

Objective: to provide an introduction to the safe use and operation of underground infrastructures and space with an emphasis on rail, road and metro tunnels. The seminar will provide a general overview to be followed by more in-depth sessions on the management of operational safety during the life of underground facilities, risk associated with the specific of use of the facility, generic safety issues in the use of tunnels. The seminar is aimed at Clients, Designers, Consultants and Contractors.

Tentative Programme

Day 1

Session 1: General Overview

- 09.00 – 09.45: Welcome and Opening: ITA and concerned country representatives
- 09.45 – 10.30: Introduction to Safety Management
- 10.30 – 11.00: Coffee break

Session 2: Regulations

- 11.00 – 11.30: Road Tunnel Regulations
- 11.30 – 12.00: Regulations for Train, Tram and Metro tunnels
- 12.00 – 12.30: The Impact of New Contract Forms on User Safety
- 12.30 – 14.00: Lunch

Session 3: An Integrated Risk-Based Approach to User Safety

- 14.00 – 14.45: PIARC's view on "Holistic" Road Tunnel Safety
- 14.45 – 15.30: Integrated Safety Analysis for Railway Tunnels/Metro Systems
- 15.30 – 16.00: Coffee break

Session 4: Models for Safety Analysis

- 16.00 – 16.45: Models for probabilistic safety analysis
- 16.45 – 17.30: Models for deterministic scenario analysis
- 17.30 – 18.00: Questions and Answers (to all sessions)

Day 2

Session 5: Behavioural Aspect in Safety Analysis

- 09.00 – 09.45: Injuries and Consequences for Self Rescue and Emergency Aid
- 09.45 – 10.30: Human Behaviour and Tunnel Safety
- 10.30 – 11.00: Coffee break

Session 6: Safety Features (part 1)

- 11.00 – 11.45: Basic Technical Measures for Road Tunnels
- 11.45 – 12.30: Basic Technical Measures for Railway Tunnels/Metro Systems
- 12.30 – 14.00: Lunch

Session 7: Safety Features (part 2)

- 14.00 – 14.45: Ventilation systems
- 14.45 – 15.30: Fixed Fire Fighting Systems
- 15.30 – 16.00: Coffee Break

Session 8: Safety Management in Practice

- 16.00 – 16.30: Safety Management Systems
- 16.30 – 17.00: Contingency Plans
- 17.00 – 17.30: A Practical Example presented by a Tunnel Manager
- 17.30 – 18.00: Questions and Closing Remarks