



**ITA  
AITES**

# Working Group 19 – Conventional Tunnelling Report

- WG 19 Leadership:
  - Animateur: Nasri Munfah (USA)
  - Vice Animateur: Robert Galler (Austria)
  - Tutor: Alex Gomes (Australia)
- Attendees: 25 members representing 17 member nations
- Met on Sunday May 5<sup>th</sup> 14:00 to 18:00
- No follow up meeting on Monday was needed



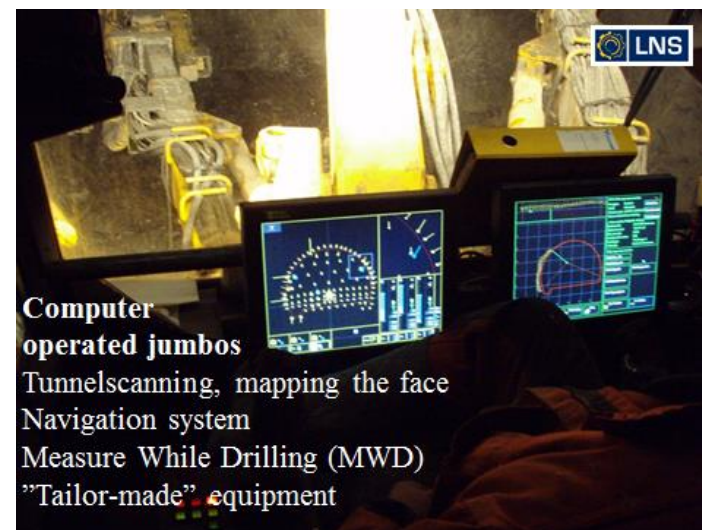
# Agenda of the Meeting

1. Introduction of members and Invitation to other members from under-represented nations
2. Progress Report No. 14 submitted to the ITA ExCo and outcome of the meeting with ExCo members
3. Presentations by WG members
4. Status of the report: *“Guidelines for the Design and Implementation of Conventional Tunneling in Urban Setting”*
5. Next Project of WG 19
6. Other business items
7. conclusions and action items



# Member Nation Presentations

1. *“Recent Conventional Tunnelling Projects in Italy” - Giovanna Cassani (Italy)*
2. *“Conventional Tunnelling in Japan – Case Histories” - Jun Mitsuo (Japan)*
3. *“Norwegian Tunneling 2019 – Environment, Safety, Digitization” – Thor Skjeggedal (Norway)*
4. *“Recent Conventional Tunnelling Projects in the USA” – Vojtech Gall (USA)*
5. *“Challenges of Conventional Tunnelling at The ZaB (Zentrum am Berg – An Underground Research Centre)” – Prof. Robert Galler (Austria)*



# Status of WG 19 Report

## *“Guidelines for the Design and Construction of Conventional Tunnelling in Urban Setting – 2<sup>nd</sup> Draft”*

### Table of Content

1. Introduction and Purpose of the Report
2. Specific Considerations of Geotechnical and Hydrological Investigations
3. Guidelines of Design Process and Design Considerations
4. Assessment of Ground Behaviour
5. Instrumentation and Monitoring Measures and the Development of Threshold Values
6. Ground Improvement Measures and Techniques Enabling Conventional Tunneling in Difficult Ground Conditions in Urban Areas
7. Pre-Support Measures
8. Potential Impact on Existing Facilities and Utilities/Services and the Development of Remedial and Corrective Measures
9. Use of Ground Classifications and Support Classes for Conventional Tunneling in Urban Areas
10. Implementation During Construction of Excavation Support Classes and Field Collaboration and Documentation
11. Risk Management and Design Robustness
12. Recommendations for Contractual Requirements
13. Case Histories



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**Working Group 19  
Conventional Tunnelling**

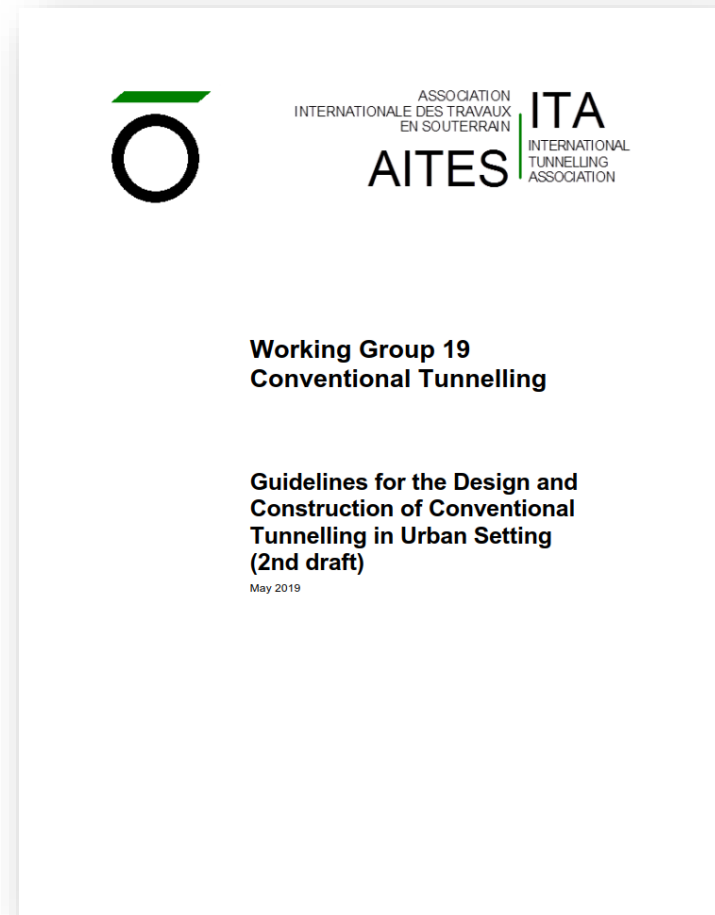
**Guidelines for the Design and  
Construction of Conventional  
Tunnelling in Urban Setting  
(2nd draft)**

May 2019



# Status of WG 19 Report

1. Completion level 40% – 50%
2. The second draft was discussed and Comments provided. Need to consolidate and focus the text
3. Discussions of the topics and revision of the chapters – Additional Case Histories from various Countries
4. Missing chapters/sections/case histories by end of June 2019
5. On-line collaboration among participants and regular communications
6. The final draft document will be issued and discussed in November 2019
7. Final Report is planned to be issued in 2020 in conjunction with WTC 2020 in Kuala Lumpur
8. A 10-minute Video Presentation – Needs Support



# Proposed Next Project of WG 19

- Five potential topics were discussed
- Selected Topic:
  - **Guidelines for the Application of Waterproofing Systems in Conventional Tunnelling**
    - Leader: V. Gall (USA)
  - Work Plan:
    - Outline WTC 20 in Kuala Lumpur
    - 1<sup>st</sup> Draft WTC 2021 Copenhagen
    - Issue WTC 2022





Thank You