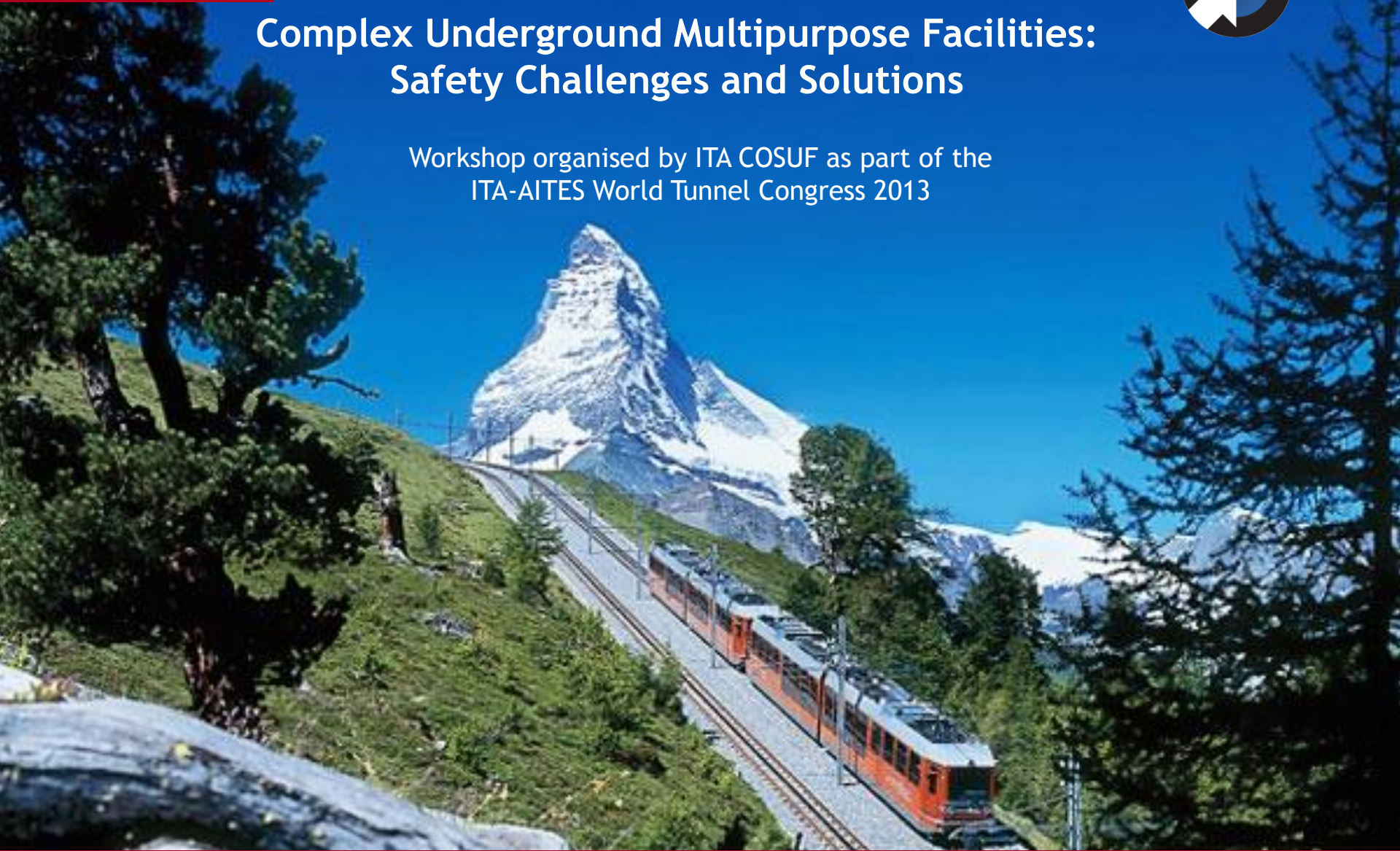




Complex Underground Multipurpose Facilities: Safety Challenges and Solutions

Workshop organised by ITA COSUF as part of the
ITA-AITES World Tunnel Congress 2013





8:30 – 9:30 **ITA COSUF General Assembly**
Intended for ITA COSUF members but open to all

9:30 – 10:00 Registration and welcome coffee

Session 1: Opening session

- 10:00 – 10:15 Opening speech by ITA COSUF chairman
Didier Lacroix, Centre d'Etudes des Tunnels (CETU), France
- 10:15 – 10:40 Keynote address on Operational Safety in the underground facilities of a deep geological disposal of nuclear waste.
Denis De Winter, David Claudel, *ANDRA, France.*
- 10:35– 11:00 Keynote address on Safety of CERN's underground research complex.
Ralf Trant, CERN, Genève
- 11:05 – 11:20 Discussion
Chaired by Didier Lacroix, CETU
- 11:20 – 11:40 Refreshment break

Session 2: Fire safety in complex underground multipurpose facilities

- 11:40 – 12:10 The new complex underground project Slussen in Stockholm (metros, commuter trains, roads, bus garages and shopping centres).
Bo Wahlström, Faveo Project Management, Sweden.
- 12:10 – 12:40 PIARC first results on complex underground road networks
Bernard Falconnat, EGIS, France
- 12:40 – 13:00 Discussion
Chaired by Roland Leucker, STUVA
- 13:00 – 14:15 Lunch break



Session 3: Safety systems and operation in complex underground facilities

- 14:15 – 14:35 Evaluation of safety systems for multipurpose facilities – how to find an optimized solution.
Götz Vollmann, Ruhr-University Bochum, Germany
- 14:35 – 14:55 RAMS Analyses of Complex Technical Systems in Underground Facilities.
Niels Peter Høj, Matthias Schubert, HOJ Consulting GmbH, Brunnen, Switzerland
- 14:55 – 15:10 Discussion.
Chaired by Felix Amberg, Amberg Engineering

Session 4: Dealing with numerous people underground

- 15:10 – 15:30 Emergency Management in large infrastructures (EMILI).
Marco Bettelini, Amberg Engineering, Switzerland
- 15:30 – 15:50 Lessons learned from field and virtual reality studies: Human behaviour in severe tunnel accidents.
Max Kinateder, University of Würzburg, Germany
- 15:50 – 16:10 Results from the METRO project on fire safety in metro trains and stations.
Daniel Nilsson, Lund University, Sweden
- 16:10 – 16:25 Discussion
Chaired by Ben van den Horn, Arcadis

ITA COSUF Award delivery and conclusions

- 16:25 – 16:35 Delivery of ITA COSUF Award 2013 by ITA COSUF Chairman
- 16:35 – 16:55 Presentation of works and results by the ITA COSUF Award winner
- 16:55 – 17:00 Conclusions and closing remarks
Didier Lacroix, ITA COSUF chairman

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This ITA COSUF workshop is open to all participants of the ITA-AITES World Tunnel Congress 2013. Registration to the congress should be made through the congress website: www.wtc2013.ch. One-day registration is available for those who wish to attend the ITA COSUF workshop only (it gives access to all congress events which take place on 4 June). After 30 April the registration fees will increase.