

## Signal

### The ERTMS Newsletter

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## Did you know? – Agreement on the revised TEN-T regulation

On 14 December 2021, the European Commission proposed a significant revision of the Trans-European Transport Networks (TEN-T) Regulation of 2013.<sup>1</sup> On 18 December 2023, legislators reached a provisional political agreement on the revised regulation. The proposal now awaits formal adoption by the Council and the European Parliament and is expected to enter into force this spring.

Overall, the revised TEN-T Regulation guides the transformation of Europe's transport system into a more connected, sustainable, and resilient sector, making a significant contribution towards fulfilling Europe's green and digital transition ambitions.

The revised TEN-T regulation modernises the existing legal framework and intensifies efforts to align with the priorities in the European Green Deal and the Sustainable and Smart Mobility Strategy, with a particular focus on reducing emissions in the transport sector by 90% and promoting sustainable modes of transport, while enhancing connectivity across Europe. Furthermore, the revised TEN-T Regulation strengthens the governance of TEN-T through implementing acts for TEN-T corridors and aligns national transport policies with TEN-T policy objectives.

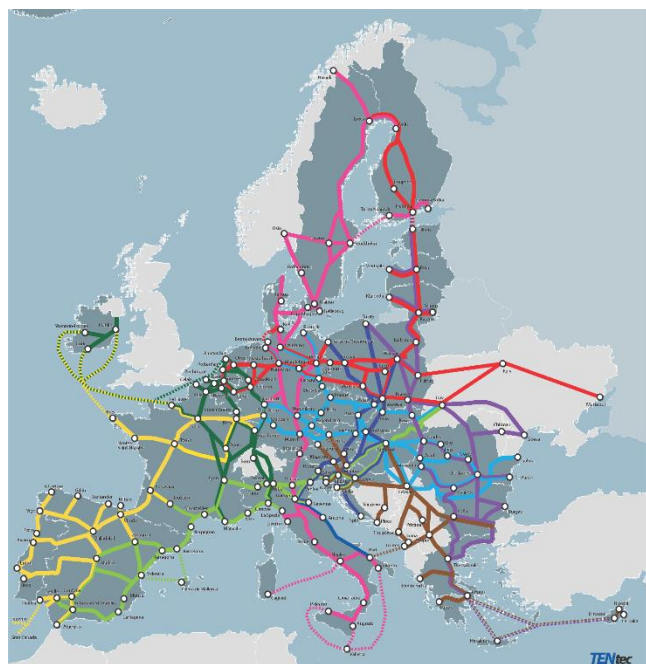


Figure 1: TEN-T map of the nine core and extended network corridors

The primary aim of the TEN-T Regulation is to promote sustainability by increasing the share of more sustainable modes, enhancing efficiency by eliminating infrastructure bottlenecks, and advancing digitalization. It fosters cohesion by improving accessibility and promoting interoperability between digital systems.

The TEN-T revision holds significant implications for rail transport in Europe, aiming to enhance rail infrastructure.

Specifically, regarding rail, the revision includes the following changes:

- As part of network modernization, the Regulation defines ambitious quality standards. By 2040, TEN-T passenger rail lines of the Core Network should be allowed speeds of 160 km/h or above. For cargo trains, the target is set at 100 km/h. In addition, the Regulation improves trans-shipment terminals and introduces piggy-back services within the TEN-T rail network.
- The revised Regulation also introduces an intermediary network level, namely the 'extended core network' to be completed by 2040, merging the core network corridors with the rail freight corridors to form 9 European Transport Corridors. Several new sections were also added to the network.
- Considering Russia's aggression against Ukraine, the Commission put forth an amended proposal in July 2022 to extend four corridors to Ukraine and the Republic of Moldova. This should accelerate the shift towards the European standard railway gauge and help foster an interoperable railway system.
- Regarding the governance of the TEN-T network, the corridor coordinators will be granted increased authority in the implementation infrastructure project.

The revised TEN-T regulation introduces changes aimed at accelerating and enhancing the deployment of ERTMS. The revisions related to ERTMS include the following:

- For the first time, there are clear deadlines for the decommissioning of national class B systems. Member States will be required to decommission class B systems on the core network by 2040, on the extended core network by 2045, and on the comprehensive network by 2050.
- In addition to 5G connectivity, developing and deploying satellite connectivity systems is mentioned as priority for railway infrastructure development.
- Member States are required to designate national ERTMS representatives who should participate in the consultative ERTMS forums.

The revised TEN-T regulation is crucial to the deployment of ERTMS. These revisions are focused on incentivizing investment and accelerating the deployment of ERTMS, ultimately leading to a safer and more efficient rail network in Europe. Barbara Thaler from Austria (European People's Party) and Dominique Riquet from France (Renew Europe) were the rapporteurs for the revision of the TEN-T regulation by the European Parliament Transport Committee. Their role was to assess the legislative proposal and negotiate with the Council. For this newsletter, we have conducted an interview with Mr Riquet on his insights and perspectives on ERTMS and the TEN-T Regulation, based on his experiences.

<sup>1</sup> The legislative proposal can be accessed [here](#)

# In the spotlight – Interview with Dominique RIQUET – MEP (Renew Europe)

*Dominique Riquet has been a Member of the European Parliament since 2009, representing the French Nord-Ouest constituency. He serves on the Committee on Transport and Tourism and as a substitute on the Committee on Industry, Research, and Energy. Dominique Riquet has emerged as the foremost advocate within the Parliament for the implementation of the European Rail Traffic Management System (ERTMS) and rail. His commitment is evident through his active participation and vocal leadership in proposals aimed at facilitating investments for the deployment of ERTMS.*

## **1. How has your personal involvement in the European Parliament contributed to the advancement and implementation of ERTMS?**

My contributions and involvement can be described in various ways. As a rapporteur, I have played a significant role in establishing the Connecting Europe Facility (CEF), which is crucial for securing funding and resources to finance ERTMS. Additionally, I have been actively engaged as a rapporteur on streamlining measures to advance the realization of the trans-European transport network (TEN-T), and the TEN-T revision itself. Notably, my involvement has been particularly evident in initiatives focused on the infrastructure for the deployment of ERTMS. Furthermore, I have consistently advocated for funding support for the European Railway Agency (ERA), which provides institutional and technical support for ERTMS. These aspects have shaped my dedication to promoting ERTMS.

## **2. How do you see ERTMS align with the EU's broader transport and environmental policies?**

ERTMS is in alignment with EU's broader transport and environmental policies, as it promotes rail transport, recognized as the most environmentally friendly mode available. By advocating ERTMS, we promote rail transport which is inherently more sustainable. Moreover, by enhancing safety, reliability, and efficiency of rail, ERTMS aligns with EU transport policies which aims to ensure an efficient and safe movement of people and goods. Additionally, enhancing rail through ERTMS also fosters accessibility and social equity. ERTMS thereby contributes to achieving EU's objectives and is in line with transport and environmental policies.

## **3. What do you see as the main challenges of ERTMS deployment in the EU? What can the European Parliament do to address any of these challenges?**

The deployment of ERTMS faces two main challenges, the lack of financial resources and technical aspects involving stabilizing the technology which is constantly evolving.

The implementation of ERTMS involves a significant change and investment in the infrastructure of our existing rail

networks, before we see a return-on-investment through the improvement of rail performance. As this requires extensive financial resources, securing the necessary funding to finance this significant infrastructure investment is our first challenge. However, we must consider that the return on investment will be substantial as it will improve the performance of rail by enhancing capacity, reliability, and much more.

The second challenge is to stabilize the technology behind ERTMS. The continuous development of ERTMS results in an evolving system with new baselines, levels and system versions<sup>2</sup>, each incorporating new improvements. However, the constant evolution of the ERTMS technology creates uncertainty among stakeholders, which may hinder widespread adoption due to their hesitation to commit to implementation. While the EU has a strong rail supply industry for example, they need a stable regulatory framework before making investments in the technology. Additionally, the need for constant adaptation to new levels of ERTMS can be costly, further exacerbating the financial challenge and complicating efforts to facilitate the uniform implementation across the EU.

There are several ways the European Parliament can address these challenges. One approach that has already been taken in the revised TEN-T regulation is obliging Member States to implement ERTMS. Another effective measure is the timeline for phasing out class B systems. Providing a clear timeline could accelerate the transition process. Ultimately, our primary focus should be on securing funding, ensuring technological stability, and enforcing mandatory compliance by Member States to facilitate ERTMS deployment throughout the EU.

## **4. What future legislative changes would you like to see implemented in the context of evolving rail technologies and needs?**

I envision future legislative changes that prioritize the adoption and integration of advanced communication systems such as the Future Railway Mobile Communication System (FRMCS). FRMCS holds the potential to significantly improve capacity, performance, and cost-effectiveness

<sup>2</sup> More information regarding ERTMS levels and baselines can be found [here](#) and [here](#).

within rail signalling systems. Moreover, the current focus of the deployment is mainly on radio-based technology for ERTMS, but I believe integrating satellite technology could open new possibilities for advancing the rail sector.

Future legislative changes should continue to promote a unified and interoperable rail system across Europe. This could lower trade barriers, improve efficiency, and stimulate economic growth across the region. With climate change being a pressing issue, we need to ensure that our legislation promotes environmentally friendly modes of transport, such as rail, to enable us to meet our environmental commitments.

Therefore, future legislative changes should further support initiatives like ERTMS and encourage more innovative technologies that could transform the rail sector and make it more competitive, efficient, and green.

**5. How will the revised TEN-T Regulation accelerate ERTMS deployment? Are there any new provisions which you consider particularly relevant?**

The revised TEN-T Regulation plays a critical role in accelerating ERTMS deployment<sup>3</sup>. One of the most significant elements of the legislation is making ERTMS implementation a mandatory requirement for Member States. This contributes to accelerating and promoting the deployment of ERTMS, fostering its unified implementation across EU.

Another relevant provision is the requirement for Member States to decommission Class B systems within a specified timeframe. This requires Member States to implement ERTMS, thereby modernizing and harmonizing rail systems across the EU. Continued funding is also a crucial aspect to implement the revised Regulation, addressing the financial challenge that poses as an obstacle to widespread implementation across the EU.

**6. Apart from the revised TEN-T Regulation, what other legislative measures are being taken at the EU level to support the deployment of ERTMS?**

In addition to the revised TEN-T Regulation, we are also supporting the deployment of ERTMS through mechanisms such as the CEF.

However, in my opinion, we could use more targeted investment strategies. Our current investment structure, CEF, directs insufficient funds towards ERTMS. Unfortunately, the demand for funding necessary to enable the adoption of ERTMS by Member states exceeds the current funding provided by the EU, making it challenging to meet the required investments. Therefore, funding from the EU is necessary to ensure a successful implementation of ERTMS.

In addition, there are regulations and measures aimed at standardizing Technical Specifications for Interoperability (TSIs) to ensure seamless integration of ERTMS systems across EU rail networks. ERA plays a pivotal role in coordinating the standardization and implementation of ERTMS, ensuring consistency and compatibility among Member States.

**7. What is your general outlook on the future of the European rail industry?**

Despite the difficulties and slow progress, I am convinced that the future of the European rail industry is promising. I anticipate a higher adoption of ERTMS amongst Member States, driven by the growing recognition of rail as the most environmentally friendly mode of transport. Progress often proceeds at a gradual pace, and acceleration typically accompanies moments of crisis. This might apply to the rail industry and the implementation of ERTMS as well. We will need to continue pushing for improvements, remaining patient, and insisting on regulations that mandate advancements.

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<sup>3</sup> The proposal for this regulation on Union guidelines for the development of the trans-European transport network, amending

Regulation (EU) 2021/1153 and Regulation (EU) No 913/2010 and repealing Regulation (EU) 1315/2013 can be found [here](#).

## Latest developments

### Disclaimer

All articles included in this section were sourced from publicly available websites covering the period of December 2023-February 2024.

Authorship of all articles remains with the individual publishers; in case of quotations the original authors of the individual news items should be quoted as source.

The Deployment Management Team and the European Commission do not take any responsibility for the correctness of the information provided.

### European Institutions - PKP Intercity with huge EU funding

December 2023

More than one billion PLN for investment – this is the amount PKP Intercity has obtained from the European Union as part of the 2014-2020 financial perspective, which is coming to an end. As the company announces, these funds will be used for rolling stock and infrastructure investments.

In the EU financial perspective 2014-2020, which is coming to an end and will be settled by 2023, PKP Intercity is implementing two major investment projects. Their total value is more than PLN 2 billion. **They are co-financed with EU funds from the Cohesion Fund under the Operational Programme Infrastructure and Environment.**

Both projects – 'Time for good connections - modernizing carriages and locomotives for PKP Intercity' and 'Accelerating comfortably - modernizing carriages and purchasing locomotives for PKP Intercity'- include strategic investments for the company. In 2018, the carrier obtained EU funds for them with a total amount of more than PLN 653 million by concluding two funding agreements with the Centre for EU Transport Projects. In June 2022, the company signed annexes to the agreements in question, raising the amount of co-financing to over PLN 1 billion. Additionally, PKP Intercity plans to obtain funding from the National Recovery and Resilience Plan (NERP), designed to promote the economic, social, and territorial cohesion of the European Union by enhancing the resilience as well as the adaptability of Member States, mitigating the social and economic impact of the crisis caused by the COVID-19 pandemic, and supporting environmental and digital transformation. **One component of the NIP (National Implementation Plan) provides for investment in passenger rolling stock for inter-voivodeship and regional transport, where only zero-emission vehicles and those equipped with the ERTMS system can be supported.** PKP Intercity can apply for funding of EUR 482.5 million (PLN 2.17 billion). One of the conditions for obtaining the funds is the realization of the investment in the time horizon indicated in the NIP, i.e., by the second quarter of 2026. At the moment, the carrier is waiting for the European Commission to approve the revision of the NIP and the

announcement of detailed guidelines by the CUPT, which will make it possible to prepare complete application documentation and conclude an agreement for the undertaking to be covered by support.

Source: <https://www.gospodarka.sos.pl/pkp-intercity-z-gigantycznym-dofinansowaniem-z-ue-6882573.html>

### European Institutions - The European Investment Bank and Renfe Mercancías seal the financing of the locomotives

December 2023

The financial entity has signed an amount of 100 million for the 24 Euro6000 machines manufactured in Valencia for the railway operator.

**Renfe Mercancías will receive 100 million EUR from the European Investment Bank (EIB) for its acquisition of 24 new electric locomotives.** The Euro6000 machines are being manufactured at the Valencian Stadler plant and Renfe has already been receiving some batches of the order, which it plans to allocate to several of the lines that operate in Iberian and international (UIC) or standard gauge. The company submitted a request to the financial institution in June of this year, which was finally approved in August and signed on November 14. According to the documents published by the EIB, the total amount for all the machines reaches 212 million EUR, part of which -15 million- was already financed with Next Generation funds in the Government's Recovery, Transformation and Resilience Plan.

The "flexible conditions" of the loan from the European banking entity "adjust to the long delivery times of the rolling stock and are highly valued by the public operator." Likewise, the European organization hopes that "the project will have a positive environmental impact by contributing to the modal change with respect to the road." On the other hand, the EIB also assesses the destination of these locomotives, which will operate "in several regions of convergence and transition", including "cross-border operations between France and Spain", it noted in reference to the Mediterranean Corridor.

Indeed, Renfe has already reported on several occasions that the renewal of its locomotives is mainly aimed at the Mediterranean Corridor - 12 of the units - and the networks under development in Asturias , with special emphasis on the Pajares variant, which has recently been inaugurated. For those of the Mediterranean Corridor, the batch of locomotives will operate in UIC or standard gauge, while the 12 in Iberian gauge are directed mainly to the Asturian tracks and for work with the steel and multi-product clients of the public operator.

The Euro6000 work with electric traction and are capable of reaching 120 kilometres per hour, towing loads of 1,800 tons. **Likewise, the UIC gauge units can circulate with the European standardized railway signalling systems (ERTMS) and, as reported by Renfe at the time, they will have a maintenance period of 15 years signed with Stadler.** The total delivery period for the locomotives by the manufacturer ends on December 31, 2025. The agreement with the EIB also includes the acquisition of wagons for intermodal operations by Renfe, "the implementation of ERTMS in the locomotives it already has currently Renfe and some measures to reduce noise from 2,900 wagons."

**THE EIB SUPPORTS THE TRANSFER TO THE RAILWAY IN THE PENINSULA.** The European Investment Bank has already provided support on other occasions to operators in Spain to incorporate rolling stock. In February last year, it allocated 45 million to Medway to acquire 16 electric locomotives and 113 intermodal wagons for joint production between Stadler and the Slovak manufacturer Tatravagonka. Also here, the European organization alluded to the continental interest in supporting the development of rail transport in Spain and its decarbonization through the electrification of its equipment. In this case, it was rolling stock to operate on cross-border lines with Portugal, once again one of the objectives put forward by the European Union in its commitment to railway cohesion on the continent. Medway operates as a railway subsidiary of the shipping giant MSC, a future commercial partner of Renfe's freight division. The development of the agreement between the Spanish operator and the Italian-Swiss shipping company is, in fact, one of the hot topics on the table of the new Ministry of Transport and Sustainable Mobility.

Source: <https://elmercantil.com/2023/12/04/el-banco-europeo-de-inversiones-y-renfe-mercancias-sellan-la-financiacion-de-las-locomotoras/>

## Austria- Siemens Mobility sets new technological standards on the Koralm railway.

December 2023

**The ETCS (European Train Control System) Level 2 train control system installed by Siemens Mobility was officially put into operation recently** at the partial opening of the Koralm railway from Klagenfurt main station to St. Paul im Lavanttal and St. Andrä, **Lavanttal. This was a first, as the**

**Koralmbahn became the first line in Austria to be equipped exclusively with ETCS Level 2 and modern digitalization solutions.** Optical signals, as they are usually used, are no longer found on this modern line.

**The 53-kilometre section of the Koralm Railway, where operations are set to begin on December 10, now becomes the second line equipped with ETCS Level 2 by Siemens Mobility under the long-term framework agreement with the Austrian Federal Railways (ÖBB).** The Linz-Wels-Vöcklabruck route was successfully put into operation in the summer of 2023.

Tanja Kienegger, CEO of Siemens Mobility Austria, stated, 'The benefits of our digitalization technologies are becoming a reality on the Koralm Railway, where trains can be monitored more precisely, making railway operations more efficient and economical.'

More efficiency, better train control

At the heart of the digital train control system that Siemens Mobility has now installed are the new digital trackside control centres (so-called Radio Block Centres, RBC). The combination of RBCs, fixed data balises in the track, and the GSM-R network (Global System for Mobile Communications) allows trains to be precisely located, run more efficiently, and be controlled more accurately.

Travelling with electronic vision

**Specifically, data is transmitted from the ETCS Radio Block Centre (RBC) to the train via GSM-R (Global System for Mobile Communications - Rail).** Data balises, physical devices on the track, are used to determine the position of the train and transmit unchangeable route data. The associated signal box transmits the track vacancy message and other information to the RBC. This, in turn, generates the driving authorization and sends it to the vehicle. Driving 'with electronic vision' through several route blocks enables short intervals at maximum speed and maximum safety, thereby creating higher rail utilization. This facilitates shorter train sequences, safer and more reliable overall rail transport, and a maximum speed of 250 km/h. Siemens Mobility is the overall supplier of control technology for the Koralm railway and will, therefore, also equip the remaining section of the line.

Source: <https://www.verkehr.co.at/singleview/article/siemens-mobility-setzt-technologisch-neue-massstaebe-auf-der-koralmbahn/>

## Belgium - Fewer trains pass red signals on Belgian rail network

January 2024

33 fewer trains will pass red signals on the Belgian rail network by 2023. The "first potentially dangerous point", often an intersection with another track, was reached in 17 out of 54 cases. However, none of these crossings posed a safety risk.

Last year, an average of 3,800 passenger trains and 400 goods trains used the main tracks of the Belgian railway network every day. Out of this annual total of about 1.6 million trains covering 100 million kilometres, 54 trains ran red lights, compared to 87 last year. As for the secondary

tracks, parts of the network where trains run at speeds of less than 40 kilometres per hour and often empty, the number of irregular crossings rose from 37 cases in 2022 to 44 in 2023.

These irregular crossings did not result in accidents or injuries. Crossing a red signal does not automatically pose a danger, explains an Infrabel press release. The risk arises when the train involved reaches the intersection with another track after ignoring the signal. Last year, this happened in 17 out of 54 cases.

### European Train Control System (ETCS)

Infrabel's examination of the 2023 data shows that when the Permanent Train Speed Control System (ETCS) intervened, the first potentially dangerous point was avoided, eliminating the risk of a collision. The railway infrastructure manager's findings thus underline the importance of continuous investment in safety systems, with a particular focus on the full implementation of Belgium's ETCS master plan to improve overall railway safety, as ETCS consistently monitors train speed and intervenes if the driver does not follow signals.

A further 829 kilometres of Belgian train tracks will be equipped with ETCS by 2023. **This means that 3973 kilometres or 62 per cent of the network is now equipped, making Belgium the European leader in this field, alongside Luxembourg and Switzerland.** They are followed by Slovenia, Spain and France, according to a 2019 report by the French Autorité de régulation des transports (ART). Belgium aims to complete installation on the entire national network by the end of 2025.

### Investing in safety

Infrabel, in collaboration with other entities in the railway sector, regularly evaluates current measures and possible actions to further improve safety on its network. An example of this is the "Infra SPAD" which allows the drivers of work trains to receive notifications via a mobile device when approaching a red signal. This system was launched in 2022 and will be fully implemented by 2024. Similarly, Infralert, which will go live in April 2024, is a system that uses sensors to detect trains or uncoupled wagons and provides real-time warnings to workers in the field via wristbands through vibration and visual signals, independent of existing railway signalling.

The Mobile Beacon System (MBS) was also introduced. The first devices will be delivered to the field in April 2024, with the aim of universal application to all train types by the end of 2025. The MBS works as a mobile device embedded in the track and enhances safety by activating an emergency stop when a train passes. The system can be operated remotely via radio links and is strategically placed to optimise braking distances. A framework agreement was also signed between Alstom and Infrabel for the supply and maintenance of "Eurobalises", with integrated coding capabilities to transmit essential track-to-train data.

Source: <https://www.treinbestuurder.be/nieuws/read.php?id=11016>

## Bulgaria - NRIC makes a new attempt to modernize the railway section Medkovets – Sracimir

January 2024

National Railway Infrastructure Company has launched market consultations for the modernization of the railway section between Medkovets and Sratsimir, which is part of the Vidin - Sofia railway line. The notice was published in the Public Procurement Register 2 weeks ago. This comes about 7 months after the originally announced tender for the works fell through last year. The indicative price proposals for the invitation of the NKVZ can be sent until 5 February. Given this set timeframe, the actual tender will most likely be published only after the NCWP analyses the proposals.

### Activities:

The railway line in question is crucial for development in northern Bulgaria, as the upgrade will allow train speeds to be increased to 120 km/h for freight and 160 km/h for passenger. Currently the speed in the sections is 70 km/h with some local restrictions up to 35 km/h. The line is also a priority for the European Union as it is part of the Orient/East Mediterranean corridor. This is why in 2022 the railway section was approved for co-financing under the Connecting Europe Facility 2021-2027.

The project envisages the construction of an upgraded 45 km single, electrified railway line, according to information on the NWKI website. Overpasses, underpasses, culverts, 5 new railway bridges, 1 new tunnel and 3 new stations - Dubova mahala, Vodnyantsi and Sratsimir - will be built in the new section.

**The implementation of the European Rail Traffic Management System (ERTMS) for the Medkovets-Sracimir railway section is planned to be implemented through a separate project.** With the construction of this section, the distance between Medkovets and Sracimir will be reduced by 14 km. As a result of the implementation of the project, the route is expected to be fully electrified, interoperable and with improved parameters in terms of speed and safety of passenger and freight transport.

Source: <https://www.economic.bg/bg/a/view/nkij-pravi-nov-opit-da-modernizira-jp-uchastyka-medkovec-sracimir>

## Czechia - Škoda will deliver over 50 RegioPanters to Czech Railways next year

December 2023

In 2024, the Škoda Group will hand over more than 50 RegioPanter units of around 150 vehicles to the national carrier.

This is a record replacement of ČD's regional trains. In a single year, the carrier will take over more than 50 new RegioPanter barrier-free electric units. The railways plan to deploy the new trains for example on the lines from Olomouc via Přešov to Valašské Meziříčí and Vsetín, from Hradec Králové to Chlumec nad Cidlinou and Týniště nad Orlicí, from Prague via Kralupy nad Vltavou to Roudnice nad Labem, Lovosice and Ústí nad Labem or from Prague to Kolín, Kutná Hora and Čáslav, from České Budějovice to

Rybník and Lipno nad Vltavou or from Přešov via Otrokovice and Staré Město u Uh. Hradiště to Breclav.

The plan is to deploy 22 RegioPanter units within Prague and the Central Bohemian Region by the end of 2024. "The new units will be deployed in six regions of the Czech Republic. At the beginning of the year, deliveries will continue to the Olomouc Region, where, thanks to the new trains, we will end the operation of older trains, such as the legendary Tornados, in spring 2024. This will be followed by trains for the Hradec Králové Region, and from the summer we plan to take over five more units for the South Bohemia Region, 22 units for Prague and the Central Bohemia Region, and before the end of the year five new RegioPanters will also head to the Zlín Region. Thanks to this, we will retire dozens of older passenger cars and several electric locomotives in these regions," says Michal Krapinec, CEO and Chairman of the Board of Directors of ČD.

Škoda plans to hand over up to two new RegioPanters per week to ČD during some months, with production involving plants in Plzeň, Ostrava, and Šumperk. At the end of next year, ČD will have a total of 147 RegioPanter electric units in various versions, comprising a total of 374 air-conditioned cars.

"Next year, we want to make up for the small, several-week delay in deliveries of RegioPanter electric units to ČD and hand over new trains to all Czech regions as planned. We are proud that Czech Railways will deploy trains developed and manufactured in the Czech Republic in most Czech and Moravian regions. In addition to the actual production of the vehicles, Škoda supplies all key components and subsystems, including complete traction, chassis and vehicle control systems. We also use several Czech subcontractors, e.g., interiors, seats, information and camera systems, wheelsets, etc. We have also produced in advance a train for Prague and the Central Bohemian Region, which has a slightly different interior and capacity. Therefore, it must undergo further additional tests, and this different variant of the Škoda 20 Ev type has to be approved. From the summer, it will serve lines in the central part of the country," explains Tomáš Ignačák, President of Regions CZ/SK and Central East at Škoda Group.

The RegioPanter electric units are modern barrier-free trains equipped with air conditioning, on-board Wi-Fi network, the possibility of powering travel electronics from 230 V 50 Hz AC sockets and USB contacts and, in the latest version, they also offer charging of electric wheelchairs and electric bicycles. The trains have ample space to accommodate wheelchairs, strollers, bicycles and other bulky luggage. **RegioPanters are equipped with the latest safety and communication technology, such as the European Train Control System (ETCS) or GSM-R radio communications.** The units for Prague and the Central Bohemian Region are adapted to the specific needs of the country's largest conurbation. Compared to the standard equipment of RegioPanters, they will be in a colour scheme according to the requirements of Prague Integrated Transport, have a larger 1st class, an internal camera system and a passenger counting system. Škoda Group has already produced or ordered a total of 315 electric units produced

based on RegioPanter units. The new trains are being delivered to 5 countries in Europe and Asia.

Source: <https://dopravacek.eu/2023/12/10/skoda-doda-pristi-rok-ceskym-draham-pres-50-regiopanteru/>

## Estonia - Construction agreement for the initial section of the Rail Baltica mainline in Estonia signed

January 2024

Rail Baltica construction works in Estonia reached a new milestone on Friday as Rail Baltic Estonia signed a contract with joint bidders AS TREV-2 Grupp and AllSpark OÜ for the construction of the first section of the high-speed railway's mainline in Estonia.

"Today will undoubtedly be recorded in Rail Baltica history as one of the most significant days because, with the signatures given today, we have finally reached the point that marks the beginning of the mainline construction. Additionally, we have already announced the remaining mainline construction tenders for the Harju County area," said Anvar Salomets, the Chief Executive Officer of Rail Baltic Estonia, the national implementor of Rail Baltica in Estonia.

### About Rail Baltica

**Rail Baltica will be a fully electrified, double-track railway with a standard gauge of 1435 mm and will be equipped with ERTMS (European Rail Traffic Management System) and designed to meet European standards. With a design speed of 249 km/h, Rail Baltica will significantly reduce travel times between the Baltic States and major European cities.** It will serve as a modern infrastructure for passenger, freight, and military mobility, promoting accessibility and facilitating business, tourism, and cultural exchange. Additionally, the project will enhance the Baltic region's position as a vital transit hub, fostering stronger trade connections and promoting regional cooperation.

Source:

[https://www.baltictimes.com/construction\\_agreement\\_for\\_the\\_initial\\_section\\_of\\_the\\_rail\\_baltica\\_mainline\\_in\\_estonia\\_signed/](https://www.baltictimes.com/construction_agreement_for_the_initial_section_of_the_rail_baltica_mainline_in_estonia_signed/)

## Finland - New safety equipment improves traffic flow and safety at Kokkola railway yard

December 2023

The safety equipment system in the Kokkola railway yard has been renewed as part of a project by the Finnish Transport Agency. Thanks to the new safety equipment and IT traffic control, traffic in the railway yard is now safer and smoother than before. In addition, the project has reduced the repair debt in the railway yards. The safety equipment system was introduced in May this year but is still being updated.

**The renewal of the Kokkola yard will support the possible future implementation of the European Rail Traffic Management System (ERTMS). The aim of ERTMS is to harmonise rail transport standards and systems in Europe.**

"The commissioning of the new safety equipment was successful as expected. The modernisation of the safety equipment will improve safety and the smooth running of



train traffic in the yard," says Jouni Vauhkonen, Project Manager at the Finnish Transport Agency.

The introduction of the safety equipment resulted in a slight change in passenger routes at the station. The new system also makes it easier to coordinate maintenance at the yard with train traffic.

Finishes will be made in summer 2024.

The project was largely completed on schedule, but the finishing touches will be made during the summer of 2024. This will include the removal of track insulators, which will no longer be needed for the new safety system. Due to cost increases and changes in the scope of the project, the budget for the project was exceeded by around Euro2 million. The final cost of the project is around Euro13.7 million.

"It has not yet been possible to deploy all the functionalities of the security system. The system will still be upgraded," says Vauhkonen.

The speed of train traffic will continue to be limited in the Kokkola yard area. After finalisation, the speed limit will be raised to normal.

Source: <https://www.epressi.com/tiedotteet/logistikka-ja-liikenne/uudet-turvallitteet-parantavat-liikenteen-sujuvuutta-ja-turvallisuutta-kokkolan-otapihalla.html>

## France - The Southern Region, Transdev and Alstom unveil the first Omneo train-set

December 2023

Presented on November 23, 2023, the new train-set will operate the rail link between Marseille, Toulon and Nice, the first regional line to be opened to competition.

On November 30, 2021, the Southern Region awarded Transdev the contract to operate trains on the Marseille-Toulon-Nice line from summer 2025. This route alone accounts for 10% of the region's rail services. The Region's decision is a historic one. This is the first tender for regional trains to be awarded to a competitor of the incumbent operator since passenger rail transport was opened to competition.

Double the number of trains on offer.

At the request of the regional mobility authority, Transdev will double the transport offer, with 15 round-trip connections per day and hourly intervals over a wider time span. The aim is to improve service quality, reliability, regularity and punctuality (97.5% of trains on time).

Under the terms of the public service concession contract, Transdev will acquire the rolling stock needed to operate the inter-metropolis services on behalf of the Region, as well as building a maintenance center near Nice station. This will enable Transdev to ensure both operational safety and controlled, optimized maintenance, and thus total availability of trains, particularly during peak periods.

A train capable of running at 200 km/hr.

In this context, Transdev has chosen Alstom to supply 16 double-decker Omneo 8-car trains. Worth around 250 million EUR, the contract also includes maintenance support

for a 10-year period. Delivery of the new equipment will start at the end of 2024.

The new 110-meter-long, 8-car trains will offer 352 seats, plus 49 folding seats for short-haul passengers. A total of 401 seats. This high capacity is achieved by alternating single- and double-deck cars. In addition, the modularity of the system means that one or two trainsets can be coupled together, depending on expected ridership.

Dual compatibility

**The new trainsets will be compatible with the new European Rail Traffic Management System (ERTMS), to be deployed on this route from 2028.** They will also be compatible with the new infrastructure created by the LNPCA (Ligne Nouvelle Provence Côte d'Azur) project, which involves reconfiguring the network and offering more trains to the region.

Since the end of November 2023, the trainset presented has been undergoing a series of dynamic overspeed tests on the Velim ring (Czech Republic) for a period of 4 months. Once it has returned to Crespin to finalize static tests and interior fittings, it will be sent to the Southern Region for pre-operation. The new Marseille-Toulon-Nice inter-metropolitan link will enter service on June 29, 2025.

Source: <https://www.gart.org/actualite/la-region-sud-transdev-et-alstom-devoilent-la-premiere-rame-omneo/>

## Germany - Baden-Württemberg: 120 new trains replace diesel traction units in the federal state

December 2023

Baden-Württemberg heralds the end of diesel propulsion on its railways with plans to purchase new electric and battery-electric trains. The initial vehicles are slated for state-wide use starting in 2029.

The Ministry of Transport and the State Institute for Rail Vehicles Baden-Württemberg (SFBW) initiated the tendering process for 120 electric and battery-electric multiple units on December 11, 2023.

Transport Minister Winfried Hermann stated, "Diesel engines must swiftly become obsolete, not just on roads but also on railways, enabling climate-neutral rail passenger transport. Yet, this necessitates the right trains. Hence, we've launched a tender for procuring this substantial fleet."

**Extensive (battery) electric fleet to roll out nationwide from 2029**

Some new vehicles will feature conventional electric drives (EMU), while others will integrate battery electric drives (BEMU). The manufacturer will be selected in 2025, and the initial vehicles are set for nationwide deployment from 2029. Additionally, the state reserves the option to order up to 200 more vehicles if needed. The procurement will follow a 'lifecycle approach,' meaning the manufacturer will provide maintenance and care for the vehicles over 30 years.

**Vehicles tailored for rail digitalization**

**"Baden-Württemberg's leadership in digitalization is outlined in the coalition agreement. From ETCS (European Train Control System) to ATO (Automatic Train Operation), these new electric trains fulfil all technical requirements for 'Digital Rail Germany' (DSD), a significant stride in rail digitalization," added Minister Hermann.**

#### **Expansion of the charging infrastructure necessary**

Concurrently with vehicle procurement, efforts to expand the charging infrastructure for battery-electric trains in the state are underway. Minister Winfried Hermann stressed, "The expansion of charging infrastructure for battery-electric trains in rural areas over the next ten years will be spearheaded by the new infrastructure division of Deutsche Bahn (DB) - DB InfraGO."

#### **Technical Specifications**

-Various vehicle versions for S-Bahn or express trains.

-S-Bahn models with more doors for smoother boarding and alighting, ensuring adherence to journey times and punctual connections. Express train variants prioritize comfort for longer distances.

-Adequate passenger space during peak times: All vehicles must be capable of coupling together. Each vehicle, seating 170 to 200 passengers, will accommodate future rail traffic via multiple traction.

**-Built for digital rail: equipped with ETCS, highly automated driving in automation level 2 (GoA 2), the 'Future Railway Mobile Communication System' (FRMCS) including the latest TSI ZSS 2023 with system version 3.0.**

-Modern design and high passenger comfort: ample bicycle space and robust Wi-Fi for productivity. Depending on the intended use, vehicles will feature a more comfortable first class with adjustable seats, a second-class rest area, and other seating arrangements. The state of Baden-Württemberg is thus integrating passenger feedback from the 2022 and 2023 seat test campaigns, setting new benchmarks for passenger comfort.

Source: <https://www.die-stadtredaktion.de/2023/12/rubriken/umwelt/klima/ba-wue-120-neue-zuege-loesen-diesel-triebfahrzeuge-im-land-ab/>

## **Greece - Four tenders for railway works - after the disaster - in Thessaly**

February 2024

The works for the restoration of the railway in Thessaly will move on four fronts after the major disaster due to storm Daniel. With the budget having shot up to over EUR 450 million, and expected to rise further, the aim is for contracts for the four projects to be signed by the end of June.

The requirement of resilience to climate change has put in the frame, in addition to the complete rehabilitation of the infrastructure on the controversial Domokos - Larissa section, the upgrading of the lines on the Larissa - Volos and Kalambaka - Paleofarsalos sections. The aim is to shield both the country's central railway axis and the regional infrastructure against extreme events. Let us not forget that in recent years it has been hit by three waves of bad weather: Janus, Daniel and Elias.

This was the main reason for the soaring cost of rail projects. It is typical that after Domokos, on the Larissa-Volos section, the line will have to be raised by up to 1.5 metres above its current level, so that if a similar flooding event occurs in the future, the water can find escape routes. In very many places, too, hydraulic works will also have to be added to the superstructure to prevent such disasters.

#### **The four tenders**

The Ministry of Infrastructure and Transport's aim is to have the tender documents for the tenders run by the OSE ready in March so that signatures with contractors can be put in by the end of June. These are four tenders, with the first one being for the rehabilitation of the damaged infrastructure and superstructure on the Domokos - Larissa section, at an estimated cost of EUR 140 million (excluding VAT).

As regards the timetable, the duration of the rehabilitation works on the central axis is 21 months. The upstream line will be restored first within 11 months, since the downstream line will be used for train traffic after the temporary rehabilitation, while the downstream line is estimated to take 10 months. Only on completion of the works will speeds be restored to 160 km/h.

**On this 40 km long line, the safety systems, which have just been destroyed, will also have to be replaced by a second contract worth around EUR35 million. These are electrification, signalling, telecommand and ETCS systems.**

At the level of the upgrading of regional lines in Thessaly, two tenders are being prepared. The first is for the upgrade of the infrastructure on the Larissa - Volos section, at a cost of around EUR 105 million. On this section the infrastructure will have to be lifted and new rails installed. At the same time, the railway bridge at Krajsidona, which has proved to be too low and therefore vulnerable to flooding, will also be raised.

The fourth project concerns the upgrading of the Paleofarsalos - Kalambaka line, at an estimated cost of around EUR45 million. It also includes local lifting. It should be noted that on these two sections, ERGOSE is currently working on contracts for the installation of electrification, totalling EUR 127 million. These have been put on pause, as they have also been damaged, and will resume after the infrastructure works have been completed.

Source: <https://www.larissanet.gr/2024/02/06/tesseris-diagonismoi-gia-ta-sidirodromika-erga-meta-tin-katastrofi-sti-thessalia/>

## **Hungary - 59 electric multiple units modernised by Alstom experts**

January 2024

High-speed traffic could be up and running as early as next year, but appropriate safety systems will still need to be put in place.

The Ministry of Construction and Transport said that trains will be able to run at 160 km/h between Debrecen and Kiszúszállás as early as 2024, and on the entire section between Debrecen and Budapest Nyugati railway station in 2025.

Although the modernisation of the Kisújszállás-Püspökladány line was completed in 2015 and that of the Püspökladány-Debrecen line in 2021, the installation of the ETCS2 train control system is required for the 160 km/h speed infrastructure on the already renovated sections, which is scheduled to be completed in 2024, haon.hu reports, according to the ministry.

The works have already been carried out on several sections of the Budapest-Debrecen line. **There, too, the 160 km/h speed is conditional on the installation and commissioning of the appropriate GSM-R system and the ETCS-L2 (European Control System) safety equipment based on it.** Work on this has started and it is expected to be delivered in 2025. **Railway vehicles equipped with on-board units of the ETCS system will then be able to participate in the speed increase.**

This will include the Flirt trainsets of the hourly Cívis InterRegio services on the Budapest-Debrecen line, which will be introduced with the 2022/2023 timetable change. In recent weeks, high-powered electric locomotives (Akiem Siemens Taurus locomotives) have been introduced on InterCity 100 lines, which are also capable of 160 km/h.

MÁV is expected to introduce the speed increase gradually for the different types of trains in the timetable.

Source: <https://infostart.hu/belfold/2023/12/07/meqvan-mikor-szaguldhat-a-vonat-160-nal-budapestrol-debrecenbe>

## Italy - EIB and FS Italiane: EUR 500 million green bond to purchase more than 100 regional trains

December 2023

The resources are earmarked for the purchase of 102 new electric trains for Campania and Lazio, as Eligible Green Projects under FS's Green Bond Framework. Since 1998 the EIB has supported the development of Italy's rail and high-speed system with more than EUR 13bn.

Improving the quality of rail services in Campania and Lazio through the purchase of new electric trains, helping to encourage a modal shift to rail and thus promoting the development of sustainable mobility. These are the main objectives of the EUR 500 million agreement signed today in Rome by the European Investment Bank (EIB) and Ferrovie dello Stato Italiane S.p.A. (FS).

In detail, the EIB has subscribed in private placement a EUR 500 million green bond issued by FS, which Trenitalia (the parent company of the Passenger Hub of the Italian FS Group) will benefit from via an intercompany loan. **The resources invested by the EIB will help finance the purchase of 102 new electric trains for regional transport, equipped with ERTMS technology, Europe's most advanced railway signalling system, as well as featuring the highest standards of accessibility, safety and infotainment for travellers.** In addition, the new trains, which will be of two types ('POP', high-capacity, and 'ROCK', medium-capacity), guarantee a low environmental impact thanks to the adoption of energy-efficient technologies (such as naturally ventilated motors, light alloy bodies, LED lighting, sensors for optimal climate control, smart parking

functionality, etc.) and more than 95% of their material is recyclable.

The new electric trains, which will enter into service by mid-2027, will be allocated to the provision of regional rail services in Campania and Lazio, in accordance with the relevant Service Contracts.

"This operation, which will contribute to the modernisation of Italy's regional train fleet, further consolidates the already excellent partnership between the EIB and FS, which is crucial for promoting sustainable mobility and economic development in Italy. Green bonds are an excellent alternative to traditional financial products for supporting projects that contribute to the climate transition," commented Gelsomina Vigliotti, EIB Vice-President. "Not many people know that it was the EIB that launched green bonds in 2007 and since then we have issued more than EUR 69bn worth of green bonds in 23 currencies."

"The operation signed by the EIB further reinforces the EIB's confidence and interest in FS, demonstrating the great work carried out in recent years by two key players for the development of our country," said Marco Fossataro, FS's Chief Financial Officer. The agreement confirms the commitment of the EIB, as the European Union's climate bank, and the FS Group to sustainable finance. Following the success of previous operations between the EIB and FS in December 2021, when the EIB had signed the first green bond in its history, and July 2022, today's subscription brings to three the number of green bonds issued by FS and subscribed by the EU bank, totalling EUR 1.050 billion.

The issuance of the green bond underwritten today will take place under the medium- to long-term bond issuance programme (EMTN Programme) totalling EUR 12 billion established by FS in 2013, and in compliance with the principles contained in the current Green Bond Framework (GBF), first published by FS in 2017 and updated in 2022, in accordance with the Green Bond Principles issued by ICMA.

The 2022 update of the GBF includes the decision to gradually align FS's eligible green bond projects - on a best effort basis - with the European Taxonomy and the GBF with the EU Green Bond Standard. These elements are welcomed and supported by the Bank in promoting the implementation of European sustainable finance legislation.

Source: <https://www.innovationcity.it/news/1099/bei-e-fs-italiane-green-bond-da-500-milioni-di-euro-per-acquisto-di-oltre-100-treni-regionali.html>

## Netherlands - Euro9000 receives Benelux approval

January 2024

The Euro9000 locomotive from Stadler, the new generation of 6-axle hybrid locomotives, has successfully received type approval for operation in the Netherlands and Belgium. This approval extends the operational area of the Euro9000, which is already approved in Germany, Austria and Switzerland, and emphasises its adaptability to the requirements of international rail corridors.

In Italy, the operating licence is expected to be granted in 2024. The Euro9000 is an interoperable locomotive designed specifically for use on international routes along

the main European rail corridors. With existing approvals in Germany, Austria and Switzerland, the locomotive has now also received approval for operation in Belgium and the Netherlands. The Euro9000 locomotive fulfils the technical specifications for interoperability (TSI) and is designed to be equipped with various country packages.

**This includes conventional automatic train control systems as well as ETCS to ensure smooth cross-border operations. The basic configuration covers Germany, Austria, Switzerland, Italy, the Netherlands and Belgium, where two prototypes have also been tested in the last two years.** With an output of 9 MW, the Euro900 is currently the most powerful locomotive on the European market.

Source: <https://www.bahnberufe.de/2024/01/10/euro9000-erhaelt-benelux-zulassung/>

## Norway - There is light at the end of the train tunnel

January 2024

*Note: This is not the full article, please visit the above-mentioned link for full article*

We promise to improve the punctuality of our railways.

Last year, only 87.6 percent of passenger trains were on time, falling below our target of at least nine out of ten trains being punctual. We assure you that we are committed to enhancing punctuality, and this involves reinforcing maintenance efforts. Simultaneously, we are witnessing positive outcomes from our ongoing development projects.

On January 8, Minister of Transport and Communications Jon-Ivar Nygård (Ap) delivered a speech on the investment in Norwegian railways. During this address, the minister pledged to reduce delays for passengers in 2024. "We will do everything in our power to fulfill that promise. **Several delays result from our old and outdated signaling systems, which will be replaced by a unified digital system, ERTMS (European Rail Traffic Management System), implemented across the entire Norwegian railway network.**"

Source: <https://www.aftenposten.no/meninger/kronikk/i/kEk4A6/det-er-lys-i-enden-av-toagtunnelen>

## Poland - 100 Siemens Mobility locomotives for CARGOUNIT

February 2024

*Note: This is not the full article, please visit the above-mentioned link for full article*

Siemens Mobility and CARGOUNIT have signed a framework agreement for the purchase of 90 Vectron MS locomotives, 30 of which have already been ordered. Additionally, the company has ordered 10 Smartrons. The first locomotives are scheduled for delivery in 2025.

"This marks a momentous occasion in the ongoing cooperation between CARGOUNIT and Siemens Mobility. On behalf of CARGOUNIT's board of directors, I would like to congratulate the teams of both companies on the conclusion of this landmark transaction. CARGOUNIT was the first investment by the Three Seas Initiative investment

fund, which took place in 2020. Over the past four years, the company has gone from strength to strength, making significant improvements to its fleet in terms of operational and environmental efficiency, and expanding its growing geographic reach in the Tri-Cities and beyond. We look forward to the delivery of these locomotives in the coming years and the continued successful development of CARGOUNIT's business," said Cameron Cook, Chairman of the Supervisory Board of CARGOUNIT Ltd.

### Already 150 in Poland

**The ordered Vectron MS locomotives have an output of 6.4 MW in AC power and 6.0 MW in DC power. They will be equipped with an ETCS system that complies with current specifications (Baseline 3).** The new Vectron MS locomotives for CARGOUNIT will operate in Poland, Germany, Austria, the Czech Republic, Slovakia, Hungary, the Netherlands, Romania, Slovenia, Croatia, Serbia, Italy, Bulgaria, and Belgium, among others. Smartron locomotives, on the other hand, will be able to operate in Germany, Bulgaria, or Romania.

Source: <https://fleetlog.pl/logistyka-4-0/transport-kombinowany/100-lokomotywy-siemens-mobility-dla-cargounit/>

## Portugal - The giant will deliver trains to Portugal! They will serve Porto and Lisbon

December 2023

Portuguese carrier CP has selected a consortium of Alstom and local partner Domingos da Silva Teixeira as the preferred bidders for a contract to supply 117 traction units, marking the largest single train order in its history, according to the national carrier.

### Alstom will be supplying trains to Portugal

CkP initiated market research in 2020, and the government approved funding the following year. The carrier received six bids from Alstom/DST, CAF, CRRC Tangshan, Hitachi, Stadler, and Siemens/Talgo. Final bids were then accepted from Alstom/DST, Stadler, and CAF.

The contract is valued at EUR 819 million, with EUR 617 million sourced from EU funds and the remainder from the national budget. As part of the agreement, bidders were required to propose local assembly or production. Alstom confirmed its intention to build a factory in Matosinhos, north of Porto, creating 300 jobs. Additionally, Alstom plans to construct a dedicated plant in nearby Guifões to maintain the trains in Portugal.

According to Railway Gazette, the framework agreement comprises 62 traction units for suburban services around Porto and Lisbon, as well as 55 units for regional operations. The regional trains are designed to reach a maximum speed of 160 km/h, while the suburban units can reach up to 140 km/h.

**All trains will be equipped with GSM-R and ETCS on-board equipment, along with the NextStop passenger information system developed internally by CP.**

### New trains in Portugal

CP intends to use the traction units to replace older rolling stock, some of which is around 50-70 years old, and to

increase capacity and service frequency. This will also lead to the termination of the lease of the 592 series units from RENFE, which have been in use since 2011 on routes in the north and west of the country that have been or are currently being electrified.

The dedicated 34 suburban sets will be utilized on the isolated Cascais line, running west of Lisbon. Among these, 25 vehicles will be dual-system to support the line's transition from 1.5 kV DC to 25 kV 50 Hz electrification. Additionally, 16 traction units will be allocated to suburban lines around Lisbon, such as Sado, Sintra, and Azambuja, and 12 to routes around Porto.

Railway Gazette reports that the trains are scheduled to be delivered between 2026 and 2029, and CP has an option to order an additional 36 traction units for suburban services starting from 2026.

Alstom secures another significant order for Coradia Stream!

Source: <https://www.gospodarka.sos.pl/gigant-dostarczy-pociagi-do-portugalii-obsluza-porto-i-lizbone-6899687.html>

## Romania - CFR SA – LEI 1.34 billion (EUR 269 million) for the modernization of the railway infrastructure on Caransebeş - Lugoj

December 2023

The National Railway Company CFR SA informs you that on Friday, December 15, the contract for the modernization of the railway infrastructure, worth 1.34 billion lei, excluding VAT, for Lot 1 Caransebeş - Lugoj, related to the objective "Modernization of the railway line Caransebeş - Timisoara - Arad," was signed. This project is financed with non-reimbursable funds under the National Recovery and Resilience Plan (NRRP), Component 4 - Sustainable Transport.

"Today we signed the last contract, worth 1.34 billion lei, within the modernization program of the Caransebeş - Timișoara - Arad section (162.19 km), namely Lot 1 Caransebeş - Lugoj. This section will be designed, including the doubling of the line over a length of about 32 km. The signing of this latest contract practically completes the contracting phase for one of the largest infrastructure development projects under the NRDP, on which passenger trains will run at a maximum speed of 160 km/h from 2027. We have now signed all 8 contracts, including the consultancy, an investment with a total value of over 6.88 BILLION RON for the modernization of the section from Caransebeş to Arad.

As this investment is essential for the further development of the railway infrastructure in the western part of the national network and is conditional on compliance with the deadlines laid down in the NRDP, I expect the contractors to respect their contractual obligations. This is crucial, given that, as I stated when the other three contracts were signed, they are the ones who are also drawing up the technical projects, on the basis of which they will carry out the modernization works. This means that from the outset, we are eliminating 'possible design problems,' as happened in other modernization projects where the design and

execution of the works were included in separate contracts," said Ion Simu Alexandru, Director General of CFR.

The duration of the contract, worth 1.34 billion lei excluding VAT, is 42 months for design and execution, of which 6 months are for the preparation of the technical design and 36 months for the execution of the works.

The RailWorks consortium will draw up the technical design and carry out the works to modernize the railway infrastructure and superstructure for a maximum speed of 160 km/h on the 39.56 km long CARANSEBEŞ - LUGOJ section (lot 1). **This includes the doubling of the 31.69 km long CF line, civil works in 4 CF stations, the most important being the Caransebeş CF station, which will include a maintenance building and a footbridge, 2 passenger stops, works to modernize engineering works - 12 bridges and 49 viaducts, construction of an overpass at the entrance to Lugoj (DJ 584), installation of automatic signalling systems at 12 level crossings with the railway, specific railway operation works, and signalling works through the implementation of the ERTMS system (ETCS level 2 and GSM-R) on the entire 39.56 km route.**

Source: <https://www.amosnews.ro/cfr-sa-134-miliarde-lei-pentru-modernizarea-infrastructurii-feroviare-pe-caransebes-lugoj/>

## Slovakia - Žilina junction: situation during the third year of construction

January 2024

*Note: This is not the full article, please visit the above-mentioned link for full article*

The project, focusing on the comprehensive reconstruction of the railway infrastructure in Žilina and its vicinity, entered the next phase of construction at the beginning of 2023.

**Due to the scale of the construction and the high number of construction objects, the project is organizationally divided into so-called complete construction sections (CCS). In total, the construction is divided into 9 complete parts, three of which primarily deal with the renewal of stations and inter-station sections, one UČS with the completion of the Žilina-Teplička marshalling yard, four separate UČS with the modification of the traction system, and one UČS with the construction of the train control system (ERTMS).**

Source: <https://www.asb.sk/stavebnictvo/uzol-zilina-situacia-pocas-tretieho-roku-vstavby>

## Slovenia - 2024: Many railway stations, including Ljubljana's, will be upgraded

December 2023

In the coming year, major investments in rail infrastructure will continue. A number of railway stations are due to be modernised, including the one in Jeseník, for which the Directorate is already looking for a contractor. The biggest project, which will start in 2024, will be the upgrade of the central part of Ljubljana railway station. **The Infrastructure Directorate of the Republic of Slovenia will spend EUR 335.2 million on investments in public railway**

**infrastructure in 2024, of which EUR 117.9 million will be EU funding.** In addition, EUR 36.6 million of additional EU funding is available for 2024, based on the implementation of the Recovery and Resilience Plan. For the maintenance of the public railway infrastructure, EUR 100.8 million is planned for next year, it explained. **Work is also at an advanced stage on the project to install the European Train Control System (ETCS) on the Dobova-Zidani Most and Prager-Sentilj sections of the corridor.** The Dobova-Zidani Most and Pragersko-Maribor Tezno sections have been completed and work is underway on the Maribor-Sentilj section.

As part of the introduction of remote traffic management, the Litija railway station is to be redeveloped. The estimated value of the project is EUR 19.4 million, with EU funding of EUR 4.76 million. The railway station is scheduled to be operational in January. The deadline for implementation is 12 months.

Source: <https://vestnik.svet24.si/clanek/slovenija/leto-2024-stekla-bo-nadgradnja-stevilnih-zelezniskih-postaj-tudi-ljubljanske-1203882>

## Spain - AVE signalling between Murcia and Almería is put out to tender for 223 million EUR

December 2023

The Council of Ministers, following the proposal of the Ministry of Transport and Sustainable Mobility, has authorized a tender of 223.6 million EUR for deploying signalling and traffic management systems on the Murcia-Almería high-speed line.

As per the Ministry of Transport's statement, this investment marks the initiation of a 'new phase in the line's development' and revitalizes progress along the Mediterranean Corridor.

**The project specifically entails the installation of the ERTMS level 2 train control and command system and associated equipment across the entire line (spanning 200 kilometres) and the Pulpí (Almería)-Águilas (Murcia) branch line. This includes interlockings, train protection systems, auxiliary systems for detecting potential track obstacles, centralized traffic control (CTC), and telecommunications for railway operations.**

The contract, encompassing system and equipment maintenance for four years, aims to equip the new line with state-of-the-art signalling tools and systems for organizing train movements and managing traffic in real time.

Adif AV recently initiated the first electrification works, with ongoing progress in track laying projects along the entire line and platform construction. All sections are currently in progress (completed, under construction, or contracted), with works initiated for the high-speed railway's extension to Almería and the establishment of its new station. Concurrently, efforts continue on the Pulpí-Águilas connection project.

Source: [https://www.cope.es/emisoras/region-de-murcia/murcia-provincia/lorca/noticias/licitan-por-223-millones-EUR-senalizacion-del-ave-entre-murcia-almeria-20231228\\_3069752](https://www.cope.es/emisoras/region-de-murcia/murcia-provincia/lorca/noticias/licitan-por-223-millones-EUR-senalizacion-del-ave-entre-murcia-almeria-20231228_3069752)

## Sweden – NYAB lays fibre network for 47 million (SEK)

February 2024

**NYAB has secured the contract for the railway section between Järna, Nyköping, and Åby as part of the Swedish Transport Administration's expansion program Opto 2.0. This initiative involves laying a new fibre network to introduce the European Rail Traffic Management System (ERTMS) signalling system across Sweden.**

NYAB has previously been awarded four projects within the Swedish Transport Administration's expansion program Opto 2.0, and this project connects to NYAB's started contract on the stretch Nässjö–Mjölby–Åby.

The contract is worth SEK 47 million and means an opportunity for repeated orders as the Swedish Transport Administration can hire NYAB on other sections in the program without new procurements.

NYAB has previously been awarded four projects within the Swedish Transport Administration's expansion program Opto 2.0, and this project connects to NYAB's started contract on the Nässjö–Mjölby–Åby stretch and is carried out as an execution contract. The work will begin in March 2024 and is expected to be completed in October 2025.

- By gathering experience and from it creating improvements in working methods, we have succeeded in creating a cutting edge in this segment of the railway area. It is gratifying that we now receive the trust from the Swedish Transport Administration for a fifth project within Opto 2.0. The work with previous sections and the possibility to continue seamlessly also means good continuity in the project group, which guarantees continued good results, says Johan Skoog, business area manager at NYAB.

**The implementation of the ERTMS signalling system in Sweden is contingent upon the establishment of a new fiber network. This initiative, part of the Opto 2.0 expansion program, encompasses the entire national railway network and commenced in 2018, with a projected completion date in 2029.** The Swedish Transport Administration estimates the total cost for the Opto 2.0 rollout to be around SEK 5 billion.

Source: <https://www.maskinentreprenoren.se/nyab-lagger-fibernat-for-47-miljoner>

## Switzerland - 10 New EuroDual Locomotives Ordered, ELP Fleet Expansion and Technological Advancements Unveiled

January 2024

The locomotive leasing company European Loc Pool (ELP), based in Switzerland, has confirmed an order for 10 new EuroDual locomotives. This follows their initial framework agreement for a minimum of 100 six-axis hybrid locomotives, surpassing expectations by including a total of 114 Stadler locomotives in their fleet. The first 101 locomotives from the initial agreement have already been deployed through full-service long-term leases, serving over 30 customers in six different countries across Europe.

The EuroDual locomotive has a powerful pulling capacity of 500 kN, surpassing other electric and diesel locomotives in Europe. This allows for a significant increase in payloads, up to 30%. The technology is designed for maximum efficiency, reducing the need for frequent workshop visits, ensuring high availability, and proving to be cost-effective. Delivery of the new EuroDual locomotives is scheduled for 2025 and 2026, and they are not yet rented out. This order increases ELP's fleet to a total of 114 locomotives, including 84 EuroDual and 30 Euro9000 locomotives.

The EuroDuals are approved for operation in Germany and Austria. Approvals for Slovenia and Croatia are in progress, with Stadler planning to tailor the technology to the specific needs of these countries and the surrounding regions. The locomotives could eventually be deployed on the corridor from North German ports to the Adriatic ports. Existing EuroDual locomotives can be adapted for this purpose upon customer request.

ELP currently has 64 EuroDual locomotives, with 58 configured for Germany and Austria, and 6 in Scandinavia. Additionally, 20 EuroDuals are yet to be delivered.

Euro9000 locomotives, the more powerful sibling of the EuroDual, are permitted in the Netherlands, Germany, Austria, Switzerland, Italy, and Belgium. An additional 10 EuroDual and 23 Euro90-700 locomotives are expected to be delivered this year.

The EuroDual features a Co'Co' axis format with a capacity of up to 2.8 MW in diesel mode, 9 MW in electric mode, and a pulling force of 500 kN. **All vehicles come equipped with ETCS-Baseline 3 at level 2 as a standard feature. Furthermore, all EuroDuals are equipped with remote control capabilities for shunting work.**

Source: <https://weeklynewsreview.com/news/biz/10-new-eurodual-locomotives-ordered-elp-fleet-expansion-and-technological-advancements-unveiled/>

## Look ahead – ERTMS Conference

On 23, 24 and 25 April, ERA organizes the 2024 ERTMS conference in Valenciennes, France.

This year's conference will primarily focus on the deployment of the European Rail Traffic Management System (ERTMS) projects across Europe. It will showcase insights gained from successful deployment projects, assess the current status of ERTMS deployment, and explore future prospects.

Moreover, the conference will delve deeply into migration and implementation strategies for the Future Railway Mobile Communication System (FRMCS), alongside discussing innovation and research initiatives that contribute to the advancement of the CCS TSI (Control Command and Signalling Technical Specifications for Interoperability).

The conference will draw participants from around the globe, including decision-makers, industry leaders, railway operators, infrastructure managers, and other key stakeholders, with the aim to facilitate the exchange of experiences and accelerate the deployment of ERTMS both within Europe and internationally.

### Agenda

#### Day 1 | 23 April 2024

The first day of the ERTMS 2024 Conference will feature a series of workshops, offering participants a unique opportunity to engage in group discussions guided by expert moderators. Participants can choose three out of the ten workshops available. These workshops aim to explore emerging topics, foster the generation of new ideas, and facilitate networking to support the success of ERTMS. More information on these workshops can be found through the link below.

#### Day 2 | 24 April 2024

On the second day, the conference will provide an in-depth overview of the current status of ERTMS deployment throughout Europe. It will address strategies to navigate regulatory challenges, funding mechanisms, and collaborative efforts. Furthermore, the day will focus on potential migration paths to FRMCS, delving into technical obstacles, deployment strategies, interoperability considerations, and the potential impact on ERTMS deployment.

#### Day 3 | 25 April 2024

The final day of the conference will concentrate on ongoing innovation and research projects driving the evolution of CCS TSI and enhancing ERTMS capabilities. This will encompass advancements in signalling technologies, communication systems, and interoperability solutions.

### Registration

Registrations are open now! Registration packages are available for in-person attendance, as well as for webstreaming and technical visits.

Please note that the interactive and constructive workshops dealing with real industry cases are not livestreamed.

For registration and further information please visit the website below:

<https://www.era.europa.eu/content/ertms-2024-conference>

We kindly inform you that the early bird fee will be available until 26 March 2024, 23:59 PM (CET).



## Look ahead – Info Sessions

Do you seek comprehensive, up-to-date knowledge about the ERTMS initiatives? Is your organization keen on getting personalized insights about its role and function? You don't need to go the extra mile or scour piles of information to answer these questions. The ERTMS Deployment Management Team (DMT) offers customized info sessions catered to the specific needs and roles of different stakeholders upon request.

The primary objective of these sessions is to ensure that all stakeholders are aligned with the initiatives being launched and up to date with the progress and modifications. By providing a platform for effective communication, the DMT aims to garner complete understanding within the vast ERTMS stakeholder network.

The DMT houses experts across various fields including deployment monitoring, technical follow-up of ERTMS, digital projects and economic insights. These specialists are the driving force behind the info sessions, utilizing their wealth of knowledge to provide comprehensive insights on complex topics and project updates.

Further, the DMT is committed to sharing the lessons learnt from ERTMS deployment. Through these timely sessions, stakeholders stand to gain from these insights, helping avoid pitfalls or resolving ongoing hurdles. By leveraging experiences, we are not only improving our existing deployments but also forming a steppingstone for future initiatives.

These info sessions are held online and can be organised according to the stakeholder's time and convenience. This ensures a wider reach and seamless integration into your busy schedules.

Aligning with this revolutionary digital shift, the ERTMS DMT aspires to create an arena where all stakeholders feel informed, heard and valued. Embrace this exciting opportunity to gain clarity on pending concerns, advise on strategic direction, express your opinions, and play an integral part in shaping the future of European rail transport.

Your participation and insights are invaluable as we navigate through the ERTMS deployment, together.

For further information please contact the DMT communications team:

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## Contact details



For further information on ERTMS,  
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European Commission – BE-1049 Brussels  
[http://ec.europa.eu/transport/index\\_en.htm](http://ec.europa.eu/transport/index_en.htm)

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