RAILWAY FORUM CRACOW 2026

5-6 November 2026 | Qubus Hotel, Krakow, Poland



Resilience meets Technology

New Challenges for European Railways

Digitalisation Automation and AI in Railway Infrastructure and Rolling Stock

1. Organisers

Role	Organisation
Official Organiser	UEEIV (Union of European Railway Engineering and Infrastructure Organisations)
Local Host	SITK – Railway Division (Polish Association of Railway Engineers)

2. Introduction

The world has been changing dramatically over the last ten years. The fragile equilibrium of the past is over. Every industry must prepare for new challenges. Artificial Intelligence, cybercrimes, sabotage, climate change – life is no longer predictable.

In Europe, railways play a key role in the transportation system. That is why their resilience is becoming more and more important. But resilience cannot be achieved by strategy alone – it needs solid engineering, intelligent technology, and fresh minds.

The Railway Forum Cracow 2026 brings both worlds together:

Classic Railway Engineering:
High speed rail, track superstructure, ERTMS, FRMCS, CBTC, EULYNX, interlocking, condition monitoring, rolling stock, ATP/ATO, animal protection system, turnout heating, and integrated solutions.

New Challenges:
Climate resilience of infrastructure, cybersecurity for signalling systems, AI-based condition monitoring, sabotage protection, and strategic resilience planning.

A special focus is placed on the young generation. Young engineers will not be an appendix at the end of the conference. They will take the stage on Day 1, right after the keynote – because they bring new energy, new wind to European railways.

The Forum will gather the academic society, engineering practitioners, railway enthusiasts, and – above all – the next generation of railway engineers. During presentations and discussions you will find new ideas, solutions to old problems, and fantastic networking within the international rail community.

We believe: Technology alone is not enough. Resilience alone is not enough. But technology, resilience, and young minds together – that is the future.

Welcome to Cracow 2026!

3. Timeline Overview

Day	Start	End	Venue
4th November (Pre-conference Evening)	17:00	approx. 21:00	Cracow University of Technology
5th November	09:30	16:15	Qubus Hotel
5th November Evening	19:00	Open	Networking Dinner
6th November	08:30	16:00	Qubus Hotel
7th November	09:00		Optional Excursion

4. Detailed Conference Program

4th November – Pre-Conference Evening

Venue: Cracow University of Technology
Politechnika Krakowska im. Tadeusza Kościuszki
Warszawska 24, 31-155 Kraków

Time	Session	Topic / Details	Duration
STRATEGIC EVENING AT CRACOW UNIVERSITY OF TECHNOLOGY			
17:00 – 17:10	Evening Opening	Welcome address by UEEIV President & SITK President	10'
17:10 – 17:30	Perspective for high-speed rail transport in Poland	Welcome address and introduction by the Rector of the Cracow University of Technology – Prof. Andrzej Szarata	20'
17:30 - 17:45	Cross-border traffic from Poland to its neighbors towards Germany, Baltic states, Ukraine and Romania from European perspective	Prof. Bogusław Liberadzki	15’
17:45 – 18:00	Perspective and challenges of cross-border rail transport Germany-Poland	Jürgen Murach	15’
18:00 – 18:10	Break		10’

18:10 – 18:50	**Political Strategy Block** Moderator: Olaf Scholtz-Knobloch	**Panel Discussion** Panelists: 1. Jürgen Murach 2. Andrzej Massel 3. Bogusław Liberadzki 4. Zbigniew Szafrański 5. Andrzej Szarata	40'
	Integration, Expansion and Modernization of Railway Lines between Poland, Germany, the Baltic States, Czech Republic and Austria **Topics:** • Planned Polish High Speed Rail network "Y-Project" (Warsaw-Łódź-Poznań/Wrocław with extention to Germany and Czech Republic) • Rail Baltica • CMK extension Warsaw – Katowice – Ostrava – Vienna • Coordination of vehicle procurement and train control systems		
	Media: • Film by Hermann Schmidtendorf • Report Rynek Kolejowy		
18:50 – 19:00	Evening Closing	Short summary & outlook to Day 1	10'
19:00 – 22:00	Networking Get-together	Informal evening - Catering	ca 3h

5th November – Resilience & New Challenges

Venue: Qubus Hotel Krakow

Nadwiślańska 6, 30-527 Kraków

Time	Session	Topic / Details	Duration
09:30 – 09:35	Opening	Welcome address by UEEIV (official organizer) Dipl.-Ing. Olaf Scholtz-Knobloch	5'
09:35 – 09:40	Opening	Welcome address by SITK (local organizer) Dr. inż. Wawrzyniec Wychowanski	5'
09:40 – 10:00	Opening / Greetings	Greetings by dignitaries prof. dr. hab. Bogusław Liberadzki	20'
10:00 – 10:15	Keynote	Speakers: dr hab. inż. Andrzej Massel Railway Institute Warsaw Director prof. dr hab. inż. Andrzej Szarata Cracow University of Technology Rector	15'
10:15 – 10:45	Coffee Break		30'

BLOCK 1: "NEW GENERATION WIND" YOUNG ENGINEERS

Moderator: Sabri Ekrem – Demühder, Turkey

10:45 – 10:55	Block 1a	Vision of future Railway Condition Monitoring System Track Tec - Przemyslaw Stanisławski	10’
10:55 – 11:05	Block 1b	Numerical Modeling for Modern Rail Infrastructure Track Tec - Piotr Piech	10’
11:05 – 11:15	Block 1c	Track me if you can: BIM & Digital Twins in railway infrastructure Track Tec - Radosław Rybiński	10’

Time	Session	Topic / Details	Duration
11:15 – 11:25	Block 1d	Designing Methods for Railway Sleepers and Their Optimization Track Tec - Elżbieta Fiedorowicz	10’
11:25 – 12:00	Block 1 panel discussion	Moderator: Przemysław Stanisławski Panelists: Sabri Ekrem, Piotr Piech, Radosław Rybiński, Elżbieta Fiedorowicz	35’
12:00 – 13:00	Lunch Break		60'

BLOCK 2 RESILIENCE

Moderator: Olaf Scholz-Knobloch, UEEIV

13:00 – 13:20	Block 2a: Structural Resilience	Safe Rails, Secure Nation: Rail Infrastructure Resilience as a National Imperative PTS Public Transport Service – Kajetan Przybysz	20’
13:20 – 13:35	Block 2b: Climate Resilience II	Animal protection systems – industry presentation NEEL – Dorota Bartoszek Majewska	15’
13:35 – 13:50	Block 2c: Structural Resilience	Sensonic Security Application Distributed Acoustic Sensing - Track Monitoring Sensonic – Dhruv Sharma	15’
13:50 – 14:05	Block 2d: Cybersecurity Resilience	Rail Infrastructure in the Digital Age: Why Cybersecurity Can No Longer Be Optional Siemens - Sohejl Lazemi-Wanjani,	15’
14:05 – 14:20	Block 2e: Cybersecurity Resilience	Railway cybersecurity in practice – from IEC PT 63452 requirements to anomaly detection in rolling stock and signaling NASK - Dr. Piotr Wulgaris, Krzysztof Piotrowski	15’
14:20 – 14:35	Block 2f: Cybersecurity Resilience	Railway Transport Cybersecurity Challenges Railway Research Institute – Prof. Marek Pawlik	15’

14:35 – 15:35	Block 2 panel discussion	Moderator: Kajetan Przybysz Panelists: Dhruv Sharma, Piotr Wulgaris, Krzysztof Piotrowski, Sohejl Lazani, Józef Michalik, Marek Pawlik	60’
15:30 – 16:00	Coffee Break		30'

Time	Session	Topic / Details	Duration
BLOCK 3: TRAFFIC OPTIMIZATION AND MONITORING **Moderator: Giorgio Spadi – CIFI, Italy**			
16:05 – 16:20	Block 3a: Trafic optimization	Integrated High speed Turnouts Voestalpine Railway Systems – Izabella Wałkowska Marcin Walkowiak	15’
16:20 – 16:35	Bloc 3b: Traffic optimization	ATO and TMS as a optimization tools of railway traffic with autonomous vehicles Czech Technical University in Prague Prof. Michał Matowicki	15’
16:35– 16:45	Day 1 Closing	Summary by UEEIV / SITK	10’
19:00 – 22:00	Evening Event	Networking dinner Restaurant Morskie Oko plac Szczepański 8, 31-011 Kraków	3h

6th November – Classic Railway Engineering (Deep Dive)

Venue: Qubus Hotel Krakow

Nadwiślańska 6, 30-527 Kraków

Time	Session	Topic / Details	Duration
08:30 – 08:35	Day 2 Opening	Welcome & recap by SITK / UEEIV	5'
BLOCK 4: INFRASTRUCTURE – RESILIENCE FACTOR **Moderator: Dermot Kelly – RailEI, United Kingdom**			
08:35 – 08:50	Block 4a: HSR Infrastructure	Development of Prefabricated Elements for Railway Infrastructure – Current Solutions and Future Directions KZN Bieżanów Dr. Dorota Błaszkiewicz	15’
08:50 – 09:10	Block 4b: HSR Infrastructure	A Geodetic Layer of Trust for Resilient AI-Assisted Condition Monitoring of Railway Infrastructure AGH University of Krakow - Prof. Michał Strach	20’
09:10 – 09:25	Block 4d: Track superstructure	Eliminating hanging sleepers: Cost-Efficient, Intelligent Rail Solutions KamPa BV - Paul Kampfraath	15’
09:25 – 09:40	Block 4e: Track superstructure	Knowing What Was Done to the Track: A Shared Data Dictionary and Automated Work Documentation with mPOM Rhomberg Sersa Rail Group - Yorick Teeuwen	15'
09:40 – 10:15	Coffee Break		35'

Time	Session	Topic / Details	Duration
10:15 – 10:30	Block 4f: Track superstructure	On Ballast or on Slab? Comparing Modern Track Systems Cracow University of Technology	15’

		Dr. Łukasz Chudyba	
10:30 – 11:15	Block 4g: Track Solutions	Block system reimagined – EBS New Generation Edilon Sedra - Ryan Stolpmann	45’
11:15 – 11:30	Block 4h: Operational Intelligence	Operational Intelligence for Railways: A Reference Architecture for Decision-Centric Railway Operations Incremental Solutions Limited Tim Flower	15’
11:30 – 11:45	Block 4i: Track solutions	Balastless Track – Tines for High Speed Rail TINES - Aneta Borowiec-Barchuk	15’
11:45 – 12:00	Block 4j: Track solutions	Lateral Track Stability under Climate Change - Influence of Environmental Factors on the Behaviour of Lateral Track Resistance University of Innsbruck - Lukas Niedermair	15’
12:00 – 12:15	Block 4k: Track solutions	Future-Proof Railway Infrastructure: Slab Track Austria, BIM and Digital Innovation from Construction to Operations Porr Michał Kościelniak Santanu Biswas	15’
12:15 – 13:00	Block 4: Panel discussion on superstructure	Moderator: Dermot Kelly Panelists: Dorota Błaszkiewicz, Łukasz Chudyba, Krzysztof Downar, Tim Flower, Lukas Niedermair	45’
13:00 – 14:00	Lunch break		60’

Time	Session	Topic / Details	Duration
BLOCK 5: COMMAND & CONTROL, RAILWAY AUTOMATION **Moderator: Andrzej Cholewa – SITK, Poland**			
14:00 – 14:15	Block 5a: Command & Control	ETCS Level 1 Limited Supervision: Accelerating ERTMS Deployment Across Central and Eastern Europe Rail-Mil/Kombud Group Eng. Łukasz Sitarek, ETCS Development Director	15’
14:15 – 14:30	Block 5b	Technical compatibility issues in the context of ESC testing on the Polish rail network Railway Research Institute Msc. Eng. Dominik Adamski, Dr. Eng. Andrzej Toruń, prof. IK	15’
14:30 – 14:45	Coffee Break		30’
BLOCK 6 : MODERN ROLLING STOCK **Moderator: Olaf Scholz-Knobloch – UEEIV President, Germany**			
14:45 – 15:00	Block 6a: Rolling Stock	Cybersecurity in rolling stock reality or illusion? NEWAG Group - Józef Michalik	15’
15:00 – 15:15	Block 6b: Rolling Stock	How Do the Metro Project Delivery Strategy and Adopted Technical Solutions Support the Achievement of a Highly Available, Resilient, and Secure System? Alstom - Piotr Pustoszkin	15’
15:15 – 15:30	Block 6c: Rolling Stock	Assessing the economic feasibility of the hydrogen-powered locomotive conversion using real railway operational data Eskişehir Technical University, Turkey Prof. Mine Sertsöz	15’
15:30 – 16:00	Farewell	Closing remarks by UEEIV & SITK, announcement of Railway Forum 2027	15'

7th November – Optional Excursion

Meeting: at the Qubus Hotel

Time	Topic / Details
09:00–11:30	**Kraków Tram Technical Excursion** Charter tram tour (with a former Vienna Tram type E1) with an MPK guide, giving information on the tram infrastructure, urban and network development. We start near Hotel Qubus from the tram station “Plac Bohaterów Getta”. Please make sure to be on time as the tram cannot wait! You can take your luggage into the charter tram. The route includes the historical city, Nowa Huta and the new station Wzgórza Krzesławickie terminus. Nowa Huta is a urban developed district in Eastern part of Krakow starting 1949 as an ideal socialist city combining monumental scale with classical proportions, Renaissance and Baroque Influences and a radial Garden City.
10:20 – 11:30	**Visit of the tram depot Nowa Huta**
11:45–12:50	**Lunch (sponsored by VDEI)** The charter tram brings us from Depot to the Restaurant Stylowa in the middle of Nowa Huta near the Plac Centralny (Central Square). Stylowa was the first “socialist” restaurant in Nowa Huta. The interior from 1956 was not changed. Today it is a private popular family restaurant, and you can get polish grandmothers home-style cooking.
12:45–13:30	Flexible individual return from the restaurant between 12:45 and 13:30 to Train Station/Airport/Hotel with regular tram (line 70 or 74 from Plac Centralny, travel time to PKP main station (Teatr Slowackiego) about 25 minutes). You can get tram tickets in the restaurant. We can also organize taxis from the restaurant.