

**ASSOCIATION INTERNATIONALE DES TUNNELS
ET DE L'ESPACE SOUTERRAIN**

**INTERNATIONAL TUNNELLING AND
UNDERGROUND SPACE ASSOCIATION**

Compte Rendu de la 33^{ème} Assemblée Générale

PRAGUE

6 – 9 Mai 2007

Report of the 33rd General Assembly

PRAGUE

6 – 9 May 2007

The 33rd meeting of the General Assembly of the Member Nations of ITA was held in Prague on 6 and 9 May 2007 under the presidency of Harvey PARKER (USA), assisted by the Executive Members.

VOTING REPRESENTATIVES

SOUTH AFRICA	Antony BONIFACE
ALGERIA	--
GERMANY	Markus THEWES
SAUDI ARABIA	--
AUSTRALIA	Simon KNIGHT
AUSTRIA	Robert GALLER
BELGIUM	Willy DE LATHAUWER
BRAZIL	Tarcisio B. CELESTINO
BULGARIA	Ivan VANKOV
CANADA	Rick P. LOVAT
CHILE	--
CHINA	Mr. GUO (Sunday) Yan JINXIU (Wednesday)
COLOMBIA	Alberto MARULANDA (Wednesday after the elections)
SOUTH KOREA	Chungsik YOO
CROATIA	Aleksej DUSEK
DENMARK	Soren Degn ESKESEN
EGYPT	Mohammad ABD EL SALAM
SPAIN	Miguel FERNANDEZ-BOLLO
UNITED STATES OF AMERICA	Thomas PEYTON
FINLAND	Ilkka VÄHÄÄHO
FRANCE	Jean PHILIPPE
GREECE	Nikolaos KAZILIS
HUNGARY	Pal KOCSONYA
INDIA	Govind N. MATHUR
INDONESIA	--
IRAN	--
ICELAND	Hreinn HARALDSSON
ISRAEL	Alex SAGY
ITALY	Daniele PEILA
JAPAN	Hiroshi KOMORI
LESOTHO	--
MALAYSIA	Guastav KLADOS
MOROCCO	--
MEXICO	Javier MONTEJANO BLANCO
NORWAY	Espen MOE
NEW ZEALAND	--
NETHERLANDS	Henk J. C. OUD
POLAND	Wojciech GRODECKI
PORTUGAL	Antonio PINTO DA CUNHA
ROMANIA	Sorin CALINESCU
UNITED KINGDOM	Donald LAMONT
RUSSIA	Georgy BUDNITSKIY
SINGAPORE	Chun Nam OW
SLOVAKIA	Robert TURANSKY
SLOVENIA	Jakob LIKAR
SWEDEN	Annica NORDMARK (Sunday), Thomas FRANZEN (Sunday and Wednesday)
SWITZERLAND	Felix AMBERG
CZECH REPUBLIC	Ivan HRDINA
THAILAND	Suchatvee (Vince) SUWANSAWAT
TURKEY	Tulin SOLAK
UKRAINE	Viktor BESPALOV
VENEZUELA	--
VIETNAM	--

AGENDA

Sunday 6 May

1. Opening speech
2. Approval of the agenda
3. Approval of the minutes of the General Assembly 2006
4. Report of activity of the Executive Council – Comments from the Assembly
5. Minutes of the Training Session on Friday 4 and Saturday 5 May 2007
6. Approval of the new members
7. Report from the Auditor – Comments from the Assembly
8. Report of activity of the Member Nations – Comments from the Assembly
9. Communication from Sister International Organizations
10. Financial report 2006 – Comments and Approval of the Accounts
11. Preparation of the election of the Executive Members
12. Preparation of the other decisions of the General Assembly on Wednesday 9 May 2007
 - 12.1 Presentation of the invitations received for the General Assembly 2010
 - 12.2 Creation of new Committees
 - 12.3 Strategy of the Association

Wednesday 9 May 2007

13. Election and appointment of the Executive Members
14. Report of the Open Session on Tuesday 8 May 2007
15. Working Groups and Committees: Reports and projects of activity – Approval
16. Appointment of the Honorary Executive Member for the General Assembly 2008
17. Appointment of the members of the Committee of Nomination
18. Appointment of the Auditor on the conformity of the actions of the Executive Council
19. Decision concerning the creation of new Committees
20. Decision concerning the Strategy
21. Preparation of the General Assemblies 2008 and 2009
22. Draft budgets for 2007 and 2008
23. Choice of the place of the General Assembly 2010
24. Other business
25. Closing speech

A – ASSEMBLY ON SUNDAY 6 MAY

1 – OPENING SPEECH

President PARKER welcomed the delegates of the 35 Member Nations represented and the representatives of the three sister associations PIARC, IRF and ISRM; he thanked the President Ivan HRDINA and all the members of the Czech Association for the preparation of the 33rd annual meeting of ITA.

2 – APPROVAL OF THE AGENDA

The President presented the agenda sent on 5 March 2007; it was approved without amendments.

3 – APPROVAL OF THE MINUTES OF THE GENERAL ASSEMBLY 2006

The minutes of the General Assembly 2006 were sent on 22 September 2006; they were approved without amendments.

4 – REPORT OF ACTIVITY OF THE EXECUTIVE COUNCIL

The President reminded that the report of activity was sent to the Member Nations on 19 April 2007 and asked for the comments from the Assembly ([Encl. 1](#)).

The Secretary General briefly reminded the main items of the report, and gave the latest news concerning the publication of TRIBUNE and the number of visits on the website, news given at the meeting Communication held on Saturday 5 May.

No particular remarks were expressed from the Representatives of the Member Nations.

5 – MINUTES OF THE TRAINING SESSION HELD ON 4-5 MAY “TUNNELLING IN URBAN AREAS”

The training session was coordinated by D. Peila, Animator of ITA/AITES WG18 “Training”, F. Gruebl, member of ITA/AITES Executive Council and J. Barták, Chairman of the scientific council of the ITA/AITES World Tunnelling Congress 2007.

125 participants, 38 of them not from the Czech Republic, attended the training course. Reports were presented by 21 lecturers from 14 countries, 13 of them ITA animators or members of the ITA Executive Council. The high class lecturers gave 12 hours of excellent presentations about conventional and (especially) mechanized tunnelling in urban areas, both from the theoretical point of view and with the discussion of many relevant case histories. Engaged discussions showed the high interest of the participants.

6 - PROGRESS OF MEMBERSHIP IN THE ASSOCIATION

6.1. Member Nations

The Association registered the resignation of New-Zealand, as the representative is now a member of the new Australasian organization; the Statutes of ITA do not provide for the membership of regional groups as Member Nation; the possibility to create a group from New-Zealand is under study.

The number of Member Nations therefore reaches 52. ([Encl. 2](#))

6.2. Affiliates

6.2.1. Requests for membership

a) Corporate Members: 13

206	Janne Lehto	Normet Corporation	Finland
207	Trevor Atkinson	Propex Concrete System	United Kingdom
208	Suleiman M. Suleiman	Shibh Al-Jazira Contracting Co	Saudi Arabia
209	ArturoHenniger	Implenia Bau AG	Switzerland
210	Yevgeny Artsev	Ma'atz-Israeli National Roads Company	Israel
211	Dick Karlsson	SWECO VBB AB	Sweden
212	Felix Amberg	CUC	Switzerland
213	Daniel Löhr	Halfen-Deha	Switzerland
214	Søren Degn Eskesen	COWI A/S	Denmark
215	Hernando Davila	Asociacion Colombiana ACTOS	Colombia
216	Carlo Ancetti	Antec International srl	Italy
217	Roland Harbron	EFNARC	United Kingdom
218	Enrico dal Negro	MAPEI SPA (Honorary Member)	Italy

b) Individual Members: 10

347	Mr. James David Allison	Australia
348	Mrs. Villy Kontogianni	Greece
349	Mrs. Sisir Chakraborty	India
350	Mr. Hugh S. Lacy	USA
351	Mr. Climent Molins	Spain
352	Mr. Anthony McLean-Thorne	United Kingdom
353	Mr. Andre Assis (Honorary Member)	Brazil
354	Mr. Koichi Ono (Honorary Member)	Japan
355	Mr. Harald Wagner (Honorary Member)	Austria
356	Mr. Yücel Erdem (Honorary Member)	Turkey

c) The voting delegates of the concerned Member Nations did not object and the General Assembly approved these candidatures.

6.2.2. Resignations

a) Corporate Members: 3

176	Mr. Arturo Henniger	Zschokke Locher	Switzerland
178	Mr. Luzi Reto Gruber	Batigroup	Switzerland
58	Mr. Carlo Ancetti	Tamrock Italiana	Italy

b) Individual Members: 0

6.2.3. Exclusions

The exclusions of Affiliate Members, pronounced for non-payment of the subscription fee for over three years, are the following:

a) Corporate Members: 1

4	The Arab contractors	Egypt
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b) Individual Members: 4

63	Mr. Ahmad Moharram Jr.	Egypt
220	Mr. Thanu Harnpattanapanich	Thailand
314	Mr. David Proudfoot	Canada
324	Mr. Luis Medina Rodriguez	Spain

6.2.4. The number of Affiliate Members therefore reaches 284 (Corporate: 140 – Individual: 144) (Encl. 3 and 4)

6.3. ITA-COSUF

The General Assembly did not present any remarks concerning the 50 organizations that have asked to become members of the Committee ITA-COSUF (Committee on Operational Safety of Underground Facilities); their candidature was approved ([Encl. 5](#)).

7 – REPORT OF THE AUDITOR ON THE CONFORMITY OF THE ACTIONS OF THE EXECUTIVE COUNCIL, SORIN CALINESCU

- a) As decided by the 2000 General Assembly, the Association chose to implement an action plan to reach the goals of the strategic scope of ITA becoming “the unquestioned leader of underground space”.

I would like to reiterate the main goals that were set by the strategic plan:

- creation of the full time secretariat;
- development of the internet site of the association and improvement of communication directed towards decision-makers, towards the general public and within the association;
- development of the role of the association, with special focus on training and education.

By appointing a special internal auditor that has to report to the member nations, the General Assembly constantly followed up the progress made in reaching the strategic goals that were set up. In his monitoring mission the auditor has been in contact with the Secretary General of the Association and was constantly informed about the debates of the Executive council.

During 2006, while still improving what was already put in place, the Executive Council regularly debated and analyzed the main options for a new strategic plan of action to be submitted to the General Assembly for implementation starting from 2007 until 2010.

This has been a constant theme of debate through out all the meetings held since the last General Assembly, and in the process, Member Nations have been invited to express their options and opinions regarding the directions to be taken and the priorities to be set. Unfortunately only eight replies were registered concerning this important item, a fact that proves that there is still much to do in improving the communication and the involvement of the Member Nations to the activities of the Executive Council.

As the President clearly highlighted in one of his memos to the EC members, the redevelopment and interaction with all the Member Nations is of topmost importance and priority for our organization. The auditor would like to add his comment to this that it is not only a matter of communication between the Executive Council and the Member Nations but also of crucial importance is to try to horizontally develop direct links between the national organizations, maybe on a informal regional basis that would ease to identify familiar problems and concerns and support common actions.

Coming back to the standard activities of the Executive Council we should note that there were three plenary meetings in Portugal, Egypt and Greece and a large number of participations in the events organized by 24 Member Nations, that is Algeria, Saudi Arabia, Canada, China, Croatia, Egypt, Spain, USA, France, Greece, Hungary, India, Italy, Japan, Malaysia, Poland, Portugal, UK, Russia, Singapore, Switzerland, Czech Republic, Venezuela and Vietnam.

The secretariat of ITA is functioning in good conditions and support from several Member Nations is expected to continue.

The publication of the electronic newsletter *ita@news* provided a beneficial mean of keeping informed to the thousands of subscribed addresses while the ITA website was constantly updated and its audience increased massively in spite of the fact that still no action was taken to consider even a minimal translation of the content into French.

An important action of the Executive Council that may improve the communication with the general public was to normalize the conditions of participation of the press in the annual Congresses, by providing free of charge access for the concerned journalists.

Other strategic directions were the development of the contacts with UN, the EU and the international financing institutions such as World Bank, EBRD, EIB, JBIC and similar bodies along with pursuing the traditional cooperation ties with the sister international organizations.

As a conclusion, the strategy set up in 2000 and the constant follow up of the priority plan proved successful for the well being of the association.

A special remark needs to be made on the intense activity of the “Task Force Strategy” during the reported period in preparing the new strategic plan that is to be submitted to the 2007 ITA General Assembly.

- b) The President thanked Sorin CALINESCU and reported that the Executive Council will examine the recommendations presented so as to follow them up in the best possible conditions.
- c) The General Assembly unanimously approved the presented report.

8 – REPORT OF ACTIVITY OF THE MEMBER NATIONS

The Secretary General reported that he had received so far 32 reports of activity for 2006; the 29 reports received in due time were integrated in the annual issue of TRIBUNE distributed in Prague; he also reported that all the reports, including those that will be sent to him within the next few weeks, will be integrated in the website. He reminded that the Executive Council is at the disposal of all, and in particular of the Member Nations that did not send any report in the past two years, to help them develop their activity.

- a) **South Africa:** The South-African representative presented his report of activity; it will be integrated in the website.
- b) **Germany:** The German representative reminded the regular meetings among the representatives of German-speaking countries (Austria – Switzerland – Germany); the group has just prepared some recommendations on planning and implementation of occupational health and safety protocols in underground worksites.
- c) **Austria:** The Austrian representative informed the Assembly about the creation in October 2008 of an international post graduation course on NATM.
- d) **Brazil:** The Brazilian representative reported that:
 - Following the affairs of preparing the bilingual book “Tunnelling in Brazil”, finished in 2006, the Brazilian Tunnelling Committee is preparing a technical book on Design and Construction of Tunnels, scheduled to be ready in 2008.
 - The second Brazilian Congress on Tunnelling will be held in Sao Paulo, June 2008, together with the seminar South American Tunnelling. International speakers will be invited, and the event will be bilingual, Portuguese and English.

- e) **Korea:** The Korean representative reported that the second longest road tunnel of Korea (3,69 km under Mount Mishiruying) was open to traffic on 1st May 2006; a 13-km-long road tunnel is under study; it will be shortly built ready “for use”.
- f) **Denmark:** The Danish representative confirmed the candidature of his country for the organization of the annual meeting 2011; he reported that a 4-km-long tunnel was bored in April and that the approval has just been given for the extension of the metro of Copenhagen (15 km) to be carried out by 2015 at the cost of 2MM €
- g) **Egypt:** The Egyptian representative reported that the booklet on Safety in Construction (WG 5) has just been translated in Arabic; he reminded about the organization in November 2006 of the international Symposium "The Utilization of Underground Space in Urban Area" with the participation of all the Executive members of ITA and reported that new contracts have just been signed for line 3 of the metro of Cairo for 9 km of Tunnels which are due to open in 2011.
- h) **Spain:** The Spanish representative informed the Assembly about the organization by Spain of the regional conference (Spain – France – Italy – Switzerland) on Underground Works at the beginning of November 2007 in Madrid; this conference will be sponsored by ITA.
- i) **United States of America:** The representative from the USA reminded that the next RETC Conference will be held from 11 to 13 June in Toronto (Canada) and that numerous tunnels will be achieved within the next 15-20 years in his country.
- j) **Finland:** The Finnish representative confirmed the candidature of his country for the organization of the annual meeting 2011.
- k) **France:** The French representative informed the Assembly:
- about the realization in 2006 of 6 new recommendations on the 72 published for 35 years, 40 of them which have been translated in English;
 - about the modification of the name of the AFTES which has become the **Association des Tunnels et de l'Espace Souterrain** on the occasion of the integration in the AFTES of the Association Espace Souterrain;
 - about the preparation of the Congress of Monaco from 6 to 8 October 2008 on the topic of Underground Space; this conference is organised in cooperation with the national groups of Belgium, Spain, Italy and Switzerland; it should be sponsored by ITA;
 - about the creation of the new website;
 - about the publication of issue 200 of the journal TOS.
- l) **India:** The Indian representative raised to the attention of ITA's members the programme of construction of tunnels in the Himalayas and the specific problems encountered in very difficult geologic conditions; he also reported that his country organised in June 2006 a seminar on rail tunnels.
- m) **Italy:** The Italian representative reported that the 6th edition of the post graduation Master Course on Mechanized Tunnels endorsed by ITA will start next November in Turin; he reminded about the studies and the beginning of the achievement of the rail link Lyon – Turin and is pleased with the excellent development of the seminar on Underground Space organised in Milan last February during which the President and the Secretary General played a part.

- n) Netherlands:** The representative from the Netherlands reported that his country will present its candidature for the organization of the annual meeting 2013 as well as the organization from 28 to 30 January 2008 of the International Symposium “Think deep”; he announced his future replacement by Han ADMIRAAL.
The General Assembly warmly thanked Henk OUD who will get retired at the end of the year 2007 for all the work he has completed for the development of the Association in his country and in several foreign countries.
- o) Portugal:** The Portuguese representative reminded that ITA’s Executive Council met in Lisbon at the beginning of July 2006 on the occasion of the two-day international seminar in which 200 participants attended.
- p) United Kingdom:** The representative from the United Kingdom informed the Assembly about the holding of their annual seminar on the project and the construction of Tunnels (25-29 June).
- q) Singapore:** The representative from Singapore presented the Congress of ICDE (International Conference on Data Engineering) that will be organized at the end of 2008 and for which he requested the sponsorship of the Association.
- r) Thailand:** The Thai representative reported that his country will be a candidate for the organization of the annual meeting 2012; he also reported that the corresponding Congress will be devoted to the development of Urban Tunnels.
- s) Turkey:** The Turkish representative and the Vice-President Yucel ERDEM reported that the following activities will be organized:
- 14-16 May 2007: 1st Congress for Black Sea Transport Corridor and the Silk Road
Organized by: Turkish republic - Ministry of Public Works and Settlement, IRF, Turkish Road Association at which the General Secretary of ITA is an invited speaker;
 - 15-17 November 2007: The 2nd Symposium on Underground Excavation for Transportation organized by the Chamber of Mining Engineers;
 - 17 November 2007: ITA-COSUF Seminar on Tunnel Safety organized by the Turkish Road Association;
 - In 2008: Underground Excavation and Research Facility organized by the Istanbul Technical University;
 - 1-3 April 2008: 1st Turkish Highway Congress organized by the General Directorate of Turkish Highways and the Turkish Road Association.

9 – COMMUNICATION FROM GUEST INTERNATIONAL SISTER ORGANIZATIONS

a) World Road Association (PIARC)

On behalf of the World Road Association (PIARC), Willy De LATHAUWER presented the situation of the works of the Committee of Operation of Road Tunnels, and of its relations with ITA ([Encl. 6](#)); PIARC is actively preparing its 23rd World Road Congress, that will be held from 17 to 21 September 2007 in Paris.

He reminded that the Committee of Operation of Road Tunnels is chaired by the Vice-President of the ITA-COSUF Committee; it is celebrating this year its 50th anniversary and is preparing for this 100-year-old Congress two specific sessions, that is to say:

- "Activities of the Committee of Operation of Road Tunnels over the period 2003-2007"
- "Management of Safety in Road Tunnels", organized with the European Commission, the NFPA of the United States of America and ITA; the programme is reported in the website of PIARC.

The Committee formed five working groups that have prepared 13 reports since 2003; they will be published in the website of PIARC.

b) International Society for Rock Mechanics (ISRM)

Luis Rebeiro de SOUZA brought the greeting from the President of ISRM; he reported that ITA and ISRM are pursuing the strengthening of their links; a MOU was signed and a day will be jointly organized by the two Associations on Thursday 12 July on the occasion of the 11th congress of ISRM.

10 – FINANCIAL REPORT 2006

10.1. Closing of the Accounts 2006 - Report of the Auditor

- a) The financial elements were sent to the Member Nations along with the notice for the General Assembly. ([Encl. 7](#))
- b) The Treasurer commented the documents sent to the Member Nations, which include the balance sheet, the account of results, and the report of the Auditor. He also reported that the recommendation made by the Auditor in 2006 concerning the setting up of a clear policy on the follow-up of unpaid subscriptions (reminders, sanctions and exclusion) was implemented notably by the exclusion from the voting right at the present General Assembly for 6 Member Nations who have not paid their subscription fee for the corresponding year at the date of the General Assembly.
- c) He emphasized that the results for the year 2006 are good as they made a profit of over 25,000 Euros; the good result mainly came from the reduction of expenses: notably the running costs of the Secretariat what is positive as it means a more and more efficient Secretariat, and those of communication.

However, he raised the recurrent problem of the non-payment of subscription fees of Individual and Corporate Affiliate Members; the problem will have to be solved within the next few years. Fortunately, this lack of receipts was balanced by the subventions coming from the Congress of Seoul thanks to its great success.

As for the other activities, the expenses of the COSUF and those of WG 12 are by principle exactly balanced by the receipts.

This is not the case for the seminars organized by ITA and by the Prime Sponsors which make relevant profit; the latter actually constitute an important source of income for our Association.

10.2. Approval of the accounts

The General Assembly unanimously gave their quitus to the Executive Council and notably to the Treasurer and to the Secretary General for the financial situation and the management for 2006.

11 – PREPARATION OF THE ELECTIONS OF THE EXECUTIVE MEMBERS

11.1. Offices to be provided and candidatures received

- a) The office of President left vacant by the end of term of Harvey PARKER.
The Executive Council received in due time the candidatures of:
 - Martin KNIGHTS, presented by the United Kingdom
 - Harald WAGNER, presented by Austria

- b) Four offices of Vice-President, in accordance with the Statutes adopted in 2003.
The Executive Council received in due time the candidatures from:
- Piergiorgio GRASSO, presented by Italy
 - Eivind GROV, presented by Norway
 - Yann LEBLAIS, presented by France
 - In-Mo LEE, presented by Republic of Korea
- c) Four to six offices (according to the result of the election of the Vice-Presidents) of additional Members, in accordance with the Statutes adopted in 2003.
The Executive Council received in due time the candidatures of:
- Soren ESKESEN, presented by Denmark
 - Katsuji FUKUMOTO, presented by Japan
 - Ivan HRDINA, presented by the Czech Republic
 - Markus THEWES, presented by Germany
 - Vitaly UMNOV, presented by Russia
- d) The office of Treasurer that must be appointed by the General Assembly on the proposal of the Executive Council.
The Executive Council received in due time the candidature from F. VUILLEUMIER presented by Switzerland and supported by the Executive Council.

11.2 Procedures

The elections require, as usual, the majority of the votes of Voting Delegates present or represented, even if the number of candidates does not exceed the number of offices to be provided; in the opposite case, if a majority is not achieved, the office shall remain vacant until next year.

In response to a request for comments, the representative from the Netherlands would like the number of Vice-Presidents to be restricted to two in the future and the creation of an office of “Elected President” to be examined.

The Executive Council did not give effect to a question by the representative from the Netherlands asking for the individual position of each of the two candidates for the office of President, as the motion was unanimously approved by the Executive Council; this position was supported by the representatives from Italy and from Romania, moreover the internal auditor of the activity of the Executive Council.

12 - PREPARATION OF THE OTHER DECISIONS OF THE GENERAL ASSEMBLY ON WEDNESDAY 9 MAY

12.1 Presentation of the invitations received for the General Assembly 2010

One candidature was received in due time from Canada.

The representative from Canada presented the candidature of his country for the organization of the annual meeting and of the General Assembly 2010.

The corresponding decision will be made at the Assembly on Wednesday 9 May.

12.2 Creation of new Committees.

a) Committee on Education and Training

The file was enclosed to the notice sent on 6 March ([Encl. 8](#)).

The Past President Andre ASSIS presented the file.

The representative from Sweden asked for explanations on the relations of the future Committee with Working Group 18 "Training"; A. ASSIS explained that the Committee and the Working Group will have close working relations but they will be completely independent, as the members of the Working Groups are appointed by the Member Nations, individually, whereas the members of the Committee will be Corporate Members (Universities, training organizations).

The representative from the United Kingdom supported the motion presented by the Executive Council.

The corresponding decision will be made at the Assembly on Wednesday 9 May.

b) Committee on Underground Space

The file was sent by the President on 24 April ([Encl. 9](#)).

The President presented the file.

The President replied to the request for explanations by the representative from the United Kingdom on the relations of the future Committee with Working Group 20 and on the potential overlap between the Working Groups and the Committees by saying that Committees have organizations, not individuals, as members and are independent from the working groups but their work will be closely coordinated with the corresponding working group.

The corresponding decision will be made at the Assembly on Wednesday 9 May.

12.3 Strategy of the Association

a) The file was enclosed to the notice sent on 6 March.

The Past President presented the file and read the motion in reply to a question by the representative from the United Kingdom asking for the detail of the motion.

The President presented the aspect of the motion related to the change of name of the Association; the Assembly, after a proposal from the Swedish representative, asked for a separate vote for this part of the motion.

The Swiss representative emphasized the necessity to find the necessary financing to carry out this strategy and the Treasurer assured the Assembly that financing was an integral part of the strategic plan and of its implementation.

The representatives from Germany, Brazil and Norway said a word on the necessity to arouse vocations by young men and women for occupations related to the works of the Association as early as secondary school.

b) The corresponding decision will be made at the Assembly on Wednesday 9 May.

B - ASSEMBLY ON WEDNESDAY 9 MAY

13 – ELECTION OF THE EXECUTIVE MEMBERS

a) Appointment of the Scrutineers

- Suchatvee SUWANSAWAT Delegate from Thailand
- Nikolaos KAZILIS Delegate from Greece

b) Voting Delegates

- Present: 42 minus the delegate from Croatia, who was not allowed to vote, and the one from Colombia who arrived after the voting procedures
- Votes by proxy: 2 (Saudi Arabia and Israel)
- Absolute Majority (1st ballot): 22

c) Result of the election of the President

M. KNIGHTS	28	elected
H. WAGNER	14	

d) Result of the election of the 4 Vice-Presidents

The 4 candidates obtained the following results and were declared elected:

P. GRASSO	37	1 st Vice-President
E. GROV	37	
Y. LEBLAIS	37	
I. LEE	35	

e) Result of the election of the additional Executive Members

The 5 candidates obtained the following results and were declared elected:

S. ESKESEN	36
K. FUKUMOTO	37
I. HRDINA	36
M. THEWES	36
V. UMNNOV	32

- f) Appointment of the Treasurer: F. VUILLEUMIER, presented by the Executive Council, was appointed unanimously.

14 - REPORT ON THE OPEN SESSION HELD ON TUESDAY 8 MAY

Yann LEBLAIS presented the report of the Open Session:

Presentations were made by: H. Marty-Gauquie of the European Investment Bank on “The European Perspective”; V. Piron of Vinci on “Why to invest in concession business?”; M. Holfelder and A. Speer of Bilfinger-Berger on “New Financing Trends/Change in the economic approach from the Investor’s and Tunnel-Contractor’s point of view”; Y. Leblais on “PPP for tunnels – Perspectives for engineering firms?”; A. Dix, the Animateur of ITA WG3 on “Contractual Practices in Underground Construction: New Financing Trends and Consequences on the Tunnelling Contracts”; H. P. Wannick of Munich Reinsurance Company on “Insurance Cover as Part of the General Risk Management Strategy”; E. Šíp, Deputy Minister, Ministry of Transport of the Czech Republic, on “PPP Potential in the Czech Infrastructural Transportation Projects”.

The session presented a comprehensive overview of the PPPs (Private Public Partnership) covering the whole chain of stakeholders: Institutional, Investor, Private Investor, Contractor, Engineering sector, Lawyer, Insurer and Owner. The session highlighted the long term involvement required from the stakeholders, the need of a strong management of the interfaces, a fair risk sharing and cover and, last but not least, a very strong investment in the design from the early bidding phase as it has to deliver successful answers for both construction and maintenance during long term operations. Finally, the session highlighted the large business opportunities.

15 – WORKING GROUPS AND COMMITTEES: REPORT AND PROJECT OF ACTIVITY

15.1. – COSUF: Chairman: Alfred HAACK (Germany), Vice-Chairman: Didier LACROIX (France), Tutor: Claude BERENGUIER – Report presented by the Chairman.

- a) ITA-COSUF, founded at the occasion of the 31st General Assembly of ITA in Istanbul 2005, took a satisfying development during the last 12 months. In May 2006 the Committee celebrated in Lausanne (CH) its official inauguration with an audience of some 160 participants. Later in October 2006 a COSUF workshop was conducted in cooperation with the Polish National Tunnelling Committee and the Polish Main School of Fire Service. In addition, ITA-COSUF participated in different other international workshops and conferences organized by ITA: early October in London (sponsored by BASF), in November in Sharm El-Sheikh, Egypt, as well as in Riyadh, Saudi Arabia.

On May 10, 2007, in context with the WTC 2007 and the 33rd ITA General Assembly in Prague the first ITACOSUF workshop "New Aspects in Tunnel Safety" and the ITACOSUF General Assembly 2007 were held in the Prague Congress Centre. In addition, ITACOSUF will fully participate to the usual events organized by ITA in the field of expertises. The number of corporate members has been raised to 50.

- b) It was with great emotion, and the sustained applause of the Assembly, that the Chairman Alfred HAACK, shortly announced his retirement, retraced the 33 years he was involved within the Association and handed on the torch of ITA-COSUF to his successor Felix AMBERG (Switzerland) ([Encl. 11](#))

15.2. – WG 2 – Research: Animateur: Eric LECA (France), new Vice-Animateur: Chungsik YOO (Korea), new Tutor: Soren ESKESEN (Denmark) - Report presented by C. YOO

- a) The Group met on Sunday May 6 and Monday May 7. These meetings were attended by 20 participants representing 13 member countries: Austria, China, Korea, Denmark, Spain, United States, France, Italy, Netherlands, United Kingdom, Sweden, the Czech Republic, and Turkey.

The meetings included a progress review of the programme agreed at the 2006 Seoul meeting, as well as of the draft documents prepared over the past year.

The recommendation on "Settlement Induced by Tunnelling in Soft Ground" was published earlier in 2007 in the "Tunnelling and Underground Space Technology" journal. Training material was also prepared based on this document and was presented for the first time in Prague, as part of the pre-conference training course session.

The Group has focused its activity over the past year on the preparation of two recommendations, on “Strategy for site investigations of tunnelling projects”, on the one hand, and on “Monitoring & Control of Underground Works”, on the other hand, as well as several actions related to “Risk Management”.

The two recommendations which are being prepared are meant to provide high level strategic information, and reflect on the practices of member countries. Both draft documents were reviewed during the first meeting, and a new set of actions agreed for taking account of comments made by the Group. It is expected that the recommendations should be finalized in the coming year.

Actions undertaken by the Group in the area of “Risk Management” include:

- taking part in the works of the task force put in place by the ITA’s Executive Council, together with WG3 on “Contractual Practices”;
- developing educational material for facilitating the dissemination of risk management practices;
- building a data base that would provide evidence of the benefits of risk management, based on a review of case histories of projects where the method has been successfully implemented;
- preparing a reference manual that would assist in bringing the Risk Management approach described in the 2004 “Guidelines for Tunnelling Risk Assessment” issued by WG2 into practice.

This new document is meant to provide a framework for future ITA “Risk Management” related productions. It will emphasize the implementation or the approach as a decision making tool, for managing both risks and opportunities and improving the overall quality of the works. The impact of various delivery models (conventional, Design & Construct, Concessions and other forms of Public Private Partnerships) - and associated contractual arrangements – will also be covered.

The outline of the recommendation was reviewed during the second meeting and a plan of action agreed for preparing a first draft document in the coming year.

It was also noted that Yoshihiro Takano had resigned from WG2 and from his position as Vice-Animateur. The Group is thankful to Yoshihiro Takano for his dedication and strong contribution to the activities of WG2 over many years. Chungsik Yoo was appointed Vice-Animateur of the Group during the Prague meetings.

- b) The President warmly thanked the retiring Vice-animateur, Yoshihiro TAKANO, for his dedicated work and for the excellent spirit he showed within the group; he wished him full success in his new functions.

15.3. – WG 3 – Contractual Practices: Animateur: Arnold DIX (Australia), Vice-Animateur: Martin SMITH (Switzerland), new Tutor: Martin KNIGHTS (United Kingdom) - Report presented by the Animateur:

Working Group 3 met for two afternoons to discuss and develop ITA’s position with respect to core contractual issues in underground construction.

The meetings were attended by ten Member Nations being – The Czech Republic, Hungary, Norway, Egypt, Turkey, America, Switzerland, Slovakia, Brazil and Australia. We were joined by our Tutor Mr Yucel Erdem of Turkey. The group expressed its sincere thanks to Mr. Erdem for his long standing, valuable and always cheerful assistance.

The working group, having now completed the review of all 25 prior contractual propositions, has determined to create a series of ITA contractual pronouncements addressing the most serious issues in underground construction and the appropriate responses contractually.

The first is to be a contractual practices ITA position paper on the fundamental importance of taking due regard for subsurface conditions in all manner of modern contracts.

This document will identify the key issues, discuss a range of contractual responses and offer an opinion as to ITA's preferred position on management with an explanation as to why.

A schedule of tasks has been set for the group. It is anticipated that the paper will be completed and reviewed prior to the end of 2007.

A written review comparing the 25 current propositions with the ITIG Code is to be finalised and circulated for group approval and then hosting on the ITA website.

The working group has committed to creating revised training material for the didactic programme.

It is anticipated that the ITA position paper on subsurface conditions will be made available for public comment and that this process will ultimately result in it being used as annex material in standard form contracts such as the revised FIDIC documentation. It is hoped this will reactivate collaborative work between FIDIC and ITA.

A direct request to review and endorse a Swiss standard contract was rejected as inappropriate on the basis that any requests to review documents should be formally made to the Executive of the ITA.

15.4. – WG 5 – *Health and Safety*: Animateur: Donald LAMONT (United Kingdom), new Vice-Animateur: Martin VOGEL (Switzerland), new Tutor: Vitaly UMNOV (Russia) – Report presented by the Animateur:

Working Group 5, “Health and Safety in Works”, met twice during the 2007 ITA General Assembly in Prague. Donald Lamont from UK was Animateur with Walter Chromy from Germany as vice-Animateur. Mikhail Belenkiy from Russia was the ITA Tutor.

Thirteen delegates from eight countries attended this year – Austria, Czech Republic, Germany, Russia, Sweden, Switzerland, USA, UK, with apologies from Norway. Unlike last year, most of those present have attended WG5 meetings before.

ITA Booklet - Safety in Tunnelling

WG5 is pleased to report that this booklet is now available in seven languages with Norwegian and Portuguese being the most recent translations. The Animateur would again ask any Member Nation which wishes to translate the document into its own language to contact him and on completion of the translation, to send a copy to him and to the Secretariat.

Database of Health and Safety Authorities and Legislation

Compilation of this database has reached the stage when it can be passed to the Secretariat for inclusion on the WG5 website. Currently it contains details for 45 countries.

Guidelines for Good Occupational Health and Safety Practice in Tunnelling

This was the major item of business for WG5 this year.

Following the meeting in Istanbul, parts of the document were rewritten. In Seoul the lack of continuity in group membership meant that it was not possible to complete the text. In the past year it has been circulated by e-mail twice, for comment.

The Animateur was then very pleased and relieved to report that after extensive editing and reformatting of the text, WG5 has finalised its work and agreed the text can now be passed to the Secretariat.

Worksite protocols

The WG again considered a joint German/Swiss/Austrian paper on workplace protocols for health and safety. At Prof Haack's request the WG agreed to comment on the paper and submit these comments to the authors. It was also agreed that consideration be given to the applicability of the paper to other countries. The paper will be considered again by the WG at its next meeting.

Risk to 3rd parties from Urban Tunnelling

The Working Group received a presentation from Dr John Anderson on his recent research report on risk to 3rd parties from urban tunnelling. The WG considered that this was an important report which should be available to the wider ITA community and accordingly resolved to establish a link to it on the WG5 webpage.

Tunnelling in contaminated land

The WG discussed the problem of tunnelling in contaminated land. It considered that there was a lack of information on the topic and so it resolved to undertake a short project to identify relevant case studies. The WG also agreed that this could be a suitable project for a student on a university tunnelling course to undertake under the supervision of WG5.

Recommendations for flexible and semi flexible ducts for use in tunnel construction

Following an approach from duct manufacturers in a number of member countries, WG5 met a delegation of manufacturers to consider a request that WG5 cooperate with them to produce recommendations on essential safety requirements for flexible ducts for use in tunnels under construction. WG5 discussed the possible scope of such recommendations and agreed to consider draft recommendations in association with the manufacturers before the next meeting in India.

Training courses

The Animateur was pleased to report that the 2007 ITA Training course, held the week before, included a lecture on occupational health and safety in tunnel construction for the first time.

Working group membership

A number of changes in WG5 membership will take place. At the end of the 2007 meeting, Walter Chromy confirmed his intention to resign as Vice-Animateur. Annica Nordmark also confirmed her resignation from the group. The Tutor Mikhail Belenkiy will leave the Executive Council this year. The Animateur would like to thank them for their contribution to the WG in recent years.

He was pleased to report that Martin Vogel from Switzerland has accepted an invitation to be Vice-Animateur for a period of two years and has been confirmed in that post by the members.

15.5. – WG 6 – Maintenance and Repair: Animateur: Henry A. RUSSELL (USA), Vice-Animateur: Rene van den BOSCH (Netherlands), Tutor: Weining LIU (China) – Report presented by the Animateur:

The Working Group met on Sunday 6 May, and Monday 7 May 2007. The meetings were attended by 19 representatives from 12 member nations, they were: Czech Republic, China, Denmark, Hungary, Japan, Netherlands, Norway, Republic of Korea, Sweden, Switzerland, United Kingdom and the United States of America.

The Working Group completed the draft of the work on the development of *Guidelines for Structural Fire Resistance for Metro Tunnels*. This document is an adaptation of its recent work on Guidelines for Structural Fire Resistance for Road Tunnels which is on the ITA web site. This work required the inclusion of specific elements unique to a metro system and the development of new time/temperature curves for heat release from fires in a metro system. The Working Group believes that this is an important document to develop since there is very little information available on the subject. The Working Group anticipated submitting a draft of the document to the Executive Council for review later this year.

An excellent presentation was made to the Group by Mr. Klok of the Netherlands on the robotic application of spray fireproofing in the Netherlands.

In addition to the work on its newest document the Working Group provided to Mr. Tarcisio Barreto Celestino, the Animateur of Working Group 12, over 200 pictures of the application of shotcrete on tunnel projects within the USA, including surface preparation and nozzlemen. In addition shotcrete specifications were also provided to Mr. Celestino.

The Working Group placed on the ITA web site the Report entitled *Study Methods for Tunnel Liner Repair* which discusses the causes of tunnel liner deterioration and detailed methods for the repair of tunnel linings. The Working Group encourages all to view this new document.

The Working Group provided to Daniele Peila, the Animateur of Working Group 18, a Powerpoint presentation on its last document *Structural Fire Resistance for Road Tunnels*.

The Group wishes to invite any members of the Association who would like to participate in the development of this report to contact the Working Group members or the Animateur.

15.6. – WG 11 – Immersed and Floating Tunnels: Animateur: Christian INGERSLEV (USA), Vice-Animateur: Jonathan BABER (United Kingdom), Tutor: Yann LEBLAIS (France) – Report presented by the Animateur:

The Working Group met on Sunday 6th May 2007. The meeting was attended by 17 participants from fourteen countries, namely Australia, Canada, Czech Republic, Denmark, Finland, France, Germany, Italy, The Netherlands, Norway, Sweden, Turkey, United Kingdom and United States. A second meeting was held the following day with 19 participants including Finland, Germany and Italy. Data for a searchable database is to be uploaded initially as technical papers.

To better represent immersed tunnel knowledge world-wide, the Working Group would like to recruit members from unrepresented countries such as China, India, Japan, Korea, Mexico and Russia as well as new younger members. The Animateur is Christian Ingerslev, the vice-Animateur is Jon Baber and the Tutor is Yann Leblais.

At the meetings, a report was made of the past year's activities, a work plan was established for the coming year, communications and the web site were discussed, information was exchanged on new and current projects and developments around the world, and two technical presentations were made. Following the mission of the Working Group, to share and distribute knowledge of immersed and floating tunnels with the community, it was decided that contributions for a searchable database would in the first instance be uploaded as Working Group publications as soon as practicable after review; participants were concerned that progress on last year's plans needs to be demonstrated. Contributors were thanked for the reports already received. A number of the participants again volunteered to contribute in-depth material to the database on some of the identified topics.

Presentations were given on the Marmaray (Bosphorus) Project (2), TIMBY, Laajasalö, Limerick, Bjørvika, Busan-Geoje, and Submerged Floating Tunnels (Qiando Lake, China). It was also agreed that this Working Group is the right place to pursue future ideas about the use of floating immersed tunnels, about which a White Paper will be produced shortly.

After a framework is identified for the on-line information and guidance is received on the required form of contributions for the website, time will be required from the Webmaster and others to place the Working Group's information on the ITA website and to insert identified links. It is requested that some budget be made available for this purpose so that the Working Group might achieve its aims.

15.7. – WG 12 – Shotcrete: Animateur: Tarcisio CELESTINO (Brazil), Vice-Animateur: Atsumu ISHIDA (Japan), Tutor: Eivind GROV (Norway) – Report presented by the Animateur:

WG12 met twice in Prague. A total of 21 participants from 13 countries, namely Norway, Sweden, Switzerland, France, Czech Republic, Germany, Spain, South Africa, United Kingdom, Finland, Hungary, Japan and Brazil attended the meeting.

Communication from the Executive Council

New communication tools provided by the EC were presented to the participants. It is expected that there will be an improvement in the interaction between members.

Shotcrete activities in Czech Republic

Shotcrete activities in the Czech Republic were presented and discussed. A significant number of tunnels to be constructed in the near future is expected to even increase those activities. The data will be updated and posted in the WG12 web page.

Standards on nozzlemen certification, EFNARC nozzleman certification system

The Technical chairman of the EFNARC committee on shotcrete presented their nozzleman certification procedure. This procedure is focused on wet-mix process for massive robotic production. Nozzlemen are expected to pass a theoretical and a practical examination. They are given a study pack to prepare the examination. Also, examiners' training and approval is organized. Questions were raised about the need for distinction between a sufficient basic level for nozzlemen and highly experienced ones. It was decided that EFNARC in cooperation with the WG12 will prepare a guideline for nozzleman certification.

A survey of the existing certification procedures existing around the world was prepared last year by WG12. At least 7 certification processes exist.

Sprayable mortars for fire-protection

A brief summary was made of the paper presented by the WG at the London ITA-ICE conference on Fire Protection, October 2006. The performance of all the sprayable mortars for protection against fire have been gathered and compared to help the end-users to know what is available and what corresponds to their need. All the information will be posted on the WG12 web page. Information will be updated when new products are known.

Interaction with other Working Groups

- **Training:** Didactic material about shotcrete will be prepared for the Training Working Group.
- **Accidents related to shotcrete:** in response to the request from the Executive Council, WG12 decided to proceed to the task of collecting information of accidents related to shotcrete in tunnel constructions. After further discussion with the EC, a questionnaire in form of template will be prepared and distributed to the National Groups.

Interaction with other organizations

A task was established for permanent interaction with other organizations which are regularly releasing information related to shotcrete.

Test programme on evaluation on fibre-reinforced shotcrete

Preliminary results of uni-axial compression and panel energy absorption tests were presented in normalized form with respect to the 28-day values. Since the first programme is still in progress, absolute values will only be released when all the results become available at the end of the test programme. The importance of early-age results was brought up during the discussions, and so it was decided to obtain values at 12 hours and 3 days in addition to ages of the original test programme. The next spraying activity at Hagerbach Test Gallery was scheduled for the last week of August. New fibre suppliers will be invited directly. An announcement will be posted at the ITA website.

Mirror groups of each attendance

The importance of the mirror Working Groups in all the Member Nations was highlighted, and must be improved.

15.8. – WG 14 – Mechanization: New Animateur: Lars BABENDERERDE (Germany), Vice-Animateur: Felix AMBERG (Switzerland), new Tutor: Katsuji FUKUMOTO (Japan) - Report presented by the Tutor.

a) Report on activities of WG 14

- WG activities to year 2006
 - Information of standards and manuals in mechanized tunnelling has been listed on the ITA web. It will be updated at least once a year.
 - 42 projects of “Challenging Mechanized Tunnelling Projects” have been collected from 10 countries, namely Australia, Austria, China, Japan, Korea, Russia, Slovakia, Spain and Switzerland. It will be put on the ITA web or to be distributed to member nations after approved by the Executive Council. Also, it will be updated at least once a year.

- WG activities in Prague 2007

The WG-14 met on May 6. Twenty (20) participants attended the meeting from eleven member nations, Australia, Canada, Czech Republic, France, Germany, Hungary, Japan, Norway, Slovakia, Switzerland and USA.

The following items were discussed and agreed in the meeting.

- Three sub groups are created to take actions on the following items.
 - Risk management and insurances (Leader: Lars Babendererde)
 - Training course, promotion activities for young engineers and workers (Leader: Martin Herrenknecht)
 - Benefits of mechanized tunnelling against a conventional method (Leader: Tony Peach)

Leaders will have responsibility to complete the outline in three months and report to the Animateur.

- The training programme will be held at the universities selected through ITA in nominated countries, such as Australia, China and India and the sponsorship to support the programme will be asked through ITA. At the meeting, BASF, Herrenknecht, Lovat announced to take the sponsorship and possibly some other companies may participate to it.
- Lars Babendererde is unanimously elected as the next Animateur, if Katsuji FUKUMOTO retires.

- b) The President thanked K. FUKUMOTO as well as the representatives of the Prime Sponsors who contributed to the excellent work achieved by the Group and welcomed the new Animateur, who is also a Supporter of the Association.

15.9. – WG 15 – Environment: Animateur: Jan RHODE (Norway), Vice-Animateur: Jon KANESHIRO (USA), new Tutor: In-Mo LEE (Korea) - Report presented by the Animateur.

The Working Group met on two occasions and was attended by 8 representatives from seven Member Nations – Czech Republic, Russia, Australia, United Kingdom, France, United States of America and Norway.

The main part of the meeting was a review of the final draft of the Working Group's report on "Environmental and Sustainable Development Reasons for Going Underground". The report will now be sent to the Executive Council for approval. The report will be officially presented by May/June this year.

The meeting had six presentations: one on the topic of ground vibrations from railway tunnels in Russia, one on air quality, tunnel ventilation and ventilation towers at the Lane Cove Tunnel in Australia, guidelines for use and disposal of tunnel spoil in France plus environmental aspects and use of tunnel spoil at the extension of the Bakerloo metro tunnel in London. Further, different environmental aspects of the Interstate Highway 710 tunnel, estimated use of underground space, benefits of water tunnels in California, Los Angeles County Tunnel Outfall, and the International Linear Collider in the USA was presented. From Norway, the final link of the highway E6/E18 through Oslo, the immersed tunnel crossing the harbour area in Bjørvika was presented with its environmental benefits and challenges. Further, environmental aspects related to water as potential drainage of wetlands and lakes plus modelling of drain patterns around underground waste deposits were presented. Some few words were said about the seed storage at Svalbard, seed storage facilities for the future which are under planning.

Future communication between members of the working group was discussed. The secretariat will assist on e-mail distribution and SKYPE was discussed as a possibility for future communication. Due to long period until the next meeting in Agra (September 2008) it is important to maintain our communication during this period. A FTP site is established for distribution of large documents.

The working group has some interfaces with WG 3 and has more interfaces and may partly overlap with WG 20. Coordination and cooperation are required.

WG15 is in transition to other topics, having nearly completed its goal of producing “Environmental and Sustainable Developments Reasons for going Underground”.

Consequently a list of environmental challenges related to underground facilities has been prepared and was discussed during the meeting. These include environmental challenges related to water, air, and ground, noise and vibrations, aesthetics, architecture and landscaping, and how they are managed during planning, construction, operation and post operation of the projects. A list of different aspects on ground vibrations from underground facilities, aspects related to air, water and excavated materials will be prepared by the end of June this year. These will be communicated among the members by e-mail. The long term goal of the group is to prepare guidelines and recommendations on environmental aspects related to underground facilities.

The Tutor indicated a goal for the working group is to disseminate this information as well as information on sustainability of using underground space to planners.

15.10. – WG 16 – Quality: Animateur: Claudio OGGERI (Italy), Vice-Animateur: Alex SAGY (Israel), Tutor: Martin KNIGHTS (UK)

a) Report presented by the Animateur:

The activity of WG 16 has come to a conclusive phase during WTC in Prague. Four member nations attended the session on Sunday. During the previous Congress in Seoul and the meeting in Lisbon last July 2006, it has been decided to carry out some final refinements in order mainly to allow the development of the links referred to Risk and Contracts.

In this session a poster concerning the technical features in tunnelling has been edited. Moreover an addendum to the general report issued on 2004 has been prepared: it is focused on case histories of application of Quality and Risk procedures, both for known site conditions and for difficult cases, including a series of comments based on the correlation among Quality, Risk management and the tunnelling methods.

A didactical PPT presentation of the activity of the WG 16 has already been submitted to ITA for the training website.

In order to carry out the above mentioned points, the following criteria have been considered:

- In a tunnelling project it is necessary the identification of stages in Quality Assurance procedures that are affected by Risk features and that could lead to failures because there is not sufficient ability to react to unusual or unexpected conditions, even if the procedures are correctly applied;
- It is necessary to make clear that the value of the reduction of uncertainties can be better emphasized if the budget for Risk Management allows detailed checks for the quality of investigations, for the design methods, for the qualification of the contractors etc.
- It is necessary to establish a classification of levels of Risk depending on the consequences (cost, time, injuries, bad operation) that can arise due to negative events, and thus correlate the level of cooperation of the various parties;

- We believe that already today, by the current state of the art, many efforts have been developed to improve the value of a project, for example by considering different alternatives for the profile of the tunnel, by using simultaneously various calculation methods, choosing between different equipment in order to excavate in a quicker and safer way. It should be useful to understand how much Risk Management can ameliorate the tunnelling conditions in terms of results, after the application of the proposed approaches, as well as Quality Management would do.

Managing Risk can help to improve the quality and vice versa.

Some final considerations for the Executive Council: the group suppose that they have obtained the result of showing how Quality, Risk Management and Contract choice for a tunnel can improve safety and a good knowledge of favourable or unfavourable conditions that can determine the success of a project.

They believe that WG16 is now closing its activity with the revision of the draft of the addendum, which will be submitted for publication after the formal acknowledgement by the Executive Council and Secretariat. They believe also that the Executive Council will consider the transition towards a renewed activity for the future, taking into account all the efforts done to show how Quality can represent a tool for a better systematic knowledge of the multiple connections found in a tunnel project.

The Animateur would like to express sincere thanks to all the members of the Executive Council, especially to the Tutor, for the encouraging suggestions during past years.

- b) The President thanked the Animateur Claudio OGGERI, the Vice-Animateur Alex SAGY and the Tutor Martin KNIGHTS for their excellent work carried out by the group ever since it has existed.

15.11. – WG 17 – Long tunnels at great depth: Animateur: Gerard SEINGRE (Switzerland), Vice-Animateur: Minoru SHIMOKAWACHI (Japan), Tutor: Piergiorgio GRASSO (Italy) - Report presented by the Tutor:

The meeting was attended by 19 members from 12 different countries: Canada, China, France, India, Italy, Korea, Norway, Slovakia, Slovenia, Sweden, Switzerland and the United Kingdom.

Eleven of the attendees were new members to the group.

Since the Seoul meeting of last year, it was not possible to hold a meeting of the WG.

The meeting focused on two aspects:

- Presentation of relevant case histories of the new alpine base tunnels under construction (Gothard and Lyon-Turin),
- The Group's next report on long hydraulic tunnels at great depth.

The evolution of the works on the 55 km Gothard railway base tunnel and the analysis of the relevant lessons learned, including the effects of the drainage on existing dams where presented by Swiss member.

French members shared the results of all the exploratory work done up to now on the Lyon-Turin base tunnel, with a detailed focus on the impressive squeezing problems that are encountered in one lateral adit.

Convergences up to 2m appear after excavation in carboniferous shales under only 350m overburden, where more than 1000m are expected at the intersection with the base tunnel. After several attempts a new supporting method, based on complex systematic sequential rock reinforcement and several deformable concrete elements integrated in the primary support, is successfully implemented.

The documents prepared are available in the WG's web site, and will be integrated in the revision of the Report on long and deep traffic tunnels.

The advancement of the activity on the other subject, long and deep hydraulic tunnel, was presented by the Italian member. Several case histories experienced by TBM in the Himalayan projects were described by the Indian members.

The huge demand of new hydro power schemes and water transfer project, specially in developing countries, justify great efforts in the improvement of innovative solution in the mechanized tunnelling and not. In any case a robust decision path for the choice conventional excavation/TBM is discussed and will be integrated in the next WG report on long hydraulic tunnels at great depth was planned. References to WG14 and WG19 have been done.

An intermediary meeting will be held in November 2007 during the AETOS/ITA conference. The goal of the working group is to present a first draft for the ITA WTC 2008 in India.

15.12. – WG 18 – Training: Animateur: Daniele PEILA (Italy), Vice-Animateur: Han ADMIRAAL (Netherlands), new Tutor: Markus THEWES (Germany)

- a) Report presented by the Animateur: The meeting was attended by nine members coming from Brazil, the Czech Republic, France, Italy, Germany, Rumania, Sweden, Finland, and the Netherlands.

The meeting started with a wide and deep discussion on the Committee on Education which was proposed by the task force, that was presented during the Sunday meeting and that will be voted during this General Assembly.

The relationships with the WG 18 activities and the Committee were analysed and discussed together with Andre ASSIS as chairman of the task force.

The WG members decided to support the idea of the creation of the Committee to the General Assembly provided that both the Committee and the Working Group jointly develop a framework of cooperation and that joined projects will be developed. Also regular meetings between the Committee and the WG 18 are necessary and should be planned.

After this discussion the WG members analysed the work done during this last year:

- A report on the third Training Course for young professionals which took place here in Prague was developed by the tutor and the Animateur. The WG members are very pleased of its great success.
- The Post-Graduate Master Courses endorsed by ITA were shortly presented and analysed. The WG members strongly suggest that all member nations disseminate the news about these courses within their Countries.
- The WG members analysed the PPT presentation prepared for teaching provided by WGs 2 – 6 and 16, not to peer review them but only to check if they are teaching tools.

Some minor corrections were found and the Animator will do them.

This presentation will soon be made available on the website.

The Rumanian member of the WG offered himself for the preparation of a similar presentation on segmental lining since he worked in WG 2 for the preparation of ITA guidelines on this subject.

The WG members accepted this proposal and when this PPT presentation, when it will be ready, will be sent to the WG 2 for final approval.

- The WG members analysed and discussed the draft of the proposal for the definition of the standard, minimum level of education in Tunnelling that should be given by universities to prepare a good tunnel engineer. This document was developed during and after the meeting in Seoul.

The WG members think that it is a good working base and in the next months it will be checked by all the university professors who attended the meeting. After, it will be provided to ITA as one of the reference documents, for the ITA endorsement of University Courses.

After this discussion the member from France presented the updated version of the website DIDACTU which can be used for teaching purposes. The web link to this code is already available on the Training page of ITA web site and the member from the Czech Republic presented the EUF Josef Underground Educational Facility project.

The discussion was then held on the development of future activities of the WG.

The members of the WG were charged with different tasks since it is necessary to provide with new material the Training Page on ITA website.

It was decided:

- to start the collection of videos of the tunnelling construction procedure to prepare a video book. The group asked all the Member Nations and ITA sponsors to provide this type of documents to the Animateur and to Fritz GRUBL;
- to insert in the web page links to websites where teaching material on tunnelling can be found;
- to update and publish on ITA web site the list of tunnelling university professors and the program of the existing “tunnelling” and “underground space” lectures given in the universities. This task will require one year work if all the nation members will provide these information in due time. The group asked for help.
- to suggest to ITA to start an activity of support the MSc Thesis and PhD theses. Similar activities are done by many similar international cultural associations. For example ITA can give an award to the best thesis both MSc and PhD each year during our congress.

For this task the WG will prepare a draft of a proposal to be discussed before the next meeting.

Finally it was said that to develop training activities is important but also is important to help the young graduates to find a job.

For this reason the WG members suggests that ITA on his web page should provide a list of offers of jobs, of practical training periods, of research activities.

The group gave this suggestion to the Executive Council and to the secretariat to check if is possible.

Finally personally as a university professor I am very happy to see that Training is becoming an always growing task for our Association and one of the key points for the future strategy.

b) The President reminded the importance of Training in the Strategy of the Association.

15.13. – WG 19 – Conventional Tunnelling: Animateur: Heinz EHRBAR (Switzerland); Vice-Animateur: Robert GALLER (Austria), new Tutor: François VUILLEUMIER (Switzerland) - Report presented by the Animateur:

26 participants representing 16 nations attended the meeting on Sunday.

In the review on the working group's activities since the last World Tunnel Congress at Seoul the delegates could be informed, that the general report on conventional tunnelling has been sent for approval to the executive council. Some remarks have been made by members of the executive council. One main remark concerned the reference list, where the references on the existing documents of other working groups should be completed. These remarks will be considered in the final version. The tutor of the working group, Prof. Andre ASSIS, could inform that the report will be approved and it should be ready for publication within a few weeks. With this basic report the working group has elaborated an important basis for their future work.

After the review on the past year the delegates started the discussion about the two new items to be worked on, which are:

- the elaboration of guidelines concerning the monitoring in conventional tunnelling;
- and the elaboration of a report concerning special aspects in contracts for conventional tunnelling.

On both items short presentations were held: one presentation from Austria dealing with the monitoring and second presentation from the United States on the contractual aspects of conventional tunnelling. On both items an intense discussion followed the presentations. As a summary of the discussion it can be mentioned that both items are of high importance for the working group members. Concerning the matter of the special aspects in contracts for conventional tunnelling it was agreed that the construction contracts have to give the opportunity to contract partners to use the high flexibility of the conventional tunnelling method.

In a next step additional material from different member nations and other working groups, such as working group No. 3, will be collected and sent to members of the working group. As we made good experiences with intermediate meetings during the year, an intermediate meeting of the working group 19 will be organised around the geomechanical colloquium at Salzburg in October. It's foreseen to have additional presentations on the experiences with the contract models in different countries and to take a closer look to the Austrian guideline on monitoring.

It is the aim of the working group to discuss on the basis of first drafts of the future publications during the World Tunnel Congress 2008 at Agra.

15.14. – WG 20 – Urban Problems – Underground Solutions: Animateur: Markus THEWES (Germany); Vice-Animateurs: Gerard ARENDS (Netherlands) and Junji NISHI (ACUUS); Tutor: Harvey PARKER (USA) - Report presented by the Animateur:

Working Group 20 with the topic "Urban Problems – Underground Solutions" met once on Sunday. There was a strong attendance of 18 participants from 12 countries: Australia, China, Czech Republic, Finland, France, Germany, Hungary, Japan, Netherlands, Sweden, UK and the USA.

The group has made good 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 first product of the working group, a 33-page draft report on urban problems, underground solutions, and key decision factors had been prepared jointly by the three Animateurs and was approved by the group for review leading to finalisation.

After the expected finalisation of the first deliverable of the group in the upcoming year the next topic for the group will be the issue of Subterranean City Planning with its many problems to be solved regarding multiple private and public use of the underground space.

The report will be completed by a collection of 10 to 20 worldwide case history examples which will provide a good illustration for the most significant underground solutions to urban problems. Projects for these unique case histories to be appended to the report were chosen and responsibilities of participants for the supply of these case histories were assigned. Case histories will be supplied on the basis of a unified template, which had been set up and finalised before the meeting.

The report will be directed to planners and politicians to provide creative and efficient ideas for the solution of urban problems and will serve as a decision aid. The focus of this product will be somewhat less on technical details but more on strategic aspects of urban planning, may they be of social, economical, ecological or aesthetical background.

On Monday, May 6th, many members of WG20 joined in a meeting initiated by the President Harvey PARKER to discuss the creation of a new ITA Committee on Underground Space Use. Primary issues will be to create better awareness of owners and planners for issues such as asset management, ownership of the underground space and subsurface city planning. An urgent need for these issues is seen against the background of the strong increase of geothermal applications. The committee will closely cooperate with Working Group 20.

16 – HONORARY EXECUTIVE MEMBERS FOR THE GENERAL ASSEMBLIES 2008 AND 2009

The General Assembly noted that the Honorary Executive Members for the preparation of the meetings 2008 and 2009 are respectively:

- Govind N. MATHUR (India) for 2008
- Pal KOCSONYA (Hungary) for 2009

17 – APPOINTMENT OF THE MEMBERS OF THE COMMITTEE OF NOMINATION

In accordance with the procedures approved since the General Assembly 1993, the committee in charge of preparing the future elections is composed with:

- the retiring President H. PARKER President of the Committee
- the Past President A. ASSIS
- the Honorary President A. M. MUIR WOOD

18 – APPOINTMENT OF THE AUDITOR ON THE CONFORMITY OF THE ACTIONS OF THE EXECUTIVE COUNCIL

The General Assembly unanimously confirmed the choice of S. CALINESCU for the year 2007.

19 – DECISION CONCERNING THE CREATION OF THE NEW COMMITTEES

a) Committee on Education and Training

The representative from the United Kingdom renewed his support to the motion after having reminded that he would like the Animateur of the corresponding Working group to be closely associated to the works of the Committee.

The representative from France regretted, as for the form, that the French Association was not approached, and requested, as for the content, to make sure that ITA does not interfere in the training systems of the Member Nations.

The General Assembly approved the creation of the Committee on Education and Training as presented by the Executive Council unanimously apart from 5 abstentions: Germany, Finland, France, Sweden and Switzerland.

b) Committee on Underground Space

The General Assembly approved the creation of the Committee on Underground Space as presented by the Executive Council unanimously apart from one vote against (Switzerland) and two abstentions (Austria and Sweden).

20 – DECISION CONCERNING THE STRATEGY OF THE ASSOCIATION

The Assembly proceeded to two separate votes at the request of the representative from Sweden and the internal auditor, considering that the change of name corresponds to an amendment of the Statutes and therefore requires a vote at the majority of 4/5.

a) Change of name of the Association

The representative from the Netherlands supported the motion and requested to also change the name of the annual congresses: WTUSC instead of WTC; the Executive Council pointed out that this request will be examined with the concerned countries from 2009.

The representative from the United Kingdom did not consider this change of name as useful.

The French representative supported the motion, as the French Association has also just changed name for the same reasons.

The General Assembly approved the change of the name of the Association as presented by the Executive Council unanimously. All Member Nations voted yes apart from one vote against (Finland) and two abstentions (Greece and Hungary). The new name is the "International Tunnelling and Underground Space Association" in English and "Association Internationale des Tunnels et de l'Espace Souterrain" in French.

b) Strategy

The representative from the USA noted that the carrying out of the strategy requires important means, notably in 2009 with the use of one third of the reserves, and that it would be advisable to increase the income and particularly the number of Prime Sponsors and of Seminars.

The General Assembly approved the all the strategy proposals presented by the Executive Council unanimously. All member Nations voted yes apart from one vote against (USA). ([Encl. 10](#))

21 – PREPARATION OF THE ASSEMBLIES 2008 AND 2009

a) Assembly 2008

G. MATHUR presented the progress of the preparation of the Congress 2008 in Agra and distributed the 2nd newsletter ([Encl. 12](#)); no remarks were expressed from the Member Nations.

b) Assembly 2009

P. KOCSONYA presented the progress of the preparation of the Congress 2009 in Budapest ([Encl. 13](#)); this presentation did not give rise to any remarks from the Member Nations.

22 – BUDGET: DRAFT BUDGETS FOR 2007 AND 2008

- a) The draft budgets for 2007 and 2008 ([Encl. 7](#)), sent along to the members with the notice to the General Assembly, were presented and commented by the Treasurer who pointed out that the evolution is linked:
- **Concerning the Receipts:**
 - . to the expected increase of the number of Prime Sponsors, of the number of Corporate Affiliate Members and members of COSUF,
 - . to the good expected result of the Congress in Prague,
 - . to the carrying out of two seminars, one of which is already undertaken on Protection in Fire that will be held in New-York next October.
 - **Concerning the expenses:**
 - . to the awareness of the decisions concerning the Strategy:
 - . increase of the salary of the Secretary General,
 - . increase of the budget provided for the visits to the Member Nations,
 - . improvement of the website concerning the Member's restricted zone and the Underground Worldwide part, and carrying out of a General Public action planned in June in Paris,
 - . awareness of the increasing activity of ITA-COSUF, as its budget is in principle balanced,
 - . increase of the number of Training actions (creation of the corresponding Committee) and of Seminars.
- b) In reply to the questions of the representative from the Netherlands, he reported that the budget allowed to the Working Groups is never completely used, and that this question will have to be examined at the next meeting of the Executive Council and of the Animateurs.
The representative from the USA expressed the same reservations as for his comments regarding finances for the vote concerning the Strategy.
- c) The General Assembly approved the draft budgets thus presented unanimously. All Member Nations voted yes apart from one vote against (USA).

23 – CHOICE OF THE PLACE FOR THE GENERAL ASSEMBLY 2010

The General Assembly unanimously approved the candidature of Canada that will therefore organize the Annual Congress 2010, in Vancouver, from 15 to 20 May 2010.

24 – OTHER BUSINESS

- a) The President reported that the next Executive plenary meetings will be held:
- in Madrid (Spain), on 3 and 4 November 2007, on the occasion of the Congress of the Spanish group;
 - (probably) in Hanoi (Vietnam), at the end of February or beginning of March 2008, on the occasion of a seminar that will be organized by the Vietnamese group;
 - in Sao Paulo (Brazil), on 28 and 29 June 2008 on the occasion of the 2nd PanAmerican Congress;
 - in Agra (India) on 20 and 21 September 2008, on the occasion of the annual meeting 2008 of the Association.

Other ad hoc meetings will be organised according to the offers from the Member Nations, notably within the next few months in Toronto on 10 June 2007 on the occasion of the RETC Conference, in Lisbon on 8 July 2007 on the occasion of ISRM Congress and in Paris on 20 September 2007 on the occasion of PIARC Congress.

- b) The press release will be available at the beginning of the afternoon at the Secretariat.

25 – CLOSING SPEECHES

a) Speech of the new President Martin KNIGHTS

Well, Ladies and Gentlemen. You have been very kind to give me the opportunity to serve as your President. I will always be grateful for the trust you have placed in me.

I believe the ITA is fundamentally a "force for good". I believe in our ability as a global industry and as individual professionals. ITA is a powerful networking organization and I believe it will develop and grow. I hope you believe too.

Feedback from last year's ITA Excom survey was in some places "challenging". But these were honest opinions. I welcome the desire to try to increase the stature of ITA and the fact that over 1 200 people are attending this Congress demonstrates members faith in ITA.

Harald, thank you for sharing the spotlight. The experience of nomination certainly does expose you to the rigours of scrutiny by your fellow delegates. The winner has now to live up to the expectations and the loser can relax a little.

However, I hope ITA does not lose your expertise and dedication, or your continued friendship.

The General Assembly agenda of ITA is demanding and so is the timekeeping of our Secretary General Claude. So I will hand back the floor to our current President, and once again thank you.

Harvey, it is time for the General Assembly to commemorate your three years as President since 2004 when you were elected in Singapore. You have been a faithful servant of ITA and sacrificed much time to ITA's benefit. Many times I have had e-mails/telephone calls from you during USA West Coast post midnight hours. Your flying time is exceptional and your speeches numerous. So on behalf of the Executive Committee and the General Assembly, please accept this Plaque as a token of our thanks.

b) Closing speech of the General Assembly of ITA by Harvey PARKER

I have been greatly honoured to serve you as President of ITA. I thank you, our members, for this opportunity. I want to thank our Past President, Andre Assis for helping and guiding me all along the way. I would also like to thank Secretary General, Claude Bérenguier for unfailingly carrying the load and for his assistance and advice based on his numerous years with ITA. Naturally I also want to thank my friends on the EC, the staff in our Secretariat, our Working Group leaders and everyone else who helped me along the way.

It is important that the business of ITA be done throughout the year and not just at our annual meetings. This is a special year because it will be about 1 ½ years before we meet again in Agra. So we all need to make extra special efforts to keep ITA in your mind and to keep active with ITA during this long period of time. I ask each of you, our member nations, 1) to communicate with us frequently, 2) to submit articles every two months to the ita@news, 3) to keep your homepage on our website up to date, and 4) to answer correspondence promptly. This is for your own benefit.

I am pleased that we have changed the name of our Association to the International Tunnelling and Underground Space Association. This, with the formation of two new committees, and the adoption of our strategy program makes ITA even stronger and more visible to the decision makers.

As I have said in my lectures, the development of so many MegaCities means that there simply may not be enough planners, designers, end contractors to do the work. To achieve the needed high rate of tunnel construction without increasing risk and compromising safety will require many things but certainly a dramatic increase in training at all levels. Please support the Committee on Education and Training and Working Group 18. Moreover, let's go out of our way to encourage students, both men and women, yes even high school students, to consider engineering and tunnelling as a career.

Once again I am asking you to do everything possible to help our industry in reducing accidents and improving safety. Take this task on with a passion so that everyone working with you also give personal and project safety the highest priority.

Let us get our message to the owners and decision makers. I am confident that we have initiated a strong outreach program, including the Underground World wide and the creation of the Committee on Underground Space but we must follow through. Please present our message to the owners and decision makers in every way we can. See if you can get articles about tunnels and tunnel successes in newspapers and TV. Give interesting talks to local organizations. Articles in the journals and proceedings of conferences that are for owners and decision makers will be even better. Let them know, tunnels and underground space are "Investments, not Costs".

As you educate the owners and decisions makers, please give them information about the need for risk management and the ITIG Code. It is vital that owners and decision makers begin the risk management process as early as possible.

I wish to re-emphasize the need to increase our membership, especially Corporate and Individual Members. Let us try to get many Owners and decision makers to join. We have ambitious program of development and improvement of ITA. ITA, together with its Member Nations should hold a Membership Drive so many others can benefit from ITA. So as you go about your business, please do everything you can to help us increase our membership.

There are many of your past or inactive members who no longer come to the annual meetings. Please go back to your countries and let them know what ITA is doing and tell them they remain part of the extended family of ITA. In fact they can stay connected easily and up to date by getting the ita@news or by keeping up with us through the web.

On a personal note, I must thank my wife, Karen, and my family for their support and for the sacrifices they endured during my presidency. Karen is an Individual Member of ITA but she is also my wife and there were many times we seldom saw or spoke to each other. We both look forward to a more normal life.

Again, I thank you for such successful meetings during this week. You can be proud of your accomplishments. I look forward to working with you and your new President throughout the coming year and seeing you again in good health and good spirits in Agra.

- c) The retiring President Harvey PARKER presented the medal of the Association to the Vice-Presidents who are leaving the Executive Council, Harald WAGNER, Koichi ONO and Yucel ERDEM, and the elected President Martin KNIGHTS presented the plaque of the Association to the retiring President Harvey PARKER. Along with the thanks previously given to Henk OUD and Alfred HAACK, the Executive Council also would like to thank Annica NORDMARK, as she is retiring, for her constant action toward the Association.
- d) The plaque of the Association will also be presented later to the Czech organizing Committee of the Conference, as the medal will be presented to the past President Dan EISENSTEIN.

The President

The Secretary General

H. PARKER

C. BERENGUIER