

# Risk management and sustainable underground solutions

12<sup>th</sup> – 13<sup>th</sup> May 2023

Athens, Greece

## 12<sup>th</sup> May - FRIDAY

### Session 1: Risk management principles

08:30 - 09:00 Registration

09:00 - 09:10 Opening - Short Introduction

*/Chrysothemis Paraskevopoulou/*

09:10 - 09:50 How to handle risk in subsurface engineering

*/Robert Galler/*

09:50 - 10:30 Geological uncertainty, geotechnical investigations, and observational design within the context of risk

*/Mark Diederichs/*

### **10:30 - 10:45 Coffee Break**

10:45 - 11:25 Main risks associated to deep tunnels

*/Gerard Seingre/*

11:25 - 12:05 Risks in Planning, Design & Construction of Large Diameter Tunnels

*/Sotirios Vardakos/*

12:05 - 12:15 Q&A

### **12:15 - 13:30 Lunch**

### Session 2: Tendering & Implementation during construction

13:30 - 14:10 Monitoring for avoiding hazard situation during construction

*/Klaus Rabensteiner/*

14:10 - 14:50 Contractual practices and geotechnical baseline reports

*/Matthias Neuenschwander/*

### **14:50 - 15:05 Coffee Break**

15:05 - 15:45 Conventional tunnelling cost assessment and benchmarking

*/Chrysothemis Paraskevopoulou/*

15:45 - 16:25 Examples of risk management in mechanized tunnelling

*/Karin Böppler/*

16:25 - 16:35 Q&A

## 13<sup>th</sup> May - SATURDAY

### Session 1: Sustainability issues

09:10 - 09:50 Introduction to Sustainability Issues in Tunnelling - A look underground in delivering a sustainable future for our people and planet

*/Arnold Dix & Antonia Cornaro/*

09:50 - 10:30 Sustainability issues in tunnelling

*/Giovanny Alvarado/*

#### *10:30 - 10:45 Coffee Break*

10:45 - 11:25 Workshop with ITACUS team

*/Marilu Melo/*

11:25 - 12:05 Life cycle assessment and sustainability

*/Panagiotis (Panos) Spyridis/*

12:05 - 12:15 Q&A

#### *12:15 - 13:30 Lunch*

### Session 2: Implementation during design, construction, and operation

13:30 - 14:10 Digitalization and numerical methods contributions towards sustainability

*/Mike Mooney/*

14:10 - 14:50 Holistic management of emergencies handling on road tunnels: The experience from safety drills

*/Konstantinos Kirytopoulos/*

#### *14:50 - 15:05 Coffee Break*

15:05 - 15:45 Example in CO<sub>2</sub> reduction in tunnel construction from a material technology point of view

*/Wolfgang Aldrian/*

15:45 - 16:25 Examples for resilient tunnel evacuation

*/Andreas Benardos/*

16:25 - 16:35 Q&A

16:35 - 17:25 Panel discussion on the Future of Tunnelling (Round Table from Underground Experts from Greece)

*/Sergios Lampropoulos, Ioannis Lefas, Nick Koronakis, Ilias Michalis/*

17:25 - 17:30 Closing remarks