

Who should attend: The targeted participants are Owner, Designer, Site construction manager and any interested engineer working in public or private company.

Tentative Programme

Day 1

Session 1: Site investigation technique

08.00 - 08.15: Welcome and Opening

08.15 – 09.15: Scope of geo-investigation (geological, hydrogeological and geotechnical) and of description of the ground physical and technical conditions for tunnel design and construction: definition of a geotechnical model along the tunnel alignment

09.15 – 10.15: Criteria for planning the geo-investigation and for establishing the subsequent phases of the investigation

Note: include Guidelines for the definition of requested level of the geotechnical contribution for the design and construction purposes of the actual tunnel

10.15 – 10.45: Coffee break

10.45 – 11.45: Common exploration methods – I

11.45 – 12.00: Questions & Answers

Session 2: Field and laboratory testing

13.30 – 14.30: Common exploration methods - II and field and laboratory tests.

Note 1: include Additional proper investigation for TBM and mechanized shield tunnelling, as well as Additional investigations, field tests and measurements during construction

Note 2: also including geological investigation and mapping during construction

14.30 – 15.30: In situ stress measurements

Note 3: Monitoring during construction is not part of the scope

15.30 – 16.00: Coffee break

16.00 – 17.00: Site investigations with focus on hydro-geological properties – flow logs, short and long duration pumping test, lugeon tests, evaluation of results, hydro-geological modelling

17.00 – 18.00: Case histories of planning site investigation campaign

18.00 – 18.30: Questions & Answers

Tentative Programme

Day 2

Session 3: Geotechnical models, Reporting, time and cost

08.00 – 09.00: Creation of the virtual continuous geotechnical model along the alignment of the tunnel which is the base of the design and of the selection of the construction methods

09.00 – 10.00: Examples of “going from geological models to geomechanical models” including geotechnical design properties

10.00 – 10.30: Coffee break

10.30 – 11.30: Drafting of the Geotechnical Reports: Data, Interpretation and Baseline Reports

11.30 – 12.30 Time and cost of the investigation activity

12.30 – 12.45: Questions and Answers

12.45 – 14.15: Lunch

Session 4: Hazards and Risks

14.15 – 15.15: Assessment of the potential hazard scenarios

15.15 – 16.15: Risk analysis considering geological hazards

16.15 – 16.45: Coffee break

16.45 – 17.45: Case histories on choosing tunnel alignment according to the geomechanical models

17.45 – 18.15: Summing up and conclusion