





# AGENDA OF AŽD FORUM AT INNOTRANS FAIR 2024 You can find us in hall 27, stand no. 755

# Wednesday, 25<sup>th</sup> September 2024

# <u> "APRIL 2025 – AUTONOMOUS TRAIN IN REGULAR (COMMERCIAL) OPERATION"</u>

# 10:30-12:00

# AŽD Railway Lines – history, presence, and future

- What were the motivations of AŽD for acquiring its own railway lines?
- The story of the resurrection of the "Švestková Dráha/Plum Railway" the journey from a cancelled line to one of the most modern regional railways in Europe
- The transformation of the Dolní Bousov Kopidlno line into a technological test ground for the Autonomous Railway

# Backbone Test Polygon For Europe's Rail Research & Innovation Activities at "Švestková Dráha/Plum Railway"

- Installed advanced technologies installed and tested (ATO, ARS, Passenger information kiosks, Stop-on-Request, ...)
- Smart wayside object controller developed and demonstrated in X2Rail-1 and X2Rail-4 projects
- Cooperative ITS Interaction with road and railway traffic
- Fully Interoperable ATO GoA2 and initial steps towards GoA4 driverless train operation

# "Kopidlnka" line: Test polygon for Autonomous Train Operation

- Installed technologies as the prerequisite for autonomous train testing and validation
- ATO over ETCS up to GoA4 international interoperability tests as performed for X2Rail-4 project and further steps
- Advanced safe train positioning Developments and tests
- Path towards fully digital regional railway line of tomorrow (diagnostics with drones, advanced traffic management, functional optimisations for regional service, etc.)

# Autonomous Train in Regular (Commercial) Operation starting from April 2025

- Preparation, ongoing tests, technology, legislation, and other tasks
- Detailed presentation of individual technologies for infrastructure and train for Autonomous railway operation
- Presentation of the new AŽD test Vehicle for autonomous railway "EDITA"

# **Détenice Competence Centre**

- Designed as an open learning platform for students, with a range of technologies and place for implementation of innovative projects
- This project is designed to further connect academia with the rail industry, creating an environment where students, academics, and practitioners can meet

# **<u>"ETCS BEST PRACTICES"</u>**

# 15:00-16:30

#### Experience with OBU ETCS integration and opportunities for line technologies

- Experience gained with the installation of OBU ETCS to the high diversity of railway vehicle classes preparation, installation, approval for operation
- Special cases: ETCS in yellow vehicle classes

#### ETCS Braking curves: What has been done and what can still be improved/optimised?

- Description of changes related to the generic ETCS Braking curves.
- Optimisations incorporated in Baseline 4 Release 1 ERTMS/ETCS specifications (CCS TSI 2023)
- Optimisations which are still seen as worthy of being deeply analysed and resolved in the next releases of the ETCS specifications

# Experience gained from projects of ETCS trackside integration

- Implementation of new ETCS-related functions
- Induced changes in signalling infrastructure when an engineered value of "Section Timer" is changed – ONGOING PROJECT at Správa železnic (CZ)

# Thursday, 26<sup>th</sup> September 2024

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#### 10:30-12:00

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