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International Railway Journal (Print ISSN 2161-7376, Digital ISSN 2161-7368), is published monthly by Simmons-Boardman Publishing Corp, 1809 Capitol Avenue, Omaha, NE 68102, USA. Printed in Great Britain by Micropress and distributed in the USA by Mail Right International, 1637 Stelton Road B4, Piscataway, NJ 08854, USA. Periodicals postage paid at Piscataway, NJ and additional mailing offices. COPYRIGHT © Simmons-Boardman Publishing Corporation 2025. All rights reserved. Contents may not be reproduced without permission. For reprint information please contact Editor-in-Chief. For print magazine subscriptions, assistance & address changes, please call +1 402 346-4740, Fax +1 847 291-4816, Email: internationalrailwayjournal@omeda.com or write to: International Railway Journal, Simmons-Boardman Publishing Corp, PO Box 239, Lincolnshire, IL, 60069-0239, USA



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Front cover

MxV Rail will invite delegates at this month's Rail Research Week to visit its new facility in Pueblo, Colorado. The site at PuebloPlex has four test loops, including the 5.3km Facility for Accelerated Service Testing (Fast).
Photo: MxV Rail



People must come first in push for automation

TRAMS are as synonymous with Prague as the Charles Bridge and Old Town Square. Unfortunately, the need to share busy streets with pedestrians and other vehicles in the old city means that accidents are common - there were 1324 incidents on the network in 2022, an average of 3.4 per day.

To try and address the issue, Prague Transport (DPP) is making its trams smarter. During a recent presentation, Škoda Group revealed the workings of an anti-collision system it is installing on three LRV types used in Prague. The system is able to analyse and predict the movement of people and vehicles in the vicinity of the LRV and apply the emergency brake before a collision occurs, potentially reducing the frequency of accidents. The technology is the foundation of Škoda's march to increased automation in light rail operations. Intriguingly, tests with the system are also providing DPP with a much clearer picture of how its drivers are performing, with 80% of the 1800 drivers in Prague meeting the required performance levels.

While offering clear safety benefits, installing such a system also brings human resources challenges. Driver advisory and collision avoidance systems have the potential to dramatically alter how an individual performs a job they may feel they have done perfectly well for many years. Convincing the 360 drivers found to be underperforming in Prague to ditch their aggressive style is therefore potentially a major challenge for DPP and other cities exploring the use of these technologies.

This is nothing new. Technological progress has consistently brought changes in job profiles and responsibilities, and there has always been resistance to change. Yet with the world seemingly on the brink of a new technological revolution prompted by the steady advancement of artificial intelligence (AI) and

other technologies that promise to make machines smarter, the role that humans will play in this brave new world is for many a major concern.

After all, AI promises to do away with many menial and repetitive jobs currently performed by humans. The potential cost savings are inevitably attractive for employers who can redeploy staff elsewhere to perform more useful tasks. However, for employees, and their union representatives, this might be perceived as an attack on their jobs and livelihoods. A careful



You need to feel that the company is with you as a worker, not against you.

Jean François Révah

balance must therefore be struck between making the most of what these new technologies can offer to enhance productivity and performance while maintaining employee integrity. Unfortunately, experience has shown that too often in the rail sector, this has not been the case.

As Jean François Révah, a French consultant who has studied this issue extensively, explains, the rail sector has traditionally had a poor record of change management. He says there is a general misunderstanding of employee working conditions, which results in a general perception among employees that they are not being listened to by management when they run into problems. Only as an empowered collective do the workers feel they will be listened to, ultimately feeling obliged to take to the picket line to voice their frustration and to demand action. Railways and transit authorities tend to respond by offering employees more money, which appeases them temporarily, but fails to address the cause of the issue, starting the cycle all over again.

"You need to feel that the

company is with you as a worker, not against you," Révah says. "Unfortunately, these issues are not very well understood by management."

France is notorious for lively industrial relations. However, it is also home to one of the best recent examples of change management in the rail sector. The policy of Paris public transport operator RATP to convert metro lines to driverless operation, beginning with Line 1 which was completed in 2012, had the potential to be an industrial relations disaster, with up to 400 drivers no longer required to operate trains on one of the city's busiest metro lines.

However, as Révah reports, not a single strike was called in response. This was not by

Presentations during this month's Rail Research Week hosted by MxV Rail in Colorado (p18) will inevitably focus on the operational benefits that new technologies, including AI, can offer. However, consideration of the human factor should never be far from these discussions.

Experience from Paris shows that this is not a process to be embarked upon lightly, but one that requires careful management. While not all jobs will disappear with the onset of greater automation and the deployment of AI within the industry, work processes will change. Clear communication of the benefits of these new technologies is essential if staff are to embrace this change, which is critical to deliver the improved performance on offer. Replacement of once repetitive tasks with more interesting work that requires a higher level of training could even make the rail sector a more attractive place to work, addressing the ongoing challenge of recruiting new and retaining existing talent. This is an intriguing prospect.

"I'm very optimistic that the jobs that will disappear won't be the interesting ones," Révah says. "That is part of the evolution process."

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German rail reform report issued as new DB CEO confirmed

GERMAN transport minister, Patrick Schnieder, released a long-awaited report on rail reform on September 22. The 34-page document authored by the Ministry of Transport sets out a 10-point plan that it says should improve performance at German Rail (DB).

The 10 points include:

- a focus on reliability and cost-effectiveness
- concentrating on the core DB business and disposing of shareholdings in other companies
- three immediate programmes to improve the passenger journey experience
- establishing effective federal governance for both DB and DB InfraGO, and
- digitalisation of infrastructure and rolling stock, and pilot deployments of 5G telecommunications infrastructure.

The report also sets out five binding and clearly-prioritised goals for DB. These are:

- noticeable reliability improvements, including a long-term goal of 90% on-time arrivals for long-distance trains and a continuing rate above 90% for local and regional services
- sustainable profitability by 2028
- greater public welfare

- rapid implementation, and
 - effective management
- "The railway must be punctual, safe, and clean," Schnieder says. "We are focusing on customer orientation as we believe the railway is there for the people."

New DB CEO

The report was published as Schnieder announced the appointment of Evelyn Palla as the new DB CEO. On October 1 she succeeded Dr Richard Lutz, who resigned in August following sustained criticism of DB's poor financial and operational performance.

Palla, a 52-year-old Italian national, joined DB in 2019 as chief financial officer of the company's long-distance passenger subsidiary and was appointed DB board member for regional transport in 2022.

According to German news magazine *Der Spiegel*, Palla, plans to dismiss the CEO of DB Cargo, Sigrid Nikutta. She was expected to step down on October 30, having joined DB in 2020 from Berlin Transport (BVG) where she was CEO. Nikutta's successor, according to the German Press Agency (DPA), is likely to be former Thyssenkrupp Steel CEO, Bernard Osburg.



DB's new CEO, Evelyn Palla.

Der Spiegel reports that a recent assessment by DB has questioned whether DB Cargo's turnaround plan will succeed. While the assessment believes it should be possible to restore DB Cargo to profitability, it says the plan does not go far enough and will take too long to achieve its objectives.

Time is running out. DB Cargo must return to profitability next year, as the European Commission has prohibited DB from using government funding to cover its losses after the end of this year. Failure to do so could result in drastic surgery, such as slashing loss-making wagonload services and selling off parts of DB Cargo.

Qatar approves link to Saudi Arabia

THE Qatar cabinet has approved the long-awaited plan to build a railway from Doha to Saudi Arabia, which would be Qatar's first main line railway.

The new line would be around 100km long and would run to Abu Semra on the border with Saudi Arabia, connecting with the planned section of the Gulf Railway running from Damman to Ghurweifat on the border with the United Arab Emirates. Here the new line would connect with the existing Etihad Rail network to Abu Dhabi, Dubai and Fujairah, and the under construction link to Oman.

Qatar's 2050 transport plan includes a passenger line from a new international rail terminal in Doha to Doha's Hamad International Airport, and a freight branch off the line to the Saudi border to serve Hamad Port and Mesaieed Industrial City south of Doha.

It is hoped to complete the entire Gulf Railway running from Kuwait via Damman to the UAE and Muscat in Oman by 2030. A 45km branch across a causeway is planned from Damman to Bahrain.

Fortescue pauses battery locomotive programme

AUSTRALIAN mining company Fortescue has paused the project to develop its own battery-electric locomotives in collaboration with Downer.

Fortescue says it has not abandoned the project, but that it is continuing its broader decarbonisation work as it works towards achieving the company's Real Zero by 2030 emissions reduction target. It is understood that Downer is unaware of when or if the project will resume.

The collaboration with Downer was announced in September 2024, when the proposed battery-electric locomotive was heralded as the world's most energy-efficient. Yet just over a year later, Fortescue appears to have changed its plans.

"As outlined in our Climate Transition Plan, we have not yet settled on a single rail decarbonisation solution," a Fortescue spokesperson said. "We have progressed several pathways in parallel, including extensive work to assess and trial both battery and green ammonia options. Through this process, we have gained valuable insights into energy efficiency, charging infrastructure, integration and operational requirements."

Fortescue says the focus is now on developing a solution that maintains productivity and is cost-effective while working towards the Real Zero by 2030 targets. It emphasises that it is still committed to battery technology.

Alstom confirms new CEO

ALSTOM has confirmed the appointment of Martin Sion as the company's new CEO. Sion will take up his new post on April 1 2026.

Sion has spent his entire career in the aerospace industry, most recently as CEO of Ariane Groupe, which he has led since 2023.

"The board has conducted an extensive search process over the last few months, and we believe that Martin Sion has the necessary experience to lead Alstom," says Philippe Petitcolin, chairman of Alstom's board of directors.

"We look forward to welcoming him in April 2026. Until then, Henri Poupart-Lafarge will continue in his role, thus ensuring a smooth transition."

Poupart-Lafarge announced that he would not seek a fourth term as CEO in May. He was appointed as CEO of Alstom in February 2016 when the company became solely focused on the rail market, having served as CEO of Alstom Transport since 2011.



The next Alstom CEO, Martin Sion.



Brenner Base Tunnel exploratory tunnel breakthrough: A milestone was reached on September 18 with the breakthrough of the 57.5km exploratory tunnel for the Brenner Base Tunnel, due to become the world's longest railway tunnel. Around 1000 guests gathered for the ceremony, led by European commissioner for sustainable transport and tourism, Apostolos Tzitzikostas. Photo: BBT

In brief

Belgium

Infrabel has reopened the Mercator freight yard at Ghent sea port after sidings were adapted to accommodate 740m-long freight trains at a cost of €12.5m. The yard serves a Volvo car plant, DFDS Ferries and Arcelor Mittal.

Brazil

Wabtec and mining company Vale will study a locomotive engine capable of running on both diesel and a diesel-ethanol blend. Laboratory studies will seek to validate the concept and evaluate performance, emissions reduction, and the ethanol/diesel substitution rate. The tests are expected to run for two years.

Britain

The Department of Transport (DfT) says that half of the country's passenger operators are now in public ownership following the transfer of Greater Anglia on October 12. West Midlands Trains (WMT) and Govia Thameslink Railway (GTR) will be nationalised in February and

May 2026 respectively, while dates for Chiltern Railways and Great Western Railway (GWR) have not been confirmed. All passenger services should be nationalised by the end of 2027.

China

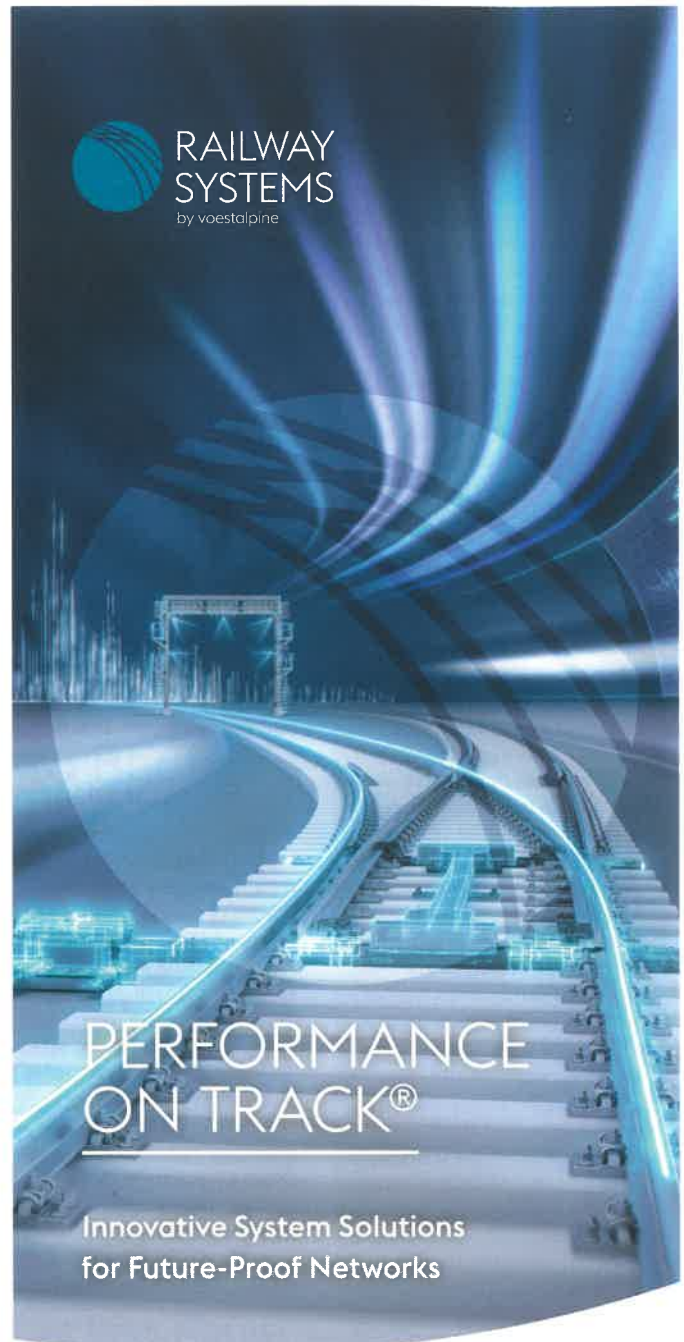
The China Academy of Railway Sciences (CARS) says that two prototype CR450 high-speed trains achieved a world record passing speed of 896km/h during trials on the yet-to-open Wuhan - Yichang section of the Chengdu - Shanghai high-speed line. This is 5km/h faster than the 2023 Chinese record.

Colombia

A 30km section of line has reopened to regular passenger services. Trains began running again on September 28 on the Paipa - Sogamoso section of the Bogotá - Belencito line in the Boyacá region.

Czech Republic

Leo Express has signed a 10-year agreement with Renfe's rolling stock leasing subsidiary Renfe Alquiler de Material Ferroviario for three



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Virgin wins London Channel Tunnel depot access

BRITAIN's rail regulator, the Office of Rail and Road (ORR), announced on October 30 that it has approved the application from Virgin Trains for access to the Temple Mills International (TMI) light maintenance facility in east London owned by Eurostar, paving the way for Virgin to enter the cross-Channel market.

ORR rejected applications from the other prospective new entrants, Evolyn, Gemini and Trenitalia. It considers Virgin Trains to have the strongest prospects of making the best use of capacity at TMI, and says that its plans are more financially and operationally robust than those of other applicants. Virgin Trains also provided clear evidence of investor backing and an agreement in principle to deliver the necessary and appropriate rolling stock.

Virgin Group confirmed on October 30 that its order for 12 Alstom Avelia Stream high-speed trains will be funded by European infrastructure investor Equitix. Funding of the new operating company will be led by Virgin Group, alongside Equitix and Azzurra Capital.

ORR says that its decision unlocks plans for around £700m of investment in new services and the creation of 400 new jobs.

Virgin says that its new services are on course to

launch in 2030, running from London St Pancras to Paris Nord, Brussels Midi and Amsterdam Central, "with ambitions to expand further across France, and into Germany and Switzerland." With depot access approved and the funding consortium in place, Virgin will now finalise a depot access agreement with Eurostar and proceed with the final stages of rolling stock procurement and financing.

As well as concluding a commercial agreement with Eurostar as operator of TMI, Virgin Trains must also secure track and station access in Britain, France, Belgium and the Netherlands, as well as safety certification and rolling stock authorisation in Britain and the European Union (EU).

Eurostar plans

A Eurostar spokesperson told IRJ that the company would appeal ORR's decision, while confirming that its plans to invest €2bn in up to 50 Alstom Avelia Horizon high-speed trains will proceed. "We're not going to change course," said the spokesperson.

Announcing a firm order for 30 new trains and an option for 20 more on October 22, Eurostar also said that it would invest €80m to maintain the new fleet at TMI. The spokesperson told IRJ that other options are now under consideration, including the adjacent Orient Way

stabling facility, currently used by British operator Greater Anglia.

ORR says that in reaching its decision it took into consideration Eurostar's growth plans. It also points out that Virgin Trains will need to secure access to heavy maintenance facilities, as this is not covered by the 1993 Railways Act in Britain.

"Temple Mills has been a critical bottleneck in the process to launching a new cross-Channel service, so today's news is a significant milestone for Virgin and a pivotal turning point for international rail," says Phil Whittingham, project leader for Virgin Group.

"Allowing Virgin Trains to share this vital facility will give passengers greater choice, better value and improve connectivity for millions, as well as drive innovation, lower fares and promote greener connections with Europe," says rail minister, Lord Peter Hendy.

"While this decision is an important first step, we recognise there is significant interest in this and depot capacity should not be a barrier to greater competition and growth. We are therefore exploring plans to establish new depot capacity in the UK, supported by private investment, to meet the needs of the market and will set out further plans in due course."

Three nations agree to revive Hedjaz Railway

TURKEY, Syria and Jordan have reached preliminary agreement on a draft memorandum of understanding (MoU) to cooperate on the development of transport infrastructure, which includes reviving the Syrian section of the Hedjaz Railway.

Turkey will provide assistance with replacing 30km of missing track in Syria, while Jordan will assess its technical capacity to support the repair, maintenance, and operation of locomotives in Syria.

Originally planned to connect Istanbul with Mecca and Medina, the 1050mm-gauge Hedjaz Railway was completed between Damascus in Syria and Medina in 1908, running for 1300km. Passenger and freight services have latterly been operated on the 217km between Damascus and Amman by Jordan-Hedjaz Railway (JHR).

Riyadh issues EOI for Qiddiya project

THE Royal Commission for Riyadh City (RCRC), in conjunction with the National Centre for Privatisation and PPP (NCP) and Qiddiya Investment Company (QIC), has launched the expression of interest (EOI) phase for the first stage of the Qiddiya high-speed project in Saudi Arabia.

Developed under a public-private partnership (PPP), the new 250km/h line will connect King Salman International Airport, the King Abdullah Financial District (KAFFD) and Qiddiya City, offering a journey time of less than 30 minutes.

Qiddiya City is a planned city and entertainment district that is expected to house 500,000 people. It is around 70km from the airport and 45km from the centre of Riyadh.

Under a second phase, a new line will be built to connect the North Pole development with the New Murabba development, King Salman Park, central Riyadh and Industrial City in the south of Riyadh.

SBB awards framework interlocking contracts

SWISS Federal Railways (SBB) has awarded framework contracts worth SFr 1.4bn (\$US 1.8bn) to Hitachi, Siemens, and Stadler Rail to supply a new generation of digital interlockings. The framework contracts are for 10 years, with three options for contract extensions of five years each, and maintenance of the individual systems for 25 years.

SBB tendered the contract as two lots in autumn 2022. Lot 1 covers complete systems, including interlocking hardware and software, and Lot 2 is for the supply of object controllers.

Hitachi and Siemens submitted the best offers for Lot 1, while Stadler Rail was preferred bidder for Lot 2.

Contracts for the supply of the individual interlockings will be awarded continuously throughout the phased modernisation process, with Hitachi, Siemens, and Stadler Rail able to participate in all tenders.

There are almost 500 interlockings on the SBB network, with around 50% using relay-based technology dating from the 1950s. SBB says the expertise required for their maintenance is being lost

and this outdated technology is preventing network development such as the deployment of cab signalling.

"A new generation of digital interlocking systems will introduce a uniform, future-proof system," SBB says. "The components will be standardised and modular, allowing individual parts to be easily replaced as needed."

Commissioning of the first of the new interlockings is expected in 2029, with national rollout taking around 40 years. However, 80% of interlockings will be replaced over the next 20 years.

Jean Castex nominated as next SNCF CEO

THE president of France, Emmanuel Macron, has nominated Jean Castex to be the next chairman and CEO of French National Railways (SNCF), subject to the approval of a parliamentary commission representing both the National Assembly and the Senate.

Castex is currently chairman and CEO of Paris public transport operator RATP, a post which he took up in November 2022. At SNCF, he will succeed Jean-Pierre Farandou who took up the post of chairman and CEO in November 2019.

In May 2024 the French transport ministry announced that Farandou would not be reappointed for a second term of office, but he agreed to

remain in post as Paris hosted the Olympic and Paralympic Games last year and again until his successor's appointment.

However, last month Farandou left SNCF to become minister of labour and solidarity in the cabinet of prime minister, Sébastien Lecornu. He was immediately replaced on an interim basis by Laurent Trevisani, deputy chief financial officer at SNCF since 2019, who will remain in post until the appointment of Castex is confirmed.

Senior management change is also underway at Keolis, where Macron has nominated the current CEO, Marie-Ange Debon, to become chair of the board of directors at the French

postal service, La Poste. Finance, legal and strategy director, Christelle Villadary, has been appointed as interim board chair until Debon's successor is confirmed.



Photo: Shutterstock/Victor Velter

sets of locomotive-hauled Talgo VI passenger coaches. The goal is to launch a new Prague - Bratislava service in the second quarter of 2026.

Europe

Alan Beroud, CEO of Polish State Railways (PKP), has been appointed chairman of the management board of the Community of European Railways and Infrastructure Companies (CER). He will succeed Andreas Matthä, CEO of Austrian Federal Railways (ÖBB), on January 1 2026.

France

RATP Dev has been selected as preferred bidder by the Normandy region for a contract to operate regional services on lines mainly serving the city of Caen, the first tendered by the region.

Germany

Stadler has been awarded a contract by the Rhine-Ruhr Transport Authority (VRR) to supply extra S-Bahn cars for Flirt 3XL EMUs. Seven three-car trains will be extended to five cars in length by 2029. • Siemens Mobility has begun construction of a €35m production facility for rail traction battery systems in Luhe-Wildenau. The 2ha plant will produce complete battery systems for Siemens' regional trains and locomotives, as well as for external customers.

Ghana

The reopening of the 97.6km Tema - Mpakadan standard-gauge line on October 1 was marred by a technical failure that prevented a passenger service from reaching its destination on time. The line was inaugurated in November 2024. However, operations were suspended just a few months later due to track defects.

Guinea

Simfer, the joint venture of the government of Guinea, Rio Tinto, and the Chinalco-led CIOH consortium, has celebrated the arrival of the first four of 78 locomotives built by Wabtec and ordered for the Simandou mining and infrastructure project.

India to build cross-border lines to Bhutan

INDIA will finance and construct two cross-border rail links with Bhutan worth Rs 46bn (\$US 541m): the 69km Kokrajhar - Gelephu line and 20km of new line from Banarhat to Samtse.

Indian Railways (IR) will fund construction within India, while India's Ministry of External Affairs will finance works within Bhutan. On the Banarhat - Samtse project, 2.13km will be in Bhutan and 17.42km within India, while 2.39km of the Kokrajhar - Gelephu line will be in Bhutan and 66.66km in India.

The Kokrajhar - Gelephu line, involving the construction of 29 major bridges, six stations and two viaducts, is expected to take four years to complete, while the Banarhat - Samtse line is likely to be finished within three years.

Both lines will be fully electrified, and it is expected that 160km/h Vande Bharat EMUs will

be deployed on passenger services. Freight services will provide access to Indian ports and markets under the Bangladesh, Bhutan, India, Nepal (BBIN) framework.

With China accelerating plans to develop rail infrastructure around its northeastern border, India plans to build a total of 500km of strategic lines along its borders with China, Bangladesh, Myanmar and Bhutan at an estimated cost of Rs 300bn for completion by 2029.

The 118km Imphal - Moreh line to the border with Myanmar is under construction and targeted for completion in 2027. India is also proposing to extend the Agartala - Akhaura line to Sabroom on the border with Bangladesh while surveys are underway for a 223km line connecting Sairang with Hbichhuah, close to the border with Myanmar.

Siemens to supply digital signalling for São Paulo

SIEMENS Mobility has been awarded a contract to supply a complete digital signalling system providing automatic train operation (ATO) over ETCS Level 2 by Trivia Trens, the Comporte subsidiary that will operate lines 11-Coral, 12-Sapphire and 13-Jade of the São Paulo commuter network in Brazil.

Under a 25-year concession contract signed with the São Paulo state government on May 21, Trivia Trens is currently undertaking staff recruitment and training. The handover from current operator São Paulo Metropolitan Trains (CPTM) will take place under a transitional phase running until July 2026, which could be extended to January 2027 if needed.

Covering 140km of lines serving 46 stations, Siemens says the signalling contract represents the largest deployment of ETCS Level 2 in Latin America. The value of the contract was not disclosed.

The contract includes design, supply, installation, commissioning and assisted operation of the new signalling system. Siemens will also retrofit Trainguard ETCS onboard units to rolling stock built by different manufacturers, comprising 107 Trivia EMUs, six locomotives owned by freight operator MRS Logistics, three locomotives operated by Trivia, and 17 track maintenance vehicles.

Siemens will supply an Advanced Traffic Management System (ATS), as well as electronic interlockings, a radio block centre and complete trackside equipment. Movement authority will be transmitted by Tetra radio.

ATO will enable operation at Grade of Automation 2 (GoA2), increasing capacity by up to 30%, and reducing energy consumption. With fewer trackside components, the new signalling system will also reduce maintenance requirements and simplify future upgrades.