



## Introduction to tunnelling– From design to construction

4-5 December 2019

Kenya

**Objective:** After a first session dedicated to underground space use, this 2019 seminar aims to go further in the tunnelling process with a presentation of the major issues related to the design and construction aspects. It will help the clients to understand how to manage underground projects and set up a suitable organization.

### Day 1:

#### Session 1: Introduction and preliminary reminders on the global process

09.00-09.15: Welcome and Opening: ITA and concerned country representatives (L. Babendererde)

09.15-10.00: The main stages in a tunnel project management (L. Babendererde)

10.00-10.45: The key steps and the key players (L. Babendererde)

10.45-11.15: *Coffee Break*

11.15-12.00: Case study 1: Example of an urban project process (L. Babendererde)

12.00-12.45: Case study 2: Example of an hydropower project process (G. Seingre)

12.45-13.00: Questions and answers

13.00-14.00: *Lunch*

#### Session 2: Introduction to tunnelling methods

14.00-15.00: The main tunnelling methods - Elements for the choice of the construction method (G. Seingre)

15.00-15.45: Logistics and environment impacts (G. Seingre)

15.45-16.15: *Coffee Break*

16.15-17.00: Case study 3: Example of mechanized tunnelling (G. Seingre)

17.00-17.45: Case study 4: Example of conventional tunnelling (G. Seingre)

17.45-18.15: Questions and answers

### Day 2:

#### Session 3: Organization and contractual aspects

09.00-09.45: Main issues for the client and the public authorities (M. Macary)

09.45-10.30: The different contractual approaches (M. Macary)

10.30-11.00: *Coffee Break*

11.00-11.45: Case study 5: Example of the New FIDIC Emerald Book (M. Macary)

11.45-12.15: Questions and answers

12.15-14.00: *Lunch*

#### Session 4:

14:00-15:00: Sponsors & AWWDA presentation session (Eng. Thuita, Eng. Kamau, Eng. Bonnie, AVIC, SMEDA)

15:00-16:00: Round table: Principal difficulties in all stages of design and construction in an urban tunnel – risk management

16:00-16:30: Closing Remarks

16:30+ : Coffee break and networking