



Raw materials management + rail-bound mobility and its challenges beyond 2030

An industry excursion with conference in Styria
from 27-29 May 2024

as part of the "Mining meets railway technology" series organised by GKZ Freiberg e.V. and Rail.S e.V.

The major transformation processes (digitalisation, energy) in the European Union are not feasible without raw materials. Rail-bound mobility requires new solutions for the expansion of infrastructure as well as smart storage and drive systems. Here, too, semiconductors and new materials are conquering more and more functional segments. Similarly, transport infrastructure construction, especially tunnelling, is subject to new methods of tunnelling and monitoring, as well as the management of residual materials. Mining and railway technology: Both ecosystems are united by "Europe's Rail Joint Undertaking" - a new European partnership in research and innovation in the railway sector. Its masterplan sets out a systematic, long-term and results-oriented strategy for research and innovation in the rail sector, focussing on the ongoing transformations in Europe and serving the European Green Deal's goal of achieving climate neutrality by 2050.

The "Mining meets railway technology" format organised by GKZ Freiberg e.V. and Rail.S e.V. from Saxony, Germany, has been addressing these transformation processes at events in Dresden for over 10 years and is going on tour for the first time this year. The destination is one of the most dynamic regions in Europe: Styria, in the heart of Austria. Here we will meet one of the world's largest rail manufacturers, the voestalpine Group, and find out how it is decarbonising its immense metallurgical processes. Just around the corner, the huge Erzberg, Europe's largest open-cast iron ore mine, provides the local raw material base and, in the middle of the Erzberg, the tunnelling laboratory of the University of Leoben is researching innovative solutions for tomorrow. Following the excursion, the organisers, supported by the Styrian mobility cluster ACstyria, invite you to the conference "Mining meets railway technology" in the mining heart of Austria, the city of Leoben. The conference programme will focus on securing raw materials and supply chains in the EU, progress in conceptual and sustainable tunnel construction, the importance of metallurgy as the key to a circular economy and the decarbonisation of steel production.

The cost contribution per participant is 250 euros plus 10% VAT for cluster managers of ERCI partner clusters as well as project members of LEADER 2030, for all other participants 350 euros plus 10% VAT. The tour price includes participation in the tour of voestalpine Schienen GmbH, the Hauly Ride on the Erzberg, a professional guided tour of the tunnelling laboratory at the Montanuniversität Leoben and participation in the "Mining meets railway technology" conference in Leoben, including lunch and professional translation.

Travelling and accommodation are organized individually.

For the participation at the conference only we charge 100 euros for members and 120 euros plus 10% VAT. For registration please contact: office@gkz-ev.de

AGENDA (subject to change)

MONDAY, 27/05/2024 – ERCI GA, LEADER 2023 Meeting & COMMON DINNER

9:00-16:30	ERCI General Assembly & Steering Committee, Graz
tbc	LEADER 2030 progress meeting, Graz
until 18:00	Individual to Leoben Check in at the hotel (individual)
from 19:00	Optional: Dinner and get-together (self-paying) Restaurant: Addresses will follow after receipt of registrations

TUESDAY, 28/05/2024 - VOESTALPINE, ERZBERG & TUNNELLING LABORATORY

09:00	Departure from the hotel with your own means of transport (carpooling)
10:00	voestalpine Schienen GmbH , Donawitz Company visit with a tour of the blast furnace, steelworks and the world's most modern rail rolling mill. Main topics of the industrial excursion: energy efficiency, automation and securing skilled labour in energy-intensive industries such as the steel industry
13:00	Lunch (probably works canteen)
15:00	Hauly tour - a "tour" of the open-cast mine and introduction to mining VA Erzberg GmbH , Erzberg 1, A-8790 Eisenerz
16:00	ZaB Centre on the Mountain of the University of Leoben Tour of the tunnelling laboratory at the University of Leoben, led by Professor Robert Galler Tour of road and rail tunnels as test and training areas as well as additional above-ground test areas for public and private research projects.
from 19:00	Optional: Dinner and get-together (self-paying) Restaurant: follows after registration of the participants



WEDNESDAY, 29 MAY 2024 - "MINING MEETS RAILWAY TECHNOLOGY" CONFERENCE
(Lecture language German with simultaneous translation into English)

08:30	Check-In Location: Montanuniversität Leoben , Franz-Josef-Straße 18, A-8700 Leoben
09:00	Greeting
09:10	PRESENTATION SESSION A: SECURING RAW MATERIALS & SUPPLY CHAINS IN THE EU <ul style="list-style-type: none"> • A multipolar world order and the accessibility of raw materials with implications for supply chains in the railway industry Dr Wolfgang Reimer, GKZ Freiberg, LEADER 2030 • Disruptions and Dependencies in the Rail Value Chain - Learnings of the European Consultation LEADER 2030 (English) Guido Ancarani, Coordinator DITECFER S.c.ar.l., LEADER 2030
09:50	Coffee break
10:15	LECTURE SESSION B: TUNNELLING <ul style="list-style-type: none"> • Tunnel excavation - raw material or waste? Prof. Robert Galler, Centre on the Mountain • RAMS technology for the installation of railway technology in the Gotthard and Ceneri Base Tunnels - Klaus Kühnert, IZP Dresden mbH • Major railway tunnel projects (1): The Brenner Base Tunnel - opportunities, hurdles and challenges - Gerhard Harer, Head of Overall Coordination Brenner Base Tunnel • Major railway tunnel projects (2): The Koralm railway - opportunities, hurdles and challenges - Member of the National Council Joachim Schnabel (enquired)
11.35	Lunch break
13:00	lecture session c: metallurgy and eu industry policy <ul style="list-style-type: none"> • Metallurgy as a key factor for CE and the production of primary raw materials - Challenges posed by EU legislation and policy-making - Prof. Dr hc. Markus Reuter, SMS Group GmbH, Düsseldorf • Steel turnaround: What will steel production look like in 2050? - Michal Zarl, Team Lead, K1-MET GmbH (voestalpine Group) • The electrification of the planned Koralm lithium mine and its implementation under EU law - Robert Grassler, European Lithium Ltd.
14:30	Summary and farewell

Photos: GKZ; Haulyfahrt (VA Erzberg GmbH), voestalpine plant (voestalpine Schienen GmbH)

