

AGENDA AŽD FORUM 2026

HALL 27, STAND 640



TUESDAY 22nd September:

CELEBRATE THE OPENING OF THE AŽD STAND

15:30–16:00

“Beer, Innovation and LENKA”

Come and enjoy a Czech beer with us and meet LENKA, AŽD's new lightweight battery-electric rail vehicle. Developed from a tram platform, LENKA is designed for cost-efficient, zero-emission regional rail operation and technology testing on the KOPIDLNKA experimental line.

MODERATOR:

Vladimír KAMPÍK (Director for European Affairs, AŽD)

PARTICIPANTS:

Zdeněk CHRDLE (CEO, AŽD)

Antonín DIVIŠ (Head of the R&D, AŽD)



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WEDNESDAY 23rd September:

ETCS-ONLY CORE NETWORK: BEST PRACTICES AND LESSONS LEARNED 10:30–12:00

The introduction of ETCS-only operation on major railway corridors in the Czech Republic in January 2025 marked a major milestone in the digitalisation and safety of the Czech railway network.

As a long-term strategic technology partner of Správa železnic, AŽD contributed to this achievement by delivering and integrating both trackside and onboard ETCS solutions.

Drawing on practical experience from the Czech implementation, the expert discussion will focus on the critical success factors for a smooth transition to ETCS-only operation, early management of technical and organisational risks, more efficient testing, commissioning and operational acceptance, and the transferability of lessons learned to other European railway networks.

Discussion Topics:

- CCS Infrastructure for ETCS-Only Commercial Operation: Lessons learned from infrastructure preparation, trackside integration, commissioning, operational impacts and risk management.
- Efficient Onboard ETCS Integration: Experience across diverse vehicle classes, including testing, authorisation, on-track machines and other special-purpose rail vehicles.
- ETCS Level 2 Integration into Centralised Traffic Control: RBC indications and commands, operator interfaces, degraded modes and opportunities for further automation.

Key Questions for Discussion:

- What are the critical success factors for a smooth transition to ETCS-only operation?
- Which technical and organisational risks should be addressed at an early stage?
- How can testing, commissioning and operational acceptance be made more efficient?
- Which lessons from the Czech implementation are transferable to other European railway networks?

MODERATOR:

Antonín DIVIŠ (Head of the R&D, AŽD)

PARTICIPANTS:

Jakub MAREK (Senior expert – ETCS / UNISIG SG member, AŽD)

Igor IVANOV (Project manager – Onboard systems, AŽD)



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WEDNESDAY 23rd September:

AUTONOMOUS RAIL IN COMMERCIAL SERVICE: PRACTICAL EXPERIENCE AND WHAT COMES NEXT?

15:00–16:30

Operational lessons from AŽD's EDITA autonomous train, running in GoA3 mode in regular passenger service on the open KOPIDLNKA Line in the Czech Republic since 1 April 2025.

The technology is demonstrating the potential of autonomous rail, and we are now identifying the most efficient operational model and discussing the next steps towards wider commercial deployment.

Discussion will be focused on:

- Operational Lessons from AŽD's EDITA Autonomous Train in GoA3 Passenger Service
- Future Needs and Expectations for Autonomous Rail Deployment
- Research and Development Priorities for the Next Generation of Autonomous Rail

Key Questions for Discussion:

- How could autonomous operation affect the accessibility, affordability and long-term sustainability of regional rail services?
- What are socio-economic impacts of introducing autonomous transport, particularly regarding employment and the future of work?

MODERATOR:

Vladimír KAMPÍK (Director for European Affairs, AŽD)

PARTICIPANTS:

Michal NOVÁK (Lead researcher, AŽD)

Peter GURNÍK (System Engineer / EU projects technical Lead, AŽD)



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THURSDAY 24th September:

KOPIDLNKA AND PLUM LINE: AN OPEN PLATFORM FOR EUROPEAN RAIL INNOVATION 10:30–12:00

KOPIDLNKA and PLUM line form an open, real-world railway platform for testing, validating and demonstrating the next generation of European rail technologies.

From ETCS, ATO and advanced traffic management to intelligent infrastructure diagnostics, digital communications 5G and FRMCS, autonomous train operation and smart wayside systems, the two lines provide a unique environment in which innovative solutions can be developed and tested under real operating conditions.

The platform is open to partners seeking to demonstrate new technologies in a real railway environment. It enables to access suitable infrastructure, operational expertise and opportunities for joint research, development and demonstration activities.

PLUM Line serves as a core testing ground for digital and automated regional railway technologies, while KOPIDLNKA focuses on the integration and validation of autonomous train operation, including advanced perception, positioning and safety systems. Together, the two lines connect railway research, industry and operations, creating a practical pathway from laboratory innovation to validated and deployable technologies for the railway of tomorrow.

Key Questions for Discussion:

- Which innovative technologies have already been successfully tested under real operating conditions?
- What new research and demonstration projects are being prepared?
- How can autonomous drones improve railway infrastructure inspection and diagnostics?
- What forms of cooperation can be offered to European research and external partners wishing to use KOPIDLNKA and PLUM LINE for new innovations proving?

MODERATOR:

Vladimír KAMPÍK (Director for European Affairs, AŽD)

PARTICIPANTS:

Peter GURNÍK (System Engineer / EU projects technical Lead, AŽD)

Jiří HUDEČEK (Senior R&D Expert, AŽD)

Michal MATOWICKI (Project Manager, AŽD)



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THURSDAY 24th September:

FROM AUTONOMOUS FLIGHT TO DIGITAL TWINS: A NEW APPROACH TO RAILWAY INSPECTION 15:00–15:50

AŽD is developing an autonomous drone inspection framework for automated, long-distance monitoring of railway infrastructure. Using 4G and 5G mobile connectivity, proprietary docking stations, charging technology and mission-planning and execution software run on a secure internal network, the programme aims to enable drone operations with minimal dependence on direct on-site personnel.

The drones collect high-resolution data for infrastructure inspection, photogrammetric processing, orthophoto mapping and the creation of digital twins of railway assets. The resulting information can support automated mapping of tracks, point machines, level crossings and surrounding vegetation, as well as defect detection, incident assessment and condition-based maintenance.

The presentation will introduce the system architecture, intended inspection applications and the next development steps towards safe, secure and scalable autonomous drone operations on railway infrastructure.

Discussion Topics:

- Autonomous Drone Operations and Secure Connectivity
- Automated Infrastructure Inspection and Diagnostics
- Digital Twins and Emergency Response Mapping

Key Questions for Discussion:

- Which railway inspection activities offer the greatest potential for autonomous drone deployment?
- Can drone-mounted cameras reliably detect rail defects and assess the condition of track and other railway assets?
- How can drone data be integrated into digital twins, diagnostic systems and condition-based maintenance processes?
- What safety, connectivity, cybersecurity and regulatory requirements must be met for regular autonomous drone operations?

MODERATOR:

Jiří HUDEČEK (Senior R&D Expert, AŽD)

PARTICIPANTS:

Radek WAGNER (Senior R&D Expert, AŽD)

