

International Federation of Surveyors
Fédération Internationale des Géomètres
Internationale Vereinigung der Vermessungsingenieure



International Federation of Surveyors

General Assembly

AGENDA AND APPENDICES

18 and 22 May 2011

**Palais des Congres
Marrakech, Morocco**

INTERNATIONAL FEDERATION OF SURVEYORS**FIG 34th GENERAL ASSEMBLY
18 and 22 May 2011
Palais des Congres, Marrakech, Morocco****PROGRAMME**

Wednesday, 18 May 2011		
Palais des Congres, Marrakech, Morocco		
Wednesday 18 May	09:00-12:00 13:00-15:00 Palais des Congres	General Assembly, First Session
Wednesday 18 May	15:00-17:00 Palais des Congres (See programme for individual rooms)	Annual Meetings of FIG Commissions
Wednesday 18 May	19:30-21:00 Mansour Eddahbi Hotel	Welcome reception (all participants)
Thursday, 19 May – Saturday 21 May 2011		
FIG Working Week 2011		
Palais des Congress, Marrakech, Morocco		
www.fig.net/fig2011 and www.onigt.ma/fig2011 (French and Arabic)		
Sunday, 22 May 2011		
Palais des Congres, Marrakech, Morocco		
Sunday 22 May	08:30-10:30 Fez I, Palais des Congres	Presidents' Meeting for Presidents of Member Associations (or their representatives), by invitation only
Sunday 22 May	11:00–12:30 Salle Royal, Palais des Congres	General Assembly, Second Session
Sunday 22 May	14:00-16:00 Salle Royal, Palais des Congres	General Assembly, Second Session, to be continued and to be followed by the Closing Ceremony
Sunday 22 May	16:00-17:00 Salle Royal, Palais des Congres	Farewell Reception

FIG 34th GENERAL ASSEMBLY

List of Agenda Items

Wednesday, 18 May, 09:00-12:00 and 13:00-15:00

1. OPENING PROCEEDINGS
2. ROLL CALL
3. APPOINTMENT OF TELLERS
4. ADOPTION OF THE AGENDA
5. ADOPTION OF THE MINUTES OF THE 33rd GENERAL ASSEMBLY
6. MEMBERSHIP
7. EVALUATION REPORT OF FIG ACTIVITIES 2007-2010
8. PRESIDENT'S REPORT
9. APPOINTMENT OF AN HONORARY PRESIDENT
10. REPORTS FROM FIG COMMISSIONS AND FIG NETWORKS 2007-2010
11. REPORTS FROM THE DIRECTORS OF PERMANENT INSTITUTIONS 2010
12. REPORT OF THE PRESIDENT OF THE FIG FOUNDATION 2010
13. REPORTS OF TASK FORCES 2010
14. CO-OPERATION WITH THE UNITED NATIONS AND THE WORLD BANK
15. LIAISON WITH INTERNATIONAL PROFESSIONAL ORGANISATIONS
16. FIG COUNCIL WORK PLAN 2011-2014
17. COMMISSION WORK PLANS 2011-2014
18. TASK FORCE ON SURVEYORS AND CLIMATE CHANGE
19. TASK FORCE ON PROPERTY AND HOUSING
20. FIG ACCOUNTS FOR 2010 AND AUDITOR'S REPORT AND BUDGET FOR 2011 AND 2011-2014
21. SUBSCRIPTION RATES FOR 2013
22. MEMBERSHIP ISSUES (VOTING RIGHTS)

Friday, 20 May, 11:00-12.30 – Breakout Session on Membership Issues (Voting Rights)

23. BREAKOUT SESSION ON MEMBERSHIP ISSUES (VOTING RIGHTS)

Sunday, 22 May, 8:30-10:30 – Presidents' Meeting (by invitation only)

24. PRESIDENTS' MEETING

Sunday, 22 May, 11:00–12:30 and 14:00-16:00

25. ROLL CALL
26. MEMBERSHIP
27. REPORTS FROM ACCO AND COMMISSION CHAIRS
28. REPORTS FROM TASK FORCES
29. CO-OPERATION WITH THE FIG CORPORATE MEMBERS
30. MEMBERSHIP ISSUES (VOTING RIGHTS)
31. VENUE OF FIG WORKING WEEK 2015
32. REPORT ON THE FIG CONGRESS 2014 IN KUALA LUMPUR, MALAYSIA
33. REPORT ON THE FIG WORKING WEEK 2013 IN ABUJA, NIGERIA, 2013
34. REPORT ON THE FIG WORKING WEEK 2012 IN ROME, ITALY, 6-11 MAY, 2012
35. PRESENTATION OF CERTIFICATES OF APPRECIATION

FIG 34th GENERAL ASSEMBLY

AGENDA

for the meetings to be held at the Palais des Congres in Marrakech, Morocco on the 18th and 22nd of May 2011

WEDNESDAY, 18 MAY

Wednesday, 18 May, 09:00-12:00 and 13:00-15:00
Room to be confirmed, Palais des Congres, Marrakech, Morocco
General Assembly, First Session

1. OPENING PROCEEDINGS

President CheeHai Teo to open the 34th General Assembly.

2. ROLL CALL

Vice President Rudolf Staiger to take the roll call.

Please note: The roll call will be done for member associations and affiliate members only. Delegates representing academic members, corporate members and correspondents as well as honorary presidents and honorary members will be entered in the records but they shall register before the meeting starts at the meeting place to the FIG officers. Member associations are asked to inform the FIG Office by **2 May 2011** about their attendance and at the same time to submit the names of their delegates and to inform who the leader of the delegation is. That only member associations that have paid all their membership fees to the end of 2010 are allowed to vote at the meeting, a list of member associations that are not allowed to vote will be published on the FIG web site **18 April 2011**.

Appendix to items 2 & 25: Roll Call

Appendix to items 2 & 25: List of member associations that are not allowed to vote at the General Assembly because of unpaid membership fees for 2010 and earlier – to be posted on the web 18 April 2011

Motion: That members present are recorded in the minutes.

Decision:

3. APPOINTMENT OF TELLERS

The General Assembly shall appoint two persons as tellers following the principle that one of the tellers will represent member associations hosting the preceding (Surveying and Spatial Sciences Institute, SSSI, Australia) and the current General Assembly (the Ordre National des Ingénieurs Géomètres-Topographes, ONIGT, Morocco).

Motion: That the General Assembly appoints Mr. Rob Sarib from SSSI and President Aziz Hilali from ONIGT as a teller for the two sessions of the General Assembly.

Decision:

4. ADOPTION OF THE AGENDA

Motion: That the agenda be adopted.

Decision:

5. ADOPTION OF THE MINUTES OF THE 33rd GENERAL ASSEMBLY

Minutes have been circulated previously.

Appendix to item 5: Minutes of the General Assembly in Sydney, Australia, April 2010, without appendices.

Motion: That the minutes be adopted as recorded.

Decision:

6. MEMBERSHIP

6.1 Acceptance of new members

6.1.1 Ethiopian Surveying Professionals Association (ESPA)

The Ethiopian Surveying Professionals Association (ESPA) has submitted an application to become a member association of FIG from Ethiopia. The association was constituted in 2010 and currently has 245 full members. The application meets the criteria for membership in FIG as a member association. The Council has considered the application and believes that the association meets criteria for membership of FIG as a member association.

Appendix to item 6.1.1: Membership application from the Ethiopian Surveying Professionals Association (ESPA).

Motion: That the General Assembly admits the Ethiopian Surveying Professionals Association (ESPA) to become a member association of FIG.

Decision:

6.1.2 Ordre National des Geomètres Experts du Senegal (ONGES)

The Ordre National des Geomètres Experts du Senegal (ONGES) has submitted an application to become a member association of FIG from Senegal. The association is constituted by law and has 59 full members. The application meets the criteria for membership in FIG as a member association. The Council has considered the application and believes that the association meets criteria for membership of FIG as a member association.

Appendix to item 6.1.2: Membership application from the Ordre National des Geomètres Experts du Senegal (ONGES).

Motion: That the General Assembly admits the Ordre National des Geomètres Experts du Senegal (ONGES) to become a member association of FIG.

Decision:

6.2 Expulsion of member associations

Subscriptions of following member associations are more than three years in arrears:

- Association of Private Surveyors (APS), Armenia (understood that the association has been terminated)
- FENEA – Federação Nacional dos Engenheiros Agrimensores, Brazil
- Association des Géomètres et Topographes du Burkina (AGT-B), Burkina Faso
- Institution of Surveyors of Tanzania (IST), Tanzania
- Association Nationale des Ingenieurs Géomètres-Experts Tunisiens (ANIGET), Tunisia

The General Assembly has powers to expel from the Federation any member association whose fees are in arrears and shall under normal circumstances expel any member association whose fees are three years in arrears. (Article 4.3 of the Statutes). The FIG office has sent a letter to these associations informing that if their membership fees are still in arrears at the time of the General Assembly the General Assembly shall expel these member associations in Marrakech.

After acceptance of new member associations and expulsions the number of FIG member associations is 99.

Motion: That the General Assembly expels the

- Association of Private Surveyors (APS), Armenia (understood that the association has been terminated)
 - FENEA – Federação Nacional dos Engenheiros Agrimensores, Brazil
 - Association des Géomètres et Topographes du Burkina (AGT-B), Burkina Faso
 - Institution of Surveyors of Tanzania (IST), Tanzania
 - Association Nationale des Ingenieurs Géomètres-Experts Tunisiens (ANIGET), Tunisia
- from the FIG membership if their membership fees still are in arrears 18 May 2011.

Decision:

6.3 Other membership issues

Affiliate members

The FIG Council has accepted following new affiliate members to FIG after the latest General Assembly in 2010:

- China Land Surveying and Planning Institute, China, P. R.
- Survey Department, Sri Lanka
- Cyprus Lands and Surveys Department, Cyprus

After these admissions the number of affiliate members is 39.

Corporate members

The Council has admitted the following companies to become a Corporate Member of FIG after the General Assembly in 2010:

- FARO. Germany (category C – silver level).
- Hi-Target Survey Instruments Company Ltd, China P. R. (category C – silver level)
- Danos S.A, Greece, (category E – basic level)

Following corporate members have terminated their membership:

- Intergraph Mapping and Geospatial Solutions
- TOPCON CORPORATION
- SOKKIA TOPCON CO., LTD
- P. V. Publications Ltd
- Al-Mutakamilah Real Estate (Cityplex)
- Eimar Arabia Real Estate Development Co
- LKN Earth Research & Consulting

In addition the membership of Magellan has been taken over by Ashtech.

After these changes the number of corporate members is now 32.

Academic members

The Council has admitted the following universities and institutions to become an academic member:

- Zonguldak Karaelmas University, Geodesy and Photogrammetry (Geomatics) Engineering, Turkey
- East Kazakhstan State Technical University named after D. Serikbayev, Department Geodesy, Cadastre and Land Management, Kazakhstan
- Bergen University College, Faculty of Engineering, Norway.

The number of Academic Members after these changes is 91.

The FIG Office has sent a final warning to affiliate, academic and corporate members whose membership fees are two years or more in arrears. Decision on these expulsions is made by the Council at its meeting in Marrakech. The Council will inform the General Assembly on its decision at the first session.

Motion: That the General Assembly notes the actions that the Council has taken with other membership matters.

Decision:

7. EVALUATION REPORT OF FIG ACTIVITIES 2007-2010

Prof. Stig Enemark, FIG President 2007-2010 has prepared a Final Progress Report on Evaluation of the FIG Council Work Plan 2007-2010. President CheeHai Teo has invited Prof. Enemark to present the report orally to the General Assembly.

Appendix to item 7: Final Progress Report on Evaluation of the FIG Council Work Plan 2007-2010.

Motion: That the General Assembly adopts the Final Progress Report on Evaluation of the FIG Council Work Plan 2007-2010 and records its sincere thanks and recognition to Prof. Stig Enemark as the FIG President 2007-2010 and his co-members in the Council.

Decision:

8. PRESIDENT'S REPORT

President CheeHai Teo will present orally the President's report on the activities of the President and the Council since the handover of the FIG administration 1 January 2011. The written version will be included in the minutes of the meeting.

Motion: That the General Assembly accepts the President's report.

Decision:

9. APPOINTMENT OF AN HONORARY PRESIDENT

Prof. Stig Enemark

The Danish Association of Chartered Surveyors (DdL) has sent the Federation a nomination letter in which it proposes that FIG appoints Prof. Stig Enemark, immediate Past President of FIG as an Honorary President of FIG.

According to paragraph 3.1.6 in the statutes "a past president who has rendered outstanding service to the Federation during his period of office can be appointed as an honorary president". Nomination shall be made by a member association or by the Council, which will consider it and submit it to a vote of the General Assembly. The Council has considered the nomination and considers that it fulfils the criteria for an Honorary President and therefore decided to propose to the General Assembly that it appoints Prof. Enemark as an Honorary President of the Federation for the outstanding services he has provided to the Federation as its President 2007–2010.

Appendix to item 9: The nomination letter from the Danish Association of Chartered Surveyors

Motion: That the General Assembly appoints Prof. Stig Enemark an Honorary President of FIG.

Decision:

10. REPORTS FROM FIG COMMISSIONS AND FIG NETWORKS 2007-2010

Each Commission Chair, 2007-2010, has submitted a written report on the Commission activities during his/her term of office 2007-2010. These reports include final progress reports of the Commission and all Commission working groups. Thus the reports summarises the main activities over the four-year period and focus on the highlights after the written report to the General Assembly in Sydney. The reports include also the two FIG networks: Standards Network and Young Surveyors Network..

Appendices to item 10: Commission reports:

- 10.01** Commission 1, to be submitted
- 10.02** Commission 2
- 10.03** Commission 3
- 10.04** Commission 4
- 10.05** Commission 5
- 10.06** Commission 6
- 10.07** Commission 7
- 10.08** Commission 8
- 10.09** Commission 9
- 10.10** Commission 10, to be submitted
- 10.11** Standards Network, 2010
- 10.12** Young Surveyors Network, 2010, to be submitted

FIG Commissions have finalized following publications that have been circulated to members after the Handover Ceremony in November 2010:

- No. 54 Compulsory Purchase and Compensation – Recommendations for Good Practice. FIG Policy Statement, 2010. Available on the web at: <http://www.fig.net/pub/figpub/pub54/figpub54.htm>
- No. 55 Spatial Planning in Coastal Regions. Facing the Impact of Climate Change. FIG Report 2010. Available on the web at: <http://www.fig.net/pub/figpub/pub55/figpub55.htm>
- No. 56 Guidelines for the Planning, Execution and Management of Hydrographic Surveys in Ports and Harbours. FIG Report 2010. Available on the web at: <http://www.fig.net/pub/figpub/pub56/figpub56.htm>

Motion: That the General Assembly adopts the end of term reports of the Commission Chairs, 2007-2010 and records its thanks to the chairs and other officers of the Commissions and Networks for their outstanding work.

Decision:

11. REPORTS FROM THE DIRECTORS OF PERMANENT INSTITUTIONS 2010

11.1 International Office of Cadastre and Land Records (Office International du Cadastre et du Régime Foncier) OICRF

Mr. Christiaan Lemmen, Director of OICRF has prepared a report on the OICRF activities since the General Assembly in Sydney. He will make a brief report orally at the General Assembly.

Appendix to item 11.1: Report from the International Office of Cadastre and Land Records (Office International du Cadastre et du Régime Foncier) OICRF.

Motion: That the General Assembly adopts the report and records its thanks to the members of OICRF for their past year's work.

Decision:

11.2 International Institution for the History of Surveying and Measurement, Permanent Institution of FIG

Mr. Jan de Graeve, President of the IIHSM has prepared a report on the IIHSM activities since the General Assembly in Sydney. IIHSM will be represented in Marrakech by Mr. Alan Wright (UK).

Appendix to item 11.2: Report from the International Institution for the History of Surveying and Measurement, Permanent Institution of FIG.

Motion: That the General Assembly adopts the report and records its thanks to the Director and the members of the permanent institution for their past year's work.

Decision:

12. REPORT OF THE PRESIDENT OF THE FIG FOUNDATION

Mr. John Hohol, President of the FIG Foundation has prepared a report on the FIG Foundation activities from April 2010 to February 2011. He will make a brief report orally at the General Assembly.

Appendix to item 12: Report of the FIG Foundation activities 2010-2011

Motion: That the General Assembly

- adopts the report of the President of the FIG Foundation and records its thanks to the President and members of the Board of Directors of the FIG Foundation for their past year's work; and
- appoints the President and Directors of the FIG Foundation for term of office 1.1.2011-31.12.2014: President: Mr. John Hohol (USA) and Directors: Prof. Michael Barry (Canada), Prof. Steven Frank (USA), Prof. Paul van der Molen (the Netherlands), and Prof. Chryssy Potsiou (Greece) as the Council representative.

Decision:

13. REPORTS OF TASK FORCES 2010

After the General Assembly in Sydney FIG has two Task Forces that will continue their work: 1) Task Force on Spatially Enabled Society (2011 – 2012), chaired by Dr. Daniel Steudler (Switzerland); and 2) FIG Africa Task Force (2011 – 2014), chaired by Dr. Diane Dumashie (United Kingdom).

Appendix to item 13: Task Force reports:

- **13.1** FIG Africa Task Force
- **13.2** FIG Task Force on Spatially Enabled Society

Motion: That the General Assembly records all Task Force reports and records its thanks to the Chairs of the Task Forces and their members

Decision:

14. CO-OPERATION WITH THE UNITED NATIONS AND THE WORLD BANK

The main activities in the co-operation with the United Nations and the World Bank since the FIG congress in Sydney have been:

- President Stig Enemark attended the World Bank Annual Land Conference in Washington, USA 26-27 April 2010
- President Enemark attended the Second Preparatory Meeting on the proposed United Nations Committee of Experts on Geographic Information Management in New York, USA 10-11 May 2010
- Vice President CheeHai Teo attended the GLTN Expert Group Meeting on Transparency in Land Administration, Yogyakarta, Indonesia, 19-22 July 2010
- President Enemark and Vice President Teo visited The World Bank in Washington DC, USA, 13-14 September 2010 to prepare the FIG /WG co-operation agreement
- Vice President Matt Higgins attended the Fifth Meeting of the International Committee on Global Navigation Satellite Systems (ICG-5) Turin, Italy, 18-22 October 2010
- President Enemark attended the GLTN International Advisory Board Meeting, Nairobi, Kenya 29-30 October 2010

Subsequent to the visit to the World Bank on 13–14 September, the World Bank and FIG has since agreed to continue the collaboration and signed a document to this effect that includes the agreed collaborative activities for 2011–2014. President Teo will make an oral report at the meeting on co-operation with the United Nations, its agencies and the World Bank in 2011.

Motion: That the General Assembly adopts the report on the co-operation between FIG and the United Nations, its agencies and the World Bank and records its thanks to all those who have contributed to this co-operation.

Decision:

15. LIAISON WITH INTERNATIONAL PROFESSIONAL ORGANISATIONS

The Joint Board of Spatial Information Societies JB-GIS was formally established during the FIG Working Week in Cairo in 2005 and meets annually during a major conference. The meeting of JB-GIS in 2010 was held in conjunction to the FIG Congress in Sydney in April 2010.

The other meetings and activities with sister organisations after the FIG Congress in Sydney included in 2010:

- President Stig Enemark attended the 2nd CLGE cadastral conference, Bucharest, Romania, 7-8 May 2010
- President Enemark attended the ISPRS Centennial Celebration in Vienna, Austria, 4 July 2010 and had a meeting with JB GIS members
- Vice President CheeHai Teo attended the 14th Pacific Association of Quantity Surveyors Congress and Board Meeting, Singapore 25 July 2010 and discussed the MoU between FIG and PAQS
- President Enemark attended the GSDI-12 World Conference, Singapore 17-19 October 2010

A new Memorandum of Understanding between FIG and the Pacific Association of Quantity Surveyors (PAQS) was confirmed by Council at her meeting on July 2010.

FIG has further bilateral agreements of co-operation with several other international associations like ISM, IFHP, CIB, ION, ICEC, FIABCI and IFHS. Some of the partners are also working together in the Habitat Professionals Forum.

FIG is a member of the International Council for Science (ICSU) and working together with ISO and International Valuation Standards Committee (IVSC) on standards.

Appendix to item 15: Memorandum of Understanding between FIG and PAQS

Motion: That the General Assembly

- records the report on the liaison with other international associations
- approves the proposed MoU between FIG and PAQS

Decision:

16. FIG COUNCIL WORK PLAN 2011-2014

The Council has prepared the FIG Council Work Plan for 2011-2014. Together with the Commission Work Plans the Council Work Plan will form the FIG Work Plan for the next four years. The proposal for the Council Work Plan 2011-2014 is attached to the agenda and is based on preparations made in two Council meetings and in a meeting with the Commission Chairs during the Handover Ceremony in Copenhagen in November 2010. The Council Work Plan has also been coordinated with the Commissions', Networks', ask Forces' and Permanent Institutions' Work Plans.

President Teo will present the Work Plan at the meeting.

The Council has also decided on responsibilities of individual Council members. This list is included as an appendix to the Council Work Plan. An up-to-date list will always be available on the FIG web site.

Appendix to item 16: FIG Council Work Plan 2011-2014

Motion: That the General Assembly adopts the Council Work Plan for 2007-2010.

Decision:

17. COMMISSION WORK PLANS 2011-2014

Commission Chairs have prepared their Commission Work Plan for 2011-2014 based on discussions at their Commission meetings at the FIG Congress in Sydney. After Sydney the Work Plans have been coordinated with the Council Work Plan and with other Commission Work Plans at the meeting of Commission chairs and the FIG Council in conjunction to the FIG Handover Ceremony in Copenhagen in November 2010.

All Commission Work Plans have now been finalised and synchronised with the Council Work Plan and are presented for the General Assembly for its approval in Marrakech in May 2011.

At the General Assembly 1-1.5 hours is reserved for the members to discuss the Work Plans and Commission activities with the Commission Chairs. This discussion will be chaired by Vice President Rudolf Staiger, who will be chairing ACCO (2011-2014), together with the ACCO representative Dr. Michael Sutherland (2011-2012).

Appendices to item 17:

- 17.1: Commission 1 Work Plan 2011-2014
- 17.2: Commission 2 Work Plan 2011-2014
- 17.3: Commission 3 Work Plan 2011-2014
- 17.4: Commission 4 Work Plan 2011-2014
- 17.5: Commission 5 Work Plan 2011-2014
- 17.6: Commission 6 Work Plan 2011-2014
- 17.7: Commission 7 Work Plan 2011-2014
- 17.8: Commission 8 Work Plan 2011-2014
- 17.9: Commission 9 Work Plan 2011-2014
- 17.10: Commission 10 Work Plan 2011-2014
- 17.11 Standards Network
- 17.12 Young Surveyors Network

Motion: That the General Assembly adopts the Commission Work Plans.

Decision:

18. TASK FORCE ON SURVEYORS AND CLIMATE CHANGE

The Council has established two new Task Forces for 2011-2014. The first Task Force will focus on Surveyors and Climate Change. This Task Force is chaired by Prof. John Hannah from New Zealand. It will work in close co-operation with all Commissions that will appoint their contact persons to the Task Force. The Task Force will have its first meeting in Marrakech where members of the Task Force will be appointed by the Council and brought to the General Assembly for endorsement.

Appendix to item 18: Terms of Reference for the Task Force on Surveyors and Climate Change.

Motion: That the General Assembly records the Council's decision of establishment of the Task Force on Surveyors and Climate Change, appointment of Prof. John Hannah to chair the Task Force and its terms of reference for information.

Decision:

19. TASK FORCE ON PROPERTY AND HOUSING

The Council has established two new Task Forces for 2011-2014. The second Task Force will focus on Property and Housing. This Task Force is chaired by Vice President Chryssy Potsiou from Greece. It will work in close co-operation with all Commissions that will appoint their contact persons to the Task Force. The Task Force will have its first meeting in Marrakech where members of the Task Force will be appointed by the Council and brought to the General Assembly for endorsement.

Appendix to item 19: Terms of Reference for the Task Force on Property and Housing.

Motion: That the General Assembly records the Council's decision of establishment of the Task Force on Property and Housing, appointment of Dr- Chryssy Potsiou to chair the Task Force and its terms of reference for information.

Decision:

20. FIG ACCOUNTS FOR 2010 AND AUDITOR'S REPORT AND BUDGET FOR 2011 AND 2011-2014

Vice President Iain Greenway has prepared a report on the FIG Financial Issues. Iain Greenway will present the report to the General Assembly. This report includes summary of 2010 accounts, an updated budget for 2011 and proposals for budgets 2011-2014 with notes and proposal for membership fees for member associations in 2013.

The Auditors Report includes the auditors report from 2010, official accounts (income statement 2010) and balance sheet 31 December 2010.

Appendix to item 20: Report on Financial Issues (including 2010 accounts and budgets 2011-2014)

Annexes:

- **20A** Auditor's Report, Income Statement for 2010 and Balance Sheet at 31 December 2010.
- **20B** FIG Result 2010
- **20C** FIG Budgets 2011-2014
- **20D** List of member associations whose membership fees are in arrears for 2010 and earlier and that are not allowed to vote, to be will be published on the FIG web site 18 April 2011.

Motion: That the General Assembly

- adopts the audited accounts for 2010 and
- adopts budgets for 2011–2014

21. SUBSCRIPTION RATES FOR 2013

The General Assembly has to set levels of fees for member associations two years in advance of the year in which they become payable. Fees are payable in respect of each individual member up to a maximum of 5,500 members. Membership fee structure was changed in 2009. Membership fees have been discussed as part of the finance report, **appendix to item 20**.

The 2010 General Assembly approved membership fees for 2012 as follows:

<u>Year</u>	<u>Per capita fee</u>	<u>Minimum fee</u>	<u>Maximum fee</u>
2012	4.48 € per member up to a maximum of 5,500 members Member associations from countries listed by the World Bank as low-	20 members or 50 € (whichever is greater)	5,500 members (24,640 €)

	income economies or lower-middle-income economies shall pay 2.24 € member up to a maximum of 5,500 members.		
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The World Bank lists of the low-income economies and the lower-middle-income economies are available at:

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20421402~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

The Council proposes to the General Assembly to keep the membership fees for member associations for 2013 at the same level as endorsed by the General Assembly in 2010 for 2012. In the draft budgets for 2011-2014 the membership fees are planned to be kept at the 2012 level for all membership categories for 2012-2014.

Motion: That the General Assembly adopts following membership fees payable by member associations in 2013:

<u>Year</u>	<u>Per capita fee</u>	<u>Minimum fee</u>	<u>Maximum fee</u>
2013	4.48 € per member up to a maximum of 5,500 members Member associations from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay 2.24 € member up to a maximum of 5,500 members.	20 members or 50 € (whichever is greater)	5,500 members (24,640 €)

Decision:

22. MEMBERSHIP ISSUES (VOTING RIGHTS)

After the General Assembly in Sydney the Council has been approached by some member associations to evaluate the membership issues and especially to review the voting rights in relation to the size of member associations and number of member associations from one country. This issue has become more important after the statutes were changed some years ago. This has resulted in membership applications (second and third associations from the same country being very often quite small associations).

The Council has considered this issue and want to discuss it with member associations in Marrakech. The Council is preparing a discussion paper on this issue that will be presented and discussed at the General Assembly in Marrakech. For those associations that are interested to discuss this issue in more detail a special session will be organised on Friday 20 May 2011 from 11:00 to 12:30. Results of this breakout session will be reported back to the General Assembly at the second session. President Teo has invited Vice President Greenway to chair these discussions.

Depending on the feedback and discussion at the General Assembly the Council will then decide whether to make a proposal on changes to the statutes and internal rules for adoption in Rome in 2012 so that in case it will be adopted the new voting system could be used at the elections and other voting at the General Assembly in 2012.

Appendix to item 22: A discussion paper on membership issues (voting right), to be tabled at the General Assembly

Motion: That the General Assembly records the presentation and discussion paper and decides on the breakout session on 20 May 2011 (11:00-12.30)

Decision:

FRIDAY 20 MAY, 2011

**Friday, 20 May, 11:00-12:30
Palais des Congres, Marrakech**

Breakout Session on Membership Issues (Voting Rights)

23. BREAKOUT SESSION ON MEMBERSHIP ISSUES (VOTING RIGHTS)

Open discussion on the membership issues (voting rights) based on the introduction at the first session of the General Assembly. Discussion is chaired by Vice President Greenway and open for member associations interested in the topic.

Motion: Conclusions from the discussion will be recorded and presented back to the General Assembly in its second session on Sunday, 22 May 2011.

Decision:

SUNDAY 22 MAY, 2011

**Sunday, 22 May, 8:30-10:30
Fez I, Palais des Congres, Marrakech
Presidents' Meeting (by invitation only)**

24. PRESIDENTS' MEETING

Separate invitation to Presidents of the Member Associations.

**Sunday, 22 May, 11:00–12:30 and 14:00-16:00
Salle Royal, Palais des Congres, Marrakech
General Assembly, Second Session**

Sunday, 22 May, 11:00–12:30 and 14:00-16:00

25. ROLL CALL

Vice President Staiger to take the roll call.

Please note: The roll call will be done for member associations and affiliate members only. Delegates representing academic members, corporate members and correspondents as well as honorary presidents and honorary members will be entered in the records but they shall register before the meeting starts at the meeting place to the FIG officers. Member associations are asked to inform the FIG Office by **2 May 2011** about their attendance and at the same time to submit the names of their delegates and to inform who the leader of the delegation is. That only member associations that have paid all their membership fees to the end of 2010 are allowed to vote at the meeting, a list of member associations that are not allowed to vote will be published on the FIG web site **18 April 2011**.

To be noted that the General Assembly has appointed Mr. Rob Sarib from SSSI, Australia and President Aziz Hilali from ONIGT, Morocco as tellers to this session of the General Assembly.

Appendix to items 2 & 25: Roll Call.

Motion: That present members are recorded in the minutes.

Decision:

26. MEMBERSHIP

The Council will decide on other membership issues in Marrakech and bring them for the General Assembly for decision or information as necessary.

Motion: That the General Assembly decides on the membership issues based on the proposal of the Council.

Decision:

27. REPORTS FROM ACCO AND COMMISSION CHAIRS

Commission Officers (ACCO) and Commissions will have their annual and other administrative meetings in Marrakech. They will report back to the General Assembly on any issues that need endorsement of the General Assembly or are of general interest.

Motion: That the General Assembly records the reports and decides on any recommendations arising from the reports.

Decision:

28. REPORTS FROM TASK FORCES

All four Task Forces will have their meetings in Marrakech. They will report back to the General Assembly on any issues that need endorsement of the General Assembly or are of general interest.

Motion: That the General Assembly records the reports and decides on any recommendations arising from the reports.

Decision:

29. CO-OPERATION WITH THE FIG CORPORATE MEMBERS

A traditional meeting for FIG Corporate Members will be organised in Marrakech. A report on co-operation between FIG and its Corporate Members will be given at the meeting.

Motion: That the General Assembly records the report.

Decision:

30. MEMBERSHIP ISSUES (VOTING RIGHTS)

The Council will report back to the General Assembly on findings of the breakout session on membership issues (voting rights) and on Council's proposal for the consideration of the General Assembly.

Motion: That the General Assembly records the report and decides on Council's proposal.

Decision:

31. VENUE OF FIG WORKING WEEK 2015

The Council has not received full bids from member associations to host the FIG Working Week 2015. The Council has received letters of interest from several member associations, but because there are no full bids the Council has decided to propose to the General Assembly that it decides on the venue of FIG Working Week 2015 first in 2012 at the same time when decision on the venue for FIG Working Week 2016 will be made. The Council considers that this is even more important because the role of the FIG conferences is becoming more and more important for the finances of the Federation.

Motion: That the General Assembly decides to postpone decision on the venue of FIG Working Week 2015 until Rome 2012.

Decision:

32. REPORT ON THE FIG CONGRESS 2014 IN KUALA LUMPUR, MALAYSIA

President Mohammad Azmi Mohd Zin from the Malaysian Association of Authorised Land Surveyors Malaysia and representatives of the Organising Committee of FIG 2014 will give a presentation on preparations of FIG Congress 2014.

Motion: That the General Assembly records the report for information.

Decision:

33. REPORT ON THE FIG WORKING WEEK 2013 IN ABUJA, NIGERIA, 2013

President Yakubu Maikano from the Nigerian Institution of Surveyors and representatives of the Organising Committee of FIG Working Week 2013 will give a presentation on preparations of FIG Working Week 2013.

Motion: That the General Assembly records the report for information.

Decision:

34. REPORT ON THE FIG WORKING WEEK 2012 IN ROME, ITALY, 6-11 MAY, 2012

President Fausto Savoldi, Consiglio Nazionale Geometri e Geometri Laureati CNGGL and representatives of the Organising Committee of FIG Working Week 2012 will give a presentation on preparations of FIG Working Week 2012. The Working Week 2012 will be held in Rome, Italy 6-11 May 2012. Conference web site will be available at: www.fig.net/fig2012.

Motion: That the General Assembly records the report for information.

Decision:

35. PRESENTATION OF CERTIFICATES OF APPRECIATION

CLOSING CEREMONY

**34th General Assembly
Marrakech, Morocco, 18 and 22 May 2011**

Roll Call

<u>MEMBER ASSOCIATIONS</u>	18 May	22 May
Albania Albania Association of Geodesy		
Algeria Ordre des Géomètres-Experts Fonciers		
Argentina Federación Argentina de Agrimensores FADA		
*) Armenia Association of Private Surveyors APS		
Australia Surveying and Spatial Sciences Institute SSSI		
Austria Österreichische Gesellschaft für Vermessung und Geoinformation (Austrian Society for Surveying and Geoinformation) OVG		
Belarus Land Reform Association		
Belgium Union Belge des Géomètres-Experts Immobiliers		
Benin Ordre des Géomètres Experts du Benin		
Bosnia-Herzegovina Geodetic Association of Herceg-Bosnia		
Botswana Botswana Surveying and Mapping Association		
Brazil Brazilian Society of Cartography, Geodesy, Photogrammetry and Remote Sensing SBC		
*) Brazil FENEA - Federação Nacional dos Engenheiros Agrimensores		
Brunei Darussalam Brunei Institution of Geomatics, BIC		
Bulgaria Union of Surveyors and Land Managers in Bulgaria		
Bulgaria Chamber of Graduate Surveyors		
*) Burkina Faso Association des Geometres et Topographes du Burkina AGT-B		
Cameroon Ordre National des Geometres du Cameroun OGEC (National Order of Cameroon Surveyors NOCS)		
Canada Canadian Institute of Geomatics CIG		
China P.R. Chinese Society of Geodesy, Photogrammetry and Cartography		
China P. R. China Institute of Real Estate Appraisers and Agents CIREA		
Congo D. R. Federation des Ingenieurs Geometres-Topographes		
Costa Rica Colegio de Ingenieros Topógrafos de Costa Rica CFIA		
Croatia Croatian Geodetic Society HGD		
Cyprus Association of Rural Surveying Engineers of Cyprus		
Cyprus Cyprus Association of Property Valuers		
Czech Republic Czech Union of Surveyors and Cartographers CSVTS		
Czech Republic Czech Association of Certified Property Appraisers CSCOM		
Denmark Den danske Landinspektørforening DdL		
Egypt Egyptian Committee of Surveying and Mapping ECSM		
Estonia Eesti Geodeetide Ühing EGÜ (Association of Estonian Surveyors)		

**) Ethiopia Ethiopian Surveying Professionals Association (ESPA)		
Fiji Fiji Institute of Surveyors		
Finland Suomen Maanmittausinsinöörien Liitto MIL (The Finnish Association of Surveyors)		
Finland Maanmittausalan ammattikorkeakoulu- ja opistoteknisten Liitto MAKLI ry		
France Ordre des Géomètres-Experts OGE		
France Association Française de Topographie AFT		
Georgia Society of Professionals of Land Information Technologies SPLIT		
Germany DVW – Deutscher Verein für Vermessungswesen – Gesellschaft für Geodäsie, Geoinformation und Landmanagement		
Ghana Ghana Institution of Surveyors GhIS		
Greece Technical Chamber of Greece TEE		
Greece Hellenic Association of Rural and Surveying Engineers HARSE		
Hong Kong SAR, China The Hong Kong Institute of Surveyors HKIS		
Hong Kong SAR, China The Hong Kong Institution of Engineering Surveyors HKInstES		
Hungary Hungarian Society of Surveying, Mapping and Remote Sensing MFTTT		
Indonesia Ikatan Surveyor Indonesia ISI		
Iran, Islamic Republic Iranian Society of Surveyors ISS		
Ireland The Society of Chartered Surveyors SCS		
Ireland The Irish Institution of Surveyors IIS		
Israel Association of Licensed Surveyors in Israel ALSI		
Italy Consiglio Nazionale Geometri e Geometri Laureati CNGGL		
Jamaica The Land Surveyors Association of Jamaica LSAJ		
Japan Nippon Sokuryosha Renmei (Japan Federation of Surveyors JFS)		
Kenya Institution of Surveyors of Kenya ISK		
Korea, Republic of Korea Confederation of Surveyors		
Kosovo Kosova Association of Surveyors		
Latvia Latvian Associations of Surveyors LMB		
Lebanon Ordre des Géomètres-Topographes du Liban		
Lithuania Lithuanian Association of Surveyors LMA ****)		
Lithuania Lithuanian Association of Property Valuers LTVA		
Luxembourg Ordre Luxembourg des Géomètres OLG		
Malaysia Association of Authorised Land Surveyors Malaysia AALSM		
Malta The Malta Institution of Surveyors		
Mongolia Mongolian Association of Geodesy and Cartography MAGaC		
Morocco Ordre National des Ingénieurs Géomètres-Topographes ONIGT		
Nepal Nepal Institution of Chartered Surveyors		
Netherlands Geo-informatie Nederland GIN		
New Zealand New Zealand Institute of Surveyors NZIS		
Niger Association des Géomètres Experts du Niger AGEN		
Nigeria Nigerian Institution of Surveyors NIS		

Nigeria The Nigerian Institute of Quantity Surveyors NIQS		
Norway Norges Jordskifte kandidatforening NJKF, faglig gruppe af Tekna and GeoForum		
Palestinian Authority Licensed Surveyors Association in Palestine		
Papua New Guinea Association of Surveyors of Papua New Guinea ASPGN		
Philippines Geodetic Engineers of the Philippines, Inc.		
Poland Stowarzyszenie Geodetow Polskich SGP Association of Polish Surveyors		
Portugal Ordem dos Engenheiros, Colégio de Engenharia Geografica ORDENG Order of Engineers - College of Geographical Engineering		
Puerto Rico, USA Colegio de Ingenieros y Agrimensores de Puerto Rico CIAPR College of Engineers and Land Surveyors of Puerto Rico		
Romania Union of Romanian Geodesy		
Romania Romanian Association of Private Surveyors APCGCR		
Russian Federation Federal Service of State Registration, Cadastre and Cartography (Rosreestr)		
** Senegal Ordre National des Géomètres Experts du Senegal (ONGES)		
Serbia Union of Surveying Engineers of Serbia		
Slovak Republic Slovak Union of Surveyors and Cartographers		
Slovak Republic Chamber of Surveyors and Cartographers KGK		
Slovenia Association of Surveyors of Slovenia ZGS		
South Africa South African Council for Professional and Technical Surveyors PLATO		
Spain Colegio Oficial de Ingenieros Técnicos en Topografía		
Sri Lanka Surveyors' Institute of Sri Lanka		
Sweden Association for Chartered Surveying, Property Evaluation and Transactions - ASPECT		
Switzerland geosuisse - Swiss Society of Geomatics and Landmanagement		
Syria Order of Syrian Engineers and Architects OSEA		
*) Tanzania Institution of Surveyors of Tanzania IST		
Togo Ordre des Géomètres du Togo OGT		
Trinidad and Tobago Institute of Surveyors of Trinidad and Tobago		
*) Tunisia Association Nationale des Ingenieurs Géomètres-Experts Tunisiens ANIGET		
Turkey TMMOB Chamber of Surveying Engineers of Turkey		
Ukraine Ukrainian Society of Geodesy and Cartography		
United Kingdom The Royal Institution of Chartered Surveyors RICS		
United Kingdom Chartered Institution of Civil Engineering Surveyors ICES		
United States of America. American Congress on Surveying and Mapping ACSM		
United States of America The Appraisal Institute AI		

Uruguay Asociacion de Agrimensores del Uruguay		
Vietnam Association of Geodesy, Cartography and Remote Sensing VGCR		
Zimbabwe Survey Institute of Zimbabwe SIZ		
*) to be expelled 18 May 2011 **) membership to be approved 18 May 2011 ***) no voting right 18 May 2011 unless arrears paid	104	99
<u>AFFILIATES</u>		
Afghanistan (Afghan Land Consulting Organization, ALCO)		
Afghanistan (Afghanistan Information Management Services, AIMS)		
Australia and New Zealand (ANZLIC)		
Belgium (General Administration of the Patrimonial Documentation)		
Brunei Darussalam (Survey Department)		
Cambodia (Ministry of Land Management, Urban Planning and Construction)		
Chile (Servicio Hidrográfico y Oceanográfico de la Armada de Chile)		
China P. R. (China Land Surveying and Planning Institute)		
Colombia (Instituto Geográfico Agustín Codazzi, IGAC)		
Croatia (State Geodetic Administration of Republic of Croatia, DGU)		
Cyprus (Lands and Surveys Department)		
Denmark (National Survey and Cadastre, Denmark)		
Fiji (Ministry of Lands and Mineral Resources)		
Finland (National Land Survey of Finland)		
Hungary (Institute of Geodesy, Cartography and Remote Sensing, FÖMI)		
Iceland (The Land Registry of Iceland)		
Iran (National Cartographic Center)		
Iraq, Republic of (General Directorate for Surveying, Ministry of Water Resources)		
Israel (Survey of Israel)		
Italy (Italian Society of Photogrammetry and Topography, SIFET)		
Jordan (Department of Lands & Survey)		
Lao People's Democratic Republic (National Geographic Department)		
Macedonia (FYROM) (State Authority for Geodetic Works)		
Mexico (National Institute of Statistics, Geography and Informatics, INEGI)		
Moldova (Agency for Land Administration and Cadastre of Republic of Moldova)		
Mongolia (Administration of Land Affairs, Geodesy & Cartography)		
Namibia (Office of the Surveyor General)		
Nepal (Survey Department, Government of Nepal)		
Netherlands (Cadastre, Land Registry and Mapping Agency)		
Norway (Norwegian Mapping and Cadastre Authority)		
Romania (National Agency for Cadastre and Land Administration)		
Russian Federation (Siberian State Academy of Geodesy)		
Rwanda (Ministry of Lands, Resettlement and Environment)		

Saudi Arabia, Kingdom of (Ministry of Municipal and Rural Affairs)		
Sri Lanka (Survey Department, Sri Lanka)		
Sweden (Lantmäteriet)		
Switzerland (Swiss Federal Office of Topography, swisstopo)		
United Arab Emirates (Surveying Department, Dubai)		
USA (NOAA, National Geodetic Survey)		
USA (Cadastral Survey Bureau of Land Management, Dept. of the Interior, BLM)		
	/39	/39
<u>CORRESPONDENTS</u>		
Bahrain		
Benin, Republic of		
Bhutan		
Eritrea		
Ethiopia		
Gabon		
Guyana		
India		
Lesotho		
Madagascar		
Peru		
Saint Lucia, WI		
Senegal		
Tanzania (Zanzibar)		
Thailand		
Tonga		
Tunisia		
Tuvalu		
	/18	/18
<u>ACADEMIC MEMBERS</u>		
Australia The University of Melbourne		
Australia RMIT University		
Australia University of New South Wales		
Australia University of Southern Queensland		
Australia University of Technology Sydney		
Austria BOKU, Vienna		
Bahrain Arabian Gulf University		
Belgium University of Applied Sciences Kaho Sint-Lieven		
Belgium ECAM - Haute Ecole Leonard de Vinci, Département Construction		
Belgium University of Liege, Unit of Geomatics		
Botswana University of Botswana		
Brazil UNISINOS		
Canada University of Calgary		
Canada University of New Brunswick		

Canada Université Laval		
Chile Universidad de Concepcion		
China Renmin University of China, School of Public Administration		
Colombia Universidad Distrital, Facultad de Ingenieria		
Colombia Universidad Distrital, Facultad del Medio Ambiente y Recursos Naturales		
Croatia University of Zagreb		
Czech Republic Brno University of Technology		
Denmark Aalborg University		
Egypt National Water Research Center		
Egypt National Research Institute of Astronomy & Geophysics		
Ethiopia Institute of Land Administration, Bahir Dar University		
Finland Aalto University School of Science and Technology		
Finland Helsinki Metropolia University of Applied Sciences		
France Ecole Supérieure des Géomètres et Topographes		
Germany Technische Universität München		
Germany Anhalt University of Applied Sciences		
Germany University of Applied Sciences Oldenburg/Ostfriesland/Wilhemshaven		
Germany Technische Universität Berlin		
Germany Center for Soil Protection and Land Use Policy		
Ghana University of Mines and Technology (UMaT)		
Greece National Technical University of Athens NTUA		
Greece Technological Educational Institute of Athens		
Hong Kong SAR, China The Hong Kong Polytechnic University		
Hungary University of West Hungary		
Ireland Dublin Institute of Technology		
Israel Technion – Israel Institute of Technology		
Jamaica University of Technology Jamaica		
Kazakhstan East Kazakhstan State Technical University		
Kenya University of Nairobi		
Latvia Riga Technical University		
Lithuania Vilnius Gediminas Technical University		
Lithuania Lithuanian University of Agriculture		
Malaysia Universiti Teknologi Malaysia, Department of Geomatics Engineering		
Mexico Universidad Autónoma de Nuevo León		
Nepal Land Management Training Centre		
Netherlands ITC International Institute for Geo-Information Science and Earth Observation		
New Zealand University of Otago		
Nigeria University of Lagos		
Nigeria Nnandi Azikiwe University		
Norway Agricultural University of Norway, Dept. of Land Use and Landscape Planning		

Norway Norwegian University of Life Sciences, Department of Mathematical Sciences and Technology		
Norway Bergen University College		
Oceania University of the South Pacific		
Palestine Authority Palestine Polytechnic University		
Poland Agricultural University of Krakow		
Puerto Rico, USA Universidad de Puerto Rico		
Puerto Rico, USA Polytechnic University of Puerto Rico		
Romania “Dunarea de Jos” University Galati		
Romania 1 Decembrie 1918 University of Alba Iulia		
Russian Federation Moscow State University of Geodesy and Cartography, Economic and Land Management		
Russian Federation State University of Land Use Planning		
Serbia University of Novi Sad, Faculty of Technical Sciences		
Singapore National University of Singapore		
Slovenia University of Ljubljana		
South Africa University of Cape Town		
Spain Universidad Politécnica de Madrid		
Spain Universidade de Santiago de Compostela		
Spain Institut de Géomàtica, Castelldefels		
Sweden Lund University LTH		
Sweden Royal Institute of Technology		
Switzerland University of Applied Sciences Northwestern Switzerland		
Tanzania Ardhi University		
Turkey Istanbul Technical University		
Turkey Zonguldak Karaelmas University		
United Kingdom Kingston University		
United Kingdom Newcastle University		
United Kingdom The University of Nottingham		
United Kingdom Oxford Brookes University		
United Kingdom Reading University		
United Kingdom Sheffield Hallam University		
United Kingdom The College of Estate Management		
United Kingdom University College London		
United Kingdom University of the West of England		
USA New Mexico State University		
USA Pennsylvania State University		
USA Texas A&M University – Corpus Christi		
USA University of Houston		
West Indies University of the West Indies		
	/91	/91
<u>CORPORATE MEMBERS</u>		
Platinum level		
Bentley Systems		
Environmental Systems Research Institute, Inc. (ESRI)		

Leica Geosystems AG		
Trimble Navigation Ltd.		
Silver level		
Ashtech		
Blom ASA		
COWI A/S		
FARO		
Geoweb S.p.A.		
Grontmij nv		
Hi-Target Survey Instruments Company Ltd		
Bronze level		
AED-SICAD Aktiengesellschaft		
GIM International – Geomares Publishing		
IGN France International		
Mason Land Surveys Limited		
SEDIC - Sudan Engineering and Digital Information Center		
Basic level		
Danos S.A,		
Derinsu Underwater Engineering Ltd.		
Geo:connexion Ltd		
GEOEXPERT		
GeoInformatics		
Geotrilho Topografia Engenharia e Projecto lda		
Institut Cartogràfic de Catalunya		
International Land Systems (ILS), Inc.		
Regional level		
Associated Surveyors (Pvt.) Ltd		
Cameroon Engineering		
Coordinates Magazine		
Galileo Instruments, Inc.		
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH		
ORBITS Engineering Firm		
SEPRET (Société des Etudes de Projets et Réalisation des Travaux)		
	/32	/32
HONORARY PRESIDENTS		
Robert W. Foster		
Holger Magel		
*) Stig Enemark		
*) membership to be decided by the General Assembly 18 May 2011		
HONORARY MEMBERS		

COMMISSION CHAIRS 2011-2014		
Commission 1 – Leonie Newnham		
Commission 2 – Steven Frank		
Commission 3 – Yerach Doytsher		
Commission 4 – Michael Sutherland		
Commission 5 – Mikael Lilje		
Commission 6 – Gethin W. Roberts		
Commission 7 – Daniel Roberge		
Commission 8 – Wafula Nabutola		
Commission 9 – Frances Plimmer		
Commission 10 – Robert Šinkner		
PERMANENT INSTITUTIONS		
International Office of Cadastre and Land Records (OICRF)		
International Institution for the History of Surveying and Measurement, Permanent Institution of FIG		
FIG FOUNDATION – President John Hohol		
FIG COUNCIL		
President CheeHai Teo		
Vice President Dalal S. Alnaggar		
Vice President Iain Greenway		
Vice President Chryssy A. Potsiou		
Vice President Rudolf Staiger		

INTERNATIONAL FEDERATION OF SURVEYORS

FIG 33rd GENERAL ASSEMBLY

11 and 16 April 2010

Parkside Ballroom, Sydney Convention and Exhibition Centre, Sydney, Australia

List of Items

Sunday, 11 April, 09:00-12:00 and 13:00-15:00

1. OPENING PROCEEDINGS
2. ROLL CALL
3. APPOINTMENT OF TELLERS
4. ADOPTION OF THE AGENDA
5. ADOPTION OF THE MINUTES OF THE 32nd GENERAL ASSEMBLY
6. MEMBERSHIP
7. FIG MEMBERS' DATABASE
8. PRESIDENT'S REPORT
9. HONORARY MEMBERS
10. REPORTS FROM FIG COMMISSIONS AND NETWORKS
11. REPORTS FROM THE DIRECTORS OF PERMANENT INSTITUTIONS
12. REPORT OF THE PRESIDENT OF THE FIG FOUNDATION
13. REPORTS OF TASK FORCES
14. CO-OPERATION WITH THE UNITED NATIONS AND THE WORLD BANK
15. LIAISON WITH INTERNATIONAL PROFESSIONAL ORGANISATIONS
16. FIG CONFERENCES 2009
17. FIG OFFICE DEVELOPMENT PLAN
18. FIG ACCOUNTS FOR 2009 AND AUDITOR'S REPORT AND BUDGET FOR 2010, 2011 AND 2012
19. SUBSCRIPTION RATES FOR 2012
20. ELECTION OF FIG PRESIDENT 2011-2014
21. ELECTION OF FIG VICE PRESIDENTS 2011-2014
22. SELECTION OF VENUE OF FIG CONGRESS 2014

Friday, 16 April, 8:30-10:30 – Presidents' Meeting (by invitation only)

23. PRESIDENTS' MEETING

Friday, 16 April, 11:00–14:00

24. ROLL CALL
25. MEMBERSHIP
26. ELECTION OF FIG PRESIDENT 2011-2014
27. ELECTION OF FIG VICE PRESIDENTS 2011-2014
28. REPORT FROM ACCO
29. APPOINTMENT OF FIG COMMISSION CHAIRS 2011-2014
30. CO-OPERATION WITH THE FIG CORPORATE MEMBERS
31. DECISION ON THE VENUE OF THE FIG CONGRESS 2014
32. FIG SYDNEY DECLARATION
33. OTHER ISSUES

34. REPORT ON THE FIG WORKING WEEK 2011 IN MARRAKECH, MOROCCO, 18-22 MAY 2011
35. REPORT ON THE FIG WORKING WEEK 2012 IN ROME, ITALY, 6-11 MAY 2012
36. CLOSING AND PRESENTATION OF CERTIFICATES OF APPRECIATION
CLOSING CEREMONY

FIG 33rd GENERAL ASSEMBLY

MINUTES

of the meetings to be held in Parkside Ballroom at the Sydney Convention and Exhibitor Centre, Sydney, Australia on the 11th and 16th of April 2010

SUNDAY 11 APRIL

First Session, Sunday, 11 April, 09:00-12:00 and 13:00-15:00

1. OPENING PROCEEDINGS

President Stig Enemark opened the 33rd General Assembly and welcomed the members and delegates to Sydney, Australia.

The President mentioned that he was aware of some members have had some problems in communication with the organisers and also problems of getting visa. But he was happy to see the General Assembly so well represented and to notice that the congress had attracted more than 2,000 participants from more than 100 countries – the biggest FIG congress ever.

Noted that several greetings and apologies were received from member associations, other members, Honorary Presidents Dr. Juha Talvitie, Prof. Peter Dale and Prof. Holger Magel and several Honorary Members who were no able to attend the General Assembly this time. The President welcomed especially Honorary Presidents Earl James and Robert W. Foster to the General Assembly as well as members of the Australian Bureau (1991-1995).

2. ROLL CALL

Vice President Matt Higgins took the roll call. The roll call was made only for member associations and affiliate members. Delegates representing academic members, corporate members and correspondents as well as honorary presidents and honorary members were entered in the records based on their registrations and information to the FIG Office.

Recorded that based on the decision of the General Assembly in 2006 only those member associations that had paid all their membership fees to the end of 2009 are allowed to vote at the meeting. A list of member associations that are not allowed to vote was published on the FIG web site 15 March 2010 and updated 10 and 15 April 2010.

Appendix to items 2 & 24: Roll Call

Appendix to items 2 & 24: List of member associations that are not allowed to vote at the General Assembly because of unpaid membership fees for 2009 and earlier

54 member associations out of 103 were present at this session, which is more than one third of the membership needed for the General Assembly to be constitutionally valid.

Motion: That present members are recorded in the minutes.

Decision: The motion was adopted.

3. APPOINTMENT OF TELLERS

The General Assembly shall appoint two persons as tellers following the principle adopted at the 22nd General Assembly so that the tellers will represent member associations hosting the preceding (the Association of Licensed Surveyors in Israel, ALSI) and the current General Assembly (the Surveying and Spatial Sciences Institute, SSSI).

Motion: That the General Assembly appoints Dr. Haim Srebro from ALSI and Mr. Craig Sandy from SSSI as a teller for the two sessions of the General Assembly.

Decision: The motion was adopted.

4. ADOPTION OF THE AGENDA

Motion: That the agenda be adopted with addition to add new item 33. *Other Issues*. Any members willing to include an item under this issue were invited to contact the President before the second session of the General Assembly.

Decision: The motion was adopted.

5. ADOPTION OF THE MINUTES OF THE 32nd GENERAL ASSEMBLY

Minutes have been circulated previously.

Appendix to item 5: Minutes of the General Assembly in Eilat, Israel, May 2009, without appendices.

Motion: That the minutes be adopted as recorded.

Decision: The motion was adopted.

6. MEMBERSHIP

6.1 Acceptance of new members

6.1.1 Cyprus Association of Valuers and Property Consultants

The Cyprus Association of Valuers and Property Consultants have submitted an application to become the second member association of FIG from Cyprus. The association has been constituted in 2007 after the previous association that included valuers and quantity surveyors was divided into two separate associations. The valuers association has currently 83 members. The current member association the Cyprus Association of Rural and Surveying Engineers has been contacted on the application and they have not opposed the application. The application meets the criteria for membership in FIG as a member association. The Council has considered the application and believes that the association meets criteria for membership of FIG as a member association.

Appendix to item 6.1.1: Membership application from the Cyprus Association of Valuers and Property Consultants.

Motion: That the General Assembly admits the Cyprus Association of Valuers and Property Consultants to become a member association of FIG.

Decision: The motion was adopted and the FIG President gave Mr. Varnavas Pashoulis, President of the Cyprus Association of Valuers and Property Consultants the membership certificate.

6.1.2 The Nepal Institution of Chartered Surveyors

The Nepal Institution of Chartered Surveyors has submitted an application to become a member association of FIG from Nepal. The association has been constituted in May 2008. Its members include licensed surveyors and the number of members is at the moment 27 qualified and 37 qualifying members. Nepal has earlier been a member of FIG but the former association is not active any longer. The application meets the criteria for membership in FIG as a member association. The Council has considered the application and believes that the association meets criteria for membership of FIG as a member association.

Appendix to item 6.1.2: Membership application from The Nepal Institution of Chartered Surveyors.

Motion: That the General Assembly admits The Nepal Institution of Chartered Surveyors to become a member association of FIG.

Decision: The motion was adopted and the FIG President gave Mr. Buddhi Shestra, President of The Nepal Institution of Chartered Surveyors the membership certificate.

6.1.3 Geodetic Association of Herceg-Bosnia

The Geodetic Association of Herceg-Bosnia has submitted an application to become a member association of FIG from Bosnia-Herzegovina. The association has been constituted in 1995. The association in total 70 qualified members. The application meets the criteria for membership in FIG as a member association. The Council has considered the application and believes that the association meets criteria for membership of FIG as a member association.

Appendix to item 6.1.3: Membership application from the Geodetic Association of Herceg-Bosnia.

Motion: That the General Assembly admits the Geodetic Association of Herceg-Bosnia to become a member association of FIG.

Decision: The motion was adopted. The membership certificate was given to the representative of the Geodetic Association of Herceg-Bosnia Prof. Zeljko Obradovic at the second session of the General Assembly.

6.2 Other member association issues

Surveying and Spatial Sciences Institute, SSSI, Australia

The Institute of Surveyors Australia, ISA has merged with the Spatial Sciences Institute at the end of June and submitted FIG a letter requesting to move the membership from ISA to the Surveying and Spatial Sciences Institute, SSSI. The Council has considered the application and has agreed to move the membership of ISA to SSSI representing Australia in FIG.

Motion: That the Council records the decision of the Council to move the Australian membership in FIG from ISA to SSSI.

Decision: The motion was adopted.

Ordre des Géomètres du Togo

The FIG Council has restored the membership of the Ordre des Géomètres du Togo because the association has taken care of all its responsibilities and should have not been expelled in 2007.

Motion: That the General Assembly records the Council decision.

Decision: The motion was adopted.

Danish Association of Chartered Surveyors, DdL, Denmark

The Danish Association of Chartered Surveyors, DdL has been a great supporter of FIG since the FIG Office was established in Copenhagen 1999. This has included lot of in kind support and offering the FIG office space free of charge. Now after ten years it is the right time for FIG to take full responsibility of the office also by starting to pay rent for the office. This has been informed earlier and is included in the FIG budget. Based on the long term support from DdL to FIG the FIG Council has decided to recognise DdL at the General Assembly with a certificate of appreciation. The Council is grateful that the support from DdL to FIG will continue also in the future.

Motion: That the General Assembly recognises the DdL for its continuous support to FIG by a certificate of appreciation and by listing DdL under other sponsorship in Corporate Membership list.

Decision: The motion was adopted. The FIG President presented a certificate of appreciation to Mr. Henning Elmstrom, President of the Danish Association of Chartered Surveyors.

6.3 Expulsion of member associations

Subscriptions of following member associations are more than three years in arrears:

- Syndicat National des Géomètres (SYNAGETAB), Benin
- Botswana Surveying and Mapping Association, Botswana
- Colegio de Ingenieros Topógrafos A. C., Mexico

The General Assembly has powers to expel from the Federation any member association whose fees are in arrears and shall under normal circumstances expel any member association whose fees are three years in arrears. (Article 4.3 of the Statutes). The FIG office has sent a letter to these associations informing that if their membership fees are still in arrears at the time of the General Assembly the General Assembly shall expel these member associations in Sydney.

After acceptance of new member associations and expulsions the number of FIG member associations is 100.

Motion: That the General Assembly expels the

- Syndicat National des Géomètres (SYNAGETAB), Benin
- Botswana Surveying and Mapping Association, Botswana
- Colegio de Ingenieros Topógrafos A. C., Mexico

from the FIG membership if their membership fees still are in arrears 11 April 2010.

Decision: The motion was adopted.

6.4 Other membership issues

Affiliate members

The FIG Council has accepted following new affiliate members to FIG after the latest General Assembly in 2009:

- Afghan Land Consulting Organization, ALCO, Afghanistan
- Italian Society of Photogrammetry and Topography, SIFET, Italy
- Swiss Federal Office of Topography, Swisstopo, Switzerland
- National Cartographic Center, Iran
- Afghanistan Information Management Services (AIMS), Afghanistan (2nd affiliate member from Afghanistan)
- Cadastral Survey Bureau of Land Management, Dept. of the Interior (BLM), USA
- State Geodetic Administration of Republic of Croatia (DGU), Croatia

The Agency for Land Management, Geodesy and Cartography from Tajikistan has terminated its membership in FIG.

After this change the number of affiliate members is 34.

Corporate members

The Council has admitted the following companies to become a Corporate Member of FIG after the General Assembly in 2009:

- Geotrilho Topografia Engenharia e Projecto lda, Portugal, Level E (basic level)
- Geoweb S.p.A., Italy, category C (silver level)
- Coordinates Magazine, India, category F (regional level)

MENSI S.A, Schonstedt Instrument Company, GIS Development, Hansa Luftbild and REIDIN.com have withdrawn their membership from FIG.

After these changes the number of corporate members is now 35.

Academic members

The Council has admitted the following universities and institutions to become an academic member:

- The National Research Institute of Astronomy & Geophysics, Geodynamics Department, Egypt
- The College of Estate Management, United Kingdom
- Brno University of Technology, Czech Republic
- College of Technology, University of Houston, USA
- Center for Soil Protection and Land Use Policy (Zentrum für Bodenschutz und Flächenhaushaltspolitik am Umwelt), (ZBF-UCB), Germany
- School of Rural Estate and Planning, Reading University, United Kingdom.

The number of Academic Members after these changes is 89.

Correspondents

The Council has admitted following new correspondents:

- Habtemicael Weldegiorgis, Director General, Cadastral Office, Ministry of Land, Water and Environment (MLWE), Eritrea
- Melkamu Belachew Moges, Bahir Dar University, Ethiopia
- Jose Espejo Vasquez, Geodetic Surveyor, Peru (with aim to create Peruvian Congress on Geodesy, Surveying and Geomatic)

The membership has been limited to the end of 2010 with condition that their membership will only be continued if there is progress in forming professional association in their country. During this period the correspondents are expected to work for getting their country to join FIG at a higher membership level.

Number of correspondents is currently 18.

Motion: That the General Assembly notes the actions that the Council has taken with other membership matters.

Decision: The motion was adopted. Membership certificates were presented to representatives of the Italian Society of Photogrammetry and Topography, SIFET, Italy; the Swiss Federal Office of Topography, Swisstopo, Switzerland; Cadastral Survey Bureau of Land Management, Dept. of the Interior (BLM), USA; and The College of Estate Management, United Kingdom.

7. FIG MEMBERS' DATABASE

At previous congresses member associations have been requested to prepare national reports on their activities for the congress proceedings. The Council has considered this concept and decided instead study options to build a FIG members' database. The idea is to establish a short description of the profession for the members association within each country. The kind of template should include both a section on statistics and a section describing the profession in terms of the 10 commissions of FIG. The statistical section should include information such as: area and population of the country; number of surveyors in the country and number of surveyors belonging to the member association; and indications whether the association has adopted a code of ethics and professional conduct, a CPD program, and a mutual recognition program.

The purpose of the Members' database is that it would then be easy to get a quick overview of the profile of the surveying profession in each member country whenever needed for whatever purpose.

The Council has prepared an example case study (concept model) from Denmark that the President presented at the General Assembly. If the General Assembly is supportive to the concept an Internet based database will be produced for implementation by the end of 2010.

Appendix to item 7: Handouts of the presentation on FIG Members' Database.

Motion: That the General Assembly records the reports and commits FIG members associations to provide the information required for the FIG members' database.

Decision: The motion was adopted and the Council will proceed with the database so that it will be available by the end of 2010.

8. PRESIDENT'S REPORT

The President has prepared a report on the activities of the President and the Council since the General Assembly in Eilat. The President made a subsequent oral report at the meeting including an overall evaluation of the achievements in relation to the 2007-2010. A more detailed presentation on

the FIG achievements during the 2007-2010 term of office was given by the President in the first plenary session on Monday 12 April.

The President also presented the proposal of publishing a Sydney Declaration as an outcome of the XXIV FIG Congress for approval at the second session of the General Assembly.

Appendix to item 8: President's report and handouts of his powerpoint presentation.

Motion: That the General Assembly accepts the President's report.

Decision: The motion was adopted. The General Assembly also supported the idea of publishing a Sydney Declaration.

9. HONORARY MEMBERS

The Council has received three nominations for Honorary Members: Colegio Oficial de Ingenieros Técnicos en Topografía (COIT) from Spain has nominated Prof. Pedro Cavero, Geo-Information Netherlands (GIN) has nominated Prof. Paul van der Molen (Netherlands), and Norges Jordskifte kandidatforening, faglig gruppe av Tekna (NJKF) from Norway has nominated Mr. Helge Onsrud.

Appendix to item 9: The nomination letters for:

- Prof. Pedro Cavero, Colegio Oficial de Ingenieros Técnicos en Topografía (COIT), Spain
- Prof. Paul van der Molen, Geo-Information Netherlands (GIN), the Netherlands; and
- Mr. Helge Onsrud, Norges Jordskifte kandidatforening, faglig gruppe av Tekna (NJKF) and GeoForum, Norway

According to the Statutes paragraph 3.1.7 an individual who has materially assisted the development and promotion of the surveying profession at the international level can be appointed as an honorary member. Nomination for this appointment shall be made by a member association or the Council, which will consider it and submit it to a vote of the General Assembly.

The Council has considered all three proposals and decided to propose to the General Assembly that it appoints Prof. Pedro Cavero, Prof. Paul van der Molen and Mr. Helge Onsrud as Honorary Members of the Federation for the outstanding services they have provided to the Federation in different positions and functions.

Introductions of the three candidates were made by President Stig Enemark, Mr. Christiaan Lemmen, GIN and President Leiv Bjarte Mjoes, NJKF.

Motion: That the General Assembly appoints Prof. Pedro Cavero, Prof. Paul van der Molen and Mr. Helge Onsrud Honorary Members of FIG.

Decision: The General Assembly appointed Prof. Pedro Cavero, Prof. Paul van der Molen and Mr. Helge Onsrud as an Honorary Member of FIG with acclamation. Prof. Cavero and Mr. Onsrud were presented their badges with silver oak leaves and certificate of Honorary Member. Christiaan Lemmen received the badge and certificate on behalf of Prof. van der Molen.

10. REPORTS FROM FIG COMMISSIONS AND NETWORKS

Vice President Matt Higgins, Chair of ACCO made a presentation on behalf of the ACCO on the Commission activities and on results of the ACCO meeting held in Sydney. A more detailed

presentation on Commission activities 2007-2010 was then given by President Enemark at the first plenary session on Monday 12 April.

Commission Chairs had submitted a written report on their Commission activities since the FIG Working Week in Eilat. These reports include progress reports of the Commission working groups. Each Commission held an annual or administrative meeting during the Congress in Sydney. Reports from Young Surveyors Network and Standards Network were presented together with Commission reports.

Appendices to item 10: Commission reports:

- Commission 1
- Commission 2
- Commission 3
- Commission 4
- Commission 5
- Commission 6
- Commission 7
- Commission 8
- Commission 9
- Commission 10, to be submitted later
- Young Surveyors Network
- Standards Network

FIG Commissions have finished following publications that were circulated at the General Assembly:

- No. 46 Enhancing Surveying Education through e-learning. A publication of FIG Commission 2 – Professional Education. FIG Report, 2010. Available on the web at: www.fig.net/pub/figpub/pub46/figpub46.pdf
- No. 48 Rapid Urbanization and Mega Cities: The Need for Spatial Information Management. Research study by FIG Commission 3. FIG Report, 2010. Available on the web at: www.fig.net/pub/figpub/pub48/figpub48.pdf
- No. 49 Cost Effective GNSS Positioning Techniques. A publication of FIG Commission 5. FIG Report, 2010. Available on the web at: www.fig.net/pub/figpub/pub49/figpub49.pdf

There are several Commission publications (from Commissions 4, 5, 8 and 9) under preparation and they will be published by the end of 2010. These include Issues in Coastal Development (Joint WG 8.4 and WG 4.3 report); FIG guide to find best practice on port hydrography (Commission 4 WG 4.1); Economic Benefits of Hydrography (Commission 4 WG 4.4) and Compulsory Purchase and Compensation (Commission 9).

The Council has made following decisions about Commissions and their working groups:

- appointed in August 2009 Robert Sinkner from Czech Republic as the acting Chair Elect of Commission 10 with immediate effect.
- agreed to establish a new Working Group on “Ubiquitous Positioning Technologies and Techniques” under Commission 5 (joint with Commission 6) that will be a collaborative working group with IAG. This working group will continue its work 2011-2014. Allison Kealy, FIG (Australia) and Günther Retscher, IAG (Austria) has been appointed as co-chairs.
- decided to terminate Working Group 8.5 (Land Use Planning and Implementation) chaired by Maria Ulfvarsson-Östlund based on Commission 8 proposal.

Motion: That the General Assembly

- adopts the reports of the Commission chairs and records its thanks to the chairs and other officers of the Commissions for their past year’s work

- records the Commission publications for information and records its thanks to editors and authors of these publications
- records the decisions on commissions and working groups made by the Council.

Decision: The motion was adopted.

11. REPORTS FROM THE DIRECTORS OF PERMANENT INSTITUTIONS

11.1 International Office of Cadastre and Land Records (Office International du Cadastre et du Régime Foncier) OICRF

Prof. Paul van der Molen, Director of OICRF has prepared a report on the OICRF activities since the General Assembly in Eilat. He will make a short subsequent report orally at the General Assembly. The report was presented at the meeting by Mr. Christiaan Lemmen.

Appendix to item 11.1: Report from the International Office of Cadastre and Land Records (Office International du Cadastre et du Régime Foncier) OICRF.

In the report OICRF has proposed that the General Assembly appoints Mr. Christiaan Lemmen as the new Chairperson of OICRF and Ms. Pauline van Elsland as the new Secretary of OICRF. Mr. Lemmen will precede Prof. Paul van der Molen who will retire from OICRF after leading the institution for more than 15 years.

Motion: That the General Assembly adopts the report and appoints Mr. Christiaan Lemmen as the new OICRF President and Ms. Pauline van Elsland as the new OICRF Secretary and that the General Assembly records its thanks to the members of OICRF for their past year's work and sincere thanks to Prof. Paul van der Molen for his long and outstanding work in OICRF.

Decision: The motion was adopted. The General Assembly recorded its thanks Prof. Paul van der Molen and appointed Mr. Christiaan Lemmen as the new OICRF President and Ms. Pauline van Elsland as the new OICRF Secretary.

11.2 International Institution for the History of Surveying and Measurement, Permanent Institution of FIG

Mr. Jan de Graeve, President of the IIHSM has prepared a report on the IIHSM activities since the General Assembly in Eilat. A FIG Publication on the IIHMS and its achievements was circulated at the General Assembly.

Appendix to item 11.2: Report and publication:

- Report from the International Institution for the History of Surveying and Measurement, Permanent Institution of FIG.
- FIG Publication no. 50: History of Surveying. www.fig.net/pub/figpub/pub50/figpub50.pdf

Motion: That the General Assembly

- adopts the report and records its thanks to the Director and the members of the permanent institution for their past year's work.
- records the publication on History of Surveying and record its thanks to the editors and authors of the publication.

Decision: The motion was adopted.

12. REPORT OF THE PRESIDENT OF THE FIG FOUNDATION

Mr. John Hohol, President of the FIG Foundation has prepared a report on the FIG Foundation activities from May 2009 to January 2010. He made a subsequent report at the General Assembly on the activities related to FIG 2010 and on the grants and fellowships for 2010-2011.

Appendix to item 12: Report of the FIG Foundation activities May 2009 – January 2010.

Motion: That the General Assembly adopts the report of the President of the FIG Foundation and records its thanks to the President and members of the Board of Directors of the FIG Foundation for their past year's work.

Decision: The motion was adopted.

13. REPORTS OF TASK FORCES

At the moment FIG has four Task Forces: 1) Institutional and Organisational Development, chaired by Iain Greenway; 2) Developing Global Land Tools for Pro Poor Land Management, chaired by Paul van der Molen (including the FIG/UN-HABITAT co-operation in Global Land Tool Network and developing Social Tenure Domain Model); 3) Task Force on Spatially Enabled Society, chaired by Daniel Steudler; and 4) FIG Africa Task Force, chaired by Diane Dumashie.

Vice President Iain Greenway has prepared a report on the progress of the Task Force on Institutional and Organisational Development. The final result of the Task Force has been published as FIG publication No 47 on Institutional and professional development and is available on the web at: www.fig.net/pub/figpub/pub47/figpub47.pdf. Hard copies of the publication were circulated at the General Assembly.

The tasks of the Task Force on Developing Global Land Tools for Pro Poor Land Management have in fact been taken over by the President because of change in the policies of co-operation with UN-HABITAT. The FIG activities with UN-HABITAT are now concentrated in the Global Land Tool Network where President Enemark is representing FIG in the International Advisory Board and in the project on developing the Social Tenure Domain Model. The President reported on these issues under agenda item 14 on co-operation with the United Nations. The outcomes of this Task Force include also publication "*Informal Urban Development in Europe. A case study from Albania and Greece*" that was prepared by expert support from FIG (Dr. Chryssy Potsiou) and will be published by UN-HABITAT/GLTN. This Task Force has also been actively involved in the Social Tenure Domain Model, a publication on this project was circulated at the General Assembly.

Dr. Diane Dumashie has prepared as progress report on the activities of the FIG Task Force on Africa (2010-2014). She made a presentation on the work plan and symposia for the coming years at the General Assembly.

Dr. Daniel Steudler has prepared and presented an interim report on the Task Force on Spatially Enabled Society. The final report of this report will be launched by the end of 2010.

Appendix to item 13: Task Force reports:

- Task Force on Institutional and Organisational Development
- FIG Publication no. 47: Institutional and Organisational Development – A Guide for Managers. FIG Guide, 2010 www.fig.net/pub/figpub/pub47/figpub47.pdf
- FIG Africa Task Force
- Handouts of Dr. Diane Dumashie's presentation in Sydney
- FIG Task Force on Spatially Enabled Society

Motion: That the General Assembly

- records all Task Force reports and records its thanks to the Chairs of the Task Forces and their members
- records the FIG Publication no. 47 *Institutional and Organisational Development – A Guide for Managers* and recommends it for FIG members for use and distribution and decides to close the Task Force on Institutional and Organisational Development as its work has come to an end.
- decides to close the FIG Task Force on Spatially Enabled Society and Developing Global Land Tools for Pro Poor Land Management at the end of 2010.

Decision: The motion was adopted.

14. CO-OPERATION WITH THE UNITED NATIONS AND THE WORLD BANK

As part of the Work Plan 2007-2010 the Council has established the UN Liaison Committee – FIG Responses to the Millennium Development Goals to coordinate co-operation with the United Nations and the World Bank. The Liaison Committee is chaired by the President. The Council appointed in February 2009 Prof. Paul van der Molen, the Netherlands, as the FIG Liaison Ambassador for the United Nations for 2009-2010.

The President has prepared a report on the co-operation between FIG and the United Nations including the World Bank since the General Assembly in Eilat. He made a subsequent report at the General Assembly.

The main activities in the co-operation with the United Nations and the World Bank during this period have been:

- Preparation of the FIG Publication No. 45 Land Governance in Support of the Millennium Development Goals. A New Agenda for Land Professionals. FIG / World Bank Conference, Washington DC, USA 9–10 March 2009. FIG Policy Statement, 2010. <http://www.fig.net/pub/figpub/pub45/figpub45.pdf>
- Participation to the Global Land Tool Network and its International Advisory Board
- Contribution to Global Land Tool Network (GLTN) projects such as developing the Social Tenure Domain Model, Case study on informal development in Albania and Greece; and developing the Gender Evaluation Criteria for Large-scale land Tools. Arrangement of the FAO Regional Consultation Meeting on the “*FAO Voluntary Guidelines for Responsible Governance of Tenure of Land and Other Natural Resources*” in conjunction to the 7th FIG Regional Conference in Hanoi, Vietnam, 19-22 October 2009.
- Participation to the work of the International Committee on Global Navigation Satellite Systems (ICG)

Appendix to item 14: Reports:

- Co-operation between FIG and the United Nations and the World Bank.
- FIG Publication No. 45 Land Governance in Support of the Millennium Development Goals. A New Agenda for Land Professionals. FIG / World Bank Conference, Washington DC, USA 9–10 March 2009. FIG Policy Statement, 2010. <http://www.fig.net/pub/figpub/pub45/figpub45.pdf>
- FIG publication on Social Tenure Domain Model <http://www.fig.net/pub/figpub/pub52/figpub52.pdf>

Motion: That the General Assembly

- adopts the report on the co-operation between FIG and the United Nations, its agencies and the World Bank and records its thanks to the members of the Liaison Committee and all those who have contributed to this co-operation

- records the FIG report on the FIG/World Bank conference and endorses the FIG–World Bank Declaration on Land Governance in Support of the Millennium Development Goals

Decision: The motion was adopted.

15. LIAISON WITH INTERNATIONAL PROFESSIONAL ORGANISATIONS

The Joint Board of Spatial Information Societies JB GIS was formally established during the FIG Working Week in Cairo in 2005 and meets annually during a major conference. The meeting of JB GIS in 2009 was held in conjunction to the GSDI Congress in Rotterdam, the Netherlands in June 2009 and the JB GIS had in addition an informal meeting in Bangkok, Thailand during the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific (UNRCC-AP) in October 2009. The meeting included some fruitful information on current activities and discussions on future cooperation and collaboration between the organisations. A key issue was development of the Geographic Information Knowledge Network (GIK Network) under GSDI leadership to serve the global geographic information community at large. The goal of this facility is to enhance communications and sharing among geospatial specialists and organisations from all nations. Other key projects are Risk and Disaster Management and Capacity Building in Africa.

The JB GIS had its annual meeting 2010 during the FIG Congress in Sydney.

A new Memorandum of Understanding has been prepared between FIG and the GSDI Association and between FIG and the Pan American Institute of Geography and History (PAIGH). Both MoU were signed in Sydney at the end of the plenary session on spatially enabled society on Tuesday 13 April 2010.

FIG has further bilateral agreements of co-operation with several other international associations like ISM, IFHP, CIB, ION, ICEC, FIABCI and IFHS. Some of the partners are also working together in the Habitat Professionals Forum.

FIG is a member of the International Council for Science (ICSU) and working together with ISO and International Valuation Standards Committee (IVSC) on standards.

Appendix to item 15: Memorandum of Understanding between FIG and GSDI

Appendix to item 15: Memorandum of Understanding between FIG and PAIGH

Motion: That the General Assembly

- records the report on the liaison with other international associations
- adopts the MoU between FIG and GSDI
- adopts the MoU between FIG and PAIGH

Decision: The motion was adopted.

16. FIG CONFERENCES 2009

The FIG Working Week 2009 “Surveyors’ Key Role in Accelerated Development” was held in Eilat, Israel in 8-11 May 2009. The conference was a big success with more than 650 participants from 65 countries. The results of the conference have been reported on the FIG web site where also the proceedings are available. Findings of the Working Week are listed in the closing speech of President Stig Enemark.

The 7th FIG Regional Conference “Spatial Data Serving People – Land Governance and the Environment – Building the Capacity” was held in Hanoi, Vietnam, 19-22 October 2009. Participation

exceeded the expectations of the organisers. With 400 participants from 52 countries the conference was among the biggest regional conference so far. As part of the conference FAO organised a two-day Regional Consultation Meeting on the “FAO Voluntary Guidelines for Responsible Governance of Tenure of Land and Other Natural Resources”.

As result from the regional conference the Hanoi Declaration on Land Acquisition in Emerging Economies has been prepared and was launched in Sydney.

Appendix to item 16: FIG Publication no. 51 Hanoi Declaration on Land Acquisition in Emerging Economies <http://www.fig.net/pub/figpub/pub51/figpub51.pdf>

Motion: That the General Assembly

- records its thanks to ALSI and the organising committee for hosting the FIG Working Week in Eilat, Israel
- records its thanks to VGCR for hosting the organising committee for hosting the 7th FIG Regional Conference in Hanoi, Vietnam
- records the Hanoi Declaration and endorses its recommendations for land acquisition in emerging economies

Decision: The motion was adopted and the Hanoi Declaration endorsed.

17. FIG OFFICE DEVELOPMENT PLAN

The Council has requested the FIG General Manager John Neel to prepare a FIG Office Development Plan proposing the steps required to develop the FIG Office into an efficient and effective professional organization provided quality service. This was related to the employment as General Manager by 1 January 2009. The Plan will include an Office Quality Management System with a manual documenting all administrative procedures to be written in accordance with the overall ISO principles. This intends to streamline the administrative procedures and also safeguard the small FIG Office that is vulnerable to staff changes.

The FIG President presented the FIG Office Development Plan to the General Assembly.

Appendix to item 17: Summary of the FIG Office Development Plan

Motion: That the General Assembly records the presentation on the FIG Office Development Plan and agrees that the Council will proceed with its implementation.

Decision: The motion was adopted.

18. FIG ACCOUNTS FOR 2009 AND AUDITOR’S REPORT AND BUDGET FOR 2010, 2011 AND 2012

Vice President Iain Greenway and General Manager John Neel have prepared a report on the FIG Financial Issues. Iain Greenway presented the finance report to the General Assembly. This report included the summary of 2009 accounts, an updated budget for 2010 and proposals for budgets 2011-12 with notes and proposal for membership fees for member associations in 2012.

The Auditors Report included the auditors report from 2009, official accounts (income statement 2009) and balance sheet 31 December 2009.

Appendix to item 18: Report on Financial Issues (including 2009 accounts and budgets 2010-2012)

Annexes:

- 18A Auditor's Report, Income Statement for 2009 and Balance Sheet at 31 December 2009.
- 18B FIG Result 2009
- 18C FIG Budgets 2010-2012
- 18D List of member associations whose membership fees are in arrears for 2009 and earlier and that are not allowed to vote.

Handouts of Vice President Greenway's presentation on finances

Motion: That the General Assembly

- adopts the audited accounts for 2009 and
- adopts budgets for 2010–2012

Decision: The motion was adopted.

19. SUBSCRIPTION RATES FOR 2012

The General Assembly has to set levels of fees for member associations two years in advance of the year in which they become payable. Fees are payable in respect of each individual member up to a maximum of 5,500 members. Membership fee structure was changed in 2009 and at that time the per capita fee for 2010 was frozen to 2009 level. Membership fees have been discussed as part of the finance report, appendix to item 18.

The 2009 General Assembly approved membership fees for 2011 as follows:

<u>Year</u>	<u>Per capita fee</u>	<u>Minimum fee</u>	<u>Maximum fee</u>
2010	4.18 € per member up to a maximum of 5,500 members. Member associations from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay 2.09 € per member up to a maximum of 5,500 members.	20 members or 50 € (whichever is greater)	5,500 members (22,290 €)
2011	4.30 € per member up to a maximum of 5,500 members Member associations from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay 2.15 € member up to a maximum of 5,500 members.	20 members or 50 € (whichever is greater)	5,500 members (23,560 €)

The World Bank lists of the low-income economies and the lower-middle-income economies are available at:

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20421402~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

The Council proposes to the General Assembly to increase membership fees for member associations for 2012 with 4.2 per cent from 2011 to 4.48 € per member.

Motion: That the General Assembly adopts following membership fees payable by member associations in 2012:

<u>Year</u>	<u>Per capita fee</u>	<u>Minimum fee</u>	<u>Maximum fee</u>
2012	4.48 € per member up to a maximum of 5,500 members Member associations from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay 2.24 € member up to a maximum of 5,500 members.	20 members or 50 € (whichever is greater)	5,500 members (24,640 €)

Decision: The motion was adopted.

20. ELECTION OF FIG PRESIDENT 2011-2014 – PRESENTATION OF CANDIDATES

The Council has received three nominations for the post of FIG President: RICS from United Kingdom has appointed Mr. Iain Greenway; SSSI; Australia has appointed Mr. Matthew B. Higgins and AALSM from Malaysia has appointed Mr. Teo CheeHai. The profile templates of each candidate were attached to the agenda. In the first session of the General Assembly each candidate was given equal time (5 minutes) to introduce him and make a presentation focussing on his ideas and goals for developing the FIG agenda.

The actual election will take place at the second session of the General Assembly by blind votes on Friday 16 April. If there will be no absolute majority in the first vote, a second vote will be organised between those two candidates that have most votes.

Appendix to item 20 and 26: Profile templates of the three candidates for FIG President 2011-2014:

- Mr. Iain Greenway, The Royal Institution of Chartered Surveyors RICS, United Kingdom
- Mr. Matthew B Higgins, Surveying and Spatial Sciences Institute SSSI, Australia
- Mr. Teo CheeHai, Association of Authorised Land Surveyors Malaysia, Malaysia

Motion: That the General Assembly notes the presentations of the candidates and decides to make the election at the second session of the General Assembly according to FIG statutes and internal rules.

Decision: The motion was adopted.

21. ELECTION OF FIG VICE PRESIDENTS 2011-2014 – PRESENTATION OF CANDIDATES

The FIG Council has received three proposals for the two open posts of FIG Vice President: Prof. Dr. Dalal S. Alnaggar, ECSM, Egypt, Dr. Chryssy Potsiou, TCG and HARSE, Greece and Prof. Dr.-Ing. Rudolf Staiger, DVW, Germany. The profile templates of each candidate were attached to the agenda. In the first session of the General Assembly each candidate was given equal time (about 5 minutes) to introduce her/him and make a presentation focussing on her/his ideas and goals for developing the FIG agenda.

In the case that Mr. Iain Greenway or Mr. Teo CheeHai will be elected as the FIG President a third post for Vice President for a two-year period will be available. All three candidates have shown their interest for all possible Vice President's positions.

The actual election will take place at the second session of the General Assembly by blind votes on Friday 16 April. The election will take place one position at a time. If there will be no absolute majority in the first voting, second vote will be organised between those two candidates that have most votes.

Appendix to item 21 and 27: Profiles of the candidates

- Prof. Dr. Dalal S. Alnaggar, Egyptian Committee of Surveying and Mapping, ECSM, Egypt
- Dr. Chryssy Potsiou, Technical Chamber of Greece TCG and Hellenic Association of Rural and Surveying Engineers HARSE, Greece
- Prof. Dr.-Ing. Rudolf Staiger, DVW – Deutscher Verein für Vermessungswesen - Gesellschaft für Geodäsie, Geoinformation und Landmanagement, Germany

Motion: That the General Assembly notes the presentations of the candidates and decides to make the elections at the second session of the General Assembly according to FIG statutes and internal rules.

Decision: The motion was adopted.

22. SELECTION OF FIG CONGRESS VENUE 2014 – PRESENTATION OF CANDIDATES

The FIG Congress 2014 will be organised by FIG together with the local member association. FIG will have full responsibility of the arrangements and also of the financial result, naturally together with the local member association. This offers FIG better opportunities in terms of organising events and generating funds. Therefore the Council has ensured that all candidates are aware about the role of FIG and split of responsibilities for organising the Congress.

The FIG Council has received two bids to host the FIG Congress 2014:

- Kuala Lumpur, Malaysia, Association of Authorised Land Surveyors Malaysia AALSM
- Istanbul, Turkey, Chamber of Surveying Engineers of Turkey HKMO

The Council has prepared an evaluation report on the two bids that has been posted on the web 15 March 2010 and was available at the General Assembly. In the evaluation report following criteria was described for comparison:

- *Rotation of the conferences* (region);
- *Country* (hosting of earlier FIG events);
- *Member association* (its activeness, commitment to FIG and to FIG 2014);
- *Supporting organisations* (local support to the congress);
- *Host city* (characteristics and interest from congress programme point of view);
- *Venue* (technical issues of proposed congress centre, hotels etc.);
- *Access* (flight connections);
- *Safety and security* (including political stability);
- *Environment issues*;
- *Proposed dates* (in relation to FIG requirements);
- *Technical programme* (coverage of all FIG Commissions, potential partners);
- *Technical tours* (coverage of all FIG Commissions);
- *Social programme* (attractiveness and variety);
- *Attendance* (expectation of international, regional and local attendance);
- *Accommodation* (hotel costs);
- *Finances* (estimate of surplus and financial risks);
- *Sponsorship* (estimate sponsorship and exhibition income);
- *Attractiveness* (general attractiveness as congress destination).

The evaluation report does not give a recommendation or a preference to either candidate but it listed their qualifications on each subject above and summarised pros and cons of each candidate to assist the member association in making their decision. During the last years the role economy has increased in the decision making process. This relates both to the registration fees, over all costs and surplus to the organisers. The purpose of the evaluation process is to guarantee the high standard and quality of the congress.

Appendix to item 22 and 31: Summary of the bids of the two candidates for the FIG Congress 2014

- Kuala Lumpur, Malaysia - Summary of the bid from Association of Authorised Land Surveyors Malaysia
- Kuala Lumpur, Malaysia – Evaluation report of the bid
- Istanbul, Turkey – Summary of the bid from Chamber of Surveying Engineers of Turkey HKMO
- Istanbul, Turkey – Evaluation report of the bid

At the first session each of the two candidates was given 10 minutes to make a presentation of its destination and framework of the congress and their bid.

Decision on the venue of FIG Congress 2014 will be made at the second session of the General Assembly on Friday 16 April 2010. The voting will be made by blind votes.

Motion: That the General Assembly records the presentations and decides to make the decision on the venue at its second session.

Decision: The motion was adopted.

FRIDAY 16 APRIL 2010

Friday, 16 April, 8:30-10:30
Bayside 202, SCEC

Presidents' Meeting (by invitation only)

23. PRESIDENTS' MEETING

Separate invitation to Presidents of the Member Associations.

Totally 66 people attended this Presidents' Meeting out of which 50 were Presidents or leaders of delegations. At the meeting relations between member associations and FIG were discussed as well as experiences from the FIG Congress 2010. A separate memorandum of this meeting is circulated to the participants of the meeting and to the Presidents of member associations.

Appendix to item 23: Memo of the Presidents' meeting

Friday, 16 April, 11:00–14:00
Parkside Ballroom, SCEC
General Assembly, Second Session

24. ROLL CALL

FIG Director took the roll call.

The roll call was made only for member associations. Delegates representing affiliate members, academic members, corporate members and correspondents as well as honorary presidents and honorary members were entered in the records based on their registrations and information to the FIG Office.

Recorded that based on the decision of the General Assembly in 2006 only those member associations that had paid all their membership fees to the end of 2009 are allowed to vote at the meeting. The list of member associations that are not allowed to vote was updated 15 April 2010.

Noted that the General Assembly had appointed Dr. Haim Srebro from ALSI and Mr. Craig Sandy from SSSI as tellers for this session of the General Assembly.

Appendix to items 2 & 24: Roll Call.

67 member associations out of 103 were present at this session, which is more than one third of the membership needed for the General Assembly to be constitutionally valid. 66 member associations were allowed to vote.

Motion: That present members are recorded in the minutes.

Decision: The motion was adopted.

25. MEMBERSHIP

25.1 Acceptance of new members

25.1.1 Albania Association of Geodesy

The Albania Association of Geodesy AAG has submitted an application to become a member association of FIG from Albania. The association has been constituted in 1990 and has now 150 members that have graduated from the Polytechnic University of Tirana. The application meets the criteria for membership in FIG as a member association. The Council has considered the application and believes that the association meets criteria for membership of FIG as a member association.

Appendix to item 25.1.1: Membership application from the Albania Association of Geodesy

Motion: That the General Assembly admits the Albania Association of Geodesy to become a member association of FIG.

Decision: The motion was adopted.

25.1.2 Ordre des Géomètres Experts du Benin

Ordre des Géomètres Experts du Benin has submitted an application to become the new member association of FIG from Benin. The association has been constituted in 1991 and has 60 qualified members. The General Assembly expelled the previous member association SYNAGETAB on 11 April due to unpaid membership fees. The application meets the criteria for membership in FIG as a member association. The Council has considered the application and believes that the association meets criteria for membership of FIG as a member association and that the Ordre is the right association to represent Benin in FIG.

Appendix to item 25.1.2: Membership application from Ordre des Géomètres Experts du Benin.

Motion: That the General Assembly admits the Ordre des Géomètres Experts du Benin to become a member association of FIG.

Decision: The motion was adopted and the FIG President gave President Roch Abdon Bah, Ordre des Géomètres Experts du Benin the membership certificate.

25.1.3 Botswana Surveying and Mapping Association

The Botswana Surveying and Mapping Association have paid part of their arrears and the Council has therefore decided to restore the membership.

Motion: That the General Assembly records that the membership of the Botswana Surveying and Mapping Association has been restored.

Decision: The motion was adopted.

After acceptance of new member associations the number of FIG member associations is 103.

25.2 Affiliate members

The Council has accepted following three affiliate members to FIG:

- Survey of Israel, Israel
- Ministry of Lands and Mineral Resources, Fiji
- Agency for Land Administration and Cadastre of Republic of Moldova

After these new affiliate members the number of affiliate members is 37.

Motion: That the General Assembly records the decision of the Council.

Decision: The motion was adopted and the President gave the membership certificate to Dr. Haim Srebro from the Survey of Israel.

26. ELECTION OF FIG PRESIDENT 2011-2014

The General Assembly have heard presentation of the three candidates for the FIG President 2011-2014 at the first session. The election took place between Mr. Iain Greenway, RICS, United Kingdom; Mr. Matthew B. Higgins, SSSI, Australia and Mr. Teo CheeHai, AALSM, Malaysia. The election took place by blind votes following the FIG statutes and internal rules. If there would not be an absolute majority in the first vote, a second vote will be organised between those two candidates that have most votes.

Appendix to item 20 and 26: Profile templates of the three candidates for FIG President 2011-2014:

- Mr. Iain Greenway, The Royal Institution of Chartered Surveyors RICS, United Kingdom
- Mr. Matthew B Higgins, Surveying and Spatial Sciences Institute SSSI, Australia
- Mr. Teo CheeHai, Association of Authorised Land Surveyors Malaysia, Malaysia

Motion: That the General Assembly elects the President for FIG for term of office 1.1.2011-31.12.2014.

In the first round Iain Greenway got 15 votes, Matthew Higgins 24 votes and Teo CheeHai 27 votes. The second vote was then arranged between Matthew Higgins and Teo CheeHai.

In the second round Matthew Higgins got 32 votes, Teo CheeHai 33 votes and one invalid vote.

Decision: The General Assembly elected Mr. Teo CheeHai from Malaysia as the FIG President for 1.1.2011-31.12.2014 after he got majority of the votes in the election.

27. ELECTION OF VICE PRESIDENTS 2011-2014

The General Assembly have heard presentation of the three candidates for the FIG Vice President 2011-2014 at the first session. The election took place been Prof. Dr. Dalal S. Alnaggar, ECSM, Egypt, Dr. Chryssy Potsiou, TCG and HARSE, Greece and Prof. Dr.-Ing. Rudolf Staiger, DVW, Germany.

The election will took place by blind votes following the FIG statutes and internal rules. The election was made one position at a time. If there would not be an absolute majority in the first voting, second vote will be organised between those two candidates that have most votes.

When Mr. Teo CheeHai had been elected as the FIG President a third post for Vice President for a two-year period was made available. Therefore the candidate that has least votes for the second open post for Vice President will be appointed for FIG Vice President for 2011-2012.

Appendix to item 21 and 27: Profiles of the candidates

- Prof. Dr. Dalal S. Alnaggar, Egyptian Committee of Surveying and Mapping, ECSM, Egypt
- Dr. Chryssy Potsiou, Technical Chamber of Greece TCG and Hellenic Association of Rural and Surveying Engineers HARSE, Greece
- Prof. Dr.-Ing. Rudolf Staiger, DVW – Deutscher Verein für Vermessungswesen - Gesellschaft für Geodäsie, Geoinformation und Landmanagement, Germany

Motion: That the General Assembly elects two Vice Presidents for FIG for term of office 1.1.2011-31.12.2014 and one Vice President for term of office 1.1.2011-31.12.2012.

In the first round Prof. Dalal S. Alnaggar got 10 votes, Dr. Chryssy Potsiou 32 votes, Prof. Rudolf Staiger 23 votes and in addition one invalid vote. The second vote was arranged between Dr. Potsiou and Prof. Staiger. In the second round Dr. Potsiou got 40 votes and Prof. Staiger 26 votes.

For the second Vice President post Dr. Alnaggar got 10 votes and Prof. Staiger 56 votes.

Decision: The General Assembly elected Dr. Chryssy Potsiou from Greece for the first position of Vice President for 1.1.2011-31.12.2014 and Prof. Rudolf Staiger from Germany for the second open position of Vice President for 1.1.2011-31.12.2014. Prof. Dalal S. Alnaggar was then appointed for Vice President for a two year period 1.1.2011-31.12.2014.

28. REPORT FROM ACCO

Mr. Matt Higgins, Chair of ACCO informed the General Assembly on the ACCO meetings during the Congress including preparation of new work plans and evaluation of the peer review process used for FIG Congress 2010.

Motion: That the General Assembly records the report.

Decision: The motion was adopted.

29. APPOINTMENT OF FIG COMMISSION CHAIRS 2011-2014

FIG member associations have proposed all current Chairs Elect for election of FIG Commission Chairs 2011-2014 and the Czech Union of Surveyors and Cartographers has appointed acting Chair Elect Robert Šinkner as candidate for Commission 10. The Council has not received any other nominations.

The candidates for FIG Commission Chairs for 2011-2014 are:

- Commission 1: Ms. Leonie Newnham, SSSI, Australia
- Commission 2: Prof. Dr. Steven Frank, ACSM, USA
- Commission 3: Prof. Yerach Doytsher, ALSI, Israel
- Commission 4: Dr. Michael Sutherland, CIG, Canada and Trinidad and Tobago
- Commission 5: Mr. Mikael Lilje, ASPECT, Sweden
- Commission 6: Dr. Gethin Wyn Roberts, ICES, United Kingdom
- Commission 7: Mr. Daniel Roberge, CIG, Canada
- Commission 8: Mr. Wafula Nabutola, ISK, Kenya
- Commission 9: Prof. Frances Plimmer, RICS, United Kingdom
- Commission 10: Mr. Robert Šinkner, CUSC, Czech Republic

The term of office of the newly appointed chairs is 1.1.2011-31.12.2014. The Work Plans for 2011-2014 will be presented for adoption of the General Assembly in Marrakesh, Morocco, May 2011.

Motion: That the General Assembly appoints unanimously FIG Commission chairs for term of office 1.1.2011-31.12.2014 as follows:

- Commission 1: Ms. Leonie Newnham, SSSI, Australia
- Commission 2: Prof. Dr. Steven Frank, ACSM, USA
- Commission 3: Prof. Yerach Doytsher, ALSI, Israel
- Commission 4: Dr. Michael Sutherland, CIG, Canada and Trinidad and Tobago
- Commission 5: Mr. Mikael Lilje, ASPECT, Sweden
- Commission 6: Dr. Gethin Wyn Roberts, ICES, United Kingdom
- Commission 7: Mr. Daniel Roberge, CIG, Canada
- Commission 8: Mr. Wafula Nabutola, ISK, Kenya
- Commission 9: Prof. Frances Plimmer, RICS, United Kingdom
- Commission 10: Mr. Robert Šinkner, CUSC, Czech Republic

Decision: The motion was adopted. The General Assembly further endorsed the appointment of Ms. Kate Fairlie as the new chair of the Young Surveyors Network for 2011-2014 as proposed by the network and the FIG Council. All Chairs Elect were appointed by acclamation.

30. CO-OPERATION WITH THE FIG CORPORATE MEMBERS

A traditional meeting for FIG Corporate Members will be organised in Sydney. FIG Director reported to the General Assembly on the outcomes from the Corporate Members' meeting in Sydney and about the co-operation between FIG and its Corporate Members.

Motion: That the General Assembly records the report.

Decision: The motion was adopted.

31. DECISION OF THE VENUE OF FIG CONGRESS 2014

Candidates for hosting the FIG Congress in 2014 have made their presentations in the first session of the General Assembly. The decision will be made between:

- Kuala Lumpur, Malaysia, hosted by FIG and Association of Authorised Land Surveyors Malaysia AALSM
- Istanbul, Turkey, hosted by FIG and Chamber of Surveying Engineers of Turkey HKMO

Appendix to item 22 and 31: Summary of the bids of the two candidates for the FIG Congress 2014

- Kuala Lumpur, Malaysia - Summary of the bid from Association of Authorised Land Surveyors Malaysia

- Kuala Lumpur, Malaysia – Evaluation report of the bid
- Istanbul, Turkey – Summary of the bid from Chamber of Surveying Engineers of Turkey HKMO
- Istanbul, Turkey – Evaluation report of the bid

Decision on the venue of FIG Congress 2014 will be made voting by blind votes.

Motion: That the General Assembly selects the venue for FIG Congress 2014.

In the voting Kuala Lumpur, Malaysia got 35 votes and Istanbul, Turkey 31 votes.

Decision: The General Assembly decided that the XXV FIG Congress 2014 will be hosted jointly by Association of Authorised Land Surveyors Malaysia and FIG in Kuala Lumpur, Malaysia.

32. FIG SYDNEY DECLARATION

The proposal for publishing a FIG Sydney Declaration was presented and approved at the first session of the General Assembly. The President presented draft declaration for adoption at the General Assembly. The draft will be posted on the FIG web site and it will be circulated together with the General Assembly minutes. FIG members were invited to send their comments on the draft declaration to FIG before 14 June 2010. The Council will then finalise the declaration, publish it and circulate to the members.

Appendix to item 32. Draft for FIG Sydney Declaration.

As immediate comments it was suggested to include a statement on young surveyors' role, on surveyors' role in commissions 8, 9 and 10 especially in project management and in promoting sustainable development and sustainable cities and rural land management.

Motion: That the General Assembly adopts the FIG Sydney Declaration.

Decision: The motion was adopted and the FIG members were encouraged to send their comments on the draft declaration to FIG before 14 June 2010.

33. OTHER ISSUES

FIG Foundation

President John Hohol, FIG Foundation reported on the activities of the FIG Foundation in Sydney. He also announced the new strategic partnership with Trimble Navigation Ltd and that the Foundation is preparing a new work plan for the next years.

William Light's Plan of Adelaide

Mr. Jan de Graeve, IIS&M made a proposal that FIG should encourage and support preparation of a World Heritage nomination of William Light's Adelaide Plan for the UNESCO World Heritage List.

In his oral report Mr. de Graeve requested for support from member association for translation of the German book on the history of surveying: "Museimshandbuch Teil 3 Vermessungsgeschichte".

Motion: That the discussion will be recorded and the Council will consider any action that will be required.

Decision: The motion was adopted.

34. REPORT ON THE FIG WORKING WEEK 2011 IN MARRAKECH, MOROCCO, 18-22 MAY 2011

President Aziz Hilali, Ordre National des Ingénieurs Géomètres-Topographes ONIGT and members of the Organising Committee of FIG Working Week 2011 gave a presentation about the next Working Week and its preparations. The Working Week “Bridging the Gap between Cultures” will be held in Marrakech, Morocco 18-22 May 2011. Conference web site will be available at: www.fig.net/fig2011.

Motion: That the General Assembly records the report for information.

Decision: The motion was adopted.

35. REPORT ON THE FIG WORKING WEEK 2012 IN ROME, ITALY, 6-11 MAY 2012

President Fausto Savoldi, Consiglio Nazionale Geometri e Geometri Laureati CNGGL gave a presentation on preparations of FIG Working Week 2012 at the first session on the General Assembly on 11th April 2010. The Working Week 2012 will be held in Rome, Italy 6-11 May 2012. Conference web site will be available at: www.fig.net/fig2012.

Motion: That the General Assembly records the report for information.

Decision: The motion was adopted.

36. CLOSING AND PRESENTATION OF CERTIFICATES OF APPRECIATION

President Stig Enemark made a closing speech for the FIG members and participants of the General Assembly as this was the last meeting for him as the FIG President. He made his special thanks to member associations and their presidents, corporate and other members. He also thanked his colleagues in the Council, Commission chairs and officers and the FIG office.

Mr. Warwick Watkins, Surveyor General, New South Wales made a proposal that the General Assembly should record its recognition to Prof. Stig Enemark for his outstanding leadership and strong commitment to FIG in his role as the FIG President.

The General Assembly agreed to this proposal by standing ovation.

The President formally closed the 33rd General Assembly of FIG.

CLOSING CEREMONY

President Stig Enemark presented his closing address that summarises the finding and the main outcomes of the XXIV FIG Congress.

Appendix: Handouts of the President’s Closing Address.

President Enemark presented at the closing ceremony certificates of appreciation to members of the local organising committee of the XXXIII FIG General Assembly and the XXIV FIG Congress. Special thanks were recorded to the Surveying and Spatial Sciences Institute, SSSI and its Acting President Jonathan Saxon, Congress Director Paul Harcombe and James Curnow, Chair of the Steering Committee of FIG 2010.

At the closing ceremony the FIG banner was handed over by Mr. Jonathan Saxon, Acting President of SSSI and Mr. Paul Harcombe, Congress Director to Mr. Aziz Hilali, President of ONIGT and Mohamed Ettarid, Congress Director of FIG Working Week 2011. The FIG Working Week 2011 will be held in Marrakech, Morocco, 18-22 May 2011.

**Membership application for a member association –
Ethiopian Surveying Professionals Association (ESPA)**

1. Name of association:

– In own language:

– In English (if different from above) *Ethiopian Surveying Professionals Association (ESPA)*

2. Address: *Adama University, Adama, P.O.BOX 1888*

3. Telephone: *+ 251- 221-10 00 39*

4. Fax: *+ 251-221-10 00 38*

5. E-mail: *espa@gmail.com or abeasfa@yahoo.com*

6. Web site: *on process of design*

7. Name of President: *Dr. Tilahun Erduno*

8. Administration:

Is the above address the address of the permanent office of the association? If so, please state the name of the chief executive and the number of any other permanent staff members. ***This is our tentative address of the office.***

9. Date of formation of association: *9 /January/ 2010*

10. Objectives and ethics:

Please summarize on a separate sheet the objectives of the association and state whether it enforces disciplinary procedures; and enclose a copy of its constitution and rules (including, where applicable, its code of conduct).

The general objectives of the association are as following:

- a) to conduct activities as per the professional ethics for the protection of rights and welfare of the surveying and mapping profession,
- b) to assist to conduct surveying and mapping works at the required standard and accuracy; to GOs, NGOs, INGOs, authorities, agencies and individuals to carryout works related with surveying and mapping and to improve the efficiency, cost effectiveness and accuracy; on valuation of real property; various development projects like housing, construction for planning, and evaluation of mapping activities; and in creating self employment opportunities and to increase govt. employment programmes,
- c) to be in preparedness to assist the country and compatriots in general and in formulating educational systems to produce well-qualified surveying and mapping professionals;
- d) to promote the Surveying Profession, introduce & enforce the rules, regulations and ethics of surveying and mapping professions to members and other concerned authorities;
- e) to have publication after organizing conferences, workshops, seminars and research programmes;
- f) to increase the knowledge and skills of surveyors in the country provide assistance for the government in its endeavor to formulate surveying policies and regulations;
- g) creating awareness of the economic, legal, social and environmental significance of surveying;

- h) to unite all surveying and related professionals of Ethiopia under one strong organization;
- i) to strengthen the relationship among the members, and extend the memberships and cooperation to similar national and international organizations.
- j) Maintaining the professional integrity, interests and benefits of the surveyors through creating strong bond with the government for their rights to be respected.

Ethics: The ethical principles of the association will be as per the ethical Code of Conduct of FIG and ESPA.

11. Routes of entry to membership

Please provide the following information on a separate sheet

- the title held by qualified members of the association: *Professional surveyor*
- the level of academic qualification required to obtain the title: *graduate in surveying, mapping or equivalent and 10 years of professional experience*
- whether academic training programmes to this level are available in your country (if not, please state how and where members obtain their academic training) *Msc, Bsc and 10+1-4 level of surveying and mapping education and training are conducted in Adama university, 25 TVET Colleges and other higher institutions.*
- what approved professional experience is required on completion of academic training and prior to acquisition of the title: *10 years of experience*
- what the requirements are for continuing professional development and whether this is mandatory or voluntary: *voluntary*
- if the association also admits technician or sub-professional members and, if so, the qualifications required for entry to this grade of membership: *the association is planning to admit surveyors from 10+4 level or equivalent education in surveying or related field as sub professional members.*

12. Members

No. of holders the title

- qualified: *245*
- qualifying: *80*

No. of technician or sub-professional members

- qualified: *56*
- qualifying: *40*

13. Specializations

% of qualified members whose principal specialization is:

- hydrography: *none*
- positioning/measurement: *19.48%*
- engineering surveys: *32.78%*
- cadastre/land management: *21.14%*
- spatial planning/development: *10.93%*
- valuation/real estate management: *6.17%*

– construction cost management: 9.50%

14. Statutory recognition

Is the association constituted by statute? *Yes*

Please list on a separate sheet those activities undertaken by your members which are regulated by statute and state whether any or all of these can be performed only by members of your association. If not, please state who else can acquire the title to perform any of the activities.

The Association is registered and the licensed by the Ministry of Justice Charities and Societies Agency of Ethiopia, in accordance with the Charities and societies proclamation No. 621/2009 of article 404. The certificate bearing the number 1715 has been issued on May 11. 2010

15. Employment

% of qualified members:

– self-employed and employed in private practice: 29.3%

– teaching: 25.9

– employed by government: 35.5 %

– employed in the commercial or other sectors: 9.3%

16. Subscriptions

Please state the annual subscription payable by each grade of membership

150.00 Ethiopian birr (US\$10.00)

17. Services to members

Does the association publish a journal (if so, please state title and frequency).....

Planning to publish annual Ethiopian Surveying Bulletin (ESB).

Please list on a separate sheet any other services that the association provides for its members.

Even though it is just being organized, it disseminates information on different matters regarding surveying profession.

FIG : FORMULAIRE DE DEMANDE D'ADHESION EN TANT QU'ASSOCIATION

1. Nom de l'association

En langue nationale ORDRE NATIONAL DES GEOMETRES EXPERTS DU
SENEGAL (ONGES)

En Anglais (si différent de ci-dessus).....

2. Adresse :

Ouest Foire Lot N°10 Cité Air Afrique
En face lotissement CDE Dakar-Sénégal.
BP 8117 Dakar Yoff SENEGAL

3. N° de téléphone :

(+221) 33 820 10 38

4. Fa x numéro :

(+221) 33 820 39 65

5. Adresse mail :

onges@geometres-expertsenegal.com
ongessenegal@hotmail.fr

Adresse postale:

BP 8117 Dakar-Yoff

6. Nom du Président :

Mamadou NDIR

7. Administration

Il s'agit de l'adresse du bureau permanent de l'association. Merci de noter le nom du responsable ainsi que les numéros de tous les autres membres du staff :

- **M. Mamadou NDIR** : Président (+221) 77 639 45 74
- **M. Assane TALL** : Vice - Président (+221) 77 639 29 62
- **M. Mamadou SARR** : Secrétaire Général (+221) 77 632 19 95
- **M. Moussa GOUDIABY** : Trésorier (+221) 77 638 69 24

8. Date de création de l'association : 10 Janvier 2000

9. Objectifs et éthique

Merci de noter sur une feuille séparée les objectifs de l'association et les statuts si ceux-ci présentent des procédures disciplinaires et joindre une copie des règles et dispositions, code de conduite, charte ou autre.

L'Ordre National des Géomètres du Sénégal est un établissement public à caractère professionnel doté de la personnalité morale et regroupant obligatoirement et exclusivement les personnes habilitées à exécuter la profession de Géomètre Expert.

L'Ordre veille au respect des règles de déontologie prévues à son code des devoirs professionnels. Il assure la défense de l'honneur et de l'indépendance de la profession qu'il représente.



10. Modalité d'adhésion des membres

Veillez fournir les informations suivantes sur une feuille séparée

- le titre retenu pour qualifier les membres de l'association :
 - Diplôme d'Ingénieur
 - Diplôme de Technicien Supérieur + 10 ans d'expérience dans un cabinet + examen

- le niveau d'études ou de qualification requis pour obtenir le titre :
 - BAC + 4 ANS

- Si des cycles de formation pour cette discipline existent dans votre pays, sinon définir ou / et comment les membres obtiennent leur titre/
 - la formation se fait au Sénégal ou à l'étranger (Europe, Algérie, Nigéria).

- Quelle expérience professionnelle est requise pour valider la formation et son importance pour acquérir le titre :
 - Dix (10) ans

- Quelles sont les dispositions prévues pour la formation continue ? Est-elle volontaire ou par désignation ?
 - Elle est volontaire et financée par les cabinets.

- L'association accepte-t-elle des techniciens ou des sous-professionnels et le cas échéant la qualification requise pour accéder au grade de membre.
 - Elle accepte des techniciens supérieurs remplissant les conditions énoncées ci-dessus.

11. Membres

Nombre de détenteurs du titre	Qualifiés	59
	En cours de Qualification	
Nombre de techniciens ou de sous-professionnels	Qualifiés.....	
	En cours de Qualification	

12. Spécialisations

% de membres qualifiés dont la spécialisation est

Hydrographie	20%
Levés et mesures	100%
Levers d'Ingénierie	40%
Cadastre/ Aménagement foncier	90%
Développement et planification spatiale	30%
Evaluation / Gestion de biens immobiliers	25%
Expertise immobilière et gestion des coûts de construction	30%

13. Identification statutaire

Votre association est –elle régie par des statuts ? **Oui** :

- Loi 200-04 du 10 janvier 2000
- Décret 2005-1118 portant règlement intérieur
- L'arrêté 8070 du 25 Août 2009 portant Code des devoirs professionnels

Fourniture sur des feuilles séparées les activités concernées par vos membres qui sont régies par les statuts et préciser celles qui ne peuvent être exercées que par les membres. Sinon préciser également qui d'autre peut acquérir le titre pour exercer une quelconque de ces activités.

- Aménagement et Urbanisme
- Ingénierie ayant trait aux infrastructures et aux VRD
- Contrôle technique à caractère métrologique
- Cartographie et SIG
- Foncier et expertise foncière et immobilière
- Copropriété
- Etude de lignes d'énergie électrique Haute Tension

14. Emplois

% de membres qualifiés

- | | |
|--|-------------|
| • Professions libérales ou activités privées | 100% |
| • Enseignement | 5% |
| • Fonctionnaires ou agents de l'Etat | |
| • Employés dans le commercial ou autres secteurs | 100% |

15. Cotisations

Merci de faire état de la cotisation annuelle payable pour chaque niveau d'éligibilité **(un seul niveau)**

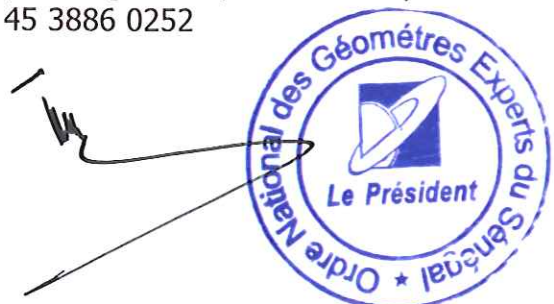
200 Euros / Membre / an

16. Services aux membres

Votre association publie t - elle un journal (si c'est le cas marquer le titre et la fréquence de parution) ? **Non**

Merci de lister sur des feuilles séparées d'autres services que votre association fait bénéficier ses membres.

Merci d'envoyer par fax ou courrier postal à la FIG : International federation of Surveyors, Kalvebod Brygge 31-33, Dk-1780 Copenhagen V, DANEMARK, E-mail : [F I G@fig.net](mailto:FIG@fig.net), téléphone.+ 45 3886 1081, fax + 45 3886 0252



The FIG Council Work Plan 2007-2010 Final Progress Report

Key Achievements:

Over the term of Office 2007-10 FIG has achieved a range of objectives:

- *Focus on the global agenda: FIG has developed the recognition of the surveying profession at the UN agency level as the key professionals in dealing with land issue in relation to the global agenda such as the Millennium Development Goals. This includes activities such as the joint FIG/UN-HABITAT seminar on "Improving Slum Conditions through Innovative Financing" in Stockholm in June 2008 and the joint FIG/World Bank conference on "Land Governance in Support of the Millennium Development Goals" in Washington in March 2009. This focus is also underpinned by FIG's engagement in technological development and standards.*
- *Focus on projects: FIG is committed to the UN-Habitat Global Land Tool network and has undertaken a range a projects in relation to gender equity, informal development, and security of social tenure in slums and customary tenure areas. FIG has also worked closely with FAO in relation the developing the "Voluntary guidelines for security of tenure to land and other natural resources".*
- *Focus on Young Surveyors: FIG has initiated and established a Network for Young Surveyors to enhance activities and interactions between "experienced" and "younger" surveyors including surveying students. This network provides a very vital platform for young surveyors to better engage in the work of FIG through a range of activities towards bridging the gap between generations and building the capacity for meeting the challenges of the future.*
- *Focus on Africa: A recent Africa Task Force has been established for 2009-2014. The key purpose is to enable the surveying profession in Sub Saharan Africa to deal with social responsibility in terms of contributing to achieving the Millennium Development Goals. Key areas to be addressed will be peri-urban development, environmental resilience, and the involvement of young surveyors and women.*
- *Focus on professional development: FIG has looked at enhancing the high level interaction with the global surveying community though annual and regional conferences. This also includes a focus on quality by introducing peer review papers for the annual conferences to improve quality and enabling the academic sector to participate*
- *Focus on publications and communication: FIG has strived to document new knowledge as an outcome of the work of the council, task forces, and the commissions. This may be in terms of policy documents, guidelines, or reports. In total 20 publications have been published during this term of office. They are all available on line through the FIG website.*

For a full presentation of the FIG achievements 2007-2010 see the presentation of the President at the FIG Congress in Sydney, April 2010:

http://www.fig.net/pub/fig2010/ppt/ps01/ps01_enemark_ppt_4643.pdf

In the FIG Council Work Plan 2007-2010, as adopted by the General Assembly in Hong Kong in May 2007, some items are general policy statements that set the values and objectives for the work of the organisation, while others are more targeted towards implementing specific issues. The Council therefore adopted an Action Plan that states how each of the items in the work plan should be dealt with to ensure implementation. Based on the Council Action Plan, a mid-term progress report was prepared and adopted at the FIG Working Week in Stockholm, June 2008.

This final progress report shows how each of the items in the work plan have been pursued and achieved. The assessment is indicated in boxes following each item of the work plan. This report may then be seen as a final evaluation of the Council Work Plan 2007-2010.

“Building the Capacity”

1. Introduction

The Council believes that FIG should both “*fly high and keep the feet on the ground*”. As the leading international NGO on land issues, FIG must be able to interact with the key players in the field such as the UN agencies, the World Bank, and our sister organisations. FIG should therefore contribute to solving the global challenges as presented through the Millennium Development Goals and endorsed by the United Nations. At the same time FIG must be able to interact with politicians at national level to improve and promote the basic conditions for our services and role in society. And we should of course interact in a dialogue with the individual member associations and the individual surveyors to make FIG a relevant and proud icon for our profession. We must be able to strengthen the links between the global agenda and individual surveyors.

The Council proposes an overall theme for the next period of office: “*Building the Capacity*”. This theme applies to flying high and keeping our feet on the ground in the sense that capacity is needed in developing countries to meet the challenges of fighting poverty and developing a basis for a sustainable future, and at the same time capacity is needed in developed countries to meet the challenges of the future in terms of institutional and organisational development in the areas of surveying and land administration.

In general, the Council will strive to enhance the global standing of the profession through both education and practice, increase political relations both at national and international level, help eradicating poverty, promote democratisation, and facilitate economic, social and environmental sustainability.

On this basis, the key topics of the Council work plan are the following:

- Promoting and enhancing the role of FIG
- Continuing and enhancing the dialogue with member associations
- Promoting FIG as a truly global organisation
- Responding to the Millennium Development Goals
- Revising the conference structure
- Empowering ACCO and commission activities
- Sustaining the FIG office administration and finances.

FIG will execute these goals through the coordinated efforts of Council and commission activities. The Council will develop an action plan for implementation.

The Council has set the different pillars for the work of the four year term that balance the global role of FIG and the services for the profession and individual surveyors. These are evaluated below under each topic.

2. Promoting and Enhancing the Role of FIG

This relates to the key activities at all levels of the organisation. FIG will continually promote professional development through conferences and commission activities; capacity building and institutional development through guidelines and institutional support; and global development through cooperation with UN agencies and sister organisations. Finally, the Council will strengthen the links between the global agenda (“*flying high*”) and individual surveyors (“*keeping our feet on the ground*”)

- **Professional development**

FIG will continually provide a global forum for discussion and exchange of experiences and new developments between member countries and individual professionals in the broad areas of surveying and mapping, spatial information management, and land management. This relates to FIG annual conferences, regional conferences, and the work of the ten technical commissions within their working groups and commission seminars. The Council will ensure that this global forum offers opportunities to take part in the development of all aspects of surveying practice and the various disciplines including ethics, standards, education and training, and the total range of professional areas.

This is a general policy statement that have been pursued and achieved by all means and by common efforts of the Council and commission activities, and through the way work plans, and conferences have been successfully designed and managed.

- **Capacity building and institutional development**

The Council will establish a Task Force to deal with Institutional and Organisational Development in surveying and land administration. The Task Force will provide guidelines for building the capacity of national mapping agencies, national surveying associations and survey companies to meet the challenges of the future. The Council will also provide institutional support to individual member countries or regions with regard to developing the basic capacity in terms of educational programmes and professional organisations.

The Task Force was established at the General Assembly in Hong Kong with the relevant terms of reference. The result was launched at the FIG Congress in Sydney as publication no 47 on “Institutional and Organisational Development - A Guide for Managers”. Further institutional support has been provided to individual member countries and regions as indicated in more details in section 4 below. Also the Africa Task Force should be seen as a means in this regard.

- **Global development**

FIG will continually provide a global forum for institutional development through cooperation with international organisations such as the United Nations and its agencies (FAO, UN-Habitat, UNEP, UN OOSA), the World Bank, and international non-governmental organisations such as our sister organisations (IAG, ICA, IHO, ISPRS, and GSDI). The cooperation will include a whole range of activities such as joint projects and joint policy making. The Council will ensure that this leads to joint efforts in addressing topical issues on the international political agenda, such as the reduction of poverty and the enforcement of sustainable development.

This is a general policy statement that has been pursued and achieved by all means through especially the President and Council activities and through the UN Liaison Committee. This is described in more details in section 5 below.

- **Linking the global agenda and individual surveyors**

The Council will serve the needs of our member associations, other members and individual surveyors and make sure that they benefit from our global activities and from the work of the technical commissions. This should be enhanced through an increased dialogue with member associations with a focus on explaining the relevance and importance of global activities as a basis for developing the capacity and societal status of surveyors at national and local levels.

This is a general policy statement that have been pursued by all means through the Council activities and, more specifically, through the Presidents' meetings where the response has been very positive. The high rate of publications and also policy documents such as the Sydney Declaration are means in this regard. However there is a need for continuous attention and improvement of this vital issue.

3. Continuing and Enhancing the Dialogue with the Member Associations

The ongoing dialogue between Council, the commissions and member associations is of vital importance for FIG. This relates to all levels of FIG activities. The Council will ensure that this dialogue is continued and enhanced for the benefit of the global standing of the surveying profession. The Council will also strive to increase our member base and promote the benefits of being a member of FIG.

- **Promoting the benefits of being a member**

The benefits of membership in FIG include issues such as international recognition and enhancement of the profile of the surveying profession; access to the international surveying community for exchange of experiences and new developments; and opportunities through the commission working groups to take part in the development of all aspects of surveying practice and professional issues. The Council will promote these benefits by all available means.

This is a general policy statement that has been pursued by the Council with all available means. The issue has been included in all relevant papers and presentations by the President and FIG officers. The Council has also prepared a new and colourful information

leaflet entitled “The FIG Profile – and the benefits of being a member”. This leaflet has been very well received and widely used. A further leaflet has been produced about the “The benefits of being an Affiliate Member of FIG”

- **Increasing the membership base**

The Council will strive to increase the FIG membership base by approaching potential new members and explaining the benefits of being a member of the global surveying community. Key regions in this regard are India, Central Asia, Central Africa and parts of Latin America.

This policy statement has been pursued by the President and FIG officers through strategic visits or whenever possible. Special attention has been given to Central Asia, Central and Francophone Africa, and Latin America. The FIG Ambassadors have played a key role in implementing this policy – see also section 4 below. The Council has also initiated means that allow poor and small surveying association or countries to join – and stay a member of – FIG. Affiliate membership has been encouraged both as a first step towards full membership and a secondary membership – e.g. for mapping and land administration agencies – to broaden the membership base and engage more effectively with these key agencies within the surveying community. The number of affiliate members has increased to 38 by the end of 2010.

- **Ongoing implementation of the information and communication policy**

Sufficient, timely, and readily accessible information and communication is vital for FIG to ensure an ongoing dialogue with member associations. The FIG website is the key means in this regard. The Council will initiate an evaluation of the current website to make it even more informative and easily accessible. The Council will also review the current FIG information and communication policy that includes other means such as newsletters, President’s letters, annual reports, FIG publications, etc., and prepare a more attractive and informative FIG brochure explaining about the organisation and its activities. The Council will also support efforts to establish an online peer reviewed FIG Journal.

The Council has updated the former information policy to be included in the FIG Work Plan for 2007-2010. Information leaflets have been produced. The FIG website – being the main tool of communication - has been continuously updated and improved. But there is still a need for a more general revision that has been postponed until 2011 due to administration constraints and to ensure clarity of emerging technology.

- **Establishing a forum for mapping agency chief executives**

The Council will consider establishing a special forum at FIG Working Weeks and Congresses aiming at chief executives of national mapping and cadastral agencies commencing at the 2010 FIG Congress. This should ensure a focus on organisational issues relevant to this group of participants.

A forum for Director Generals from mapping and land administration agencies was successfully introduced at the FIG Working Week in Stockholm, June 2008. It was followed by an also successful forum at the FIG Working Week in Eilat, May 2009 and

finally by a major forum at the FIG Congress in Sydney, April 2010 was attended by about 50 senior representatives and where the new information flyer on the benefits of being an Affiliate member was also introduced.

- **Establishing a forum for corporate members**

The Council will consider appointing an FIG ambassador for corporate members to increase the base of sponsorship at all levels of activity and establish a special forum for corporate members during FIG conferences.

A special forum for Corporate members was established at the FIG Working Week in Hong Kong, May 2007. The Council has appointed a FIG Ambassador for Corporate members. A new initiative for establishing partnerships was successfully introduced. This allows for more flexible arrangements tailored for the interests of the individual corporate members.

- **Including students and young surveyors**

The Council will develop a policy for better integrating students and young surveyors into FIG activities. This should include easy access to the FIG conferences, and special sessions related to students and young surveyors.

A special forum for young surveyors was established at the FIG Working Week in Hong Kong based on the initiatives of the Commission 1 working group on this issue. The Council has strongly supported this initiative towards permanent implementation. The Young Surveyors Network was established at the FIG Working Week in Eilat and has successfully undertaken a range of activities for the benefit of the young surveyors and FIG as a whole.

4. Promoting FIG as a Global Organisation

FIG is now a truly global organisation based on the direct election of Council members from all regions of the world. The Council will strive to ensure a truly global representation at all levels of governance and at all FIG events. In this regard the term “*global*” covers both regional and cultural diversity.

- **Encouraging global representation in Council and commission officers**

The Council will encourage global representation in the Council as well as among Commission officers. This should reflect both regional and cultural diversity and ensure that FIG is governed and recognised as a truly global organisation. At the same time the election process should be fully democratic and aim to find the persons most suitable for the positions. The Council will strive to facilitate this process of maturing the organisation in a thoroughly global perspective.

This is a policy statement that the Council has pursued by all available means e.g. in the template developed for applications where this issue is emphasised. The President and FIG officers have promoted this policy through articles and at meetings whenever possible.

- **Encouraging global distribution of and representation at FIG conferences**

The Council will strive to ensure that the FIG conferences are distributed in a way that reflects the truly global perspective of the organisation. The Council will also encourage a more global representation at the conferences with a special focus on facilitating an increased participation from developing countries.

This is also a policy statement that the Council has pursued by all available means e.g. through the tender material where this issue is emphasised. Attendance from developing countries has been encouraged through sponsorship of the FIG Foundation. The participation from developing countries has increased remarkably at the conferences partly due to the regional conferences and partly by the location of the conferences. As an example, the election for council and commission chairs at the FIG Congress in Sydney had candidates from all over the world.

- **Interacting with regional organisations and respecting cultural diversity**

The Council will increase interaction with regional surveying organisations sharing similar aims and objectives as FIG. Such organisations may relate to geographical regions or cultural background. This approach should increase the overall standing of the surveying profession at all levels. The Council will also consider appointing FIG Regional Ambassadors where appropriate to implement this approach.

This policy statement has been pursued by the President and Council members through cooperation with surveying organisations sharing common values as FIG. Strong liaison has been established with regional organisations such as CLGE, ASEAN Flag, Arab Union of Surveyors, and the Francophone Group of Surveyors ensuring that regional and cultural diversity is recognised. A regional organisation (APPA) is now also established in Latin America (Costa Rica, Sept. 2010) with the strong support and long standing preparations of FIG.

5. Responding to the Millennium Development Goals

The eight Millennium Development Goals (MDGs) form a blueprint agreed to by all of the world's states and the world's leading development institutions. The MDGs represent a powerful concept towards development, security and human rights for all. These goals are now placed at the heart of the global agenda.

Surveyors play a key role in this regard in terms of providing some of the fundamental preconditions for development. FIG will identify its role in this process and spell out areas where the global surveying profession can make a significant contribution. Issues such as tenure security, pro-poor land management, and good governance in land administration are all key issues to be advocated in the process of reaching the MDGs. Modern surveying technologies offer good opportunities for FIG's technical commissions to contribute in this process. Measures such as capacity assessment, institutional development and human resource development are all key tools in this regard as well. FIG and the world wide surveying profession have already contributed in many ways to the implementation of the MDGs. However, a more focused approach is needed if FIG is going to present a clear profile in contributing to this global agenda.

- **Developing an FIG policy on the MDGs in cooperation with the UN agencies and the World Bank**

The Council will establish a UN Liaison Committee chaired by the President to bring together expertise to analyze, explain, and present an FIG response to the MDGs. The Committee will cooperate with UN agencies and especially the World Bank in developing an FIG policy document and a strategy for implementation of necessary actions. The policy should also help the world better understand the important contribution of the global surveying community in providing the basic conditions for social, economic, and physical development.

The UN Liaison Committee was established at the Council meeting at the FIG Working Week in Hong Kong, May 2007 with responsibilities for implementing the FIG response to the MDGs. Also a Task Force was established to coordinate the activities especially in relation to UN-HABITAT. However, due to complications in organising any contractual works, the cooperation has been undertaken mainly by the President as a member of the GLTN International Advisory Board and in relation to the World Bank also by the appointment of Paul van der Molen as FIG-UN Liaison Ambassador 2008-2010. The general understanding of the important contribution of the global surveying community has been established through a range of papers and presentations and through close cooperation with the UN agencies and the World Bank. The policy on the MDGs was developed through the joint FIG-World Bank conference in March 2009 and the resulting FIG publication No 45 on "Land Governance in Support of the MDGs."

- **High level FIG/WB conference 2008 promoting the FIG global profile in this area**

The Council will develop a Memorandum of Understanding with the World Bank that will outline the common interests and future cooperation between the two parties. On this basis the Council will liaise with the World Bank to establish a high level joint conference to be held at the World Bank headquarters in Washington DC, USA, in November 2008. The conference will present FIG and World Bank policies in this area and further develop common efforts on achieving the MDGs with a special focus on capacity building in land administration and good governance.

The MoU between FIG and the World Bank was launched at the FIG Working Week in Hong Kong in May 2007. The FIG/WB high level conference was successfully held in Washington DC, March 2009 with about 200 invited experts from throughout the world. The conference was based on six core themes. The resulting FIG/WB publication with a joint FIG/WB declaration has placed FIG as the key partner of the UN agencies in relation to land issues. Also a book of selected proceedings was published by the World Bank in cooperation with FIG, GLTN and FAO. The book entitled "Innovations in Land Rights Recognition, Administration and Governance" included an introductory article by President Enemark and Klaus Deininger, Senior Land Economist, WB. The MoU between FIG and WB has been successfully reviewed for continuation 2011-2014.

6. Revising the Conference Structure

The FIG conference structure is a major concern in terms of possible overload and also allocating the necessary financial and human resources. The concept of having two conferences every year is too demanding in this regard. The Council will therefore implement the following structure:

- **Even years: Major conference such as the FIG Congress or a major Working Week**

The FIG congresses are held every four years on even years. Given the size of the congress there is then no capacity to have a regional conference the same year. Likewise, in even years between the congresses a major Working Week should be held e.g. in cooperation with a sister organisation or a UN agency.

This was implemented through adoption of the Council Work Plan. A major Working Week was organised in Stockholm June 2008 with an integrated seminar in cooperation with UN-HABITAT on “Improving Slum Conditions through Innovative Financing”. The comprehensive report of the seminar was published as FIG publication No 44.

- **Odd years: Working Week and regional conference in partnership with the UN organisations**

In odd years normal Working Weeks will be held. This will be complemented by a regional conference, normally held in a developing country, and having a more targeted approach related to the problems of that specific region.

This is implemented through adoption of the Council Work Plan. Regional conferences during the four-year term of office were held in San José, Costa Rica in 2007 and in Hanoi, Vietnam in 2009. However, it has been felt that having two regional conferences over a four year period is actually too much and not sustainable in terms human and financial resources. Also, the concept of having one regional conference in the first year of office and another almost overlapping with the Congress is putting some constraints on the administration. More likely there should be only one regional conference in mid-term of office. This is also agreed for the next term of office where the regional conference will be in 2012. This can then be supplemented with some Council initiated symposia etc. linked to national or regional events as mentioned below.

- **Council initiated expert symposia on topical issues e.g. linked to national events**

The Council will ensure that the conference structure is further complemented by various expert symposia focusing on specific themes and linked to national or sub-regional events.

This has been well achieved through Council decisions on demand and/or on a strategic basis. The President, FIG Officers and Commission experts have participated and contributed to a range of conferences, symposia and workshops at national and sub-regional level – see section 10-11 below. .

7. Empowering ACCO and the Commission Activities

The work of the commissions is the very heart of FIG activities. The Council will support this work by all available means. The Council will ensure that the Advisory Committee of Commission Officers (ACCO) is an empowered and innovative forum for professional development and strategic enhancement of FIG activities. This also includes issues such as the quality of the technical programme at conferences and the opportunity for having papers peer reviewed and published in an FIG Journal.

- **ACCO as a dynamic forum for strategic advice and professional development**
The Council will facilitate and support the potential of the forum of the commission chairs and ensure an innovative dialogue with the Council. ACCO will be chaired by an appointed Council member in cooperation with the ACCO representative in the Council. ACCO meetings will also include time allocated for discussions with the President.

This has been implemented through adoption of the Council Work Plan and successfully managed by Matt Higgins as the Chair of ACCO and by excellent efforts of the commission chairs and their teams.

- **Enhancing the profile of the technical programme at the conferences including peer reviewed papers**
The Council will encourage an enhancement of the quality of the technical programme e.g. by establishing key sessions within each commission with selected or invited high profile speakers. The Council will also encourage the establishment of a peer review system that allows for the possibility of getting papers peer reviewed based on academic standards. These measures will be balanced to ensure FIG conferences are still a forum for both academic and professional presentations.

This has been implemented through discussions between Council and ACCO. The new concept was tested for the first time at the FIG Working Week in Stockholm, June 2008. The concept has then been refined for the following Working Week in Eilat in May 2009 and made fully operational at the FIG Congress in Sydney, April 2010 where about 10 per cent of the papers were issued for peer review. The concept is now sustainable even if further streamlining of procedures can still be achieved. The concept has contributed to a significant improvement of the quality of the papers presented and also facilitated better opportunities for the academic sector to participate in the FIG conferences. The concept is not used for the regional conferences but various commission workshops and seminars have used the peer review option in a successful way. The Council is grateful to ACCO and especially Chryssy Potsiou and Rudolf Staiger for implementing this concept of peer review.

- **Establishing an online FIG journal**
The Council will support efforts to establish an online FIG Journal for publishing peer reviewed papers. The format and profile of such a journal is to be further discussed with ACCO and FIG Academic Members.

This has been pursued through discussions between Council and ACCO. Various concepts have been analysed, but eventually it was felt that the need for such a journal

may not justify the efforts. Instead it is considered to establish a special section at the FIG website with a specific ISSN number for “publishing” the peer reviewed papers. This could be entitled “FIG Reviewed” and could eventually get the status of a journal.

- **Establishing Task Forces to deal with inter-commission activities and policy implementation**

The Council will establish Task Forces to deal with relevant inter-commission activities especially in response to external requests and demands. e.g. the Council will establish a Task Force to deal with the FIG contribution to the UN-Habitat agenda on a Global Land Tools Network. This Task Force will include contributions from a range of commissions and especially 7, 8 and 9. The aim is to develop substantial input in this area to be launched at the UN-Habitat World Urban Forum in Nanjing, November 2008.

The Council established the Task Force on the FIG commitment to the UN-Habitat GLTN agenda at the General Assembly in Hong Kong, May 2007. However, due to complications in organising any contractual works, the cooperation has been undertaken mainly by the President as a member of the GLTN International Advisory Board. See also section 5 above. The activities have then been coordinated by the President/Council/ACCO and with very good results such as the STDM (lead by Christiaan Lemmen, Comm. 7), Informal Urban Development in Europe (lead by Chryssy Potsiou, Comm. 3), Gender Evaluation Criteria (lead by Diane Dumashie, Comm. 8), and Compulsory Purchase (lead by Kauko Viitanen, Comm. 9). These activities have all contributed to the global agenda in cooperation with Un-HABITAT, FAO, and the World Bank.

8. Sustaining the FIG Office Administration and Finances

The Council considers that the FIG Office, after the re-organisation of the office administration and the move to new premises, is functioning well. In the future services provided by the Office will be considered against resources, activities and new income generated through organising FIG events. During this term of office the Council will consider how FIG can be developed into a more self-financed organisation independent of the hosting member association. The Council will perform annual reviews of the FIG Office.

- **Administration**

The Council will allocate appropriate resources to the FIG Office to enable it to respond to the requirements set out in the work plan. The council will also ensure that the services provided by the Office reflect the resources available. The FIG Office is currently hosted by DdL in Copenhagen free of charge. As a longer term strategy, the Council will prepare for FIG to become fully economically independent. This process depends on the success of generating more revenue from FIG events.

This has been implemented through Council decisions in cooperation with the office. The FIG administration is small (three staff members) and also vulnerable. The Council has therefore initiated the development of an Office Management System to ensure effective and sustainable administration at all times. This is now largely in place. The Council has also recently reorganised the Office to ensure financial sustainability and efficient service. This will take effect by 1 January 2011.

- **Finance**

The Council will strive to ensure that the financial reserves become at least 1.5 times the annual expenditure of the Federation in order to guarantee the continuing operation of the FIG Office. To achieve this aim the Council will commit to only small increases in the membership fees to secure the current service level. The increases in financial reserves should be funded by increased sponsorship and by generating other sources of revenue including increased income from FIG conferences. The strategy of supporting countries with low or low-middle income economies will be continued and enhanced by various means.

This has been implemented through Council decisions in cooperation with the office. Following the discussions at the General Assembly at the FIG Working Week in Stockholm, June 2008 the Council assessed the current fee structure and way of finance reporting. An adjusted fee structure was proposed by putting a cap on fees at 5,500 members and benefitting the poorest and smallest countries to become or stay as member of FIG. Further the finance reporting became more transparent and after an analysis of our requirements it was suggested that the general financial reserves should be equivalent to the annual turnover of the federation. This should then be managed within a 90-100 per cent range and reported to the General Assembly. This was all adopted at the General Assembly at the FIG Working Week in Eilat, May 2009. The recent global financial crisis has caused some constraints but, generally, the FIG finances are sound and healthy.

- **Meetings**

Council meetings will take place at regular intervals, at a minimum of three times a year including meetings during the FIG conferences. Additional meetings will be organised by email or by teleconferences.

This has been decided by the council as appropriate. Meetings are kept to a minimum in order to control the costs. In general, one meeting is necessary - normally in January in Copenhagen to finalise the accounts, evaluate activities of the past year and discuss strategies for year ahead. Furthermore, meetings are held during the FIG conferences and supplemented by email meeting when necessary.

9. Events

FIG Working Week, Hong Kong SAR, China, 13-17 May 2007

6th FIG Regional Conference, San Jose, Costa Rica, 12-15 November 2007

FIG Working Week, Stockholm, Sweden, 14-19 June 2008

FIG XXXII General Assembly and Working Week, Eilat, Israel, 3-8 May 2009

7th FIG Regional Conference, in the second half of 2009. Venue and dates to be decided in 2007

FIG XXIV Congress and XXXIII General Assembly, Sydney, Australia, 9-16 April 2010

In addition FIG will organise or co-sponsor joint conferences and seminars together with other international organisations. The ten technical commissions will also organise their

annual meetings, seminars, and symposia. All these events will be announced on the FIG web site.

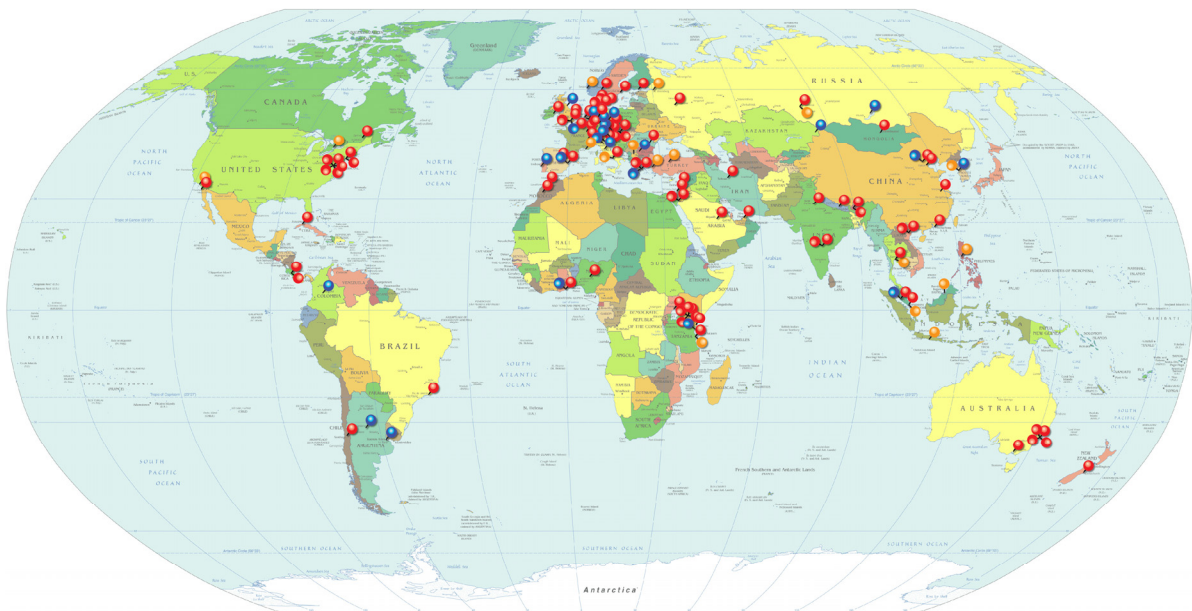
The FIG Conferences 2007-2010

- **FIG Working Week, Hong Kong, SAR China, 13-17 May 2007.**
“Strategic Integration of Surveying Services”. The conference was attended by more than 500 delegates from 64 countries. The technical programme consisted 60 technical sessions with about 300 papers.
- **6th FIG Regional Conference, San Jose, Costa Rica, 12-15 November 2007**
“Coastal Areas and Land Administration – Building the Capacity”. The conference attracted about 250 participants (about 50% locals) from 32 countries. The technical programme included 20 technical sessions with about 60 papers.
Outcome FIG Pub 43 *“FIG Costa Rica Declaration on Integrated Coastal Zone Management”.*
- **FIG Working Week, Stockholm, Sweden, 14-19 June 2008**
“Integrating Generations”. The conference was attended by 950 participants from 90 countries. The technical programme included 70 technical sessions, with about 350 papers (with 40 peer reviewed). The Working Week included the joint FIG/UN-HABITAT seminar on *“Improving Slum Conditions through Innovative Financing”.*
Outcome: FIG Pub 33: *“Improving Slum Conditions through Innovative Financing”* jointly with UN-HABITAT.
- **FIG Working Week, Eilat, Israel, 14-19 June 2008**
“Surveyors’ Key Role in Accelerated Development”. The conference gathered about 500 delegates from 65 countries. The technical programme included 250 presentations in about 60 technical sessions and workshops.
- **7th FIG Regional Conference, Hanoi, Vietnam, 19-22 October 2009**
“Spatial Data Serving People - Land Governance and the Environment - Building the Capacity”. The conference was attended by almost 400 people (about 100 locals) from 52 countries. The technical programme included 50 sessions with about 150 presentations. The conference included a two-day Regional Consultation Meeting on the *“FAO Voluntary Guidelines for Responsible Governance of Tenure of Land and Other Natural Resources”*, jointly organised by FIG and FAO.
Outcome: FIG Pub. 51: *“Hanoi Declaration: Land Acquisition in Emerging Economies”.*
- **FIG XXIV Congress, Sydney, Australia, 9-16 April 2010**
“Facing the Challenges – Building the Capacity”. The congress was attended by 2,200 participants from 100 countries – the biggest attendance ever to an FIG event. In total about 800 papers were presented in 150 technical and flash sessions, workshops and special seminars. About 10% of the papers were peer reviewed. A full day workshop was devoted the *Small Island Developing States* with a special focus on the Pacific Region and building their capacity to meet the Millennium Development Goals.
Outcome: *“The Sydney declaration”* and FIG Publication No 53: *“Sydney Agenda for Action. Small Island Developing States and the Millennium Development Goals: Building the Capacity”.*

Commission events 2007-2010:

- *Joint FIG Commission 3, UN/ECE WPLA: “Spatial Information Management toward Legalizing Informal Urban Development and Informal Settlements – Real Estate Market Needs for Good Land Administration and Planning”, Sounio, Greece, 28-31 March 2007*
- *FIG Commission 7 Annual Meeting and International Symposium, Seoul, Korea, 19-23 May 2009*
- *FIG Commission 2 – Symposium: Scientia Est Potentia – Knowledge Is Power, Prague, Czech Republic, 7-9 June, 2007*
- *FIG Commission 9 Seminar on Compulsory purchase and compensation in land acquisition and takings, Helsinki, Finland, 6-8 September 2007*
- *FIG Commission 3 Workshop on “Spatial Information Management Toward Environmental Management of Mega Cities”, Valencia, Spain, 18-21 February 2008*
- *Land Professionals Workshop on Gendering Land Tools organised by UN-HABITAT in Co-operation with FIG Commission 8, Bagamoyo, Tanzania, 10-11 March 2008*
- *FIG Commission 2 and 7 International Workshop - Sharing Good Practices: E-learning in Surveying, Geo-Information Sciences and Land Administration, ITC, Enschede, the Netherlands, 11-13 June 2008*
- *FIG Commission 6 Joint Symposium with IAG on “Measuring the Changes”, Lisbon, Portugal, 12-15 May 2008*
- *FIG Commission 7 Annual Meeting and International Seminar on State and Public Land Management jointly with FAO, Verona, Italy, 9-15 September 2008*
- *Joint CIREA/HKIS/FIG Commission 8 and 9 Seminar on Appraisal and Property Protection, Beijing, China P. R., 18-19 October 2008*
- *FIG Commission 3 Workshop on “Spatial Information for Sustainable Management of Urban Areas” Mainz, Germany, 2 - 4 February 2009*
- *FIG Commission 2 WG 2.3 Workshop - "Navigating the Future of Surveying Education" Vienna, Austria, 26-28 February 2009*
- *FIG Commission 5 and 6 and SSGA Workshop on “Innovative Technologies for an Efficient Geospatial Management of Earth Resources”, Listvyanka, Russian Federation, 23-30 July 2009*
- *FIG Commission 7 Annual Meeting 2009 and One-day International Symposium “Progressing Towards u-Cadastre”, Kuala Lumpur, Malaysia, 12–16 October 2009*

- *FIG Commission 8 jointly with GhIS and CASLE- conference on “The Surveyor: Partner in National Development”, 24-26 February 2010, Accra, Ghana*
- *FIG Commission 2 Workshop on the Trends in Surveying Education and Training - London, United Kingdom, 26-28 August 2010*
- *FIG Commission 5 and 6 Workshop on “Innovative Technologies for an Efficient Geospatial Management of Earth Resources” - Blue Bay Recreation Centre, Zyryanovsky Region, Kazakhstan, 3-7 September 2010*
- *FIG Commission 7 Annual Meeting and International Open Symposium, 5-10 September, Karlovy Vary, Czech Republic*
- *Commission 3 and 7 Workshop on "Information and Land Management. A Decade after the Millennium ", 15-17 November 2010, Sofia, Bulgaria*



● President ● Council ● Commissions

Location of President, Council, and Commission activities 2007-2010

10. President activities 2007-2010:

The range of activities and visits listed below indicates the importance of presence and also the breath of engagement with UN agencies, sister organisations, and member associations. It should be noted that the costs of attendance are normally carried by the hosting organisation. The importance that the member associations share to these activities is shown by their willingness to carry the financial costs of travel and accommodation. The President is grateful to the member associations for their support in this regard.

2007

22-25 January	Map World Forum, Hyderabad, India
28-31 January	UN-Habitat, GLTN meeting, Nairobi, Kenya
09-11 February	FIG ACCO meeting, Bratislava, Slovakia
12-17 February	GI conference, Havana, Cuba
02-04 March	FIG Council meeting, Copenhagen, Denmark
28-31 March	FIG Com3/WPLA Seminar, Athens, Greece
14-23 April	Governing Board, UN-Habitat, Nairobi, Kenya
13-17 May	FIG Working Week and GA, Hong Kong SAR China
05-09 June	FIG Com2 Symposium, Prague, Czech Republic
11-14 June	World Bank, Washington, USA
15-20 June	ESRI User Summit, San Diego, USA
15-20 July	Cambridge Conference, UK
02-07 August	ICA Congress, Moscow, Russia
12-19 August	WB project Manila, Philippines
10-31 August	Melbourne, Australia
04-07 September	FIG Com9/FAO Seminar, Helsinki, Finland
16-22 Sept	Organising Committee, Eilat, Israel
02-05 October	Francophone Conference, Quebec, Canada
22-28 October	Sydney/Melbourne, Australia
29 Oct.-03 Nov.	NZ Congress, Christchurch, New Zealand
09-16 November	FIG Regional Conf. San Juan, Costa Rica.

2008

25-26 January	FIG Council, Copenhagen
18-21 February	Int. Congress on Geomatics and Surveying Engineering and FIG Com 3 workshop, Valencia, Spain.
25-29 February	GSDI 10 Conference, Trinidad
28-31 March	FIG Com3/WPLA Seminar, Athens, Greece
05-06 April	Int. Seminar on Land Management, Riyadh, Saudi Arabia
08-10 April	Map Middle East Conference, Dubai, UAE.
17-18 April	International Conference on Land Management in contribution to the MDGs, Munich, Germany.
21-23 April	FAO/UN-Habitat Expert Group Meeting on Disaster Risk Management, Geneva, Switzerland
06-08 May	16th UN Conference on Sustainable Development, New York
22-25 May	15th Biannual Meeting of the Croatian Geodetic Society, Rovinj, Croatia
13-20 June	FIG Working Week, Stockholm, Sweden
02-07 July	XXI ISPRS Congress, Beijing, China
08-11 July	Vietnam Association of Surveyors, Hanoi, Vietnam
28-31 July	Institution of Surveyors, Australia, Sydney
09-10 September	FIG-FAO Seminar Public Land Governance, Verona, Italy
11-15 September	FIG Com 7 Annual Meeting and Symposium, Verona, Italy
17-19 September	1st European Surveyors Congress, Strasbourg, France
16-17 October	Irish Society of Chartered Surveyors' Conference, Dublin, Ireland
03-07 November	World Urban Forum, Nanjing China
10-14 November	Institution of Surveyors, Australia, Sydney
24-25 November	FAO Expert Group meeting on Guidelines on Good Governance, Rome
16-21 December	Moroccan Association of Surveyors, Rabat and Marrakech, Morocco

2009

- 30 Jan-01 February DdL Annual meeting, Nyborg, Denmark
10-13 February Map World Forum, Hyderabad, India
13-14 February Survey of India, Delhi, India
14-18 February Department of Surveying and Mapping, Kathmandu, Nepal.
26-28 February FIG Commission 2 workshop, Vienna, Austria
09-11 March Joint FIG/WB conference, Washington, USA
30 March- 03 April UN-Habitat Governing Council meeting, Nairobi, Kenya
18-22 April GeoSiberia, Novosibirsk, Russia
02- 08 May FIG Working Week, Eilat, Israel
24-26 May PCGIAP conference, Tehran, Iran
15-19 June GSDI-11 conference, Rotterdam, the Netherlands
05-07 August Nordic Surveyors Congress, Aalborg Denmark
24-25 September Norwegian Surveyors Annual Conference, Oslo, Norway
08-09 October Conference of Federation of French-speaking Countries, Prague, Czech Republic
12-16 October FIG Com7 Annual meeting and International Symposium, Kuala Lumpur, Malaysia
19-22 October FIG Regional Conference, Hanoi, Vietnam
26-27 October UN RCC-AP conference, Bangkok, Thailand
28-30 October Alumide Annual Lecture, Abuja, Nigeria
04-06 November UN-HABITAT GLTN Partners' meeting and IAB, Nairobi, Kenya
08 -09 December UN-HABITAT meeting, and meeting with OGE, Paris, France
10-11 December Meeting with RICS London, United Kingdom.

2010

- 25-26 January FAO Consultation on Voluntary Guidelines on Tenure of Land and other Natural Resources, RICS, London, United Kingdom
05-06 February DdL Annual Meeting, Nyborg, Denmark
24-26 February GhIS/CASLE/FIG Conference, Accra, Ghana
22-26 March UN-HABITAT World Urban Forum, Rio de Janeiro, Brazil
09-16 April XXIV FIG International Congress, Sydney, Australia.
26-27 April Annual Land Conference, World Bank, Washington DC, USA
07-08 May 2nd CLGE cadastral conference, Bucharest, Romania
10-11 May GGIM Meeting, United Nations, New York, USA
24 May-05 June ALACGaC, Ulaanbaatar, Mongolia (Consultancy)
20 June-01 July National Land Commission, Thimphu, Bhutan (Consultancy)
04 July ISPRS centennial celebration, Vienna, Austria
27-29 July Administrative Meetings, FIG Office, Copenhagen
26-27 August FIG Commission 2 Workshop, East London University, UK
02 September Farewell Symposium, Apeldoorn, the Netherlands
08-10 September FIG Com 7 Annual Meeting, Karlovy Vary, Czech Republic
11-12 September Administrative meetings, FIG Office, Copenhagen
13-14 September The World Bank, Washington DC, USA
17-19 September International Conference, San Jose, Costa Rica
05-07 October InterGeo, Cologne, Germany
17-19 October GSDI-12 World Conference, Singapore
29-30 October GLTN International Advisory Board Meeting, Nairobi, Kenya
11-12 November FIG Africa Task Force workshop, Mombasa, Kenya
25-26 November FIG Handover Celebrations, Copenhagen, Denmark

11. Council and Commission Officer activities 2007-2010:

2007

- 06-08 March 2007 Vice President Matt Higgins attends the Munich Navigation Summit 2007 Munich, Germany
- 02-13 July 2007 Rudolf Staiger, FIG Commission 5 Chair, attends the 24th General Assembly of IUGG, Perugia, Italy

2008

- 19-21 February Vice President Matt Higgins attends Munich Satellite Navigation Summit Munich, Germany
- 10-11 April Vice President Pail van der Molen attends the UN/ECE Workshop on Legal Empowerment of the Poor, Bergen, Norway.
- 21-24 May Vice President Paul van der Molen attends the 2nd Cadastral Congress in Ankara, Turkey.
- 22-24 April Vice President Matt Higgins visits GEO-Siberia-2008, Novosibirsk, Russian Federation, 22-24 April 2008
- 11 August FIG Vice President Paul van der Molen visits Tanzanian Institution Dar es Salaam, Tanzania.
- 18-20 September FIG Liaison Ambassador for Latin America Pedro Cavero attends the X International Congress on Surveying, Cadastre, Geodesy and Geomatics, San José, Costa Rica.
- 30 Sept-02 Oct FIG Director attends the INTERGEO 2008, Bremen, Germany.
- 08-12 December FIG Vice-President Matt Higgins attends the Third Meeting of the International Committee on Global Navigation Satellite Systems (ICG), Pasadena, California, USA.

2009

- 4-8 August Vice-President Matt Higgins attends the 10th South East Asia Survey Conference, Bali, Indonesia
- 31 August-04 Sept FIG Comm5 Chair Elect Mikael Lilje and Chair of Adm. Rob Sarib attend IAG 2009 - Buenos Aires, Argentina.
- 14-18 September Vice-President Matt Higgins attends the Fourth Meeting of the International Committee on Global Navigation Satellite Systems (ICG), St Petersburg, Russian Federation
- 22-24 September FIG Director attends INTERGEO 2009, Karlsruhe, Germany.
- 2-6 November Chair of FIG Comm.3 Chryssy Potsiou attends the 2nd GIS National Congress in Izmir, Turkey
- 2-6 November Chair of WG 7.1 Christiaan Lemmen attends the ISO TC211 meeting Quebec City, Canada.
- 7-8 November Vice-President CheeHai Teo attends the South Luzon Area Assembly of the Geodetic Engineers of the Philippines, Quezon City, the Philippines.

2010

- 25-26 January Vice-President Matt Higgins attends 1st Asia Oceania Regional Workshop on GNSS, Bangkok, Thailand
- 23-25 June Vice-President Dalal S. Alnaggar attends the 40th Congress of Ordre des Géomètres-Experts, Marseille, France.
- 19-22 July Vice President CheeHai Teo attends the Expert Group Meeting on Transparency in Land Administration, Yogyakarta, Indonesia.
- 25 July Vice President CheeHai Teo attends the 14th Pacific Association of Quantity Surveyors Congress and Board Meeting, Singapore

28 June-2 July	<i>Incoming Chair of Comm. 5, Mikael Lilje, attends IGS workshop and Vertical Rates Symposium, Newcastle u Tyne, UK.</i>
2 August	<i>Vice President CheeHai Teo attends seminar on Land Surveying Basis for Development in Brunei Darussalam, Gadong, Bandar Seri Begawan, Brunei Darussalam.</i>
1-3 September	<i>Vice President CheeHai Teo attends "Smart Korea 2010" Korea NSDI Expo, Korea.</i>
6-10 September	<i>Incoming Chair of Comm. 3 Prof. Yerach Doytsher represents FIG at the XVI Cadastral Week in Bogota, Colombia.</i>
15-17 September	<i>Chair of Comm. 3 Prof. Chryssy Potsiou represents FIG at International Conference on Spatial Data Infrastructure 2010, in Skopje, Macedonia FYROM</i>
19-20 September	<i>Chair of Comm. 3 Prof. Chryssy Potsiou represents FIG at the 2nd International Training Course for Surveyors in Rome, Italy</i>
18-22 October	<i>Vice President Matt Higgins attends the 5th Meeting of the International Committee on Global Navigation Satellite Systems (ICG-5) in Turin, Italy</i>

12. Publications 2007-2010:

- No. 39 *FIG Work Plan 2007-2010. FIG Regulations, 2008.*
- No. 40 *FIG Statutes, Internal Rules and Guidelines. FIG Regulations, 2008.*
- No. 41 *Capacity Assessment in Land Administration. FIG Guide, 2008.*
- No. 42 *Informal Settlements: The Road towards More Sustainable Places. FIG Commission 8 Report, 2008.*
- No. 43 *FIG Costa Rica Declaration on Integrated Coastal Zone Management. FIG Policy Statement, 2008. Also in Spanish.*
- No. 44 *Improving Slum Conditions through Innovative Financing. FIG/UN-HABITAT Seminar, Stockholm, Sweden, 16–17 June 2008. Summary Report. FIG Report, 2008.*
- No. 45 *Land Governance in Support of The Millennium Development Goals. A New Agenda for Land Professionals. FIG / World Bank Conference, Washington DC, USA 9–10 March 2009. FIG Policy Statement, 2010.*
- No. 46 *Enhancing Surveying Education through e-Learning. FIG Commission 2 Report, 2010.*
- No. 47 *Institutional and Organisational Development - A Guide for Managers. FIG Guide, 2010.*
- No. 48 *Rapid Urbanization and Mega Cities: The Need for Spatial Information Management. Research study. FIG Commission 3 Report, 2010.*
- No. 49 *Cost Effective GNSS Positioning Techniques. FIG Commission 5 Report, 2010.*
- No. 50 *History of Surveying. FIG IIHSM Report, 2010*

- No. 51 *Hanoi Declaration: Land Acquisition in Emerging Economies. FIG Policy Statement, 2010*
- No. 52 *The Social Tenure Domain Model - A Pro-Poor Land Tool. FIG Commission 7 Report, 2010*
- No. 53 *Sydney Agenda for Action. Small Island Developing States and the Millennium Development Goals: Building the Capacity. FIG Report 2010.*
- No. 54 *Compulsory Purchase and Compensation - Recommendations for Good Practice. FIG Policy Statement, 2010.*
- No. 55 *Spatial Planning in Coastal Regions. Facing the Impact of Climate Change. FIG Commission 8 Report, 2010.*
- No. 56 *Guidelines for the Planning, Execution and Management of Hydrographic Surveys in Ports and Harbours. FIG Commission 4 Report, 2010.*
- No. 57 *Economic Benefits of Hydrography. FIG Commission 4 Report, 2010 – electronic publication.*

Other Publications:

Joint WB/FIG/GLTN/FAO publication on “Innovations in Land Rights Recognition, Administration and Governance”. World Bank, April 2010.

Joint FAO and FIG Commission 7 WG 7.3 publication “FLOSS in Cadastre and Land Registration - Opportunities and Risks”. April 2010.

Joint UN-HABITAT and FIG Commission 3 publication “Informal Urban Development in Europe - Experiences from Albania and Greece”. November 2010

December
Stig Enemark
FIG President 2007-2010



Den danske Landinspektørforening (DdL)

The Danish Association of Chartered Surveyors

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President CheeHai Teo
FIG
Kalvebod Brygge 31-33
DK 1780 København V
Denmark

Dear President Cheehai Teo

15. February 2011

My distinguished college Professor Stig Enemark carried the presidency for FIG during four years 2007-2010 on top of many years of work inside FIG.

To describe the positions that he has carried is almost impossible and in that respect I refer only to the brief curriculum vitae attached.

Stig has been active in FIG since 1984 and in my view he has contributed to consolidate the surveyors' position worldwide. He carried out the Presidency showing a huge dedication to our profession making it known and respected in the corridors of the international organisation such as United Nations and the World Bank.

The number of FIG members increased significantly during his term of office and the FIG fanfare was played in new territories and thus FIG can now be described a truly global organisation.

On behalf of The Danish Organisation of Chartered Surveyors I propose to you that you bring forward to the Council and General Assembly our proposal to nominate Professor Stig Enemark, immediate Past President of the Federation as an Honorary President of FIG.

If needed I am of course willing to promote this proposal at the General Assembly as you may find appropriate.

Yours sincerely

Henning Elmstroem
President

Professor Stig Enemark

Curriculum Vitae

Professional Career

Professor **Stig Enemark** was born 1943 in Copenhagen. He studied at the Royal Academy of Agriculture in Copenhagen and obtained the degree of M.Sc. in Surveying, Planning and Land Management in 1966. In 1970 he was licensed for cadastral surveying and he worked for ten years as a consultant surveyor in private practice, specializing in cadastral surveying and land management.

Since 1980 he has been employed at Aalborg University where he is currently a full Professor in PBL (Problem Based Learning) and Land Management. For fourteen years (1991-2005) he was Head and Managing Director of the School of Surveying and Planning.

He was the President of the Danish Association of Chartered Surveyors (DdL) 2003-2006. In 1984-1994 he was chairman of the professional committee, and during 1994-2003 he served as Vice-President of the association being responsible for educational strategies and international affairs. He is an Honourable Member of DdL.

He has been the Danish delegate to the Council of European Geodetic Surveyors (CLGE) 1997-2006, and he is an invited Fellow of the Royal Institution of Chartered Surveyors (RICS), UK.

He has consulted widely to the Danish National Survey and Cadastre and he played a key role in implementing the Danish Cadastral Reform. He has also worked as a consultant for the EU and the World Bank especially in Eastern Europe, Sub-Saharan Africa and Latin America on the establishment of appropriate land administration systems and related issues such as capacity building, education, and training.

He has been active in FIG since 1984 as the Danish national delegate to Commission 2 (Professional Education). He served as chairman of Commission 2 (1994-1998) and he was chair of the FIG Task Force on Mutual Recognition of Professional Qualifications (1998-2002). In 1999 he was appointed an Honorary Member of FIG. He was elected Vice-President of FIG 2005-2006 and President 2007-2010.

He has more than 300 publications to his credit in the areas of cadastre, land administration, land management and spatial planning, and in the areas of professional education and capacity building. He has presented invited papers at more than 75 international conferences. 2009 is among others author of the book *Land Administration for Sustainable Development*.

[Read more](http://www.land.aau.dk/~enemark). A full CV and a full list of publications is available on www.land.aau.dk/~enemark

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Commission 2 – Professional Education

End of Term Report 2007- 2010

1. General

The Commission 2 Work Plan 2007-2010 building on the experiences of the previous period tries to fulfil and implement the FIG Council Work Plan. Commission 2 in general aims:

- To perform needs analysis of Commission representatives and FIG Academic members
- To develop further the FIG Surveying Education Database and facilities using educational and internet standards
- To organize annual workshops on actual topics related to education and training
- To investigate the use of information and communication technology to support networked professional education
- To organise, jointly with other Commissions, Regional Summer Schools for solving problems, filling educational gaps and for building communities within young professionals.

The mission and aims were realized by the following Working Groups:

Working Group 2.1 – Curriculum development

Quality curriculum and instruction are - as they have always been - the bedrock of education and the way to developing thoughtful and fulfilled professionals. The society, science and technology around our profession are changing rapidly. These changes continuously generate new educational and training needs, which should be responded by educators to ensure that their learners gain knowledge as effectively and efficiently as possible.

Working Group 2.2 – e-Learning

To successfully disseminate the knowledge, it is essential to have an up-to-date learning environment. Thanks to the development in information and communication technologies, there have been lots of possibilities and tools re-engineer the classical teaching methods. Because of e-Learning methods are expected to play an increasing role in professional education there is a growing need for knowledge transfer on this field.

Working Group 2.3 – Educational Management and Marketing

Knowledge dissemination is not only a methodological / technical problem. Institutes have to own the rights how the published materials may be available for others as well as taking commercial aspects into account. According to the rapidly changing world and demands in professional education business-based survey can help us to manage successful curricula.

Working Group 2.4 – Real Estate Valuation and Management Education

This is a joint with Commission 9 to ensure the surveying education keeps up with the rapidly changing field.

To support the activities in the working groups Commission also conducted:

- Workshops,
- Summer Schools,
- initiated Joint Projects.

In addition to the specific activities above, the Commission contributed to FIG Task Forces and the Standards Network.

2. Working Groups

Working Group 2.1 – Curriculum development

Policy issues

- To support the mobility among professionals, teaching staff and students using credit transfer.
- To support the implementation of „Bologna” changes (BSc / MSc / PhD / Professional masters) and recognition.
- To facilitate the harmonization of curricula.
- To define a “core knowledge base”.
- To guarantee life-long learning with educational and training services.
- To serve the needs in the new professional challenges.
- To exchange ideas on Quality Management and Accreditation.

Chair

Prof Bela Markus (Szekesfehervar, Hungary), email: mb@geo.info.hu

Activities

1. FIG Working Week

12-17 May, 2007. Hotel Kowloon Shangri-La, Hong Kong SAR

On the Annual Meeting Prof Bela Markus and WG chairs (Prof Arvo Vitikainen and Mr Gert Steinkellner) introduced the work plan accepted by the General Assembly.

A “Round Table on Education in Asia and the Pacific” and the “Meeting of FIG Academic Members” supported tuning the work plan, helping the needs analysis.

During the Working Week 6 technical sessions were organized by Commission 2. After the review 21 presentations were accepted and 17 papers presented. The main topics were as follows: Curriculum Development, e-Learning and Knowledge Management, Building a Sustainable Future, Marketing and Sustainability in Education, The Future of Surveyors. The average number of participants was between 15 and 20.

2. Scientia Est Potentia Symposium

7-9 June, 2007. Czech Technical University, Prague, Czech Republic

The FIG Commission 2 Symposium with the motto of *Scientia Est Potentia* (Knowledge is Power) was held on in Prague, between 7 and 9 June 2007 in the cooperation with the Faculty of Civil Engineering CTU in Prague and the International Federation of Surveyors Commission 2 – Professional Education. The symposium was hosted by the Faculty of Civil Engineering CTU in Prague.

The goal of the workshop was to reveal the present state of curriculum development including the accreditation processes as well. The workshop started by the workshop reports of Commission 2. The Working Group leaders presented the current activities of Commission 2, furthermore the workplan was reviewed discussing the important events for the period of 2007-2010. Stig Enemark, the President of FIG (Aalborg University) in his presentation encouraged the *interaction between education, research and professional practice*, underlying the importance of *curriculum development as the key to the future*. It is an ongoing process and it is crucial to both the educational institutions and the society they serve. This relates especially to educational programs designed to professionals such as surveyors. Ann B. Johnson, the Higher Education Solutions Manager (ESRI), had a presentation on *Meeting the Challenge - Incorporating New Technologies and Methods into a Curriculum for Surveying*. She introduced the experiences of the US team dealing with *Book of Knowledge in GIS* and the new developments at ESRI participants supporting the community of surveyors.

Twenty-one presentations were given in nine sessions during the symposium. The speakers represented 11 countries, educational and governmental institutes as well as private companies from all over Europe and also from Canada, United States and Hong Kong. The presentations of the symposium mainly covered the curriculum development activities in our profession, the roles of educational methods including their technical backgrounds. There was a separate session summarizing the Bologna changes in Slovakia, Czech Republic, Canada and Croatia. One session was devoted to the e-Learning methods where the speakers presented their experiences on e-Learning tools, materials and some examples in teaching of cartography and geoinformatics with e-learning tools and platforms.

Prof. Bela Markus, Faculty of Geoinformatics, University of West Hungary as the chair of Commission 2 introduced the newly designed homepage (www.geo.info.hu/fig2) of the Commission 2 as an addition to the FIG Com. 2 Internet site. This new site was developed to strengthen the communication, the community building between the delegates, academic members and other parties interested in the FIG activities. Prof. Bela Markus encouraged everybody for registering on the site since it gives access not only for viewing but also for publishing of news, important events in the event calendar, articles, presentations, photos, and it gives also possibility to take part actively in the forum of needs analysis and many other topics.

3. Working Week 2008: Integrating generations

14-19 June 2008 Stockholm, Sweden

The Working Week addressed many of the issues facing both professional surveyors and educators in the next years. These include questions related to the need of getting young people interested in surveying and geomatics, what is the role of modern technology in professional education and training, how to keep the professional qualifications up to date, need for capacity building – all issues of great interest for FIG and the organisers.

As Swedish surveyors are very successful in the fields of real estate management and valuation we were happy to see at the technical sessions their experiences in different joint educational projects, their showcase how Swedish educators have a strong interest in assisting surveyors and land related professions in developing countries.

During the Working Week three technical sessions were organized by Commission 2. After the review of the abstracts, 21 presentations were accepted and 17 papers presented. The main topics were: Curriculum Development, Educational Case Studies and Educational Projects. Commission 2 co-operated with other Commissions in two additional Technical Sessions: TS 2F – Young Surveyors and TS 3G – Capacity Building. More: <http://www.fig.net/fig2008/>

4. Summer School on Urban 3D modelling

23-29 August 2008 Szekesfehervar, Hungary

The Summer School aimed to give an overview of data acquisition, data processing and modelling methods related to 3D modeling in urban environments. 40 students attended from abroad and 10 from Hungary. For 27 August 2008, a one-day conference has been arranged in order to give a top quality overview on new methodologies in data collection and modelling.

The venue was the UWH GEO's Knowledge Center on Land and Geoinformation. Lectures delivered by leading representatives of the 3D arena including Eurosense, LEICA, Varinex, Laservision/Riegl, YonaPMS, András Osskó, the chair of FIG Commission 7 as well as Prof. Franz Leberl, chief scientist of Microsoft' Virtual Earth program.

The event was free to the public thanks to the prominent donor organisations. Major sponsor of the conference was Microsoft. More information and the recorded presentations are available at the website: <http://www.geo.info.hu/urban3d/>

5. Working Week 2009: Surveyors Key Role in Accelerated Development

3-8 May, 2009 Eilat, Israel

The Working Week targeted many of the issues facing both our profession and educators in the next years. The main topics addressed by Commission 2 include the importance of changes in land surveyors education, the future directions of education to meet the challenges and opportunities, the role of surveying within the university curricula in general, outcome-based approach to teaching, learning and assessment,

development of curricula and educational materials, the need of getting young people interested in surveying and geomatics, marketing of education, challenges and opportunities in learning management.

During the Working Week three technical sessions were organized by Commission 2. After the review of the abstracts, 12 presentations were accepted and presented. The main topics were: Needs of Changing Society – New Skills, Competences in Surveying, Good Educational Practices, Life-long Learning – Educational and Training Services. More information available at <http://www.fig.net/fig2009/>

6. 7th Regional Conference: Spatial Data Serving People: Land Governance and the Environment - Building the Capacity

19-22 October 2009, Hanoi Vietnam

At the 7th Regional Conference our main focus were on “Education and training needs and responses” and “Capacity building”. During the Conference two technical sessions were organized by Commission 2. After the review of the abstracts, 8 presentations were accepted and presented on various topics (exchange programs, geomatics education: as a rising sector for value addition, building the capacities in the cadastral and land registration organizations at individual level in developing and transition countries, etc). ITC presented a Worldwide Network of Academic Partners; a Mechanism for Improving Capacity Building in Land Administration.

There was a “Roundtable on Professional Education”, where Dr. Steven Frank, chair elect Commission 2 (USA): presented his Work Plan for the period of 2011-2014.

7. FIG Congress, Sydney

The overall theme of FIG 2010 “Facing the Challenges – Building the Capacity” was fitting very much to the general aims of Commission 2. reflected by the topics in the call for papers, such as needs of changing society - new skills, competences in surveying, surveying curricula developments, life-long learning - educational and training services, e-Learning - content development methods, tools, student support, good educational practices and experiences in recruitment and marketing.

Within the 11 technical sessions more than 50 papers were presented. There was a roundtable on “Knowledge transfer and attracting young people to surveying”, jointly organised with ASIERA, chaired by Prof. Chris Rizos, Chair of ASIERA, Australia.

8. Workshop on the Trends in Surveying Education and Training

University of East London, 26th-27th August 2010

This conference and workshop focussed on surveying education and in particular how educators around the world respond to changes in the survey profession and keep their courses relevant and stimulating for students. Also explored were the opportunities that exist to enhance surveying teaching and learning by sharing approaches and investigating the benefits of a variety of new technologies. The meeting also saw the

hand over of the chair of FIG commission 2 from Bela Markus (University of West Hungary) to Steven Frank (New Mexico State University).

FIG president, Stig Enemark, gave the opening address and presented an overview of surveying education in Europe. Most surveying courses have experienced significant changes in recent years, changes brought about by survey technology, the use of computers in teaching and learning and changes to the profession itself. Indeed, one comment that seemed to dominate these proceedings was that ‘the only thing we can rely on is that things will change’. Bela Markus has chaired FIG Commission 2 for four years and as outgoing chair he gave a presentation on Commission 2 achievements amongst which have been 10 workshops or conferences held worldwide. The impact of the changing worlds of both surveying and education were again highlighted in the presentation. As a key part of this, the growing trend of professional institutions towards using competencies as part of their requirements for membership was discussed. However it was clear that the range of definitions of surveying found worldwide makes international acceptance of a common system difficult. In terms of changes in education, the growing emphasis on the provision of e-learning is clear and in January 2010 Commission 2 highlighted this in FIG Report no. 46 “Enhancing Surveying Education through E-learning” Gert Steinkellner, reported on the work of working group 2.4 - Education Management and Marketing, including details of the workshop held in Vienna in 2009. After identifying the ‘big swing’ of the profession from measurement to management as a challenge, he discussed the role FIG could take in marketing surveying education. This included looking at how the profession is recognised, the need for realistic expectations and the need for co-ordinated global marketing.

The final item for the day was the introduction of the proposed work plan for Commission 2 for 2011 – 2014 by Steven Frank, chairman elect. Discussion followed on the strategies suggested for each working group and how FIG can help with survey education at all levels.

The meeting closed with a discussion on the possible timing and themes of Commission 2 workshops for the next four years and ways in which to maximise their potential.

Working Group 2.2 – e-Learning

Policy issues

- To explore the movement from traditional face-to-face teaching towards an integrated learning environment, the changing role of the academic staff.
- To discuss the technical, political, legal, organisational and cultural problems of e-Learning.
- To exchange experiences on content development methods (Multimedia, CBT, Quizzes etc) and student support (Virtual Club / Library, Communication techniques, Teamwork tools).
- To identify the Educational Portal functions
- To disseminate Educational Metadata

Chair

Liza Groenendijk, ITC (Enschede, Netherlands), email: groenendijk@itc.nl

Activities

1. e-Learning: Sharing Good Practices

11-13 June 2008 Enschede, The Netherlands

From the 11th to 13th of June 2008 a group of international professionals engaged in e-learning and distance education came together in ITC for the International Workshop Sharing Good Practices: e-learning in surveying, geo-information sciences and land administration. The organisation of the workshop was a combined effort of Commission 2 and Commission 7, and the International Institute for Geo-information Science and Earth Observation (ITC) in the Netherlands. The Netherlands Cadastre, Land Registry and Mapping Agency sponsored the event.

The program consisted of keynote speakers, technical sessions, hands-on sessions, demonstrations and guided discussions. The organisation received 30 accepted contributions and 70 participants, from 27 different countries, participated actively in the various workshop sessions.

The workshop was opened by Prof. Martien Molenaar, Rector of ITC and FIG President Prof. Stig Enemark delivered his opening address through video conferencing from Denmark. As first keynote speaker was welcomed Dr. Nicholas Frunzi, Director of Educational Services, ESRI, USA. Dr. Frunzi gave an overview of ESRI's developments in educational services starting with instructor-led classroom training in 1988 to the ESRI Virtual Classroom today and the Blended Learning with ESRI Press in the future.

Prof. Bela Markus of the University of West Hungary, Chair of FIG Commission 2, was the second keynote speaker. After introducing the concept of e-learning, he discussed the status, the trends and the importance of business models in e-learning. He stressed the importance a business model of re-using and sharing resources to build sustainable courses within networking partnerships.

The keynote addressed by András Osskó, Chief Advisor, Budapest Land Office and Chair FIG Commission 7, focussed on the importance of changes in the education of land surveyors. Interest in traditional land surveying is decreasing, while interest in land administration, on the other hand, is increasing. Osskó made a plea for lifelong learning which is necessary not only for individuals but also for institutions to keep the knowledge of their staff up-to-date.

Based on the content of the accepted contributions the following technical sessions were offered:

- Good practices in e-learning and distance education
- Engaging in e-learning
- Continuous Professional Development
- International Cooperation and/in e-learning

During the workshop dinner the Best Paper Award was handed over to Dr. Henny Mills of Newcastle University, for her paper entitled: A Virtual Surveying Field Course for Traversing, written together with David Barber. The paper describes an innovative e-learning tool developed for a Geomatics degree course. It was considered an excellent example of how a virtual fieldwork tool can support student understanding and prepare for real fieldwork.

One afternoon of the workshop was reserved for the Hands-on sessions. Participants could choose from the following 4 different sessions:

1. Captivate® for Animations and Simulations
2. Creating a Wiki
3. Quick and easy lecture video recording
4. Communicate. Collaborate. Educate with Elluminate®

The workshop on Captivate attracted the highest number of participants. The workshops were followed by a demonstration of the e-learning activities of The Netherlands Cadastre, Land Registry and Mapping Agency.

At the end of each day participants came together in so-called home groups. These home groups were formed to create an informal platform for discussion and exchange of experiences and to formulate points for discussion. Each home group was guided by a moderator.

The conclusions of the four home groups were presented during the Closing Session and summarised by Chris Paresi, Head of the Department of Urban and Regional Planning and Geo-information Management at ITC. The outcome of the discussion can be summarised as follows:

1. The importance of partnerships

Working together, sharing of experiences and resources, is considered of great importance for the success and further development of e-learning in the field of surveying, geo-information science and land administration.

The term Thematic Network and the e-learning concept, Community of Practice, were also proposed in this context.

More in particular were mentioned:

- Explore cooperation between professional organisations FIG, ISPRS and ICA
- Recognition of e-learning material and courses
- The importance of quality assurance
- The need for a credit exchange system
- The role of open source
- Sharing of Contents
- Stronger partnership between Academia and Professionals
- The need for an e-learning infrastructure

- Promote a business model of re-using and sharing e-learning courses and courseware

2. *E-learning as a tool for Continuous Professional Development*

E-learning is considered an excellent tool for continuous professional development and life long learning, especially in the rapidly changing working field of the land professional.

More in particular were discussed:

- Nano-units of (e-)learning: small focussed training units, for particular learning needs
- “Immediate” implementation of learned skills by professionals
- The changing meaning of learning and how to achieve this
- The strong link between e-learning and knowledge management
- Online communication and collaboration tools for exchange of experiences and mutual learning
- Blended approaches preferred

3. *E-learning to engage young surveyors*

An issue of concern within FIG is the decreasing interest of university students in the land surveying profession. Universities and professional training institutions need to review their education according to new requirements and students interests. E-learning may contribute to motivate students to join the profession.

Points mentioned by the groups:

- Online communication and collaboration tools for interaction, group work, peer exchange, supervision
- Students used to digital learning and communication
- Global interest of students
- Online mentoring and support through Communities of Practice
- Prepare students for Life Long Learning
- An opportunity for students from developing countries

4. *Define the field of e-learning within FIG*

The workshop made clear that a lot of knowledge has been accumulated in recent years in the field of e-learning and surveying, geo-information sciences and land administration. Many lessons have been learned and it is the right time now to analyse these lessons and publish the findings.

More in particular it was suggested:

- Prepare a FIG Publication on the topic of e-Learning
- Bring the all experts together in a wiki environment and write a reference book on e-learning!

5. *Some problems and final remark*

Many success stories in e-learning were presented during the workshop. But of course there were also many critical issues to discuss.

Some of the identified shortcomings of e-learning:

- Language a bottleneck
- Cultural differences in learning style and content
- E-learning is a tool and learning is the objective
- For practical teaching e-learning is considered of limited use
- E-learning not really rewarded by training institutions and universities. Developing e-learning courses and material is demanding in time and expertise.

Proceedings with the full papers are available on CD ROM. A paper publication of the Proceedings produced in the second half of 2008 including the outcome of the discussion sessions. All presentations can be found on the workshop website: http://www.itc.nl/fig_elearning2008

2. Preparation of the FIG Publication (No.45)

Enhancing Surveying Education - through e-learning

published at the FIG Congress 2010 in Sydney

At the „Navigating the Future of Surveying Education” workshop in Vienna (February 2009), the board of working group chairs of Commission 2 decided to summarize the experiences on e-Learning in a technical report. As chair of Working Group 2.2 Liza Groenendijk was invited to guide this process and be responsible for the editing.

The technical report on e-learning intends to summarize the outcomes of symposia and workshops organised by FIG Commission 2, and aims to develop and present an FIG Policy Statement on e-learning. The intention of the report is to support FIG members and their affiliates, and the surveying public in general, in their efforts to further develop e-learning initiatives within their organisations.

The preparations for the technical report started early March 2009. A team of Commission 2 members drafted a first proposal and invited relevant e-learning specialists from universities and industry to join. The publication will be presented during the FIG Congress in 2010 in Sydney. To facilitate the writing process a Wiki environment (<http://figpub.pbworks.com/>) was created for drafting the publication and Skype was promoted as the tool for online meetings. By the end for 2009 the draft for publication was sent to the FIG Office.

The structure and content were discussed during the different FIG events in 2009.

The technical report was published at the FIG Congress 2010 in Sydney.

Working Group 2.3 – Educational Management and Marketing

Policy issues

- To observe and register the new challenges of our profession respond to them.
- To survey the needs for academic members and provide required services.
- To analyse the market and respond by LLL services.
- To promote the need on CPD (Continuous Professional Development).
- To disseminate experiences in recruitment and marketing.
- To distribute know-how in Project and Quality Management.
- To encourage young surveyors (students) on their career.
- To serve ALUMNI and use its power.
- To build twinning and thematic networks.

Chair

Gert Steinkellner, BEV (Vienna, Austria), e-mail: gert.steinkellner@bev.gv.at

Activities

Workshop on Navigating the Future of Surveying Education

26-28 February, Vienna, Austria

Working Group 2.3 of FIG Commission 2 on Educational Management and Marketing and the Austrian Society for Surveying and Geoinformation (OVG) were organising jointly the Workshop. The venues were the lecture halls of the Federal Office of Metrology and Surveying (BEV) in the centre of the City of Vienna, Austria. Heads of Organizing Committee were Mr. Gert Steinkellner and Dr. Reinfried Mansberger.

The program consisted of keynote speakers, technical sessions, hands-on sessions, demonstrations and guided discussions. The Organisation Committee received 30 accepted contributions and 74 participants, from 20 different countries, participated actively in the various workshop sessions. 27 speakers shared their experiences in professional education on the following topics:

- Marketing of Professional Education
- Availability of Continuous Professional Development
- Educational Networks – Globalisation of Surveying Education
- Quality Assurance in Surveying Education & Training
- New Methods for Knowledge Transfer
- Scope of Competences in Professional Education

Keynote speeches were given by the President of FIG, Prof. Stig Enemark, by the ESRI Director of Education, Michael Gould, by the chair elect of FIG Commission 2, Steve Frank, and by the Rector of the University of Technology in Graz/Austria, Prof. Hans Sünkel and by the Austrian Representative of the Bologna Follow Up Group, Gottfried Bacher.

During the conference in two short-term workshops hosted discussions on the topics

- “Students Where Are You?”, and
- “Student Today – Status & Vision”

In the first mentioned workshop the reasons for the decreasing number of students were analysed and proper strategies for the recruitment of students and the marketing of professional surveying education were elaborated. The second one – performed by students – examined the situation of students in our professional fields and tried to outline visions for an optimised professional education. Both topics of the workshops have a high relevance in most of our countries.

The discussion topics of the “Students Where Are You?” workshop were as follows:

1. Is the surveying profession itself too unattractive for today’s young people?
2. Is the low number of surveying students the result of an insufficient and inadequate education?
3. Is the low number of surveying students the result of only a missing or none active marketing of the surveying study and/or the surveying profession?
4. How to enhance technical interest and interest especially for academic surveying education? Mustn't technical education and training begin at kindergarten/ elementary school?
5. How to encourage life long learning, project management and quality management?

The conclusions were presented during the Closing Session by Mr. Rob Mahoney.

The results of the second workshop were presented during the Closing Session, and were used during the Working Week in Eilat in the discussions generated by “Young Surveyors”.

All presentations can be found on the workshop website: <http://fig09.ovg.at/>

Working Group 2.4 – Real Estate Valuation and Management Education (Joint WG with Commission 9)

Policy Issues

- Surveyors are traditionally well educated to basics of real estate legislation and markets. In the present world requirements for knowledge in real estate are expanding fast. It is not anymore possible to educate surveyors to all traditional tasks in unified programs but the programs have to have real options where students can really specialise in real estate economics. This is needed in the market (thousands of new jobs) and examples of some countries show that this kind of education is possible and also very attractive for students and markets.

Chair

Prof. Arvo Vitikainen (Helsinki, Finland), e-mail : arvo.vitikainen@tkk.fi

Co-Chair Prof. Kauko Viitanen (Helsinki, Finland), e-mail : kauko.viitanen@tkk.fi

Activities

It was our intention (at Helsinki University of Technology) at the autumn candidate seminar of the study program of the real estate economics to collect basic material for the final report of WG 2.4 Real Estate Valuation and Management Education. We

meant to prepare a preliminary report for the Eilat Working Week based on these papers. Unfortunately the autumn seminar had very few participants and the topic was experienced rather difficult, so the plan did not realise. We will try to prepare for the topic more carefully and make the students of the spring seminar enthused about the topic. We would then have a good final report for the Sydney congress. Further, we did not have resources to plan and realise a seminar or workshop on the WG 2.4 subject field for the coming spring. The reason for this was simply lack of time (along with my normal responsibilities I did the preparation work and obtained financing for an extensive research programme on the effects of land consolidation). Kauko Viitanen, for one, has been tightly occupied with the preparation of the university organisation reform.

3. Communication

Newsletters

Commission 2 delegates and member associations were informed via regular Commission newsletters.

4. Calendar of Annual Events

- Workshop on Curriculum Development
Scientia Est Potentia - Knowledge is power. FIG Commission 2 Symposium,
7-9 June 2007, Czech Technical University, Prague, Czech Republic
Web site: <http://geoinformatics.fsv.cvut.cz/>
- Workshop on e-Learning,
11-13 June 2008, Enschede, Netherlands
Web site: http://www.itc.nl/fig_elearning2008/
- Workshop on Educational management and marketing,
26-28 February 2009, Vienna, Austria
Web site: <http://fig09.ovg.at/>
- Workshop on the Trends in Surveying Education and Training
Web site: 26-28 August 2010, London, UK
<http://www.uel.ac.uk/fig/>

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25 November 2010

Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco

FIG Commission 3 – Spatial Information Management

End of Term Report 2007–2010

1. General

This report summarizes the activity of Commission 3 during the period 2007-2010.

Since 2007, FIG Commission 3 has focused on the phenomenon of rapid urbanization, its impacts and the need for *spatial information for sustainable urban development*. FIG Commission 3 delegates had agreed to:

- Activate the national delegate, the correspondent and the academic member network in order to work together, identify the needs in our common fields of interest, and exchange experience and knowledge for the common benefit
- Organize Commission 3 annual meetings and workshops focused on the specifically identified needs and topics
- Provide and certify optional peer review for authors of focused papers submitted for Commission 3 Workshops. Papers of authors not wishing peer review are equally welcome in the proceedings.

In particular, FIG Commission 3 has coordinated international research through:

- The FIG Working Weeks and Regional Conferences
- Four specific annual Workshops focused on the following topics: “*Spatial Information Management toward Legalizing Informal Urban Development*” March, 2007, Athens, Greece; “*Spatial Information Management toward Environmental Management of Mega Cities*” February 2008, Valencia, Spain; “*Spatial Information for Management of Sustainable Urban Areas*” February 2009, Mainz, Germany; “*Land and Information Management. A Decade after the Millennium*” November 2010, Sofia, Bulgaria
- Two Expert Group Meetings:
 - In Athens, in Nov 2008, organized by the Technical Chamber of Greece, for the purposes of the FIG/UNHABITAT/GLTN in depth research on “*Tools for Legal Integration and Provision of Environmental Improvements in Informal Settlements in Europe*”, http://www.fig.net/news/news_2008/athens_november_2008.htm
 - In Paris, in Dec 2009, organized by the French Order of Surveyors, for the purposes of the FIG research on “*Mega city management*”.
- Three Working Groups to systematically support the international research: WG 3.1 e Government for e Citizens, WG 3.2 Spatial Data Infrastructure, WG 3.3 Multidimensional Aspects in Spatial Information Management

2. Annual Workshops

- **“Spatial Information Management toward Legalizing Informal Urban Development”** March, 2007, Athens, Greece
This joint FIG Commission 3 and UN/ECE Working Party on Land Administration (WPLA) and Committee on Housing and Land Management (CHLM) workshop was organized by the Technical Chamber of Greece (TCG) and the Hellenic Association of Rural and Surveying Engineers (HARSE). The urgent social, technical and legal aspects related to the emerging informal settlements as a result of rapid urban growth were addressed. It was agreed that access to land, legal and social integration of informal settlers is a fundamental legal right. Legalization and land privatization and affordable housing provision for low and middle income families were among the main tools suggested during the workshop. The resolutions of this workshop have been published in the SaLIS journal. The peer reviewed papers have been published in Technika Chronika, the scientific journal of the TCG. Read more at: http://www.fig.net/news/news_2007/wpla_march_2007.htm
- **“Spatial Information Management toward Environmental Management of Mega Cities”** February 2008, Valencia, Spain
This Workshop was organized by the Colegio Oficial de Ingenieros Tecnicos en Topografia, the Universitat Politecnica de Valencia, and the Royal Academia de Cultura Valenciana. It was also supported by the General Direction of the Spanish Cadastre, ISPRS, EARSeL, INSPIRE, EuroSDR, UN/ECE CHLM and the WPLA, and FIG Commission 2. The workshop was part of the *Spanish IX National Congress of Surveying Engineers TOP-CART 2008*. The important subject of environmental protection was added in our agenda. It was agreed that regulations on private rights in the use of land in terms of air, soil, and water pollution must be accepted and applied by all market participants through participatory democratic procedures. All must share the costs of the natural resources they consume, through a flexible and market-oriented planning tool. Current technical developments allow for automatic procedures in environmental monitoring and informal development detection. Peer reviewed papers were published in the SaLIS journal. Read more at: http://www.fig.net/news/news_2008/valencia_february_2008.htm
- **“Spatial Information for Management of Sustainable Urban Areas”** February 2009, Mainz, Germany
The Workshop was organized and sponsored by the German Association of Surveyors (DVW) and the Institute for Spatial Information and Surveying Technology of the Mainz University of Applied Sciences, and was under the aegis of EARSeL, UNECE WPLA, Lantmateriet, and the Appraisal Institute, USA. With a global economy facing its worst recession in decades, new aspects related to restricted credit-financed economic activity, increased unemployment and shortage of affordable housing were introduced. It was identified that the difference from past economic crises was that this one was a global and created an emergency situation for humanity. However, as more reliable spatial information related to social, legal, environmental and economic aspects exists, humanity may deal with problems more efficiently. It was identified though that many of the surveying and building regulations in countries are too rigid, expensive and outdated. This leads to the suppression of innovation in approaches,

products and services, and it hinders the activity of the private sector. It also adds a considerable and often unnecessary financial overhead to the administration and raises the question of how appropriate the government institutional arrangements are in this modern age, especially since such arrangements were designed 60 years ago and have not fundamentally changed. It seems that the biggest challenge today is finding effective solutions to the informal explosion in our cities. Peer reviewed papers were published in the Nordic Journal of surveying and real estate research. Read more at: http://www.fig.net/news/news_2009/mainz_february_2009.htm

- **“Land and Information Management. A Decade after the Millennium”** November 2010, Sofia, Bulgaria
The Workshop was organized by FIG Commissions 3 and 7 and the Chamber of Graduated Surveyors of Bulgaria. Interesting aspects such as land management in a passive and/or purposive manner; the need for fast infrastructure construction and compulsory purchase of land and compensation; the need for speeding up all land reforms and improving traditional land tools (e.g., land consolidation); the need for efficient state land management, for creating a favourable environment for investment on land and real estate, for voluntary/participatory planning procedures; automated environmental monitoring; open source cadastre; GIS and crowd sourcing techniques for urban management; and the need for harmonization of land administration institutions and legislation to facilitate cross boarder finance and property loans in the digital era were addressed. It was also mentioned that the World Bank has supported the largest land reform program the world has ever seen in the ECA countries (40 projects, US\$1.1 billion in loans and grants). Radical land changes have happened in this region. Currently countries of ECA are requesting World Bank support in two key-areas: improving the quality of services and reducing corruption through e-government initiatives, and SDI and meeting the requirements of the INSPIRE Directive. Thus the WB support for the next ten years will include five objectives: completion of property registers and cadastres, development of a more integrated approach to land management, encouraging innovation and the use of SDI, improving the management of the organization and use of space data, supporting governance and quality and method of services provided. The peer reviewed papers of this workshop will be published in the Survey Review journal. Read more at: http://www.fig.net/news/news_2010/sofia_november_2010.htm

3. Working Groups

Working Group 3.1 – eGovernment for eCitizens

Chair: Kari Strande (Norway)

Co-Chair: Peter Laarakker (the Netherlands)

Active WG members: (Rob Mahoney (UK), Robin A. McLaren (UK), Daniel Roberge, (Canada), Uzo Okafur (also vice chair of WG3.3), Jes Ryttersgaard (Denmark), Jens Hollænder (Denmark), Tarja Myllymäki (Finland), Jan Bares (Czech Republic), Bela Markus (Hungary), Bo Lauri (Sweden), Gerhard Muggenhuber (Austria), and Khaled Nabbout (Lebanon).

WG3.1. members have encouraged speakers to participate and present papers to FIG and other GI meetings. Examples of e-Government projects and programs can be found on the websites of FIG Workshops and Working Weeks e.g., Commission 3 Workshop Istanbul 2002, Working Week Paris 2003, Regional Conference Morocco 2003, Working Week Athens 2004, Workshop on GeoPortal solutions Warsaw 2004, Workshop on e-Land administration Vienna 2004, Regional Conference Jakarta 2004, Workshop on eGovernment Cairo 2005, 2006 Budapest (Booklet report by Bela Markus), Congress Munich 2006, Comm. 3 Workshop Athens 2007, Working Week Hong Kong 2007, Regional Conference Costa Rica 2007, Comm. 3 Workshop Valencia 2008, Working Week Stockholm 2008, Working Week Eilat 2009, and Congress Sydney 2010.

An attempt is made to provide links to eGovernment web sites where SIM is an important part. (e.g., Links to global/regional assessment sites, UN, WB, EU, Links to some national sites).

Working Group 3.2 – Spatial Data Infrastructure (SDI)

Chair: Paul Kelly (Australia)

Co- chair: Hartmut Mueller (Germany)

For the first time in history, over half of the world's population now live in urban areas. This equates to 1.6 billion people. It is estimated that 500 million people will be urbanised in the next five years and projections indicate that the percentage of the world's population that is urbanised will be 60% by 2030. Urbanisation is a major change that is taking place globally. There are 19 megacities (over 10 million population) now, expected to be 27 by 2020. Thirty percent of urban populations live in slums; providing affordable housing is a major challenge in all cities.

A specific work item that has been selected is the use of SDI in *managing mega cities*. A working group has been set up to identify relevant spatial tools that will support development and use of SDI by city authorities.

Based on cooperation with other working groups this WG has:

- Supported discussion on the role of local and regional SDI in managing mega cities
- Identified institutional, policy and legal frameworks that can be incorporated in SDI to address mega city issues
- Identified specific technical innovations in SIM that can improve management of mega cities

The working group has adopted a pragmatic approach, based on working with administrations in mega cities to identify key problems they face both now and in the future; use an international network of experienced spatial information practitioners to identify potential solutions; and then develop materials that provide a practical guide to international best practice in the use of SDI to better manage our cities. Commission 3 plans to provide a major report on its findings at the FIG Congress in Sydney in 2010.

The methodology adopted by the working group has three stages:

1. Review SDI developments in existing mega cities; identify current problems and issues and use of SDI (by August 2008).

2. Document case studies, including lessons learned about solutions to problems (by April 2009).
3. Develop a toolkit for use of best practices in SDI in managing mega cities, including frameworks for policy, institutions, legal and technical (by April 2010).

The working group has developed a questionnaire on the needs and use of SDI by mega cities. The questionnaire and covering letter signed by the President of FIG have been sent to a shortlist of mega cities, including Delhi, Istanbul, London, Mexico City, Hong Kong and Seoul. The working group has made use of voluntary time of its members and sought to involve administrators in selected mega cities.

WG 3.2. chair Paul Kelly was supported by FIG Commission 3 to participate to 9th Congress of Metropolis on “*Trends in Megacities – Metropolis*” Congress 2008, in Sydney, Australia, 22-25 October 2008. The report can be found on: http://www.fig.net/news/news_2008/sydney_oct_2008.htm. You may read more about the Metropolis Congress on: <http://www.metropoliscongress2008.com/>

A very successful additional FIG WG 3.2 activity took place immediately after the Workshop. On 13th and 14th February 2009 a follow-up meeting took place at the Mainz FIG Commission 3 Workshop’s location. The Local Organising Committee and the co-chair of FIG WG 3.2 Hartmut Mueller provided for a two-day summary of the Workshop to the Nigerian delegation. The follow-up meeting was attended by the Honourable Speaker of the Nigerian Katsina State House of Assembly Mr Yau Umar Gojo-gojo, along with twelve of his Housing and Urban Development Committee members. In the context of summarizing several presentations given by some workshop speakers, the similarities and discrepancies between the African and European land administration and spatial planning systems were thoroughly discussed. In that way, an excellent opportunity was taken to transfer the workshop’s results to a delegation of high-level political representatives of an African developing country. Workshop’s web site: <http://www.i3mainz.fh-mainz.de/FIG-Workshop/>

After the compilation of FIG publication 48, co-authors Paul Kelly chair of FIG WG 3.2, Prof Chryssy Potsiou Chair of FIG Commission 3), co-chair of FIG WG 3.2 Hartmut Mueller and Prof Yerach Doytsher (Chair-Elect of FIG Commission 3) have made a series of presentations with a purpose to promote this research as broadly as possible. These presentations are at the following Conferences:

- Co-chair of FIG WG 3.2 Prof Dr Ing Hartmut Mueller made a workshop presentation on 'Spatial Information Management, an Effective Tool to Support Sustainable Urban Management', 46th International ISOCARP Congress, Nairobi, Kenya, 19-23 Sept 2010, Workshop 1: Effective policy-making for sustainable urbanization, 22 Sept 2010
- Co-chair of FIG WG 3.2 Prof Dr Ing Hartmut Mueller made a plenary speech on 'SDI for Cities', Informática 2011 Convergent Technologies: Integration and Independence, 14th International Convention and Fair, 7th International Congress of Geomatics, Havana, Cuba, 7-11 Feb 2011
- Commission Chair Chryssy Potsiou, Co-chair of FIG WG 3.2 Hartmut Mueller, and Chair-Elect Yerach Doytsher made presentations on FIG publication 48 at the SDI 2010 conference in Skopje, Sept 2010, http://www.fig.net/news/news_2010/skopje_september_2010.htm

- Paul Kelly, Chair of FIG WG 3.2, Hartmut Mueller, Co-chair of FIG WG 3.2 and Chair-Elect Yerach Doytsher made a presentation of FIG publication 48, at GSDF'12 in Singapore, Oct. 2010
- Commission Chair Chryssy Potsiou made a presentation at the 2nd International Training Course for Surveyors, organized by the Consiglio Nazionale Geometri e Geometri Laureati in cooperation with Geoweb S.p.A., Company providing web services for surveyors, in Rome, 20 Sept-8 Oct 2010.
http://www.fig.net/news/news_2010/rome_september_2010.htm

Working Group 3.3 – Multi Dimensional Aspects in Spatial Information Management

Chair: M. Roic (Croatia)

The Working Group 3.3 was formed in 2006. The goals of the Working Group are:

- Expansion and development of existing data models;
- Increase the involvement of surveyors in development of data models; and
- Disseminate accumulated knowledge and experience.

The WG was structured to include members with technical expertise as well as participants who are familiar with the development of SDI. In pursuit of these goals, the WG has met first time in Athens in early 2007. This meeting has provided an opportunity for the WG not only to analyse issues directly related to mentioned goals, but also to identify a number issues for cooperation with WG2. The members of the WG also participated in Stockholm in 2008 and presented papers covering technical and multidimensional aspects of SDI in order to assure broader dissemination of the WG's work.

3. Cooperation

3.1 Cooperation with other FIG commissions

Good cooperation was established with Commission 2 for the 2008 Commission 3 Workshop in Valencia, and with FIG Commission 7 for the 2010 Commission 3 Workshop in Sofia.

FIG Commissions 3 and 7 have supported the Conference on “*Citizens Rights to Real Property*” held from 30th November to 1st of December in Chisinau, in Moldova, organized by the Agency for Land Relations and Cadastre of Republic of Moldova. The objectives of the workshop included the following: increase awareness of the role of the donor/lender in emerging economies; direct attention to the impact of the real property issues on the local economy; discuss how local political situations affect land administration projects and how negative effects can be minimised; review the best types of project from the point of view of the donor/lenders and of the clients, and examine the key factors controlling success and failure from both points of view; review how future projects in the land administration sector might be better organised. Proceedings can be found at the following address:

<http://www.4cli.org/moldova/>

3.2 Cooperation with UN agencies

- Commission 3 is closely cooperating with UNECE Working Party on Land Administration especially on the issue of informal settlements and managing unplanned

urban development in Europe. Through this cooperation Commission 3 has contributed to compilation of the publication *“Self-Made Cities, In search of sustainable solutions for informal settlements in the United Nations Economic Commission for Europe Region”*. Commission 3 also supported the UNECE WPLA Workshop on *“Experiences with Data Management to Improve Land Administration in ECE Countries”*, held in Sofia, Bulgaria, 23-24 April 2009. The main objective of the workshop was the presentation and discussion on the Land Administration Review of Bulgaria, <http://www.cadastre.bg/presentations.html>

- Commission 3 has supported the UNECE WPLA workshop on *“Spatial Planning to improve Security of Tenure in the UNECE Region”*, in Antalya, Turkey, Oct 2010, and presented the study on *“Informal Development in Europe: Experiences from Albania and Greece”*
- Commission 3 is in close cooperation with UN-HABITAT. The result of this cooperation is the publication on *“Informal Urban Development in Europe. Experiences from Albania and Greece”*.

3.3. Cooperation with FIG member associations

- Commission 3 has established a close co-operation with the Technical Chamber of Greece, the Spanish Colegio Oficial de Ingenieros Técnicos en Topografía, and the DVW - Deutscher Verein für Vermessungswesen - Gesellschaft für Geodäsie, Geoinformation und Landmanagement, and the Chamber of Graduated Surveyors of Bulgaria for the organization of the workshops of 2007, 2008, 2009 and 2010.
- Commission 3, through the organization of the expert group meeting in Paris, has established a close cooperation with the Ordre des Geometres Experts and has agreed to continue a joint research in future on specific issues of broad interest in the European region. The possibility of organization of the FIG Commission 3 annual Workshop in Paris in 2011 is under consideration.
- Commission 3 supported the 2nd Turkish GIS Congress *“GIS 2009”* organized by the Turkish Chamber of Engineers and Architects (TMMOB). The theme of the congress was *“NSDI and working cooperatively for a livable future”*. One of the main goals was to identify the issues of *“real world GIS applications”* and specifically the problems caused by the lack of interoperability among different parties. The resolutions of the congress show that there is an urgent need to initiate an NSDI of Turkey. The transformations of the major institutions like General Command of Mapping acting as the national mapping agency and Land Registry and Cadastre of Turkey are major tasks. The legal basis of NSDI in Turkey is in the *“e-Turkey action plan”*, which has been set aside by the government. http://www.fig.net/news/news_2009/turkey_november_2009.htm
- Commission 3 has supported the SDI 2010 conference in Skopje, Sept 2010, organized by Geo-SEE (South-East Europe Research Association on Geo Sciences) and supported by six co-organisers (FIG, EUROGI, Chamber of Authorized Surveyors of Macedonia, FON University, ITC, and Geography Department of SUT). http://www.fig.net/news/news_2010/skopje_september_2010.htm
- Commission 3 has supported the 2nd International Training Course for Surveyors, organized by the Consiglio Nazionale Geometri and Geometri Laureati in cooperation with Geoweb S.p.A., Company providing web services for surveyors, in Rome, 20 Sept-8 Oct 2010. http://www.fig.net/news/news_2010/rome_september_2010.htm

- Commission 3 was invited to the International Land Management Symposium, Hannover, Germany, May 2010, organized by "Federal German Assembly Rural Development" and the Working Committee of the Surveying Authorities of the States of the Federal Republic of Germany, for a presentation of the FIG/UNHABITAT/GLTN publication on "Informal Urban Development in Europe. Experiences from Albania and Greece".

4. Events

2007

- FIG Com3 Workshop, Sounio, Greece, March
- FIG WW 2007, Hong Kong, SAR, May
- 6th FIG Regional Conference, San Jose, Costa Rica, November

2008

- Commission 3 Annual Meeting and Workshop "Spatial Information Management – Toward Environmental Management of Mega Cities", Valencia, Spain, 18-21 February 2008
- UNECE WPLA Workshop in Bergen, Norway, April 2008
- FIG Working Week 2008, Stockholm Sweden, 14-19 June 2008.
- VSMM 2008, 14th International Conference on Virtual Systems and Multimedia, dedicated on "Digital Heritage: our HI-tech STORY for future", 20-26 October 2008, Cyprus
- FIG/UN-HABITAT Expert Group Meeting in Athens, Greece, 27-28 November 2008

2009

- *Commission 3 Annual Meeting and Workshop on "Spatial Information for Management of Sustainable Urban Areas" in Mainz, Germany, 2-4 February 2009*
- FIG WG 3.2 follow-up meeting, Mainz, Germany, 13-14 February 2009
- *FIG/ World Bank Conference "Land Governance in Support of the Millennium Development Goals: Responding to New Challenges" - Washington DC, USA 9-10 March 2009*
- *UNECE WPLA Workshop on "Experiences with Data Management to Improve Land Administration in ECE Countries", Sofia, Bulgaria, 23-24 April 2009*
- *FIG Working Week 2009, Eilat, 3-8 May 2009*
- *7th FIG Regional Conference - Spatial Data Serving People - Land Governance and the Environment - Building the Capacity, Hanoi, Vietnam, 19-22 October 2009*
- *2nd GIS National Congress in Turkey, Izmir, Turkey, 2-6 November 2009*
- *Expert Group Meeting on "Rapid Urbanization and Megacities: The need for Spatial Information Management", 19-22 November, Paris, France*
- *Conference on "Citizens Rights to Real Property" 30th November -1st of December, Chisinau, Moldova*

2010

- *UNECE WPLA Workshop on "Efficient and Transparent Land Management in ECE Countries", Baku, Azerbaijan, 4-5 March 2010*

- *FIG Congress 2010*, Sydney, Australia 11-16 April, 2010
- *International Land Management Symposium on “Strategies for Improving Urban – Rural Inter-Relationships, Best Practice and Regional Solutions”*, Hannover, Lower Saxony, Germany, 10-11 May 2010
- *Joint FIG Com3 and Com7 Annual Meeting and Workshop on: “Information and Land Management. A Decade after the Millennium”*, Sofia, Bulgaria, 14-17 November 2010
- *SDI 2010 conference in Skopje, Sept 2010, organized by Geo-SEE*
- *2nd International Training Course for Surveyors, Rome, 20 Sept-8 Oct 2010*
- *International Experience on Land Consolidation, Cyprus, “Conference for the 100 years of Land Consolidation in Cyprus”*, 2010
- *International Forum: Property Registration in the Digital Age. Duisburg, Germany, Oct 2010*
- *UNECE WPLA workshop on “Spatial Planning to improve Security of Tenure in the UNECE Region”*, Antalya, Turkey, Oct 2010

5. Communication and Publications

- **Technika Chronika**, the peer-reviewed scientific journal of the Technical Chamber of Greece published, in its May-December version of 2008, vol 28(2-3) the peer reviewed papers of Sounio 2007 workshop.
http://portal.tee.gr/portal/page/portal/PUBLICATIONS/SCIENTIFIC_PUBLICATIONS/SEIRA_I/ETOS_2008/tefhosB
- **SaLIS** journal has published a special issue, June 2008, vol 68, No 2, with some of the peer-reviewed papers of the Valencia 2008 Workshop. The rest peer reviewed papers of that workshop are also been published in following SaLIS issues
- **Nordic Journal of Surveying and Real Estate**, has published a special issue vol 4 (2009) with the peer reviewed papers of Mainz 2009 Workshop.
<http://ojs.tsv.fi/index.php/njs/issue/view/473>
- **FIG publication 48. “Rapid Urbanization and Mega Cities: The Need for Spatial Information Management”**, *FIG 2010*, ISBN 978-87-90907-78-5 (authors: Doytsher, Y., Kelly, P., Khouri, R., McLaren, R., Mueller, H., Potsiou, C.)
<http://www.fig.net/pub/figpub/pub48/figpub48.htm>
As cities get larger spatial information is becoming a key resource in efficient delivery of e-government services, public safety, national security and asset management. In this FIG research study, it is proposed that a city-wide spatial data infrastructure linked to similar structures in other levels of government, can provide a sustainable solution to many problems of mega cities. The goal of this research is to investigate the emerging needs, the current trends and the extent of using SDIs in selected mega cities, but also to identify the emerging possibilities for using new technical tools for the governance of sustainable large urban areas applied by the surveying- mapping- data processing community.
- **UNECE “Self-made Cities. In search for Sustainable Solutions for the Informal; Settlements in the United Nations Economic Commission for Europe Region”**, *United Nations Economic Commission for Europe (UNECE), United Nations Publications*, ISBN 978-92-1-117005-4, Geneva, p. 113. (authors: Tsenkova, S., Potsiou, C., Badyina, A.)
<http://www.unece.org/hlm/documents/Publications/SelfMadeCities.pdf>

This book describes how more than 50 million people in the UNECE region have come to live in informal settlements and examines the main characteristics of the phenomenon. The book is published by the UNECE Committee on Housing and Land Management and its Working Party on Land Administration, based on the research initiated by the joint FIG Com3 and UNECE Workshop on informal settlements (“Spatial Information Management: Towards Legalizing Informal Urban Development, 2007). The papers presented at the workshop were used for highlighting the different approaches in the region.

- **FIG/UN HABITAT/ GLTN study on “Informal Development in Europe: Experiences from Albania and Greece”**, GLTN, FIG, UN HABITAT, Technical Chamber of Greece, ISBN: 978-92-1-132266-8, UN HABITAT Nairobi, p 36 (summary version) (author: Chryssy Potsiou) <http://www.fig.net/pub/figpub/pub48/figpub48.pdf>, Politicians may say “It’s informal, so it doesn’t exist”. But it is there. Informal settlers need to be able to enter the economic cycle. Informal settlements are the product of complex socio-political processes that differ significantly from country to country. Research on informal development therefore deals with complex issues that can only be addressed through in-depth studies. This study, which is a joint FIG/UNHABITAT, GLTN publication covers the problem of informal development in Albania and Greece at a detailed level, engaging with all the many complexities and variables associated with the issues and the different systems and institutions.

Dr. Chryssy Potsiou
Chair, FIG Commission 3, 2007-2010

March 2011

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Commission 4 – Hydrography

End of Term Report 2007–2010

1. General and activities

2007

The Commission chair and all four vice chairs were on the move throughout the year. While all were involved in offshore survey operations at various times throughout 2007 we still managed to write papers, participate and/or chair sessions at various FIG and hydrographic meetings.

ACCO Meeting, Slovakia

In the fall of 2006, a new Advisory Committee of Commission Officers (ACCO) was established to serve out a four-year term, from 2007-2010. Subsequently, a meeting was called for early 2007 for all newly appointed Commission Chairs (who are the members of ACCO) to gather together under one roof and with direction from FIG Council, work towards finalizing their proposed 2007-2010 work plans.

IHO Conference Monaco

Andrew Leyzack and Gordon Johnston attended this meeting early in the year. Gordon brought along his IHO Capacity Building Committee and International Advisory Board (IAB) hat and representing FIG we were privileged to join in the IHO General Assembly as observers. The conference provided an excellent opportunity for the Commission Chair to meet with other members of the FIG/IHO/ICA IAB to discuss training, competency and certification issues. It was also an opportunity to drum up interest in the regional conference in Costa Rica.

Working Week, Hong Kong

This was the first working week where a newly formed commission met to kick off the new work plan. David Neale and Gordon Johnston presented during a session on the Economic Benefits of Hydrography. John McCarthy offered an anecdotal treatment of a lifelong career in Hydrography- drawing from Steve Ritchie's "No Day too Long", John's paper argued that to a hydrographer "No Day Was Long Enough". Andrew co-authored and presented a paper with HK Poly U Instructor Steve Lam on Marine Information Systems. The Port of Hong Kong's Hydrographic Service hosted a tour of their facility and the HK national delegate Lesly Lam organized a good workshop for both Commissions 4 and 5 to network. The annual Commission 4 meeting as well as two strategic planning meetings for Costa Rica was held during this event.

South East Asian Surveyors Conference, NZ

Past Commission 4 Chair Adam Greenland attended this FIG-sponsored event. A significant hydrographic component contributed to the session content of this conference.

6th FIG Regional Conference, Costa Rica

This regional conference was focused on providing answers to specific challenges faced within Central America, particularly within the coastal zone. Commission 4, was called upon to deliver technical sessions dealing with Coastal Zone Management (CZM), the Administration of Marine Spaces and Capacity Building. On the latter issue, our IHO liaison, Capt. Hugo Gorziglia was keen to participate and to make contact with local stakeholders in regards to promoting the benefits of developing hydrographic capacity within the region because to date, Costa Rica has not established a national hydrographic office.

Commission 4 Newsletter

Starting in 2007, in cooperation with Reed Publishing we initiated a quarterly Commission 4 Newsletter publication in Hydro International. In exchange for regular contributions to Hydro International, the publisher has agreed to provide a free subscription to all Commission 4 delegates.

2008

Commission 4 members participated at two events this year: FIG Working Week 2008 in Sweden and Canadian Hydrographic Conference and National Surveyors Conference 2008 in Canada. A Commission 4 workshop on Administering Marine Spaces was held at the latter. Vice Chair of Administration and Communications, Mr. David Neale was appointed to the FIG/IHO/ICA International Advisory Board on the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers. Vice Chair, Dr. Michael Sutherland (Working Group 4.3- Administering Marine Spaces) was nominated chair-elect and approved by the General Assembly at Stockholm. Publication 43- Costa Rica Declaration on Pro-Poor Coastal Zone Management of which Commission 4 was a contributor was published and presented at this year's Working Week in Stockholm.

Working Week, Stockholm

The annual Commission 4 meeting was held and three technical sessions were hosted by Commission 4:

- Coastal Zone Management (Joint with Commissions 7 and 8)
- Hydrographic Information Management
- Hydrographic Surveying in Practice

Of interest to Commission 4 was a technical tour hosted by the Swedish Maritime Administration of their new vessel traffic service (VTS).

CHC/NSC 2008, Victoria

The theme of this conference was "Bringing Land and Sea Together". Sponsored by FIG, Commission 4 hosted Workshop on Administering Marine Spaces. The goals of the workshop were to inform conference participants of international efforts with regard to administering marine spaces and the role of FIG as a source for knowledge and good practice; to solicit feedback from conference participants; and to foster links between the ACLS and FIG in

respect to their ongoing efforts to promote an administrative framework (including the Marine Cadastre) for Canada Offshore Lands.

Commission 4 Newsletter

In exchange for our regular contributions to Hydro International (4 newsletters were published), the publisher continued to provide a free subscription to all Commission 4 delegates.

2009

Our participation at Working Week in Israel, the Regional Meeting in Viet Nam and the IHO Conference in Monaco helped further the work of all working groups.

FIG Working Week, Eilat

Commission 4's annual meeting and 2 technical sessions were well-attended, the latter featuring a total of 9 presentations from Canada, Israel, Nigeria and the UK. Topics ranged from sea level monitoring to the measurement and monitoring of shoreline, marine cadastre and the acquisition of bathymetry and sea bed morphology from multi beam sonar. Hydrographic Education in Israel was profiled during a Commission 2 session on Good Educational Practices. Commission 4 would like to extend a special thanks to Dr. John Hall (Israel), author of The National Bathymetric Survey of Israel, Almost Completed for his lively discussion, hospitality and contributions towards Commission 4's activities in Eilat.

In keeping with our MoU with the IHO, Commission 4 has sought to engage FIG delegates, hydrographic stakeholders and agencies in countries to which there is no representation in IHO. In this regard we were able to meet with the Director General of the Survey of Israel, Dr. Hiam Srebro (responsible for charting Israeli waters) who subsequently agreed to enter into dialogue with the IHO on the matter of membership.

US Hydro 2009

Although there were no specific commission activities at this meeting, Jerry Mills our US delegate reported back to us on this conference. His report can be found on the FIG website.

IHO Conference

The commission continued to support the IHO on matters pertaining to promoting Hydrography as an investment (working group on the Economic Benefits of Hydrography) and hydrographic standards and training. Mr. Gordon Johnston (UK) attended this conference on behalf of FIG and Commission 4. As an FIG representative and chair of the FIG/IHO/ICA International Advisory Board on the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers, Mr. Johnston submitted proposals to the IHO Inter Regional Coordination Committee (IHO-IRCC) for adoption: That the IRCC adopt the Board's decision to drop the word "Advisory" from the Board's title; that the IRCC adopt a cost recovery mechanism for the Board; and that the IRCC agree to the introduction of Individual Recognition System elements into the S-5 and M-8 standards.

World Hydrography Day- Nigeria

Chair-elect Michael Sutherland was invited by the Nigerian Hydrographer through commission 4 delegate, Angela Etunovbe to participate at a World Hydrography event in Lagos. There, Michael delivered a speech on Hydrography and the Environment.

7th FIG Regional Conference, Hanoi, Vietnam

The relevance of this meeting for Commission 4 was in-line with the scope of our work on the Administration of Marine Spaces and Capacity Building- The Economic Benefits of Hydrography. Three technical sessions were offered: Coastal Zone Issues, Economic Benefits of Hydrography and Hydrographic Capacity Building. The first session on Coastal Zone Issues focused on the measurement and mapping of oil spills in Viet Nam waters. Included was a presentation on the development of a prototype marine cadastre which in summary one would note the importance of such a system for managing marine/land rights where environmental threats appear to be a serious concern. In this situation a marine cadastre would enable Viet Nam to map and assess oil spills against specific land use rights within a spatial context, using hydrographic information for base-mapping.

The second session featured invited papers on case studies on the economic benefits of hydrography from Cameroon, Canada and Ireland including a presentation on appropriate hydrographic education. The third and final session on Hydrographic Capacity Building included a contribution from the IHO, a case study on the development of a hydrographic office in Croatia from Jeppesen Marine and focus on building capacity in small island developing states. The latter touched proposed alternatives for a “made-in-the-Caribbean” approach for the region.

A general meeting was held to discuss the proposed technical program for Sydney, the development of FLASH sessions (shortened presentations of 4-5 slides) in lieu of poster presentations, specific objectives for working group 4.1- Hydrographic Surveying in Practice and proposed final publications for all working groups. The meeting was attended by commission officers: Dr. Michael Sutherland, Dr. David Neale, Mr. Gordon Johnston, and Ms. Venessa O’Connell.

Commission 4 Newsletter

5 newsletters were published in Hydro International and the publisher continued to provide a free subscription to all Commission 4 delegates.

2010

The FIG Congress in Sydney, Australia was the main focal point for 2010. Commission 4 presented nine sessions, five of which were collaborative with other commissions- 5, 7 and 8. These joint sessions featured work on vertical reference frames (datums), positioning at sea, coastal zone issues, capacity building, competencies and the administration of marine spaces. A number of presentations were from peer reviewed papers and two sessions were offered as virtual poster or “Flash” sessions:

- Positioning Techniques for Hydrography
- Vertical Reference Frame
- Hydrographic Surveying in Practice with High Resolution Data

- Hydrographic Capacity Building
- Economic Benefits of Hydrography
- Nautical Charting and Marine Cartography
- Administration of Marine Spaces.
- Measuring and Monitoring the Coastal Zone
- Coastal Zone Issues

The latter two were offered as flash sessions, a new approach to FIG conferences whereby poster sessions are given as short presentations with a limited number of slides.

All of the sessions were well attended and in some cases were subject to standing room only. Notable speakers included Cdr. Roderick Nairn the RAN Hydrographer of Australia and chair of Australasian Hydrographic Surveyors Certification Panel (AHSCP), who presented a paper their hydrographer certification program. Dean Battilana from the Royal Australian Navy's Hydrographic School presented a paper by CHS's David Dodd entitled Hydrographic Surveying Using the Ellipsoid as the Vertical Reference Surface. The paper which is co-authored by Mike Gourley of CARIS and Jerry Mills of NOAA will be the subject matter of a new (2011-2014) working group to be lead by Jerry Mills.

For the benefit of hydrographic-types and others interested in getting out on the water for a day, a technical tour was organized by Sydney Ports and co-hosted by Sydney Ports, Newcastle Port Corporation and the Royal Australian Navy. The tour (which was oversubscribed) provided delegates with on-the-water demonstrations of three different multibeam sonar systems, aboard three different survey vessels plus a tour of Fort Denison (completed in 1855) one of the best known landmarks of Sydney Harbour and site of one of Australia's oldest permanent tide gauge stations (est. 1870). On display was an original Harrison tide recorder (John Harrison invented the first ship's chronometer for determining longitude). We offer thanks to the Newcastle Port Corporation (who steamed their survey vessel, *John Shortland*, some 170km south for the occasion), Sydney Port and the Royal Australian Navy for hosting technical tours aboard their respective vessels. Additionally we thank the Australasian Hydrographic Society and the SSSI for rallying the support of their membership in this conference.

The annual general meeting plus an executive meeting of commission officers were held, the latter included discussions on the development of the 2011-2014 work plan and as new Commission 4 publications.

The FIG "Handover" Meeting and Ceremony was held on 26 November in Copenhagen. The meeting served as transitioning event for the incoming and outgoing Commission chairs to meet and move forward into the next work term (2011-2014). Here, the Commission 4 Work Plan was further developed.

Four newsletters as well as an *Insider's View* article on the Economic Benefits of Hydrography were published in Hydro International. Guidelines for the Planning, Management and Execution of Hydrographic Surveys in Ports and Harbours, FIG Publication No. 56 was published in the fall. The Economic Benefits of Hydrography, FIG Publication No. 57, was published as a web-only document. A summary document highlighting the work of Working Group 4.4, Capacity Building and the Economic Benefits of Hydrography it is available at <http://www.fig.net/pub/figpub/pub57/figpub57.htm> .

2. Working Group Reports

Working Group 4.1, Hydrographic Surveying in Practice

The chair of this working group, Mr. John McCarthy was unable to fully carry out the proposed work plan due to other professional commitments. Given the catch-all nature of the working group's theme, we did however manage to pull together several technical sessions at various FIG meetings. Through this working group, the commission strengthened its links with the Australasian Hydrographic Society.

The working group did engage the International Federation of Hydrographic Societies (IHFS) on the revision and publication of a new edition of the IFHS Special Publication 3 (SP3), entitled A Career in Hydrographic Surveying. Commission 4 was interested in seeing this publication updated as it was considered to be a valuable resource to young surveyors considering a career in hydrography. To this end, the commission was willing to offer funding and WG 4.1 was willing to assist the IHFS in the interest of getting this valuable publication updated. The IHFS claim to have moved ahead with a new edition of the publication and have kindly declined our assistance however, at this time only a summary fact sheet has been posted to the IHFS website. The Australasian Hydrographic Society have recently decided not to keep chasing the IHFS to update SP3 but instead to move forward with their own publication entitled a Hydrography as a Career.

The chair's ongoing contact with the IHFS was attributed to renewed interest in proceeding with a best practice document. At the Regional Meeting in Viet Nam it was decided that a guide on port hydrography would be produced. FIG Publication No. 56 Guidelines for the Planning, Management and Execution of Hydrographic Surveys in Ports and Harbours, was subsequently published in print and e-copy. It is a contemporary update of the (1994) FIG Publication No. 8, a report entitled Hydrography, Ports and Harbours. Simon Ironsides (New Zealand) and Venessa O'Connell (Australia), both members of the Australasian Hydrographic Society -IHFS spearheaded this publication.

Simon Ironsides and Andrew Leyzack for John McCarthy, Chair FIG WG 4.1

Working Group 4.2, Standards and Guidelines

ISO Standards

Throughout its term the working group served as the commission's liaison with the FIG Standards Network. As part of this activity, the work group contributed to a review of ISO TC211 work items: n2397 (nwip 19130- Imagery Sensor Models) as it applied to hydrographic applications and n2424 on Production Management.

Metadata

The working group has researched application of the Federal Geographic Data Committee (USA) Content Standard for Geospatial Metadata (FGDC-STD-001-1998) as a suitable standard for compiling metadata for hydrography. Various "front-end" graphic user interfaces (GUI) as well as validation routines were investigated. The FGDC standard maps

to a regional North American profile of ISO 19113:2003, *Geographic Information- Metadata* which was published in 2009.

IHO Standards

The working group also monitored the development of new and emerging hydrographic standards including S-100, reviewed the new edition of IHO S44, International Hydrographic Survey Standards (version 5) in 2008 and performed a partial review of the IHO's New Manual of Hydrography.

Individual Recognition

The development of standards for individual recognition and occupational certification has been an ongoing. Some jurisdictions (US, Germany and Australasia) have already implemented programs and the matter has been brought to the attention of the FIG/IHO/ICA International Board on the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC). Beginning with a 2006 workshop entitled "Pathways to Professionalism"; commission 4 has endorsed the concept of an occupational certification for hydrographers, endeavouring to monitor and facilitate a focal point for discussion and shared experience in this regard. The workgroup informed and encouraged FIG council to endorse the concept of Individual Recognition and in turn the IBSC was requested by FIG to study the matter. Further to the approval of the IHO Inter-Regional Coordination Committee (IHO-IRCC) at the IHO Conference in 2009, the IBSC have introduced guidelines for individual recognition in the 2010 11th Edition of S-5 and S-8, standards for education and training.

During the 2011-2014 work term, the commission plans to cooperate with IHO in further development and expansion of S-100, particularly hydrographic-related spatial information management.

Andrew Leyzack, Chair FIG WG 4.2

Working Group 4.3, Administering Marine Spaces

The working group's objectives for the term included academic publications by working group members, participation in Conferences and workshops and ongoing cooperation with other Commissions.

- Publication of academic work related to the objectives of Commission 4.3, by members of Working Group 4.3:
- Sutherland, M. (2009). "The Marine Cadastre." Published in Lighthouse: The Journal of Canadian Hydrographic Association, Edition No. 75, Fall/Winter 2009, pp. 5-6.
- Sutherland, M., D. Lane, Y. Zhao and W. Michalowski (2009). "A spatial model for estimating cumulative effects at aquaculture sites". In *Aquaculture Economics & Management* 13:4, 294 — 311.
- Sutherland, M., P. Dare and K. Miller (2008). "Monitoring Sea Level Change in the Caribbean." In *Geomatica*, Vol. 62, No. 4, pp. 428-436.
- Sutherland, M. (2008). "Laying claim to marine spaces in the Caribbean." In *The Journal of Ocean Technology*, Vol. 3, No. 1, pp. 18-23.

Members of the working group participated in the following conferences/meetings:

- Sutherland, M. (2010) – Participant as special invited guest: Expert Consultation on the implementation of the Caribbean Sea Commission, Centre for Resource Management and Environmental Studies (CERMES), University of the West Indies, Cave Hill Campus, Barbados. Sponsored by the Government of Finland, July 7-9.
- Sutherland, M. (2010). "Global Marine Spatial Data Infrastructure: Towards its realisation". Presented at the e-navigation Workshop on Creating a Framework for Data Access and Information Services under the Scope of SOLAS", Monaco, November 3rd to 5th.
- Sutherland, M. and S. Nichols (2010). "St. Margaret's Bay Marine Cadastre Prototype Case Study". In *Spatial Planning in Coastal Regions: Facing the Impact of Climate Change*. FIG Publication No. 55, International Federation of Surveyors, Copenhagen, pp. 47-49.
- Neale, D. (2010). "Sea level rise and land challenge in SIDS". FIG Publication No. 55, International Federation of Surveyors, Copenhagen, pp. 42.
- Sutherland, M. (2009). "Developing a Prototype Marine Cadastre". FIG 6th Regional Conference, Hanoi, Viet Nam, October – Oral presentation.
- Sutherland, M. (2009). "Developing a Prototype Marine Cadastre for Chedabucto Bay, Nova Scotia". Presented at the International Federation of Surveyors' (FIG) Working Week, Eilat, Israel, May, 11 pages.
- Sutherland, M. (2009). "The environmental benefits of hydrography". Presented at the Nigerian World Hydrography Day Celebrations, Abuja, Nigeria, 22nd June – Invited Speaker.
- Sutherland, M. (2008). "Spatial information support for climate change adaptation and mitigation: some Canadian experiences". Presented at the CASLE Workshop on Risk Assessment for Climate Change, University of the West Indies, St. Augustine, Trinidad and Tobago, June – Invited Speaker.
- Sutherland, M. (2007). "Coastal zone management as strategy for pro-poor land management and administration". Presented at the 6th FIG Regional Conference, San Jose, Costa Rica, November – Plenary Speaker.

In 2008 Commission 4.3 collaborated with other Commissions in the publication of FIG Publication No. 43, *The Costa Rica Declaration*. Commission 4.3 is working in conjunction with Commission 8 to publish a FIG document on coastal zone issues in relation to coastal communities. The publication is earmarked for release at the FIG Congress in Sydney, Australia.

Projects:

- The Chair of Working Group 4.3 is part of a project that has received CAD\$990K approx. in funding for a 5-year period to do research on developing mitigation and adaptation strategies to deal with the effects of climate change on coastal communities in the Caribbean and Canada. Hydrographic and GIS Geomatics are part of the project. The project is being executed by researchers from the University of New Brunswick, University of Ottawa and the University of the West Indies. Outcomes from this project informed [and will inform] activities of the Working Group.
- The Chair of Working Group 4.3 was part of a project with the University of New Brunswick that developed a prototype marine cadastre. Outcomes from this project informed activities of the Working Group.

Michael Sutherland, Chair FIG WG 4.3

Working Group 4.4, Capacity Building and the Economic Benefits of Hydrography

From the outset the concept was to develop links between Hydrography and the benefits of having good quality up to date Hydrographic data, charts and coverage. Initially there was a definite lack of publications, papers and articles that made the link and so the initial plan was to generate papers to promote the concept. In 2007 and 2010 a number of papers were written and delivered at FIG events including the Working Week in Hong Kong, the FIG Regional meetings in Costa Rica and Vietnam and finally the Congress in Australia . At this time it became clear that simply publishing some papers in proceedings would not be sufficient and so aim for a full FIG publication that would cover the topic and include a number of the papers and presentations in a compilation booklet.

Simply publishing the papers from the various proceedings would not be sufficient and so the Work Group developed the objective to consolidate a series of papers and to augment them with an overview and commentary in support. However at the same time FIG was reducing the burden of hard copy publications and a decision was made to create the output as a web enabled publication. The final phase of compiling the papers, developing a commentary and introduction was completed at the end of October 2010.

The result is a new web-based publication, FIG No. 57. The Economic Benefits of Hydrography <http://www.fig.net/pub/figpub/pub57/figpub57.htm>
It contains an outline of the overall concept and the principle theme with links to select edited papers on the FIG Surveyor's Reference Library. The publication also illustrates Capacity Building for Hydrographic purposes with content submitted by educational institutions and National governments as well as some case study papers.

There are many people to thank for their efforts in supporting this Work Group but special mention goes to David Neale (Trinidad) and to Andrew Leyzack (Canada).

Gordon Johnston- Chair FIG WG 4.4

Andrew Leyzack
Chair, FIG Commission 4

February 2011

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Commission 5 – Positioning and Measurement

End of Term Report 2007–2010

1. General

The fields of interest of Commission 5 are traditionally the science of measurement and the acquisition of reliable and accurate survey data related to the position, size and shape of natural and artificial features of the earth and its environment including variation with time.

After the creation of the work plan for the term 2007 to 2010 and the team building process Commission 5 established 4 working groups which covered the various areas of current interest.

2. Working Groups

WG 5.1 – Standards, Quality Assurance and Calibration

Chaired by David Martin (France, also Chair of FIG Standards Network)

- Working Group 5.1 was present and active at all Working Weeks, Regional Conferences and at the FIG-Congress in Sydney and organized on a regular base sessions on standards, calibration and quality in measurements.
- FIG publication No. 9 Recommended Procedures for Routine Checks of Electro-Optical Distance Meters (EDM) FIG Guide, 1994 was thoroughly discussed. The re-edition of this document is planned after the revision of ISO 17123-4 Electro-optical distance meters (EDM instruments).
- WG 5.1 is assisting ISO especially in conjunction with the technical development of the ISO-Standard “17123 - Field procedures for testing geodetic and surveying instruments”.
- Two new standards under ISO/TC 172/SC 6 are presently under discussion/development: ISO 17123-9 "Optics and optical instruments - Field procedures for testing geodetic and surveying instruments – Part 9: Terrestrial laser scanners" and Part 10: “Non prisma measurement (reflector less distance measurements by electronical tacheometers)”.
- One of the principal aims of the Working Group 5.1 over the coming year and indeed over the full period 2011 to 2014 will be to examine and eventually promote guidelines and recommendations for standards and quality in survey measurements based on the ISO Guide to Uncertainty in Measurement (GUM) and its supplements.

WG 5.2 – Reference Frame in Practice

Chaired by Mikael Lilje (Sweden)

- Working Group 5.2 was present and active at all FIG Working Weeks, Regional Conferences and at the FIG Congress in Sydney. Their multiple sessions were in relation with the measurement, monitoring and modeling of the dynamic earth and also how users are using such information for many types of applications.
- Another achievement of this working group was to continue the relationship with sister organisations such as International Association of Geodesy (IAG) and the Permanent Committee for GIS Infrastructure Asia-Pacific (PCGIAP) on reference frame related projects such as the Asia Pacific Reference Frame (APREF) and the Global Geodetic Observing System (GGOS). Working with these organisations is expected to carry on in 2011 via the above mention projects but also through the African Reference Frame (AFREF) project in Marrakech and attendance to International Union of Geodesy and Geophysics symposium in Melbourne, Australia.
- Mikael Lilje, the new Chair of Commission 5 for the period 2011 to 2014, also became the FIG representative on the Galileo Geodetic Reference Interface Working Group

WG 5.3 – Integrated Positioning, Navigation and mapping Systems

Co-chaired by Andrew Hunter and Naser El-Sheimy (Canada)

This Working Group was unfortunately not as active as expected. The Chairs of this Working Group were required to resign during their term of office due to their academic and work priorities.

WG 5.4 – Global Navigation Satellite Systems

Chaired by Volker Schwieger (Germany)

- Working Group 5.4 was present and active at all Working Weeks, Regional Conferences and also at the FIG Congress in Sydney last year. Sessions about GNSS CORS networks were successfully and were facilitated in partnership with Working Group 5.2 “Reference Frames in Practice”.
- The FIG publication no 49 “Cost Effective GNSS Positioning Techniques” was published for the FIG Congress in Sydney. Refer to website location <http://www.fig.net/pub/figpub/pub49/figpub49.pdf> to view this publication. Neil Weston and Volker Schwieger were the authors. Neil Weston presented the work at the Congress.
- Working Group 5.4 supported German Aerospace Centre (DLR) to acquire kinematic GPS tracks that will be used to evaluate the TanDEM-X digital elevation model. There was a special session dedicated to the evaluation of the results at the Sydney Congress. The work is still ongoing. For the Working Week in Marrakesh 2011 a final report is planned.
- Additionally the latest developments in GNSS and related technologies were treated under the headline “Low Cost GNSS and Positioning Techniques”

3. Cooperation

3.1 Cooperation with Other Commissions

During the whole period, Commission 5 continued to work with Commission 4 and 6 on topics relating to deformation measurements, calibration of instruments, Terrestrial Laser Scanning, long range measurement, satellite and terrestrial imagery measuring techniques (in particular mobile and static laser scanning) and vertical datum/reference frame issues for hydrography. This cooperation involved holding joint technical sessions and meetings at FIG related events.

3.2 Cooperation with Sister Organisations

During the last four years, the Commission 5 Steering Committee maintained together with Vice President Matt Higgins our developing relationship with various sister or like organisations such as the International Association of Geodesy (IAG) and the Permanent Committee for GIS Infrastructure Asia-Pacific (PCGIAP). This was achieved by convening joint technical sessions and holding joint administrative meetings during the FIG Sydney Congress on significant issues such as the development and current status of Asia Pacific Reference Frame (APREF) and the Global Geodetic Observing System (GGOS). Both projects concerned developing ‘mm’ accurate reference frames that will provide an important platform for studying global change such as rising sea level, climate change, the deforming earth, and also numerous issues pertaining to positioning infrastructures and applications.

It is anticipated that cooperation with both organisations will continue during the next FIG 2011-14 term, as discussions have already begun with both to actively participate at the next IUGG Melbourne conference and the FIG Work Week in Marrakesh, Morocco.

3.2 Cooperation with UN

The International Committee on Global Navigation Satellite Systems (ICG), met in Turin, Italy from 18 to 22 October 2010, in St Petersburg in Russia, from 14 to 18 September 2009 and in Pasadena, California, USA, from 8 to 12 December 2008. Vice President Matt Higgins was attending all three meetings and representing FIG also as Co-Chair of Working Group D of the ICG. Mikael Lilje, the incoming Chair of FIG Commission 5 was also at the last meeting in Turin as our Commission’s representative on Task Force D1 on Geodetic References.

Also Vice President Higgins convened an ICG WG 4 workshop on GNSS Compatibility and Interoperability at the International GNSS Symposium held on the Gold Coast, December 2009.

ICG was formed several years ago as a result of recommendations of the UN Committee on the Peaceful Use of Outer Space (COPUOS). At these meetings reports are given on the status of major GNSS sub-systems and the activities of task forces on geodetic and timing references. Matt Higgins needs to be commended for his role as the FIG representative in this UN committee, and Commission 5 would like to also thank him for all his efforts.

3.3 Cooperation with ISO

Prof. Hans Heister (Munich) was representing FIG and our Commission at the ISO-Committee 172-SC6 (Geodetic Instruments) during the last 4 years very actively. He participated at all meetings and was not only hosting the ISO meeting 2008 in Munich, but he was also heavily involved in the finalisation of various parts of the ISO- guidelines “17123 - Field procedures for testing geodetic and surveying instruments”. We would like to thank Hans for his strong and appreciated activities for FIG and Commission 5 during the last years.

4. Events

A summary of the Commission 5 activities at events during the last 4 years can be found on our website: however the highlights were:

2007

- Rudolf Staiger attended the 24th General Assembly of International Union for Geodesy and Geophysics (of which IAG is a member) in Perugia, Italy July 2007 as the official FIG representative. FIG Vice President Matt Higgins, our Commission 5 liaison officer, also participated and provided reports from several major.
- Another highlight was the signing of United States Institute of Navigation (ION) / FIG MOU in March 2007 by FIG Council and ION representative Dorota Brzezinska. This signing will now provide a clear mandate for ION, FIG and IAG to work towards a three-way co-operation on GNSS matters.
- Naser El Sheimy assisted with the organisation of the FIG / ISPRS / IAG 5th International Symposium on Mobile Mapping Technologies in Padova, Italy May 2007.

2008

- At the Working Week held in Stockholm Commission 5 had 18 related technical sessions, comprising of almost 100 technical papers and poster presentations. The symposium was well attended, especially the GNSS-RTK-Network-Forum
- FIG Vice President, Matt Higgins attended the 4th International Exhibition and Scientific Congress “GEO-Siberia-2008” in Novosibirsk, Russian Federation from 22 to 24 April 2008. GEO-Siberia-2008 was organised by the Siberian State Academy of Geodesy (SSGA) and the International Exhibition Centre “Siberian Fair”.
- In June, Volker Schwieger the Chair of WG 5.4 attended the 1st International Conference on Machine Control & Guidance in Zürich, Switzerland. The conference was co-sponsored by FIG Commissions 5 and 6 and the Institute of Navigation Switzerland. The conference attracted more than 130 practitioners and scientists from all over the world. The first attempt to bring together manufactures of geodetic instruments as well as of construction and agricultural engines, the respective software companies, users of both sectors as well as researchers of different disciplines was very successful.
- In October, Vice President Matt Higgins and Vice Chair of Administration for Commission 5 Rob Sarib attended the 14th Australian Remote Sensing and Photogrammetry Conference in Darwin, Australia. At this event they represented our

Commission, presented papers and held a workshop on GNSS, CORS and their effect on the spatial science and imagery industries

2009

- Vice President Matt Higgins attended the FIG - World Bank Conference, Washington D.C., 9-10 March 2009. At this event he presented on the topic “Positioning Infrastructures for Sustainable Land Governance”.
- South East Asia Survey Congress in Bali, Indonesia (August 2009) – Vice President Matt Higgins and Rob Sarib attended this conference as FIG and Commission 5 representatives.
- Chair of Commission 5 Rudolf Staiger attended INTERGEO 2009 in Karlsruhe, Germany (September 2009). Like in the years before INTERGEO was the worldwide largest tradeshow regarding surveying equipment. From the FIG point of view it is interesting to note that this event is becoming more and more an international one.
- Regional Conference Hanoi, Vietnam (October 2009) – Commission 5 were involved in facilitating 11 technical sessions that were related to modern survey infrastructure and how they assist the land governance and building capacity

2010

- Vice President Matt Higgins attended the 1st Asia Oceania Regional Workshop on GNSS, 25-26 January 2010, Bangkok, Thailand. Vice President Higgins provided a keynote presentation and was involved in numerous discussions on implications of next-generation of Global Navigation Satellite Systems for the Asia Oceania region.
- IGS Workshop and Vertical Rates Symposium, Newcastle Tyne, UK, 28 June – 2 July 2010 was attended by incoming Commission Chair Mikael Lilje. This workshop focused on the application and status of current IGS operations and possibilities for future improvements; and the applications of GNSS to tide gauge vertical land movement, glacial isostatic adjustment (GIA), subsidence and tectonic motion.
- FIG Commission 5 and 6 were represented at the workshop on “Innovative Technologies for an Efficient Geospatial Management of Earth Resources” Ust-Kamenogorsk, Eastern Kazakhstan, 3-7 September 2010.
- Dr David Martin attended the 12 International Workshop on Accelerator Alignment (IWAA) which was held at the Deutsches Elektronen-Synchrotron (DESY) between 13 and 17 September 2010. This workshop is nominally held every two years at particle accelerator laboratories around the world. They are devoted to large scale and high precision positioning of particle accelerators and photon science experiments, focusing on the exchange of information between geodesists, surveyors, physicists and others specialists.
- The 16th Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP) Meeting, held in Singapore, 18 – 21 October 2010 was attended by Reference Frame WG member Graeme Blick. At this event numerous discussions, presentations, and reports were delivered by working group members on topics such as - Geodesy technologies and

applications; Geospatial data management and service; Spatially enabled government and society; and Institutional strengthening.

- Dr David Martin also attended the Large Volume Metrology Conference held Chester UK, 2 - 3 November 2010. This forum provided delegates the opportunity to discuss and actually see the latest innovations and instruments in the field of portable 3D industrial measurement technologies.
- 2nd Asia Oceania Regional Workshop on GNSS - “Asia Oceania is the Showcase of New NSS”, Melbourne Australia, 21-22 November 2010 was attended by FIG Vice President Matt Higgins and Commission 5 Vice Chair of Administration Rob Sarib. Vice President Higgins was an invited guest and presented on the topic “Australia’s Requirements and Contributions in the Multi GNSS Era”. The event was hosted by the Japanese Space Agency JAXA and the Royal Melbourne Institute of Technology (RMIT) University..
- Volker Schwieger attended the First International Conference on Indoor Positioning and Indoor Navigation (IPIN) from 15th - 17th September, Zürich, Switzerland. The conference was hosted by the ETH Zürich and was a great success with 220 presentations and 445 participants of 47 different countries. The researchers were from different disciplines like geodesy, electronic engineering, and informatics. The topics ranged from ultra-sonic and WiFi positioning to indoor GNSS and industrial metrology.
- Mikael Lilje and Rudolf Staiger attended the INTERGEO 2010 in Köln, Germany, the largest trade exhibition on Geodesy, GIS and Land management, as well as the first INTERGEO academy covering the topic “GNSS 2010 – Surveying and Navigation in the 21st century”. Mikael also presented on SWEPOS CORS network and its activities in Sweden.

Rudolf Staiger
Chair, FIG Commission 5, 2007-2010

March 2011

**Report to the 34rd General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Commission 6 – Engineering Surveys

End of Term Report 2007–2010

1. General

The field of interest of Commission 6 are traditional the acquisition, processing and management of topometric data and all related information throughout the life cycle of a project (at construction site), quality control and validation for civil engineering constructions and manufacturing of large objects, modern concepts for setting-out and machine guidance, deformation monitoring, analysis and interpretation, measurement of dynamic loaded structures (general), prediction of deformation and movements in engineering projects, mines and areas of geological hazard, automatic measuring systems, construction and industry and multi-sensor measuring systems, terrestrial laser systems, their usage in architecture, civil engineering and industry and standards related to the construction and deformation measurement.

The Commission 6 activities were started with creation of the Working Plan for 2007-2010 and the new Commission 6 team build by WG Chairs and Co-Chairs. Starting the new period, joint these positions 6 new colleagues, former Commission 6 delegates and members. The main topics of the Commission are covered in the former period by five WGs, which structure was completed by the sixth WG oriented for terrestrial laser scanning.

2. Working Groups

WG6.1 – Deformation Measurement and Analysis

Chair: Adam Chrzanowski (Canada); Vice-chair: Cecilia Whitaker (USA)

WG activities were focused on the automation of monitoring surveys, enhancement of geometrical modelling of deformations from integrated deformation surveys, physical interpretation of deformations including numerical modelling and prediction of deformations and back analysis. A main objective of this WG were to propose or improve techniques to analyze historical geodetic data in comparison with modern ones, mostly GNSS-based. This was expected to permit:

- to extend the geodetic information on crustal deformation in larger time and space scales; especially to compare data collected after a certain event (for instance an earthquake) with those collected before it in areas not covered yet by extensive GPS networks.
- to examine whether the pattern of crustal deformation derived from longer term data (tens to hundreds of years) differs from the short-term one, derived mainly from modern, usually satellite data. This investigation is not limited to tectonic and seismic effects (especially the local earthquake cycle) but extends also to volcanic effects and to rather

- surficial effects (for instance synsedimentary faulting in young deposits, sediment consolidation, etc).

The results obtained were presented in several meetings in Greece, Germany, France, Italy, and Turkey also IUGG and IAG Symposiums.

WG6.2 – Engineering Surveys for Industry and Research

Chair: Thomas Wunderlich (Germany); Vice-chair: Peter Kyrinovic (Slovakia)

The main goal of WG activity was to provide the specialists involved in that kind of missions with the latest state of the art concerning the use of adapted survey techniques in industry & engineering, multidisciplinary collaboration between survey engineers, civil engineers, structural & mechanical engineers, R&D scientists - for a better approach of complex engineering survey problems, specific algorithms, instrumentation, equipment and techniques in engineering surveys, high precision measurements and special techniques for the large scale metrology of big equipment or structures, integration of survey & alignment sensors with actuators and/or tools for on-line monitoring and control of a given process (dynamic systems).

WG6.3 – Engineering Survey Data Bases and Facility Management

Chair: Lothar Gründig (Germany); Vice-chair: Vladimir Seredovich (Russia)

WG activity was focused on the role of the surveying engineer as the responsible manager of spatially referenced information, support for the co-ordination of the activities of other disciplines, building concepts of data models for the mapping of relevant 4D or 5D project data, covering 3D geometry, time, and descriptive attributes, exchange, provision and presentation of facility management data in computer networks, data integration for this subject, taking into accounts the presence of redundant data and different sources of information and automation and combination of feasible data acquisition techniques.

WG6.4 – Engineering Surveys for Construction Works and Structural Engineering

Chair: Gethin Wyn Roberts (UK); Vice-chair: Joël van Cranenbroek (Belgium)

The WG was promoted the use of adapted survey techniques in industry & engineering, promoted a multidisciplinary collaboration between survey engineers, civil engineers, structural & mechanical engineers, promoted the understanding of fibre optic sensors, e.g. interferometric sensors, study the use of embedded sensor arrays and the role of advanced surveying techniques for structural monitoring, has created an awareness of surveyors through a task force 'Fibre optic sensors' of the rapidly emerging technology of fibre optic sensors as "non-geodetic" sensors to measure deformations (strain) and temperatures in civil engineering structures.

WG6.5 – Terrestrial Laser Scanners – joint WG with FIG C5

Chair: Maria Tsakiri (Greece); Vice-chair: Rudolf Staiger (Germany)

WG was promoting the usage of laser scanning for geometric documentation in a variety of environments, particularly high risk and environments which benefit of remote measurements (e.g. structures, slopes, underground surveys, structural deformations of cultural heritage monuments), investigate existing and developing terrestrial laser scanner instrumentation for

engineering applications, evaluate and compare algorithms for processing terrestrial laser scanner data (e.g. registration, surface modelling, etc.), investigate and document metrological and quality control issues for laser scanning measurements, investigate the integration of laser scanning measurements with other measuring techniques, such as conventional geodetic systems and photogrammetric techniques.

The special and actual topics in focus of C6 were covered by six **Study Groups**, which activities were oriented to:

- SG 1 '**Continuum Mechanics as a Support for Deformation Monitoring, Analysis and Interpretation**', chaired by Anna Szostak-Chrzanowski (Canada)
- SG 2 '**Optimal Use of Interferometric Synthetic Aperture Radar (InSAR)**', chaired by Linlin Ge (Australia)
- SG 3 '**Crustal Deformation**', chaired by Stathis Stiros (Greece)
- SG 4 '**Monitoring and Analysis of Cyclic Deformations and Structural Vibrations**', chaired by Gethin Wyn Roberts (UK)
- SG 5 '**Fibre Optic Sensors**', chaired by Helmut Woschitz (Austria)
- SG 6 '**Terrestrial-Based RF Positioning Technologies**', chaired by Joel Barns (Australia)

3. Events

The actual application of new developments, theory and methodology were reflected in a large number of conferences covered by C6 members. Parallel to the traditionally organised series of conferences, last two years started conferences oriented to continual deformation measurement, including integrated sensor system development and usage, to navigation of construction and agricultural machines. The newest activity is dated to September 2010 and was oriented to indoor navigation.

International Course for Engineering Surveying is held traditionally in German speaking countries, is well known between the engineering surveying community and is attended by large number of participants. These events are focused through many years to machine-, computer- and robot- vision, to discuss recent scientific and technical advancements and applications for optical static and kinematic 3D measurement techniques. Emphasis was placed in last year at new and emerging technically in precision laser scanning, tunnel construction and the topic fibre optic sensors and their usage in civil engineering structure monitoring (www.iv2010.bv.tum.de).

The longest tradition has between the series of conferences the **International Symposium on Deformation Measurements**, which is traditionally organised by the WG6.1 of C6. The last conference of this series was held in Lisbon (Portugal) in 2008 and the next will be prepared for 2011 in Hong Kong. The topic of these series is covered by more working groups of C6 and for study groups, which deals with the bright field of deformation measurement.

WG6.4 and SG4 participated with the joint session at the international conference organised by the Institution of Civil Engineers in UK and the 5th **International Conference on Current and Future Trends in Bridge Design, Construction and Maintenance** held in Beijing in China 2007. The purpose of this series of conferences was to provide a forum for not only bridge design and construction, but also for measurement of dynamic loaded

structures. For surveyors is very important this cooperation and open new contacts and opportunities of application of the new geodetic technology (mainly for kinematic application).

In Novosibirsk (Russia) was started the series of conferences and exhibition, **International Exhibition and Scientific Congress GEO-SIBERIA**, which is organised by the Siberian State Geodetic Academy and co-sponsored by FIG C6, namely by WG6.3. The congress is organised every year with big interest of Russian surveyors (more than 400 participants), in the field of engineering surveying, information system and surveying technology development (<http://geosiberia.sibfair.ru/eng/>).

FIG Commissions 5 and 6 together with the Siberian State Academy of Geodesy (SSGA) organised in July 2009 a **Workshop on Innovative Technologies for an Efficient Geospatial Management of Earth Resources** on Lake Baikal in Listvyanka (Russian Federation). The conference was attended by more than 50 participants around the world.

In 2007 started the series of **International Conference on Machine Control & Guidance** prepared by Uni Bonn (Germany), with participation of the WG6.2 and WG6.5 members, cosponsored by C5. The last conference was held in 2010 and was oriented to the newest development and application in the field of machine guidance. The series of these events is oriented more to guidance of construction and agricultural machines (large scale and outdoor application - www.mcg.uni-bonn.de).

The first **International Conference on Indoor Positioning and Indoor Navigation (IPIN)** was held 2010 in Zurich (Switzerland), with co-operation of FIG C6, C5, IAG and other professional organisations. The successful conference was attended by 400 participants (250 IT specialists and 150 surveyors) discussed methodology of indoor navigation, possible technology based on WIFI, LAN, terrestrial RF sensors, GSM, etc. According the very positive response of participants was decided to start the new series of conferences (next in 2011, Lisbon, Portugal - www.ipin.ethz.ch).

Between the engineering surveying community is well know the series of conferences on **Optical 3D Measurement Techniques**, which is organised in co-operation with of ISPRS and FIG C6 and C5. The series of these events is traditionally focused to machine, computer and robot vision, model building, image matching with many applications from a variety of working areas. The conference discusses recent scientific and technical advancements and applications for optical static and kinematic 3D measurement techniques. The last conference held 2009 in Vienna (Austria) were devoted to step-motor-driven and servo-controlled electronic theodolites and total stations, high resolution, low cost and smart digital cameras, capabilities for very fast or even real-time processing, visualization, animation and VR techniques are some developments leading to new procedures in photogrammetry and surveying. The next conference will be organised by ETH Zurich (Switzerland) this year.

The traditional seminar on **Terrestrial Laser Scanning** in Fulda (Germany) is organised annually by FIG C5 and C6 together with the DVW and ISPRS. This seminar serves to show the stage of development of the sensors, processing as well as application, furthermore a view of future developments (www.laserscanning.org).

The latest news in theory, methodology, technology, research and application are traditional reflected at conferences which are annually organised on **FIG Working Weeks and Congresses**. The total number of papers on these conferences achieved 800, from which about 20% is devoted to different topics of engineering surveying. These papers are accepted for technical sessions managed by FIG C6 or C5.

Commission 6 has been participated at the FIG Working Weeks in **Hong Kong (China, 2007) and Stockholm (Sweden, 2008)** by technical sessions devoted to the engineering survey topics and the commission annual meeting, which build space for presentation of the progress made by the commission WGs and study groups. The high number of prepared papers underlines, that the year 2008 was one of the most active and very important for Commission 6. The effort included to this event and their preparation was transformed to results, which are important not only for commission members, but all specialists dealing with engineering surveying around the world.

Commission 6 was represented at the FIG WW in **Eilat (Israel, 2009)** by 6 sessions devoted to deformation and land slide monitoring and special engineering applications. It was organised 3 joint TSs of C6 and C5 devoted to terrestrial laser scanning, LIDAR and network and data analysis. Two TSs are organised in cooperation with ISM and ISPRS. Traditional annual meeting of the commission was held during the WW, during this were discussed actual topics of deformation monitoring, analysis and interpretation using continuum mechanics, monitoring and analysis of crustal deformations, optimal use of InSAR technology, terrestrial-based RF positioning technologies, methods and equipment of terrestrial laser scanning for engineering surveying procedures, analysis of cyclic deformations and structural vibrations, monitoring of dynamic loaded structures, application of automatic measuring systems multidisciplinary expertise and co-operation, which lead to integrated survey methods and systems.

Commission 6 participated in the FIG **Regional Conference in Hanoi (Vietnam, 2009)** by 10 TSs in cooperation with Commission 5, 3 and 8. The discussed topics are disaster risk management, GNSS application, mapping, areal surveying and remote sensing, Vision technology usage for monitoring also sensors and data processing in engineering surveying.

C6 was prepared for the FIG Congress held in **Sydney (Australia, 2010)** 16 technical sessions devoted to the engineering survey topics – deformation using GNSS, terrestrial scanning, subsidence and landslides, quality management and standards, LiDAR and InSAR applications, remote sensing and data processing, machine guidance and integrated systems, building measurement and modelling, engineering survey. The commission annual meeting build space for presentation of the progress made by the commission WGs and study groups.

4. Co-operation with international associations

According to the increasing co-operation between FIG and other professional organisations many of the WG and SG members are active in different **ISPRS, ISMS and IAG** commissions, attended regular Congresses of sister organisations. Papers and presentations were prepared for many events – the XIII Congress of the ISMS held 2007 in Budapest (Hungary), XXI Congress of ISPRS held 2007 in Beijing (China), 100 Years ISPRS

Centenary Celebrations including ISPRS TC VII Symposium “100 Years ISPRS - Advancing Remote Sensing Science” held 2010 in Vienna (www.isprs100vienna.org), etc.

5. Conclusion

The high number of prepared events and papers underlines, that Commission 6 is one of the most active and very important in FIG. The effort included to all this events and their preparation will transform to results, which are important not only for FIG commission members, but member of other professional organisations and all specialists dealing with engineering surveying around the world.

Concluding the discussed and presented topics in years 2007-2010 are remarkable new field of interest in engineering surveying. Parallel to the traditional topics (deformation measurement, setting-out, large scale metrology) are discussed new topics (laser scanning, model building, image matching, visualisation, fibre optic sensors, usage of InSAR, RF positioning, indoor navigation, etc.). In many fields are decided that results is needed in real time or with frequency at 0.1 kHz level. Very positive is the active participation of surveyors on this process and development also the bright co-operation together with specialist from other professions.

Papers of all events (conferences, seminars) organised in co-operation are included to the FIG Library, which is e-library positioned at FIG servers (<http://www.fig.net>). This ways are all this papers and the information achievable for all who is interesting in pdf files. The library offers the users searching and analyzing tools, also.

Prof. Dr. Alojz Kopáček
Chair, FIG Commission 6, 2007-2010
Web site: www.fig.net/commission6

January 2011

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Commission 7 – Cadastre and Land management

End of Term Report 2007–2010

1. General

Commission 7 Work Plan in relation to FIG Professional Strategy

Commission 7 established its concept of activities about 15 years ago. It is in line with the FIG long term professional strategy and selected topics to deal with

- advanced cadastre;
- developing sustainable land administration;
- creating secure land tenure; and
- application of innovative advanced technology in land administration.

Following Commission 7 tradition, the work plan also supported the achievement of FIG goals:

- extending working cooperation with other commissions;
- to continue and extension of working relation with UN organizations, the World Bank and other professional organizations;
- to contribute to organize joint workshops, events with UN and other external organizations;
- to contribute to formulate the professional program for FIG congresses and working weeks;
- supporting regional events, workshops to promote FIG activities in general and new priorities of the surveyor profession;
- to encourage national delegates, representatives to participate in FIG events and disseminate information to national associations and professionals;
- to support the publication of working results;
- following the traditions, Commission 7 very much contributes to the major FIG events, congresses and working weeks
- to encourage member associations and national delegates from Asia, Africa, Latin-America and Eastern Europe to participate in Commission 7 and major FIG events.

Priorities selected in Work plan 2007-2010

To achieve realistic results in the period 2007-2010, we had to prioritise the most important issues based on the Commission 7 activities during the past years, recent developments, challenges concerning land related matters world wide and supported by UN and other professional organizations NGOs as follows:

- Pro poor land management and land administration:

- land administration and land management in customary and informal areas,
- low cost data acquisition (geometric, legal) registration and mapping,
- low cost, innovative tools for land management and land administration.
- Sustainable land administration supporting good governance:
 - how can we develop sustainable land administration in developing countries within a framework of land policies,
 - how can we keep sustainability of land administration in so called developed countries.
- Land administration in post conflict areas:
 - how is possible to create or rebuild land administration after conflicts,
 - approaches in redistribution of land in post conflict areas.
- Disaster management and land administration:
 - relation between land administration and disaster management.
- Economic land use and land use control:
 - supporting how to create economic land use,
 - how to manage land use and informal urbanization in developing countries.
- Land administration and land management in the marine environment:
 - how to develop marine cadastre,
 - how to support coastal zone management.
- Innovative technology and ICT support in land administration and land management:
 - how to extend land administration with 3D cadastre and land registry,
 - how to develop innovative, low cost technology to support pro poor land management and land administration,
 - national and international data infrastructure initiatives,
 - ICT support to develop sustainable land administration (standardization, interoperable systems),
 - sustainable capacity building for land administration.
- Institutional aspects for land administration and land management:
 - how to support the development of institutional framework for land administration and land management.

2. Working Groups

Working Group 7.1 - Development of Pro Poor Land Management and Land Administration

Chair: Christiaan Lemmen, The Netherlands

Tasks:

- recognize and support the development of pro poor land management approaches,
- communicate, as far as possible, the FIG concepts in development of land policy and land management: land law, land tenure and security of tenure, land markets, land taxation, land use planning, land reform, land distribution, post conflict land administration,
- identify (geometric) aspects related to social, informal land tenures,
- support the development of low cost, innovative data acquisition methods,
- develop the social tenure domain model,
- contribute to the UN Habitat Global Land Tool Network (GLTN),
- propose a capacity building approach for pro poor land management.

Working Group 7.2 – Land Administration to Support Sustainable Development

Chair: Søren Fauerholm Christensen, Denmark

Tasks:

- investigate the necessary legal and institutional framework for the creation and development of sustainable development,
- identify other conditions for developing sustainable land administration,
- study solutions for developing land administration in post conflict areas,
- find simple, low cost solutions for creating sustainable land administration in developing countries,
- investigate improvements of land tenure security through new legal frameworks and new and better administrative tools,
- focus on solutions to combine formal and customary (neo-customary) approaches for land delivery process,
- study the role of gender issues in creation of sustainable land administration development,
- find solutions for assisting post conflict areas, disaster areas, etc. in rebuilding and maintaining land administration after wars or natural disasters.

Working Group 7.3 - Application of Innovative Technology in Land Administration

Chair: Dr. Daniel Steudler, Switzerland

Tasks:

- electronic conveyance and governance,
- identify innovative and low cost technology to support the development for pro poor land management and land administration,
- identify innovative, advanced technology for sustainable land administration,
- dealing with standards,
- focus on copyright and fee questions,
- dealing with identification and defining parcel boundaries,
- focus on national and international data infrastructure initiatives,
- 3D cadastre, land registry.

3. Achievements

3.1 General

Following the Work plan, Commission 7 addressed the selected issues in various ways within FIG and in cooperation with other organizations:

- During the 2007-2010 period, Commission 7 was one of the major contributors of big FIG events, conferences, formulating technical programs and presenting papers during FIG and joint events,
- Commission 7 continued its tradition, based on the consensus of delegates for organizing Annual Meetings separately from major FIG events,
- Commission 7 achieved its goals through working groups' activities,
- Commission 7 has been working in cooperation with other FIG commissions,
- Actively cooperated with UN World Bank and other organizations and participated in joint FIG/UN/WB events

- The Commission 7 secretariat has been keeping informed its delegates, correspondents and friends regularly primarily via e-mail, also issuing newsletters, and on the website.

3.2 Working Group Activities

Working Group 7.1 Development of Pro Poor Land Management and Land Administration

Pro Poor Land Management approaches have been recognized and supported by the development of the specifications of a first prototype of the **Social Tenure Domain Model (STDM)**. The STDM is intended to introduce new, unconventional approaches in land administration by providing a land administration management framework that would integrate formal, informal and customary land systems, as well as administrative and spatial components. The identification of aspects related to social and informal land tenures has been performed by the introduction of continuum in the representation of spatial units in the Land Administration Domain Model (LADM).

The Land Administration Domain Model

It has been discussed for several years during Commission 7 meetings. The results of these discussions served as a basis for further development of the LADM. The developments of this model have been presented in Commission 7 sessions during the major FIG events since the FIG Congress in Washington D. C., USA in 2002. The model has been discussed in the FIG Standards Network where Dr. Daniel Steudler from Switzerland represented Commission 7. At the beginning of 2008, FIG submitted a proposal to develop an International Standard concerning the LADM to the Technical Committee 211 on Geographic Information of the International Organization for Standardization (ISO/TC211). The proposal received a positive vote from the TC211 member countries and a project team started to work on the development of the standard.

The International Standard intends to provide an abstract, conceptual scheme with five basic packages related to (1) parties (people and organizations), (2) rights, responsibilities and restrictions (ownership rights), (3) spatial units (parcels, buildings and networks), (4) spatial sources (surveying), and (5) spatial descriptions (geometry and topology). It enables the combining of land administration information from different sources in a coherent manner. It should be noted that there can be no interference with (national) land administrative laws.

Within TC 211, many issues and comments have been discussed during several meetings held with a project team composed of 21 delegates from 17 countries. The chair of this team was Christiaan Lemmen on behalf of FIG and the editor was Harry Uitermark also on behalf of FIG.

The majority of the developing countries are not members of TC211, that's why UN-Habitat was represented in the project team by Solomon Haile. A significant contribution to the development of the standard has been provided by the research community of ITC and Technical University Delft (especially Prof. Peter van Oosterom), The Netherlands.

This concept has been introduced in several papers; one of them was presented in the Sydney Congress.

In 2008, FIG submitted a proposal to develop this International Standard to the Technical Committee 211 on Geographic Information (TC 211) of the International Organization for Standardization (ISO). There was a positive vote for the Draft International Standard (DIS) at the ISO/TC 211 plenary meeting in Quebec City (Canada) in November 2009. Editing Committee is now working on the final document of the DIS, which is expected to be available in January 2011. The final International Standard is expected in 2012.

The Social Tenure Domain Model

Based on the LADM, a model has been developed to accommodate social tenures, termed the Social Tenure Domain Model (STDM). Existing Land Administration systems require extensions to include all existing types of tenures, but the need for this is not always recognized. The STDM allows recording of all types of tenures and enables to show what can be observed on the ground in terms of tenure as agreed within local communities. This agreement counts as evidence from the field.

From 2002, the chair of Commission 7 Working group 7.1, Christiaan Lemmen took the lead in the development of the STDM in close cooperation with UN-Habitat. The International Institute for Geo-Information Science and Earth Observation, ITC, financially supported by the Global Land Tool Network (GLTN), developed a first prototype of STDM that is supported by World Bank. FIG publication nr. 52 is dedicated to the description of the Social Tenure Domain Model.

In the period 2007-2010, altogether 45 presentations have been given on the topic during FIG events, Commission 7 Annual Meetings.

Working Group 7.2 Land Administration to Support Sustainable Development

During the Geo-conference held in Quebec, Canada in 2007, the Working group co-organized a workshop on “Land Administration for Sustainable Development”. The workshop was supported by World Bank and UN organizations. The Working group 7.2 worked in close co-operation with Working group 7.1.

Working Group 7.3 Application of Innovative Technology in Land Administration

Over the last four years, the Working Group 7.3 has mainly been looking into the topic of open source software and its potentials for cadastre and land registry systems. The working group has had a close working relation with UN/FAO, supporting “FLOSS Cadastre” Project, organizing several events since 2007. The main initiative comes from the Land Tenure group of FAO, which has seen several projects fail in developing countries, often due to the high software and license costs involved.

The first phase of the project has been concluded with an Expert Group Meeting in Rome on 22-23 October 2007 with participation of FAO, World Bank and other professionals. Daniel Steudler and András Osskó represented Commission 7.

In May 2008 a workshop was organized in Dunedin, New Zealand. The discussion at the workshop showed that it would be a tremendous benefit if large national projects declared their software development as open source. Many others could potentially profit from that. FLOSS needs to be based on open concepts, and standardized data modelling is essential.

The Working group completed a publication that explored the field, and examined the risks and opportunities of open source software with the title “FLOSS Cadastre and Land Registration - Opportunities and Risks”. The publication comprises contributions from 15 authors, who give an insight in the need and development worldwide. The publication was launched at the FIG Congress in Sydney.

4. Events

4.1 FIG Conferences and major events

2007

FIG Working Week, XXX. General Assembly, Hong Kong, SAR China, May 13-17, 2007

- Commission 7 organized 14 sessions and 5 joint sessions with 70 papers.

6th. FIG Regional Conference, San Jose, Costa Rica, 12-15 November, 2007

- Commission 7 organized 6 sessions and presented 12 papers.

2008

FIG Working Week, XXXI. General Assembly, Stockholm, Sweden, 14-19 June, 2008

- Commission 7 was involved in 39 sessions.

2009

FIG Working Week, XXXII. General Assembly, Eilat, Israel, 3-8 May 2009

- Commission 7 was involved in 7 Commission 7 sessions with 30 papers and 6 joint sessions.

7th. FIG Regional Conference, Hanoi, Vietnam, 19-22 October 2009

- Commission 7 was involved in 6 sessions and joint sessions with 35 papers.

2010

XXIV. FIG International Congress, Sydney, Australia, 11-16 April 2010

- About 200 papers have been offered in Commission 7 topics.
- The commission was involved in 21 Commission 7 sessions, 14 joint sessions with commission 2, 3, 5, 8 and 9.
- Commission 7 organized 2 Francophone sessions, 6 Commission 7 and 2 joint commission flash sessions.

4.2. Commission 7 Annual Meetings

In cooperation with national member associations, Commission 7 organized four annual meetings between 2007-and 2010, including open symposiums:

- 2007: Seoul, South Korea,

- 2008: Verona, Italy,
- 2009: Kuala Lumpur, Malaysia,
- 2010: Karlovy Vary, Czech Republic.

Seoul, South Korea, 18-23 May 2007, International Open Symposium “Good Practice in Cadastre and Land Administration”

- The Annual meeting was organized in cooperation with Korean Cadastral Survey Corporation (KCSC). 40 delegates attended from 16 countries. 500 Korean and international professionals participated in the open symposium and 14 papers were presented.
- During the Annual meeting, KCSC organized a Cadastre Expo. About 3000 people, including high-ranking politicians from the host and neighbouring countries participated in the opening ceremony.

Verona, Italy, 11-15 September 2008, International Open Symposium “Big Works for the Defence of Territory”

- Co-organizer: Italian Association of Land Surveyors (CNG)
- 51 delegates from 24 countries attended the event.
- International Open Symposium with about 450 participants, 400 Italian professionals. Keynote paper was given by FIG President Stig Enemark.

Kuala Lumpur, Malaysia, 12-16 October 2009, International Open Symposium “Progressing toward “U” Cadastre”

- Co-organizer: Association of Authorized Land Surveyors of Malaysia (PEJUTA)
- More than 40 delegates from 22 countries attended.
- International Open Symposium with 200 host professionals, 4 sessions, 13 papers. Keynote paper was given by FIG President Stig Enemark.

Karlovy Vary, Czech Republic, 6-10 September 2010. International Open Symposium “Digital Cadastral Map”

- Co-organizer: Czech Union of Surveyors and Cartographers
- It was a record participation in the history of Annual meetings: about 60 delegates attended from 32 countries, which shows the raising interest in the Commission 7 activities.
- International Open Symposium with about 200 professionals from the host and neighbouring countries, 3 technical sessions with 10 presentations. The keynote paper was given by FIG President Stig Enemark.

4.3 Joint conferences, events and meetings with UN organizations, the World Bank and other professional organizations

2007

Geoconference - Quebec, Canada, 2-5 October, 2007

- Commission 7 Working group 2 co-organized a workshop on “Land administration for Sustainable development” The workshop was supported by World Bank and UN organizations. 50 professionals attended from 22 (mainly developing) countries.

UN FAO Expert Group Meeting on the “FLOSS Cadastre” project, Rome, Italy, 22-23 October, 2007

- András Osskó, chair Commission 7 and Daniel Steudler, chair Working group 7. 3 attended the meeting. The project was supported by the World Bank. (The project was successfully completed in 2010).

Joint UN Habitat Expert Group meeting “For African Land Registrars”, 26-27 November, 2007 Nairobi, Kenya

- Christiaan Lemmen, chair Working Group 7.1 attended the meeting and gave a presentation on the Social Tenure Domain Model, STDM. 20 professionals participated from 13 countries.

2008

Joint FIG/FAO International Seminar on “State and Public Land Management”, 9-10 September 2008, Verona, Italy

- The seminar was organized just before the Commission 7 Annual meeting.
- 64 professionals, including invited experts from 26 countries attended the seminar and 25 papers were presented.

2009

Joint FIG/World Bank Conference “Land Governance in Support of Millennium Development Goals” Washington DC, USA, 9-10 March 2009.

- Participation was by invitation only. 200 invited international experts attended the conference.
- There were 20 sessions with 80 high quality papers. 8 Commission 7 delegates have been invited, Prof. Paul van der Molen, the Dutch delegate to Commission 7 was one of the chief organizers of the event.

2010

FAO Voluntary Guidelines on Responsible Governance on Tenure of Land and other Natural Resources. Regional Consultation Meeting, Bucharest, Romania, 22-24 March 2010

- The Bucharest event was the Central Eastern European Regional Meeting with about 100 participants from 30 countries including representatives from UN FAO, World Bank, FIG, GTZ and other organizations. András Osskó, chair Commission 7 was invited and participated in the event.

4.4. Joint FIG Commission activities

2008

Joint Commission 2 and 7 International Workshop “Sharing Good Practices on e-learning in Surveying, Geoinformation Sciences and Land Administration”, Enschede, The Netherlands, 11-13 June, 2008

- The Workshop was organized by ITC, FIG Commission 2 and 7.

- András Oskó, chair Commission 7 and delegates Paul van der Molen, Christiaan Lemmen and Richard Grover presented papers.

2009

Conference on “Citizens’ Right to the Real Property” Chisinau, Moldavia, 30 November - 1 December 2009

- The conference was organized by the State Cadastre Agency of Moldova and supported by FIG Commission 3 and 7. The conference closed “The Technical Assistance to Support Moldova First Cadastre Project” supported by SIDA.
- Representatives participated from SIDA, WB, WPLA, CLGE, EU Commission, Dutch Kadaster and the Norwegian Mapping Authority.
- FIG Commission 7 contribution: András Oskó, chair and Daniel Steudler, chair WGr. 7.3.

2010

Joint FIG Commission 3 and 7 conference “Information and Land Management. A Decade after the Millennium”, Sofia, Bulgaria, 15-17 November 2010

- The joint event was organized by Commissions 3 and 7 in cooperation with the Chamber of Bulgarian Graduated Surveyors. 56 professionals participated in the meeting from 17 countries not only from Europe but from Egypt, USA, Nigeria, Israel and UN FAO was also represented. There were 41 presentations held. András Oskó, chair, Gyula Iván, vice chair of administration and other 5 delegates represented Commission 7 with four papers.

5. Publications and communication

5.1 Publications

The Commission published the following books:

- Lemmen C. H. J.: The Social Tenure Domain Model: a pro-poor land tool. 2010. FIG publication Nr. 52 ISBN: 978-87-90907-83-9
- Free and Libre Open Source Software, FLOSS, in Cadastre and Land Registration: Opportunities and Risks, 2010. FAO-FIG publication. 15 authors

5.2 Journals

Christiaan Lemmen, chair of Commission 7 Working Group 7.1 is the editor of GIM International magazine. The magazine published many articles and information on the Commission 7 activities and paid a lot of attention on land administration issues.

5.3 Newsletters

Commission 7 published 6 newsletters and forwarded much information to delegates, correspondents and friends both directly and through FIG website.

5.4 FIG Commission 7 website

The FIG Office in Copenhagen maintained the FIG Commission 7 website. All the information, proceedings of the annual meetings are available on the web.

6. Other activities

6.1 International Seminar in Colombia in 2010

András Osskó, chair Commission 7 was invited and attended the International Seminar on “Victims of Dispossession Initiatives to Settle the Debt” – Bogotá, Colombia 24-26 November 2010.

6.2 Cadastral Template

The “Cadastral Template” is a good comparison of different cadastral systems worldwide based on country reports. FIG supports to continue the maintenance and updating of the Cadastral Template, which was also in Commission 7 work plan 2007-2010. Daniel Steudler, chair of Working group 7.3 has made a lot of efforts since the beginning to keep the Cadastral Template alive.

There are in total 44 country reports and about 10 updates arrived up to the end of 2009.

The information is available at the website www.cadastraltemplate.org

The number of visits in 2009 was 2813 (Sept.24), in 2010 it was 4660.

6.3 OICRF

The International Office for Cadastre and Land Records is one of the permanent institutions of FIG. OICRF serves as a documentation and study centre for land administration field.

About 9,000 papers and publications on land administration can be accessed in OICRF digital library. Since 2009 the performance has been measured.

About 8,000 papers were downloaded on annual basis and there are more than 28,000 “real” visitors annually. This means that between 2007 and 2010 more than 100,000 visitors downloaded more than 30,000 papers, presentations and publications from all over the world.

Christiaan Lemmen succeeded Prof. Paul van der Molen as director in 2010. Prof. van der Molen was OICRF director for more than 15 years.

Ms Pauline van Elsland succeeded Christiaan Lemmen as OICRF Secretary.

7. Appreciations

Thanks are due to all those member associations, which hosted, co-organized and supported the successful Commission 7 Annual meetings.

Many thanks to the Working group chairs, all delegates, correspondents and friends for their active work, participation and contributions, which were the key elements of the success of the commission.

The commission thanks the FIG Office for their continuous help and support and also for the maintenance of the commission website.

Thanks to the FIG Council for their support, especially to President Stig Enemark for his valuable contribution to the success of the Commission 7 Annual meetings.

My special thanks to Mr. Gyula Iván, vice chair administration and Ms. Maria Tóth, assistant for their permanent work and help.

Last but not least, the Hungarian team highly appreciates the financial and professional support by their employers, the Institute of Geodesy Cartography and Remote Sensing (FÖMI) and the Budapest Land Office.

András Osskó
Chair, FIG Commission 7, 2007-2010
Web site: www.fig.net/commission7

December 2010

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Commission 8 – Spatial Planning and Development

End of Term Report 2007–2010

1. General

As this term draws to a close it is a pleasure to hand over a Commission that in this four year term has increased its profile and positively engaged with members, despite a slow start in year one. It is thanks to the hard work and commitment of a small body of active members for which I greatly thank them but also many thanks for the support given each and every year by FIG member associations and land professionals who share their best practice, ideas and ways and means to break new ground with presentations at the Commission technical session held in the FIG working weeks.

In my previous term of office I handed over the Commission with a significant geographic diversity. My vision then and has remained in the present term to continue to communicate both strategic issues for our members as well as ensuring that cutting edge technical issues are communicated effectively.

There will be more and more demands on us as professionals but gatherings such as our working weeks demonstrate that we are already rising to the challenge. Not only do we in commission 8, continue to drive complex projects forward, we are often in the pivotal role and striving to create a partnership we solve problems between environmental, social and technical issues. Promoting our profession to the next generation is key.

Commission 8 deliberations over the past four years has identified new demands that will be placed on land professionals, we have acknowledged our strategic duty to fulfil:

- A balance between individual freedom and community responsibility,
- Manage the tension between legal rules and local practice,
- Facilitate the logistics of control over land use and development.

Over viewing the past four years we can see notable drivers in our work in a range of forums, set in context of the big global challenges, Commission 8 has specifically addressed:

- Urbanisation: the push factors in spatial planning, preparedness and disaster management and informal settlements.
- Coastlines: the pull factors of ability to adapt, resilience and climatic effects on societies living along coastlines.
- Environment: Managing resilience has emerged in our commission deliberations specifically relating to resources, access rights and energy technologies.

2. Achievements – Highlights

We have made great strides, contributing to raising the profile of surveyors and the Commission by actively contributing to:

- Increased participation and active yearly contribution to international donor agency forums including UN Habitat, FAO and the World Bank.
- Providing the keynote paper at the FIG Regional Working Week in Costa Rica 2007.
- Promotion of the Informal Settlements WG into the FIG Sub-Saharan Africa Task Force.
- Innovative key themes driven through Commission technical activity including coastal areas and Energy versus Environment.
- Continuing engagement with FIG member associations.
- Development of, and input into FIG publications including No's 42, 43, 51, 53 and 55.

3. Working Groups

Through the commission 8 working groups we have underpinned the theme to 'Build the Land Professional's capacity'. Two working groups have collaborated internationally to build and deliver tangible outputs by publishing in the FIG series:

- "The Road Towards More Sustainable Places: Informal settlements", Number 42:
- "Spatial Planning in Coastal Regions: Facing the impact of Climate Change" Number 55.

During the deliberations of the working groups the salient issues identified includes:

Informal Settlements

Working from WG8.2 members' professional experience, drawing from papers delivered at technical sessions we have identified that land professionals have a key role to play at the local level as well as the policy level. Mindful of the speed at which the informal settlements have grown the partnership agenda needs to begin to consider the slum interest deficit. It is the people living in these slums that are often providing the labour to the formal cities. Acknowledging the work achieved in Sub-Saharan Africa, the General Assembly (2009) voted that this working group be promoted to the level of a Task force specifically focusing on the needs of the Sub Saharan Africa Member Associations, to run over the period 2009 to 2014.

Urban Coasts

This topic has received much attention over the past four years, beginning with a commission lead role at the FIG Regional Working Week (Costa Rica) with the chair giving a keynote presentation (see full text November 2007 Article of the Month www.fig.net).

WG8.4 focussed on the impact of climate change on coastal regions as it relates to administration and adaptation within the coastal zone. This group has given clear signals that this highly pressurised area (both climatic and commercial pressures) will require a focus on defining boundaries and territories, planning for disaster, the political framework and the commercial population pressures.

The WG complements the special seminar designed and organised by Commission 8, on ‘Small Island Developing States’ (SIDS), held in Sydney 2010 at the FIG Conference’s Congress. Representatives from 23 Pacific islands, Tobago, Trinidad as well as Zanzibar attended to discuss capacity building for land professionals on SIDS. Sponsored by AusAid, FAO, NZAid, and the Commonwealth Secretariat a productive meeting was held resulting in action steps outlined in FIG Publication No.53: “Sydney Agenda for Action, Small Island Developing States and the Millennium Development Goals: Building the Capacity”.

4. Co-operation

Building on from the achievements of the previous term and this term, the Commission has truly advanced in key areas:

Communicating with Members

Innovating into new channels for this Commission, a Commission 8 regional meeting was held in Ghana February 2010 in tandem with the Ghana Institute of Surveyors. This seminar progresses the working group activities but also contributed to the up and coming Africa Task Force: its theme Planning for Infrastructure focused on partnership with Traditional Leaders.

In addition, brokering liaison between members and disseminating key material was achieved through the avenues of newsletters, use of the Commission website, and annual meetings at working weeks and congress.

Cross-working with Commissions

Commission 8 has successfully co-operated with other Commissions by working with Commissions 3, 4, 7 and 9. This year, a dialogue has been held to continue this invaluable cross-commission working into the upcoming term (2011-14) as well as planning for new areas of co-operation particularly with Commissions 9 and 2.

Connectivity with Sister Organisations

Underlining the importance of working with our sister organisations, we have:

- Attended and presented at CASLE’s Regional African Conference held in Accra, Ghana,
- Shared platforms with the Ghanaian Institute of Surveyors,
- Shared platforms with Institute of Surveyors of Kenya.

Commission 8 continues to foster and hold strong relationships with other land professional groups including the International Centre for Research on Environmental Issues (www.icrie.org)

Collaboration with UN

Commission 8 has engaged with a range of UN organisations including:

- Period 2006-10. Chair and members have continuously and actively engaged each year with GLTN Secretariat and working with the LTPAS section on gender sensitive tool

development in a range of platforms and processes, including e-forums, Grassroots and land professional training; and

- April 2009. Chair Elect Mr W Nabutola participated in a UN Rights Workshop, an ingenious approach to gaining empirical evidence to look at problems through case studies and to achieve solutions.
- March 2009. Chair invited to and delivered a paper at the World Bank/FIG Conference presenting one of the Commission's key themes Coastal Communities.
- December 2009. Chair was invited to review and provide technical assistance to the UN Habitat GLTN pilots led by the sister partner Huairou Commission grassroots organisation. The pilots were testing a gender land tool evaluation instrument in three countries (Ghana, Brazil and Nepal). The outcome was debated at the World Urban forum held in Rio Brazil March 2010.
- January 2010. Mr K Tenadu (Ghana) and Dr D Dumashie (UK) invited and attended the FAO Consultation Meeting for the private sector on the draft voluntary guidelines for the responsible governance of land and natural resources.

5. Lessons learned

Commission 8, Spatial planning and development has a broad remit spanning People, Planning and Politics of land use. The aim is to see you and your involvement continued and to create a platform for members to deliver and engage in the most focused and effective way. To achieve this, the commission is mindful of lessons learnt, divided into:

Expectations from Commission delegates

Our challenge is to best use the time resource of commission members noting that:

- New ways of working both in our working groups and technical sessions is a priority. It is clear that as a small Commission we must guard against overloading few individuals with all the workload of administering the working groups.
- Discussion with commission members concluded that working groups need not have a life of four years if rigorous and sustainable outputs could be developed in less time. It was recognised that this is probably a minimum of two years (i.e. spanning two working weeks).
- Flash presentations in joint sessions in Sydney proved highly successful and have the benefit of providing even more opportunities for country delegates to present as well as learn and disseminate good practice and ground breaking ideas in our professional activities.

Emerging Topics

Apart from the core technical expertise in spatial planning and economic development there are other areas where the international community of the commission can make a real difference. Building on the success of the term the areas of real interest include the topics of energy and the environment as well as coastal adaptations allied to climatic influences.

Engaging with Members

To continue and build upon the contribution of our members as well as the global audience, the momentum must be maintained to share information and practice through the provision of policy advice, summary case studies, suggestions of best practice and identifying information gaps requiring further research

Above all, to encourage the continued involvement of the younger generation is a priority and shared platforms with the FIG Young Surveyors Network will be actively sought.

Dr. Diane Dumashie
Chair, FIG Commission 8, 2007-2010
www.fig.net/commission8

December 2010

**Report to the 34th General Assembly
FIG Congress in Marrakech, Morocco 2011**

FIG Commission 9 – Valuation and the Management of Real Estate

End of Term Report 2007-2010

1. General

2007

In 2007 Commission 9's activities concentrated on FIG conferences in Hong Kong on 13-17 May and Costa Rica on 12-15 November, and in the Helsinki seminar on 6-8 September. In addition, the 5 Working Groups of the Commission have been working with their topics through out the year.

In Hong Kong the Commission held the commission meeting and all working groups had their own meetings, WG 9.2 even three meetings/dialogues. In addition there were several of presentations concerning valuation and real estate management in seven sessions. In Costa Rica the activities of Commission 9 were modest.

2008

In 2008 Commission 9's activities concentrated on FIG conference in Stockholm on 14-19 June, and on a joint seminar on Appraisal and Property Protection in Beijing on 18-19 October. In addition, the Working Groups of the Commission have been working with their topics through out the year.

In Stockholm the Commission held the commission meeting and all working groups had their own meetings, WG 9.2 even a special event. In addition there were several of presentations concerning valuation and real estate management in seven sessions. In Beijing the participation was very active. Commission 9 had also a meeting with China Institute of Real Estate Appraisers and Agents (CIREA).

2009

In 2009 Commission 9's activities concentrated on the FIG Working Week in Eilat on 3-8 May and FIG Regional Conference in Hanoi on 19-22 October. In Eilat the Commission had its annual meeting and the active Working Groups held their planning sessions. In addition, several presentations on the commission topics were presented in the seven technical sessions. In Hanoi, Commission 9 had three technical sessions and a round table on Compulsory Purchase and Compensation. In both conferences the participation in technical sessions was very active.

2010

In 2010 Commission 9's activities concentrated on the FIG Conference in Sydney, Australia, 11-16 April 2010.

In Sydney the Commission had its annual meeting and the active Working Groups held their planning sessions. In addition, several presentations on the commission topics were presented in eight technical sessions. Participation in technical sessions and sessions was very active. As a conclusion of the past period 2006-2011 can be said that the activities and participation have been very active and successful.

2. Working Groups

WG 9.1 – Compulsory Purchase and Compensations in Land Acquisition and Takings

Chair: Kauko Viitanen, Finland

Co-chairs: Thomas Kalbro, Sweden, Henning Elmstroem, Denmark and Paul Munro-Faure, FAO

WG 9.1's activities became concrete in the seminar on Compulsory Purchase and Compensation in Land Acquisition and Takings held in Helsinki in September 2007. The seminar was organised in conjunction to the Baltic Valuation Conference and in co-operation with FIG Commissions 7 and 8, FAO's Land Tenure Service, World Bank, Finnish Association for Real Estate Valuation, Finnish Association of Surveyors, Ministry of Agriculture and Forest in Finland, National Land Survey in Finland, Nordic Journal of Surveying and Real Estate Research, and Helsinki University of Technology/Department of Surveying. The Helsinki seminar was a valuable experience for Commission 9 also in scientific sense, as the authors of conference papers were also offered the possibility to participate in a peer review process. Altogether there were about 120 very active participants from 35 countries with more than 40 very interesting presentations. Of all papers, 21 went through the peer review process and in addition three will be reviewed in the connection of the FAO Land Journal. The presentation slides have been published on the seminar website <http://www.tkk.fi/Yksikot/Kiinteisto/FIG/index.htm>. A part of the review papers will be published in the first issue of 2008 of the FAO Land Journal "*Land Reform, Land Settlement and Cooperatives*" themed on Compulsory Purchase and Compensation. The second part of the papers will be published in the special edition of the "*Nordic Journal of Surveying and Real Estate Research*" and the rest in the seminar book published in the research series of the Department of Surveying at the Helsinki.

In June 2008 WG 9.1 held a meeting in Stockholm in connection of FIG WW. There were about 10 participants and the discussion of continuing the work was very lively. In the WW there were also a few presentations concerning the subject of the WG. In October 2008 Commission 9 organised a joint seminar in Beijing. Also there were a few presentations dealing with the compulsory purchase and compensation and a lively discussion how to continue the work of the WG.

WG 9.1 continued its work with the recommendations on Compulsory Purchase and Compensations. The recommendations were published as the FIG Publication No. 54

[Compulsory Purchase and Compensation - Recommendations for Good Practice](#). FIG Policy Statement, 2010.

In addition, the guidelines for land acquisition in developing countries based on presentations in Hanoi Conference 2009 was launched in Sydney as a FIG Publication No. 51 [Hanoi Declaration: Land Acquisition in Emerging Economies](#). FIG Policy Statement, 2010

WG 9.2 – Improving Slum Conditions through Innovative Financing

Chair: Bengt Kjellson, Sweden

Co-Chair: Ann Jennervik, Sweden

The focus for the WG has been the FIG Working Week 2008 in Stockholm. During the WW the special event, in co-operation with UN-HABITAT, on *Improving Slum Conditions through Innovative Financing* was held. The seminar was very well attended and very successful. An important part of the event was the inclusion of dialogues as a way to stimulate discussion and exchanges of experiences across professional disciplines. In addition to a number of plenary sessions and presentations on the subject matter, a total of eight dialogues were held. This produced valuable outcome which has been documented jointly by FIG and UN-HABITAT. A report has been published (FIG Publication No.44), and the outcome of the seminar was presented during the Fourth World Urban Forum, in Nanjing, China in November 2008.

The WG has published its report as FIG Publication No. 44 [Improving Slum Conditions through Innovative Financing. FIG/UN-HABITAT Seminar, Stockholm, Sweden, 16–17 June 2008. Summary Report](#). FIG Report, 2008, and the outcome of the Stockholm seminar was presented during the fourth World Urban Forum, in China in November 2008. Summary and conclusions of the activity were presented in Sydney 2010.

WG 9.3 – Diagnostic Tools and Prescriptive Practices for the Valuation Profession

Chair: Steven Nystrom, USA

WG 9.3 was preparing a diagnostic tool for analyzing the practices of the valuation profession in different countries, being in the phase of acquainting oneself with the existing systems around the world and selecting case countries. The tool was presented in Sydney 2010.

WG 9.4 – Review of Valuation Methods and Standards Worldwide

Chair: David Smejkal, Czech Republic

WG 9.4 is collecting valuation report examples from different countries to prepare the review of valuation methods and standards.

WG 9.5 – GIS-analyses in Real Estate Market Analyses and Valuation

Chair: Dieter Kertscher, Germany

Co-chair: Steven Nystrom, USA

WG 9.5 was focusing in identifying the effects and possibilities of digitalization for of the profession in real estate markets. The results were presented in Sydney.

3. Cooperation

3.1 Cooperation with Other Commissions

There has been cooperation with Commissions 7 and 8 on WG 9.1. WG 9.2 is part of the FIG Task Force Developing Global Land Tools for Pro Poor Land Management, and it has been in co-operation with Commissions 3, 7, 8 and 10. WG 9.5 is a joint Working Group with Commission 3.

3.2 Cooperation with Sister Organisations

The contact person of Commission 9 for IVSC has been Brian Waldy, United Kingdom.

3.2 Cooperation with United Nations

WG 9.1 has continued the co-operation with UN FAO.

Prof. Kauko Viitanen
Chair, FIG Commission 9, 2007-2010

February 2011

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

Standards Network Report 2010

The Standards Network was formed in 2002. It works within Commission 1 and consists of representatives from each of FIG's Commissions.

Terms of reference

The terms of reference of the Network are set out in the FIG Guide on Standardisation and are as follows:

- Building and maintaining relations with the secretariats of standardisation bodies
- Proposing priorities on FIG's standardisation activities, including advising the Council on priorities for spending
- Setting up necessary Liaison relationships with standardisation bodies
- Ensuring that lead contacts to Technical Committees etc are in place
- Maintaining an information flow on standardisation to FIG members, including through the FIG website, and more directly to relevant Commission Officers
- Maintaining this Guide, and related material on the FIG website
- Working with other NGOs, within the framework of the MOUs signed by the Council
- Advising FIG's officers and members on standardisation activities as necessary

Work since the 2010 General Assembly

The Network met at the 2010 Congress in Sydney and members have corresponded by email since then. Key activities undertaken by Network members and other colleagues since the last General Assembly include:

- **Maintaining a list of commission topics relevant to standardisation** – this “Standards Template” is under revision (since Sydney) and will be published on the Standards Network page of the FIG website. FIG commission chairs are reminded that this is one of the Standards Network's key tools. Regular updates are one of the main contributions the FIG Commissions can make to the Network.
- **Staying involved with ISO/TC 211 standardisation activities** – Iain Greenway, the lead liaison from FIG to ISO/TC 211 prepared the Liaison Report to ISO/TC 211 Plenary held in Canberra in December 2010. No FIG officers attended this meeting. Most of the topics in Iain's report are covered here.
- **Progress of ISO 19152 on the Land Administration Domain Model (LADM)** – this work grew out of the Commission 7 work on the Core Cadastral Domain Model and was accepted into the ISO/TC 211 work programme in 2008. This work has advanced considerably this past year.
“The development of this standard is a FIG initiative. It is a comprehensive, extensive, formal process with a continuous creative review approach to find common denominators in land administration systems and included data sets. The Land

Administration Domain Model - LADM has been published as a Draft International Standard at ISO. Several reviews have been performed by the Editorial Committee. Formal comments as provided by the ISO/TC 211 member bodies have been discussed and processed. The Editorial Committee's members are from nine countries, the European Commission and from UN HABITAT. P-Members of ISO/TC 211 on Geographic Information are now in a position to provide a review and vote on continuation of the development. The voting will be before June 20th, 2011. In parallel, the Draft International Standard has also been submitted to the European Committee for Standardization member bodies for a five month inquiry. This is a milestone and an achievement where FIG may be proud of!"

- edited from a draft announcement/ press release prepared by
Christiaan Lemmen, Peter van Oosterom and Harry Uitermark

- **Staying involved with ISO/TC 172 SC6 work on survey instrument standards** – Hans Heister leads this work for FIG and has been very active in the sub-committee. He attended the 16th ISO/TC 172/SC 6 Meeting held in Tokyo, Japan - October 20 – 21, 2010. Key points taken from his report were:
 - It was decided that the following standards should be revised in near future:
 - ISO 9849: 2000 “Optics and optical Instruments – Geodetic and surveying instruments – Vocabulary”
 - ISO 12858-1:1999: “Optics and optical Instruments – Ancillary devices for geodetic instruments, Part 1: Invar levelling staffs”
 - ISO 12588-2:1999: “Optics and optical Instruments – Ancillary devices for geodetic instruments, Part 2: Tripods”
 - To prepare for the next meeting a working document of ISO 17123-10 “Optics and optical Instruments – Field procedures for testing geodetic and surveying instruments, Part 10: Non prism measurement (reflector less distance measurements by electronic tachymeters)”
 - The new standards series 16331 was started: Laboratory procedures for testing surveying and construction instruments. The first part treats the “Performance of handheld laser distance meters”.
 - Start work to align the ISO series 17123 to the principles of the expression of uncertainty in measurement based on the Evaluation of measurement data — “Guide to the expression of uncertainty in measurement” published by the BIPM Joint Committee for Guides in Metrology. This document is commonly referred to as the “GUM”.
 - The acting chairman of SC 6, Mr. René Scherrer, will retire at the end of 2010. The delegates present took note of the planned change and will support the SNV nomination of Mr. Wolfgang Hardegen, Leica Geosystems, as new chairman
- **Standards issues related to hydrography.** FIG Commission 4 are particularly active in the standards network. Below is an extract of recent and current hydrography standards issues prepared by Andrew Leyzack:
 - M-13, IHO New Manual of Hydrography- 1st Edition. Commission will endeavour to review and contribute to the Manual in future.
 - A revised set of guidelines for port hydrography is required to update FIG Publication No. 8 (Hydrography Ports and Harbours) where significant changes have since occurred in hydrographic survey technology, client requirements and in some cases the authority for the execution of surveys.

- S-5, FIG/IHO/ICA Standards of Competence for Hydrographic Surveyors. The eleventh Edition was published in 2010 and includes a new section of Guidelines for Recognition of Individuals
- S-100, was released as a draft version in 2008 and while it includes requirements of the official hydrographic data transfer standard, S-57 (for Electronic Nautical Charts-ENC and Electronic Chart Displays-ECDIS), it will support additional “layers” of geospatial information such as imagery and gridded data, high resolution bathymetry, backscatter for seabed classification and marine GIS. Implementation was scheduled for 2010 however further development continues. S-100 is to align with the ISO 19000 series for geographic information and will conform to ISO/TC 211 standards.
- S-101 will become the product specification for the next generation ENC.
- ISO/TS 19130:2010 (Imagery sensor models for geopositioning) on data collection platforms is particularly relevant at present. The current draft does not explicitly address hydrographic sensors, but it lays down general principles.
- During the 2011-2014 work term, the commission plans to cooperate with IHO in further development and expansion of S-100, particularly hydrographic-related spatial information management.
- **Determining how to be involved in the International Valuation Standards Council.** IVSC deals with real estate as an asset. For some time FIG has been trying to assess how it could represent its views on the IVSC. IVSC has in the last year said that FIG could become an institutional member. However this would require payment of an annual subscription fee of \$10,000 which is prohibitive. Consequently, FIG can submit comments but cannot play a fuller part in its activities. Thus FIG will be forced to downgrade its participation in the IVSC. Nevertheless, it would be useful to establish a MoU with the IVSC. Brian Waldy will continue for the time being as the link between FIG and the IVSC.
- **Considering whether FIG Publication No. 9 should be revised or withdrawn.** Commission 5 is taking forward this work, largely within Working Group 5.1. When ISO 17123-4 “Electro-optical distance meters (EDM instruments)” is published, a decision will be made regarding this document.
- **Starting to consider the areas of best practice guides, and accreditation, and which Commissions have interest in these areas.** *Behind the scenes*, several FIG documents were published in 2010 that directly relate to standards and best practice. Two examples of these documents are the FIG Commission 5 Publication: “Cost Effective GNSS Positioning Techniques”, and the FIG Policy Statement: “Compulsory Purchase and Compensation - Recommendations for Good Practice”.

The Network plans to meet again in Marrakesh and consider its work for the coming year. A key phase for 2011 for the Network will be determining its revised membership, and agreeing key issues in Commission work plans 2011-14 that are relevant to the Network.

Dr. David Martin
Chair, FIG Standards Network

24 February 2011

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

OICRF Annual Report 2010



OFFICE INTERNATIONAL DU CADASTRE ET DU RÉGIME FONCIER
INTERNATIONAL OFFICE OF CADASTRE AND LAND RECORDS
INTERNATIONALES AMT FÜR KATASTER UND GRUNDBUCHWESEN

General

OICRF – the International Office for Cadastre and Land Records – is one of the permanent bodies of the International Federation of Surveyors (FIG). OICRF serves as a documentation and study centre for land administration and is charged with the following tasks:

- collecting and systematically filing and indexing all documentation material relating to existing cadastres and land registration systems,
- conducting comparative studies of this material and publishing the results,
- providing information and advice on all cadastres and land registration systems to all interested persons and institutions for the purposes of study or to help countries wishing to set up a cadastre or land registration system or improve an existing system,
- maintaining the documentation system on a daily basis.

The digital Land Administration Library in 2010

OICRF maintains a digital library that contains approximately **9,550** publications (1st of January 2011), which include things such as conference documents, magazine articles and reports on land administration.

All of the available documents and the most recent publications can be accessed electronically at www.oicrf.org and downloaded in portable document format.



Users can also trace documents linked to a certain event, such as papers linked to a specific conference or seminar. The website is a popular resource. In 2010 the digital library got about **21,816** visitors from all over the world (145 countries). About **7,355** papers have been downloaded. This number is based on the application of Google Analytics; visits from search engines are excluded in this.

Change of Office

The FIG General Assembly appointed Christiaan Lemmen (The Netherlands) as the new OICRF Director at its meeting in Sydney, Australia in April 2010). Christiaan Lemmen succeeded Prof. Paul van der Molen, who was the OICRF Director for more than 15 years. Ms. Pauline van Elsland succeeded Christiaan Lemmen as the OICRF Secretary.

Contact

OICRF does its utmost to provide the best possible service for anyone who requests information. This is made possible by the support of our host: Cadastre, Land Registry and Mapping Agency of the Netherlands.

Ir. Christiaan Lemmen
OICRF Director

Ms. Pauline van Elsland
OICRF Secretary

Comparative studies in 2010

In 2010 OICRF published several comparative studies:

Fatih Döner, Rod Thompson, Jantien Stoter, Christiaan Lemmen, Hendrik Ploeger, Peter van Doner, F., Thompson, R., Stoter, J.E., Lemmen, C.H.J. and ... [et al.] (2010) 4D cadastres: first analysis of legal, organizational and technical impact : with a case study on utility networks. In: Land use policy: the international journal covering all aspects of land use, 27 (2010)4, pp. 1068-1081.

Enemark, S., McLaren, R. and van der Molen, P. (2010) Land governance in support of the millennium development goals: a new agenda for land professionals : FIG, World Bank conference, 9-10 March 2009, Washington D.C., USA. Copenhagen, International Federation of Surveyors (FIG), 2010. FIG publication 45, 39 p. ISBN: 978-87-90907-72-3

Jansen, L.J.M., Karatas, M., Küsek, G., Lemmen, C.H.J. and Wouters, R. (2010) The computerised land re - allotment process in Turkey and the Netherlands in multi - purpose land consolidation projects. In: XXIV FIG International congress 2010: facing the challenges: building the capacity. 11-16 April 2010, Sydney, Australia : technical programme and proceedings. 21 p

Groenendijk, E.M.C., van der Molen, P. and Lemmen, C.H.J. (2010) E-learning: the future for land administration studies?. In: XXIV FIG International congress 2010: facing the challenges building the capacity. 11-16 April 2010, Sydney, Australia: technical programme and proceedings. 16 p

Lemmen, C.H.J., van Oosterom, P.J.M., Eisenhut, C. and Uitermark, H.T. (2010) The modelling of rights, restrictions and responsibilities, RRR, in the land administration domain model, LADM. In: XXIV FIG International congress 2010 facing the challenges : building the capacity. 11-16 April 2010, Sydney, Australia: technical programme and proceedings. 41 p

Lemmen, C.H.J., van Oosterom, P.J.M., Thompson, R., Hespanha, J. and Uitermark, H.T. (2010) The modelling of spatial units, parcels, in the land administration domain model, LADM. In: XXIV FIG International congress 2010: facing the challenges: building the capacity. 11-16 April 2010, Sydney, Australia : technical programme and proceedings. 28 p

Barnasconi, G. and van der Molen, P. (2010) Cadastral innovations and financial crisis: the case of the Netherlands kadaster. In: XXIV FIG International congress 2010: facing the challenges: building the capacity. 11-16 April 2010, Sydney, Australia: technical programme and proceedings. 15 p

Lengoiboni, M., van der Molen, P., Zevenbergen, J.A., Lemmen, C.H.J. and Bregt, A.K. (2010) Pastoralism within land administration: accommodating spatiotemporal land rights in the land administration domain model, LADM. In: XXIV FIG International congress 2010: facing the challenges: building the capacity. 11-16 April 2010, Sydney, Australia: technical programme and proceedings. 18 p

Uitermark, H.T., van Oosterom, P.J.M., Zevenbergen, J.A. and Lemmen, C.H.J. (2010) From LADM - STDM to a spatially enabled society : a vision for 2025 + powerpoint. In: Proceedings of the world bank annual bank conference on land policy and administration, 26-27 April 2010, Washington D.C., USA. 13 p

van der Molen, P. and Jansen, L.J.M. (2010) Rural and urban land management : the role of the Netherlands government as policy maker and as landowner + powerpoint. Presented at the International Land Management Symposium, 10 May 2010, Hannover, Germany. 20 p

Lemmen, C.H.J., Uitermark, H.T. and van Oosterom, P.J.M. (2010) Land administration: bringing in standards. In: GIS development : the global geospatial magazine, 14 (2010)5, pp. 33-35

Lemmen, C.H.J. and Zevenbergen, J.A. (2010) First experiences with high - resolution imagery - based adjudication approach in Ethiopia. In: Innovations in land rights recognition, administration and governance:

joint organizational discussion paper issue 2 : proceedings from the annual conference on land policy and administration / K. Deininger, ... [et al.]. - Washington D.C. : The World Bank, 2010. pp. 96-104

Lemmen, C.H.J. (2010) The social tenure domain model : a pro - poor land tool. Copenhagen, International Federation of Surveyors (FIG), 2010. FIG publication 52, 21 p. ISBN: 978-87-90907-83-9

Lengoiboni, M., Bregt, A.K. and van der Molen, P. (2010) Pastoralism within land administration in Kenya : the missing link. In: Land use policy : the international journal covering all aspects of land use, 27 (2010)2, pp. 579-588

van der Molen, P. (2010) Cadastres and climate change : multi - purpose land administration systems. In: GeoInformatics : magazine for surveying, mapping and GIS professionals, 13 (2010)2, pp. 34-39

Navarra, D.D. and van der Molen, P. (2010) A global perspective on the role of cadastres in greening urban real estate markets: powerpoint. Presented at International Forum on Greening Real Estate Markets: a multi - stakeholder perspective, 29–30 November 2010, Dessau-Roßlau, Germany. 21 slides

**Report to the 34th General Assembly
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**International Institution for the History of Surveying and Measurement
(IIHSM)**

Annual Report 2010-2011

The last report was prepared for the FIG General Assembly in Sydney and the accompanying IIHSM Workshop.

Jan de Graeve and Alan Wright attended the meetings in Sydney and John Brock was prominent in the history sessions that he so ably mounted. John and Kerima-Gae Topp are to be congratulated on their sterling efforts which produced a fine collection of papers and tours for the IIHSM Workshop. There were 110 attendees at the first session of papers held in Parramatta Old Government House and 133 attendees the following day at the Mitchell Library. Both are very imposing and attractive buildings and surroundings. John was also instrumental in getting all the Surveyors-General of Australia together to discuss their predecessors. In addition there were very successful visits including around Government House; to the site of the Parramatta Observatory and the 1828 Broad Arrow; and Walking Tour of Sydney.

John Brock will be organising the History Workshops for the Rome Working Week in 2012. John can be contacted at toptours@bigpond.com

While in Australia Jan de Graeve was invited to discussions about William Light who designed the original plan of Adelaide. It has been proposed that this might warrant submission as a possible World Heritage Monument and was put in the IIHSM report to the FIG General Assembly as worthy of support. The proposition was seconded by Commission 8 via Diana Dumashie.

Jan de Graeve is nearing completion of a bibliographic work on Gerard Mercator whose 500th anniversary will be celebrated during 2011 at events in Belgium and Germany.

Vitali Kaptjug continues research into various aspects of the Struve Arc and its extension. In particular, it has recently been part of the extension that was surveyed by Poland in the 1930s. This is an interesting area, because, when surveyed, there were over 70 survey stations on Polish territory. Today after various boundary changes less than 10 are in Poland.

Jim Smith is continuing to assemble material relating to the Arc of 30th Meridian and the European Arc that connects the two to the Struve Arc World Heritage Monument. The aim is to get the countries through which this extension goes to do all that is necessary to get it recognised as an addition to the existing WHM which was achieved in 2005. Any representatives from the following countries who would be interested to assist in this historical exercise are asked to contact Jim Smith at jim@smith1780.freeserve.co.uk: Belarus,

Botswana, Burundi, DR Congo, Crete, Egypt, Greece, Macedonia, Mozambique, Poland, Romania, Rwanda, Serbia, Slovakia, South Africa, Sudan, Tanzania, Uganda, Ukraine, Zambia and Zimbabwe. Sincere thanks are expressed to all who continue to assist in the Struve Arc project, particularly Vitali Kaptjug in St Petersburg..

The booklet that records the activities of the IIHSM, its aims, objects and activities in the past, present and future was distributed in Sydney. The booklet has been well received and further copies are available from the FIG Office in Copenhagen. One typographical error has been noticed. On page 16 under the left hand photograph, please delete the words "in The Ukraine at the" and replace with "at the". Sincere thanks are expressed to the FIG Secretariat who made such a good job of the presentation.

For the FIG Working Week in Rome in 2012 some preparations have already been made. The suggestion is for a pre-conference visit to Florence and then to have 1½ days of sessions in the original 16th century Library of Rome. Then a half day visit to the Vatican Gallery of Maps. Suggestions for papers on any appropriate historical topics should be sent to both John Brock and to Jim Smith (addresses above).

During the Sydney Congress Jan de Graeve was approached by delegates from the Philippines who showed interest in setting up a History of Mapping group there. The IIHSM is willing to assist in any way it can.

2012 will see the publication of a special luxury reprint of the First Atlas of Mercator, expected to retail at about € 2,000. Enquiries to Jan de Graeve, fax + 32 2262 1033.

Interest was expressed from Moscow to translate into Russian the CD *The Art of Surveying* that was freely circulated at the Munich Congress of 2006. Whether or not that has actually happened is not known.

A special meeting of the IIHSM Board met during the year to discuss future activities and organisation. For the future it welcomes active members to join the board as the present officers have been in charge since 1994 when the Commission 0 was converted into the Permanent Institution. Offers/suggestions to Jan de Graeve.

If you are interested to participate in IIHSM activities in any way please do not hesitate to contact Jan de Graeve, fax + 32 2262 1033.

Jan de Graeve
Chair, IIHSM

February 2011

**Report to the 34rd General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Foundation

Report of Activities 2010



1. Administration

The FIG Foundation is located in and administered by the FIG Office in Copenhagen.

A Board of Directors chaired by the President of the FIG Foundation makes the decisions of the Foundation.

The Board of Directors for 2010 was as follows:

- John Hohol, President of the FIG Foundation (USA)
- Prof. Michael Barry, Director (Canada)
- Iain Greenway, Director (United Kingdom)
- Prof. Bela Markus, Director (Hungary)
- Warwick Watkins, Director (Australia)

2. Programmes with Corporate Members

There are two grant programmes under the FIG and the FIG Foundation:

- The ESRI/FIG Grant Programme was introduced in 2002 (on hold)
- The Intergraph/FIG Grant Programme was introduced in 2003 including different categories of grants.(on hold)

The FIG Foundation Board of Directors had a fruitful meeting during the 2010 Congress. It included meeting with Trimble representative Keith Hofgartner to discuss opportunities for Trimble to work with the Foundation in supporting joint goals.

3. Donations in 2010

Sydney:	EUR	AUD	DKK
Voluntary donations	4094,68	5861	30505,36
Foundation Dinner	4420,06	5980	32929,42
Registration fee for delegates	12438,05	18223	92663,49
Foundation dinner sponsor donation, Trimble	4184,10	6000	31171,58
Total Sydney	25136,89		187269,85

Other donations

Prof. Steven Frank, Chair Elect	1500,00
Commission 2	USD

Interest

Interest 2010	1056,33
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Income FIG Foundation 2010	27693,22
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The voluntary donations from the FIG Congress in Sydney were as follows:

2 x 500 AUD = 1,000 AUD

Mr Lugard Edegbe, Nigeria

Mr Emmanuel Ukaegbu, Nigeria

5 x 200 AUD = 1,000 AUD

Dr Jacob Ehiorobo, Benin

Mr John Hohol, USA

Mr Jerome Ives, USA

Mr Barde Jatau, Nigeria

Mr Vincent Nwokoro, Nigeria

4 x 150 AUD = 600 AUD

Mr Patrick Casier, Belgium

Mr Sumith Dharmawardana, New Zealand

Mr Robert Sinkner, Czech Republic

Mr Chime Ugochukwu Obiora, Nigeria

Smaller amounts (62 donations) = 3,261 AUD

Total: 5,861 AUD = 4,094.68 EUR

Separately John Hohol provided funds (625 USD) to purchase FIG Foundation pins and plaque plate.

4. Grants 2010

The FIG Foundation received altogether 18 applications for grants.

One grant appointed was for the Foundation Congress Fellowship to Shewakena Aytenfisu Abab, Ethiopia to attend the Sydney congress and present his paper "*Facing the Challenges in Building Sustainable land Management Capacity in Ethiopia*". However, he could not participate as his visa application was declined.

Grant approved

	EUR	USD
Mr Muya Kamamia - training classes at the African Reference Frame and Data Processing Training Course, Kenya	3,619.36	5,000
Total expenses	3,619.36	5,000

5. Grants 2011

Announcement of new grants are to be made by early May, with a 1 July deadline for applications (which may be extended if needed), to allow sufficient time for evaluation.

There is a continued need to attract quality applications. Some options being explored include providing larger amounts to fewer individuals. The Foundation is facing the challenge that the quality level of the applicants does not follow the requirements of the Foundation. The Foundation has expanded and clarified the instructions to applicants. A recipient would normally be expected to provide a paper that passes the peer review process and is presented at a FIG conference.

Marketing of the Foundation should be made towards Member Associations, Academic, Affiliate, and Corporate Members explaining the objectives of the Foundation and encouraging them to inform potential applicants in their network about the opportunities available through the Foundation. Members could also be activated as guarantors for applicants, both to secure the sincerity of the applicant and to involve their members to a higher degree.

The Board of the Foundation had a discussion on possible categories of applications to fund:

- Research grants (which would be available to everyone, to be applied for using a 1-page standard application),
- Fellowships (primarily to developing countries, but should not be awarded to same person twice)
- Scholarships
- Separate travel grants (of up a few hundred EUR).

6. Accounts 2010

The income statement for 2010 and the balance sheet at 31 December 2010 are attached to this report. The total income in 2010 was € 27.693.22 and expenses € 3,619.36 which gives the net result of € 24,073.86. The total assets are € 163,548.84.

John Hohol

President of the FIG Foundation
March 2011

Web page: www.fig.net/foundation

Income Statement for 1 January - 31 December 2010 for the FIG Foundation

	<u>2010</u>	<u>2009</u>
	<i>EURO</i>	<i>EURO</i>
Donations		
Personal donations.....	1.497	1.258
Other donations.....	8.509	0
FIG Conferences.....	16.612	7.771
Financial income.....	1.057	1.726
	27.675	10.755
 Expenses		
Grants.....	(3.915)	(5.373)
Bank cost.....	(471)	(722)
	(4.386)	(6.095)
	 23.289	 4.660
Final Result (Deficit)	23.289	4.660

Balance Sheet at 31 December 2010 for The FIG Foundation

	<u>2010</u>	<u>2009</u>
	<i>EURO</i>	<i>EURO</i>
<u>Assets</u>		
Current assets:		
Receivables:		
Account receivable, FIG.....	156.802	128.436
Other receivables.....	1.154	1.156
Cash at hand and bankaccounts.....	5.490	10.567
Total current assets	163.446	140.159
Total assets	163.446	140.159
<u>Equity and liabilities</u>		
Equity:		
Equity at the beginning of the year.....	139.159	134.335
Fluctuations.....	0	164
Retained earnings.....	23.289	4.660
Total equity	162.448	139.159
Liabilities:		
Other debt.....	998	1.000
Total liabilities	998	1.000
Total equity and liabilities	163.446	140.159

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

**FIG Africa Task Force
Report of Activities 2010**

1. General

The FIG Africa Task Force (ATF) is a new initiative aimed at supporting FIG African member associations and academic members over the period 2010-2014. This global Task Force emerged in response to consideration by the FIG Council and approved by General Assembly in Eilat, Israel, May 2009. The terms of reference and supporting material can be viewed at www.fig.net). The key purpose of the task force is to enable the surveying profession in Sub Saharan Africa to deal with social responsibility in terms of contributing to achieving the MDGs. In this regard, the role of the surveyors as change agents engaging with the politicians is important.

Each year the Task force invites an African member association to co-host the workshop event. The first workshop was hosted jointly with the Institution of Surveyors Kenya (ISK) who organised the logistical arrangements in Kenya for the two-day workshop on Peri - Urban Settlements: Tools & Techniques for Surveyors to ensure Environmental and Social Resilience in Mombasa, Kenya, 11-12 November 2010.

2. Report on the Africa Task Force: Regional Africa Workshop “Proactive Planning for Infrastructure in Peri - Urban Settlements: Tools & Techniques for Surveyors to ensure Environmental and Social Resilience

The AFT organised a two-day workshop on Peri - Urban Settlements: Tools & Techniques for Surveyors to ensure Environmental and Social Resilience in Mombasa, Kenya, 11-12 November 2010. The two day Workshop considered and devised a format for a new and creative tool to revitalise and strengthen FIG members within Sub Saharan Africa and will present its findings at FIG Working Week in Marrakech in May 2011.

This workshop was targeted at senior and middle level land professionals in the private and public sector and educational and land professional institutes. It brought together decision makers and practitioners from several African nations (Ghana, Kenya, Nigeria, Tanzania, Rwanda, South Africa and Zambia) with expertise across the range land professional disciplines within the FIG membership.

Africa faces considerable challenges in the next couple of years, and development must be accelerated further. Within the framework of Professional Development and Ethics the task force in 2010 looked at developing capacity and relevant tools in the key areas of:

Peri-urban development – to develop tools to plan for access rights to infrastructure in peri- urban areas, and thereby also complimenting the current FIG efforts to increase access to secure tenure

As African nations struggle with Land Governance issues associated with achieving the Millennium Development Goals, over a two day workshop the Task Force objectives were to:

- Define the critical issues upon which to work;
- Develop raw material for support tools to enable the core team to develop and disseminate for further decision at the FIG WW In Marrakech 2011;
- Devise appropriate tools that will be helpful to member Associations to help their own members to ensure Environmental and social resilience.

These objectives were achieved and a theme for a tool was agreed to be worked upon over the next few months. The deliberations of how this was achieved are explained below.

An invitation letter was sent to all member associations in sub Saharan Africa requesting that they circulate amongst their members. Other special invites were sent to African land professionals (Planners and Engineers) as well as the Ordre National des Ingénieurs Géomètres topographes (ONIGT), in Morocco, and because ATF roundtable will be held at the Working Week in Marrakech. In addition ISK held a student competition, the award for the best paper was a funded place (by ATF and ISK), to attend the workshop.

Drawing on a strong African network, a list of speakers was invited to present core information. Delegates were limited to 60, an initial list of participants were drawn from the registration process organised by ATF in respect of International attendees, and ISK in respect of national attendees

Based on a participatory format, participants were expected to contribute in both open forums and break out sessions. By designing an interactive two day workshop the participants were split into six groups of up to ten members in which to carry out the two days' activities. Participants reviewed the content of information given, made criticisms, suggestions, raised concerns as well as making additions to improve the existing framework.

An overview of peri urban development was provided in setting the scene with three presentations:

- Professor Enemark provided the key Note, the MDG overview;
- Professor Saad Yahya provided a view of periurban Africa, definitions and categories;
- Emmanuel Offeiakrofi presented Land for Periurban Infrastructure in Customary Areas, a case study of Ghana.

Outcome of the Workshop

The consensus reached at the end of the workshop discussion is that:

- By End February the core team would consider and prepare ideas for tool structure,
- During March all participants will engage and comment
- During April the draft tool will be refined further,
- In May at the FIG Working week in Morocco, the draft tool is brought to the Roundtable for further discussion and agreement

A short workshop publication based on the deliberations is being prepared and is planned to be available as a briefing document for the roundtable in 2011.

Closing remarks

The value of the land professional asks some fundamental questions about the place of land administration and management in modern African society. In what way does good land economics– in this case, lateral thinking about infrastructure routes– produce economic and social value? What do rigoursley imposed and monitored infrastructure routes give back in hard financial and utilitarian terms to those who fund and use them? How can that value be meaningfully captured so that community and government investors and developers are persuaded that forward design adds to the bottom line and gives their settlements a lasting edge?

This taskforce workshop is based on a comprehensive participatory approach that begins to answer these questions. Encouragingly, the answers suggest that good professional thinking brings very specific economic, social and environmental benefits to a range of stakeholders.

This workshop presented here is not an academic exercise. It is intended to form part of a growing resource of information which can underpin member associations decisions and activities by disseminating and further providing appropriate tools for their land professionals. From FIG's perspective, it performs part of an effort to ensure that Sub Saharan African land professionals have a platform in which to raise and develop their own tools for their own country contexts.

For FIG this is an excellent starting point from which to build up the evidential core of our work for our land professional members in Sub Saharan Africa (and elsewhere). We aim to now to cast the net wider than just the workshop and look at capturing the thinking and input from the wider FIG membership at the Roundtable in Morocco 2011.

Dr Diane Dumashie
Chair, Chair Africa Task Force
December 2010

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

Task Force on Spatially-Enabled Society

Interim Report of Activities 2010

This Task Force was established by the FIG Council and endorsed by the General Assembly in May 2009 in Eilat. The aim of the TF – in cooperation with other global organisations – is to focus on the term of "Spatially-Enabled Societies" and the issues linked with it, to come up with a definition of SES, and to support the surveying profession to become aware of the issues in order to provide the appropriate services.

In agreement with both the outgoing and incoming Presidents the Task Force will continue its activities until the end of 2012, mainly because the topic is very relevant and FIG wants to stay active and visible in this field

The work of the Task Force has mainly been done so far by the chair and Prof. Dr. Abbas Rajabifard (President GSDI). Several contacts have been made and dialogues conducted.

In agreement with President CheeHai Teo, the Task Force plan of action is:

- May 2011: FIG-Working Week in Marrakech: to run a session on SES and to present a short questionnaire in order to get input and further ideas;
- Oct. 2011: work visit of Task Force chair at the University of Melbourne in order to link and coordinate with Prof. Dr. Rajabifard;
- May-Dec. 2011: analyze questionnaire; getting input from regional contributors; draft report;
- Feb. 2012: joint workshop between FIG-GSDI-PCGIAP in Kuala Lumpur with the aim "test" draft report and draw more input;
- Mar.-Apr. 2012: consolidate workshop results and prepare report for Working Week in Rome;
- May 2012: presentation of results at FIG-Working Week in Rome;
- until Dec. 2012: finalize and print report.

Daniel Steudler
Task Force Chair

20 February 2011



**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE PACIFIC ASSOCIATION OF QUANTITY SURVEYORS (PAQS)
AND
THE INTERNATIONAL FEDERATION OF SURVEYORS (FIG)**

1. Parties

This document constitutes an agreement between the Pacific Association of Quantity Surveyors (PAQS) and the International Federation of Surveyors (*Fédération Internationale des Géomètres, FIG*).

2. Background

PAQS and FIG each recognizes that the other is an international organization with many complementary activities serving similar professional constituencies.

The Pacific Association of Quantity Surveyors (PAQS) is an international association of national organizations representing Quantity Surveyors in the Asia and Western Pacific region with the mission to promote the practice of the quantity surveying profession, the dialogue between member associations as well as best practices in its region. PAQS also aimed to enhance regional co-operation, foster research and mutual assistance towards better understanding and recognition for the profession.

The International Federation of Surveyors (FIG) is an United Nations recognized international non-governmental organization, representing more than 120 countries throughout the world whose purpose is to support international collaboration for the progress of surveying in all fields and applications as well as to ensure that the disciplines of surveying and all who practise them meet the needs of the markets and communities that they serve. The Federation, founded in 1878 in Paris, strives to enhance the global standing of the surveying profession.

3. Purpose

The purpose of this Memorandum of Understanding is to provide a framework for a continuing engagement between the two organizations. This will be achieved by maintaining and increasing the opportunities of scientific, technical and professional as well as academic and educational exchange between their members, through a continuing programme of cooperation leading to mutual sharing of knowledge and expertise to the mutual advantage of both organizations.

4. Programme of Activities

In accordance with the background and purpose described above, both organizations agree to endeavour to intensify their co-operation for mutual advantage and in service of the profession and the populace. The following steps will be taken:

- Regular contact is to be established between the two organizations in order to institute and maintain rapport and continuing engagement to address matters of common interest;
- Each organization should inform the other of all Commissions, Working groups, etc. that it has established and invite representation from the other where it is agreed that it would be appropriate;

- Each organization should inform the other of its programme of proposed seminars, workshops, etc. to enable joint participation should it be of mutual benefit and inform its members of these events as appropriate;
- Each organization should invite a representative from the other organization to attend respective Congresses/Conferences and offer complimentary registration;
- Both organizations confirm their commitment in the work to advance the science and knowledge towards sustainable cost management, construction and developments, promotion of green buildings and structures, sustainable and liveable cities; and
- Both organizations should identify opportunities to organize specialized seminars or workshops under joint sponsorship.

5. Financial Commitment

It is understood that neither organization can commit the other to any expenditure, save that from administering this agreement, without the specific written agreement of both organizations.

6. Legal Status

This Memorandum does not create a legal link between the two organizations that will maintain their mutual independence.

Each organization has the right to amendments to this Memorandum at any time. Any changes proposed by one party in writing to the other party shall be subject to the agreement of both organizations.

This Memorandum of Understanding is valid until PAQS or FIG proposes to annul it at any time for any reason by one party writing to the other party, signifying its intention to withdraw from the terms of the Memorandum.

for and on behalf of
Pacific Association of Quantity Surveyors

for and on behalf of
International Federation of Surveyors

President

President

Singapore
27th July 2010

FIG Council Work Plan 2011-2014

Engaging the Challenge: Enhancing the Relevance

Vision

A Profession, armed with knowledge and best practices, extending the usefulness of surveying for the benefit of society, environment and economy, increasingly positioned in significance and relevance, next door to everywhere.

Preamble

The International Federation of Surveyors is a United Nations recognized international non-governmental organization, representing a membership from over 120 countries throughout the world whose purpose is to support international collaboration for the progress of surveying in all fields and applications as well as to ensure that the disciplines of surveying and all who practise them meet the needs of the markets and communities that they serve. The Federation, founded in 1878 in Paris, strives to enhance the global standing of the surveying profession.

FIG recognizes that the earth (the land and the seas as well as their natural resources) is the source of all production and consequently of the generation of capital and wealth. The land and the seas and their natural resources are finite and, given the challenges of our times (adequate food and shelter, climate change, disaster management, rapid urbanization as well as environmental degradation, large scale cultivation and unsustainable national and economic development), good governance of land, natural and built environments remains fundamental.

FIG also recognizes that surveying sciences and technologies are more than just “platforms” or “vehicles” or “means” but equally, they are not the “end”. Our belief is that surveying sciences, technologies and practices pursue the common good and extend the usefulness of that knowledge and practice towards the betterment of society, environment and economy.

As the profession continues its race to the top, enhancing the significance and relevance of surveying in every sphere and jurisdictions in which the profession has a presence, we must also consider the wider good: the needs of society, environment and economy. Efforts must continue to mainstream our profession into the broader realm of governance of the natural and built environment, national development and economic progress and prosperity.

Introduction

The Council's work plan is about continuity and is not one that clamours for change. The Federation, heading into the second decade of this century, needs the Council to build the future on the foundations that have been laid by councils and bureaux in the immediate past decade.

The US Bureau in 1999 had as its priority "*Advancing the Global Surveying Profession*", and was followed by the German Council (2002 – 2006) which had "*Shaping the Change*" as its priority. The immediate past Council (2007 – 2010) made "*Building the Capacity*" its key priority. The broad concept was that capacity building includes societal, institutional and individual responsibilities, and thus efforts were directed at all of these levels.

This Council will continue the efforts of our predecessors and work on extending the progress, achievements and global standing of the profession, enhancing the significance and relevance of the profession, and extending the profession's usefulness to humankind, for the betterment of society, environment and economy. This thrust will be addressed through the Federation's activities at all levels: the Council; the ten Commissions; Task Forces; and Networks – as well as the FIG Foundation and the Permanent Institutions.

“Confidence . . . thrives on honesty, on honour, on the sacredness of obligations, on faithful protection and on unselfish performance”
(Franklin D. Roosevelt)

It is important to recognise that the Federation has distinguished itself and gained deserved global recognition in no small part due to the Federation's culture of unselfish contribution - unselfishly sharing experiences, unselfishly sharing information, unselfishly sharing practices, unselfishly sharing knowledge. Such unselfish performance must be continued, and new channels of sharing and dissemination of experiences, information, practices and knowledge will be initiated and embarked upon.

“Our minds are as different as our faces, we are all travelling to one destination”
(Charles Caleb Colton)

Within the Federation's global surveying community, it is recognised that there is strength in the diversity of cultures and languages. It is this diversity that gives not just breadth and depth to the Federation's work, but also richness in the results as all come together to journey with one mission and one vision. The Council will accommodate this diversity and work with regional surveying structures and organisations, as well as with member associations and other member organisations, within the spirit of subsidiarity.

The Federation will continue to play a significant role through its partnership with UN agencies such as UN-Habitat, UN FAO, UN-OOSA, and the World Bank, as well as with sister and allied organizations in facing global challenges. In facing these global challenges, the profession – through our knowledge, standards and competence – can provide confidence, clarity and certainty and can be part of the solution.

The Council, through its various activities, aims to engage and encourage the wider membership, particularly member associations, to enhance the role and relevance of the

profession within its jurisdiction and to work towards sustainable futures. The Council also recognizes that it has a responsibility to all surveyors including those from jurisdictions not yet represented by any member association.

Finally, the Council recognises that at the onset of its term in office, we are in an era of austerity brought on by global economic and financial uncertainties. These economic and financial uncertainties affect the Federation's membership directly. Thus the Federation's administration and finances must be underpinned by fiscal prudence and restraint.

Council thus recognizes that the profession must continue to enhance the profession's relevance in these challenging times with a strategy that engages with the challenges of the times. Thus Council has selected "*Engaging the Challenge: Enhancing the Relevance*" as its theme for 2011 – 2014.

Engaging the Challenge: Enhancing the Relevance

The Council is mindful of the need to:

- engage the membership to further strengthen the standing and prestige of the profession and the Federation as well as that of our members;
- continue engaging global challenges in partnership with UN agencies and the World Bank as well as sister and allied organisations; and
- enhance the significance of surveying, promote the profession's relevance and extend the usefulness of surveying for the benefit of society, environment and economy.

These needs will be underpinned by careful management, and fiscal prudence and restraints to ensure the sustainability of the Federation's delivery and membership services, administration and finances. These will be addressed through the Federation's activities at all levels: the Council; the ten Commissions; the two Networks; the Task Forces – as well as through FIG's Permanent Institutions and the FIG Foundation.

The Council will continue to improve efforts and mechanisms to:

- increase participation in the Federation's activities by the membership;
- communicate appropriately with the membership, comprehending membership's needs and aspirations as well as informing the membership of important developments within the Federation;
- promote the sharing of experiences, information, knowledge and best practices;
- promote professional development, professional competency standards and professional ethics, as well as the development of international standards, guidelines and best practices;
- enhance the partnership with UN agencies, the World Bank and other international and multilateral organizations;
- encourage the development and appropriate adoption of surveying technologies and infrastructures;
- continue developing efforts on capacity building;
- accommodate cultural and linguistic diversity and co-operate with regional surveying structures and organisations;
- encourage studies and research in all disciplines of surveying and disseminate the results; and

- co-ordinate Commissions' workshops and symposia, aiming to serve all of the Federation's membership, with these events being strategically positioned geographically.

The Work Plan of the FIG Council in 2011-2014 thus focuses on three key pillars:

- Engaging our Membership;
- Engaging Global Challenges; and
- Enhancing the Significance and Relevance of the Profession.

Engaging our Membership

Communications

Continuing dialogue and rapport with the Federation's members is essential to the wellbeing of the Federation, particularly in promoting the Federation and enhancing the significance and relevance of the profession. Whenever necessary, Council will communicate and clarify to the membership the vision and direction of the Federation, and report on the latest development affecting the Federation and the membership. Particular strands of work will be to:

1. Continue to promote the benefits of membership.
2. Particularly promote the value of membership within under-represented regions, especially South and Central America and the Caribbean.
3. Enhance the Federation's web site and leverage it as a means of effective communication and dissemination of information.
4. Encourage member organisations to translate appropriate FIG Publications to effect a wider dissemination of knowledge and practices.
5. Continue with the publication of an Annual Review that will serve as the Federation's main medium of communication to various key stakeholders.
6. Develop appropriate approaches to engage the media (print and online) to better promote the Federation and the profile of the profession.
7. Work with the membership to ensure that the communication tools that the Federation has in place – particularly the Federation's web site – meet the needs of the membership in communicating their views to the Council and Commissions, as well as learning of the work of the Council and Commissions. The continuing development of this two-way dialogue will be summarised in the Federation's Information Policy.

In addition, Council will manage the increasing complexities and expectations of membership, as well as the varied nature, composition and character of member associations.

Commissions

Commissions are, collectively, "powerhouses" of the Federation, sources of in-depth knowledge, promoters and champions of standards and best practices. As Commissions are powerhouses, national delegates as well as correspondents to these Commissions are the vital "power grids". Therefore, the Council continues to develop and implement sustainable and effective knowledge sharing framework and in particular will:

1. Work with the Commissions to ensure that their work plans contribute to the vision of the Federation, are fully aligned with each other and that of the Council, and adjust as necessary to meet changing priorities during the four-year term.
2. Encourage the Federation's membership to nominate, support and send a national delegate or a correspondent to the Commissions and Networks and their events.
3. Encourage the Federation's membership to tap these powerhouses, to cascade the knowledge, standards, guidelines and practices that they develop to the local membership.
4. Encourage FIG's member associations to collaborate with the Commissions in hosting Commissions' workshops, symposia and conferences.
5. Tap into the high quality outputs of regional structures and organizations and continue to extend the benefits of this knowledge, standards, guidelines and practices within and beyond the region.

Conference Structures

The Federation's Working Weeks, regional conferences and Congresses will remain the Council's primary focus in terms of events and will consume most energies of the Federation as an organisation. Our energies must be focused to bring effectiveness to these principal events so as to encourage a higher level of participation, achievement and success. The Council will therefore:

1. Intensify its efforts to encourage better participation in these principal events by the general membership.
2. Work with Commissions and Task Forces to ensure better (and better targeted and coordinated) dissemination of science, knowledge and practices through workshops, symposia and conferences that reach out and add value to our membership and ensure that, as far as it is possible, these events are geographically diverse.
3. Introduce a biennial event for Young Surveyors in 2012 and 2014, alongside the Federation's Working Week and Congress.
4. Organise one regional conference within this Council's term, which will be organised together with a member association in South America in the last quarter of 2012.
5. Organise the inaugural FIG Undergraduate event in conjunction with the Congress in 2014.

In addition, within the programme of the Federation's Working Weeks and Congress, there shall be:

- An annual Corporate Members' Forum, organized at the Working Week or Congress;
- An annual Presidents' meeting, providing the opportunity for the Federation's President and Council to engage directly with the Presidents of member associations and ensure that the Federation's plans meet their needs and expectations;
- An annual Directors General Forum for national mapping and cadastral organisations, including FIG Affiliate Members, organized at the Working Week or Congress;
- An annual Academic Members' Forum organized at the Working Week or Congress.

Engaging Global Challenges

It is recognized that humanity currently faces a series of challenges - adequate food and shelter, climate change, disaster management, rapid urbanization as well as environmental degradation, large-scale development and cultivation. Sustainable national and economic development, as well as good governance of land, natural and built environment, therefore remain fundamental. The Council will therefore:

1. Develop concepts to mainstream the profession into the broader realm of governance of the natural and built environment, national development and economic progress and prosperity.
2. Strengthen the Federation's collaboration and partnership with the United Nations Human Settlement Programme (UN-Habitat), the United Nations Food and Agriculture Organization (FAO), the United Nations Office for Outer Space Affairs (UN-OOSA) and other international and multilateral agencies.
3. Develop collaborative activities with UN-Habitat, UN-FAO, UN-OOSA and the World Bank to better understand, develop and present the Federation's response to these global challenges.
4. Continue existing collaborative activities under the UN-Habitat Global Land Tools Network in areas such as the Social Tenure Domain Model (and the complexity within the framework of Tenure Security) and the capacity building agenda in transparency in land administration.
5. Consider new collaborative activities with UN related agencies and the World Bank in the areas of good land governance, undernourishment, inadequate shelter and sanitation, rapid urbanization particularly in the less developed countries, and climate change.
6. Consider mutually beneficial and appropriate collaborative activities with sister and allied organisations, in particular with organisations that have existing Memoranda of Understanding with the Federation.
7. Promote dialogue to engage sister and allied organisations, particularly for the exchange of information, knowledge and best practices.
8. Develop, where appropriate, common approaches and platforms with sister and allied organisations, particularly those with existing Memoranda of Understanding with the Federation, when addressing global issues and concerns to the profession.
9. Work towards joint publication of findings, reports and studies from these collaborative activities.

The Council will also establish the

- FIG Task Force on Surveyors and Climate Change to identify and investigate specific areas where surveyors have the professional expertise to contribute to studies related to climate change; and
- FIG Task Force on Property and Housing to investigate challenges and identify roles for surveyors in a post-global financial crisis era including the challenge for adequate shelter.

Enhancing the Significance and Relevance of the Profession

Promoting the Federation and the significance of the profession remains crucial, and the Council will contribute in enhancing the Federation's partnership with UN related agencies, the World Bank and other external international or multilateral agencies as well as sister and allied organizations. Council will also encourage member organisations to cascade the benefits of these partnerships and related activities down to the national and local arena. Council will take responsibility to relate effectively to these UN agencies and the World Bank as well as to other external international or multilateral agencies based on existing Memoranda of Understanding. The general membership must take responsibility to effectively cascade the benefits of these relationships to surveyors locally. Council will therefore:

1. Review the status of all existing Memoranda of Understanding and where applicable agree on new agendas for action and/or activities, particularly with the United Nations Human Settlement Programme (UN-Habitat), the United Nations Food and Agriculture Organization (FAO), the United Nations Office for Outer Space Affairs (UN-OOSA) and the World Bank.
2. Co-ordinate and monitor all activities related to existing Memoranda of Understanding where the implementing responsibilities are delegated to the Commissions.
3. Discuss, develop and enter into new Memoranda of Understanding with other international or multi-lateral agencies or allied professional organization that will promote collaboration and be mutually beneficial.
4. Promote dialogue and provide a forum for the exchange of experiences, information, knowledge and best practices amongst the membership, particularly through the Federation's conference structures.
5. Promote dialogue and provide a forum for exchange of experiences, information, knowledge and best practices between UN-related agencies and the World Bank and the membership, through the Federation's conference structures.
6. Promote dialogue and improve communication with member associations so that member associations can cascade the benefits of the Federation's ongoing partnership and activities with UN-related agencies, the World Bank and sister and allied organizations down to the individual surveyor to improve the standing and status of surveyors at local and national levels.
7. Co-operate with, and, when appropriate, support regional surveying structures and organisations including Fédération des Géomètres Francophones (FGF), Comité de Liaison des Géomètres Européens (CLGE) (The Council of European Geodetic Surveyors), Arab Union of Surveyors, Mediterranean Union of Surveyors, ASEAN Federation of Land Surveying and Geomatics (AFLAG), Asociación Panamericana de Profesionales en Agrimensura (APPA) (Panamerican Association of Surveying Professionals), with the intention of improving the standing and status of surveyors at local and national levels.
8. Encourage and, where appropriate, support member associations to engage their stakeholders within their respective jurisdiction to further advance the profession, its standing and status at the local and national levels.

To support this, the Council will sustain:

- The FIG Task Force on Africa, which has a capacity building agenda aimed at extending the usefulness of surveying to society, institutions and individuals.
- The FIG Task Force on Spatial Enabled Society, an evolving concept where spatial information, as well as position and place, enables governments, citizens and businesses to better organize their activities.

Ensuring Administrative and Financial Sustainability

The effectiveness of the Federation is underpinned by an efficient administrative set up and sound financial management. The Council will manage the Federation with the support of a revamped administrative structure that is intended to provide administrative stability and sustainability.

Council will manage the Federation with fiscal prudence and restraint, taking cognizance of the imperative to strive for an annual surplus and making best use of the surpluses. Council believes that this is the only responsible financial strategy. Spending cuts and not continual membership fee rises should bear the brunt of any rebalancing required during this period of fiscal restraints.

The Federation has over the last two terms built up a financial reserve approaching its regular annual expenditure. This provides financial security for the Federation in difficult periods, as have been experienced in recent years arising from circumstances beyond FIG's control.

To ensure the effective ongoing financial management of the Federation, the previous Council introduced a number of changes, including the format in which the FIG accounts are presented to the General Assembly to provide increased transparency. Continuing and enhancing this effort, the Council will conform to the following arrangements for 2011-14:

1. To act prudently in all financial matters, to ensure the continued sustainability of the Federation without the need for automatic membership fee rises each year. During its term, the Council intends to hold constant the membership fee levels of 2012, for 2013 and 2014 financial year. Previous General Assemblies have already fixed the levels of membership fees for 2011 and 2012.
2. To budget for the four-year period of the Council, aiming to ensure that the overall financial result over the four-year life of the Council will be positive.
3. Increase funding to its delivery capability, including increasing the grants provided to the Chairs of Commissions and the Young Surveyors Network to €3,000 per year.
4. To monitor costs and income carefully and in particular to ensure that -
 - Regular income exceeds regular expenditure in each year;
 - General reserves of the Federation are kept within the range of 90-100% of regular annual expenditure unless dispensation to act otherwise is given by the General Assembly;
 - Planned developmental expenditure does not take place unless the financial situation of the Federation allows it;

- Federation's and Foundation's reserves are held in low-risk investments, and that robust controls on movements in the investments are maintained; and
 - Administrative expenditure is kept to a sensible minimum to run the Federation's operations effectively.
5. Report to each General Assembly the financial standing of the Federation and consider appropriate financial control mechanisms to ensure that the Federation's members, officers and staff are at all times accountable for their actions and protected when following appropriate procedures.
 6. Review the Federation's administrative processes during this Council's term of office and, if necessary, refashion them to ensure that the Federation's delivery system and membership services remain at the appropriate level whilst minimizing costs.

Leadership and Responsibilities

The Federation is governed by its General Assembly. The business of the Federation, as provided by the Statutes and Internal Rules, shall be directed by the Council under the authority of the General Assembly and administered by the Office. The Council, together with the Chairs of the Federation's ten commissions, forms the broader leadership of the Federation and is further assisted by the Chairs of Task Forces and the two Networks, the Directors of the Permanent Institutions and the President of the FIG Foundation. This collectivism of leadership will be underpinned by mutual respect and the concept of subsidiarity.

The Council is responsible for preparing the Annual Review; preparing and recommending the annual budget as well as a four-year rolling projections of regular income and expenditure; considering and setting membership fees for members except for member associations; developing Council policies; considering, negotiating and recommending partnership arrangement via Memoranda of Understanding; and monitoring and reviewing the overall performance of the Federation.

The responsibilities of Council Members for 2011 and 2012 are as appended hereafter.

APPENDIX I

Responsibilities of Council Members, 2011 & 2012

President CheeHai TEO (2011 – 2014)

Manage, together with Council, the business of the Federation in accordance with the Statutes and Internal Rules and ensure that the Federation remains the premier international non-governmental organization that represents the interests of surveyors and users of surveying services globally. Lead the Council in ensuring effective management of the Federation and engagement with the general membership.

Responsible for the agenda and related motions to each General Assembly and implement all decisions of the General Assembly. Provide strategic leadership of the Federation; take appropriate initiatives to ensure that the Federation achieves its principal objectives as laid down in the statutes and the adopted work plan. Promote the Federation and the significance of the profession; communicate and clarify to the membership the vision and direction of the Federation; co-ordinate and enhance the Federation's partnership with UN related agencies, the World Bank and other external international or multi-lateral agencies as well as sister and allied organization; oversee the overall management of the Federation and matters related thereto; recommend the formation of task forces and inter-commission working party to undertake specific tasks, monitor and guide their work thereof and undertake any other tasks and duties as decided by the General Assembly and the Council.

Vice President Dalal S. ALNAGGAR (2011 – 2012)

Responsible for the Federation's links and cooperation with regional structures in the Middle East and North Africa including supporting any development in the areas of professionalism and ethics; regional activities; oversee the Council's initiatives to under-represented groups and provide Council with regular report on matters thereto indicating highlights and challenges.

Responsible for the development of the Federation's information policy together with FIG Office and participate in projects and tasks as decided by Council. Together with the President, promote the Federation and the significance of the profession; communicate and clarify to the membership the vision and direction of the Federation, contribute in enhancing the Federation's partnership with UN related agencies, the World Bank and other external international or multi-lateral agencies as well as sister and allied organizations.

Council's representative on the FIG Task Force on Africa.

Vice President Iain GREENWAY (2011 – 2012)

Responsible for the Federation's initiatives on membership issues and standards; financial and administrative strategy and management; oversee the FIG Office and matters related thereto and together with the FIG Office, provide Council with quarterly financial and administrative report indicating finance and administrative highlights, challenges and constraints.

Responsible for reporting on all finance and administrative matters and presentation to the General Assembly and implementing related decisions. Provide leadership towards the development and implementation of the FIG Administrative (Office) Manual, co-ordinate the annual forum for Directors General/CEOs of national mapping and cadastral organisations;

continuing developing the Federation's policy on capacity building and participate in projects and tasks as decided by Council. Together with the President, promote the Federation and the significance of the profession; communicate and clarify to the membership the vision and direction of the Federation, contribute in enhancing the Federation's partnership with UN related agencies, the World Bank and other external international or multi-lateral agencies as well as sister and allied organizations.

Vice President Chryssy POTSIOU (2011 – 2014)

Responsible for the Federation's initiatives on Young Surveyors and Academic Members; chair FIG Task Force on Property and Housing; co-ordinate related agenda for action and promote appropriate outputs and delivery; supporting development in the areas of professionalism and ethics and provide Council with regular status report indicating highlights and challenges on matters related thereto.

Responsible for reporting on academic and young surveyors matters, presentation to the General Assembly and implementing related decisions. Provide leadership towards the convening of biennial young surveyors symposia alongside the Federation's Working Week or Congress; co-ordinate the annual Forum for Academic Members and participate in projects and tasks as decided by Council. Together with the President, promote the Federation and the significance of the profession; communicate and clarify to the membership the vision and direction of the Federation, contribute in enhancing the Federation's partnership with UN related agencies, the World Bank and other external international or multi-lateral agencies as well as sister and allied organizations.

Council's representative on the FIG Task Force of Spatially Enabled Societies as well as Council's representative to the FIG Foundation.

Vice President Rudolf STAIGER (2011 – 2014)

Responsible for the Federation's technical strategy and management and the ten commissions; together with the ACCO Representative on Council, co-ordinate their work plans and promote alignment with Council's priorities, quality and excellence in their outputs as well as delivery. Provide Council with regular status report indicating highlights, challenges and constraints.

Responsible for reporting on technical and ACCO matters, presentation to the General Assembly and implementing related decisions; as well as the Federation's peer-review process. Co-ordinate the liaison between ACCO and organizers of the Federation's working weeks, conferences and congress. Provide leadership to Council's initiatives to ensure better dissemination of surveying sciences, knowledge and practices through Commission's workshops and symposia to the Federation's membership and that these events be geographically strategic; leadership in the development and implementation of the Federation's knowledge sharing policy via the web and participate in projects and tasks as decided by Council. Together with the President, promote the Federation and the significance of the profession; communicate and clarify to the membership the vision and direction of the Federation, contribute in enhancing the Federation's partnership with UN related agencies, the World Bank and other external international or multi-lateral agencies as well as sister and allied organizations.

Chair, FIG's Advisory Committee of Commission Officers (ACCO) and Council's representative on the FIG Task Force on Surveyor and Climate Change.

APPENDIX II

FIG Commission Chairs, 2011 - 2014

Ms Leonie NEWNHAM (Australia)
Chair, FIG Commission 1 (Professional Standards and Practice)

Prof Steven FRANK (United States of America)
Chair, FIG Commission 2 (Professional Education)

Prof Yerach DOYTSHER (Israel)
Chair, FIG Commission 3 (Spatial Information Management)

Dr Michael SUTHERLAND (Trinidad and Tobago/Canada)
Chair, FIG Commission 4 (Hydrography)

Mr Mikael LILJE (Sweden)
Chair, FIG Commission 5 (Positioning and Measurement)

Prof Gethin Wyn ROBERTS (United Kingdom)
Chair, FIG Commission 6 (Engineering Surveying)

Mr Daniel ROBERGE (Canada)
Chair, FIG Commission 7 (Cadastre and Land Management)

Mr Wafula NABUTOLA (Kenya)
Chair, FIG Commission 8 (Spatial Planning and Development)

Dr Frances PLIMMER (United Kingdom)
Chair, FIG Commission 9 (Valuation and the Management of Real Estate)

Mr Robert ŠINKNER (Czech Republic)
Chair, FIG Commission 10 (Construction Economics and Management)

The Commission Chairs have decided that for the period 2011 – 2012, the ACCO Representative on Council will be Dr Michael SUTHERLAND. In addition, ACCO has decided that the ACCO Representative on Council is to:

- represent the interests and proposals of the technical commissions in the Council;
- disseminate information between Council and Commissions;
- attend all Council meetings;
- seek the views of the Commission Chairs on relevant issues to be presented in Council, in advance of all Council Meetings;
- feed back into the Council the issues proposed by the Commission Chairs;
- report back to ACCO on the discussion and proposals of the Council in relation both to issues identified by the Commission Chairs and any other matters with relate to the Commissions, within at least eight weeks of the Council meeting; and
- liaise with the ACCO chair when undertaking their (joint and separate) responsibilities to the Commissions and the Council in order to provide effective support for ACCO.

APPENDIX III

FIG Network & Task Force Chairs, 2011 - 2014

Dr David MARTIN (France)
Chair, FIG Standards Network

Ms Katie FAIRLIE (Australia)
Chair, FIG Young Surveyors Network

Dr Diane DUMASHIE (United Kingdom)
Chair, FIG Task Force on Africa (2009 – 2014)

Dr Daniel STEUDLER (Switzerland)
Chair, FIG Task Force on Spatially Enabled Society (2009 – 2012)

Prof John HANNAH (New Zealand)
Chair, FIG Task Force on Surveyors and Climate Change (2011 – 2014)

APPENDIX IV

FIG Foundation & Permanent Institutions

Mr John HOHOL (United States of America)
President, FIG Foundation (2011 – 2014)

Prof Christiaan LEMMEN (The Netherlands)
Director, FIG International Office of Cadastre and Land Records (*Office International du Cadastre et du Régime Foncier*) (OICRF) (2011 – 2014)

Mr Jan DE GRAEVE (Belgium)
Director, FIG Permanent Institution for the History of Surveying and Measurement (2011 – 2014)

APPENDIX V

Events and Council Meetings

2011

FIG Working Week and General Assembly, Marrakech, Morocco
18 – 22 May, 2011

2012

FIG Working Week and General Assembly, Rome, Italy
6 – 11 May 2012

8th FIG Regional Conference, South America
November 2012

2013

FIG Working Week and General Assembly, Abuja, Nigeria
May 2013

2014

XXV FIG Congress and General Assembly, Kuala Lumpur, Malaysia
May/June, 2014

The Council may co-organize or co-sponsor joint events with partner agencies and sister organizations. Commissions may also organize their annual meetings, workshops and symposia as well as co-organize, co-sponsor or support appropriate regional and national events in accordance with current policies and guidelines. All these events will be announced and publicized on the Federation's web site.

Council Meetings

The Council shall meet at least twice a year as provided in the Federation's Internal Rules. The Council may conduct these meetings electronically, via email, but will have at least one face-to-face meeting each year, during the Federation's Working Weeks and Congress.

APPENDIX VI
FIG Administration

FIG Director:
Mr Markku Villikka

FIG Office Manager:
Ms Louise Friis-Hansen

FIG Office Co-ordinator:
Ms Hanne Elster

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Kalvebod Brygge 31-33
DK-1780 Copenhagen V
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Fax: + 45 38860252
Website: www.fig.net

FIG Commission 1 – Professional Standards and Practice

Work Plan 2011–2014

1. Title

Professional Standards and Practice.

2. Terms of Reference

- Professional practice, legal aspects and organisational structures
- Codes of ethics and applications
- Changes to society and ways of working and the corresponding impacts on professional practice
- Community perceptions and understanding about the surveying profession
- Participation in FIG Standards Network and Young Surveyors Network

3. Mission Statement

The mission of Commission 1 is to:

- build the capacity of professionals to adapt to changing circumstances: Changes are affecting the operation of surveying practices, their management and their professional structures under the challenges of widening professional activities and a changing world.
- create a community of practice to share knowledge about professional standards and practice challenges and responses by surveying professions.
- build links to regional and world structures for surveying professionals that focus on issues around professional standards and practice.
- support professionals in their work by providing them with tools and approaches to dealing with common practice issues.
- develop individuals as professionals and provide opportunities for them to continue to develop as part of the surveying community.

4. General

Commission 1 will continue the work on the changing nature of surveying work and the role of the professional, work at connecting with other like professional commissions operating in regional organizations, building supporting knowledge and materials for surveying professionals. The Commission will continue its work in the Standards and Young Surveyors Networks.

In general the 2011-2014 work plan aims to:

- Share understanding on the challenges facing professional practice in a changing environment of work and within a changing world.
- Provide opportunities for an ongoing exchange of information around issues on professional standards and practice using new technologies.

- Share knowledge of professional practices around ethical delivery of services.
- Connect with other groups in member associations that promote and develop surveying professional standards and practice to share knowledge and develop possible joint activities.
- Work with Commission 2 to develop ongoing pathways of professional education that support the concept of ongoing professional development.
- Promote cooperative development opportunities and the development of new initiatives by growing knowledge from working together with other commissions on the current and future role of the surveyor, the definition of the surveyor as well as the age-structure within the profession.
- Build activities with world wide standards development and certification through the Standards Network.
- Build activities with Young Surveyors through the active support of the Young Surveyors Network.

The Commission will host the inter-commission working group to consider the current and future role of the surveyor, the definition of the surveyor as well as the age-structure within the profession. The other joint working group hosted by Commission 1 will study the technological, methodological and practical as well as legal aspects on the demarcation of international boundaries.

5. Working groups

Working Group 1.1 - Changing Nature of Work and the Role of a Surveyor (Joint Working Group with Commission 2)

Policy issues:

- To consider the current and future role of the surveyor
- To review the definition of the surveyor
- To study the age-structure within the surveying profession and prepare proposals how to response to the competition to market the profession for new generations
- Surveying professionals work in a variety of work environments and are required to respond to constant changes in how they deliver services. This creates challenges to them in how they practice and challenges on how to adapt to change. Identifying and sharing new ways of working from around the world will provide practical examples of ways others have successfully adapted and will build a set of case studies on change.

Co-chairs:

Winnie Shiu, Hong Kong SAR, China, e-mail: wshiu@hkis.org.hk

Curtis Sumner, USA. E-mail: Curtis.Sumner@acsm.net

Specific project(s)

- To consider the current and future role of the surveyor
- To review the definition of the surveyor
- Age structural survey within FIG (implemented by Cecilia Lindén, Sweden)
- Prepare proposals how to response to the competition to market the profession for new generations

Workshop(s)

- Participation in FIG Working Weeks and other major FIG events with dedicated technical sessions and/or workshops as appropriate.

Publication(s)

- To be determined

Timetable

- Final report at the FIG Congress 2014

Working Group 1.2 – Regulation Approaches that Provide Secure Tenure

Policy issues

- Regulation is a way to develop secure land tenure and through this the alleviation of poverty through one of the basic principles of a secure tenure – integrity of the system and the control (elimination) of corruption.
- Reviewing practice around the world provides an opportunity for professionals to share ideas on what has been done in various countries, consider how it was done and learn from others experiences of implementing regulation..

Chair:

- Brian Coutts, New Zealand, e-mail: brian.coutts@otago.ac.nz

Specific project(s)

- Develop case studies on how countries operate legislative systems that monitor the surveying profession.
- Review aspects of regulation, survey controls systems, the role of educational and professional development systems to develop practice examples.

Workshop(s)

- Participation in FIG Working Weeks and other major FIG events with dedicated technical sessions and/or workshops as appropriate.

Publication(s)

- Publish case studies on regulation approaches around the world.

Timetable

- Final report at the FIG Congress 2014

Working Group 1.3 – Community of Practice on Professional Standards and Practice

Policy issues

- All professionals face professional standards and practice challenges and find ways to respond effectively. Anyone facing a problem or issues can be certain that somewhere in the world, someone has solved a problem that might be very similar. Developing a way to share practice issues using Web 2 technologies would provide a way for surveying professionals to develop a place where they can share the knowledge of others in dealing

with current issues. This will be supplemented by professional standards and practice issues workshops held at each Working Week and the Regional Conference. Through this regular updates on emerging issues around the world can be obtained.

- There are regional and other structures in place where members also interested and committed to issues around professional standards and practice for surveying professionals. These groups develop ideas and produce papers and possibly publications that are part of a world wide knowledge bank that FIG could access. Building links to regional and world structures for surveying professionals that focus on issues around professional standards and practice will expand our understanding and access to knowledge and resources.

Chair:

- Stephen Djaba, Ghana, e-mail: Stephen@ghana.com (to be confirmed)

Specific project(s)

- Linking worldwide with professional groups that focus on issues around professional standards and practice.
- Develop a knowledge management concept for FIG as a professional organization.

Workshop(s)

- Participation in FIG Working Weeks and other major Commission events with dedicated technical sessions and/or workshops as appropriate.
- Professional Standards and Practice Issues workshops at each FIG Working Week and the Regional Conference.

Publication(s)

- To be determined.

Timetable

- Final report at the FIG Congress 2014

Working Group 1.4 – International Boundary Settlement and Demarcation (Joint Working Group with Commissions 4, 5 and 7)

Policy issues

- To deal with theoretical, methodological and some legal aspects and analysis of a few practical cases in international and national boundaries
- To prepare an FIG publication on international boundary settlement and demarcation all over the world.

Co-chairs:

- Dr. Haim Srebro, Israel, e-mail: haim@mapi.gov.il
- Dr. Bill Robertson, New Zealand, email: billrobertson@xtra.co.nz

Workshop(s)

- Participation in FIG Working Weeks and other major Commission events with dedicated technical sessions as appropriate.

Publication(s)

- FIG publication on international boundary settlement and demarcation all over the world.

Timetable

- Final report at the FIG Congress 2014

Working Group 1.5 – Social Media and Surveyors (Joint Working Group with the Young Surveyors Network)

Policy issues

- Survey and recommendations on the use of social media (Facebook, LinkedIn, YouTube, Twitter etc.) in surveying community for member associations
- Raise the understanding of new communication tools within surveying community
- Prepare proposals on using social media in marketing the profession and reaching new generations
- Initiate opportunities for participating in social media at FIG events using skill sharing with Young Surveyors

Chair

- Interim Chair, Leonie Newnham, Australia, e-mail: Leonie.Newnham@dse.vic.gov.au

Workshop(s)

- Participation in FIG Working Weeks and other major FIG events with dedicated technical sessions and/or workshops as appropriate. Test online communication for out-reaching surveyors that do not normally attend FIG events.

Publication(s)

- FIG guidelines for member associations on the use of social media.

Timetable

- Final report at the FIG Congress 2014

6. Co-operation with Other Commissions and organisations

Commission 1 is co-operating with the two FIG networks on standards and young surveyors.

7. Commission Officers

Commission Chair and Initial Co-Chair of WG 1.5

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Leonie Newnham
Chair, FIG Commission 1
www.fig.net/commission1

February 2011

FIG Commission 2 – Professional Education

Work Plan 2011–2014

1. Title

Professional Education.

2. Terms of Reference

- Curriculum development
- Core surveying knowledge
- Learning and teaching methods and technologies
- Educational management and marketing
- Continuing professional development
- Networking in education and training

3. Mission Statement

The mission of Commission 2 is to promote good practices in professional surveying education by:

- exploring the needs of society and endorsing universities and other educational organizations to develop mechanisms and processes that will help to meet those needs
- supporting and promoting advances in survey education through identification of core surveying knowledge
- promoting cooperative ventures in surveying education and research
- supporting the building of capacity for surveying education in the developing world
- reinforcing contacts to educational commissions of related professions
- improving dissemination of information on all of the above

4. General

Commission 2 will continue the work on e-learning, work with identifying core survey knowledge, work with building capacity in surveying education, promote opportunities for young surveyors, promote the FIG academic membership, work with educational management and marketing, and identify educational standards and accreditation procedures.

In general the 2011-2014 work plan aims to:

- Share professional surveying education standards and accreditation
- Share core surveying knowledge
- Share good learning and teaching practices in surveying education
- Share good educational management and marketing processes
- Continue development on the FIG Surveying Education Database
- Promote FIG academic membership of universities and other educational organisations

- Promote opportunities for students and young surveyors within Commission 2 and in FIG in close co-operation with the Young Surveyors Network
- Promote cooperative education and research opportunities

The work of Commission 2 will be done through four working groups. Each of the working groups represents an area of focus in professional surveying education. During the four-year term of office workshops are planned for each of the working groups. The workshops are proposed to be held in conjunction with FIG Working Weeks, Regional Conferences and special workshops held annually with locations and dates given below. Each planned conference will focus on one or more themes from a working group.

5. Working groups

Working Group 2.1 - Curriculum and Core Survey Knowledge

Policy issues:

- Identify the necessary core surveying knowledge and technology for the education in our profession
- Identify and compare curriculum across universities and countries
- Identify the necessary changes in curricula due to the changing technology in our profession

Chair

- Bela Markus (Hungary), e-mail: mb@geo.info.hu

Vice-chair:

- Irina Fartukova (Russia), e-mail: fut-office@miigaik.ru

Specific project(s)

- Develop a guide for identifying and describing core surveying knowledge

Workshop(s)

- Participation in FIG Working Weeks and other major Commission 2 organised or co-sponsored events with dedicated technical sessions and/or workshops as appropriate.
- SAGES/FIG Workshop, University of Mayaguez, Mayaguez, Puerto Rico, July 19–22, 2011.

Publication(s)

- Summary guide for core surveying knowledge

Timetable

- Draft publications will be presented at Working Weeks during the term of this plan and according to the timetable to be developed by the Working Group Chair.

Beneficiaries

- FIG member associations, FIG Academic Members, surveying businesses, universities offering surveying programs, individual surveying academics and individual surveyors.

Working Group 2.2 – Learning and Teaching Methodology

Policy issues

- Identify the change in the teaching and learning methodology due to the changing technologies in education and in the professional practice.
- Make recommendations for future learning methods under specific circumstances (distant learning, off-the-job-training, life-long learning).

Chair

- Lisa Groenendijk (Netherlands), e-mail: groenendijk@itc.nl

Vice-chair:

- Reinfried Mansberger (Austria), e-mail: reinfried.mansberger@boku.ac.at

Specific project(s)

- Identify and share best practices in e-learning and other new educational methodologies.

Workshop(s)

- Participation in FIG Working Weeks and other major Commission events with dedicated technical sessions and/or workshops as appropriate.
- Moscow State University, Moscow, Russia, 12-18 September 2012

Publication(s)

- Changing technologies and strategies in surveying teaching methodology

Timetable

- Draft publications will be presented at Working Weeks during the term of this plan and according to the timetable to be developed by the Working Group Chair.

Beneficiaries

- FIG member associations, FIG Academic Members, surveying businesses, universities offering surveying programs and individual surveying academics.

Working Group 2.3 – Marketing and Management of Professional Survey Education

Policy issues

- Some parts of the world exhibit a declining interest by potential professionals in surveying education. Other parts of the world have an interest but few opportunities to pursue surveying education. Commercial aspects of education must be recognized but opportunities for cooperation between educational organizations and a logical, universal approach to promote professional survey education need be developed and shared.

Chair

- Chris McAlister (Australia), e-mail: madamefishfighter@rocketmail.com

Vice-chair:

- Marina Vaskovich (Sweden), e-mail: marina.vaskovich@infra.kth.se

Workshop(s)

- Participation in FIG Working Weeks and other major Commission events with dedicated technical sessions and/or workshops as appropriate.
- Workshop in Western Europe (Netherlands, Hungary?)

Publication(s)

- The Status of Surveying Education

Timetable

- Draft publications will be presented at Working Weeks during the term of this plan and according to the timetable to be developed by the Working Group Chair.

Beneficiaries

- FIG member associations, FIG academic members, surveying businesses, universities offering surveying programs and individual surveying academics.

Working Group 2.4 – Accreditation and Quality Assurance

Policy issues

- Academic accreditation of surveying education programs
- Mutual recognition of surveying education degrees

Chair

- Tim Goodhead (United Kingdom), e-mail: tim.goodhead@port.ac.uk

Vice-chair:

- Gary Jeffress (United States), e-mail: gary.jeffress@tamucc.edu

Specific project(s)

- Identifying institutions, procedures and methods used to accredit surveying educational programs

Workshop(s)

- Participation in FIG Working Weeks and other major Commission events with dedicated technical sessions and/or workshops as appropriate.
- Workshop at the University of Portsmouth, Portsmouth, England, August/September 2014.

Publication(s)

- Guide to Academic accreditation criteria for Surveying Education

Timetable

- Draft publications will be presented at Working Weeks during the term of this plan and according to the timetable to be developed by the Working Group Chair.

Beneficiaries

- FIG member associations, FIG Academic Members, surveying businesses, universities offering surveying programs and individual surveying academics.

6. Commission Officers

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Working Group 2.3 – Marketing and Management of Professional Survey Education

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Working Group 2.4 – Accreditation and Quality Assurance

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Steven Frank
Chair, FIG Commission 2
www.fig.net/commission2

February 2011

FIG Commission 3 – Spatial Information Management

Work Plan 2011-2014

1. Title

Spatial Information Management (SIM)

2. Terms of reference

- Management of spatial information about land and property (data, tools, methods, policies, processes, procedures, standards, regulations);
- Spatial data infrastructure – collection technology, integration processing, maintenance, visualization, standardization, and dissemination (technical, organizational, personnel, administrative, research, financial, policy, and legal aspects);
- Management and dissemination of knowledge and skills for SIM (educational, professional development and capacity building aspects);
- Impacts on organizational structure, business models, Public-Private-Partnerships, professional practice and administration;
- Management of spatial information supporting good governance (sustainable development, social and economic growth and poverty reduction, environment protection, democracy, freedom, participation in decision making, social security).

3. Mission Statement

The mission of Commission 3 is to:

- Increase awareness about successful SIM approaches and achievements within the “e-Society” by showing good practice like availability, reliability, efficiency and accessibility of spatial information for better decision making and processes.
- Support the use of spatial information and SIM-tools by surveyors and by all participants in decision-making to serve the goals of good governance.
- Share good practice on managerial processes and infrastructure required for data handling, using information and distributing knowledge.
- Share good practice and develop high-level methods and techniques for merging and managing updated spatial information at various levels according to market requirements.
- Establish and maintain data - and data-quality-standards relevant to SIM, while cooperating with international spatial data standard committees.
- Encourage the use of spatial information within e-government and e-commerce.
- Cooperate and coordinate with the related United Nations Committees and other geospatial information societies and organizations active in the field based on request from the Council, they key focus will be in co-operation with ISPRS (Commission IV on Geodatabases and Digital Mapping), ICA (commission on Geospatial Data Standards), GSDI, EUROGI.

4. General

Commission 3 Working Groups will focus on the contribution of spatial information for sustainable development. Commission 3 delegates have expressed their strong interest in organizing Commission 3 annual meetings and workshops focused on the specifically identified needs/topics. Commission will continue peer review option at its own symposia and by producing peer reviewed proceedings and/or special issues of international professional journals.

Commission will continue to address the phenomenon of rapid urbanization and its impacts with a particular focus on identifying spatial tools and general principles, norms and standards for good governance using reliable and accessible spatial information. It will also provide guidance to interested countries to successfully address the problem of rapid urbanization. Commission will continue the successful work presented in the FIG publication no. 48 on “Rapid Urbanization and Mega Cities: The Need for Spatial Information Management”. This activity will be continued with focusing firstly on small and medium size urban areas and cities vs. mega cities, and secondly on widening its scope in order to take into account the land aspects of SDI (sub-division and ownerships, planning and zoning, lands occupancies) – legal, technical and administrative issues.

The topics of general interest to Commission 3 are:

- Web Services and Metadata;
- SIM Infrastructure and standards;
- State of the art of SDI and GSDI;
- Technical aspects, integration of information, 2D/3D/4D applications of SDI, geo-visualization of information, seamless information management and maintenance;
- SIM applications for environmental protection, disaster management and risk assessment, social and economic growth, informal/unplanned development management;
- Transferring /sharing knowledge focusing on “low-cost” methods and tools for spatial information collection and management.

5. Working Groups

Working Group 3.1 – SIM Infrastructure

Policy Issues

SIM has the role of an integrator of components for a Spatial Information Infrastructure especially for urban areas within the information society. SIM is a facilitator for IT based services for planners, administration as well as for citizens. The topics of this activity are:

- NSDI / GSDI: Spatial Data + Information Infrastructure
- Modelling, geo-visualization
- Legal aspects in SIM
- SIM and LBS as tools:
 - Making geo-database suitable for mobile phones
 - Improve basic references (geo-referencing, transport-internet)
 - Role of surveyors in LBS
 - Share current experiences and technical visions of the future.

- Gain knowledge from industry.
- Inform future decisions and implementations.
- Inform the big picture on drivers, trends and technologies.

Chair

Prof. Dr. Hartmut Mueller (Germany), E-mail: hartmut.mueller@geoinform.fh-mainz.de

Deliverables

- FIG-publication on guidelines to establish an efficient SIM Infrastructure in urban areas addressing legal, institutional and technical issues (a joint publication together with WG 3.2). To be published at the FIG Congress 2014.

Beneficiaries

- Surveyors, associations engaged with spatial data, local and regional municipalities and users of spatial data and spatial information.

Working Group 3.2 – Technical Aspects of SIM

Policy issues:

New tools, techniques and policies are required to baseline and integrate the social, economic and environmental factors associated with spatially managing urban areas in general and cities/megacities in particular. Inter alia, to monitor growth and change across the urban environment and to forecast areas of risk – all within shorter timeframes than previously accepted. Moreover, they must be flexible enough to meet traditional needs such as land development, tenure and value applications, but be designed to be interoperable and integrate within the city wide SDI as it evolves. There is a need to have access to spatial data from wide range of sources, to integrated spatial information from the SDI and thus leading to a more joined-up, proactive decision making allowing the prioritising of scarce resources to tackle the most sensitive and risk prone areas. Within the list of sub-titles includes:

- Technical Aspects
 - Data collection, recording and updating, low-cost methods and tools for environmental monitoring,
 - Renewable and innovative technologies for data collection (photogrammetry, LiDAR, crowd sourcing, PDAs, cell-phones, etc.),
 - Visualization of information,
 - Standardization of information and metadata,
 - 2D, 3D, 4D spatial data recording and management to support the legal integration of informalities, the decision making, the risk-assessment and disaster management in areas with informal settlements,
 - Integration and update of spatial data-bases regarding ownership rights, value of real estate property, and state applied regulations and restrictions on the use rights, tools, and Land Information Systems

These technical aspects will be dealt in relation to legal, social, economic, educational, and policy implications

Chair

Prof. Dr. Ioannidis Charalabos (Greece), e-mail: cioannid@survey.ntua.gr

Deliverables

- FIG-publication on guidelines to establish an efficient SIM Infrastructure in urban areas addressing legal, institutional and technical issues (a joint publication together with WG 3.1). To be published at the FIG Congress 2014.

Beneficiaries

- Surveyors, private and public firms and associations engaged with spatial data, and users of spatial data and spatial information.

Working Group 3.3 – 3D Cadastre (Joint Working Group with Commission 7)

Policy issues:

The increasing complexity of infrastructures and densely built-up areas requires a proper registration of the legal status (private and public), which only can be provided to a limited extent by the existing 2D-cadastral registrations. Despite all research and progress in practise, no country in the world has a true 3D-Cadastre, the functionality is always limited in some manner; e.g. only registering of volumetric parcels in the public registers, but not included in a 3D cadastral map, or limited to a specific type of object with ad hoc semi-3D solutions; e.g. for buildings or infrastructure. The main objective of the working group is to establish an operational framework for 3D-Cadastres. The operational aspect addresses the following issues:

- A common understanding of the terms and issues involved. Concepts should be refined and agreed based on the ISO 19152 Land Administration Domain Model.
- A description of issues that have to be considered (and to what level) before whatever form of 3D-cadastres can be implemented. These will provide 'best practices' for the legal, institutional and technical aspects.

Topics to be dealt within the activity of the working group are:

- 3D-Cadastre: models, SDI and time
- 3D-Cadastre and the usability

Options for realization of a 3D cadastre model will include:

- Minimalistic 3D cadastre (no cables, pipelines etc.)
- Topographic 3D cadastre
- Polyhedral vs. Non-polyhedral Legal 3D cadastre
- Topological Legal 3D cadastre

Chair

Prof. Dr. Peter van Oosterom (the Netherlands), e-mail: P.J.M.vanOosterom@tudelft.nl

Deliverables

- FIG-publication on guidelines to establish 3D-cadastres (a “primer on 3D-Cadastres”), addressing legal, institutional and technical issues. To be published at the FIG Congress 2014.
- A second workshop on 3D-Cadastres - November 2011 (Delft, 10 years after the first workshop).
- In addition at the FIG working weeks, joint commission 3 and 7 sessions on 3D-Cadastres will be organized. Depending on the need and results

- A third workshop on 3D-Cadastrals could be organized in 2013 or 2014 preferably in conjunction with another FIG meeting (Working Week, commission 3/7 annual meeting, congress).

Beneficiaries

- Surveyors, land developers, national cadastral agencies, land registry administrations, local and regional municipalities.

6. Workshops

Commission 3 is planning to organize, in addition to its activity during the annual FIG Working Weeks or Congress, also four annual Workshops during the 2011-2014 term. The planned meetings are:

7. Co-operation with Sister Associations

- ISPRS Commission IV on Spatial Information Systems and Digital Mapping
- ICA - International Cartographic Association
- International Geographical Union, Commission on geographical Information Science
- GSDI – Global Spatial Data Infrastructure Association

8. Calendar of Events

- May 2011 - Marrakesh (in conjunction with FIGWW 2011)
- September 2011 - Paris, France (annual workshop)
- May 2012 - Rome, Italy (in conjunction with FIGWW 2012)
- September 2012 - annual workshop (location TBD)
- April/May 2013 - Abuja, Nigeria (in conjunction with FIGWW 2013)
- September 2013 - annual workshop (location TBD)
- May 2014 - Kuala Lumpur, Malaysia (in conjunction with XXV FIG Congress)
- September 2014 - annual workshop (location TBD)

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Yerach Doytsher

Chair, FIG Commission 3

www.fig.net/commission3

February 2011

FIG Commission 4 – Hydrography

Work Plan 2011-2014

1. Title

Hydrography.

2. Terms of reference

- Hydrographic surveying
- Offshore surveying in support of energy, environment, submarine telecommunications, ports and harbours
- Hydrographic education, training and Continual Professional Development (CPD)
- Marine Environment & Coastal Zone Management (CZM)
- Data processing and management of hydrographic data
- Nautical charting and bathymetric maps - analogue and digital, includes ENCs (Electronic Navigational Charts)

3. Mission Statement

The mission of Commission 4 is to:

- Promote the aims and objectives of FIG to hydrographers through the active involvement of national delegates from member associations and other interested parties in the activities of the commission.
- Foster closer links with all sister organisations currently active within the global hydrographic community.
- Develop guidelines and standards that will assist hydrographers in the provision of their services.
- Disseminate information relevant to the profession through participation in international meetings, conferences and committees.

4. General

Commission 4 strategy is focussed on (for example):

- The development of best practice guides in Hydrography.
- Active support and participation in FIG regional events.

5. Working Groups

Working Group 4.1 – Ellipsoidally Referenced Hydrographic Surveys (ERS)

Policy issues

- Study and report on the technical aspects of using GNSS to vertically reference hydrographic surveys to the ellipsoid
- Catalog the methods used to conduct a vertical datum transformation from the ellipsoid to vertical datums used for hydrographic and offshore surveying
- Develop uncertainty models for both of the above

Chair

Jerry Mills (USA), e-mail: Jerry.Mills@noaa.gov

Technical Expert:

David Dodd (Canada), e-mail: usmhydro.david.dodd@gmail.com

Specific project(s)

- Conduct study to determine methods/procedures for conducting ERS by various entities
- Identify methods used to conduct vertical datum transformation from the ellipsoid to the chart datum
- Develop a publication that summarizes the findings from the above studies

Workshop(s)

- Participation in FIG Working Weeks, regional conferences and other major Commission events (see Calendar of Events) with dedicated technical sessions and/or workshops as appropriate.

Publication(s)

- FIG Working Weeks will include technical papers on specific issues and presented by Working Group members and other invited experts.
- Handbook on “best practices” for the use of GNSS in vertical positioning relative to the ellipsoid for hydrographic surveying.
- Proposals for IHO Manual (in collaboration with WG 4.2).

Timetable

- Ongoing work will be reported at FIG Working Weeks during the term of this plan

Beneficiaries

- FIG member associations, hydrographic surveyors in government, industry, academia and the IHO.

Working Group 4.2 – Standards and Guidelines for Hydrography

Policy issues

- Assist in the development and recognition of standards of competency;
- Assist in the development of technical standards and guidelines;
- Cooperation with sister organizations and other appropriate bodies;

Chair

Andrew Leyzack (Canada), e-mail: andrew.leyzack@dfo-mpo.gc.ca

Specific project(s)

- Present and promote the use of standards and guidelines to the surveying community.
- Review Standards coming from ISO TC211 (and other reputable sources) for relevance to Hydrography.
- Assess the impact of international standards on current industry practice.
- Represent Commission 4 on the FIG Standards Network
- Promote recognition of professional pathways.
- Review IHO and other Manuals of Hydrography

Workshop(s)

- Participation in FIG Standards Network meetings and other major Commission events (see events section below).

Publication(s)

- FIG Working Weeks will include technical papers and/or reports to the FIG Standards Network on emerging standards, guidelines and specific issues.
- Ongoing contribution to the maintenance of the FIG Guide on Standardisation.

Timetable

- Ongoing work will be reported at FIG Working Weeks during the term of this plan and according to a timetable to be developed by the Working Group Chair.
- Working group to present a final report at FIG Congress, 2014.

Beneficiaries

- FIG Standards Network
- Sister organizations and other (national) agencies.
- FIG member associations, surveyors in industry and government, academia
- Instrumentation and software producers.

Working Group 4.3 –Multi-Sensor Systems for Hydrographic Applications

Policy issues

- Assist in the development of technical guidelines for sensor integration (best practises).
- Cooperation with sister organizations and other appropriate bodies (e.g., IHO, IMO).
- Cooperation with other FIG Commissions (e.g., Commission 5).

Chair

Prof. Dr. Volker Böder (Germany), Email: volker.boeder@hcu-hamburg.de

Specific project(s)

- Liaise with working group 4.2 to upholding the standards of hydrography.
- Report on the development, possibilities and limitations of new technologies
- Organization of a Symposium with the working title "Integrating Sensors in Hydrography"

- Assist in the development of technical guidelines for sensor integration (e.g. - hydrographic sensors and their characteristic descriptions (e.g., function, accuracies, etc.):
 - sensor coordinate systems;
 - algorithms;
 - calibration procedures;
 - interoperability of sensors for surveying
 - quality management.

Workshop(s)

- Participation in FIG Meetings and other major Commission events.
- Organization of a Symposium with the working title "Integrating Sensors in Hydrography".

Publication(s)

- FIG guidelines/statement for/on Multi-Sensor Systems.
- Proposals for IHO Manual (in collaboration with WG 4.2).

Timetable

- Draft publications will be presented at FIG Working Weeks during the term of this plan and according to a timetable to be developed by the Working Group Chair.
- Symposium "Integrating Sensors in Hydrography" (working title) 2012.
- Working group final report: dedicated session, FIG congress, 2014.

Beneficiaries

- FIG member associations, manufacturers and users of survey equipment, governments, standardisation organisations, decision makers, surveying businesses, individual surveyors.

Working Group 4.4 – Maritime and Marine Spatial Information Management

Policy Issues

- Assist in the development and promotion of marine and coastal spatial information management issues supported by hydrography and hydrographic data and information.
- Cooperation with sister organizations and other appropriate bodies.
- Cooperation with other FIG Commissions.

Chair

Dr. Michael Sutherland (Canada and Trinidad & Tobago), e-mail:

michael.d.sutherland@unb.ca

Specific project(s)

- Cooperate with, and represent the interests of FIG Commission 4 to, IMO in the development of an e-Navigation data framework (e.g., harmonization of data models among stakeholders).
- Cooperate with IHO on the continuing development and expansion of S-100 to support hydrographic- and hydrographic-related spatial information management.
- Cooperate with appropriate stakeholders (e.g., IHO-MSDIWG) on the development of concepts and principles that impact and are impacted upon by hydrography (e.g., MSDI,

marine spatial planning and management, marine data models and applications, marine cadastre etc.).

- Present and promote the above concepts, principles and outcomes to the international surveying community.

Workshop(s)

Participation in / contribution to:

- FIG Working Weeks, regional conference with dedicated technical sessions and/or Workshops as appropriate;
- International hydrography-related workshops and events.

Publication(s)

- Possible publication(s) on MDSI, and marine spatial information management.

Timetable

- Working Group Chair will make reports at FIG Working Weeks (2011-2013).
- Working group to present a final report at FIG Congress, 2014.

Beneficiaries

- International maritime community;
- Sister organizations and other (national) agencies;
- FIG member associations, surveyors in industry and government, academe;
- Marine spatial information management community.

Working Group 4.5 – Hydrography in Africa

Policy issues

- To raise the awareness of hydrography in all African countries.
- To make available its potentials to various countries (Africa).
- To enunciate its potentials as a vital component and catalyst to nation building.
- To promote free exchange of information among all those engaged in Hydrography.

Chair

Angela Etuonovbe (Nigeria), e-mail: aetuonovbe@yahoo.com

Specific project(s)

- Organize seminars and workshops on the potentials of hydrography in several countries.
- Promote recognition of hydrography by organizing charity walks.
- Communicate the activities of Commission 4 and other FIG events to African member countries.
- Liaise with working group 4.2 to uphold the standards of hydrography.

Workshop(s)

- Represent working group 4.5 and introspect FIG in world hydrographic events.
- Work with FIG Task Force on Africa, as agreed with its leadership, and represent the interest of Commission 4.

Publication(s)

- Report all events / activities carried out by the working group.
- FIG working weeks will include technical papers on specific issues and presented by working group members and other invited experts.

Timetable

- Ongoing work will be reported FIG Working Weeks during the term of this plan and according to a timetable to be developed by the Working Group Chair.
- Working group to present a final report at FIG Congress, 2014.

Beneficiaries

- FIG member- and Sister Associations involved in hydrography.
- Policy makers and Hydrographers
- Surveyors in industry and Government
- Universities and educational Organizations.

6. Co-operation with Sister Organisations

6.1 FIG and IHO¹

Commission 4 currently represents FIG on the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC)² jointly with IHO and ICA. The commission will also support the IHO in its Capacity Building Initiatives with representation on the IHO Capacity Building Committee (CBC). Commission 4 will also support the IHO on any appropriate technical initiatives.

6.2 FIG and the International Federation of Hydrographic Societies (IFHS)³

Commission 4 continues to cooperate with the IFHS and will continue to lend its support towards sponsoring IFHS conferences and other initiatives. It is important for Commission 4 to maintain contact with all national Hydrographic Associations (whether members of the IFHS or not) to foster communications and cooperation for the betterment of the profession.

¹ FIG and IHO cooperate under a Memorandum of Understanding (MOU) which was signed in Athens, May 2004. Our liaison is IHB Director, Hugo Gorziglia.

² The role of the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) is to develop and up-date international standards of competence for Hydrographic surveyors and to review the academic programme of educational institutions that are seeking IHO accreditation of their Hydrographic training courses. The IBSC is composed of 4 representatives from FIG, 4 from IHO and 2 from the ICA. Our liaison officer with the IBSC is Gordon Johnston.

³ FIG and the International Federation of Hydrographic Societies (IFHS) cooperate under a MoU which was signed in Cairo, April 2005. The task has been mandated to Commission 4. FIG liaison with the IFHS is Simon Ironside.

7. Co-operation with the United Nations agencies

Commission 4 will participate in co-operation with the United Nations agencies on topics that are related to commission expertise (e.g. marine cadastre, data framework for e-Navigation etc.) and on guidance by FIG Council.

8. Cooperation with other FIG Commissions

Commission 4 will, for example, collaborate with Commission 5 to review and revise (where required) FIG Publication 37, Vertical Reference Surface for Hydrography. Commission 4 will also collaborate with other FIG Commissions as appropriate.

9. Representation to FIG Networks and Task Forces

Commission 4 will appoint representatives to the following FIG initiatives:

- Africa Task force
- Standards Network
- Climate Change Task Force
- National and International Boundaries

10. Other Activities

Commission 4 will maintain and develop the commission's web page, with linkages to other relevant home pages and new pages or other networks for special projects, to keep commission delegates, the Hydrographic community and the public involved in and informed about the work of the commission. Commission 4 will also contribute editorials, reports and articles to Hydrographic publications including but not restricted to the Hydrographic Journal, Hydro International, The Hydrographic Review, Sea Technology and Lighthouse. Commission 4 will publish a newsletter at least once a year.

11. Calendar of Events

2011

- 11th International LiDAR Mapping Forum 2011, 07-09 February, New Orleans, Louisiana, USA
- Ocean Business 2011, 5-7 April, Southampton, UK
- U.S. Hydrographic Conference 2011, 25-28 April, Tampa, Florida U.S.A
- FIG Working Week, 18-22 May, Marrakech, Morocco
- 11th South East Asian Survey Congress, 22-24 June, Kuala Lumpur, Malaysia
- Second International FIG Workshop on 3D-Cadastres, 16-18 November 2011, Delft, the Netherlands
- Hydro 2011, 7–10 November, Fremantle, Western Australia.

2012

- Shallow Survey Conference 2012, 20-24 February Wellington, New Zealand
- Oceanology International 2012, March 13 -15, Excel Centre, London, UK
- IHO, April 2012, Rainier Centre, Monaco

- FIG Working Week, 6-11 May, Rome, Italy
- Canadian Hydrographic Conference, 14-17 May, Niagara Falls, Canada

2013

- FIG Working Week, April/May, Abuja, Nigeria

2014

- FIG XXIV Congress, May/June, Kuala Lumpur, Malaysia

12. Commission Officers

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Working Group 4.3 – Optimizing Multi-Sensor Systems for Hydrographic Applications

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Working Group 4.4 – Maritime and Marine Spatial Information Management

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Working Group 4.5 – Hydrography in Africa

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Michael Sutherland
Chair, FIG Commission 4
www.fig.net/commission4
January 2011

FIG Commission 5 – Positioning and Measurement

Work Plan 2011–2014

1. Title

Positioning and Measurement

2. Terms of Reference

- The science of measurement (instrumentation, methodology and guidelines)
- The acquisition of accurate and reliable survey data related to the position, size and shape of natural and artificial features of the earth and its environment and including variation with time.

3. Mission statement

The mission of Commission 5 is to:

- focus on modern technologies, technical developments and assist surveyors, engineers and GIS/LIS professionals through guidelines and recommendations, to choose and utilise those methods, technologies and instruments that are most appropriate to different applications.
- facilitate and follow technical developments through collaboration with other FIG Commissions and other international organisations; participation in appropriate meetings; and the preparation of appropriate publications.
- foster and support research and development and stimulate new ideas in the fields of expertise represented within the commission.
- formulate and formalise collaboration with manufacturers on the improvement of instrumentation and associated software.
- FIG Events - present and promote the work of the Commission and its working groups on an on-going basis at FIG Working Weeks, FIG Regional Conferences and other relevant technical meetings and in appropriate FIG and other media.

4. General

This work plan covers the development, use and integration of technologies for positioning and measurement and the associated standardisation, best practice and fundamental reference frame issues. Many of the issues are global in nature and Commission 5, along with many other associations, are well suited to tackle the technological challenges that we face. FIG Council has also requested the Commission 5 to cooperate with the United Nations agencies to address global problems such as sustainable development and humanitarian needs, where disciplines covered by Commission 5 are at the heart of delivering solutions for the spatial aspects of these important global problems. Specific activities aimed at developing countries include examination of Low Cost Surveying Technologies, assistance with implementation of

modern Geodetic Reference Frames and associated infrastructure and contribution to appropriate Continuing Professional Development programmes.

In addition to the specific activities above, Commission 5 will support and contribute to FIG Task Forces and Networks, especially to the Standards Network.

5. Working Groups

Working Group 5.1 – Standards, Quality Assurance and Calibration

Policy Issues

- Influence the development of standards affecting positioning and measurement instruments and methods, in collaboration with the FIG Standards Network and through participation in the relevant technical committees (TCs) of the International Standards Organisation (ISO) and other appropriate bodies.
- Acceptance controls, quality assurance and certification and their impact on the surveying profession.
- Testing and calibration of measuring instruments.
- Assist other Commission Working Groups to implement Standards from TC 172/SC 6 and ISO TC211 as appropriate.

Chair

David Martin (France), e-mail: david.martin@esrf.fr

Specific project(s)

- Develop a summary guide on instrument testing following the principles laid out in the ISO standards related to Optics and optical instruments – Field procedures for testing geodetic and surveying instruments.
- Present and promote the use of standards and guidelines to the surveying community.
- Establish guidelines and recommendations for instruments taking into account latest development in surveying technology.
- Promote guidelines and recommendations based on the ISO Guide to Uncertainty of Measurements (GUM) and its supplements.
- Review Standards coming from ISO TC211 for relevance to Positioning and Measurement.

Workshop(s)

- Participation in FIG Working Weeks and other major Commission events (see events section below) with dedicated technical sessions and/or workshops as appropriate.

Publication(s)

- Summary guide on instrument testing following the principles laid out in the ISO standards related to Optics and optical instruments - Field procedures for testing geodetic and surveying instruments.

Timetable

- Draft publications will be presented at FIG Working Weeks during the term of this plan and according to a timetable to be developed by the Working Group Chair.

- Realising tutorials and workshops on topics of interest and related questions during the whole period
- Facilitating special sessions in FIG events (FIG Congress, FIG Working Weeks, and FIG Regional Conference) as well as other special events when appropriate.
- Working group final report and outcomes will be presented at dedicated session, FIG Congress, 2014.

Beneficiaries

- FIG member associations, manufacturers and users of survey equipment, governments, standardisation organisations, decision makers, GIS developers and users, surveying businesses, individual surveyors.

Working Group 5.2 – Reference Frames

Policy issues

- Work to bring together all organisations involved in defining or using reference frames to develop common approaches and avoid duplication. Such organisations include FIG, the International Association of Geodesy (IAG), ISO, groups of national mapping agencies, other influential national agencies (such as the US Department of Defence's National Geospatial-Intelligence Agency (NGA), which is responsible for WGS84.) and alliances of commercial organisations (such as Open GIS Consortium and the European Petroleum Survey Group).
- Continue the existing co-operation with IAG on the Regional Reference Frame Projects such as AFREF, APREF, EUREF, NAREF, and SIRGAS.
- Consider options for the development and implementation of 4-dimensional datums that incorporate the effects plate tectonic and regional effects such as those due to earthquakes or local effects such as landslides.
- Provide background technical information on relevant issues written in a way that is accessible to the surveying practitioners.
- Develop an inventory of approaches to reference frame issues in different countries (including transformation methodologies) that is accessible to surveying practitioners.
- Examine how surveying practitioners can access the reference frame, through less emphasis on networks of ground monuments and more emphasis on Global Navigation Satellite Systems (GNSS) base stations.
- Provide information on the maintenance of CORS networks to ensure long-term stability
- Liaise with Commission 4 to review, revise and update FIG Publication 37, Vertical Reference Surface for Hydrography

Chair

Graeme Blick (New Zealand), e-mail: gblick@linz.govt.nz

Specific project(s)

- Initiate, contribute and facilitate meeting(s) of all organisations involved in defining or using (regional) reference frames to develop common approaches and avoid duplication.
- Continue development of Technical Fact Sheets that briefly explain basic concepts, practical applications and issues and which summarise the activities of organisations with specific responsibilities in the field.

- Ensure terminology used in above publications conform to and give substance to the relevant Standards coming from ISO TC211.
- Begin a forum to discuss the implementation of 4 dimensional datums.
- Ensure that the working group web page is updated and accessible.

- Workshop(s)
- Participation in FIG Working Weeks, FIG Regional Conference and other major Commission events (see events section below) with dedicated technical sessions and/or workshops as appropriate.
- Realising tutorials and workshops on topics of interest and related questions during the whole period.
- Facilitating Special Sessions on FIG events like FIG Congress, FIG Working Weeks, and FIG Regional Conference as well as on additional special events like ICG meetings as well as IAG-symposium.

Publication(s)

- Maintaining and developing the Web page
- FIG Working Weeks will include technical papers on specific issues and presented by Working Group members and other invited experts.
- Technical Fact Sheets as outlined above.

Timetable

- Draft publications will be presented at FIG Working Weeks during the term of this plan and according to a timetable to be developed by the Working Group Chairs.
- Working group final report and outcomes will be presented at dedicated session, FIG Congress, 2014.

Working Group 5.3 – Geodetic and Positioning Infrastructure

Policy issues

- Examine the positioning services using CORS.
- Examine various positioning techniques using GNSS
- Examine existing automated positioning software via WWW
- Real time networks
- GNSS products and advancements
- Provide FIG input during planning and implementation phases associated with programs of GPS Modernisation and GNSS Development.

Chair

Neil D. Weston (USA), e-mail: Neil.D.Weston@noaa.gov

Specific project(s)

- Report on the development, possibilities and limitations of new technologies (e.g. via web pages) for surveyors regarding GNSS infrastructure and Positioning techniques.
- Prepare guidelines for practitioners on making the best use of systems to achieve the results required for particular applications.
- Realising tutorials and workshops on topics of interest and related GNSS positioning techniques.

- Facilitating Special Sessions in FIG Events (FIG Congress, FIG Working Weeks, and FIG Regional Conferences) as well as other special events when appropriate.
- Develop FIG input to GPS Modernisation and GNSS Development.
- Provide a yearly summary on milestones achieved with regard to GNSS infrastructure (constellations, signals etc.).
- Collaborate with other Commissions and other international organisations (including IAG and ISPRS) and with equipment, software and service providers.
- Continue commitment to relevant inter-disciplinary events including the series of Symposia on Machine Guidance and Control (joint with IAG and ISPRS).

Workshop(s)

- Participation in FIG Working Weeks and other major Commission events (see events section below) with dedicated technical sessions and/or workshops as appropriate.

Publication(s)

- Guidelines on making the best use of emerging systems.
- Guidelines for practitioners on making the best use of systems to achieve the results required for particular applications.
- Yearly summary on milestones achieved with regard to GNSS infrastructure (constellations, signals etc.).

Timetable

- Draft publications will be presented at FIG Working Weeks during the term of this plan and according to a timetable to be developed by the Working Group Chair.
- Working group final report and outcomes will be presented at dedicated session, FIG Congress, 2014.

Beneficiaries

- FIG member associations, manufacturers and users of survey equipment, governments, standardization organizations, decision makers, GIS developers and users, surveying businesses, individual surveyors.

Working Group 5.4 – Kinematic Measurements

Policy issues

- Bring to together practitioners, instrument manufactures and scientists that deal with kinematic measurements
- Maintaining contact with instrument and sensor manufactures to provide state-of-the-art information to the users
- Co-operation with Commission 6 WG “Machine Guidance and Control”
- Co-operation with study groups IC-SG2 and IC-SG3 of the Inter-commission Committee on Theory (ICCT) of the International Association of Geodesy

Chair

Volker Schwieger (Germany), e-mail: volker.schwieger@iagb.uni-stuttgart.de

Specific project(s)

- Publications (e.g. via web) and a special issue in a well-known scientific journal about the following topics:
 1. Kinematic aspects of geodetic instruments like total stations and GNSS receivers as well as with typical kinematic sensors like inertial measurement units, odometers, etc.
 2. Time issues like synchronisation and dead time.
 3. Integration of different sensors to Multi-Sensor-Systems.
 4. Quality of integrated kinematic measurements

Workshops

- Realising tutorials and workshops on interesting topic related questions during the whole period.
- Facilitating Special Sessions on FIG events like FIG Congress, FIG Working Weeks, and FIG Regional Conference
- Facilitating on additional special events, e.g. Mobile Mapping Technology Symposium, Krakow, Poland, 2011, 1st International Workshop on the Quality of Geodetic Observation and Monitoring Systems, Munich, Germany, 2011 and 3rd International Conference on Machine Guidance and Control in Stuttgart, Germany, 2012.

Publications

- Technical papers at Working Weeks, Regional Conference and Commission 5 symposia and workshops
- Providing technical background information (e.g. via web pages) for surveyors dealing with kinematic tasks and applications during the whole period.
- Providing a Special Issue of a well-known scientific journal e.g. the Journal of Applied Geodesy in 2013/14

Timetable

- Working group final report and outcomes will be presented at dedicated session, FIG Congress 2014.

Beneficiaries

- FIG member associations, manufacturers and users of survey equipment, decision makers, surveying businesses, individual surveyors, scientists.

Working Group 5.5 – Ubiquitous Positioning (Joint Working Group with Commission 6)

Policy issues

This group, which is a joint working group between FIG and IAG, will focus on the development of shared resources that extend our understanding of the theory, tools and technologies applicable to the development of ubiquitous positioning systems. It has a major focus on;

- Performance characterization of positioning sensors and technologies that can play a role in the development of ubiquitous positioning systems
- Theoretical and practical evaluation of current algorithms for measurement integration within ubiquitous positioning systems.

- The development of new measurement integration algorithms based around innovative modeling techniques in other research domains such as machine learning and genetic algorithms, spatial cognition etc.
- Establishing links between the outcomes of this WG and other IAG and FIG WGs (across the whole period)
- Generating formal parameters that describe the performance of current and emerging positioning technologies that can inform FIG and IAG members.

Co-Chairs

Allison Kealy (Australia), FIG, e-mail: a.kealy@unimelb.edu.au and Guenther Retscher (Austria), IAG, email: guenther.retscher@tuwien.ac.at

Workshops

To be held in conjunction with Mobile Mapping Technologies (MMT) Symposium, Krakow, Poland 2011

Further activities:

- Participation in FIG Working Weeks and other major Commission events (see events section below) with dedicated technical sessions and/or workshops as appropriate.
- Several papers submitted by working group participants to FIG meeting in Morocco, 2011.
- Several papers to be submitted by working group participants to MMT, Poland, 2011.
- New algorithms for dynamic modeling and data fusion in real-time underway.
- Website for sharing code and data to be established

Publications

- Technical Papers at Working Weeks, Regional Conference and Commission 5 Symposia and Workshops
- Reporting on the performance characteristics of a broad range of MEMS inertial sensors derived from extensive practical testing and benchmarking. (2011-2012)
- Reporting on performance characterization of positioning technologies the development, possibilities and limitations of new technologies. (across the whole period)
- Establishing components of an open source platform for researchers to rapidly deploy sensors as well as evaluate and develop integration algorithms. (across the whole period)
- Developing and report on taxonomy for users of ubiquitous positioning systems that shows the performance capabilities of sensors and typical applications. (across the whole period)

Timetable

- Working group final report and outcomes will be presented at dedicated session, FIG Congress, 2014.

Joint Study Group 6.2.2 on Laser Scanning jointly with Commission 6 (Commission 6 has lead and work plan is described in Commission 6 work plan)

6. Co-operation with Other Commissions and organisations

- Study Group 6.2.2 – Laser Scanning (Commission 6 has the lead)

- Working Group 5.5 – Ubiquitous Positioning Systems (Commission 5 has lead)

Commission 5 will collaborate with Commission 4 to review and revise (where required) FIG Publication 37, Vertical Reference Surface for Hydrography.

Commission 5 will also collaborate with other FIG Commissions as appropriate.

7. Co-operation with United Nation Organisations, Sister Associations and other Partners

Commission 5 is the lead Commission for the Memorandum of Understanding between FIG and the United Nations Office for Outer Space Affairs (UN-OOSA). ICG (International Committee on GNSS) will be the focus of cooperative activities from 2011 to 2014. FIG is co-chairing the Task Force on Geodetic Reference Systems together with IAG and IGS.

Commission 5 is also committed to cooperation with sister associations, especially the International Association of Geodesy (IAG) with which FIG has a Memorandum of Understanding. Commission 5 has also specific liaison interest with the International Society for Photogrammetry and Remote Sensing (ISPRS) and the Permanent Committee on GIS Infrastructure Asia Pacific (PCGIAP). The Commission 5 Steering Committee will ensure that Working Group activities and Commission 5 events further these goals of cooperation with sister associations. For example Commission 5 endeavour to assist with projects, create publications and facilitate events that are agreed with IAG on topics such as:

- AFREF - African Reference Frame
- APREF - Asia Pacific Reference Frame
- Reference systems/ frames,
- GNSS CORS and the use of IGS products
- Mobile Mapping Technology
- Optical 3-D Measurement Techniques
- Deformation Measurement
- Ubiquitous Positioning (together with FIG Commission 6)
- Vertical Reference Systems

Commission 5 is also committed to the Cooperation Agreement with the US based Institute of Navigation (ION) and will undertake activities as agreed with ION, especially in relation to GNSS.

8. Commission Officers

Commission Chair

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Mikael Lilje
Chair, FIG Commission 5
www.fig.net/commission5

January 2011

Commission 6 – Engineering Surveys

Work Plan 2011-2014

1. Title

Engineering Surveys.

2. Terms of Reference

- Acquisition, processing and management of topometric data and all related information throughout the life cycle of a project (at construction site)
- Quality control and validation for civil engineering constructions and manufacturing of large objects (method statements)
- Modern concepts for setting-out and machine guidance
- Deformation monitoring, analysis and interpretation, measurement of dynamic loaded structures (general)
- Prediction of deformation and movements in engineering projects, mines and areas of geological hazard such as land slides, subsidence etc
- Automatic measuring systems, construction and industry and multi-sensor measuring systems
- Terrestrial laser systems, their usage in architecture, civil engineering and industry including automated periodic measurements in order to measure track movements
- Industry measuring system metrology, testing and quality control
- Standards related to the construction, deformation measurement and measuring system metrology

3. Mission Statement

The mission of Commission 6 is to:

- promote the knowledge, skills and abilities of surveyors in civil and industrial works within the various professional fields of engineering
- support all development and multidisciplinary expertise leading to integrated survey methods, using various instruments (geodetic, geotechnic, fast motion) and sensors and combining geometry with all other data relevant to each engineering problem
- provide a forum for exchange of knowledge related to engineering analysis of survey data for the study of structures
- in addition to the links with related WGs of IAG, ISM and ISPRS, look for possible co-operation within these organisations and support the co-operation of civil, structural and mechanical engineers with our profession
- participation with ICOLD (International Committee on Large Dams) national committees
- participation on the FIG Standards Network on standardisation policy, support the standardisation activities at the international, local and national level, and development of standards and method statements

- participation on regional FIG events, and events organised in co-operation with sister organisations.

4. General

This Working Plan covers a wide scale of survey disciplines related to plants, installations and constructions of any kind. Commission 6 wants to promote:

- development of international standards and qualifications,
- development of best practice guides in Engineering Surveys,

Commission 6 will consist of three Working Groups and one joint working group with Commission 5. Commission 6 has study groups on specific issues and these could also be used for the FIG contribution to respond to global warming and disaster management.

The Council has requested Commission 6 to consider establishing a Memorandum of Understanding with the Institution of Civil Engineers (ICE).

5. Working Groups

Working Group 6.1 – Deformation Measurements and Analysis

Policy Issues

Deformation studies in Engineering Surveying are based on a broad knowledge of suitable sensors and their potential, modern data storage and communication solutions and advanced processing and analysis methods. Additionally a thorough understanding of the behaviour of monitoring objects (large scale structure or landslide effected area), is essential to set-up and operate an optimum monitoring system. Nowadays deformation tasks are more and more oriented towards real-time systems, which require automation of data capture and new concepts in data processing, analysis and interpretation.

WG6.1's main goals will be to support specialists in deformation studies with state-of-the art solutions and provide latest developments and future oriented concepts:

- Promoting studies on the potential of existing and new sensors to determine geometric deformation quantities from surveying and adjacent fields such as geotechnics;
- Promoting the development of concepts for automated data storage, data transfer and data pre-processing;
- Promoting the adaptation of numerical algorithms to derive relevant deformation quantities in real-time, including concepts from time series analysis;
- Promoting a multidisciplinary collaboration between surveying, structural and geotechnical engineers to understand the behaviour of structures and geotechnical objects;
- Study of most modern concepts for data analysis like artificial neural networks, fuzzy logics and generic algorithms;
- Initiate investigations to extend the range of deformation studies to higher frequencies, which are important in Structural Health Monitoring, i.e. to be able to study oscillations and vibrations and their effects on critical structures;

Chair

Prof. Dr. Wolfgang Niemeier (Germany), e-mail: w.niemeier@tu-bs.de

Secretary:

Dr.-Ing. Björn Riedel (Germany), e-mail: b.riedel@tu-bs.de

Specific Projects

- Prepare reports on State-of-the-Art for typical deformation tasks (e.g. dams, bridges, high buildings, landslides, rock-fall, ...);
- Comparison of most modern instrumentation for automated deformation measurements;
- Comparison of concepts from artificial intelligence for deformation analysis;
- Case studies: For a typical data set of continuous observations, which has to be defined, different analysis concepts and tools have to be applied.

Workshops/Symposia

- 14th International Symposium on Deformation Measurements, Hong Kong, Nov. 2011
 - 15th International Symposium on Deformation Measurements, Europe (Hamburg ?), 2014
- These symposia will continuously be organised as joint symposia with IAG/ WG 4.2,

Publications

- Proceedings of the meetings (it is intended to have peer reviewed proceedings)

Beneficiaries

- Surveying professionals dealing with all aspects of deformation studies
- Surveyors interested in most modern, automated instrumentation
- Geologists, structural and geotechnical engineers concerned with deformation tasks

Study Groups:

For each of the specific projects, given above, a study group could be initiated.

Working Group 6.2 – Engineering Surveys for Construction Works and Structural Engineering

Policy Issues

- Promoting the use of adapted survey techniques in industry & engineering;
- Promoting a multidisciplinary collaboration between survey engineers, civil engineers, structural & mechanical engineers;
- Promoting the use of adapted survey techniques in the rail and railway building and operating sector;
- Promoting the understanding of fibre optic sensors, e.g. interferometric sensors, Brillouin and Raman scattering and Bragg gratings;
- Study the use of embedded sensor arrays and the role of advanced surveying techniques for structural monitoring;
- Creating an awareness of surveyors through a task force “Fibre optic sensors” of the rapidly emerging technology of fibre optic sensors as "non-geodetic" sensors to measure deformations (strain) and temperatures in civil engineering structures
- Promoting the use of Terrestrial based RF positioning system in engineering surveying;
- Creating an awareness of surveyors through a task force “Geotechnical sensors” as the trend today is going for an integration of those sensors in the geodetic deformation analysis.

- Creating an awareness of surveyors through a task force “Railways Trolley monitoring system.

Chair

Joël van Cranenbroeck, Leica Geosystems AG (Belgium), e-mail:
joel.vancranenbroeck@leica-geosystems.com

Vice Chair

Prof. Esmond C.M. Mok, Department of Land Surveying & Geo-Informatics
The Hong Kong Polytechnic University (Hong Kong SAR, China, e-mail:
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Specific Projects

- Precise methods and equipment for staking out during construction and structural works;
- QC and documentation for as build compared to as designed;
- Precise methods and equipment for Engineering surveys for visualisation and photo match;
- Precise methods and equipment for remote surveys. (Terrestrial laser scanners etc.)
- Dynamic Monitoring of Buildings and Structures during and after construction;
- Offshore construction surveys;
- Integration of sensors for engineering surveys;
- Rail track setting out and monitoring;
- Railway infrastructure (trolley system).

Workshops

- Regular symposia and exchanges between researchers and concerned professionals

Publications

- Proceedings of the meetings (by the host).

Beneficiaries

- Surveying profession becoming involved in this developing technology which will partly replace current geodetic techniques;
- Surveyors wanting to acquire information about fibre optic sensors as used in "smart civil Engineering structures";
- Surveyors wanting to acquire information about geotechnical sensors as used in engineering structures such as dams;
- Engineers who has to decide about the best techniques to monitor civil engineering structures;
- Universities teaching advanced sensor technology.
- Engineering surveyors and engineers involved with construction and setting out will benefit, as well as structural engineers, current buildings and future building designs.

Study group 6.2.1 Fibre Optic Sensors

Chair

Dr. Helmut Woschitz (Austria), email: helmut.woschitz@tugraz.at

Activities

- technical meeting in Graz
- 2-day conference or workshop in Germany
- Publication on Marketing of fibre optic sensors, possible.

Study Group 6.2.2 Laser Scanners (Joint with Commission 5)

Chair

Dr Ivo Milev, Germany, email: ivo.milev@technet-rail.de

Activities

- Innovative Technologies for an efficient geospatial management of earth resources 5-7 September, 2011 Ulaanbaatar, Mongolia
- Innovative technologies (2012 Uzbekistan)

With main topic: laser scanning for geospatial management of earth resources

Study Group 6.2.3 Ground Based Synthetic Aperture Radar

Chair

Prof Alessandro Capra, Italy, email: alessandro.capra@unimore.it

Activities

- Installation and replacement of the instrument for landslides and structures monitoring:
 - Time series analysis of periodic campaigns putted together (temporal decorrelation investigation);
 - Installation site and monuments: control of stability, refraction of glass/plexiglass.
- Integrated monitoring systems:
 - Geo-referencing, overlapping with high resolution DTM, GIS application;
 - Data comparison and validation with other sensors (Total station, GPS, ...);
 - Integration with others long range techniques and comparison of the respective accuracies;
 - Real time or near real time processing for early warning monitoring systems, possibility and future developments.

The issues will be developed in Technical Meeting and/or Congress that will be held in Italy.

Study Group 6.2.4 Geotechnical Sensors

Chair

Dr. Marco di Mauro, Switzerland, email: marco.dimauro@lgs-geo.it

Activities

- technical meeting in Italy
- 2 day congress in Germany
- PR for this technique, whenever possible.

Study group 6.2.5 Railway Surveying Techniques

Chair

Mr. Carlo Bonanno, Leica Geosystems, Italy, email: carlo.bonanno@leica-geosystems.it

Activities

- technical meeting in Italy and Switzerland
- 2 day congress in Italy
- PR for this technique, whenever possible

Working Group 6.3 – Machine Control and Guidance (MCG)

Policy Issues

The importance of real-time 3D-position sensors for navigation of machinery on construction sites of roads, tunnels, railways, and airports has increased over the last years and the market is still growing. Also in the field of agriculture GPS-based applications such as crop mapping and automatic steering are well introduced. The new FIG Working Group 6.5 will intensively deal with following topics:

- Kinematic Measurement and Sensor Technology (focus on L1 RTK Cost systems, adjustments of total station MCG requirements, additional Sensor like Slope Sensors, INS, Orientations Sensors, etc.),
- 3D-Applications (Agriculture, Construction, Special Applications e.g. UAVs),
- Multi-Sensor Systems and -platforms
- MCG Data Processing and Data Flow
- Control Process and Control Algorithm
- Standardization of Major Construction Projects

The main goal of Working Group 6.3 is the interaction of research and industry activities.

Chair

Prof. Dr.-Ing. Werner Stempfhuber (Germany), e-mail: Stempfhuber@beuth-hochschule.de

Vice Chair

Karl Soar, Hexagon Machine Control Division (United Kingdom), e-mail: karl.soar@hexagon-machine-control.com

Specific project(s)

- Regular symposia and exchanges between researchers and concerned professionals
- Expert Meetings during the exhibitions “Intergeo”, “World of Concrete”, “World of Asphalt”, “Agritechnica” and “Bauma”

Workshop(s)

- 3rd MCG Conference 2012 in Stuttgart
- 4th MCG Conference 2014 in Berlin
- *DVW Symposium “Interdisziplinäre Messaufgaben im Bauwesen“* – Weimar, Germany 2011
- *DVW Symposium - Kinematische Messmethoden "Vermessung in Bewegung"* Berlin, Germany, 2012
- Chartered Institution of Civil Engineering Surveyors' XCES annual conference

- Interaction with ION projects
- Contributions to FIG conferences and various joint meetings

Publication(s)

- Proceedings of the meetings (by the host)

Beneficiaries

- Due to new geodetic sensors (GNSS) and low cost sensors new application fields will emerge. In this respect close collaboration and regularly exchange between research departments of companies, users and academia is essential
- Standardization
- Technology transfer and networking
- Advising hard and software components
- Introduction of machine control and guidance into academic curricula

Study Groups

For each of the specific projects, given above, a study group could be initiated.

6. Co-operation with Other Commissions and organizations

Joint Working Groups

Working Group 5.5 – Ubiquitous Positioning Systems (Commission 5 has lead and work plan is described in Commission 5 work plan)

Study Group 6.2.2 Laser Scanners (Joint with Commission 5, Commission 6 has lead)

7. Co-operation with United Nation Organisations, Sister Associations and other Partners

The Council has asked Commission 6 to take responsibility on the implementation of the MoU with the International Association of Mine Surveying (ISM).

8. Meetings

Meetings have been listed under each Working Group and Study Group.

Commission 6 is considering organising a meeting or workshop in China.

9. Commission Officers

Chair

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Gethin W. Roberts
Chair, FIG Commission 6
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February 2011

Commission 7 – Cadastre and Land Administration

Work Plan 2011–2014

1. Title

Cadastre and Land Administration

2. Terms of Reference

Commission 7 deals with land administration and land rights infrastructures in a sustainable development perspective:

- cadastre and land registration
- land reform, cadastral reform, land consolidation
- land governance
- land use and land management
- land valuation and land taxation
- security of tenure
- land policy and land legislation
- land market
- capacity building in land administration
- e-governance
- low cost technology in land administration

3. Mission

The mission of Commission 7 is to:

- To provide a forum for enhancing and exchanging knowledge about cadastre, land administration and land management world wide;
- To encourage the development of pro poor land management and land administration;
- To promote the importance of development of sustainable land administration as infrastructure for sustainable development to underpin economic growth;
- To promote the application of innovative and advanced technology in cadastre and land administration;
- To promote awareness of the role of surveyors in land administration matters to the public and among stake holders.

4. Priorities

For the period 2011-2014, FIG Commission 7 priorities will focus in:

- promoting land rights infrastructures and good land governance to contribute to sustainable development
- developing a better preparedness and response to natural disaster and climate change
- developing a better cooperation between land surveyors aiming to improve the capacity and governance in land administration

- developing cadastral perspectives
- investigating direct involvement of citizens into e-land administration processes
- co-operating with international organizations in land tenure issues

5. Working Groups

Working Group 7.1 – Pro Poor Land Tools

Policy issues

- Promote land rights infrastructures and good land governance to contribute to pro-poor and sustainable development
- Continue to work on:
 - Social Tenure Domain Model which is a part of the Land Administration Domain Model under development at TC211 from ISO
 - Free/Libre Open Source Software (FLOSS)
- Collaborate with FAO in the finalization of the Multilingual Thesaurus on Land Tenure

Chair

Christiaan Lemmen; the Netherlands, e-mail: lemmen@itc.nl

Events/Activities

- Participation in meetings related to the activities of the Working Group
- Investigations on OpenCadastrMap
- Investigations on Low Cost High Tech Data Acquisition Methods
- Expert Group Meetings

Deliverables

- International Standard for the Land Administration Domain (ISO 19152) with the Social Tenure Domain Model as a specialization.
- Collaboration with FAO in the finalization of the Multilingual Thesaurus on Land Tenure
- Information for land professionals via FIG Website and other platforms when appropriate

Working Group 7.2 – Land Administration, Natural Disasters and Climate Change

Policy issues:

Develop a better preparedness and response to natural disaster and climate change.

Focus:

- Land issues in disaster preparedness and mitigation
- Land issues in recovery and reconstruction
- Disaster mitigation in land policies
- Land tenure, use and value in risk mapping
- Link access to land and vulnerability / resilience
- Use risk maps in land use planning and land development
- Capacity building in land agencies.
- Land and disaster response
 - Land tenure and emergency shelter, transitional settlement
 - Land issues in rapid and detailed assessments
 - Raise land issues early on (e.g. flash appeal)

- Pressure cooker of developments
- Window of opportunity for change
- Recovery
 - Rescue, recover, repair land records
 - Land tenure and (updated) hazard risk mapping
 - Access to land for IDP's, for returnees whose land is lost or unsafe
 - Site selection for resettlement
 - Position of weaker tenure holders, lessees, etc.
 - Adjudication of land rights
 - Restoring capacity in land agencies
 - Tenure security for resettlement
 - Conflict resolution

Co-Chairs

David Mitchell, Australia, email: david.mitchell@rmit.edu.au

Jaap Zevenbergen, the Netherlands, email: zevenbergen@itc.nl

Deliverables

- Information for land professionals via FIG website and other platforms when appropriate
- Online training course on land tenure and natural disasters for land and related professionals with a link to Commission 2 for e-learning aspects

Events/Activities

- Presentation at the GI4DM conference Turkey, May 2011
- Disaster Management workshop at GSDI 13 in Quebec City, 2012
- Test run of the online training course (to be planned)

Working Group 7.3 – Cadastral perspectives

Policy issues:

- Cadastral perspectives “Beyond Cadastre 2014”
- 3D Cadastre (joint working group with Commission 3 chaired by Peter van Oosterom)
 - 3D Cadastre: models, standards, spatial information infrastructure, time management (4D), registration
 - Best practices and guidelines (legal, institutional and technical aspects) for the implementation of 3D-cadastrals.
- Cadastre and Carbon credit management
- Participation in the Task Force about Spatially Enabled Society
- New tools for Cadastre management systems

Chair

Gerda Schennach, Austria, email: Gerda.Schennach@bev.gv.at

Events

- International Symposium on “Cadastre 2.0” in Innsbruck/Austria, 30 Sept 2011
- Second International Workshop on 3D-Cadastrals FIG/EuroSDR (<http://3dcadastrals2011.nl>), Delft, The Netherlands, 16-18 November 2011
- Possible participation to the GSDI-13 Conference, Quebec City, Canada

Deliverables:

- FIG publication: Cadastre 2.0
- FIG publication: Guidelines to establish 3D-cadastral addressing legal, institutional and technical issues

Working Group 7.4 – Land Management Reforms

Policy issues:

- Cadastral and land management reforms
- State land management
- Governance of land management

Chair

Richard Grover, United Kingdom, email: rgrover@brookes.ac.uk

Events

- Session at FIG Working Week 2011 in Marrakech on improving the management of state land – FAO collaboration expected
- Seminar on cadastral reforms and land governance

Deliverables:

- Publication on state land management
- Publication on cadastral reforms and land governance
- Co-operation with FAO on Voluntary Guidelines on the Governance of Land and Natural Resources Tenure
- Co-operation with FAO on guidance on state land management
- Training materials on the management of state land

6. Co-operation with other Commissions and organisations

Commission 7 will namely contribute to the following Joint Commission Working Groups:

- Commission 1: Working Group 1.1 on International Boundaries (joint with Commissions 4, 5, 6 and 7)
 - Commission 7 representative in this Working Group is Daniel Roberge
- Commission 3 : Working Group 3.3 - 3D Cadastre (joint with Commission 7)
 - Commission 7 representative in this Working Group is Peter van Oosterom

7. Co-operation with United Nation Organisations, Sister Associations and other Partners

Commission 7 will cooperate with international organizations in land tenure issues under guidelines from the FIG Council.

8. Events and Annual Meetings

2011

Commission 7 Annual Meeting and International Symposium “Cadastre 2.0”, 25 September–1 October 2011, Innsbruck, Austria

2012:

Commission 7 Annual Meeting: Africa (Francophone Western African Country – Joint event with the Fédération des géomètres francophones (Francophone Federation of Surveyors) (to be confirmed)

2013

Commission 7 Annual Meeting: Latin America (to be confirmed)

2014

Commission 7 Annual Meeting: Québec, Canada (to be confirmed)

9. Officers

Chair

Daniel Roberge, Canada

Vice-Chair Administration and Communication

To be appointed

Vice-Chair and Chair WG 1

Christiaan Lemmen, the Netherlands

Vice-Chairs and Co-Chairs WG 2

David Mitchell, Australia and Jaap Zevenbergen, the Netherlands

Vice-Chair and Chair WG 3

Gerda Schennach, Austria

Vice-Chair and Chair WG 4

Richard Grover, United Kingdom

Daniel Roberge

Chair, FIG Commission 7

www.fig.net/commission7

February 2011

FIG Commission 8 – Spatial Planning and Economic Development

Work Plan 2010–2014

1. Title

Spatial Planning and Economic Development.

2. Terms of Reference

- Regional and local structure planning
- Urban and rural land use planning and control
- Planning policies and environmental improvement
- Land use planning and implementation and control
- Public-private partnerships
- Informal settlement issues in spatial development,
- Spatial planning and good governance
- Re-engineering mega cities
- Strategy for environmentally sustainable development
- Disaster risk management and land use planning
- Inter-relationship between Commissions

3. Mission Statement

The activities of Commission 8 in the years 2011–2014 will involve all levels of physical planning, which enable environmentally sustainable development to occur.

Spatial Planning

Spatial Planning is all about governments (federal, central, state and local) using a series of techniques to influence optimum distribution of people and activities in spaces of various scales. It encompasses all levels of land policies formulation, land use planning including urban planning, regional planning, environmental planning, national spatial plans and, in Africa and in the EU, international levels. In Africa the COMESA, IGAD, EAC nations are coming together to design, develop and implement cross-border corridors of infrastructure (roads, railways, oil pipelines, fibre-optic cabling) all running beyond nations and beyond regions.

Regional/spatial planning gives geographical expression to the economic, social, cultural and ecological policies of society. It is at the same time a scientific discipline, an administrative technique and a policy developed as an interdisciplinary and comprehensive approach directed towards a balanced regional development and the physical organization of space according to an overall strategy.

Physical planning establishes the ‘ground rules’ for environmentally sustainable development at all planning levels, including all actors (government, private sector and public/private partnerships). Traditionally the surveyors’ role is most visible in implementation of plans and therefore Commission 8 will have more focus on issues that are closely related to the core disciplines of the profession.

Commission 8 will continue to assist in building the capacity of knowledge and skills via case studies, workshops, collaboration and consultation thus contributing, in a positive way, to environmentally sustainable development and living conditions of humans in a changing globalised world.

The challenge this presents is to protect our national heritage while permitting appropriate growth. This is sometimes referred to as “smart growth,” carefully planned growth to preserve the past for future generations. Yet, it seems, one person’s notion of “smart growth” may be, to another person, restraint of trade.

Throughout the world small communities are facing challenges from developers – both builders and land owners looking to make an honest profit – who seek to create commercial, industrial, and residential projects on water masses, former farms, pastureland, and forests.

Urban Development

The process of improving raw land to support construction or other improvement. It may include planning, acquisition of government permits, subdivision, construction of access roads, installation of utilities, landscaping, and drainage or the process of improving a large tract of land; includes clearing, grading, and the installation of sewers and utilities such as water, gas, telecommunications and electricity. .

Surveyors have a key professional role in the application and implementation of planning and development for optimum community living. The strategy today incorporates the importance of the environment and the requirement for environmentally sustainable developments (ESD) to be foundations of the habitat for future generations. This planning strategy for urban and rural transformation provides opportunities for surveyors.

The re-engineering of mega cities as places for people and the provision and location of infrastructure services involves all levels of Government and Private Sector to collaborate and deliver desired public policy outcomes.

The challenges of containing and eventually eliminating informal settlements ought to benefit from surveyors’ input in the aspects of planning and good governance.

In the period of 2011–2014 the focus of Commission 8 will be:

- On all parties involved in environmentally sustainable planning and implementation;
- To develop guidelines, methods, governances and good practice at the global level;
- To reflect holistic skills in planning and development of the built environment, including informal settlements wherever they are to be found;

- To emphasise that we, as surveyors and built environment experts have a leadership role in the collective responsibility for well-functioning mega cities; including integrated disaster risk management as a discipline
- The Commission recognises the three pillars of ESD, i.e. balancing the competing development demands associated with economic, social and environmental aspirations.

Further, the integrating activities of FIG allow for adoption of a holistic approach to problem solving in the built environment be it rural, peri-urban or urban; – Focussing on surveyors' role in the implementation of plans and the interaction between planning and real estate economics. Analyze success stories like Sao Paulo's, Buenos Aires's, New York City's tackling of informal settlements and Norway's prevention of the same.

4. Working Groups

Working Group 8.1 – Planning Strategy for Urban Development and Regeneration

Policy Issues

- Planning urban development and renewal and their economic and social impacts
- The role of partnerships and urbanization process is a role for surveyors in moving towards sustainability in urban development/community living for people and places.

Chair

- Frank Friesecke, Germany, e-mail: frank.friesecke@steg.de

Specific Projects

- Identify a planning framework, which enables public-private partnership (PPP) to deliver tools for urbanization
- Investigate key roles for surveyors within urban regeneration

Workshops

- Develop a series of special papers for the FIG Working Weeks
- To organise a round table discussion at 2011 Regional Conference in Marrakech.

Publications

- Report on results at the FIG Regional Conference 2012 in Rome.

Timetable

- 2011: Round table discussion at the Working Week 2011 in Marrakech
- 2012: Final report and recommendations in Rome

Beneficiaries

- FIG member organisations, UN, professional bodies, land owners, planners and developers.

Working Group 8.2 – Informal Settlements Issues in Spatial Development Planning and Governance

Policy Issues

- Commission 8 contributions to the attainment of Millennium Development Goals, all of which have been set to be substantially realized by 2015. Evaluate progress thus far and suggest ways to improve the policies, laws, systems and procedures for their execution
- to investigate initiatives that deliver land for housing and associated financial mechanisms that enable peoples' settlements upgrading through participatory approaches to planning and development.

Provisional Terms of Reference

- Build negotiation mechanisms with Traditional Leaders to enable the expansion of urban areas onto customary owned land by identifying ways in which Customary ownership could be realistically converted to release land for formalised housing, (in collaboration with Commission 7).
- Explore rapid, new approaches to forward planning and upgrading initiatives that provide places for the poor by partnering with sister organisations of like minds.
- Deliver environmental sustainable house plots by working with partnership forums to find ways to upgrade infrastructure achieving this by addressing both physical and financial mechanisms.

Chair

- Eugene Silayo, Tanzania, e-mail silayo@aru.ac.tz

Specific Projects

- To investigate sustainable places within informal settlement in Africa;
- To contribute to building the knowledge base from which the surveyors can provide expert advice for the built environment;
- To develop FIG-UN recommendation for best practices in Governance issues for Informal Settlements.

Workshops

- To participate in special workshops in Africa
- To provide leadership at the FIG Working Week 2011 and thereafter at the Working Week in Rome in 2012 or at the regional conference in South America in 2012, in this key issue.

Publications

- To produce a working discussion paper “White Paper” on the key element of effective governance.

Timetable

- 2011: To organise a round table session at FIG Working Week 2011
- 2012: Final report and recommendation for significantly better Practice.

Beneficiaries

- United Nations, the World Bank, governments, humanity and FIG member organisations.

Working Group 8.3 – Re-engineering of Mega Cities

Policy Issues

- To provide opportunities for surveyors to play a key role in solving problems and implementing infrastructure in environmentally sustainable projects/developments in mega cities (large sprawling habitats with two distinct types being economically wealthy and dramatically poor).

Chair

- Enrico Rispoli, Italy, email: e.rispoli@cng.it

Specific Projects

- To study the World City Report for identifying opportunities for surveyors to be contributors towards improving infrastructure and sustenance of the environment;
- To create methods of identifying causes of infrastructure damage within mega cities;
- Identify the planning framework and recommend changes which will enable
- Implementation of Environmentally Sustainable Development;
- Develop a policy framework to enable sustainable cities.

Workshops

- To contribute to the proposed Commission 8 workshop on mega cities at the FIG Regional Conference in Rome in 2012. Synergize with Commission 3

Publications

- Report on results of working group investigations and report at the FIG Regional Conference in Abuja in 2013.

Beneficiaries

- FIG member organisations, United Nations and the World Bank.

Working Group 8.4 – Land Policies; Land Use Planning Control and Implementation

Policy Issues

- To increase Surveyors' contribution to formulation and implementation of land policies in the world in general and in Africa in particular; land use planning and better integrate surveyors expertise in implementation of these policies, plans, implementation processes and agreements and real estate management
- To increase surveyors' and planners' awareness on sustainable planning and implementation of plans based on modern knowledge, technical solutions, rules and legislation, traditions, equity and development and implementation processes in different countries.

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- Ibrahim Mwathane, Kenya, email: mwathane@landsca.co.ke

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Wafula Nabutola
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www.fig.net/commission8

March 2011

Commission 9 – Valuation and the Management of Real Estate

Work Plan 2011-2014

1. Title

Valuation and the Management of Real Estate.

2. Terms of Reference

- Valuation, being the estimating of value of all kinds of real estate by valuers and appraisers for various purposes, including market value, property taxation, eminent domain, investment, redevelopment and refurbishment, and for both public and private purposes;
- Investment in real estate, investment planning and real estate investment vehicles;
- Real estate finance, development finance, land use feasibility planning;
- Real estate economics, markets and market analysis;
- Management of all kinds of real estate at all levels;
- Asset management for corporate private and public sectors;
- Management of the use of buildings to ensure optimum benefits to occupiers.

3. Mission Statement

The mission of Commission 9 is:

- To advance the professional practice of valuers and property managers working in all areas of real estate valuation and management;
- To research and publish “best practice” for the benefit of valuers and property managers in different jurisdictions and sectors of the industry, for the benefit of the surveying community and to improve our services to the wider public;
- To facilitate and generate the exchange of information, knowledge and experience between surveyors for the benefit of the profession, our clients and the wider public;
- To publicise and promote the work of surveyors to the public, particularly to young people, governments and non-government organisations and to enhance their perception of the value of surveyors and the services they can deliver, especially in support of the global sustainability agenda and the Millennium Development Goals;
- To co-operate and work with fellow surveyors in all specialisms of the profession to further the objectives of FIG.

4. General

This work plan focuses on three highly relevant themes. Property taxation recognises the social and economic value of real estate and provides revenue which (normally) funds public services, for the benefits of the wider community. Commission 9’s Working Group 9.1 comprises three study groups which focus on three increasing important areas of study: the choice of tax base (9.1A); the use of mass appraisal valuations (9.1B); and successful and

efficient tax systems for emerging economies (9.1C). Each of these addresses international and pressing issues in the use of property taxes for the benefit of local communities and demonstrates an important opportunity for FIG to use the international experiences of its members to contribute to and inform the global debate on property taxation.

Following on from the highly successful previous four years work on compulsory purchase and compensation, Working Group 9.2 will investigate the issue of land grab – a highly topical and controversial issue which is causing international concern, as well as severe individual and social hardship in relevant communities. It is anticipated that this work should link into the interests of the wider international community, thereby providing opportunities for inter-organisational collaboration.

It is well recognised that, within both the residential and commercial worlds, the asset with the largest single value is likely to be real estate. All sectors of the global and local communities, therefore, rely on valuation and management advice to achieve the optimum use of their land and buildings and to ensure that such assets continue to provide a suitable and adequate ‘setting’ in which other activities can take place, as well as maintaining or increasing their monetary value to the owners, occupiers and the wider community who rely on such asset values for pension rights and collateral, amongst other things. Recently, attention has focused on the role of the public sector and how it manages real estate assets on behalf of the community. Working Group 9.3 will investigate the management of public property assets in developing countries with a view to presenting guidelines on best practice for the public sector management community.

5. Working Groups

Working Group 9.1 – Property Tax

Policy issues

Property taxation is ubiquitous – there are very few countries which do not impose some kind of tax specifically on land and / or buildings. It is usual for such a tax to be levied, collected and spent by local authorities, even if the rate of tax is fixed by a higher tier of government, but this is not always the case.

The working group will comprise three study groups, the work plans of which are presented below.

Study Group 9.1.1 – Tax Bases

Policy issues

Land taxation policy includes many aspects.

- On the one hand, land taxation should bring fiscal revenues. Which is tax base is most easy to administer and to assess? Which tax base is justifiable? Which brings sustainable and high fiscal revenues? Will the tax be accepted by the tax payers? Particularly for valuation purposes it has to be asked whether the tax is levied annually and in a comprehensive way (as the property tax) or only occasionally (e.g. betterment tax). Does it make sense to use the same tax base and the same valuation methods for different sort of taxes (land taxation, income tax, property transfer tax)? Especially if the tax is levied annually and in a comprehensive way, mass valuation is necessary. Mass valuation always

faces a trade-off between efficiency and justice. Hence, group 9.1. A will work in close co-operation with group 9.1.2.

- On the other hand, aspects beyond fiscal revenues also have to be considered. Land taxation is discussed more and more as a tool for land use policy and settlement policy. It is required to support land use planning and ecological targets. Is there any trade off between the targets to be taken into account? Are there any distortions of the market to be considered? These and other questions need systematic analysis and examination. Maybe different answers have to be given for different institutional environments.

Moreover, different countries have different stages of institutional development and governance. Is there one size that fits all? Or do different stages of development, different cultures etc. have to be taken into account?

Chair:

Prof. Dr. Dirk Löhr, Germany, e-mail: d.loehr@umwelt-campus.de

Co-Chair:

Dr. Fabian Thiel, Cambodia, e-mail: Fabian.thiel@cimonline.de

Specific projects and workshops:

Basically compound tax bases or only the taxation of unimproved land is possible. The tax might be based on the value of property or on auxiliary tax bases, e.g. the size of a plot.

Research objects:	Value	Auxiliary tax base (e.g. size)
Land (as isolated tax base)	Site value tax Betterment tax (Income tax)	Site tax
Land and building (as compound tax base)	Property tax (Property transfer tax) (Income tax)	Simplified property tax

Based on this understanding, workshops shall assess the subsequent topics:

- Support of land use planning:

Land taxation may pursue other purposes than only fiscal revenues. Some tax bases may support the planning system, others may set disturbing incentives. Hence, urban sprawl etc. might be supported, which is not desirable for many (in particular ecological) reasons. Regarding alternative tax bases, the subsequent research questions should be asked:

- Is the planning supported or foiled by the tax (base)?
- What are the incentives in regard of ecology (uncontrolled development, urban sprawl etc.)

- Distribution and justice:

It has to be analyzed whether a tax base is lifting prices and rents or gives pressure on them. Can the tax be shifted (distribution impacts)? The impacts on distribution and social consequences have to be assessed. Furthermore, tax bases have to be analyzed in terms of equity: Do they put in place systematically advantages or disadvantages for certain groups? A just tax base would treat all tax payers equal. Efficiency affords simplifying methods. On the

other hand, a just valuation needs to be accurate. How much simplification is just and reasonable without a violation of the essential principle of equality in taxation?

- Effects on the (real estate) markets

Are there any distortions of the market to be considered (e.g. a tax wedge)? Is the economic activity stimulated or hampered? Which are the impacts on the transaction volume of land and buildings? Is the construction industry blocked or supported?

- Tax revenue

Which tax base is most easy to administer and to assess (applicability for mass appraisal, close cooperation with group 9.1 B)? Which tax base is justifiable? What valuation methods are favorable for which kind of property and for which circumstances? Which tax base brings sustainable and high fiscal revenue?

- Justification

A land tax is always an attenuation of property rights. Hence, it needs a sound justification. Which tax might be justified best? What is the experience with courts in different countries?

- Evidence

The group has to look for evidence and to collect experiences.

- Value concepts / international comparison: Does it make sense to base different kind on taxes (income tax, inheritance tax, property tax) on the same value concept and on the same assessment methods?
- Empirical evidence: Collecting and analyzing experiences from different countries.
- What institutions have to be built up in order to implement the FIG-recommendations?

Publications

- Technical papers presented in annual meetings
- Final report and FIG Guidelines at FIG congress

Timetable

- 2011: Discussion of basic issues and allocation of tasks
- 2012 – 2013: research papers for Technical Sessions
- 2014: First draft of FIG recommendations and FIG guidelines
- 2015: Presentation of final FIG recommendations and FIG guidelines

Beneficiaries

All FIG member organizations, UN, other professional international and national organizations, agencies and governments.

Study Group 9.1.2 – Mass Appraisal Systems

Policy issues:

- Valuers contribute to an efficient, effective and socially acceptable property tax in their role as assessors of the tax base. Technical valuation skills support appropriate methodologies, in particular, the use of Computer Assisted Mass Appraisal (CAMA) techniques, as well as ensuring improved access for the public to relevant information, advice and data.

- However, the use of mass appraisals involves a degree of technical skill and knowledge which is beyond the understanding of the average taxpayer and which may involve a trade-off between efficiency and ‘justice’. This therefore imposes an additional responsibility on the valuation profession to ensure that the highest degrees of equity and ‘fairness’ are achieved within the limitations of the technology, and that acceptable levels of explanation and reassurance are available to all parties, particularly taxpayers.
- This working group will investigate and publish appropriate guidelines for the development of mass appraisal techniques to support property tax assessments, including the appropriateness original data sources (property characteristics, sales, rents, yields, costs asking prices, or valuations) and of indices to monitor the property market, which will be particularly useful during the current economic climate.

Chair

Varnavas Pashoulis, Cyprus, e-mail: var@cytanet.com.cy

Workshops/Seminars:

- Not yet discussed.

Publications:

- FIG reports, focusing on guidelines as to how best to develop, manage and implement mass appraisal techniques.

Timetable:

- Not yet discussed.

Beneficiaries:

- Increasingly, property tax systems around the world are developing, implementing, and refining mass appraisal techniques to support tax assessments with the overall scope to generate public income to provide public services for the benefit of the community. By doing this, there is a multi benefit effect, due to the fact that these assessments can also be used as the basis to support single property valuations by private or public bodies for advisory purposes, for Capital Gains Tax Assessments, for Transfer Fee assessment, for compulsory purchase purposes, as well as to publish property indices in order for the property market to be more transparent and efficient. . Thus, the outcome of this working group will support such initiatives as well as providing local authorities/municipalities, valuation standards organisations and those international organisations with an interest in securing equitable, effective and efficient public services for increasingly sustainable communities. While focusing on the needs of property taxation, this investigation into mass appraisal techniques will also benefit mortgage lenders who use such techniques in their assessment of loans and in monitoring the fluctuations of the property values and where appropriate to take precautionary measures either at booming or recessionary times. Also benefiting will be FIG member organisations, UN and other professional international and national organisations, agencies and governments and local authorities.

Study Group 9.1.3 – Successful and Efficient Taxation Systems for Emerging Economies

Policy issues:

- This working party will investigate property tax systems in emerging economies focusing on a case study approach, seeking examples of best practice.
- Regions of interest for the sourcing of case studies are likely to be South America, and potentially Africa and Central and Eastern Europe, depending on interest and data availability.

Chair:

Steven Nystrom, USA, e-mail: nystrom@tampabay.rr.com

Workshops/Seminars:

- To be decided.

Publications:

- An FIG report proposing guidelines for emerging economies to achieve a stable and sustainable property tax system.

Timetable:

- To be finalised.

Beneficiaries:

- Beneficiaries of this research will be central and local governments in emerging economies as well as property valuers / assessors, taxpayers and the wider community. Valuers and assessors from developed countries should also find the output of benefit, as should international organisations with an interest in the wider effects of property taxation to support such economies. All FIG member organisations, UN and other professional international and national organisations, agencies and governments will also benefit.

Working Group 9.2 – Large Scale Land Acquisition for Agriculture

Policy issues:

- This working party builds on the earlier of 2007-2010 Working Group 9.1 (Compulsory Purchase and Compensation in Land Acquisition and Takings, led by Professor Kauko Viitanen), which has resulted in the Hanoi Declaration (FIG Publication 51) and the Compulsory Purchase and Compensation. Recommendations for Good Practice (FIG Publication 54).
- There remains an appetite within the Commission 9 delegations to continue FIG work in this area and, of increasing international concern is the related topic of land grab, being the acquisition by foreign corporates of productive farmland from indigenous land holders. Certain international organizations has expressed concern about the possibility of exploitation.

Chair:

Dr. Ibimina Kakulu, Nigeria / United Kingdom, e-mail: ibkakulu@hotmail.com

Co-Chair
Not yet identified

Workshops/Seminars

- To be decided.

Publications:

- An FIG report on the relevant experiences, problems and, in particular, proposed solutions for the underlying issues.

Timetable

- To be confirmed..

Beneficiaries

- Given the level of impact on the food productive capabilities of the ‘host’ country, issues of food availability and pricing, as well as human rights mean that this topic will have relevance for international organisations, including the FAO and the World Bank, as well as corporate purchasers (concerned about their global ethical reputation) and members of communities which are adversely affected by the long term effects of land grab. This work therefore has huge relevance for FIG, as an organisation, FIG member organisations, and UN and other international organisations.

Working Group 9.3 – Management of Public Property Assets in Developing Countries

Policy issues:

This working group will investigate fixed public property assets within developing countries with a view to establishing how such real estate assets are managed and to develop “best practice” guidance within such environments. This working group will focus on management issues, rather than legal frameworks (which vary between countries); and it will not cover the technical, computer tools involved in management.

The programme will cover three components:

- documentation, defined as the permanent process of collecting, preparing, evaluating, and updating of the necessary information. The working group will seek to define a generalised and simplified data structure for fixed public assets in combination with recommendations for a professional inventory system;
- administration, to define the needs, duties and responsibilities of a property management unit in public administration (principles, tasks, organisation, equipment, personnel etc.). This will reflect on the clients of property management and their needs; the organisation of processes; and the definition of the interfaces to the clients and other processes; and
- operation of public properties. Recognising that the operational costs during the life cycle of real estate are higher than the original construction costs, the working group will consider the following issues:
 - the principles/responsibilities of public/corporate real estate management;
 - optimising the use of public properties;
 - optimise/reduce the operational costs (e.g. cleaning, maintenance, rebuilding, energy, waste, insurance, security catering);
 - optimisation of occupancy;
 - development/redevelopment of public properties;

- increasing economic revenues;
- capacity building of staff;
- cost transparency; and
- the creation of a consistent documentation system for the operating processes.

Chair

Professor h. c. Dr.-Ing Ingolf Burstedde, Germany, e-mail: ibu@gmx.com

Members of this group should ideally consist of those experienced in property asset management from both developed and developing countries. They should be willing to participate and contribute to the group's programme based on their experiences in property asset management.

Workshops/Seminars:

- Not yet discussed

Publications:

- FIG report with Guidelines for public property asset management in developing countries, based on the experience of the group members, available literature and other contributions.

Timetable

- FIG report will be launched in 2014 in Kuala Lumpur

Beneficiaries

- Beneficiaries of this research will be public sector asset managers in developing countries as well as their client owners, occupiers and the wider community, as well as all FIG members and UN and other international agencies and investors. Property asset managers from developed countries should also find the output of benefit, as should international organisations and investors in public sector assets.

6. Co-operation with Other Commissions and organisations

Commission 9 will support and contribute to FIG task forces, to the Standards Network and, in particular, to the Young Surveyors Network. In addition, where useful, links will be developed with both the World Bank and FAO. It is envisaged that such international organisations will be particularly interested in the work of the Working Group 9.1 (Property Taxation) and 9.2 (Land Grab). The possibility of joint events will be investigated.

7. Co-operation with United Nation Organisations, Sister Associations and other Partners

Commission 9 is co-operating with FAO and UN-HABITAT on Commission 9 related issues.

Commission will investigate co-operation opportunities with a range of relevant international organisation, including the Internal Property Taxation Institute (IPTI), International Association of Assessing Officers (IAAO) and the Lincoln Institute of Land Policy.

8. Commission Officers

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Frances Plimmer
Chair, FIG Commission 9
www.fig.net/commission9

February 2011

FIG Commission 10 – Construction Economics and Management

Work Plan 2011-2014

1. Title

Construction Economics and Management

2. Terms of reference

- Construction economics including Quantity Surveying, Building Surveying, Cost Engineering and Management, Estimating and Tendering (Bidding)
- Commercial management including Procurement, Risk Management and Contract Law for construction and non construction activity
- Construction Law and Negotiation
- Project and programme management including Planning / Scheduling

3. Mission statement

The mission of Commission 10 is:

- To advance the professional practice of surveyors working in all disciplines of Construction Economics, Commercial Management and Project Management
- To research and identify “best practice” of surveyors working in different cultures and economies
- Broaden the activity from “British” part of the world to Middle and East Europe, Asia and Africa etc.
- To bring greater focus to commercial and project management.

4. General

In the term of office 2011-2014 Commission 10 will focus on:

- Construction technologies, methodologies and liveable cities
- Improving conditions in informal settlement with innovative construction methodologies
- Large size construction management support by surveyors
- Green Management, Green Contracts and Procurement
- Sustainable housing, “green building” programmes and indexes
- Innovative house building and mass customisation in housing
- Whole Life Cycle Assessment
- Publicising and promoting the work of surveyors to the public, particularly young people, governments and non-governmental organisations, and enhance its perception of the value of surveyors and the services that they deliver

5. Working Groups

Working Group 10.1 - Construction Economics

Policy Issues

- Map skills and knowledge process for both Quantity Surveyors and Building Surveyors
- Research current practice in differing cultures and economies to develop and publish generic guidelines as to “best practice”
- To monitor and, if possible, join and contribute to research projects being carried out by others.
- Minority and gender issues and enhancing representation of under-represented groups.

Chair:

Ms. Sara Wilkinson, Australia, e-mail: s.wilkinson@deakin.edu.au

Specific projects

- To work with other Commissions to support their work on the technical and cost issues of affordable housing and associated matters in developing and emerging economies
- To support and monitor the Commission’s attention to all minority interest issues.

Publication(s)

- Report at each FIG working week outlining activity and progress

Working Group 10.2 - Commercial Management

Policy Issues

- To study, analyse and compare different procurement models and publish generic guidelines as to “best practice”.

Chair

Ms. Tzena Y. C. Wong, Hong Kong SAR, China, e-mail.

Specific projects

- To work with other Commissions to support their work on the procurement of infrastructure and affordable housing in developing and emerging economies.

Publications

- Report at each FIG working week outlining activity and progress.

Working Group 10.3 - Project and Programme Management

Policy Issues

- To describe and compare different Project Management methods and publish generic guidelines as to “best practice”
- To describe and detail a “best practice” model for the successful management of multi-project programmes in both developed and developing economies.

Chair

Mr. Michael Kwando Frimpong, Ghana, e-mail:

Specific projects

- A review of and comparison of construction procurement-Europe, and a different procurement policy
- A comparison and analysis of the methods of design, procurement and construction of buildings and their engineering installation

Publications

- Report at each FIG working week outlining activity and progress.

Working Group 10.4 – Green Management

Policy Issues

- To describe and compare different Green Management methods and publish the green project worldwide

Chair

Mr. Hock Hai Kwan, Malaysia, e-mail: kwanhh@gmail.com

Specific projects

- A comparison and analysis of the classical and “green” methods of design, procurement and construction of buildings, building towns

Publications

- Report at each FIG working week outlining activity and progress.

6. Co-operation with other Commissions and organizations

All FIG Commissions and their project from economic and management point of view.

7. Co-operation with United Nation Organisations, Sister Associations and other Partners

- International Cost Engineering Council (ICEC) - Memorandum of Understanding, to develop and increase effectiveness of mutual co-operation.
- Council of European Construction Economists (CEEC)
- African Associations of Quantity Surveyors (AAQS)
- Pacific Associations of Quantity Surveyors (PAQS) .

8. Calendar of Events

- Full participation in FIG Working Weeks (see schedule): 2011 Morocco, 2012 Rome, 2013 Abuja, 2014 Kuala Lumpur
- FIG Regional Conferences and strategic meetings.
- Annual Meeting of Commission 10 – Prague, 2012 or 2013
- Meetings of Sister Associations

- 11th South East Asian Survey Congress and 13th International Surveyor's Congress 22-24 June, 2011, Malaysia

9. Commission Officers

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Robert Sinkner

Chair, FIG Commission 10

www.fig.net/commission10

February 2011

FIG Young Surveyors Network

Work Plan 2011-2014

1. Mission

To facilitate an international network of young surveyors *and as a result:*

- To promote international opportunities and experiences for young surveyors.
- To improve the global image of surveying.

2. Vision

- Individual members can see and grasp opportunities, locally and internationally;
- The surveying profession is united across disciplines and generations;
- The international community understands the role of surveyors.

3. Goals for 2011-2014

Representation, Awareness and Support:

- To represent young surveyor interests within the FIG
- To improve young surveyor awareness of and involvement in FIG
- To support local, regional, national and international networks of young surveyors by providing a forum for sharing knowledge, skills and experience. YSN Structure



Structure of FIG Young Surveyors Network.

4. YSN Action Plan 2011 – 2014

4.1 Tasks for 2011 – 2014

1. Better linkages within and beyond FIG

- The FIG YSN will identify and establish linkages with other groups to promote young surveyor interests, enable joint events and share opportunities (Eg. UN-Habitat, ISPRS, Engineers Without Borders, RICS, YGNSS, IGSO, etc.)
- The FIG YSN will evolve its structure to include young surveyor representatives on each FIG Commission and across each region to facilitate networking across disciplines and nations
- The FIG YSN will continue young surveyor events at each FIG Working Week and at the FIG Young Surveyors Conference for the first time back to back with the FIG Working Week in 2012.

2. Better Communication

The FIG YSN will develop a communication plan

- To ensure best use of online communication tools, including facebook, twitter, etc.
- To determine best methods to communicate with young surveyors
- To evaluate and test the use of podcasts, online forums and adoption of other new technologies
- To identify improvements to the FIG YSN webpage, potentially including a members only area to best derive benefits and target communication

3. More support at the local and regional levels

Document successful young surveyor events and projects, including:

- Develop YSN introductory leaflets
- Develop YSN help sheets (e. g. Mentoring, Fundraising, Speed Networking, etc.)
- Provide a space where local and regional young surveyor groups can promote events and/or upload and download successful event ideas and info sheets
- Link with volunteer organizations (eg. CrisisCommons, rotary, engineers without borders, REDR, etc.) to identify event opportunities (both online and face to face)

4. Facilitate international opportunities

- Work towards better use of the FIG Surveying Education Database for a universities and professional training programs
- Research and document avenues for international internships
- Facilitate networking and sharing of job opportunities during FIG events.

4.2 Newsletter and publications

Planned Publications

Newsletters

- Biannual eblast from YSN to members
- Special eblast for FIG events

Webpage

- YSN page hosted on www.fig.net

Introductory leaflets

- What is the YSN and how to join
- How to be involved in the YSN
- How to be a successful Young Surveyor Group

Action plan 2010-2014

Online Communication Spaces

- Facebook
- Yahoo!Groups
- LinkedIn
- Twitter

4.3 YSN Position Descriptions(draft)

Chair

2011-2014: Kate Fairlie, Australia

- Reports to FIG Council and acts as young surveyor representative to the Council, ACCO and corporate members, communicating the needs of young surveyors and progress of the network
- Updates Young Surveyor Network (YSN) committee and members with the activities of the FIG and Council
- Coordinates the development of a workplan and goals for each year and 4-year FIG term. Plans and creates YSN opportunities, together with the committee.
- Manages YSN workload of committee, ensuring tasks are aligned with YSN aims and workplan
- Liaises with the coordinators of upcoming working weeks and conferences to promote YSN interests and ensure a dedicated youth social and technical programme where possible.
- Identifies linkages and reaches out to similar organisations, including, but not limited to, ISPRS, UN-Habitat, YGNSS, etc. under guidance of the Council.

Vice Chair (Regions)

2011-2014: Chris McAlister (Australia)

- Coordinates regional representatives, hosting skype catch-ups as necessary and informing both YSN Committee and Regional representatives of developments
- Develops generic help documents to assist new representatives, new committees and/or unrepresented young surveyors
- Continues to seek regional representatives (where positions are vacant), promotes the FIG and YSN to unrepresented regions and
- Supports and represents Chair as necessary.
- Seeks articles for YSN e-blasts
- Sources opportunities for YSN promotion and representation

Vice Chair (Commissions)

2011-2014: Cemal Ozgür Kivilcim (Turkey)

- Coordinates Commission representatives hosting skype catch-ups as necessary and informing both YSN Committee and Commission representatives of developments
- Ensures the YSN is represented on each Commission, and that Commission members are aware of joint-project opportunities with young surveyors

- Develops information leaflets and/or systems to share information between Commissions and Young Surveyors
- Collects information from commissions and other working groups to communicate to YSN
- Supports and represents Chair as necessary.
- Seeks articles for YSN e-blasts
- Liaise with Commission 1 to identify and participate in (or ensure YSN participation in) professional education and profession marketing activities
- Sources opportunities for YSN promotion and representation
- Supports and represents Chair as necessary.

Secretary

2011-2014: Eva-Maria Unger (Austria)

- Documents YSN meetings, coordinates agenda items and sends through meeting agendas and minutes in a timely manner
- Coordinates membership lists, email contacts and group memberships
- Emails new members an introduction to the role and aims of FIG and the YSN.
- Coordinates e-blast (formerly newsletter) material, together with Vice-Chairs, and emails e-blast to YSN quarterly and/or more frequently
- Together with Communications Coordinator, develops new ways and/or a strategy to promote and deliver information on the YSN. Ensures that existing communication methods are appropriate and aligned.
- Chief contact person for new and existing members

Treasurer

2011 – 2014: Jens-Andre Paffenholz (Germany)

- Manages FIG funds (2010 - EUR 3000) and develops a yearly budget
- Explores further sponsorship opportunities, both of and by the YSN, to ensure the YSN continues to build its profile and achieve its goals
- Advises YSN members and regional bodies on funding and sponsorship opportunities
- Liaises with national bodies and employer groups to encourage greater local sponsorship of young surveyors and students.

Communications coordinator

2011 – 2014: ?

- Ensures FIG webpage for YSN becomes available in 2011, and forms material for update as necessary
- Manages existing YSN accounts:
 - Twitter
 - Google
 - Facebook
 - LinkedIn
- Explores, and actively contributes to, other avenues of YSN promotion and information distribution, including blogs and podcasts.
- Liaises with other YSN committee members, in particular secretary (as eblast coordinator) to determine short newsworthy items

- Ensures FIG and FIG working weeks and congresses are adequately discussed in media, and key information is accessible to young people

Regional Coordinators

- Regions are currently distinguished as:
 - Africa 2011 Rep: Benedicta Ugwulebo
 - Australia and Oceania 2011 Rep: ?
 - South East Asia 2011 Rep: ?
 - U.S.A. 2011 Rep: Daniel Helmricks
 - South America and Caribbean 2011 Rep:?
 - Europe 2011 Rep:?
- Make contact with national bodies within the regions and ensure young surveyors are represented
- Feed information through to national young surveyor networks, and enable these networks to become established
- Together with other committee members, produce a document outlining successful activities and strategies for local young surveyor bodies and start up groups

Commission Representatives

- Become an active part of allocated Commission and feed information between YSN and the Commissions
- Engage in a Commission working group
- Identify YSN opportunities within Commissions (eg. For YSBH)

2011-2014 Commission Representatives: tba

Working Week and Congress Representatives:

2011 FIG Working Week (Morocco):?

2012 FIG Working Week (Rome): Paola Ronzino and Andrea Massaro (Italy)

2013 FIG Working Week (Abuja): Benedicta Ugwulebo (Nigeria)

2014 FIG Congress (Kuala Lumpur): ?

YSN Contact Details

For further information please contact

Kate Fairlie, YSN Chair 2011 – 2014, kfairlie@gmail.com

Eva-Maria Unger, YSN Secretary 2011 -2013, unger_eva@hotmail.com

FIG Task Force on Surveyors and Climate Change

Surveyors and Climate Change: Engagement, Role and Partnership with Global Agencies

Terms of Reference

- To identify and investigate specific areas where surveyors have the professional expertise to contribute to studies related to climate change. For example, this may include:
 - Assessing the accuracy of relevant technologies.
 - Opportunities for spatial measuring and monitoring.
 - Providing an unbiased, pragmatic approach to data interpretation.
 - Contributing to the understanding of the datums and reference frames that underpin global measurement systems.
 - Systems for land administration, management and settlement that can:
 - Accommodate land use changes driven by climate variability, and
 - Help improve productivity.
- To identify how and where surveyors can partner with other global agencies (e.g., FAO, UN-HABITAT, World Bank, etc) in developing sustainable solutions to problems arising from climate change.
- Where appropriate, to comment from a climate change needs perspective on the development of future global monitoring systems.

Output

A comprehensive report to be presented at the FIG Congress in Kuala Lumpur in 2014.

Task force Membership

To be successful, the Task force will need members who are vitally interested in the issue of climate change and who will be committed to its work. They need to bring to the Task Force particular expertise as related to its Terms of Reference. As a minimum it should include a member(s) with:

- Knowledge of satellite reference systems and their stability, and high precision GPS processing.
- Knowledge of climate change issues and links to the UN-Habitat, FAO, World Bank and other global agencies.
- Broad knowledge and experience in land administration, land economy and construction management.

Prof. John Hannah
New Zealand Institute of Surveyors
University of Otago, New Zealand
November 2010

FIG Task Force on Property and Housing

Background

In many countries Surveyors are expected to identify land tools and good governance practices that will facilitate:

- secure access to land and property rights,
- secure mortgage rights,
- sustainable housing, housing rights and land market,
- redevelopment and urban regeneration.
- energy efficiency and green housing,

within an unpredictable economic and social environment.

This is characterized by a:

- significant decrease in access to financing,
- migration, immigration and unemployment,
- inner city decay.
- rural urban migration, shrinking of towns and villages,
- corruption and confusion in land and housing regulatory framework,
- increasing housing demand and informal settlements.

The Task Force will investigate challenges and major threats resulting from the current global financial crisis, and identify new role for the surveyor. It will develop awareness, vision and key strategies as well as to investigate tools and techniques around:

- institutional development,
- improvement of coordination of various stakeholders,
- adoption of effective policies,
- land tool development,
- technical tools to support the above

Members

Chair: Prof. Chryssy Potsiou, FIG Vice President

Members: 4-5 members representing different regions and expertise on this topic that relates among others to Commissions 3, 7, 8, 9 and 10

Outout

FIG publication to be launched at the FIG Congress 2014.

Financial Issues

(Including 2010 Accounts, 2011-14 Budgets and 2013 Subscriptions)

1. Introduction

This paper provides the General Assembly with an update on FIG's financial progress in 2010, the incoming Council's proposed budget for its four year term, and other financial matters.

This paper and attachments have been reviewed by FIG's auditors as part of the year end audit. This has been done for the first time in 2011, but is in line with good auditing practice and provides a further level of assurance to the General Assembly and Council that the accounts and reports are a true and fair reflection of the financial position of FIG.

The General Assembly is asked to:

- Adopt the audited 2010 Accounts at Annex A, noting that the audited accounts are in the form of the template approved at the 2009 General Assembly (and provided again at Annex B)
- Endorse the budgets for 2011-14, at Annex C to the General Assembly agenda, noting that the General Reserve recovers from 78% of regular annual expenditure at the end of 2010, to 102% at the end of 2014
- Approve member association subscriptions for 2013, set out in section 6 of this paper.

2. A commentary on FIG income and costs 2010

2010 was a difficult year for the global economy. FIG was impacted, along with most other organisations. The particular impact for FIG was the resignation of a number of Corporate Members, leaving a significant deficit against the subscription income budget. The very low interest rates in Europe also reduced FIG's financial income. The combined effect of these factors was that FIG had a shortfall of income against budget of €31,294.

Recognising these issues during the year, the Council took a range of actions. The most significant of these was to restructure the staffing in the FIG Office to make its costs match available funds, whilst also ensuring that it was able to deliver what is required of this vital FIG resource. The decisions by Council were taken in light of needs of FIG for the period 2011-14; these aspects are reported on in section 3 below. The result of the restructuring, and very careful cost control in the Office, was a saving of €21,617 against budget.

The very high number of publications produced by Commissions and the Council in 2010 reflects strongly on the capacity and importance of the work of FIG, but led to an overspend against the Marketing & Publications budget.

Council and Executive Management expenditure was also carefully managed by the Council, with travel costs being below budget. The handover event led to an overspend of this budget area by €2,746 – the handover event was proceeded with after careful consideration by Council of the benefits and costs of the event, and was run on a tight budget.

A number of Commission chairs sought support for additional activities in the final year of the Commission term and this, along with the costs of the important meeting of incoming chairs at the end of 2010, saw an increase in specific Commission grants for 2010 when compared to 2009.

The result of all of these factors was that the deficit of regular income over regular expenditure was €24,509 worse than budgeted, with the loss of subscription income being the largest factor in this.

The very successful Sydney Congress returned a healthy surplus for FIG, although slightly less than budgeted. Other income came from the review of documentation for the World Bank, the organising of the FAO aspects of the Sydney Congress by the FIG Office, and some external support for Commissions. Against this were set some late invoices associated with the 2009 Working Week and Regional Conference, and a write off associated with a 2008 payment.

The final result therefore was a surplus for 2010 of €4,045 against a budgeted surplus of €35,360.

Below the result line has been recorded the additional travel costs associated with the volcanic ash cloud which disrupted travel back to Europe after the Sydney Congress, and the support agreed by the General Assembly to the Young Surveyors Network and the Africa Task Force. No member associations received funding from FIG reserves to support their payment of subscriptions; the two members who have accepted this support had not paid their portion of the subscriptions by the end of 2010.

At the end of year, FIG's general reserve stood at €383,032, 78% of regular annual expenditure. This is below the 90-100% range agreed at the 2009 General Assembly. The position has been restated from that in the 2010 finance reports because of an old error in the reporting. The restatement in no way alters the cash held by FIG; it has been paper corrections to accounting anomalies which have been resolved by intensive work by the FIG Office staff.

At the end of 2010, the arrears of unpaid subscriptions stood at €110,224. Although a considerable improvement on the arrears of €143,000 at the end of 2009, this is still a considerable amount – more than 25% of annual subscriptions – and higher than the €85,000 at the end of 2008. FIG staff continue to make considerable efforts to collect monies owed by FIG's members. The size of the arrears results in a portion of FIG's reserves being used to fund FIG cash flow, rather than being invested.

3. Budgets 2011-14

The budgets presented in Annex C to this paper have been developed in parallel with the development of the Council and Commission work plans for 2011-14 quadrennial; this is the first time that a Council has presented a 4-year budget to the General Assembly.

Every effort has been made to base the budget on facts, and to set the budget prudently. This is particularly important given the negative movements against budgets in 2009 and 2010.

A number of changes to the positioning of items in the budget have been made, predominantly to make a clearer distinction between regular and developmental activity. The changes in the categorisation of activities in the budget are as follows:

- FIG's income for providing particular services to events is treated as regular income (whereas the share of surplus on events is treated as developmental income).
- The regular grant to the chair of the Young Surveyors Network is treated as regular expenditure, rather than from reserves. This reflects the Council's view that the Network is now a permanent part of FIG.
- Specific grants to Commissions, funding to Task Forces, and poor member support are treated as developmental expenditure.
- A budget for regular web development costs is included for the first time in regular expenditure, with further funds for particular upgrades/ overhauls included in developmental expenditure.

This separation supports a clear Council policy that regular income must exceed regular expenditure each year. The consequence of this is that any areas of discretionary expenditure – particularly Council travel – will be managed downwards if this policy is threatened by other changes in income or expenditure. The Council travel budget will be closely managed by the Office, with an annual travel programme set against it, and any changes to this needing formal approval by the President.

General Assembly will note that the surplus of regular income over regular expenditure is only €12,250 in 2011, meaning that this year will need careful management.

Particular aspects of the regular income and regular expenditure budgets include:

- To ensure prudence, the assumed number of members has been kept very similar to 2010, despite a number of expected new members.
- Office costs will continue to be very carefully managed, but the administration budget includes €10,000 for the development and management of the FIG website.
- Council has decided to increase the regular grant to Commission chairs and the Young Surveyors Network Chair, to €3,000 per year for the 2011-14 term. This is designed to support the delivery of activity by the Commissions and Network.

Turning to developmental activity, this will be undertaken to the extent that finances allow, ensuring that the reserves of the Federation move back into the 90-100% of regular annual expenditure authorised by the General Assembly, and that the overall result is positive over the four year term. This is achieved in the budget, with the reserves rising to 102% at the end of 2014. This will be reviewed each year, and any adjustments made as necessary. In addition:

- Budgets for IT and web development include a major upgrade of the website to new technology during the period, and a refresh of IT hardware connected to our move of IT supplier in early 2011. We had considered significant work on the website in 2010 or 2011 but have held back after receiving advice that the technology isn't yet sufficiently stabilised to know which system we should move to. We therefore plan some face-lift work in 2011 and the major upgrade in 2013.
- Funds for supporting Task Forces and the chair of the Standards Network are included.
- Ongoing support to poor Member Associations is included.
- Specific commission grants are reduced in 2011 and 2012 in recognition of the increase in the regular grant. Each request for specific funding by a Commission will be considered on its merits, against the goals of the Commission and Federation, and against the projected financial result for the year.

The budget shows a return to the 90-100% range for the reserves in 2013, after reducing to 78% in 2010. It is for this reason that Council proposes to continue with the 2012 subscription rise of 4.2% for Member Associations approved at the 2010 General Assembly. Council considered freezing subscription levels for 2011-14 at 2011 levels but this would not deliver the required sustainable budget, whereas a freezing of 2012 levels for 2013 and 2014 is able to.

The budgets at Annex C include a range of notes to the budgets explain particular figures. Two specific overriding issues should also be borne in mind by the General Assembly:

- As always, we can make predictions about surpluses from events, but factors may arise which affect these; and
- The potential risk around subscriptions in the current economic situation could reduce the subscription income.

Annex C does not include the 2011 and 2012 budgets approved by the 2010 General Assembly. This is because the incoming Council presents the proposed 4-year budget alongside its Work plan. The recategorisation of a number of items as explained earlier in this paper also makes direct comparisons more difficult. When comparing like with like against the previous budgets, the 2011 budget presented here is an improvement of €21,500 on that presented in 2010. Key changes are a reduction in subscription income of €30,000; and a reduction in administration costs of €40,000 and in council costs of €15,000. The 2012 budget is an improvement of €23,750, with similar key factors.

4. FIG Reserves

As is shown in Annex C, the FIG general reserve at the end of 2010 has reduced to 78% of regular annual expenditure, below the 90-100% range agreed by the 2009 General Assembly. This is considerably lower than the 91% position predicted in the finance paper to the 2010 General Assembly. The key reason for this is that, when finalising the 2010 accounts, an error was found in the reserves figure being used in the reports to General Assembly. Instead of the correct figure – the equity – being used, the sum of equity and liabilities was used. This resulted in an overstating of the reserves on the budget sheets (it did NOT affect the audited, formal accounts but was an error made in bringing the figure across from the audited accounts to the budget sheets). This error has now been corrected, and this paper and its attachments, including the stated level of the reserves, have been reviewed and signed off by FIG's auditors.

During 2010, the bookkeeper has reviewed all of the FIG accounting figures, including the Balance Sheet items, to ensure that we can stand over them all. The bookkeeper, on closing the 2010 accounts, purged the accounts database and brought forward the validated and audited balances to a clean accounting system for 2011, to ensure that the successful work to complete the accounts was not undone.

The reserves are in place to cushion FIG against financial difficulties, and these have been incurred in the last two years for both general and local reasons. It is therefore important that FIG's budget is set to bring the reserves back within the range approved by the 2009 General Assembly, as Council review confirms that this remains an appropriate range.

The reserves are held in low risk investments, in line with the policy agreed by the General Assembly. Any transfer of the reserves requires approval by two people, one of these being a Council member.

5. Change of auditors

The Council decided to change FIG's auditors in 2010. It is good practice to change auditors periodically, and Council also felt that the costs of the current auditors were a little on the high side. The FIG Office therefore completed a process of reviewing other possible auditors. This proved successful in identifying Erik Munk Statsautoriserede Revisorer (EM) as new auditors for FIG and the Foundation. The FIG Office staff were content with the capability of Erik Munk Statsautoriserede Revisorer (EM) when they met with them. The firm has all of the qualifications and standing that our previous auditors, Bille & Buch-Andersen, have.

The FIG Office staff found the audit of the 2010 accounts by Erik Munk Statsautoriserede Revisorer to have been robust and searching – as an audit should be. The audit led to some small corrections in the draft accounts, and also to some reduced costs when the auditors highlighted some of the claims that FIG could make to reclaim a portion of the VAT on certain expenses.

6. Subscriptions 2013

The 2010 General Assembly approved membership fees as follows:

Year	Per capita fee	Minimum fee	Maximum fee
2011	4.30 € per member up to a maximum of 5,500 members Member associations from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay 2.15 € member up to a maximum of 5,500 members.	20 members or 50 EUR (whichever is greater)	5,500 members (23,560 EUR)
2012	4.48 € per member up to a maximum of 5,500 members Member associations from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay 2.24 € member up to a maximum of 5,500 members.	20 members or 50 EUR (whichever is greater)	5,500 members (24,640 EUR)

The Council proposes that the Member Association subscription levels for 2013 are set at the same level as 2012. Council in principle wishes the same rates to apply also for 2014, but will bring a formal proposal to the 2012 General Assembly. Council therefore proposes the following subscription levels for 2013:

2013	4.48 € per member up to a maximum of 5,500 members Member associations from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay 2.24 € member up to a maximum of 5,500 members.	20 members or 50 EUR (whichever is greater)	5,500 members (24,640 EUR)
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7. Conclusion

2010 was a difficult year for FIG financially, in line with the difficulties experienced by many of our members and by much of the world's economy. The difficulty reinforced the wisdom of previous Councils in building up FIG's reserves.

The 2007-10 Council took decisive action during the year to ensure that FIG's finances remained sustainable, whilst retaining the Federation's capacity to deliver. This corrected some of the reductions in income that were experienced, and built a solid foundation for the 2011-14 budget drawn up by the new Council.

Council believes that the budget set is prudent and realistic. Council has also agreed that careful monitoring of FIG's financial position, on at least a quarterly basis, will allow appropriate decisions to be made on levels of developmental expenditure, to ensure the continuing sustainability of FIG's finances.

Iain Greenway
Vice President

March 2011



Michael Vejgaard Hansen

Carsten Johnsen

Poul Wisniewski

Erik Munk

The International Federation of Surveyors - FIG

Kalvebod Brygge 31-33

DK-1780 Copenhagen V

(Registration No. 21 33 60 76)

Financial Statements for 2010

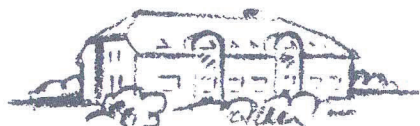


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Statement of the Management and the Council

Today the management have discussed and approved the Financial Statements for 1 January - 31 December 2010.

The Financial Statements have been presented in accordance with the generally accepted accounting principles of associations.

In our opinion the Federation and Foundation's financial statements give a true and fair view of the Federation and Foundation's financial position at 31 December 2010.

We recommend the Financial Statements to be approved at the annual general assembly.

Copenhagen, den 28 February 2011

Director and Office Manager:

Markku Villikka

Louise Friis-Hansen

Council:

Teo CheeHai
President

Dalal S. Alnaggar
Vice President

Iain Greenway
Vice President

Chryssy A Potsiou
Vice President

Rudolf Staiger
Vice President

The annual financial report is submitted for approval at the general assembly on / 2011

Teo CheeHai

Independent Auditor's Report

To the members of The International Federation of Surveyors - FIG

We have audited the Financial Statements of The International Federation of Surveyors and the FIG Foundation for 1 January to 31 December 2010, which comprise summary of significant accounting policies, income statement and balance sheet. The Financial Statements has been prepared in accordance with generally accepted accounting principles of associations.

The management and the Council's Responsibility for the Federation and the Foundation's Financial Statements

The Management and the Council are responsible for the presentation and preparation of Financial Statements that give a true and fair view in accordance with generally accepted accounting principles of associations. This responsibility includes: Designing, implementing and maintaining internal control relevant for the presentation and preparation of Financial Statements that give a true and fair view, free from material misstatement, whether due to fraud or error, selecting and applying appropriate accounting policies, and making accounting estimates that are reasonable in the

Auditor's Responsibility and Basis of Opinion

Our responsibility is to express an opinion on the Financial Statements based on our audit. We conducted our audit in accordance with Danish Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Financial Statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Financial Statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatements in the federations Financial Statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's presentation and preparation of federations Financial Statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Management and the Council, as well as the overall presentation of the Financial Statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

The audit has not resulted in any qualification.

CONTINUED ON THE NEXT PAGE

Independent Auditor's Report (fortsat)

Opinion

In our opinion, the Financial Statements give a true and fair view of the Federation and Foundation's financial position at 31 December 2010 and of the results of the operations for the financial year 1 January to 31 December 2010 in accordance with generally accepted accounting principles of

Roskilde, 28 February 2011

ERIK MUNK
Statsautoriseret Revisionsaktieselskab
Ringstedvej 71, DK-4000 Roskilde

Carsten Johnsen
State Authorized Public Accountant

Federation Information

Federation

The International Federation of Surveyors - FIG
Kalvebod Brygge 31-33
DK-1780 Copenhagen V

Telephone: +45 38 86 10 81

Fax: +45 38 86 02 52

Internet: www.fig.net

E-mail: fig@fig.net

Registration No. 21 33 60 76

Registered in: Copenhagen

Financial year: 1 January to 31 December

Council

Teo CheeHai
Dalal S. Alnaggar
Iain Greenway
Chryssy A Potsiou
Rudolf Staiger

Director and Office Manager

Markku Villikka
Louise Friis-Hansen

Auditor

Erik Munk, statsautoriseret revisionsaktieselskab
State Authorized Public Accountant
Ringstedvej 71
DK-4000 Roskilde
Denmark

Accounting policies

This Annual Financial Statements have been prepared in accordance with generally accepted accounting principles of associations.

The accounting policies applied for the Financial Statements are consistent with those applied last year.

Recognition and measurement overview

Income is recognised in the income statement when earned, where as costs are recognised by the amounts attributable to this financial year. Value adjustments of financial assets and liabilities are recognised in the income statements as financial income or financial expenses. Also depreciations are recognised in the income statement.

Assets are recognised in the balance sheet when it is probable as a result of a prior event that future economic benefits will flow to the Federation, and the value of the asset can be measured reliably.

Liabilities are recognised in the balance sheet when it is probable that future economic benefits will flow out of the Federation, and the value of the liability can be measured reliably.

On initial recognition, assets and liabilities are measured at cost. Measurement subsequent to initial recognition is effected as described below for each financial statement item.

Anticipated risks and losses that arise before the time of presentation of the Financial Statements and that confirm or invalidate affairs and conditions existing at the balance sheet date are considered at recognition and measurement.

Income Statement

Income and expenses

Items of income or expenses are stated within the period to which they relate irrespective of the payment date.

Balance Sheet

Deposits

Deposits are measured at nominal value.

Receivables

Receivables are measured at amortised cost, usually equalling nominal value less provisions for bad debts.

Prepayments comprise costs incurred relation to the subsequent financial year.

Accounting policies

Foreign currency translation

On initial recognition, foreign currency transactions are translated applying the exchange rate at the transaction date. Exchange differences that arise between the rate at the transaction date and the one in effect at the payment date or the rate at the balance sheet date are recognised in the income statement as financial income or financial expenses.

Receivables, payables and other monetary items denominated in foreign currencies that have not been settled at exchange rate on the balance sheet date and the transaction date is recognised in the income statement as financial income or financial expenses.

Income Statement for 1 January - 31 December 2010 for The International Federation of Surveyors - FIG

	<u>2010</u>	<u>2009</u>
	<i>EURO</i>	<i>EURO</i>
Regular Income		
Member associations.....	283.051	285.572
Affiliate members.....	20.203	16.361
Corporate members.....	88.874	109.667
Academic members.....	18.674	17.895
Less bad debts.....	<u>(20.540)</u>	<u>(11.794)</u>
	390.262	417.701
Financial income.....	6.259	4.856
Less banking costs.....	<u>(205)</u>	<u>(284)</u>
Total Regular Income	<u>396.316</u>	<u>422.273</u>
Regular Expenditure		
<i>Administration</i>		
Office costs.....	(179.430)	(197.112)
Outsourced office costs.....	<u>(32.704)</u>	<u>(44.311)</u>
	(212.134)	(241.423)
Marketing and publications.....	(35.642)	(11.232)
Council and executive management.....	(208.746)	(207.762)
<i>Commission support</i>		
Regular grants.....	(24.842)	(25.049)
Specific grants.....	<u>(10.602)</u>	<u>(937)</u>
	(35.444)	(25.986)
Total Regular Expenditure	<u>(491.966)</u>	<u>(486.403)</u>
Deficit of Regular Income/Regular Expenditure	<u>(95.650)</u>	<u>(64.130)</u>

Income Statement for 1 January - 31 December 2010 for The International Federation of Surveyors - FIG

	<u>2010</u>	<u>2009</u>
	<i>EURO</i>	<i>EURO</i>
Result brought forward	<u>(95.650)</u>	<u>(64.130)</u>
Projects, events - funds received by FIG		
Stockholm Working Week - late income.....	0	(1.235)
Congress/working Week.....	85.599	15.736
Regional Conference.....	0	24.157
World Bank Conference.....	0	5.879
Commission Events.....	0	(2.880)
	<u>85.599</u>	<u>41.657</u>
Other projects		
Income - sale of publications.....	45	140
UN HABITAT project.....	7.300	14.418
UN FAO Conference.....	0	6.086
Admin fee re commission 7, Malaysia.....	0	1.707
Miscellaneous income.....	16.117	502
Costs.....	(9.366)	0
	<u>14.096</u>	<u>22.853</u>
Surplus for the year - regular activities	<u>4.045</u>	<u>380</u>
Exeptional Items		
Additional staff costs.....	0	(50.713)
Travel cost re ash cloud.....	(4.325)	0
Items funded from reserves (as agreed by general assembly)		
- Young surveyors network.....	(2.497)	(1.002)
- Support to poor member associations.....	0	(1.121)
- Task Force support.....	(7.986)	0
Final Result (Deficit)	<u>(10.763)</u>	<u>(52.456)</u>

Balance Sheet at 31 December 2010 for The International Federation of Surveyors - FIG

<u>Assets</u>	<u>2010</u> <i>EURO</i>	<u>2009</u> <i>EURO</i>
Current assets:		
Receivables:		
Receivables from members.....	194.312	175.267
Other receivables.....	16.434	1.546
Receivable financial income.....	0	331
Receivable VAT.....	8.141	2.704
Merchandise.....	7.953	7.968
 Cash at hand and bankaccounts	 352.476	 425.127
Total current assets	579.316	612.943
 Total assets	 579.316	 612.943
 <u>Equity and liabilities</u>		
Equity:		
Equity at the beginning of the year.....	394.493	446.949
Fluctuations.....	-698	0
Retained earnings.....	-10.763	-52.456
Total equity	383.032	394.493
 Liabilities:		
Projects in progress.....	0	18.546
Trade payables.....	3.531	9.399
Account payable, The FIG Foundation.....	156.802	128.436
Other debt.....	35.951	62.069
Total liabilities	196.284	218.450
 Total equity and liabilities	 579.316	 612.943

Income Statement for 1 January - 31 December 2010 for the FIG Foundation

	<u>2010</u>	<u>2009</u>
	<i>EURO</i>	<i>EURO</i>
Donations		
Personal donations.....	1.497	1.258
Other donations.....	8.509	0
FIG Conferences.....	16.612	7.771
Financial income.....	1.057	1.726
	27.675	10.755
Expenses		
Grants.....	(3.915)	(5.373)
Bank cost.....	(471)	(722)
	(4.386)	(6.095)
	23.289	4.660
Final Result (Deficit)	23.289	4.660

Balance Sheet at 31 December 2010 for The FIG Foundation

	<u>2010</u>	<u>2009</u>
	<i>EURO</i>	<i>EURO</i>
<u>Assets</u>		
Current assets:		
Receivables:		
Account receivable, FIG.....	156.802	128.436
Other receivables.....	1.154	1.156
Cash at hand and bankaccounts.....	5.490	10.567
Total current assets	163.446	140.159
Total assets	163.446	140.159
<u>Equity and liabilities</u>		
Equity:		
Equity at the beginning of the year.....	139.159	134.335
Fluctuations.....	0	164
Retained earnings.....	23.289	4.660
Total equity	162.448	139.159
Liabilities:		
Other debt.....	998	1.000
Total liabilities	998	1.000
Total equity and liabilities	163.446	140.159

FIG FINANCIAL RESULTS 2009 and 2010

version of 9 March 2011

ANNEX B

	Result 2009 €	Budget 2010 €	Result 2010 €	Notes	
REGULAR INCOME					
Subscriptions					
Member associations	285 572	285 000	283 051		
Affiliate members	16 361	18 000	20 203		
Corporate members	109 667	110 000	88 874	1	
Academic members	17 895	17 860	18 674		
Less bad debts	11 794	15 000	20 540	2	
	<u>417 701</u>	<u>415 860</u>	<u>390 262</u>		
Financial income	4 856	12 000	6 259	3	
Less banking costs	284	250	205		
Total regular income	<u>422 273</u>	<u>427 610</u>	<u>396 316</u>		
REGULAR EXPENDITURE					
Administration					
Office costs	197 112	201 750	179 430	4	<i>The office provides Member services Commission services Communication Event management</i>
Outsourced office costs	44 312	32 000	32 704	5	
	<u>241 424</u>	<u>233 750</u>	<u>212 134</u>		
Marketing and publications	<u>11 232</u>	<u>24 000</u>	<u>35 642</u>	6	
Council and executive management	<u>207 762</u>	<u>206 000</u>	<u>208 746</u>	7	<i>The Council provides Promotion of the profession Executive management Member support Event development</i>
Commission support					
Regular grants	25 049	25 000	24 842		
Specific grants	937	10 000	10 602		
	<u>25 986</u>	<u>35 000</u>	<u>35 444</u>		
Total regular expenditure	<u>486 404</u>	<u>498 750</u>	<u>491 966</u>		
Surplus/deficit of regular income over regular expenditure	-64 131	-71 140	-95 650		
PROJECTS					
Events - funds received by FIG					
Congress/Working Week	14 501	100 000	85 599		
Regional Conference	24 157	-	-		
Commission events	-2 880	2 500	-		
Other events	5 879	-	-		
	<u>41 657</u>	<u>102 500</u>	<u>85 599</u>		
Other projects					
Income - sale of publications	140	-	45		
Other projects	22 211	5 000	23 417	8	
Miscellaneous income	501	-	-		
Costs	-	1 000	9 366	9	
Net result	<u>22 852</u>	<u>4 000</u>	<u>14 096</u>		
RESULT					
Overall surplus/deficit in the year - normal activities	<u>378</u>	<u>35 360</u>	<u>4 045</u>		
Exceptional items					
Additional staff costs	50 713		-		
Travel costs re ash cloud			4 325		
Items funded from reserves (as agreed by General Assembly)					
Young Surveyors Network	1 002		2 497		
Support for Poor Member Associations	1 121		-		
Task Force support	-		7 986	10	
Total reserve at year end	394 493		383 032		
Specific reserves					
Commission reserves	8 548		-		
General reserve	385 945		383 032		
<i>General reserve as a % of regular annual expenditure</i>	<i>79 %</i>		<i>78 %</i>		

Notes

- 1 A number of corporate members resigned in 2010
- 2 This reflects the resignation of corporate members and the need to write off arrears associated with these members
- 3 Very low interest rates in 2010
- 4 Office costs includes salaries, postage/mail, telecomms, copying, office supplies and equipment, and miscellaneous
Costs were carefully controlled in 2010, including by staff restructuring
- 5 Outsourced office costs includes auditing, accounting and IT costs
Costs were carefully controlled in 2010
- 6 Marketing and publications includes printing, promotions, Annual Review
A large number of publications were produced in 2010, the final year of commission and council terms
- 7 Council and executive management includes costs of the Council and the Director, all travels funded by FIG, and all meeting costs
- 8 Reviews and reports for UN HABITAT; support to commissions from external sources; surplus from event organising
- 9 Prior year events - late invoices; old write off
- 10 Support for Africa Task Force events

	Final 2009 Result	Notes	Final 2010 Result	Notes	Revised Budget 2011	Notes	Revised Budget 2012	Notes	Budget 2013	Notes	Budget 2014	Notes
PROJECTS AND DEVELOPMENT												
Events - funds received by FIG												
Congress/Working Week - share of surplus	14 501		85 599		20 000		30 000		20 000		45 000	
Regional conference	24 157		-		-		10 000		-		-	
Other events	5 879		-		-		-		-		-	
Commission events	-2 880		-		-		-		-		-	
	41 657		85 599		20 000		40 000		20 000		45 000	
Developmental income					-	j	-	j	-	j	-	j
Developmental spend												
Task Force support			-		12 000	k	12 000		12 000		12 000	
IT and web - developmental activity					10 000	l	-		20 000	l	-	
Support for poor Member Associations					2 000	m	2 000		2 000		2 000	
Specific grants for Commissions	937		10 602	n	5 000	n	7 500	n	10 000	n	10 000	
	937		10 602		29 000		21 500		44 000		24 000	
Other projects												
Income	22 853		23 462									
Costs	-		9 366									
Net result	22 853		14 096		-	j	-	j	-	j	-	j
RESULT												
Overall surplus/deficit in the year - normal activities	380		4 045		3 250		53 500		3 250		49 500	
<i>[Key measure 2 - this to be positive in total over the term of the 4 year budget period]</i>												
Exceptional items												
Additional staff costs	50 713											
Travel costs re ash cloud			4 325									
Items funded from reserves (as agreed by General Assembly)												
Support for poor Member Associations	1 121		-			m						
Young Surveyors Network	1 002		2 497			i						
Task Force support	-		7 986			k						
Total reserves at year end	394 493		383 032		386 282		439 782		443 032		492 532	
<i>Commission reserves</i>	<i>8 548</i>		<i>-</i>		<i>-</i>		<i>-</i>		<i>-</i>		<i>-</i>	
General reserve	385 945		383 032		386 282		439 782		443 032		492 532	
Total reserves as a % of regular annual exp	81 %		78 %		88 %		98 %		99 %		102 %	
General reserve as a % of regular annual exp	79 %	o	78 %	o	88 %	o	98 %	o	99 %	o	102 %	o
<i>[Key measure 3 - this to be within the range 90-100%]</i>												

Notes:

- a Assumes subscription rates frozen 2012-14 and stability in member numbers - this to be kept under review
- b Backlog of expulsions in 2010 and 2011
- c Assumes interest rates stay low
- d "Fixed" income from event management moved to regular income
- e Careful management of office expenditure has delivered reduced spending in 2010; this will continue
- f High number of publications in final year of commission and council term
- g Spend against travel budget will be carefully monitored; this line will be reduced if overall financial situation is not in line with budget
- h Proposed increase of chair grants to €3,000 per year for the 2011-14 term
- i Young Surveyors support brought into 'regular expenditure' rather than from reserves
- j Zero net income assumed each year as a prudent assumption
- k Task Force support moved to developmental spend - assumes no other external sources for support - this for all Task Forces and the Standards Network
- l To cover hardware refreshes and major projects to move to new operating systems etc - ongoing maintenance included in Outsourced Office Costs
- m Moved to developmental spend from spending from reserves
- n Moved to developmental spend . Reduced in 2011 and 2012 in light of increase in general grant
- o Currently required to be in 90-100% range - old errors in the base figure corrected and matched to the audited accounts