.8m over six years to progress design and development of the Québec City - Toronto High Frequency Rail project. 

BERLIN



Meet Us at InnoTrans 2024

Berlin-Brandenburg Pavilion
CityCube | Hall B



Photo: R. G. G. G.