

# FIG Work Plan 2007–2010



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## FOREWORD

This document lists the tasks which FIG will undertake during 2007–2010. It comprises the vision statement and goals of the Federation, the Council Work Plan for 2007–2010, in relation to the administration and forward planning of the Federation; and Work Plans for 2007–2010 for each of the ten technical commissions which pursue FIG's professional and technical objectives. It is, however the Council which has overall responsibility for fulfilling this plan, in its role either as an executor or, in the case of commissioned activities, as a facilitator and co-ordinator.

The Council's Work Plan is governed by FIG's aim and objectives, the Statutes and Internal Rules of the Federation and decisions of the General Assembly of FIG.

The FIG Work Plan 2007–2010 has been adopted by the 30<sup>th</sup> FIG General Assembly in Hong Kong SAR, China in May 2007.

A handwritten signature in black ink, appearing to read 'Stig Enemark', with a large, stylized flourish at the end.

Prof. Stig Enemark  
President of FIG 2007–2010

# **AIM, OBJECTIVES AND MISSION STATEMENT**

## ***Aim***

The aim of FIG is to be the premier international non-governmental organization that represents the interests of surveyors and users of surveying services in all countries in the world. It is a Federation of member associations all of whom seek excellence in the services that they deliver.

## ***Objectives***

The objectives of the Federation as defined in its Statutes are:

1. to provide an international forum for the exchange of information about surveying and for the development of fellowship between surveyors
2. to collaborate with the United Nations and other international and regional agencies in the formulation and implementation of policies affecting the use, development and management of land and marine resources
3. to promote the disciplines of surveying, particularly in developing countries and countries in economic transition
4. to promote the role of the surveyor in the management of natural and man-made environments
5. to promote the development of national associations of surveyors and to promote professional standards and codes of ethics and the exchange of surveying personnel
6. to promote high standards of education and training for surveyors and to facilitate continuing professional development (CPD)
7. to encourage the development and proper use of appropriate technology
8. to encourage research in all disciplines of surveying and to disseminate the results.

## ***Mission Statement***

The Mission of the International Federation of Surveyors is to ensure that the disciplines of surveying and all who practice them meet the needs of the markets and communities that they serve.

# 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 non-governmental organisation (NGO) on land issues, FIG must be able to interact with the key players in the field such as the United Nations agencies, the World Bank, and our sister organisations. FIG should therefore contribute to solving the global challenges as presented through the Millennium Development Goals (MDGs) 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 Advisory Committee of Commission Officers (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.

### 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.

– **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.

– **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 (Food and Agriculture Organization of the United Nations (FAO), United Nations Human Settlements Programme (UN-Habitat), United Nations Environmental Programme (UNEP), United Nations Office for Outer Space Affairs (UN OOSA), the World Bank, and international non-governmental organisations such as our sister organisations (International Association of Geodesy (IAG), International Cartographic Association (ICA), International Hydrographic Organization (IHO), International Society for Photogrammetry and Remote Sensing (ISPRS) and Global Spatial Data Infrastructure Association 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.

– **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.



### **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.

#### **– 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.

#### **– 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.

#### **– 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.

#### **– 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.

#### **– 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.

## **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.

### **– 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.

### **– 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.

## **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 analyse, 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.

– **High level FIG/WB conference in 2008 to promote 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.

## **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.

– **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.

– **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.

## **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.

– **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.

– **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.

– **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.

## **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.

– **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.

– **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.

– **Responsibilities of Council members**

Updated list of responsibilities of individual Council members is always available on the FIG web site.

– **Events**

- FIG XXX General Assembly and Working Week, Hong Kong SAR, China, 13–17 May 2007
- 6<sup>th</sup> FIG Regional Conference, San Jose, Costa Rica, 12–15 November 2007
- FIG XXXI General Assembly and Working Week, Stockholm, Sweden, 14–19 June 2008
- FIG XXXII General Assembly and Working Week, Eilat, Israel, 3–8 May 2009
- 7<sup>th</sup> FIG Regional Conference, 19–22 October 2009
- 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.

# COMMISSION WORK PLANS 2007–2010

## *FIG Commission 1 – Professional Standards and Practice*

### Work Plan 2007–2010

#### **1 Title**

Professional Standards and Practice.

#### **2 Terms of reference**

- Perception of surveying profession
- Professional practice, legal aspects and organisational structures
- Standards and certification
- Code of ethics and applications
- Under-represented groups in surveying
- Students and young surveyors
- Information technology management and professional practice
- Project-management, quality and best practice
- Support to under-represented groups

#### **3 Mission Statement**

- Capability of development: Changes are affecting the operation of surveying practices, their management and their professional structures under the challenges of widening professional activities.
- Change of technology: Managing processes and infrastructure with ever changing business infrastructures in the areas of IT, internet, networks and total quality management.
- Improving surveyors' reputation: Supporting the essential dialogue between politicians and surveyors with regard to further development and setting up the own business in strengthening surveyors' role in economy and politics.
- Under represented groups: To focus public attention on under represented groups by surveying activities taking place to improve representation.

To implement this mission statement by

- Promoting the profession everywhere by developing applicable codes of standards and ethics
- Conserving the human aspect of the profession
- Gathering data on problems, successes and researches and by analysing these to expose new issues for professional practice discussion
- Working on establishing standard rules and legislations that can be used in developing countries to promote the surveyors institutional position.

#### **4 General**

In addition to the specific activities above, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

## 5 Working Groups

### Working Group 1.1 – Standards Network

#### Policy issues

- Developing the involvement of practising surveyors in the development and use of standards
- Increasing the influence of surveyors on key international standardisation bodies
- Building the linkage between FIG workplans and standardisation activities
- Advising FIG officers and members on standards and standardisation
- Supporting the implementation of FIG's policy on standards

#### Chair

- Iain Greenway (United Kingdom), e-mail: iain.greenway@btinternet.com

#### Specific projects

- Continuing to research the most effective way to influence the standardisation process, building relationships with member associations and sister societies as necessary
- Coordinating FIG's input to and relationship with ISO (in particular TC211 and TC172 SC6) and IVSC
- Working with Commissions to provide appropriate briefings to FIG's members on developing and recently published standards
- Maintaining and updating a standards area on the FIG website and the FIG Guide on Standardisation

#### Publications

- At least one paper at each FIG Working Week, providing an update on activities and progress

#### Timetable

- The Working Group will continue until at least to Congress in Sydney in 2010, but options for new chair will be considered in 2008.

#### Beneficiaries

- Surveyors and surveying practices;
- Other professionals working in land management and development;
- Member associations and sister associations involved in standard setting;
- ISO and IVSC;
- All Commissions;
- Universities and educational organisations.

### Working Group 1.2 – Young Surveyors (a Joint Working Group with Commission 2)

#### Policy issues

- To improve the number of young professionals participating within the FIG.
- To help young professionals in the beginning of their careers with contacts.
- To increase co-operation between the commission boards and the Students and Young Professionals working group.



### Chair

- Miss Cecilia Lindén (Sweden), e-mail: clinden@kth.se
- Vice-chair: Mr. Torsten Schwing (Germany), e-mail: t\_schwing@web.de

### Specific project(s)

In a time where many of the member organizations are facing difficulties to attract young people to the profession of surveying this working group have been created. The goal is to create connections between “older” and “younger” surveyors.

### Workshop(s)

Meeting at the FIG Working Weeks.

### Publication(s)

Internal and external progress reports will be prepared, working towards the final formation of the group.

### Beneficiaries

The target groups of this working group are Master- and PhD Students, young professionals and commission delegates.

## **Working Group 1.3 – Surveyors Changing Role in Society**

### Policy issues

To study surveyors as entrepreneurs – Surveyors changing role in Society. This would show in detail how Surveyors are taking new roles in a changing world over and above the typical thoughts/mindset around the role of Surveyors.

### Chair

- Ms. Leonie Newnham (Australia), e-mail: Leonie.Newnham@dse.vic.gov.au
- Vice-chair: Prof. John Parker (Australia): e-mail: jrp001@attglobal.net

### Specific project(s)

To produce papers or case studies on topics related to the topic of the Working Group.

### Workshop(s)

Meeting at the FIG Working Weeks.

### Publication(s)

To be decided.

## **6 Commission Officers**

Commission Chair  
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## **FIG Commission 2 – Professional Education**

### **Work Plan 2007–2010**

#### **1 Title**

Professional education.

#### **2 Terms of reference**

- Curriculum development
- Learning and teaching methods and technologies
- Educational management and marketing
- Continuing professional development
- Networking in education and training

#### **3 Mission Statement**

Promoting good practices:

1. Endorsing universities and other educational organisations to explore the needs of society and to manage in a pro-active way the necessary changes in the “knowledge age”.
2. Supporting academic institutions and industry with new methods of knowledge management, helping surveyors continuously to update their academic and professional profiles.
3. Advancing educational business and curriculum tuning processes.
4. Promoting content development experiences, facilitating international researches in surveying education and training and to initiate joint projects on this field (curriculum development, educational material development, joint courses, quality assurance etc.).
5. Strengthening knowledge transfer between FIG Commissions, inspiring activities on knowledge networks.
6. Improving dissemination of information on educational theory and practice to the members across the world.
7. Reinforcing contacts to Educational Commissions of International Organisations on the related professions, including the International Cartographic Association (ICA), the International Society for Photogrammetry and Remote Sensing (ISPRS), the Association of Geographic Information Laboratories in Europe (AGILE) and the International Association of Geodesy (IAG).

#### **4 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 will be 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.

By the end of period 2006–2010 Commission 2 will deliver a publication on '*The Future of Surveying Education*'. This will be the main outcome of the four years of activity and will include topics such as:

- Needs analysis
- Curriculum development
- Methods
- Web services
- Knowledge pool
- Experiences in Continuing Professional Development and Life-long Learning
- Educational SDI
- Meta-database
- Global and Regional Networks
- Marketing
- Best practices

To support the development of the publication, the Commission will also conduct:

- Workshops
- Summer Schools
- Joint Projects.

In addition to the specific activities above, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

## **5 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

#### Workshop

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

#### Final report

It will be given during the Congress in Sydney.

### **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

### Workshop

- June 2008. Enschede (Netherlands)

### Final report

It will be given during the Congress 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

### Workshop

- June 2009. Vienna (Austria)

### Final report

It will be given during the Congress in Sydney.

## **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

### Final report

It will be given during the Congress in Sydney.

## **6 Communication**

### Newsletters

Commission 2 will inform its delegates and member associations via Commission newsletter.

## **7 Calendar of 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, June 2008, Enschede (Netherlands)
- Workshop on Educational management and marketing, June 2009, Vienna, Austria

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## **FIG Commission 3 – Spatial Information Management (SIM)**

### **Work Plan 2007–2010**

#### **1 Title**

Spatial Information Management.

#### **2 Terms of reference**

- Management of spatial information about land, property and marine data (data, tools, methods, policies, processes, procedures);
- Spatial data infrastructure – data collection, analysis, visualization, standardization, and dissemination (technical, organizational, personnel, administrative, financial, policy, and legal aspects);
- Management and transfer 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**

- Increase awareness about successful SIM approaches in the “e-Society” by showing good practice like available, reliable and accessible spatial information for better decision-making.
- 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 practices on managerial processes and infrastructure required for handling data, using information and distributing knowledge.
- Share good practices and develop high-level methods and techniques for merging and managing updated spatial information at various levels according to market requirements.
- Encourage the use of spatial information within e-government and e-commerce.
- Implement the general FIG Work Plan through working groups (WGs), Joint-WGs, Task Force, annual meetings, workshops, and seminars held during and/or outside FIG Working Weeks (WWs) and Regional Conferences; publications; and progress reports about these events.
- Present the final outcomes of Commission work through the web.
- Cooperate and coordinate with the related United Nations committees and other geo-spatial information societies and organizations active in the field, such as the International Society for Photogrammetry and Remote Sensing (ISPRS), the International Cartographic Association (ICA), the International Association of Geodesy (IAG), the Global Spatial Data Infrastructure Association (GSDI), the European Umbrella Organisation for Geographic Information (EUROGI), the United Nations Economic Commission for Europe, Working Party on Land Administration (UN/ECE WPLA), the United Nations Economic Commission for Europe,



Committee on Housing and Land Management and the United Nations Human Settlements Programme (UN-Habitat).

- Increase the contribution of the surveying profession to the implementation of the UN Millennium Development Goals.

#### 4 General

Commission 3 and its Working Groups (WGs) focus on contribution of spatial information for sustainable development. The main output of Commission 3 will be a publication on the topic: *"Spatial Information toward Managing Mega Cities"*, to be delivered by 2010. For that purpose Commission 3 will organize three specific annual Workshops under the sub-topics:

1. Spatial Information Management toward Legalizing Informal Urban Development", 28-31 March 2007, Athens, Greece ([http://www.psdadm.gr/fig\\_Commission\\_3\\_wpla.htm](http://www.psdadm.gr/fig_Commission_3_wpla.htm))
2. Spatial Information in Environmental Management of Mega Cities, January 2008, Valencia, Spain
3. Seminar 2009 (Topic and venue to be decided)

Commission 3 delegates will organize additional specific Workshops and meetings either during the FIG Working Weeks and Regional Conferences and/or independently, according to the needs.

In addition, Commission 3 will contribute to joint activities:

- FIG Task Force (involving Commissions 3, 7, 8, 9, 10) for the preparation of the FIG/UN-Habitat Seminar on *"Improving Slum Conditions through Innovative Financing. Bridging the gap between affordable shelter that is inadequate and adequate shelter that is unaffordable"* in Stockholm in June 2008, and
- FIG Task Force (involving Commissions 3, 7, 8, and 9) for cooperation between FIG and UN-Habitat in the framework of the Global Land Tools Network (GLTN); especially in the field of raising awareness in SIM tools and in providing low cost methods, tools and policies toward promoting sustainable development, environmental monitoring of unplanned urban development, and sustainable urbanization. Commission 3 will also provide for this Task Force methods and tools as facilitators among professionals in a well-understood context of planning, development and control.

FIG Commission 3 delegates have expressed their strong interest in:

- Activating 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
- Organizing Commission 3 annual meetings and workshops focused on the specifically identified needs and topics. Commission 3 will provide and certify optional double blind peer review for authors of papers submitted for Commission 3 Workshops. Papers of authors not wishing peer review will be equally welcome in the Commission 3 Workshop proceedings. Commission 3 delegates consider that the close cooperation and coordination among delegates coming from the public and private sectors and from the FIG academic members is of great and equal value for all.

Commission 3 delegates have identified the following sub-topics to be of interest:

- e-Governance for the citizen, democracy, and transparency
- Web Services and Metadata
- SIM Infrastructure
- State of the Art of Spatial Data Infrastructure
- Technical aspects, integration of information, 3D / 4D applications of SDI, visualization of information, seamless information management
- Standardization of Information (technical, legal, semantics and ontology)
- Geo-data policy issues with a focus on pricing and access policies for National Spatial Data Infrastructure (NSDI), equal opportunities and access to spatial information
- SIM applications for environmental protection, disaster management and risk assessment, social and economic growth, cultural heritage documentation and development, informal/unplanned development management, quantifying and localizing cultural diversity, coastal zone and marine data management, real estate markets, valuation and taxation, real estate finance and development
- Educational aspects in SDI and SIM, e-learning
- Transferring / sharing knowledge focusing on “low-cost” methods and tools for spatial information collection and management

In addition to the specific activities above, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

## **5 Working Groups**

### **Working Group 3.1 – e-Government and e-Citizen**

Interactive information flow and communication between providers, partners and customers Public Private Partnerships (PPP).

#### Policy Issues

SIM is a facilitator for IT based services for administration as well as for citizens. By this SIMS will have the role of an integrator of components for a Spatial Information Infrastructure within an information society.

- Services and workflows for decision makers and citizens in participatory democracy
- Government – business – customers: relations and activities
- Integration and cooperation in a distributed environment
- Individual vs. business in SIM
- Mobile society
- SIM and Location Based Services (LBS) in an e-Government context

#### Chair

- Kari Strande, Norway, E-mail: kari.strande@statkart.no

#### Specific Projects and Outputs

Based on cooperation with other WGs and other commissions WG 3.1 will:

- Report on good practice of Spatial Information within e-Government in order to

support citizens in participatory democracy, providing equal access to information for all with transparency, and to reduce corruption caused by inefficient land governance in Mega Cities

- Facilitate experience exchange in e-Government toward sustainable development and environmental management of Mega Cities
- Provide recommendations to the way forward within SIM in e-Government development; low cost approaches for upgrading informal settlements
- Provide links to information and publish minutes of workshops
- Facilitate network and meeting places for local authorities for their e-Government development and experience exchange
- Contribute to the Commission 3 annual meetings and specific Workshops
- Contribute to the publication on the topic: *"Spatial Information toward Managing Mega Cities"*, to be delivered by 2010.
- Contribute to the FIG Task Force for the preparation of the FIG-UN Habitat Seminar on *"Improving Slum Conditions through Innovative Financing. Bridging the gap between affordable shelter that is inadequate and Adequate shelter that is unaffordable"*
- Contribute to the deliverables that Commission 3 will provide to the FIG Task Force in the framework of the UN-Habitat Global Land Tool Network.

A detailed work plan with milestones will be published on the website of Commission 3.

#### Workshops

- Athens, 28–31 March 2007
- Norway, sub-Working Groups meetings
- FIG WW Hong Kong, 12–17 May 2007
- FIG Regional Conference, Costa Rica, 12–15 November 2007
- Valencia, January 2008
- Workshop and FIG Working Week, Stockholm, 14–19 June 2008
- Commission 3 Workshop, 2009
- Workshop and FIG Working Week, Eilat, Israel, 3–8 May 2009
- FIG Regional Conference, 2009
- FIG Congress, Sydney, Australia, 9–16 April 2010

#### Beneficiaries

- Surveyors, planners, politicians, and citizens accessing and contributing to e-Government on a national as well as on a local level. Contributing to better access to general users of spatial data, and to better tools and more participation in local authorities.

### **Working Group 3.2 – Spatial Data Infrastructure**

Requirements for data, information, tools and workflows as components of local, national and global spatial data infrastructures (SDI).

#### Policy Issues

- Institutional arrangements, information policy and legal frameworks needed to create and share data, information and tools within and between levels of government
- Respective roles of government, private sector, professional bodies and com-

- munity groups in creating and managing SDI
- Technical innovation needed to enable use of SDI, including spatial data capture, management, visualization and access
- Implementing international best practice standards in SIM at all levels, including use of ISO/TC 211, Open GIS Consortium, etc.
- Sharing experience, developing visions for the future, identifying productive roles for surveyors and other spatial professionals and informing relevant forums of the role of SIM.

### Chair

- Paul Kelly, Director, Spatial Strategies Pty Ltd, Australia, E-mail: spatials@smart-chat.net.au
- Co-Chair: Prof. Dr.-Ing. Hartmut Mueller, Fachhochschule Mainz, Germany, E-mail: mueller@geoinform.fh-mainz.de

### Specific Projects and Outputs

Based on cooperation with other WGs and other commissions this WG will:

- Support discussion on the role of local and regional SDI in managing mega cities; low cost and realistic policies and infrastructure for unplanned urban sprawl management and control
- Identify institutional, policy and legal frameworks that can be incorporated in SDI to address mega city issues related to sound land governance
- Identify specific technical innovations in SIM that can improve management of mega cities
- Contribute to the Commission 3 annual meetings and specific Workshops
- Contribute to the publication on the topic "*Spatial Information toward Managing Mega Cities*", to be delivered by 2010.
- Contribute to the FIG Task Force for the preparation of the FIG-UN Habitat Seminar on "*Improving Slum Conditions through Innovative Financing. Bridging the gap between affordable shelter that is inadequate and Adequate shelter that is unaffordable*"
- Contribute to the deliverables that Commission 3 will provide to the FIG Task Force in the framework of the UN-Habitat Global Land Tool Network(GLTN)

### Workshops

- Athens, 28–31 March 2007
- FIG Working Week, Hong Kong SAR, 13–17 May 2007
- FIG Regional Conference, San José, Costa Rica, 12–15 November 2007
- Valencia, January 2008
- Workshop and FIG Working Week, Stockholm, Sweden, 14–19 June 2008
- Commission 3 Workshop, 2009
- Workshop and FIG Working Week, Eilat, Israel, 3–8 May 2009
- FIG Regional Conference, 2009
- FIG Congress, Sydney, Australia, 9–16 April 2010

### Beneficiaries

Surveyors, government, associations engaged with spatial data and users of spatial data and spatial information.

### **Working Group 3.3 – Multi Dimensional Aspects in Spatial Information Management**

Review, evaluation and further development of technologies and technological trends for multi dimensional spatial information management in general and data models, visualization and data fusion techniques in particular.

Some novel approaches in modeling, visualization and fusion of spatial data have recently gained the attention of both academic and commercial communities, due to an increase of capabilities of Spatial DataBase Management Systems (SDBMS), as well as the awareness in the necessity for 3D geospatial information within the surveying and the engineering communities.

#### Policy issues

WG 3.3 will focus on the topics related to above targets, such as (but not limited to):

- Methods for measuring and gathering 3D spatial information and databases
- 3D data model for building information systems (built on top of SDBMS)
- Algorithms for detection of relations between spatial objects in 3D
- Fully www based approach to visualization of spatial data in 2D and 3D
- Event oriented approach to modeling changes in spatial information systems
- Continuous temporal approaches for handling 2D and 3D spatial information systems
- Accuracy aspects of spatial information vs. needs & budgets of the public and private sectors

#### Specific Projects and Outputs

- Support discussion on the role of local and regional SDI in managing mega cities; low cost and realistic policies and infrastructure for unplanned urban sprawl management and control
- Expansion and development of existing data models
- Increase the involvement of surveyors in development of data models
- Disseminate accumulated knowledge and experience
- Provide new methods and tools for city-wide environmental monitoring of unplanned urban development
- Contribute to the Commission 3 annual meetings and specific Workshops
- Contribute to the publication on the topic "*Spatial Information toward Managing Mega Cities*", to be delivered by 2010.
- Contribute to the FIG Task Force for the preparation of the FIG-UN Habitat Seminar on "*Improving Slum Conditions through Innovative Financing. Bridging the gap between affordable shelter that is inadequate and Adequate shelter that is unaffordable*"
- Contribute to the deliverables that Commission 3 will provide to the FIG Task Force in the framework of the UN-Habitat Global Land Tool network (GLTN)

#### Chair

- Prof. dr. sc. Miodrag Roic, Croatia, E-mail: mroic@geof.hr

#### Workshops

- Athens, 28–31 March 2007
- FIG Working Week, Hong Kong SAR, 13–17 May 2007

- FIG Regional Conference, San José, Costa Rica, 12–15 November 2007
- Valencia, January 2008
- Workshop and FIG Working Week, Stockholm, Sweden, 14–19 June 2008
- Commission 3 Workshop, 2009
- Workshop and FIG Working Week, Eilat, Israel, 3–8 May 2009
- FIG Regional Conference, 2009
- FIG Congress, Sydney, Australia, 9–16 April 2010

### Beneficiaries

Surveyors, governments, associations engaged with spatial data and users of spatial data and spatial information.

## **6 Commission 3 Workshops**

- 37<sup>th</sup> CIPA International Workshop on the “e-volution of Information Technology in Cultural Heritage – Where Hi-Tech Touches the Past: Risks and Challenges for the 21<sup>st</sup> Century”, held on 30 October – 4 November 2006, Cyprus. (<http://www.vast2006.org> or <http://www.cipa2006.org>)
- FIG Commission 3 2007 annual meeting and workshop in Athens, Greece, on 28-31 March 2007, in parallel to the joint Workshop of the UN/ECE Committee on Housing and Land Management and the UN/ECE Working Party on Land Administration on “Informal Settlements”. The topic of the FIG Commission 3 Workshop is: “*Spatial Information Management toward Legalizing Informal Urban Development*”. ([http://www.psdadm.gr/fig\\_com3\\_wpla.htm](http://www.psdadm.gr/fig_com3_wpla.htm))
- FIG Commission 3 2008 annual meeting and Workshop in Valencia, Spain, in January 2008, on environmental and cultural heritage documentation issues, in parallel to the International Congress of Cartography and Surveying and the National Spanish Congress TOP-CART 2008. FIG Com2 organizes a Workshop in Valencia at the same time. Plans are made for some joint sessions of Commission 2 and Commission 3 on educational issues and other sub-topics of common interest. The topic of FIG Commission 3 2008 annual meeting and Workshop is: “*Spatial Information in Environmental Management of Mega Cities*”
- FIG Commission 3 annual meeting and Workshop of 2009. Topic, venue (declared interest for hosting the workshop by the Association of Nigeria), and dates remain to be decided.
- XXI CIPA International Symposium on “AntiCIPAting the Future of the Cultural Past”, to be held in Athens, 1–6 October 2007 (Co-sponsored by Commission 3) ([http://www.survey.ntua.gr/hosted/cipathens\\_2007/](http://www.survey.ntua.gr/hosted/cipathens_2007/))
- Workshop on “Improving Slum Conditions through Innovative Financing. Bridging the gap between Affordable shelter that is inadequate and Adequate shelter that is unaffordable” during the FIG WW 2008 in Sweden as a Follow-up of the Commission 3 annual Workshops in Athens (2007) and in Valencia (2008)
- A specific Workshop on “3D and 4D Spatial Information Management”, during the FIG WW 2009, in Eilat, Israel (proposed by Prof Y. Doytsher) (to be confirmed)
- Commission 3 delegates may organize a specific Workshop on “Pricing of Spatial Data and Services”, (proposed by Dr J.A. Zevenbergen, the Netherlands) (to be confirmed)

Commission 3 will always provide and certify *optional double blind peer review* of papers if requested by the authors. Since the experience and knowledge sharing among all



participants, professionals of the public and private sectors and academics, is considered to be of great value for the common benefit of all countries, *all papers* (reviewed or not) will be included at the proceedings of the workshops. Commission 3 has established a group of reviewers for the responsibilities of the Athens Workshop in 2007. The composition of the reviewers group may vary according to the specific topics and availability of the reviewers.

Prof Yerach Doytsher, Israel, will be the director of the peer review process for the Commission 3 specific Workshops.

## **7 Co-operation with Sister Associations**

### **Cooperation with UN/ECE WPLA, UN/ECE Committee on Housing and Land Management and UN-Habitat**

Cooperation on Spatial Information Management toward Legalizing Informal Urban Development with UN-ECE-WPLA and UN-ECE-Committee on Housing and Land Management.

The FIG Commission 3 2007 annual meeting and Workshop will be followed by joint FIG Commission 3 and UN/ECE Working Party on Land Administration, and Committee for Housing and Land Management sessions, on March 2007, under the general topic: "*Informal Settlements and National Economy -The Value of Good Land Administration and Land Management*".

### **Cooperation with UN-HABITAT**

Commission 3 delegates will support the cooperation between FIG and UN Habitat (Land and Tenure Section) in the framework of the Global Land Tools Network (GLTN).

### **Cooperation with Professional Organisations**

Commission 3 supported the 37<sup>th</sup> CIPA International Workshop on the "e-volution of Information Technology in Cultural Heritage – Where Hi-Tech Touches the Past: Risks and Challenges for the 21<sup>st</sup> Century", held on 30 October – 4 November 2006, Cyprus. Prof Hartmut Mueller, Germany, represented Commission 3 in that event. Web site: <http://www.vast2006.org> or <http://www.cipa2006.org>.

Commission 3 delegates will contribute to the XXI CIPA International Symposium on "*AntiCIPAting the Future of the Cultural Past*", to be held in Athens, 1–6 October 2007 ([http://www.survey.ntua.gr/hosted/cipathens\\_2007/](http://www.survey.ntua.gr/hosted/cipathens_2007/))

### **Cooperation with ISPRS**

Commission 3 may organize some joint sessions with ISPRS Commission 2, WG 6 (<http://www.commission2.isprs.org/wg6/>) during the Workshop and annual meeting 2008 in Valencia, Spain (to be decided).

### **Cooperation on international standards on spatial data with ISO and OPENGIS**

Commission 3 supports the FIG inter-commission activity in this field. Commission 3 representative to the joint WG on standards Network, chaired by I. Greenway, is Ms Helen Murray, from Ireland.

## **8 List of the International Partners of Commission 3**

### **Professional Associations**

- International Society for Photogrammetry and Remote Sensing (ISPRS), especially with ISPRS-Commission IV-Spatial Information Systems and Digital Mapping (<http://www.commission4.isprs.org>)
- International Committee for Architectural Photogrammetry (CIPA) ([cipa.icomos.org](http://cipa.icomos.org))
- International Cartographic Association (ICA) <http://www.icaci.org>
- International Geographical Union, Commission on Geographical Information Science (<http://www.hku.hk/cupem/igugisc>)

### **United Nations and other international partners**

- Food and Agriculture Organization (FAO) [www.fao.org](http://www.fao.org)
- UN-Cartographic section: [www.un.org/Depts/Cartographic/english/htmain.htm](http://www.un.org/Depts/Cartographic/english/htmain.htm)
- United Nations Economic Commission for Europe, Working Party on Land Administration (UN/ECE WPLA – [www.unece.org/env/hs/wpla/welcome.html](http://www.unece.org/env/hs/wpla/welcome.html))
- United Nations Economic Commission for Europe Committee on Housing and Land Management (UN/ECE CHLM)
- United Nations Economic Commission for Africa (UN/ECA)
- ISPRS-COM4 and [www.oeepe.org](http://www.oeepe.org)
- Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP)
- European Umbrella Organization for Geographic Information (EUROGI)
- Permanent Committee on SDI for the Americas (PC-IDEA)
- GSDI, including a FIG-Commission 3-position paper for GSDI-conference Budapest
- International Standards Organization, Technical Committee 211 (ISO-TC-211)
- Open Geospatial Consortium (OGC – [www.opengeospatial.org](http://www.opengeospatial.org))
- High Level Commission for the Legal Empowerment of the Poor

## **9 Inter-Commission Activities**

- FIG Commission 3 will contribute in a seminar to be held during the FIG Working Week 2008 in Stockholm about “slum upgrading”.
- Inter-commission activity with FIG Commission 7 on 3D Cadastre
- FIG Commission 9 WG 9.2 – Improving Slum Conditions through Innovative Financing and in WG 9.5 – GIS analyses in Real Estate Market Analyses and Valuation. Involvement is planned by Commission 3 delegate: Mr. Tassos Labropoulos ([taslab@central.ntua.gr](mailto:taslab@central.ntua.gr))
- Commissions 3, 4 and 8 are discussing the possibility of organizing Joint Workshops.

## **10 Active Involvement of Regions**

Commission 3 will continue to be actively involved with underrepresented regions like Africa, Latin America, Middle East, and Asia by exchanging information. Commission 3 will try to reduce conference fees in order to enable or to encourage regional participation and try to raise money for funding participation of groups like students. Commission 3 will also encourage participation by using e-mail and web.



Commission 3 will support the Workshop on “*Good Land Administration and its Role in Economic Development*”, to be held on the 27–28 of June 2007, in Ulanbaatar, Mongolia. Commission 3 chair is invited to present the highlights of the Athens 2007 annual meeting and Workshop on “*Spatial Information Management toward Legalizing Informal Urban Development*”, for the benefit of the country and the region.

## 11 Calendar of Events

2006

- 30 October – 4 November, Cyprus, 37<sup>th</sup> CIPA International Workshop on the e-volution of Information Technology in Cultural Heritage – Where Hi-Tech Touches the Past: Risks and Challenges for the 21<sup>st</sup> Century. Co-sponsored by FIG Commission 3.

2007

- 28–31 March, FIG Commission 3 annual meeting and Workshop, Athens, Greece
- 13–17 May, FIG XXX General Assembly and Working Week Hong Kong SAR, China
- 1–6 October, XXI CIPA International Symposium, Athens, Greece
- 12–15 November, FIG Regional Conference, San Jose, Costa Rica
- 27–28 June 2007, Ulanbaatar, Mongolia

2008

- January, Commission 3 annual meeting and Workshop, Valencia, Spain
- 14–19 June, FIG Working Week and XXXI General Assembly, Stockholm, Sweden
- 3–11 July, XXI Congress of the International Society for Photogrammetry and Remote Sensing – Silk Road for Information from Imagery. Beijing, China P. R.

2009

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

2010

- 9–16 April, FIG XXIV Congress and Working Week and XXXIII General Assembly Sydney, Australia

## 12 Commission Officers

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## **FIG Commission 4 – Hydrography**

### **Work Plan 2007–2010**

#### **1 Title**

Hydrography.

#### **2 Terms of reference**

- Hydrographic surveying
- Hydrographic education, training and Continued Professional Development (CPD)
- Marine environment & Coastal Zone Management (CZM)
- Data processing and management
- Nautical charting and bathymetric maps – analogue and digital, including ENCs (Electronic Navigational Charts)

#### **3 Mission Statement**

- 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 is committed to achieving both the long term and immediate aims and objectives of the FIG organisation. The commission strategy over the next four years is aligned with that of the incoming Council and will include:

- Co-operation with other FIG Commissions, including joint working groups;
- The development of best practice guides in Hydrography;
- Active support and participation in FIG regional events;
- Contributing to the work of the FIG Task Force on Institutional Development;
- Cooperation with National surveying and mapping agencies where common applications exist; and
- Respond to directions from FIG Council to address emerging issues on an ad-hoc basis.
- Support the International Hydrographic Organisation (IHO), Capacity Building Committee (CBC).

## 5 Working Groups

### Working Group 4.1 – Hydrographic Surveying in Practice

#### Policy issues

- Monitor and report on new directions in Hydrographic surveying.
- Good practice recommendations for project management and the delivery of Hydrographic products and services.
- Respond to opportunities to offer CPD at regional meetings.
- Promotion of Pathways to Professionalism (seeking common terminology with International Advisory Board (IAB).
- Cooperation with FIG Commission 2 on matters pertaining to Professional Education.

#### Chair

- John McCarthy (Australia), e-mail: john@mhshydro.com

#### Specific project(s)

- Develop guidelines for planning and managing Hydrographic projects.
- Provide a review of IFHS Special Publication-3 *Hydrographic Surveying as a Career*.
- Assist Commission 4 Working Group 4.4 on Capacity Building in the delivery of CPD at regional venues.

#### Workshop(s)

- Participation in FIG Working Weeks, Regional Meetings and other major Commission events (see Calendar of Events) with dedicated Technical Sessions and/or Workshops as appropriate.

#### Publication(s)

- Handbook on Hydrographic project planning and management.
- FIG Working Weeks will include Technical Papers on specific issues and presented by Working Group Members and other invited experts.

#### Timetable

- Draft publication 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 will present a final report at the FIG Congress, 2010.

#### Beneficiaries

- FIG member associations, managers in surveying businesses, national surveying and mapping agencies, academia and as well as individual surveyors.

### Working Group 4.2 – Standards and Guidelines

#### Policy issues

- Development and recognition of standards of competency.
- Review of technical standards and guidelines .
- Cooperation with sister organizations and other appropriate bodies.

- Promotion of the use of standards and guidelines to the surveying community.
- Cooperation with FIG Standards Network.

#### Chair

- Andrew Leyzack (Canada), e-mail: leyzacka@dfo-mpo.gc.ca

#### Specific project(s)

- Review Standards coming from ISO TC211 for relevance to Hydrography.
- Assess the impact of international standards on current industry practice.
- Represent Commission 4 on the FIG Standards Network.
- Provide a review of the IHO New Manual 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 FIG Working Weeks during the term of this plan and according to a timetable to be developed by the Working Group Chair
- Review IHO New Manual of Hydrography by May 2008
- Working group to present a final report at FIG Congress, 2010.

#### Beneficiaries

- FIG Standards Network
- Sister organizations, national surveying and mapping agencies
- FIG member associations, surveyors in industry and government, academia
- Instrumentation and software producers.

### **Working Group 4.3 – Administering Marine Spaces**

#### Policy Issues

- Focus on land management within the near-shore, land/sea interface of a Coastal Zone.
- To promote and develop the work of FIG Publication 36, Administering Marine Spaces.

#### Chair

- Michael Sutherland, (Canada) e-mail: michael.d.sutherland@unb.ca

#### Specific project(s)

- Climate Change Impact upon Coastal Communities (In cooperation with other planned activities of Commissions 7 and 8 relevant to Coastal Communities)

#### Workshop(s)

- Participation in FIG Working Weeks, Regional Meetings and other major Commission events (see events section below) with dedicated Technical Sessions and/or Workshops as appropriate.

#### Publication(s)

- Technical papers with regard to FIG Working Weeks, Regional Meetings and other major Commission events;
- Possible joint publication(s) with Commission 8 with regard to climate change impacts upon coastal communities.

#### Beneficiaries

- FIG member associations, governments, industry and academia.

### **Working Group 4.4 – The Economic Benefits of Hydrography**

#### Policy issues

- Clearly identify the cost/benefits associated with Hydrographic products and services
- Promote Hydrographic Surveying as an investment.
- Market the Profession and the development of qualified personnel.
- Support FIG Task Force on Institutional Development.
- Coordinate efforts to focus professional development where required.
- Investigate cost effective alternatives for the delivery of Hydrographic services and training.

#### Chair

- Gordon Johnston (United Kingdom), e-mail: gordon.johnston1@orange.net

#### Specific project(s)

- Work closely with the International Hydrographic Organisation (IHO) and sister associations to present and promote the benefits realised from Hydrographic information.
- Engage and encourage users of Hydrographic information to help demonstrate the benefits of using quality Hydrographic information.
- Support the International Hydrographic Organisation (IHO), Capacity Building Committee (CBC).

#### Workshop(s)

- Participation in FIG Working Weeks, Regional Meetings and other major Commission events (see events section below) with dedicated Technical Sessions and/or Workshops as appropriate.

#### Publication(s)

- Pamphlet on Economic Benefits of Hydrography to market the profession and services.
- Internal and external reports will be prepared from participation at IHO, CBC meetings.
- FIG Working Weeks will include Technical Papers on specific issues and presented by Working Group Members and other invited experts.

## Beneficiaries

- FIG member associations, surveyors in government, industry, academia and the IHO.

## **6 Co-operation with Sister Organisations**

### **6.1 FIG/IHO Committees**

Commission 4 currently represents FIG on the International Advisory Board (IAB) on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (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).

### **6.2 FIG and the International Federation of Hydrographic Societies (IFHS)**

Commission 4 has begun to cooperate with the IFHS whereby the Federation has provided input into the 2006–2010 work plan and the commission will continue to lend its support towards sponsoring IFHS conferences and other initiatives. For example, the commission has provided financial support and resources for updating the IFHS special publication (SP-3) entitled „*Hydrographic Surveying as a Career*“. It is important for Commission 4 to maintain contact with all national Hydrographic Associations (whether members of the IFHS or not) to foster communication and cooperation for the betterment of the profession.

Notes:

1. FIG and IHO cooperate under a Memorandum of Understanding (MOU) which was signed in Athens, May 2004. Our liaison is IHB Director, Mr. Hugo Gorziglia.
2. The role of the International Advisory Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers is to develop and update international standards of competence and to review the academic programmes of educational institutions that are seeking IHO accreditation of their Hydrographic training courses. Our liaisons with the IAB is past Commission 4 Chair, Mr. Andrew Armstrong (USA). FIG is represented by Adam Greenland (NZ), Gordon Johnston (UK), Mohammed Razali Mahmud (Malaysia) and Ms. Tiina Tur-nala (Finland).
3. FIG and the International Federation of Hydrographic Societies (IFHS) cooperate under a MoU which was signed in Cairo, April 2005. Our liaison with the IFHS is their President, Mr. Paul Hornsby.

## **7 Co-operation with the United Nations agencies**

On the guidance of FIG Council, Commission 4 will participate in co-operation with the United Nations agencies on topics that are related to commission expertise (e.g. marine cadastre).

## **8 Cooperation with other FIG Commissions**

Commission 4 will collaborate with:

- Commission 1 on standards issues (Standards Network)
- Commission 2 on matters pertaining to Professional Education.
- Commission 3 on matters pertaining to Hydrographic information management;



- Commission 5 to review and revise (where required) FIG Publication 37, Vertical Reference Surface for Hydrography;
- Commission 7 on Administering Marine Spaces; and with
- Commission 8 on Urban Planning in Coastal Regions.

## 9 Other Activities

Maintain and develop the commission web page, with links 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. Contribute editorials, reports and articles to Hydrographic publications including but not restricted to the Hydrographic Journal, Hydro International, The International Hydrographic Review, Sea Technology and Lighthouse. Produce a bi-annual Commission 4 CD ROM for distribution to commission delegates, our sister organizations and national Hydrographic societies.

## 10 Calendar of Events

2006

- IFHS Hydro 2006, Antwerp, Belgium, 6–9 November

2007

- IHO Conference, Monaco, 7–11 May
- U.S. Hydro 2007, Norfolk, 14–17 May
- FIG Working Week, May- Hong Kong, 13–17 May
- 9<sup>th</sup> South East Asia Surveyor's Congress, Christchurch, New Zealand, 29 October – 1 November
- FIG Regional Meeting, San José, Costa Rica, 12–15 November

2008

- CHC2008, Victoria, Canada, 5–8 May
- FIG Working Week, Stockholm, Sweden, 14–19 June

2009

- FIG Working Week, April-May, Eilat, Israel, 3–8 May
- FIG Regional Meeting

2010

- FIG XXIV Congress, Sydney, Australia, 9–16 April

## 11 Commission Officers

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Working Group 4.2 – Standards and Guidelines

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Working Group 4.3 – Administering Marine Spaces

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

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## **FIG Commission 5 – Positioning and Measurement**

### **Work Plan 2007–2010**

#### **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**

- Focus on modern technologies and technical developments and assist individual surveyors, through guidelines and recommendations, to choose and utilise those methods, technologies and instruments that are most appropriate to different applications.
- Follow technical developments through collaboration with other FIG commissions and other international organisations; participation in appropriate meetings; and the preparation of appropriate publications.
- Support research and development and stimulate new ideas in the fields of expertise represented within the commission.
- Collaborate with manufacturers on the improvement of instrumentation and associated software.
- Present and promote the work of the commission and its working groups on an on-going basis at FIG working weeks 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, working with like-minded Sister Associations, is well placed to deal with them. FIG Council has also asked the Commissions to cooperate with United Nations Agencies to address global problems such as sustainable development and humanitarian needs. The 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 programs.

In addition to the specific activities above, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

## 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 task force on standards 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.
- Checking and calibration of measuring instruments.
- Assist other Commission Working Groups to implement Standards from ISO TC211 as appropriate.

#### Chair

- David Martin (France), e-mail: martin@esrf.fr

#### Specific project(s)

- Transform the existing recommendations on the Use and Calibration of EDM (FIG-Publication 7/1994) in a digital document and make it available on the FIG-Website
- Actualise the above mentioned EDM-Standards
- 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.
- Guidelines and Recommendations for the ISO Guide to Uncertainty of Measurements.
- Review Standards coming from ISO TC211 for relevance to Positioning and Measurement.
- Contribution to the new GPS related Work Item of ISO TC 172 SC6, in cooperation with Working Group 5.4.

#### 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)

- Recommendations for the Use and Calibration of EDM
- FIG Working Weeks will include Technical Papers on specific issues and presented by Working Group Members and other invited experts.
- Guidelines for instruments taking into account latest development in surveying technology.

#### 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: dedicated session, FIG Congress, 2010.

### 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 Frame in Practice**

### 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 African Reference Frame Project (AFREF) as well as facilitate similar actions on other continents such as South America and Asia.
- 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 the concepts of dynamic and semi-dynamic datums.
- Examine how surveying practitioners are changing how they access the reference frame, through less emphasis on networks of ground monuments and more emphasis on Global Navigation Satellite Systems (GNSS) base stations.
- Examine global positioning services such as OmniSTAR and StarFire and their use for positioning in a national reference frame
- Examine the increased use of GNSS for height determination as well as the use of geoid models for connection to local height datums.
- Examine the role that the satellite missions GRACE, GOCE and CHAMP will have on global geoid models
- Examine the increasing role of aerial and space based imagery in the realisation of reference frames.
- Liaise with Commission 4 to review and revise (where required) FIG Publication 37, Vertical Reference Surface for Hydrography.

### Chair

- Mikael Lilje (Sweden), e-mail: mikael.lilje@lm.se

### 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.
- Ensure that the working group web page is running and updated.

#### 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.
- Seminars and meetings involving key organisations involved in defining or using (regional) reference frames will be convened at a venue, time and date to be confirmed by the Working Group Chairs.
- Symposium on Applications of Permanent GPS/GNSS Networks. WG 5.2 and WG 5.3 event.

#### Publication(s)

- 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.
- Working group final report will be presented at FIG Congress, 2010.

#### 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: dedicated session, FIG Congress, 2010.

### **Working Group 5.3 – Integrated Positioning, Navigation and Mapping Systems**

#### Policy issues

While this is a new focus, it includes the topics covered by the previous Working Groups 5.3 and 5.4 (during 2002 to 2006) and extends to cover technology generally.

- Issues associated with ongoing and rapid developments in Integrated Positioning, Navigation, and Mapping systems, including performance and applications of such systems and guidelines for their use.
- Ensuring FIG input to planning associated with programs of GPS Modernisation and GNSS Development.

#### Co-Chairs

- Andrew Hunter and Naser El-Sheimy (Canada), e-mail: ahunter@ucalgary.ca

#### Specific project(s)

- Report on the development, possibilities and limitations of new technologies.
- Prepare guidelines for practitioners on making the best use of systems to achieve the results required for particular applications.
- Develop FIG input to GPS Modernisation and GNSS Development.
- 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 Mobile Mapping (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.

### 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: dedicated session, FIG congress, 2010.

### 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 – GNSS – Global Navigation Satellite Systems**

### Policy issues

- Cooperation with all organisation involved in the field of GNSS e.g. IAG and ISO.
- Maintaining contact with GNSS receiver and equipment manufactures to provide state-of-the-art information to the users.
- Cooperation with Commissions 3, 4, 6 and 8 regarding GNSS integration into GIS respectively GNSS for disaster risk management as well as GNSS applications in hydrography and engineering surveys..
- Providing technical GNSS background information on relevant issues for surveying practitioners via web pages, tutorials and workshops.
- Development of recommendations regarding procedures to check GNSS equipment.
- Contribute to FIG input to GPS modernisation and GNSS development
- Prepare the surveying profession for GNSS-mass-markets (e.g. Location Based Services, traffic applications,...) as well as required technologies (e.g. assisted GPS, car navigation technology).

### Chair

- Volker Schwieger (Germany), e-mail: volker.schwieger@iagb.uni-stuttgart.de

### Study Groups

#### Study Group 5.4.1 – Cost-effective GNSS

- Analysis of current “low-cost” GNSS markets (e.g. LBS, traffic) including additional necessary technologies like e.g. odometers, mobile phones
- Recommendations for surveyors to infiltrate these markets
- Development of methods to use “low-cost” GPS for precise applications
- Report on cost-effective GNSS

#### Study Group 5.4.2 – GNSS networks (together with WG 5.2)

- Analysis and review of GNSS network technologies for practitioners
- Analysis of the importance of site calibrations of permanent networks
- Analyse and compare different commercial and non-commercial GNSS networks
- Organise Workshops(s) on GNSS networks

#### Study Group 5.4.3 – Precise GNSS

- Develop and publish methods for GNSS heighting
- Develop and publish investigations regarding the GNSS/tachometer combinations
- Contact with GNSS equipment manufacturers
- Provide newest technical background information to the practitioners
- Develop input to discussions on GPS modernisation and GNSS development, e.g. through the UN mandated International Committee on GNSS (ICG).

#### Study Group 5.4.4 – GNSS calibration and check (together with WG 5.1)

- Development of procedures and recommendations for checking GPS equipment
- Recommendations for the calibration of GPS antennas and permanent GPS sites
- Cooperation with standard organisations (e.g. ISO)
- Organisation of scientific workshops and tutorials for practitioners
- Discussion with GNSS equipment manufacturers about procedures

#### Workshops

- Participation in FIG Working Weeks, Regional Conferences as well as other major Commission 5 events in special technical sessions
- GNSS tutorials (fundamentals and practice relevant information, possibly including practical training) e.g. at Working Weeks and Regional Conferences in cooperation with local organizers, especially for “surveying practitioners”
- International Workshop on GNSS for Practitioners (engineering geodesy companies, state survey, cadastral administration) together with all Working Groups of Commission 5 and partners like IAG or the Institute of Navigation where appropriate.
- Specialised International Workshops on GNSS calibration (antenna, site, multipath) and on GNSS networks (together with WG 5.2).

#### Publications

- Technical Papers at Working Weeks, Regional Conferences and Commission 5 Symposia and Workshops
- Recommendations for Calibration of GPS antennas and Check of GPS Measurement Systems (together with WG 5.1 and relevant institutions like e.g. ISO).
- Report on possibilities of cost-effective GNSS techniques for developing countries.



## Timetable

Report and recommendations should be presented (and published) on next FIG Congress 2010.

## **6 Co-operation with Other Commissions**

Commission 6.

## **7 Co-operation with United Nation Organisations, Sister Associations and other Partners**

Commission 5 is the lead Commission for FIG's Memorandum of Understanding with the United Nations Office for Outer Space Affairs. GNSS will be the focus of cooperative activities from 2007 to 2010.

Commission 5 is also committed to cooperation with Sister Associations, especially those with which FIG has a Memorandum of Understanding. Commission 5 has specific liaison interest with the International Association of Geodesy (IAG) and the International Society for Photogrammetry and Remote Sensing (ISPRS). The Commission 5 Steering Committee will ensure that Working Group activities and Commission 5 events further these goals of cooperation with Sister Associations.

Commission 5 is also committed to the new 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**

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# **FIG Commission 6 – Engineering Surveys**

## **Work Plan 2007–2010**

### **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;
- 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;
- Quality control at the construction site;
- Standards related to construction and deformation measurement.

### **3 Mission statement**

- 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 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 Working Groups of the International Association of Geodesy (IAG), the International Society for Mine Surveying (ISM) and the International Society for Photogrammetry and Remote Sensing (ISPRS), look for possible co-operation within these organisations and support the co-operation of civil, structural and mechanical engineers with our profession;

### **4 General**

In addition to the specific activities in the Mission Statement, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

### **5 Working Groups**

This Working Plan covers a wide scale of survey disciplines related to installations, plants and constructions of any kind.

## **Working Group 6.1 – Deformation Measurement and Analysis**

### Policy issues

- 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.

### Chair

- Stathis Stiros (Greece), e-mail: stiros@upatras.gr
- Vice-Chair: Cecilia Whitaker (USA), e-mail: cwhitaker@mwdh2o.com

### Specific project(s)

- Regular symposia and exchanges between researchers and concerned professionals.

### Workshop(s)

- 13<sup>th</sup> International Symposium on Deformation Measurements, Lisbon, Portugal, 12–15 May 2008
- 14<sup>th</sup> International Symposium on Deformation Measurements, Australia, 2009
- Contributions to various joint meetings and FIG Working Weeks

### Publication(s)

- Proceedings of the meetings (by the host).

### Beneficiaries

- Geodetic engineers dealing with comparative measurements of deformed or unstable objects, geologists, geophysicists, and civil and structural engineers concerned with this issue.

## **Working Group 6.2 – Engineering Surveys for Industry and Research**

### Policy issues

Engineering surveys in industry and research demand ultimate quality to be realised in ever-shorter time slots and under spatially most limited conditions. WG2's main goal is 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);
- Relevant modules for the 'Optical 3D Measurement Techniques' series.

### Chair:

- Thomas Wunderlich (Germany), e-mail: Th.Wunderlich@bv.tu-muenchen.de
- Vice-Chair: Peter Kyrinovic (Slovakia), e-mail: peter.kyrinovic@stuba.sk

### Specific project(s)

- Engineering surveying procedures for power plants;
- Engineering surveying procedures for linear and circular accelerators;
- Engineering surveying procedures for nuclear research facilities;
- New techniques for as-built documentation and facility inventory;
- Industrial metrology in production, assembling and finishing processes;
- In-situ calibration of industrial robots.

### Workshop(s)

- Tutorials as part of the “International Course for Engineering Surveying”, Graz (Austria), 2007
- INGEO 4<sup>th</sup> International Conference on Engineering Surveying, Slovakia 2008
- Contributions to the FIG Working Weeks and to FIG Congress
- Specific seminars or workshops on dedicated topics.

### Publication(s)

- Proceedings of the meetings (by the host).

### Beneficiaries

- Dialogue with manufacturers to realise competent consumer wishes;
- Advising optimal instrument for each special application of a mission catalogue;
- Development of suitable planning tools for extensive scanning tasks;
- Software improvements to increase variety of best-fitting objects;
- Monitoring of CAD-SW behaviour under heavy scanning data load;
- Expansion of application fields.
- The surveyors, designers and manufacturers are waiting to acquire more expertise in these special applications.
- The group of professional which have the benefit of the results consist of engineers dealing with quality control of large objects or structures, scientific laboratories dealing with particle accelerators and detectors, fusion rings, gravitational antennas, power lasers, etc., scientists and engineers dealing with large scale metrology and accurate positioning in R&D sectors or in industry, finally universities and manufacturers involved in the development of special instruments.

## **Working Group 6.3 – Engineering Survey Data Bases and Facility Management**

### Policy issues

- Focus 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.

### Chair

- Lothar Gründig (Germany), e-mail: gruendig@inge3.bv.tu-berlin.de
- Vice-Chair: Vladimir Sereдович (Russian Federation), e-mail: sva@ssga.ru

### Specific project(s)

- 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;
- The automation and combination of feasible data acquisition techniques.

### Workshop(s)

- Workshop on Engineering Survey Data Bases and Facility Management, DDMM 200x, Berlin, Germany
- FIG Working Weeks
- Sessions and contributions to joint seminars, workshops and symposia.

### Publication(s)

- Proceedings of the meetings (by the host).

### Beneficiaries

- Surveying engineers, engineers and managers involved in facility management tasks.

## **Working Group 6.4 – 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 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;
- 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

### Chair

- Gethin Wyn Roberts (United Kingdom): gethin.roberts@nottingham.ac.uk
- Vice-Chair: Joël Van Cranenbroeck (Switzerland), e-mail: joel.vancranenbroeck@leica-geosystems.com

### 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;
- Dynamic Monitoring of Buildings and Structures;
- Offshore construction surveys.

#### Workshops

- Regular symposia and exchanges between researchers and concerned professionals
- Tutorials as part of the “*International Course for Engineering Surveying*”, Graz (Austria), 2007
- Workshop on Automatic and multi-sensor Measuring Systems, 2009
- Contributions to various joint meetings and FIG events.

#### Publications

- Proceedings of the meetings (by the host)
- Web page

#### 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”;
- 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.

### **Working Group 6.5 – Terrestrial Laser Scanners (Joint with Commission 5)**

#### Policy Issues

- Promote the use of laser scanning for geometric documentation in a variety of environments, particularly high risk and environments which benefit of remote measurements (eg 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;

#### Chair

- Maria Tsakiri (Greece) e-mail: mtsakiri@central.ntua.gr
- Vice-Chair: Rudolf Staiger (Germany), e-mail: rudolf.staiger@fh-bochum.de

### Specific Projects

- Methods and equipment of terrestrial laser scanning for engineering surveying procedures;
- Create standardised terrestrial laser data sets to allow comparison between different software and processing methods;
- Calibration aspects for indoor and outdoor testing of terrestrial laser scanner instrumentation;
- Methods for combining terrestrial laser scanners with other sensors, eg CCD cameras, and integrating their data.

### Workshops

- Regular symposia and exchanges between researchers and concerned professionals
- Tutorials as part of the “International Course for Engineering Surveying”, Graz (Austria), 2007
- Workshop on Laser Scanning, November 2007
- Contributions to various joint meetings and FIG events
- Contribution to the ‘Optical 3D Measurement Techniques’ conference series
- Contribution to meetings of the ISPRS Working Group V/3 “Terrestrial Laser Scanning”.

### Publications

- Proceedings of the meetings (by the host)
- Web page

### Beneficiaries

- Surveying profession becoming involved in this developing technology;
- Engineers and other professionals involved in the cultural heritage sector wishing to record and monitor structures of engineering and cultural heritage importance;
- Manufacturers involved in the development of terrestrial laser scanners to consider needs of users;
- Users requiring calibration aspects of terrestrial laser scanners.

## **6 Study Groups**

### Study Group 1 – Continuum Mechanics as a Support for Deformation Monitoring, Analysis and Interpretation

Chair: Anna Szostak -Chrzanowski (Canada); Co-chair: W. Prószyński (Poland)

### Study Group 2 – Optimal Use of Interferometric Synthetic Aperture Radar (InSAR)

Chair: Chris Rizos (Australia); Co-chair: tba

### Study Group 3 – Crustal Deformation

Chair: Stathis Stiros (Greece); Co-chair: tba

### Study Group 4 – Monitoring and Analysis of Cyclic Deformations and Structural Vibrations

Chair: Gethin Wyn Roberts (UK); Co-chair: Philip Collier (Australia)

### Study Group 5 – Fibre Optic Sensors

Chair: Helmut Woschitz (Austria); Co-chair: tba



## Study Group 6 – Terrestrial-Based RF Positioning Technologies

Chair: Joel Barns (Australia); Co-chair: Xiaolin Meng (UK)

### **7 Co-operation with Sister Associations**

Commission 6 intends to continue co-operation with sister associations, especially The International Association of Geodesy (IAG). Further more The International Society for Mine Surveying (ISM) and the International Society for Photogrammetry and Remote Sensing (ISPRS) are of interest.

### **8 Communications**

Commission 6 will use general the commission web page with linkages to other relevant web pages to keep commission delegates, other FIG members and the public informed.

Commission 6 will provide an annual newsletter with input from the working groups. This will be distributed by e-mail.

### **9 New partnerships**

Commission 6 will try to support the developed partnership with ISM and the IAG Special Commission 4. New partnership could be developed with ISPRS according the increasing input of laser scanning (terrestrial and airborne) to the engineering survey projects.

### **10 Calendar of events**

2007

- Tutorials as part of the “*International Course for Engineering Surveying*”, Graz, Austria
- INGEO 4<sup>th</sup> International Conference on Engineering Surveying, Bratislava, Slovakia
- FIG Working Week, Hong Kong SAR, China, 13–17 May 2007
- Optical 3D Measurement Techniques, Zurich, Switzerland.

2008

- 13<sup>th</sup> International Symposium on Deformation Measurements, Lisbon, Portugal, 12–15 May 2008
- FIG Working Week, Stockholm, Sweden, 14–19 June 2008

2009

- 14<sup>th</sup> International Symposium on Deformation Measurements, 2009, Australia
- FIG Working Week, Eilat, Israel, 3–8 May 2009
- Workshop of the Working Group 6.4
- Workshop on Engineering Survey Data Bases and Facility Management

2010

- FIG Congress, Sydney, Australia, 9–16 April 2010

## **11 Commission officers**

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Vice-chair: Joel VanCranenbroek (Switzerland), e-mail: joel.vancranenbroeck@leica-geosystems.com

#### *Study Group Chairs*

*Study Group 1 – Continuum Mechanics as a Support for Deformation Monitoring, Analysis and Interpretation*

Chair: Anna Szostak -Chrzanowski (Canada); Co-chair: W. Prószyński (Poland)

*Study Group 2 – Optimal Use of InSAR*

Chair: Chris Rizos (Australia)

*Study Group 3 – Crustal Deformation*

Chair: Stathis Stiros (Greece)

*Study Group 4 – Monitoring and Analysis of Cyclic Deformations and Structural Vibrations*

Chair: Gethin Wyn Roberts (United Kingdom)

*Study Group 5 – Fibre Optic Sensors*

Chair: Helmut Woschitz (Austria)

*Study Group 6 – Terrestrial-Based RF Positioning Technologies*

Chair: Joel Barns (Australia)

## **FIG Commission 7 – Cadastre and Land Management**

### **Work Plan 2007–2010**

#### **1 Title**

Cadastre and Land Management.

#### **2 Mission**

- 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, land administration;
- To promote awareness of the role of surveyors in land administration matters to the public and among stake holders.

#### **3 Terms of reference**

Until today many countries have developed their own cadastral system, in many cases with colonial roots. The one operates deed registration, the other title registration, some are based on fixed boundaries, some on general boundaries, some systems are centralised and others decentralised. Many systems do not perform optimally or failed to perform in a way that benefits all of the people. Looking at it from a little distance one can observe that the systems are in principle mainly the same: they are all based on the relationship between persons and land, via rights and are in most countries influenced by developments in Information and Communication Technology (ICT). The two main functions of every cadastral system are: 1. Keeping the contents of these relationships up-to-date (based on legal or customary transactions) in a cadastral or land registration system and 2. Providing information on these registrations.

Commission 7 deals with land administration; “the process of determining, recording and disseminating information about the ownership, value and use of land when implementing land management policies” (ref. UNECE Land Administration Guidelines 1996).

“Ownership” should be seen as a broad concept of land tenure within various jurisdictions (statutory, customary, informal, etc.) “Land” includes constructions at subsurface level, ground level and above land level (e.g. buildings).

Furthermore Commission 7 deals with land management, which is the implementation of land policy, by a wide range of land policy instruments (e.g. land reform, land consolidation, land markets, land taxation, marine resource management).

In terms of “key words” Commission 7 deals with:

- land management and land administration
- cadastres, land registers
- cadastral reform

- land policy, land reform, land taxation
- land tenure
- land law and land related laws
- sustainable land administration
- pro poor land management and land administration
- cadastral surveying and mapping
- land registration
- land administration in post conflict areas
- disaster management and land administration
- customary and group rights
- informal settlements
- public private partnership in land administration
- land policy and land policy instruments
- land consolidation
- land valuation and taxation
- land markets
- land reform, land privatisation and land redistribution
- innovative technology in land administration
- low cost surveying and mapping
- land and marine resource management

## **4 General**

### **4.1 Preface**

Commission 7 established its concept of activities about 15 years ago. It is in line with the FIG long term professional strategy and selected key topics to deal with:

- advanced cadastre
- developing land administration
- creating secure land tenure
- application of innovative, advance technology in land administration

All topics are related to land administration matters. Developing, modernising land administration has been an increasing demand by developed and developing countries worldwide for many years.

During the last decade many new challenges have appeared – increasing focus on sustainable development, post conflict problems (civil wars, tribal conflicts, etc.) increasing number of disasters, increasing gap between developed and developing world, rapid urbanisation in the developing world, etc. All of the above challenges connected to land and property related activities. The profession has to find answer and solutions.

Several of the above challenges are being handled by existing cadastral, land management and land administration institutions, some of the existing institutions have not adapted to the challenges or been developed in an adequate manner. In bringing solutions to the 21<sup>st</sup>. Centuries' land and property related challenges, Commission 7 therefore believes that a future oriented focus from the surveying profession is essential. The surveying profession must play an ever central role in the development and modernisation of cadastre, land management and land administration. The ultimate goal is to make land administration the proper infrastructure for sustainable development and

to make land administration institutions develop sustainable solutions through land related activities.

Achieving the Commission 7 concept and goals will continue to involve efforts over a long period; therefore the Commission wants to continue its professional work, which was successful over the passed years. Of course there needs to be some changes and new priorities have to be defined based on the last four years experience.

Following the overall FIG strategy, Commission 7 intends to:

- Continue its effort focusing on countries in Africa, Latin America, Asia, Middle East, CEE and providing a meeting place as well;
- Strengthen working relations cooperation with other FIG Commissions;
- Continue cooperation with UN Organisations and Agencies;
- Find possibilities to cooperate with other professional organisations, NGOs, Dutch Cadastre, ITC, etc;
- Provide and disseminate information to the profession, national associations and authorities to develop and establish land administration systems;
- Support the needs in different regions.

#### **4.2 Commission 7 Work Plan in Relation to FIG Professional Strategy**

Following Commission 7 tradition the work plan will support the achievement of FIG goals:

- extending working cooperation with other commissions;
- to continue and extension of working relation with UN organisations, World Bank, agencies and other organisations;
- to contribute to organise joint workshops, events wit UN and other external organisations;
- 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 contribute to the major FIG events, congresses, 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.

#### **4.3 Objectives**

There are many fields of interest for Commission 7 related to land administration, Cadastre and land management matters. To achieve realistic results in the 2007-2010 period we have 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 priorities supported by UN and other professional organisations and NGOs.

As a new development in FIG activity, Commission 7 intends to find possibilities to form working relation with the UN Habitat Global Land Tool Network, GLTN.

Important issues selected:

- 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 so-called 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, 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 urbanisation 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 (standardisation, interoperable systems)
  - sustainable capacity building for land administration
- Institutional aspects for land administration and land management
  - how to the support the development of institutional framework for land administration, land management

Commission 7 intends to address the selected issues in various ways within FIG and in cooperation with other organisations:

- Commission 7 working groups
- Presenting papers, lectures during FIG and joint events
- Working cooperation with other FIG commissions
- Working relation with UN and other organisations
- Providing a documentation centre OICRF

## **5 Working Groups**

### **Working Group 7.1 – Development of Pro Poor Land Management and Land Administration**

#### Terms of reference

- recognise 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 redistribution, 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

#### Chair

- Christiaan Lemmen (The Netherlands), e-mail: lemмен@itc.nl

### **Working Group 7.2 – Land Administration to Support Sustainable Development**

#### Terms of reference

- 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 land delivery process and customary approaches (neo-customary) land delivery process
- study the role of gender-issues in creation of sustainable land administration development
- analyse sensible forms of land taxation for funding land reform and upgrading programmes
- identify and find solutions of assisting post conflict areas, disaster areas, etc. in rebuilding and maintain land administration after war and catastrophe of nature

#### Chair

- Søren Christensen (Denmark), e-mail: sfc.@kms.dk

### **Working group 7.3 – Application of Innovative Technology in Land Administration**

#### Terms of reference

- electronic conveyance and governance



- identify innovative and low cost technology to support the development for poor land management, land administration
- identify innovative, advance 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

#### Chair

- Daniel Steudler (Switzerland), e-mail: Daniel.Steudler@swisstopo.ch

### **6 Cooperation with other FIG Commissions**

- 3D Cadastre , land registry joint working group with Commission 3
- Coastal zone management, marine cadastre with Commission 4 and 8
- Low cost, effective survey technology and techniques for developing countries, with Commission 5
- Urban- rural inter relationships, defining formal and informal tenure, property rights, joint working group with Commission 8 lead by Commission 8
- Education, capacity building with Commission 2
- Commission 9 formed Working Group 9.2 “Improving Slum Conditions through Innovative Financing.” As an FIG issue Commissions 3, 7, 8, 10 will participate in the work. Within Commission 7 Working Group 7.1 is responsible for the topic, Tommy Österberg is the Commission 7 representative.

### **7 Cooperation with the United Nations Organisations and Agencies**

Commission 7 will continue cooperation with UN organisations, including UN-Habitat, UN Food and Agriculture Organisation (UN FAO) and the UN Economic Commission for Europe’s Working Party on Land Administration (UNECE/WPLA).

### **8 Cooperation with other Professional Organisations**

Commission 7 will work in co-operation with the Dutch Cadastre, ITC and Institution of Geodesy, Cartography and Remote Sensing (FÖMI).

### **9 Communications**

The secretariat of the commission will maintain the Commission 7 web site and keep delegates, correspondents, friends informed primarily via e-mail.

### **10 Commission 7 Annual Meetings and Events**

According to the consensus among the commission delegates to hold annual meetings separately from the major FIG events, Commission 7 intends to continue its traditions for organising annual meetings. Until now Korea will host the annual meeting in 2007 and Verona, Italy in 2008.

### **11 Events Calendar**

2007

- Commission 7 Annual Meeting, Seoul, Republic of Korea, 19-23 May 2007
- FIG Working Week 2007, Hong Kong SAR, China, 13-17 May 2007
- Contribution to GeoCongress Quebec 2007, Quebec City, Canada, 2–5 October 2007
- FIG Regional Conference, San José, Costa Rica, 12-15 November 2007

2008

- Commission 7 Annual Meeting Verona, Italy
- FIG Working Week Stockholm, Sweden, 14-19 June 2008

2009

- Commission 7 Annual Meeting
- FIG Working Week, Eilat, Israel, 3–8 May 2009

2010

- Commission 7 Annual Meeting
- FIG Congress Sydney, Australia, 9-16 April 2010

## **12 Commission Officers**

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## ***FIG Commission 8 – Spatial Planning and Development***

### **Work Plan 2007–2010**

#### **1 Title**

Spatial Planning and Development.

#### **2 Terms of Reference**

- Regional and local structure planning
- Urban and rural land use planning
- Planning policies and environmental improvement
- Land use planning and implementation
- Public-private partnerships
- Informal settlement issues in spatial development, planning and governance
- Re-engineering mega cities
- Strategy for Environmental Sustainable Development
- Inter-relationship between

#### **3 Mission Statement**

The activities of Commission 8 in the years 2007–2010 will involve all levels of physical planning, which enable environmentally sustainable development to occur.

Physical planning establishes the 'ground rules' for environmentally sustainable development at all planning levels and including all actors (government, private sector and public/private partnership). 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.

The Commission 8 will assist in building the capacity of knowledge 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.

#### **4 General**

Surveyors have a key professional role in the application and implementation of planning and development for community living. The strategy today incorporates the importance of the environment and the requirement for environmentally sustainable developments (ESD) to be a foundation of the habitat for the future generations. This planning strategy for urban development and regeneration provides opportunities for surveyors.

The re-engineering of mega cities as a place for people and the provision and location of infrastructure services involves all levels of government and private sector to provide and deliver outcomes.

The rising sea levels via climate change are particularly challenging for urban planning in coastal regions. Surveyors can contribute to better understanding the potential impact on coastal settlements development and to the adoption of policies to meet these new challenges.

Informal settlements can benefit from contribution by surveyors in the area of plan-

ning and governance.

In the period of 2007–2010 the focus of Commission 8 will be:

- Establish a focus for all parties involved in environmentally sustainable planning and implementation;
- Develop guidelines, methods, governances and best practice at the global level;
- This Commission will reflect the holistic skills found within planning and development of built environment;
- Commission emphasises that we, as surveyors and built environment experts have a leadership role in the collective responsibility for well-functioning mega cities;
- 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;
- Focussing on surveyors' role in implementation of plans and the interaction between planning and real estate economics.

In addition to the specific activities above, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

## **5 Working Groups**

### **Working Group 8.1 – Planning Strategy for Urban Development and Regeneration**

#### Policy Issues

- Planning urban development and regeneration and economic 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

- Dr. Lillian S.C. Pun, Associate Professor, The Hong Kong Polytechnic University, Hong Kong SAR, China, E-mail: lspun@polyu.edu.hk

#### 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
- Review the Hong Kong policy frameworks for recommendations of best practice and education requirements for implementation.

This will be a joint Working Group with Commission 7.

#### Workshops

- Develop a series of special papers for the FIG Working Weeks
- To organise a round table discussion at Working Week 2008.

### Publications

- Report on results at the FIG Congress 2010.

### Timetable

- 2008: Round table discussion at the Working Week 2008 in Stockholm
- 2010: Final report and recommendations

### Beneficiaries

- FIG member organisations, UN, professional bodies, planners and developers.

## **Working Group 8.2 – Informal Settlements Issues in Spatial Development Planning and Governance**

### Policy Issues

- Commission's contribution to the Millennium Development Goals
- to investigate initiatives that deliver land for housing and associated financial mechanisms that enable 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 identify ways in which Customary ownership could be modernized to release land for formalised housing, (in collaboration with Commission 7).
- Explore rapid, new approaches to forward plan and upgrading initiatives that provide places for the poor by partnering with Sister Organisations.
- 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

- Dr. Diane Dumashie (United Kingdom), E-mail: ddd@dumashie.co.uk

### Specific Projects

- To investigate sustainable places within informal settlement in Africa;
- To contribute to building the knowledge which the surveyors can provide expert advice for Built Environment;
- To develop FIG-UN recommendation for best practices in Governance issues for Informal Settlements.

### Workshops

- To participate in special workshop in Africa
- To provide leadership at the FIG Working Week 2008 in this key issue.

### Publications

- To produce a working discussion paper "White Paper" on a key element effective governance issue.

### Timetable

- 2008: To organise a round table session at FIG Working Week 2008
- 2010: Final report and recommendation for Significant 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

- Ms. Ioana Manaolache (Theotop consulting, Romania), e-mail: ioanam@theotop.ro

### Specific Projects

- To study the World City Report for identifying opportunities for surveyors to be contributors towards improving infrastructure and degradation 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 E.S.D.;
- Develop a policy framework to enable sustainable cities.

### Workshops

- To contribute to the proposed Commission 8 workshop on mega cities at the FIG Working Week 2008.

### Publications

- Report on results of working group investigations and report at the FIG Congress 2010.

### Beneficiaries

- FIG member organisations, United Nations and the World Bank.

## **Working Group 8.4 – Urban Planning in Coastal Regions**

### Policy issues

- Urban planning in coastal regions has emerged as a major issue connected to rising sea levels as a result of climate change due to global warming. Urban habitat issues within coastal regions are a matter for Commission 8 and its contribution to environmentally sustainable development.
- On matters relating to marine space, Commission 8 will work in close co-operation with the Commission 4 Working Group 4.3 (Administering Marine Spaces).

The 'shifting sands' will provide opportunities for Working Group 8.4 to find key roles for surveyors.

#### Chair

- Mr. Isaac Boateng (University of Portsmouth, United Kingdom), e-mail: boateng-is@yahoo.co.uk

#### Specific Projects

- To identify the impact on Urban habitat in Coast Regions caused by rising sea levels
- To develop planning policy and implementation guidelines to assist or allow communities to live in harmony with rising sea levels.

#### Workshops

- To organise a round table discussion together with Commission 4 at the Regional Conference in 2007 and at the Working Week 2008/2009.

#### Publications

- Produce a discussion 'white paper' in 2009 on the directions and implications of rising sea levels on coastal communities.

#### Timetable

- 2007/2008: Round table discussions at the FIG events together with Commission 4
- 2009: White paper on direction and implication of rising water.

### **Working Group 8.5 – Land Use Planning and Implementation**

#### Policy Issues

- To increase surveyors contribution to land use planning and better integrate surveyors expertise in implementation of plans, implementation processes and agreements and real estate management
- To increase surveyor and planners awareness on sustainable planning and implementation of plans based on modern knowledge, technical solutions, rules and legislation, traditions, and development and implementation processes in different countries.

#### Chair

- Dr. Maria Ulfvarson Östlund (Sweden),  
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## **FIG Commission 9 – Valuation and the Management of Real Estate**

### **Work Plan 2007–2010**

#### **1 Title**

Valuation and the Management of Real Estate.

#### **2 Terms of reference**

- Valuation – the estimating of value of real estate by valuers and appraisers for various purposes, including e.g. market value, property taxation, eminent domain, claims of damage or impact on value by some cause or event and acquisitions for public use or public policy;
- Investment in Real Estate and Investment Planning;
- Real Estate Investment Vehicles;
- Real Estate Finance, Development Finance, Land Use Feasibility Planning;
- Real Estate Economics, Real Estate Markets and Market Analyses;
- Management of Property, as single asset or by management companies;
- Management of Property Systems to ensure efficient use of public and private resources; and
- Management of Public Sector Property.

#### **3 Mission statement**

The real estate markets have been expanding and globalizing rapidly and the development is continuing. This means that there is a strongly growing need for uniform practices in real estate economics. International actors need reports, analyses and services made in consistent bases but also in innovative ways, which give added value to the clients in the expanding real estate markets. Standards, information and guidance for best practices together with harmonisation are asked in addition to people with good knowledge and know-how of different systems around the world. Surveyors are strongly involved in the international and local real estate markets thanks to the education of surveyors that gives a very good basis in real estate in many countries. In addition surveyors are taking care of basic registers and operations in real estate although mainly from the point of view of the public sector. FIG Commission 9 takes care that the knowledge of surveyors will cover the whole field of real estate economics contributing in that way positively to the national and global economy and to the living conditions and quality of living of human people on the whole globe.

#### **4 General**

In the period 2006–2010 the focus of Commission 9 will be:

- Establish for all parties interested in real estate economics, such as valuers, real estate analysts, real estate economists, real estate managers etc. a place to discuss and exchange information about real estate and to learn new methods and ideas.
- Develop methods and guidance for real estate analyses and valuation, and best practices on the global level.
- Enhance the research on real estate by providing an arena to present academic research results or test different plans, ideas or models.

- Create and activate contact networks with different real estate organisations and universities.
- Enhance especially new member associations entry to the work of commission.
- The specific focus areas and tasks of the working groups will be identified more closely below.
- In education co-operation with Commission 2 will be carried on especially in the working group 2.4 Real estate valuation and management (real estate economics) education (joint Working Group).

The scope of the Commission 9 has changed so much that there might be a need to change the name of the Commission to better reflect the increasing role of real estate economics. This issue will be studied during this term and any recommendations for change will be proposed to the General Assembly at the Congress in Sydney in 2010.

In addition to the specific activities above, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

## **5 Working Groups**

### **Working Group 9.1 – Compulsory Purchase and Compensations in Land Acquisition and Takings**

#### Policy issues

- The ownership on real property is protected by constitution in most countries. Because of the nature of the real property the right of ownership can, however, not be unlimited but for the society it has been reserved a right to interfere in it when it is necessary. For example, if the society needs a land area of a real property for a street, the owner has to convey land for that purpose, if not voluntary then by compulsion. For this interference there are normally strict preconditions in order to protect the functions of the free market.
- The most critical point concerning expropriation may be the question of compensation. Will the compensation statutes, valuation methods and manners really lead to full and just compensation? The rules for compensation depend on the legislation of each country. The main idea in most countries seems to be that the landowner's financial situation shall remain the same despite the expropriation. No one should be poorer because of expropriation but also not richer. Only economic values will be compensated but non-economic not. There are no strict rules that the owner has to be able to purchase a similar property for the same price as compensated although the basic idea of compensation strives to this, and normally this can even be expected. But if that cannot be done would it lead in some cases to an unjust situation where the landowner might even lose his/her living possibilities? It seems that there are also many countries where the rules or practices in compulsory purchase and compensations are still weak and the know-how narrow.
- Support to knowledge in land acquisition, compulsory purchase and compensation is needed. New perspectives and a broader discussion could add to drivers for further development. This subject is not covered by valuation standards so there is need for guidance from FIG. It can contribute in developing and providing the capacity needed.

## Chair

- Prof. Kauko Viitanen (Finland), e-mail kauko.viitanen@tkk.fi
- Co-Chairs: Prof. Thomas Kalbro (Sweden), e-mail kalbro@infra.kth.se
- Mr. Henning Elmstrøm (Denmark), e-mail: elmstroem@plf.dk
- Mr. Paul Munro-Faure (FAO), e-mail: Paul.MunroFaure@fao.org

## Specific Projects

- Identify the legal structures and practices in compulsory purchase and compensation in different countries.
- Will the compensation statutes, valuation methods and manners lead to full and just compensation or are there shortcomings?
- Find possible and effective solutions to solve the problems especially for developing countries. What are the good ways to act and what principles, such as equality, you should take into consideration, and on the other hand what are the bad examples that should be avoided?
- Give FIG recommendations for best practises and education in compulsory purchase and compensations in land acquisition and takings.

The Working Group will work in co-operation with Commissions 7, 8 and 9.

The Working Group will work in close co-operation with the United Nations' Food and Agriculture Organization (UN-FAO). In addition there will be active co-operation with many other organisations.

## Workshops

A seminar to tap the potential for relevant exchange of experience between countries and regions will be organised in Helsinki, Finland in September 6<sup>th</sup> to 8<sup>th</sup>, 2007 together with the Baltic Valuation Conference. Real-life experience will be added to thematic analysis. Interaction between different groups of (also new) actors will be promoted both during the preparations and by the design of the seminar itself.

In addition the subject will be discussed in each annual meeting.

## Publications

- Technical papers presented in annual meetings.
- Report on results of work group investigations and reports at Congress 2006.

## Timetable

- 2006–09: Research papers for Technical Sessions
- 2007: Report from the Helsinki Seminar, 6–8 September 2007
- 2010: Final Report and Recommendation for Best Practice at FIG Congress

## Beneficiaries

All FIG member organizations, UN, other professional international and national organizations, agencies and governments.

## **Working Group 9.2 – Improving Slum Conditions through Innovative Financing**

### Policy issues

- Slum is a major challenge for our joint development. Cities are the engines for development and viable cities for the rich must also be cities for the poor. Sustainable cities are a prerequisite for development on the whole – not only for poor countries or poor people. Problems that follow a rapid urbanisation make cities increasingly subject to dramatic crisis, problems like unemployment, deterioration of existing infrastructure, environmental degradation and inadequate shelter. One out of six world inhabitants live in slums. Without concerted action by governments and their partners, today's almost 1 billion slum dwellers will be 2 billions by 2030.
- Support to slum upgrading has focused on improved access to land, construction economics and providing basic services. Structural issues of financing and market conditions have often been overlooked. A change is urgent! Providing efficient financing facilities for slum upgrading and basic infrastructure on a massive scale will be required to meet the Millennium Development Goals.
- The first UN-Habitat global assessment in housing finance conditions and trends of the world shows that a quite limited group of experts is involved today. New perspectives and a broader discussion could add to drivers for further development. The scope and actors need broadening from "just" a donor-poor peoples concern.
- Economic development depends on efficacy of financial systems. A window of opportunity exists in creating a sound and sustainable market for low-income housing. FIG can contribute in developing and providing the capacity needed.

This Working Group is part of the work of FIG Task Force Developing Global Land Tools for Pro Poor Land Management.

### Chair and members

- Mr. Bengt Kjellson (Sweden), e-mail: [bengt.kjellson@lm.se](mailto:bengt.kjellson@lm.se)
- Co-chair: Ms. Ann Jennervik (Sweden), e-mail: [annjennervik@hotmail.com](mailto:annjennervik@hotmail.com)

Representatives from FIG Commissions:

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- Martim Smolka

### Key Themes

Two key themes have been selected:

- Securing tenure as the key to efficient finance and housing
- Functioning financial markets for housing finance, and especially the link between the two.

The first phase (Nov-early Dec) of the Working Group activities will include:

- Selection of 4–5 core issues under each theme, where thematic studies, cross-check surveys and policy oriented analysis should be performed.
- Inventories of earlier reports, studies with implication on the matter, for publication at the homepage.
- Selection of persons and organisations that should be invited to the dialogue in Hong-Kong and the Stockholm seminar.

The Working Group will work in close co-operation with UN-Habitat and the results will be presented also in a joint seminar with UN-Habitat, perhaps in connection to the WUF conference in China 2008. Marketing has been started already in World Urban Forum in Vancouver 2006 (WUF3).

#### Workshops

A seminar to tap the potential for relevant exchange of experience between countries and regions is being planned for the FIG Working Week in Stockholm June 2008. Real-life experience will be added on to by well-prepared future oriented crosscheck surveys and thematic analysis. Interaction between different groups of (also new) actors will be “fostered” both during the preparations and by the design of the seminar itself. The results will also be presented at the 4<sup>th</sup> World Urban Forum in Nanjing, China in 2008. In addition the subject will be discussed in each annual meeting.

A dialogue is being planned for the FIG Working Week in Hong Kong May 2007, to present and discuss the main current obstacles and preliminary hypothesis on the way forward.

#### Publications

- Technical papers presented in annual meetings
- Report on results at 4<sup>th</sup> World Urban Forum in Nanjing, China in 2008

#### Timetable

- 2006–2008: Research papers for Technical Sessions
- 2010: Final Report at FIG Congress

#### Beneficiaries

- All FIG member organizations, UN, other professional international and national organizations, agencies and governments.

### **Working Group 9.3 – Diagnostic Tools and Prescriptive Practices for The Valuation Profession**

#### Policy Issues

- The valuation profession in many countries is still rather weak and the profession has not always benefited from good education in valuation technology and theory. Consistent and logical guidelines are poor or even missing in some markets. There are no current tool sets to determine prescriptive practices for these poorly functioning valuation systems. What is needed is a systemized way to evaluate the status of a country’s valuation profession and then recommendations to bring the profession up to international standards, relative to their individual needs. This is particularly important in developing economies.

### Chair

- Mr. Steven Nystrom (USA), e-mail nystrom@tampabay.rr.com

### Specific Projects

- Identify the legal structures and practices in the valuation profession in different countries / markets.
- Create a tool for diagnostic analyses of the valuation profession in these diverse markets.
- Create a system for recommendation to bring the profession up to the international standards, relative to the needs of the individual country / market.
- Give FIG recommendations for Guidelines, which can then be a starting point to assess an individual country / market's needs for record keeping, GIS, and mapping solutions.

### Workshops

- A seminar to discuss and develop the tool and exchange of experience between countries and regions. Interaction between different actors will be strongly encouraged, both during the preparations and by the design of the seminar itself, so that the tools designed will be adequate to assess most markets.
- In addition the subject and evolving tool set will be assessed in each annual meeting.

### Publications

- FIG Guidelines
- Short article in journal including the basic diagnostic tool

### Timetable

- 2006 Phase 1: Discuss basic topic and key aspects to be expanded upon
- 2007 Phase 2: Investigations and concepts reported at FIG 2007
- 2008 Phase 3: First Draft of Systematic Diagnostic Tool at FIG 2008 Meeting, call for comments
- 2009 Phase 4: Second Draft of Systematic Diagnostic Tool at FIG 2009 Meeting, final comments
- 2010 Phase 5: Final Report and submission of Diagnostic Tool and Guidelines for Diagnoses at FIG Congress 2010

### Beneficiaries

- All FIG member organizations, UN, other professional international and national organizations, agencies and governments

## **Working Group 9.4 – Review of Valuation Methods and Standards Worldwide**

### Policy issues

- Changes in valuation methods and standards, globalisation.

### Chair

- David Smejkal (Czech Republic), e-mail: David.Smejkal@a-consultplus.cz



### Specific projects

- Identify the used standards in different markets and study the valuation methodologies adopted.
- Present and discuss the findings at FIG Working Weeks and Congress with information posted on the web-site for reference of members.

The Working Group will contribute to the standard network in Commission 1.

### Workshops

- To be planned for each annual meeting.

### Publications

- Technical papers presented in annual meetings.
- Report on results of work group investigations and reports at Congress 2010.

### Timetable

- 2007–09: research papers for Technical Sessions.
- 2010: Final Report at FIG Congress.

### Beneficiaries

- All FIG member organizations, UN, other professional international and national organizations, agencies and governments.

## **Working Group 9.5 – GIS as a Tool in Real Estate Market Analysis and Valuation**

### Policy issues

- The world is digitalising very fast. Also in valuation and real estate analyses the digital methods are gaining a footing. Spatial data is nowadays mainly digitalised, and automated valuation models (AVM) are used especially in mass appraisals. The valuers and real estate analysts have to adopt the use of digital tools and methods to be able to serve their client even in the future. Otherwise there is a threat to become a bystander or an assistant when other expert groups expand their scope.
- The idea for the Working Group is especially to get discussions about the new developing digital methods in valuation and real estate market analyses in FIG. Participants will get information of new ways to do analyses, get new ideas and test old ones. In addition people will participate much eager when they feel they really can learn something new in the FIG working weeks and conferences.

### Chair

- Mr. Henning Elmstrøm (Denmark), e-mail: elmstroem@plf.dk
- Co-Chairs:
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- Mr. Tassos Labropoules (Greece, Commission 3), e-mail: taslab@survey.ntua.gr



### Specific projects

- Identify the effects and possibilities of digitalisation for of the profession in real estate markets.
- Study new ways to make real estate market analyses and valuations.
- Present and discuss the findings and methods at FIG Working Weeks and Congress.
- The Working Group will be a joint Working Group with Commission 3.

### Workshops

- Presentations and round table discussions are to be planned for each annual meeting. A possibility for a special seminar will be studied.

### Publications

- Technical papers presented in annual meetings
- Report on results of work group investigations at Congress 2010.

### Timetable

- 2007–09: Research papers for Technical Sessions
- 2010: Final Report at FIG Congress

### Beneficiaries

- All FIG member organizations, UN, other professional international and national organizations, agencies and governments.

## **6 Other Activities**

### **6.1 Co-operation with Affiliate organizations**

Commission 9 will strengthen the connections with affiliate organisations such as Appraisal Institute (AI), American/European/International Real Estate Society (ARES/ERES/IRES), European Public Real Estate Association (EPRA), International Facility Management Association (IFMA), International Federation of Housing & Planning (IFPH), European Association for Investors in Non-listed Real Estate Vehicles (INREV), International Valuation Standard Committee (IVSC), Lincoln Institute, Royal Institute of Chartered Surveyors (RICS), The European Group of Valuers' Associations (TEGoVA), The Urban Land Institute (ULI), World Association of Valuation Organisations (WAVO) and other international and/or regional associations in the field of valuation, real estate economics and management, who are related to the activities of Commission 9.

### **6.2 Co-operation with the United Nations Agencies**

Activities of Commission 9 are related to UN-HABITAT, Land Tenure Service (FAO/SDAA), UN-ECE and other professional involvements of the United Nations. Commission 9 will look into the opportunities of participating and contributing in their events to promote the Commission and to provide appropriate services.

### **6.3 Workshop in China**

The China Institute of Real Estate Appraisers and Agents (CIREA) recently joined FIG as a Member Association. CIREA and is especially oriented to the work areas of Com-

mission 9. Therefore, the Commission is planning to organise a special workshop in 2008/2009 in China with a particular focus on Asia.

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## **FIG Commission 10 – Construction Economics and Management**

### **Work Plan 2007–2010**

#### **1 Terms of Reference**

- Construction Economics, including Quantity Surveying, Building Surveying, Cost Engineering and Management, Estimating and Tendering
- Commercial Management including Procurement, Risk Management and Contract Law for construction and non construction activity
- Project and Programme Management including Planning / Scheduling.

#### **2 Mission Statement**

- 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
- To facilitate the exchange and interchange of information, knowledge and experience between surveyors
- To publicise and promote 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
- To co-operate and work with fellow surveyors in all branches and groupings of the profession to further the objectives of FIG.

#### **3 General**

The overall theme for Commission 10 is summarised as the “Contribution of the surveyor in the economic development, management and realisation of projects and facilities”.

The Commission is fully cognisant of the pressing need to achieve understanding of its rôle amongst FIG colleagues so as to enlist their participation in its work; and, of the need to encourage suitably qualified national associations of (quantity) surveyors to join FIG. Success in these aims will reduce the perceived Euro-centricity of the Commission.

The plan for 2007-2010 is to concentrate on developing and disseminating understanding of the requirements and processes necessary to facilitate and encourage the investment of private finance into projects.

This focus has been chosen because all projects require finance to move forwards. However, projects in the developing world are often constrained by the source of funds whilst projects in the more developed world are constrained by the allocation of funds – both need to attract funding for their projects. To gain finance for a project from private sources, project sponsors need to present a business case that demonstrates the long-term financial viability of the proposed project.

Historically, BOT and DBFO procurement strategies have been utilised internationally for toll roads, bridges and the like. More recently, PFI and PPP arrangements have been developed as procurement strategies for hospitals, schools, defence and transport projects. There has been much pioneering work in the development of PFI and PPP

strategies and this knowledge can be shared and developed worldwide. The transparent and visible use of “best practice” commercial management techniques will greatly increase a sponsor’s ability to raise private finance for a project. Improvements in the raising of finance for projects has the potential to unlock funds and bring about the earlier realisation of projects for the benefit of both users and the professionals engaged in their delivery and ongoing management.

The ‘Policy issues’ specified against each Working Group will be addressed and carried forward in the context of the plan as set out above.

Commission 10 is keen to work with other Commissions so as to achieve unity of purpose in the pursuit of inter-disciplinary interests especially on issues related to project management.

In addition to the specific activities above, the Commission will support and contribute to FIG Task Forces and the Standards Network. The Commission will also respond to the FIG Council to address new issues as they emerge.

It will also be considered whether the name of the Commissions should be changed for the next term of office to bring greater focus to commercial and project management.

## **4 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 J Wilkinson (Melbourne, Australia), email: saraw@unimelb.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”.

### Acting Chair

- Mr. Geoff K. Schmitt (United Kingdom), e-mail: Shirley.Bithell@ccmassociates.com

### Specific projects

- To work with other Commissions to support their work on the procurement of infrastructure and affordable housing in developing and emerging economies.

### Publication(s)

- 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. Richard A Hucker, MBE (United Kingdom), email: Richard.Hucker@costain.com
- Vice-chair: Ms. Leonie Newnham (Australia), e-mail: Shirley.Bithell@ccmassociates.com

### 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.

### Publication(s)

- Report at each FIG working week outlining activity and progress.

## **5 Co-operation with sister associations**

The Chairman attends the periodic meetings of the Council of European Construction Economists (CEEC) and will initiate a review of the current Memorandum of Understanding with the International Cost Engineering Council. The agreement needs reappraisal and development so as to be more effective and therefore beneficial to the parties.

The Commission will seek collaboration with the African and Pacific Associations of Quantity Surveyors (AAQS and PAQS) which are both understood as affiliates of ICEC.

## **6 Calendar of events**

Full participation in FIG Working Weeks and, where appropriate and likely to be beneficial, FIG regional and strategic meetings.

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# APPENDIX A

## *FIG Definition of the Functions of the Surveyor*

### **Summary**

A surveyor is a professional person with the academic qualifications and technical expertise to conduct one, or more, of the following activities;

- to determine, measure and represent land, three-dimensional objects, point-fields and trajectories;
- to assemble and interpret land and geographically related information,
- to use that information for the planning and efficient administration of the land, the sea and any structures thereon; and,
- to conduct research into the above practices and to develop them.

### **Detailed Functions**

The surveyor's professional tasks may involve one or more of the following activities which may occur either on, above or below the surface of the land or the sea and may be carried out in association with other professionals.

1. The determination of the size and shape of the earth and the measurement of all data needed to define the size, position, shape and contour of any part of the earth and monitoring any change therein.
2. The positioning of objects in space and time as well as the positioning and monitoring of physical features, structures and engineering works on, above or below the surface of the earth.
3. The development, testing and calibration of sensors, instruments and systems for the above-mentioned purposes and for other surveying purposes.
4. The acquisition and use of spatial information from close range, aerial and satellite imagery and the automation of these processes.
5. The determination of the position of the boundaries of public or private land, including national and international boundaries, and the registration of those lands with the appropriate authorities.
6. The design, establishment and administration of geographic information systems (GIS) and the collection, storage, analysis, management, display and dissemination of data.
7. The analysis, interpretation and integration of spatial objects and phenomena in GIS, including the visualisation and communication of such data in maps, models and mobile digital devices.
8. The study of the natural and social environment, the measurement of land and marine resources and the use of such data in the planning of development in urban, rural and regional areas.
9. The planning, development and redevelopment of property, whether urban or rural and whether land or buildings.
10. The assessment of value and the management of property, whether urban or rural and whether land or buildings.
11. The planning, measurement and management of construction works, including the estimation of costs.

In the application of the foregoing activities surveyors take into account the relevant legal, economic, environmental and social aspects affecting each project.



# APPENDIX B

## ***FIG Information Policy 2007–2010***

### **A. Introduction**

An information policy concept it is necessary to have a look at the different groups that exist inside and outside the FIG. When discussing the means of implementing the information policy concept it is important to consider that the tools are correct ones for the purpose and target group. In particular when the information policy has a strong marketing aspect the target of the information policy and/or marketing campaign needs to be discussed.

This document is revised version of the FIG Information Policy Paper that was adopted by the General Assembly in Athens in 2004. The FIG Council should decide how this update should be formally endorsed and publicised.

### **B. Target groups**

In general there are two different target groups for the FIG information policy: the current FIG members (both member associations and other members and individuals in the member organisations) and potential new members.

The objective of the information policy for the first group is:

- to inform FIG members about all activities, discussion and intentions within the FIG and
- to get the members and individuals in those organisations more active.

The objective of the information policy for the second group is:

- to increase the number of members of the FIG which is more or less implementing the marketing aspect of the information policy.

### **C. Information policy for FIG members**

There is continuous discussion on the information gap between the FIG Council and the member organisations and especially how to transfer the information to the individual members of member associations and other members. When discussing the tools to be used it is important to consider whether the member organisations form one homogenous group or whether there are differences which need to be taken into consideration.

#### **C.1 How to bridge the gap**

There are different tools, which can be used for a better information distribution to FIG members:

##### Newsletters

The main information source for members and individuals is the FIG web site and the monthly FIG e-Newsletter, which is circulated by email to all who have subscribed it (free subscription through the FIG web site). This e-Newsletter includes a summary of reports of activities during the past month, event announcements and other news. The

e-Newsletter has received good feedback by being actual and bringing frequent information without a need to visit the web site.

There have also been requests for printed material or journals. The e-Newsletter is an appropriate way to inform the Presidents, member organisations and national delegates on the activities of the Federation. It also gives links to the latest news on the FIG home page, which can be used in national newsletters. The circulation of the e-Newsletter is larger than what is possible with a printed newsletter or bulletin. Further there is not lot of additional work for the FIG Office to produce the e-Newsletter with the concept and in the format that it is done at the moment. The e-Newsletter reaches developing countries better than ordinary mail as well as the developed countries. It reaches active members as well as the more or less "silent members" equally. There is no difference between the members that needs to be taken into consideration besides the fact that in developing countries not all (individual) members have access to the internet. But at least the member organisations have got the latest news from the FIG. It is the responsibility of the member organisations to find a way to distribute it further. The support of the members in this work is more or less a marketing aspect. The problem with the e-Newsletter at the moment is how to keep the distribution lists up-to-date (it is technically solved, but subscribers do not actively update their contact information).

Since the e-Newsletter contains the headlines of the latest news and gives links to the FIG home page, it is not too long, only one-three pages in printed format, which can be considered suitable. The member organisations have the possibility of choosing those facts which are most important for their organisation and members. When looking at the home page, they will probably find other things worth to draw members' attention to. Long newsletters with six or more pages, will not really reach the member organisations since they are too long and therefore will not be read. In addition most of the member organisations have their own newspaper / newsletter into which they are encouraged to extract news from the FIG web site.

#### Mailing forum / discussion group

FIG established two discussion groups on the home page – the first one for all members and the second one for academic members – but these have not been successful because there has not been the critical mass which is needed for active discussion. At the moment the discussion groups are taken out from active use and new means of direct communications are under consideration.

The FIG Office keeps e-mail distribution lists for the Council and Commission officers (ACCO) and for Commissions delegates (and correspondents). The information that will be distributed is decided by the Commission chair or the FIG Office. The concern is that the information will only reach those who are already active in FIG and its commissions and a mechanism for further distribution of the information is missing.

It should be discussed if further discussion groups (or on-line discussions) should be introduced for different target groups e.g. for the presidents of member associations. E.g. the presidents could be considered as a homogeneous group and they could use this forum e.g. for questions like "what is on with ...". This could be useful since it is not always up to the Council or the FIG Office to answer. However, there are some concerns that not everywhere in the world people are used to use e-mail in an easy and also non-formal way of communication. There is certain contradiction to the working methods of the presidents; they may perhaps prefer to wait for the e-Newsletter or President's letter and use this as their main source of information.

## Forums during meetings

Even the best e-Newsletters and mailing fora can not substitute personal contacts. The best indication of this are the Presidents' meetings that many members consider the best part of a Working Week or Congress. It should be discussed if these meetings could take place more often, e.g. also during regional conferences. These meetings could be organised in the same manner as the Presidents' meeting during the Working Week or as a round table to avoid too big forum and to allow profound discussions. Presidents who are not able to attend be encouraged to appoint a personal deputy. The presidents must be aware that they are not excluded if they do not participate, but they should be afraid that they are missing something. A new interesting or even funny title could attract people. And if the meeting is an official topic on the agenda, it will perhaps be easier for people to get the permission to travel.

Not only the regional conferences, but also other conferences and meetings should be used to organise these kind of presidents' or delegates' meetings. This should be the case especially at events that are sponsored by FIG.

The minutes and, as recommended, the resolutions of these meetings are distributed to all attendees and members. If there are questions, especially from those who are not able to participate, answers have to be published. Perhaps they can even be a good opportunity to enforce the presidents' mail forum (see above).

Regarding the objective groups at the regional conferences, there is no difference to the official meetings (General Assemblies). The only difference is that these meetings do have a regional focus influencing also the number of attending presidents (or delegates). It is possible that perhaps even more representatives from developing countries are able to take part when the regional conference takes place on their home continent. But there should not be any difference to be taken into consideration concerning developed or developing countries. It is important that the FIG President and/or Vice President(s) attend these meetings.

Encouraged by the Presidents' meetings FIG is now organising similar forums also for academic members and corporate members. It is also planned to organise a special forum also for the general directors of national mapping and cadastral agencies starting in Stockholm in 2008 and in Sydney 2010.

## **C.2 Information Policy for FIG members with Marketing Aspects**

Proposals made above are more or less directly focused on giving the FIG members more information about the FIG policies, actual discussion and future plans. There are other ways to get FIG members moving; in most cases they have a marketing aspect.

But before looking at these in detail, the different objective groups have to be identified from the marketing perspective:

1. First of all there are the developed countries that can be divided into those that are already very active within FIG – to whom a special marketing is not needed, but instead implementing the information policy – and those that are more or less "silent members". Even these organisations normally have very experienced individual members who can bring their knowledge into FIG. Therefore it is worth building up a special information policy concept with strong marketing aspects. It seems not to be that difficult to convince these members to take part

(a) in Working Weeks, regional conferences and other events or (b) even in the work of technical commissions and working groups.

In case a) their participation will have a direct financial effect because of the higher income to FIG through the registration fees. In case b) there will not be an obvious influence on the income of FIG, but if those newly active members can help FIG to put our intentions into action, the result can be even more positive by the multiplier effect. FIG should not only look at the finances – FIG is a non-profit organisation. So, finally, this group is really worth to be one of the main objective groups of our information policy with a strong marketing aspect.

2. Secondly there are the developing countries. It is very attractive to the member associations and their members to be related to the FIG since they can take profit from the experiences of other member countries. But it is very often impossible for those members to take part in meetings, congresses or working weeks, mostly because of the costs or because it is even impossible for them to travel (or even to leave the country). In addition, for some of them it is very difficult or even impossible to get FIG information regularly since they do not have a constant access to the internet. This is important when thinking about which communication means to use.

Different means with a marketing aspect can be used, and they are focussing on these two objective groups in a different way:

#### FIG Information / Promotion leaflet

The FIG information leaflet will be revised in 2007 to be more market oriented and to include in addition to administrative information main points from the FIG Work Plan and about Commissions. The design will also be developed to have a more promotive layout. This leaflet will be the main marketing brochure of FIG.

#### Annual Review

The Annual Review summarises the main results and activities of the Federation from the previous year. It gives an overall impression about FIG both to members and partners and can be used for marketing purposes. The contents of the Annual Review need to be revisited to better serve for marketing purposes. At the same time the Annual Review will also serve as a permanent document on the FIG activities for the history.

#### Article of the month

The article of the month has proved to be successful and gives an option for all members, but especially for those from developing countries, to be more active (since they are often not able to travel) and to present themselves. The article of the month is proposed to be selected by the Council or the commission chairs.

#### FIG on-line journal

The Council has introduced the concept of FIG on-line journal. The articles to this journals will be selected from peer-reviewed papers that have been submitted to FIG conferences and other events or directly to the journal. The journal can be published one or twice a year depending on the papers available. The electronic format allows low-cost publications, wide distribution and does not limit the number of papers to be published. The process of peer-reviewing is under preparation with the Commission chairs.

### Mailing lists / Mail campaigns

The group of all surveying associations is too big to be reached by personal contacts. So the presidents of member associations or other VIPs from these countries should get some support to build up their own campaigns. Depending on the special situation in the country, they should create a special FIG newsletter or page, integrated in the existing local newsletter.

### Presentations of FIG work

Even though it is not commonly thought of, every presentation of the FIG and its work is a kind of information policy, but even more a marketing activity. So every opportunity should be used to talk about FIG. If it concerns really interesting facts it should further be a means of getting sleepy members moving. In general presentations can possibly activate all kind of individuals, coming from the industrial states or the developing countries. So it will depend on the content, which kind of objective group will be reached. The way of marketing also depends on delegates' interests.

General presentations of FIG and its activities are available on the FIG web site and the contents of these will be developed on continuous basis.

### Personal contacts

Personal contacts are the most time-consuming means of marketing but at the same time very efficient, and for some special aims it is worth spending the time. This is the case for example to convince some specialist to be active within FIG or to get FIG more known in new regions (like e.g. in Central Asia or Latin America). In new regions the time is worth to spend since the contact persons will have a multiplier role.

## **D. FIG Marketing**

In general there are different objective groups in the marketing of FIG; they have to be defined before talking about the marketing means.

### **D.1 Definition of the objective groups**

1. Nearly every surveyor around the world is organised in his/her professional association, but not all these associations are FIG members. One goal for the marketing could be to increase the number of FIG member associations. This is worth a try, but the limited number of organisations within this objective group requires a special marketing concept (see below).
2. Secondly there are the companies that should become FIG corporate members and therefore are a main target group, at least all global players. For FIG it is a big advantage if many of them will become corporate members, not (only) because of the membership fees but because of activities and other benefits that can be of advantage to FIG members.
3. It also benefits the companies to become a corporate member, which can be seen from e.g. the education and grant programmes created with ESRI and Intergraph. The major companies expect marketing effects by being members and getting special benefits during exhibitions and events. If in addition they can be convinced to be sponsors of events or sponsor the FIG Foundation, this is even better for FIG.

4. Within the first main objective mentioned above, the academic members have to be mentioned. They do not increase the income of the FIG a lot, but they are very necessary for FIG if it wants to develop into a modern organisation since they are the leading educational and research institutes.

So as a conclusion to the objective groups of our marketing, there are three different groups outside the FIG, the member associations, the companies and the academic members. Those that are already active within the FIG will not be the objective of the marketing, a special concept for them is not built up.

So finally the marketing concept should concentrate on three different objective groups:

- new member countries,
- new corporate members,
- academic members.

It should be evaluated if it is worthwhile having a marketing plan for the mentioned objective groups.

## **D.2 What can we offer / Marketing tools**

The question “what can we offer” is closely related to the FIG goals and the future profile of the federation.

FIG is a non-profit organisation, so the main focus of our marketing is to be known all-over the world as the leading organisation within the surveyors’ world. It will not be enough that people know that FIG exists but they should consider the FIG as the first and most competent source of information that they can use to solve their daily problems. FIG has to be present as a modern organisation, also oriented towards new technologies. At the same time FIG as a world-wide actor has to take more responsibility in international affairs e.g. in implementing the Millennium Development Goals. It is absolutely necessary that we become an attractive organisation to the developed countries as the competent provider of information in a broader sense. FIG should provide recommendations and introduce good practices. For developed countries it must be interesting to take part in the FIG activities.

## **D.3 Marketing for the objective groups**

Some of the above mentioned groups are very important but small. Therefore it has to be considered whether it is worth building up marketing campaigns only for them. In general, different means have to be discussed:

### Personal contacts

Personal contacts, which are less anonymous and therefore more promising, should be used for all three groups. The focal point in FIG could be the Council, the Commissions or the chairs of the working groups. There is enough information about the aims and activities of the FIG on the web. In addition we have the FIG promotion leaflets (in different languages). Everything beyond these must be explained and discussed with the decision-makers of the associations, the companies or the academic institutions. This is possible because the number of candidates is limited. Personal contacts are the best way to proceed even if it takes time. In this work the existing PowerPoint presentations can be used.



Within the objective groups, the universities, already FIG members or not, should be considered as a special sub-group. They are in general interested in very specific spheres. Which university is active in which specific research field is mostly known by the working groups. So it will be most promising to contact them by the related working group of the concerned commission.

### Supporters

To reach the developing countries, whether they are already FIG members or not, is more or less a financial question since they will be happy if they can take part in congresses, working weeks and so on and in this way benefit from the experiences of others.

Since the FIG has not the funds there is a need from others to help. The big member associations and the big corporate members could create a godparent relationship (sponsorship) for a limited time (e.g. for the first two years) for a member association from a developing country. FIG should identify who are the big players and also to create the criteria who should be adopted. The sponsorship should cover the costs for taking part in the congresses, regional conferences, working weeks and so on and should be linked to certain duties and obligations for the adopted member (persons), for example to present a paper during a sponsored conference. The rules have to be created. In the same way, the contacts to the United Nations can be used to get some financial support, and the World Bank projects to promote FIG.

By this, members from developing countries shall be able to attend the FIG events or events sponsored by the federation. They will have a multiplier effect within their countries, even in a double sense: they take profit from the exchange of experience and the reports presented during the conference, bringing it to their country, and in this way they will be advertising the FIG.

### Presentations

In general, presentations of FIG, its basic ideas and how it is working is the best marketing that we can have, so we should use every opportunity. The presentations at national or regional events are very good examples! In addition, since people can contact the speaker after the presentation, it is possible to continue with personal contacts, an even more promising but of course limited way.

By presentations all defined objective groups can be reached. So it should be one of the FIG aims to have a presentation at every conference of importance to FIG. They can be given by anyone more or less involved in the work of the federation. FIG should keep an updated list of strategic conferences and to look for people going there.

## **FIG PUBLICATIONS**

The FIG publications are divided into four categories. This should assist members and other users to identify the profile and purpose of the various publications.

### **FIG Policy Statements**

FIG Policy Statements include political declarations and recommendations endorsed by the FIG General Assembly. They are prepared to explain FIG policies on important topics to politicians, government agencies and other decision makers, as well as surveyors and other professionals.

### **FIG Guides**

FIG Guides are technical or managerial guidelines endorsed by the Council and recorded by the General Assembly. They are prepared to deal with topical professional issues and provide guidance for the surveying profession and relevant partners.

### **FIG Reports**

FIG Reports are technical reports representing the outcomes from scientific meetings and Commission working groups. The reports are approved by the Council and include valuable information on specific topics of relevance to the profession, members and individual surveyors.

### **FIG Regulations**

FIG Regulations include statutes, internal rules and work plans adopted by the FIG organisation.

### ***List of FIG publications***

No. 1 Exchange of Surveying Personnel. *FIG Guide, 1990*. E/F/G (out of print) ISBN 951-96203-0-3

No. 2 Definition of a Surveyor. *FIG Policy Statement, 1991*. E/F/G (out of print) ISBN 951-96203-0-3

No. 3 Sustainable Development: a challenge and a responsibility for surveyors. *FIG Policy Statement, 1991*. E/F/G ISBN 951-96203-3-8

No. 4 The Surveyor's Contribution to Land Management. *FIG Policy Statement, 1991*. E ISBN 951-96203-4-6

No. 5 The Surveyor's Contribution to Land Management. *FIG Policy Statement, 1991*. E/F/G (out of print) ISBN 951-96203-7-0

No. 6 FIG and Member Associations: how to improve their relationships. *FIG Policy Statement, 1991*. E ISBN 951-96203-5-4

No. 7 Statutes and Internal Rules. *FIG Regulations, 1991*. E/F/G (out of print) ISBN 951-96203-6-2

No. 8 Hydrography in Ports and Harbours. *FIG Report, 1994*. E/F/G ISBN 0-644-35210-8



- No. 9 Recommended Procedures for Routine Checks of Electro-Optical Distance Meters (EDM). *FIG Guide, 1994*. E/F/G ISBN 0-644-35209-4
- No. 10 FAO and FIG Future Collaboration in Cadastral Reform in Rural Economics in Transition: report of round table meeting. *FIG Report, 1995*. E ISBN 0-644-43069-9
- No. 11 The FIG Statement on the Cadastre. *FIG Policy Statement, 1995*. E ISBN 0-644-4533-1, (available in 10 other languages)
- No. 12 FIG Plan of Work 1995-1999. *FIG Regulations, 1995*. E (out of print) ISBN 0-85406-718-3
- No. 13 Land Tenure, Land Management and Land Information Systems: report of FIG, FAO and UNCHS round table meetings. *FIG Report, 1995*. E ISBN 0-85406-737-X
- No. 14 Working towards Liberalisation in Trade in Services: the applications of NAFTA, the EU and MERCOSUR to the surveying profession. *FIG Report, 1996*. E ISBN 0-85406-791-4
- No. 15 Continuing Professional Development. *FIG Policy Statement, 1996*. E ISBN 0-85406-788-4
- No. 16 Constituting Professional Associations. *FIG Guide, 1998*. E ISBN 0-85406-862-7
- No. 16 Constitution d'Associations professionnelles. 2000. F ISBN 87-90907-03-5
- No. 17 Statement of Ethical Principles and Model Code of Professional Conduct. *FIG Policy Statement, 1998*. E ISBN 0-85406-921-6
- No. 17 Exposé des principes déontologiques et modèle de code de conduite professionnelle. 2001. F 87-90907-09-4
- No. 18 Statutes and Internal Rules. *FIG Regulations, 1998*. E ISBN 0-85406-920-8
- No. 19 Quality Assurance in Surveying Education. *FIG Policy Statement, 1999*. E ISBN 87-90907-00-0
- No. 20 FIG Plan of Work 1999-2003. *FIG Regulations, 2000*. E ISBN 87-90907-04-3
- No. 21 The Bathurst Declaration on Land Administration for Sustainable Development. *FIG Policy Statement, 1999*. E ISBN 87-90907-01-9
- No. 22 Co-operation between FIG and UN agencies 2000 2003 – Report of the FIG/UN Roundtable Meeting in Melbourne. *FIG Report, 1999*. E ISBN 87-90907-02-7
- No. 23 FIG Agenda 21. *FIG Policy Statement, 2001*. E ISBN 87-90907-07-8
- No. 24 Women's Access to Land – FIG Guidelines. Principles for Equitable Gender Inclusion in Land Administration: Background Report and Guidelines. *FIG Guide, 2001*. E ISBN 87-90907-08-6
- No. 24. ДОСТУП ЖЕНЩИН К ЗЕМЛЕ – Руководство МФТ Принципы Гендерного Равенства при Участии в Земельном Администрировании: Фоновой Отчет и Руководства. 2002. R ISBN 87-90907-25-6
- No. 25 Models and Terminology for the Analysis of Geodetic Monitoring Observations. *FIG Guide, 2001*. E ISBN 87-90907-10-8
- No. 26 FIG Statutes, Internal Rules and Guidelines. *FIG Regulations, 2001*. E ISBN 87-90907-13-2

No. 27 Mutual Recognition of Professional Qualifications. *FIG Policy Statement, 2002*. E ISBN 87-90907-16-7

No. 28 FIG Guide on Standardisation. *FIG Guide, 2002*. E ISBN 87-90907-17-5

No. 28 FIG Guide on Standardisation. *FIG Guide, revised edition 2006*. E ISBN 87-90907-17-5

No. 29 Business Matters for Professionals. *FIG Guide, 2002*. E ISBN 87-90907-18-3

No. 30 The Nairobi Statement on Spatial Information for Sustainable Development. *FIG Policy Statement, 2002*. E ISBN 87-90907-19-1

No. 31 Land Information Management for Sustainable Development of Cities. Best Practice Guidelines in City-wide Land Information Management. *FIG Guide, 2002*. E ISBN 87-90907-21-3

No. 32 Work Plan 2003–2006. *FIG Regulations, 2002*. E ISBN 87-90907-24-8

No. 33 Marrakech Declaration – Urban-Rural Interrelationship for Sustainable Development. *FIG Policy Statement, 2004*. E ISBN 87-90907-32-9 and A (2005) ISBN 87-90907-42-6

No. 34 Aguascalientes Statement – The Inter-Regional Special Forum on Development of Land Information Policies in the Americas. *FIG Policy Statement, 2005*. E ISBN 87-90907-41-8 and S ISBN 87-90907-44-2

No. 35 Enhancing the Representation of Under-Represented Groups in FIG. *FIG Guide, 2006*. E ISBN 87-90907-53-1

No. 36 Administering Marine Spaces: International Issues. *FIG Report, 2006*. E ISBN 87-90907-55-8

No. 37 FIG Guide on the Development of a Vertical Reference Surface for Hydrography. *FIG Guide, 2006*. E ISBN 87-90907-57-4

No. 38 The Contribution of the Surveying Profession to Disaster Risk Management. *FIG Report, 2006*. E ISBN-10: 87-90907-58-2 and ISBN-13: 978-87-90907-58-7

No. 39 FIG Work Plan 2007-2010. *FIG Regulations, 2008*. E ISBN 978-87-90907-62-4

No. 40 FIG Statutes, Internal Rules and Guidelines. *FIG Regulations, 2008*. E ISBN 978-87-90907-63-1

No. 41 Capacity Assessment in Land Administration. *FIG Guide, 2008*. E ISBN 978-87-90907-64-8

No. 42 Informal Settlements: The Road towards More Sustainable Places. *FIG Report, 2008*. E ISBN 978-87-90907-65-5

No. 43 FIG Costa Rica Declaration on Integrated Coastal Zone Management. *FIG Policy Statement, 2008*. E ISBN 978-87-90907-66-2

Language: E – English F – French G – German A – Arabic S – Spanish R – Russian



This FIG publication lists the tasks which the International Federation of Surveyors, FIG will undertake during 2007–2010. It comprises the vision statement and goals of the Federation, the Council Work Plan for 2007–2010, in relation to the administration and forward planning of the Federation; and Work Plans for 2007–2010 for each of the ten technical commissions which pursue FIG's professional and technical objectives.

The Work Plan is governed by FIG's aim and objectives, the Statutes and Internal Rules of the Federation and decisions of the General Assembly of FIG. The FIG Work Plan 2007–2010 has been adopted by the 30<sup>th</sup> FIG General Assembly in Hong Kong SAR, China in May 2007.