

Topic “Managing Risks, Sustainability and Innovation in Rock Tunnelling”

9th – 10th May 2025

Stockholm, Sweden

Friday, the 9th May 2025:

Session 1: Advanced risk management in tunnel construction

- 08:45 – 09:00: **Opening**
- 09:00 – 09:45: **Specificities of underground works – geological and hydrogeological uncertainties**
/Håkan Stille, Johan Spross/
- 09:45 – 10:30: **Risk management approach and assessment principles**
/Elena Chiriotti/
- 10:30 – 10:45: **Coffee Break**
- 10:45 – 11:30: **Application in conventional tunnelling – case studies**
/Etienne Garin/
- 11:30 – 12:15: **Contractual management of risks – reference documents**
/Johan Spross, Gösta Ericson/
- 12:15 – 12:45: **Q&A**

Session 2: Sustainable underground

- 14:00 – 14:45: **Global and local environmental impacts of the tunnelling activity**
/Tommy Olsen/
- 14:45 – 15:30: **Carbon footprint evaluation and carbon emission reduction**
/Katarina Malaga/
- 15:30 – 15:45: **Coffee break**
- 15:45 – 16:30: **Resource efficient tunnelling - groundwater and excavated material management**
/Robert Galler/
- 16:30 – 17:15: **Rock fracture grouting for minimizing environmental impact**
/Mikael Creütz/
- 17:15 – 18:00: **Q&A**

Saturday, the 10th May 2025 :

Session 3: From the concept to the construction : the progressive approach in difficult ground conditions

- 09:00 – 09:45: **The different phases in progressive project design**
/Fredrik Johansson, Björn Stille/
- 09:45 – 10:30: **Specific investigations in difficult ground conditions and choice of the tunnelling method**
/Laurence Delplace/
- 10:30 – 10:45: **Coffee break**
- 10:45 – 11:30: **BIM as a tool for handling uncertainties in difficult ground conditions**
/Mats Svensson/
- 11:30 – 12:15: **How to prepare the conditions for a proper monitoring and asset management**
/Jeanne Doreau/
- 12:15 – 12:45 **Q&A**

Session 4: The future of engineering : smart technologies and innovative approaches

- 14:00 – 14:45: **Smart systems and smart monitoring in tunnelling**
/Werner Lienhart/
- 14:45 – 15:30: **Worksite management and useful tools**
/Frida Isaksson/
- 15:30 – 15:45: **Coffee break**
- 15:45 – 16:30: **Structural inspections and new robotics applications**
/Nikolaos Petropoulos, Jan Nyqvist/
- 16:30 – 17:15: **Perspectives on AI in design and construction**
/Peter Burman/
- 17:15 – 17:25: **Q&A - Closing remarks**
- 17:25 - 18:15 **Round table: The future of tunnelling**