



Special Consultative Status with the United Nations Economic and Social Council since 1987

Thirty-Sixth Annual Meeting – Vancouver 2010

Press Release

The International Tunnelling and Underground Space Association held its thirty-sixth meeting in Vancouver, Canada, from 14 to 20 May, in conjunction with the World Tunnel Congress 2010 "Tunnel Vision Towards 2020" organised by ITA and the Tunneling Association of Canada. 950 persons participated to the Congress. 48 of the 58 Member Nations participated or were represented in the General Assembly, including 4 proxy and 2 votes by correspondence.

MEMBER NATIONS PRESENT OR REPRESENTED

South Africa, Germany, Argentina, Australia, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, China, Colombia, Republic of Korea, Croatia, Denmark, Egypt, Spain, United States of America, Finland, France, Greece, Hungary, India, Indonesia, Iran, Iceland, Italy, Japan, Lao, Malaysia, Mexico, Montenegro, Norway, The Netherlands, Peru, Poland, Portugal, Romania, United Kingdom, Russia, Singapore, Slovakia, Slovenia, Sweden, Switzerland, Czech Republic, Thailand, Turkey,

MEMBER NATIONS NOT PRESENT

Algeria, Saudi Arabia, Chile, Israel, Kazakhstan, Lesotho, Morocco, Ukraine, Venezuela, Vietnam.

EXECUTIVE COUNCIL

The ITA General Assembly has elected a new council. The President of ITA for the period 2010-2013 is Prof. In-Mo LEE from Korea.

Members

I.-M. Lee	Korea	President	Until 2013
M. Knights	United Kingdom	Past President	Until 2013
M. Thewes	Germany	First Vice-President	Until 2013
Y. Bai	China	Vice-President	Until 2013
S. Eskesen	Denmark	Vice-President	Until 2013
I. Hrdina	Czech Republic	Vice-President	Until 2013
A. Elioff	USA		Until 2013
P. Kocsonya	Hungary		Until 2013
R. P. Lovat	Canada		Until 2013
C. N. Ow	Singapore		Until 2013
D. Peila	Italy		Until 2013
F. Vuilleumier	Switzerland	Treasurer	Until 2010
F. Amberg	Switzerland	Treasurer	Until 2013
C. Bérenguier		Secretary General	Until 2011

Experts

S. Calinescu	Romania	Internal Auditor	Until 2011
P. Sarkka	Finland	WTC 2011	Until 2011
S. Suwansawat	Thailand	WTC 2012	Until 2012

MEMBERSHIP

The Association has registered the membership of three new Member Nations, Argentina, Bosnia & Herzegovina and Montenegro, and 40 new Affiliate Members (30 Corporate Members and 10 Individual Members); the total results to 58 Member Nations and 306 Affiliate Members (180 Corporate Members and 126 Individual Members) taking into account some resignations.

ITA OPEN SESSION ON GROUND REFERENCE INFORMATION FOR BIDDING TUNNEL PROJECTS – CURRENT PRACTICE, SHORTCOMINGS/BENEFITS AND FUTURE CHALLENGES

The Open Session prepared by Markus Thewes and Soren Eskesen was chaired by Martin Knights, ITA President. During the Open Session, presentations were made by : Markus Thewes, ITA ExCo, on "Requirements Concerning Geotechnical Investigation for the Minimization of Risks in Shield Tunnelling"; Joe Gildner on "Client View"; Arnold Dix on "Bringing Certainty to the Unknown" The Role of law in the Apportionment of Underground Construction Risks", Michael Rehbock/Sander on "Risk Sharing : Planners / Clients View"; Marco Giorelli on "Ground Reference Requirements for EPBs/Experiences"; Ulrich Wadepohl on "International Experience Contractors View" and Jeff Petersen on "Experiences/Contractors View". The WG 12, 15 and 17 presented their works.

TRAINING COURSE "GENERAL TUNNELLING"

A 2-day course has been organised by the ITACET foundation and TAC. There were 21 lecturers on "General aspects for Tunnelling" (17 teaching hours) and 195 participants from 32 countries including 85 from Canada, 45 from USA.

NEXT ANNUAL MEETINGS

- Helsinki, Finland, from 21 to 26 May, 2011, during the ITA-AITES WTC 2011 "Underground spaces in the service of a sustainable society"
- Bangkok, Thailand, from 18 to 23 May, 2012, during the ITA-AITES WTC 2012 "Tunnelling and Underground Space for a global Society"
- Geneva, Switzerland, from 10 to 17 May 2013, during the ITA-AITES WTC 2013 "Underground – the way to the future"

WORKING GROUPS AND COMMITTEES

ITA COSUF Committee on Operational Safety of underground Facilities

Chairman: F. Amberg (ITA); Vice Chairman: D. Lacroix (PIARC); Tutor: C. Bérenguier (ITA)

ITA COSUF has currently 62 members coming from 17 countries. The core of ITA COSUF is the three Activity Groups (AG):

- AG 1: Interaction with European and International activities
- AG 2: Regulation and best practice
- AG 3: Research and new findings

Through these AG the following activities have been developed in the last 12 months since the General Assembly 2009 in Budapest:

- ITA-COSUF Workshop, 4 – 5 November 2009, Lyon „Safety challenges”
- ITA-COSUF sponsored the ISTSS (International Symposium on Tunnel Safety and Security), 15 – 18 March, 2010, Frankfurt

beside 3 Steering Board and 2 AG meetings. A special emphasis should be put on the report 'Survey of existing regulations and recognised recommendations (rail, metro, and road)', which can be downloaded from the ITA COSUF website.

ITA COSUF held the first forum for Road Tunnel Safety Officers, 4-5 November 2009, together with the European Commission. The next forum will take place in 2011. The safety officers were introduced by EU Directive 2004/54/EC and the forum offers a platform to exchange knowledge and experience.

The ITA-COSUF Award for outstanding activities and to support dedicated work of students within the scope of ITA-COSUF was awarded to B. Niemen of the Netherlands.

The next General Assembly will be held in Frankfurt, together with a Workshop on 18 March, 2010.

ITA-CET – Committee on Education and Training

Chairman: A. Assis; Vice Chairman: D. Peila; Secretary General: C. Bérenguier

ITA-CET Committee met twice since the last General Assembly in Budapest. It accepted the program of 12 training courses: Conventional Tunnelling, Mechanized Tunnelling, Sprayed Concrete, Waterproofing, Risk Management, Health and Safety, Underground Space Use, Monitoring and Control, Immersed Tunnels, Utility Tunnels in Cities, Principals in Tunnels Design and Innovation on Tunnelling. Three other training session programs are under preparation: Geoinvestigation, Numerical Simulation and Maintenance and Repair.

The Committee decided about the general conditions of endorsement for master courses for short courses and for online courses.

He also heard about the program of training sessions under organization by the ITA-CET Foundation.

ITACUS – Committee on Underground Space

Chairman: Han Admiraal; Vice Chairman: Ray Sterling (Member of ACUUS); Tutor: Harvey Parker (ExCo)

The ITA Committee on Underground Space met during the ITA WTC 2010 in Vancouver. Important progress was made in that agreement was reached with the ITA Committee on Education and Training on the outline of a 2-day seminar. The second White Paper by ITACUS was published in both English and French dealing with the Planning of Underground Space. ITACUS has also made progress in establishing a good working relationship with other international organizations. To date contact has been established and will be formalized in a Memorandum of Understanding with ACUUS, IFME and ISOCARP. In this way ties have been created with the fields of planning, architecture and municipal engineering. ITACUS urged Member Nations during the General Assembly to reach out to local and regional governments on the use of underground space using the White Papers developed by the committee.

WG2: "Research"

Animateur: E. Leca (France); Vice-Animateur: Chung Sik Yoo (Korea); Tutor: S. Eskesen (Denmark)

The meeting was attended by 18 participants from 12 member nations; China, Czech Republic, Denmark, France, Japan, Italy, Netherlands, Spain, Thailand, United Kingdom, USA. WG2 continues the preparation of two reference documents which relate to "Strategy for Site Investigations of Underground Works" and "Monitoring and Control for tunneling projects". The recommendation of "Monitoring and Control for tunnelling projects" has been reviewed by the Executive Council and is currently being updated. The work on the document "Strategy for Site Investigations of Underground Works" was progressed and it is expected that a final draft can be discussed at the Helsinki meeting. On the risk management subject, a lecture was presented at the ITA-CET pre-conference training course. An outline of the supplementary document to the 2004 "Guideline on Tunnelling Risk Management" was discussed and work planned for preparation of the document. On future activities an outline document on "Assessment to pipeline damage associated with tunnelling" was presented and debated by the group. Also presented was a draft paper on "Fiber Reinforced Concrete for segmental tunnel lining". The authors were requested to change the document into a guideline/recommendation seeking input from other member nations.

WG3: "Contractual Practices in Underground Construction"

Animateur: A. Dix (Australia); Vice Animateur: M. Smith (United Kingdom); Tutor: M. Knights (United Kingdom)

The ITA Contractual Framework for Subsurface Construction Contracts is complete. In furtherance of the ITA's commitment to promoting the development of underground space the ITA has produced an issues framework which explores the issues critical to successful underground project contracting. All stakeholders are urged to consider the issues raised in this framework as part of their subsurface contractual risk management strategy.

WG5: "Health & Safety in Works"

Animateur: D. Lamont (United Kingdom); Vice Animateur: M. Vogel (Switzerland); Tutor: V. Umnov (Russia)

The Group met once during the ITA General Assembly in Vancouver. Six Member Nations participated in a productive meeting. WG5 expects to submit to ExCo the updated "Safety in Tunnelling" booklet by September 2010. The financial contribution from BGBau for its completion was acknowledged. WG5 also expects to submit to ExCo the document "Guidance on the safe use of temporary ventilation ducting in tunnels" shortly. WG5 agreed to undertake preliminary work on possible guidance documents covering high pressure compressed air interventions and safety in shaft construction.

WG6: "Maintenance and Repair of Underground Structures"

Animateur: H. Russell (USA); Vice Animateur: R. van den Bosch (The Netherlands); Tutor: Y. Bai (China)

The Group met on May 16, 2010, with representatives from 8 member nations and discussed the completion of our document *Structural Fire Protection for Metro Tunnels* which the Working Group is presenting to the General Assembly at this Congress. In addition, a presentation was made on State-of-the-Art of Safe Operation of Tunnels in China by Dr. Hongwei Haung of Tonji University of China. The working Group has decided to start a new study on the *State-of-the-Art of Fire Safety in Tunnels* and an addition to starting a new document which will concentrate on groundwater intrusion in operational tunnels.

WG9: "Seismic effects"

New Animateur: Prof. Wenge Qiu (China); New Vice Animateur: Gary Kramer (Canada)

The Group held one meeting in Vancouver. 13 members from 10 countries participated (Argentina, Canada, China, France, Greece, Italy, Japan, Switzerland, Thailand and USA).

Agenda: Re-initiation of WG 9, discussion of seismic impacts to tunnels, establishment of WG9 – Objectives, Discussion on future tasks.

Primary objectives: recognizing that properly designed and constructed tunnels and underground space perform very well during seismic events; the objective of WG9 is to advocate their use as a safe alternative to other forms of infrastructure in highly seismic regions of the world.

WG11: "Immersed & Floating Tunnels"

Animateur: Ch. Ingerslev (USA); Vice Animateur: J. Baber (United Kingdom); Tutor: Y. Leblais (France)

The Group met on Sunday 16th May 2010. The meeting was attended by fifteen participants from nine countries, namely Canada, China, Denmark, France, Italy, The Netherlands, Norway, United Kingdom and United States. A second meeting was held the following day with thirteen of those participants. Information was exchanged on projects and developments around the world, and group activities between now and the next ITA Annual Congress were organized as follows:

- A two-day training course on immersed tunnels will be held later this year.
- An Owners Guide to Immersed Tunnels is being prepared and sections are being posted on the ITA website as they are completed.
- A similar document on submerged floating tunnels will be started and uploaded in a similar manner.

WG12: "Sprayed Concrete Use" (new name)

New Animateur: A. Ishida (Japan); new Vice Animateur: Odd-Bjorn Kleven (Norway); Tutor: E. Grov (Norway)

WG meeting was held on afternoon 16th of May, with 19 members from 13 member nations. The Group elected new animateur and new vice-animateur. Thanks are given to former animateur, Tarcisio Celestino. Ongoing and future activities were discussed. Items are; Evaluation on fibre-reinforced sprayed concrete, nozzleman certification, and waterproofing. Additionally, mix design and durability was discussed to collect information in order to compare between sprayed concrete and cast concrete in regards to durability. Additionally, Tommy Ellison presented his recent results on Simulator for training robot operators. Rusty Morgan announced recent publishing of his book on shotcrete.

WG14: "Mechanization of Excavation"

Animateur: L. Babendererde (Germany); Vice Animateur: F. Amberg (Switzerland); Tutor: K. Fukumoto (Japan)

The compilation of challenging projects has been finalised and will be available on the WG web site soon.

Additionally the existing documents will be updated to reflect the developments in the technology in the last years. In the course of improving the corporation in between the WGs a common document is attempted to give an applicability indication for the different tunnelling technologies.

WG15: "Underground and Environment"

Animateur: J. K. G. Rohde (Norway); **new Vice Animateur: Y. Ota (USA);** Tutor: I.-M. Lee (Korea)

The Working Group meetings were held the 16th and 17th of May 2010, attended by 6 representatives from 6 Member Nations, Sweden, Italy, Japan, Korea, USA and Norway. The meeting discussed and made comments to the A. Haack report on the working groups. The meeting had 6 presentations on several issues related to muck disposal and recycling of material, ventilation, vibration, groundwater inflow, and their effects on the environment. The group circulated the report on Environmental and Sustainable Development Reasons for Going Underground which was published early 2010 and available at the ITA web-site. The next goals for the group as they relate to environmental and social impacts are to communicate the environmental challenges by going underground and recommendations and guidelines concerning the environment when going underground.

WG17: "Long Tunnels at Great Depth"

Animateur: G. Seingre (Switzerland); Vice Animateur: M Shimokawachi (Japan); Tutor: P. Grasso (Italy)

The meeting was attended by 11 members from 9 different countries: Argentina, Canada, China, France, Italy, Japan, Norway, Sweden, and Switzerland. The first part of the meeting was dedicated to project presentations. An extended presentation was given on the Bioceanic Central Corridor Project between Argentina and Chile. The report of the WG17 has been published. The ITA-ExCo will decide on the future of the WG.

WG18: "Training"

Animateur: D. Peila (Italy); Vice Animateur: H. Admiraal (Netherlands); Tutor: M. Thewes (Germany)

The meeting was attended by members from Brazil, Thailand, the Netherlands, Italy, Egypt, France and Germany. After the meeting in Budapest, last year, we agreed on a transition period with regards to the cooperation between WG18 and ITA-CET committee. Following the meeting of animateurs in Vancouver and the advice given by Alfred Haack as appointed by the ExCo to look into the working of the working groups, a deep discussion on the future of the cooperation and activities was held. The vice-animateur will write a position paper detailing the discussion. This paper will be given to Alfred Haack. During the discussion working group members reached the conclusion that the most important tasks for which the working group was started have been completed. This includes the database of university courses, university professor network, development of courses before WTC's, and development of didactic material. From all these activities the ITA-CET committee evolved and has reached a relevant number of members. For this reason WG18 members strongly recommend to the ExCo to take into account the possibility of the integration of WG 18 into the ITA-CET committee thereby holding only one meeting during the WTC on Monday. We would ask those member nations not yet represented in WG 18 to propose names for working in this field.

We further propose to integrate the tasks of WG 18 into various activity groups within the ITA-CET committee, given that the latter has evolved from WG 18, but now provides a bigger and more diverse platform to fulfill these tasks.

Activity groups can be, but are not limited to: knowledge management, new teaching tools and methodologies, training at early level of education (pre university activity, high school, training of technicians). With regards to the latter a questionnaire will be sent to the member nations and industrial partners of ITA (like prime sponsors) to understand what are the real needs in this field. This task will be taken up either by the working group or an activity group of ITA-CET depending on the decision of the ExCo reached in terms of the proposal to integrate.

WG19: "Conventional Tunnelling"

Animateur: H. Ehrbar (Switzerland); Vice Animateur: R. Galler (Austria); Tutor: F. Vuilleumier (Switzerland)

During the ITA World Tunnel Congress 2010 at Vancouver, Canada, the WG 19 had two meetings. In the first meeting 14 delegates represented 12 nations, whereas the second meeting could be attended by 11 delegates representing 8 nations. At the beginning the delegates discussed the Executive Council's view on its work. Future additional activities will be planned for the next years as e.g. technical papers on the special design aspects. The main project of Working Group 19 is the guideline on special contractual aspects of conventional tunnelling. Based on a first draft an intense discussion was held. As a result the next draft will not only focus on unit price contracts, but also on other contract models such as design-build and design-bid-build contracts. In the second meeting a vivid discussion was held on the paper on the Application of Tunnel Boring Machines versus Drill & Blast, Conventional Tunnelling and Submerged Tunnels, prepared by the Working Group 14. The Working Group 19 suggests a joint paper on excavation methods based on facts instead of a very general paper, mainly based on opinions.

WG20: "Urban Problems, Underground Solutions"

Animateur: A. Elioff (USA); Vice Animateur: W. Broere (Netherlands); Vice Animateur: J. Nishi (ACUUS); Tutor: H. Parker (USA)

In the Group there were 21 attendees from 12 countries. The group has made significant progress towards its objective of creating an overview of the typical challenges of urban city planning and the solutions which are offered by the underground space. The seventh full draft of the report on urban problems, underground solutions, and key decision factors was reviewed by the group and comments for a final round of editing were collected. The second focus was a review of the case study projects about ingenious underground solutions worldwide. We have 17 completed case studies and others identified for completion. Most of the completed case studies have been formatted for publication. The final report is to be sent to the executive committee in October for approval - after final edits by the working group and technical editor review.

SUMMARY OF REPORT OF ACTIVITY OF ITA – April 2009 to March 2010

EXECUTIVE COUNCIL

The Executive Council held 4 plenary meetings and carried out its traditional activities in taking into account the conclusions of the Auditor's report, notably to increase the number of Member Nations and to take care of the relationship with the new Member Nations. He prepared the modifications of the Statutes and By-laws that will be proposed to the General Assembly in 2011, the organisation of the working groups and the strategy.

RELATIONS WITH THE MEMBER NATIONS AND DEVELOPMENT OF THE CONTACTS

The Executive Council pursued the development of its relations with the Member Nations in visiting, participating and granting meetings or events organised by 25 Member Nations. It presented ITA at various congresses and meetings in several countries not ITA members yet.

The contacts with the International Sister Associations PIARC, ISRM, ISSMGE, IRF, FEHRL, and ACUUS were pursued.

DEVELOPMENT OF THE PRIME SPONSORS AND SUPPORTERS

Actions with the Prime Sponsors and the Supporters were undertaken with the preparation of seminars on topics and in countries regarded as strategic for their activities.

RELATIONS WITH THE UN, THE WORLD BANK AND THE EUROPEAN UNION

H. Parker, ITA Past president participated to the organisation of the conference "Sustainable Urbanisation at Information Era" at headquarter of the United Nations, ECOSOC. It has been organised jointly by GAID and UN-Habitat with the American Institute of Architects, the Regional Town Planning Association and several societies or associations including ITA.

The relations with the European Union have been reactivated through the research project TUNCONSTRUCT and the participation of ITA to the new "Task Force Infrastructure" of ECTP. ITA, through ITA COSUF, is in close contact with the Management of Transport of the European Commission. New contacts have been taken with the World Bank.

ITACET FOUNDATION

The ITACET Foundation was officially created on September 25, 2009.

Main objective is to encourage the Education and the Professional Training of specialists in Underground Space Use for the benefit of the emerging countries.

Main Founders : Abdullah Al-Mogbel (Saudi Arabia), CUC (Switzerland), Dar El-Handasah (Egypt), Geodata (Italy), Herrenknecht (Germany), ITA.

ITACET Foundation is to be developed into a Centre of Excellence for Education and Training on Tunnelling and Underground Space Use.

PUBLICATIONS AND COMMUNICATION

- **Tribune:** In 2010, the annual issue with focus on Canada including the reports of 31 Member Nations, reports of ITA Prime sponsors and supporters has been published in May and sent to members as well as distributed to the participants to the WTC 2010 in Vancouver.
- **[ita@news](#):** 33 issues of the [ita@news](#) have already been published and distributed to about 8'000 subscribers. ITA would like very much to have feedback of regular readers.
- **Tunnelling and Underground Space Technology (TUST):** ITA Members have access an electronic version of TUST (including archives).
- **Website:** The number of distinct visitors is around 5 800 from 130 countries per month. The average time of a visit is 10 minutes. The secretariat has created a private area reserved to the members, accessible with identification and password.
- **ITA – Reports:** 3 reports have been published : "Environmental and Sustainable Development Reasons" prepared by WG15, "Long Tunnels at Great Depth" prepared by WG 17 and "Sprayed Concrete – summary of the state-of-the-art" prepared by WG 12
- **Press:** In 2009-2010, ITA has participated directly or indirectly to articles published in technical newspapers or magazines of information such as Capital (Spain), World Tunnelling (UK), Tunnelling Journal (UK), Travaux (F), Rail Transit (China).
- **Other business:** ITA has created a group in the social network LinkedIn. There are already more than 200 members in this group.