EULYNX

Annual Report

2024

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Foreword

As we reflect on the achievements of the past year, I am honoured to present the EULYNX Annual Report for 2024. Since taking on the role of Chair of the Steering Committee on January 1st, 2025, I have been privileged to witness the dedication and innovation that drive our organisation forward.

EULYNX made a strong impact at InnoTrans 2024 in Berlin.

First and foremost, I would like to extend my heartfelt thanks to Paul Hendriks, our previous Chair, for his exceptional leadership and unwavering commitment to EULYNX. His vision and guidance have laid a strong foundation for our continued success.

The year 2024 marked significant progress for the EULYNX Consortium. A particular highlight was our successful participation at InnoTrans 2024 in Berlin, where numerous EULYNX-compliant industry products were showcased. Our stand attracted multiple railway companies, along with government representatives and experts, further solidifying EULYNX's position as a trusted standard and key player within the railway signalling domain.
We also welcomed new members to our growing community: Centralny Port Komunikacyjny (CPK) as a full member and Saudi Arabia Railways (SAR) as an Associate+ member. These additions underscore our expanding international reach and the relevance of our work far beyond European borders.

As we move forward, we remain committed to our mission of enhancing railway signalling systems through standardisation of interfaces and innovation. I am confident that with the collective efforts of our talented team and our partners, we will continue to achieve new milestones and drive rail towards a safer and more efficient future.

Thank you for your continued support and dedication to EULYNX.

Hans Menschaert

Chairman of the EULYNX Steering Committee

The past year marked an important point for EULYNX. With the Baseline Set 4 Release 3 finalised and functionally closed, we have reached a high level of maturity in our specification development. This release represents a major consolidation effort, incorporating harmonisation input, resolved change requests, and the finalisation of key interface and diagnostic specifications.

With this foundation in place, our focus has shifted to deployment, testing, and implementation.

A dedicated deployment team is now supporting infrastructure managers in integrating national requirements and preparing tender documentation.

A cornerstone of our deployment strategy is the EULYNX Academy, officially launched in 2024. With over 700 registered users and multiple training sessions delivered onsite and online, the Academy is fast becoming the go-to resource for knowledge sharing, onboarding, and capability building within the sector.

Another key milestone was the establishment of the compliance testing platform, developed in collaboration with Relesoft. This state-of-the-art solution enables objective, transparent testing of EULYNX-compliant products and serves as the official test case database—an essential step towards ensuring true interoperability across the sector.

EULYNX maintains a strong alignment with the EU-Rail System Pillar, with several key outputs demonstrating the successful integration of EULYNX contributions. We are also pleased to highlight the strong collaboration with UNISIG experts.

The technical cooperation and mutual trust among sector stakeholders have never been stronger, as we jointly advance towards a modular, interoperable, and future-proof signalling system - powered by standardised interfaces and shared innovation.

Mirko Blazic

EULYNX Technical Lead

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Introduction

In 2024, the EULYNX Consortium reached a major milestone with the publication of Baseline Set 4 Release 3 (BL4R3), jointly released under the umbrella of the EU-Rail System Pillar. This release reflects the strong collaboration between EULYNX and EU-Rail, with specifications now developed under the technical authority of the EU-Rail System Pillar.

The release includes a consolidated set of 25 specifications jointly published by EU-Rail System Pillar and EULYNX, covering all trackside assets and transversal functions applicable both to the current EULYNX architecture and the future System Pillar SERA target architecture. Additionally, **EULYNX has delivered 29 additional specifications and supporting documents that complement the architecture and support national implementations.**

This joint effort provides a stable, future-proof foundation for ongoing investments by infrastructure managers and the industry. It also supports both short-term procurement needs and long-term migration to the System Pillar architecture.

As with previous releases, BL4R3 includes not just formal specifications, but also supporting artifacts. These include model exports for better visualisation and reuse in model-based engineering, and executable simulators for subsystem validation and simulation.

Looking ahead, Baseline Set 4 is now functionally closed, and preparations have started for Release 4, which will **focus on minor corrections and SDI model consolidation, ensuring continued stability.**

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Progress and status

Architecture

The EULYNX Reference Architecture defines the overarching system structure, including core concepts and generic functions across all field element subsystems. The working group is active in the Trackside Assets domain of the System Pillar and is responsible for all architectural and generic issues related to the field element subsystems. As the architecture and generic functions are already mature, updates now focus on advancing diagnostic and maintenance capabilities.

Interfaces

Each interface specification (SCI) is managed by a dedicated cluster, responsible for the dedicated functional, diagnostic (SDI), maintenance (SMI), and security (SSI) interface specifications. The SMI and SSI interfaces remain fully generic and equally apply across all subsystems.

Baseline Set 4 has successfully eliminated country-specific IM codes for EULYNX field element subsystem and interface specifications, delivering harmonised interface definitions. Functional packages have also been introduced, clearly scoping the features required in both project tenders and product development.

Baseline Set 4 Release 3 focused on resolving open issues, completing outstanding specifications, and integrating harmonisation proposals and participant feedback. Minor functional changes were introduced to the subsystem Level Crossing and SCI-LC.

Significant effort was also invested in improving the readability and consistency of the specifications. Over 250 editorial tickets were resolved as part of this effort. To ensure stability, backward compatibility has been managed via the published guideline, and version handling is clearly defined.

The SDI interface specifications were finalised with the completion of diagnostic data points for the Train Detection System and Level Crossing subsystems. Additionally, revisions were made across the SDI model to ensure consistency and alignment between subsystems.

Assurance

EULYNX ensures that the developments result in assured specifications which can be accepted by all member organisations and their corresponding National Safety Authorities. The EULYNX assurance process is following the principles of CSM, tailored to the scope of delivering assured specifications rather than assured products. The process demonstrates that hazards and threats within the scope of the EULYNX work have been identified and that suitable mitigations are in place. An Assurance Justification report follows each baseline release.

For Baseline Set 4, all key assurance deliverables—including the Hazard Record, System Assurance Plan, and Assurance Justification—have been completed and are ready for endorsement.

Modelling and Testing

The Modelling and Testing cluster supports the system engineering and modelling methodologies that underpin EULYNX model-based specifications. EULYNX continues to collaborate closely with the EU-Rail Engineering Environment team, aligning the modelling methodologies across both organisations, and ensuring the synchronisation of contents across the tooling platforms.

Security

The EULYNX Security cluster has been fully integrated into the Railway Security Expert Group (RSEG), where a merged expert team represents the railways on security topics. The group is actively supporting the EU-Rail System Pillar's Security domain, ensuring a sector-wide coordination group for railway cybersecurity.

As of Baseline Set 4 Release 3, EULYNX no longer publishes standalone security specifications. Instead, the specifications for shared security services and the SSI interface functions are now developed and maintained directly under the System Pillar Security domain.

The first version of System Pillar security deliverables, based on and extending EULYNX's prior work, are scheduled for publication in early 2025.

Migration

Migration remains a central concern for the EULYNX community. Years of underinvestment have created urgent needs for renewal and modernisation, and national rollout programmes are beginning to take shape across Europe.

In 2024, EULYNX members published a position paper outlining the necessary steps to achieve the vision of a Single European Railway Area (SERA). The paper highlights the importance of defining a first migration plateau based on mature, operationally harmonised solutions, and emphasises the priority to protect ongoing investments.

EULYNX is committed to working with all stakeholders to ensure these migration steps are practical and sustainable, enabling the sector to advance in a coordinated and predictable manner.

Deployment support

To accelerate national implementation, the EULYNX Consortium launched a deployment support programme, offering expert guidance to members preparing EULYNX-compliant tenders.

The deployment team assists with documentation integration, gap analyses, national specification alignment, and migration planning. Activities have already begun with members RFI, TRV, HZ-I and SAR.

Compliance testing

Recognising the sector's need for neutral and objective interoperability testing, EULYNX has signed a multi-year agreement with Relesoft, a leading provider of safety-critical railway software.

Under this agreement, Relesoft will operate a new compliance testing platform as a service for infrastructure managers and suppliers. The platform provides EULYNX protocol testing and a reference implementation, gives access to a common test case database, and allows for both development and procurement phase validation.

Testing services for SCI-P (Point object controllers) have already been validated and are operational, with full coverage of all field element subsystem capability expected to be rolled out in 2025.

Formal cooperation with industry

EULYNX continues to collaborate formally with the signalling industry. Previously coordinated with UNIFE via the CCS Platform group, the cooperation has now transitioned to UNISIG under the System Pillar umbrella.

This partnership remains highly effective, with EULYNX and UNISIG jointly contributing to integrated sector-wide specifications and ensuring alignment across stakeholders.

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Financial Report

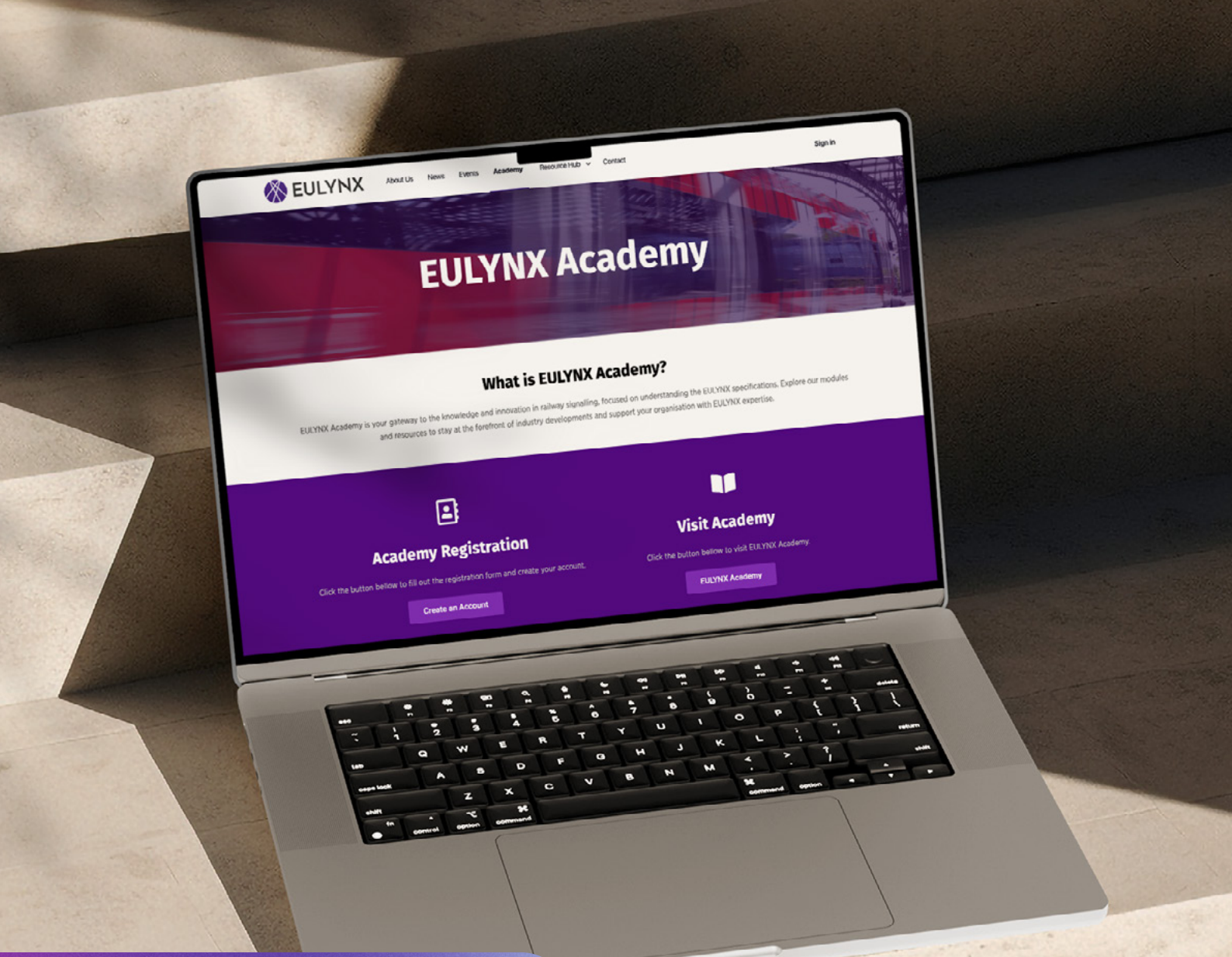
For the financial year 2024, available budget for EULYNX Consortium activities has been set at 1.760.000 EUR.

Annual contribution fees of the 15 EULYNX members amounted 1.050.000 EUR, according to the following fee apportionment: category small size network at 44.681 EUR, category medium size network at 67.021 EUR and category large size network at 89.362 EUR. Additional funding from other sources amounted 710.000 EUR.

Principal outgoings were the costs of the management and technical coordination, technical support to the EULYNX clusters and the deployment activities.

Financial year 2024 has been closed within the available budget.

ERTMS Users Group remains a service provider for the EULYNX Consortium, handling the organisational and commercial issues related to the activities of the consortium.



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EULYNX Academy

In response to the growing demand for comprehensive training in railway signalling, the EULYNX Academy was officially launched in 2024 as a structured platform to build expertise across the sector.

The Academy offers a tiered learning approach, combining online and in-person modules designed for different levels of understanding.

Introduction Module

Available online for self-paced learning, this module introduces the history, mission, and role of EULYNX in the railway industry. It also includes foundational content on architecture and system structure.

Deep Dive Module

These advanced workshops focus on selected technical areas, offering in-depth sessions tailored to specific interests or organisational needs.
In 2024, several customised deep dives were conducted with individual organisations.

Upcoming 2025 sessions will address topics such as:

Security (June and October), Communication Stack & RaSTA (December), Connecting National Requirements (September).

Basic Module

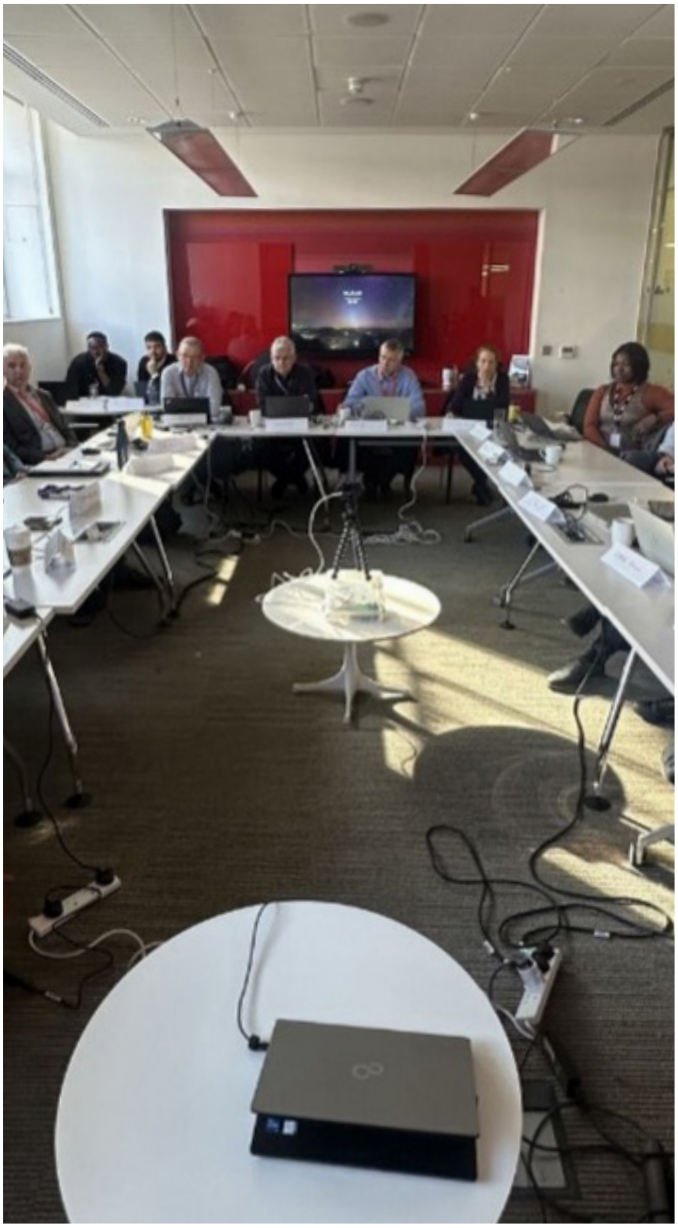
This module provides structured learning on the EULYNX specification landscape, document structures, subsystem functions, and interface specifications — including areas such as diagnostics, maintenance, and security. In 2024, onsite sessions were held in **Brussels, Prague, Vienna, and Berlin.**

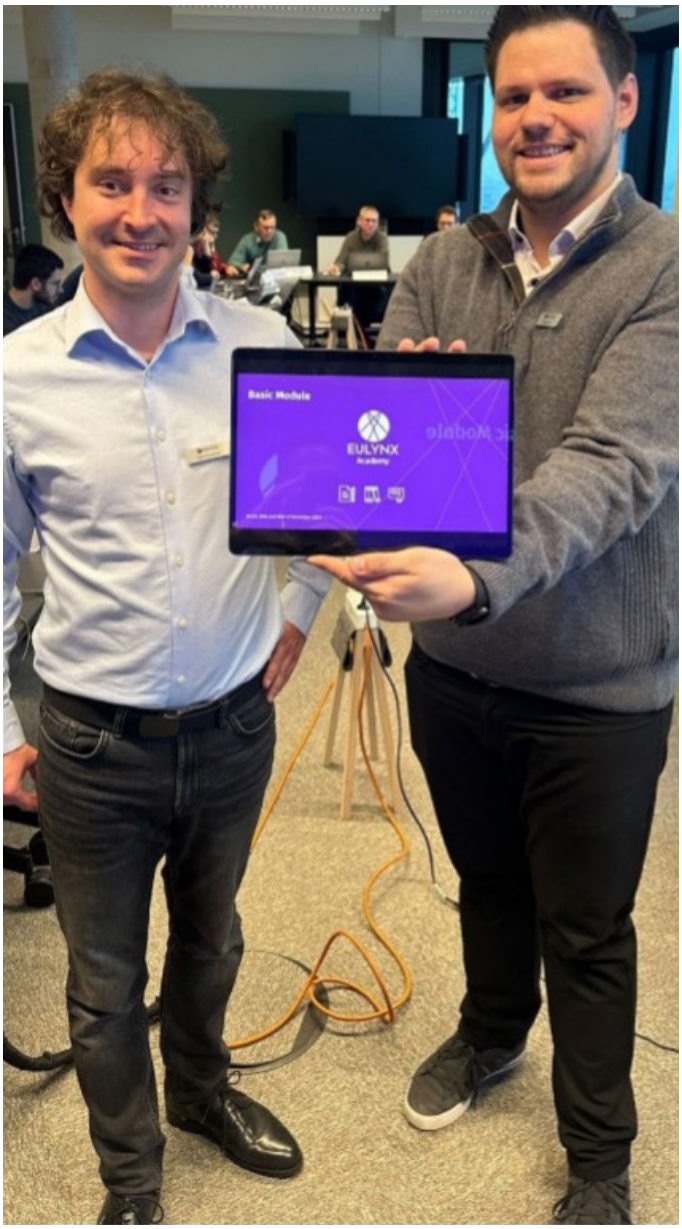
Scheduled sessions in 2025 include:

London (March), Warsaw (May), Riyadh (May), Frankfurt (June), Rome (July), Utrecht (September and October), Paris (November).

All Academy modules are currently offered free of charge, reflecting EULYNX's strong commitment to sector-wide knowledge sharing and capacity building.

For further details and registration, visit the EULYNX Academy website.




Basic Module
EULYNX
Academy

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Communication Activities

InnoTrans 2024

EULYNX made a strong impact at InnoTrans 2024, showcasing 19 EULYNX compliant components provided by Pilz, HIMA, Alstom, Siemens, Hitachi, Frauscher, Electrans, Voestalpine, OHB, Relesoft, Incyde, Eviden and Westermo.

The booth attracted representatives from multiple railway companies and agencies, as well as numerous suppliers, metro operators, consultants, and universities from Europe and beyond.

The setup of the EULYNX Academy corner, with training videos running on the background, created excellent marketing opportunities. Approximately 100 participants have been directly onboarded at the EULYNX booth. The Deep Dive Modules of the EULYNX Academy attracted global interest, and were followed up by organisations from South Korea, India, Austria, Germany, and Australia.

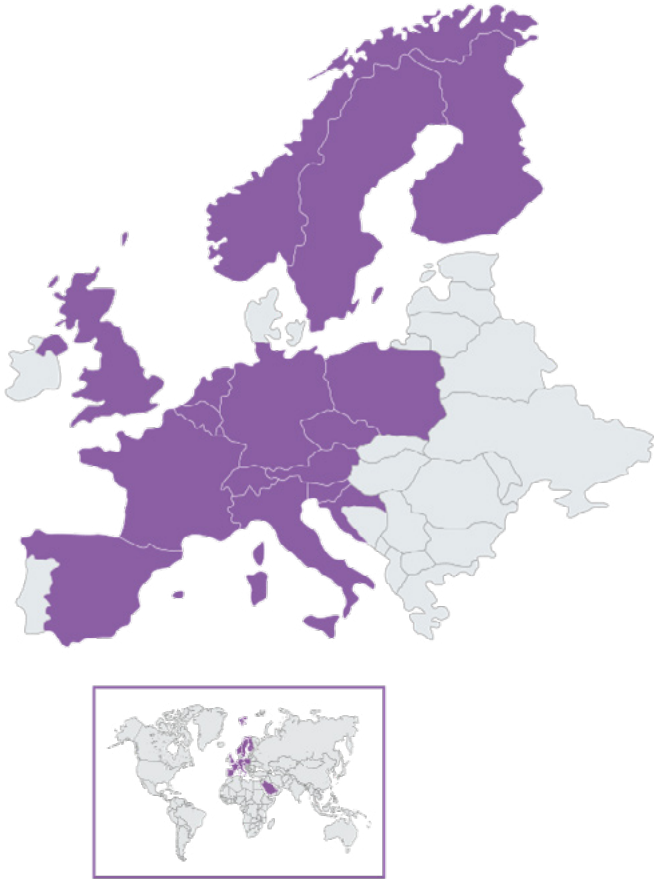
EULYNX also hosted several “Talk to EULYNX Expert” sessions, where visitors had a chance to speak directly with the EULYNX experts, ask questions, and exchange ideas. The level of interest and active participation showed a clear demand for open dialogue and collaboration.

The highlight of the InnoTrans 2024 was the signing ceremony at the Saudi Arabian Railways (SAR) booth, officially welcoming SAR as the 16th member of EULYNX. As a new member, SAR aims to develop region-specific signalling standards, access international expert knowledge, foster innovation, and enhance operational efficiency through collaborative efforts.


EULYNX IS THE ENABLER FOR A MODULAR AND OBSOLESCENCE-IMMUNE SIGNALLING SYSTEM
Decoupling the lifecycles of interlockings from field elements
Reducing vendor lock-in risks when upgrading or replacing components
Lowering overall lifecycle costs
Providing precise and unambiguous specifications
Ensuring full migration towards the future European Union's railway system
PILZ
Safe. Modular. And for the digital railway.


SAR
Bridging Distances
Building Tomorrow
EULYNX
SAR
الخطوط الحديدية السعودية
SAUDI ARABIA RAILWAYS

07
Member activities



- Bane NOR, *Norway*
- Centralny Port Komunikacyjny (CPK), *Poland*
- DB InfraGO (DB), *Germany*
- HŽ Infrastruktura (HŽ), *Croatia*
- Infrabel, *Belgium*
- Network Rail, *United Kingdom*
- ÖBB Infrastruktur, *Austria*
- ProRail, *Netherlands*
- Rete Ferroviaria Italiana (RFI), *Italy*
- Saudi Arabia Railways (SAR), *Saudi Arabia**
- Schweizerische Bundesbahnen (SBB), *Switzerland*
- Société Nationale des Chemins de Fer Français (SNCF), *France*
- Société Nationale des Chemins de Fer Luxembourgeois (CFL), *Luxembourg*
- Správa železnic, *Czech Republic*
- SŽ-Infrastruktura (SŽ), *Slovenia*
- Trafikverket, *Sweden*
- Väylävirasto (FTIA), *Finland*

Bane NOR, Norway

In November 2024, Bane NOR commissioned its first EULYNX-compliant ERTMS Level 2 (Baseline 3) signalling system on the Gjøvik Line, a 67 km single-track railway with crossing loops. The system operates without lineside signals and supervises several level crossings via ERTMS. This is the first EULYNX-compliant signalling system in full commercial operation, with the new design combining a centralised computer facility for interlocking, RBC, and TMS, with a decentralised object controller level.

Siemens provided the following interfaces:

- SCI/SDI-P, SCI/SDI-IO, SCI/SDI-TDS, SCI/SDI-LS
- SCI-CC, SCI-RBC, SCI-ILS

Most interfaces are already in operation, full compliance with SCI-RBC and SCI-ILS is expected in future phases. The system has proven reliable during operation. For Bane NOR this achievement ensures a future-proof signalling system that can support integration of emerging technologies, such as Automatic Train Operation (ATO) and Satellite Positioning.

BANE NOR

Centralny Port Komunikacyjny (CPK), Poland

The Centralny Port Komunikacyjny (CPK) joins the EULYNX initiative, recognising this as a key step in building a modern railway infrastructure that meets European standards and ensures full interoperability with systems across other EU member states.

By implementing open and standardised interfaces, a foundational principle of the EULYNX architecture, CPK aims to reduce investment and maintenance costs, accelerate implementation timelines, and avoid vendor lock-in.

Participation in EULYNX also gives CPK access to shared expertise and experience from European infrastructure managers, enhancing its preparedness for deploying innovative signalling solutions. Through its active engagement, Poland strengthens its role in the European transport system, ensuring that CPK will serve not only as a modern multimodal hub, but also as a fully integrated component of the European railway network.

CPK

DB InfraGO (DB), Germany

In 2024, DB InfraGO launched one of Europe's largest ETCS and digital interlocking tenders, resulting in volume contracts awarded to four suppliers. These contracts support industrial-scale deployment and require development of EULYNX-compliant products. The tendering process used EULYNX Baseline 3 specifications and incorporated experience from earlier pilot projects. While Baseline 4 had not yet been launched, DB InfraGO remains open to adopting it in cooperation with suppliers. All selected suppliers committed to implementing EULYNX-compliant interfaces. This initiative underscores Germany's commitment to European standardisation.

As preparation for EULYNX related deployments, numerous DB InfraGO experts have completed the EULYNX Academy training, including the focus on cyber security, in line with System Pillar specifications.

DB InfraGO

Väylävirasto (FTIA), Finland

Finnish Transport Infrastructure Agency (FTIA) advanced Finland's Digirail project through three major procurements for the ERTMS/ETCS Level 2 line between Lielahti and Rauma/Pori, marking the first phase of adopting EULYNX-compatible trackside equipment.

The procurements include:

- Centralised Safety System using SCI-CC, SCI-ILS, SCI-P, SCI-TDS, SCI-LS and SCI-IO
- Centralised Traffic Control using SCI-CC
- Object Controllers with full EULYNX interface support

Mipro Ltd. was selected to supply the Object Controllers system for the 190 km route, meeting SIL4, EULYNX BL4R2, and IEC 62443 cybersecurity standards.

FTIA also piloted the Relesoft-supplied EULYNX test system, which supports vendor-neutral interoperability testing and lifecycle management.

In the POKA project in northern Finland, 19 relay based interlockings were connected using the SCI-CC interface, 10 of which were commissioned in the last year.

Future tenders, including for the TOKA project, will continue on this modular, competitive procurement strategy.

Finnish Transport Infrastructure Agency

Infrabel, Belgium

Infrabel's current systems rely on legacy interfaces from pre-EULYNX framework contracts, now nearing conclusion. Future procurements for interlockings and object controllers will follow the EULYNX specifications, likely based on BL4R4. Migrating to EULYNX-compliant object controllers is considered a key step towards the System Pillar target architecture.

INFRABEL

HŽ Infrastruktura (HŽ), Croatia

After interface issues between two signalling suppliers, HŽ Infrastruktura officially adopted EULYNX as the national signalling protocol. The decision aligns with wider European practice and was applied to two ongoing signalling projects. Implementation follows a structured plan, with completion targeted within one year of contract signature and commercial operation expected by the end of 2026.

Future efforts will focus on adopting the specifications for SCI-LX, SCI-TDS, and SCI-CC through upcoming tenders.

HŽ INFRASTRUKTURA

Network Rail, United Kingdom

EULYNX remains an important part of Network Rail's overall signalling strategy and is a key part of the Target190plus programme of works to reduce signalling unit costs.

In 2024 Network Rail contributed to the EULYNX/System Pillar working groups for Architecture, Level Crossing, Points and Train Detection, along with support to EULYNX activities in Control Systems, Trackworker Safety Systems, Assurance, and Certification clusters.

The migration strategy of the Target190plus programme requires implementation of EULYNX interfaces, aligning with Network Rail's Future-CCS Strategy, Reference CCS Architecture, and ETCS Long-Term Deployment Plan.

EULYNX interfaces are also part of Network Rail's Train Control Systems framework (TCSF), which replaced previous major signalling framework contracts. The scope includes ETCS-compliant digital signalling, conventional signalling, and digital signalling maintenance. These 10-year frameworks have four suppliers for each lot: Lot 1 = conventional signalling, Lot 2 = digital signalling, with both lots requiring suppliers to deliver EULYNX solutions.

Network Rail specifications align with BL4R1 for MDM and SSP and support specifications for Level Crossing, Point, and TDS. The aim is to align further with BL4R4, with updated standards available in 2025, including a specification for Control Systems (SCI-CC).

Network Rail has also been supporting the EULYNX Academy and arranging for Basic Training course to be delivered in 2025. This opportunity will include Network Rail and British suppliers to further expand understanding on EULYNX across Great Britain.

The Target190plus F-CCS Synthetic Environment, aligned with the EULYNX Data Prep model, is under tender for MVP. The integrated Design and Validation Process for F-CCS systems will utilise this model.

NetworkRail

ÖBB Infrastruktur, Austria

In 2024, ÖBB mainly ran the tendering process for the framework agreement for digital interlockings. The tendering and awarding process will continue into 2025. ÖBB has decided to specify a common, supplier-independent central platform DDSP for MDM and SSP. The platform will be provided to the frame contract partners for the rollout of the digital interlockings. ÖBB therefore invited tenders for the requirement engineering for such a platform in 2024 and awarded the contract.

Contributing activities in the framework of the System Pillar for further development of the SMI and SDI interfaces were intensified. Furthermore, ÖBB is already adopting the System Pillar Cybersecurity Specifications for the digital interlocking tender, in order to be prepared for the upcoming Cyber Resilience Act (CRA).

ÖBB hosted an in-house EULYNX Academy Basic module training to broaden the EULYNX expertise in Austria.

ÖBB INFRA

ProRail, Netherlands

In 2024, ProRail continued to work steadily towards the implementation of EULYNX standards in the Netherlands ERTMS program. This path is challenging, yet necessary. As the Infrastructure Manager, ProRail is convinced that standardisation will result in a more cost-effective and better-maintained railway.

Lessons learned over the past decade will be implemented in our collaborative efforts through formal, standardised test procedures to put the first ERTMS-equipped lines into operation. This will mark another significant milestone.

ProRail actively contributes in the System Pillar working groups, where standardised architecture sets new benchmarks. During InnoTrans in Berlin, ProRail actively supported the EULYNX activities, helping to maintain the connection to key stakeholders. The positive feedback received was invaluable and demonstrated that EULYNX is beneficial for the railway community.

To increase the knowledge related to EULYNX and to express the commitment and support, ProRail prepares for hosting two multi-day training courses of the EULYNX Academy in 2025.

ProRail

Rete Ferroviaria Italiana (RFI), Italy

The key activities concerning EULYNX for RFI during 2024 have been carried out within the EULYNX Deployment Cluster. The GAP analysis work has already been performed by the EULYNX and RFI experts for the EULYNX subsystems, and similar analysis work has been initiated for the adjacent systems. The work has been carried out through a series of online and face-to-face workshops in Germany and Italy.

In summary, the following results have been achieved:

- Full GAP Analysis for the interfaces SCI-ILS, SCI-LX, SCI-P, SCI-LS, SCI-IO, SCI-TDS
- Over 150 variables mapped to the EULYNX interface specification telegrams as part of the information flow analysis
- Demonstration of the interface implementation on an RFI signalling platform

RFI
RETE FERROVIARIA ITALIANA
GRUPPO FERROVIE DELLO STATO ITALIANE

Schweizerische Bundesbahnen (SBB), Switzerland

The SBB tender for procuring the next generation of railway signalling equipment continues. The tender mainly consists of safety installations with trackside signalling, driver's cab signalling and object controllers (OC) based on EULYNX BL4 R3. In November 2024, after completion of the one-year lasting dialogue procedure with industry partners, the last version of the requirements specification was released. The industry partners are ALSTOM, Hitachi, Siemens Mobility and STADLER. In March 2025, SBB aims to receive the final offers. The signature of the contracts with the selected suppliers is planned in Q3 2025.

The object controllers for subsystems Train Detection System and Level Crossing are procured in individual tenders, also based on EULYNX BL4 R3.

A tender for a new axle counting system with both conventional and EULYNX interfaces was published in July 2024. Based on the offers received mid-September, a field test with two qualified suppliers is planned from March to May 2025. The final award as well as the signing of the contracts are planned in Q3 2025.

The procurement project for a new level crossing system with both conventional and EULYNX interfaces started in Q3 2024. A Request for Information about an object controller LC based on EULYNX BL4 R3 is planned for February 2025, while the tendering for the new level crossing systems is planned for 2026.

SBB CFF FFS

SŽ-Infrastruktura (SŽ-I), Slovenia

Slovenian Railways are closely monitoring the development of specifications through upcoming drafts and releases, and are actively updating national specifications to prepare for the adoption of EULYNX specifications.

Slovenian Railways are preparing public procurements for the modernisation of railway signalling devices on numerous lines, with integrated EULYNX specifications in the tender documentation, with the main emphasis on the connectivity of trackside devices and adjacent interlockings. In addition, ETCS L1 interface using SCI-RBC is expected to be integrated.

Slovenske železnice

Trafikverket, Sweden

Trafikverket considers EULYNX to be an important and necessary step towards more flexible and cost-effective solutions, both from a implementation and lifecycle perspective. In the upcoming signalling system procurement, LASER, Trafikverket will require EULYNX BL4 as part of an ERTMS L2 system. The LASER-procurement will begin during 2025 and is planned to be awarded during the latter part of 2026.

The following EULYNX-interfaces will be required:

- SCI-P, SCI-IO, SCI-TDS, SCI-LS, SCI-LC
- SMI and SDI

The EULYNX interfaces SCI-CC, SCI-ILS and SCI-RBC are till consideration investigation.

TRAFIKVERKET

Société Nationale des Chemins de Fer Français (SNCF Réseau), France

2024 was a year of transition, where projects launched in the previous years continued to be developed. Commissioning of the first Argos interlocking pilot projects, implementing generic SCI interfaces based on EULYNX BL4R2, is expected by the end of 2025. Argos interlockings will be connected to the future axle counter systems, with developments still on-going, using the SCI-TDS interface.

More generally, EULYNX is more and more considered by SNCF Réseau as the ideal solution to allow interoperability between subsystems from different suppliers. The possibility to include SCI-LC and SCI-IO interfaces is being considered for the future projects.

In 2024, SNCF Réseau continued its contribution to the System Pillar working groups. The System Pillar target architecture provides for the use of EULYNX interfaces between future Traffic CS subsystems and object controllers for the trackside assets.

SNCF

Správa železnic, Czech Republic

Správa železnic has been a member of EULYNX since 2023. The main target and motivation for this collaboration is a need to prepare the market in Czechia for the expansion of signalling technology portfolios of suppliers operating on the European market, and to enable such equipment to be interconnected. This also addresses the acute need to increase supplier capacities, as they are currently insufficient with regard to the intentions and development plans of the railway in Czechia.

The pilot project, where it is expected to define the interfaces between interlockings, RBC and TMS based on EULYNX standards, is being implemented in the Vysočina region on Batelov and Spělov stations. The project is currently underway, and a contract for work has already been signed. Further ambitious projects where a standardised interface could be applied are on the border sections. Discussions are ongoing in this regard, in particular with DB InfraGO.

Správa železnic is preparing for the future situation when the application of the interface standards will be mandatory and required as an integral part of investment activities.

SPRÁVA ŽELEZNIC

Saudi Arabia Railways (SAR), Saudi Arabia

The SAR network is split into NSR, EWR, and HHR lines. Provisions for additional lines, such as Riyadh-Jeddah (Landbridge project), are on the horizon. The signalling systems for the existing lines have been equipped with single proprietary signalling assets to simplify technical compatibility between the assets on each line, and hence, maximise reliability. Whilst the lines are performing well, the cross-network operation has been found to be challenging due to system interface incompatibility (interoperability) and lifecycles of the control command and signalling (CCS) systems. Therefore, the current asset strategy will be improved.

To prepare for an interoperable network, SAR joined the EULYNX consortium, which marks an important step for SAR in aligning with international best practices and contributing to the modernisation and digitalisation of railway systems in the Kingdom of Saudi Arabia (KSA).

As a member of EULYNX, SAR aims to enhance its rail network by gaining access to expert knowledge in global signalling systems and participating in technical discussions that shape international rail industry standards. SAR will also focus on developing signalling standards tailored to its specific operational needs (e.g. systems interfaces) while ensuring alignment with international standard protocols.

SAR will benefit from EULYNX's modular approach, interoperable networks, decoupling the lifecycles of CCS systems. The result will be enhanced system longevity, reduced obsolescence, and greater operational flexibility for KSA's growing rail network.

SAR
الخطوط الحديدية السعودية
SAUDI ARABIA RAILWAYS

EULYNX

Contacts

Mirko Blazic, EULYNX Technical Lead: mirko.blazic@eulynx.eu

Franco Tomassoni, EULYNX Representative: franco.tomassoni@reseau.sncf.fr

Michael Leining, Liaising Contracts: michael.leining@nextrail.com

Anastasiia Hrytsyshyna, EULYNX Consortium Office: anastasiia.hrytsyshyna@eulynx.eu

Nico Huurman, EULYNX Consortium Office: nico.huurman@eulynx.eu