



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

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Greeting from the President

By Prof. Chryssy Potsiou, President of the International Federation of Surveyors



“Ensuring the Rapid Response to Change, Ensuring the Surveyor of Tomorrow”

FIG motto for 2015–2018

It is an honour for me as new FIG President to write this greeting; it is however also a challenge, because this Annual Review is covering the year 2014 which was the concluding year in the term of President CheeHai Teo. His term has made “Engaging the Challenge: Enhancing the Relevance” its key priority and during the 4-year term CheeHai Teo and his team has accomplished many results, of which some are highlighted in this Annual Review. Together with his Council, CheeHai Teo has laid a solid foundation for future Councils to develop the profession further. The surveying profession has an important role to play in facing the challenges of the times.

Through dedicated leadership and the long and systematic work of its members, FIG has established a close cooperation with the United Nation relevant bodies, the World Bank and its sister associations and has been globally recognized as the leading international non-governmental organization on “geospatial information” and the management of “land”, the “sea” and the “built” environment. It is within the

surveyors’ task to determine the size and shape of the earth, to map its surface and to manage it in a sustainable way.

For the 2015–2018 time period the overall theme is: “Ensuring the Rapid Response to Change, Ensuring the Surveyor of Tomorrow”.

Through the years almost every incoming administration of FIG has acknowledged “change” as a reality of our world; in 1938 we talked about “the role of the surveyor in the social order of today”, in the 60s we were concerned about “modern technology”, in the 70s about the “Space Age”, in the 90s about the “information society” and “globalization” and in the more recent years we are talking about “shaping the change”, “facing the challenges” and “engaging the challenges” and now we realize that the world is changing fast and that we simply cannot manage the change. Change is inevitable; as professionals we cannot manage change, we can only manage the way we respond to change. What we traditionally do, as professionals, is to seek the relevance of our profession and to improve our efficiency to respond to change.

It becomes obvious that in the urbanization and globalization era, a *globalization of science* is also taking place. Surveyors should be prepared to cooperate with several other disciplines and allied professions; in some cases there may be severe *competition* from neighboring disciplines, as well; this is a challenge surveyors need to face through development of their own skills. Surveyors should be prepared to deal with data inflation, to cope with large amount of information; they should also maintain in-depth technical research, better education, and cooperation with other professions. Through cooperation with other professionals surveyors will increase their skills in providing solution functionality, reliably, affordably (fit-for-purpose processes) for a complex and rapidly changing world – a *dynamic world that cannot wait*.

In his concluding Presidents Letter in December 2014, President CheeHai Teo wrote: “I take this opportunity to express my heartfelt thanks and appreciation to FIG’s membership, partners and stakeholders. FIG remains grateful for all the support and contribution which enabled us to function and strive towards meaningful engagements and contributions, efforts that should cascade to the local community and marketplace where we are present. Our thanks and appreciations also go to those who provided leadership within FIG and to the corps of volunteers from all over. All have worked and contributed, and together enhanced the usefulness for our sciences, technologies, knowledge and practices. These energies and efforts have contributed much towards advancing the utility, standing and relevance of our Profession and Federation.”

I now take the opportunity to welcome you to a new term for FIG and join CheeHai Teo in the thanks to all members of FIG. Without all FIG members and all the volunteers, all these initiatives for a better world would not take place. All the volunteers who contribute and participate in FIG annual conferences, regional conferences, the work of the ten commissions (ACCO) within their working groups and commission seminars and the work of the Task Forces (TFs) the FIG Networks and the Permanent Institutions. This Annual Review highlights some of the achievements that FIG, the Council and Commissions and all volunteers have been able to implement over the last year. It focuses on the activities in 2014 but being the last year of the four-year term of office it also summarises many of the projects successfully implemented over the last four years. I want to express my thanks to all those who have contributed in one way or another to the various events, projects and publications.

Chryssy Potsiou
President

Cover photos from top:

- FIG Council: VP Rudolf Staiger (2011–2018), FIG President CheeHai Teo (2011–2014), FIG President Chryssy Potsiou (2015–2018), VP Diane Dumashie (2015–2018) and Pengfei Cheng (2013–2016).
- Prime Minister of Malaysia, YAB Dato’ Sri Mohd Najib bin Tun haji Abdul Razak giving his opening address at the FIG Congress 2014.
- The FIG Congress – where young and experienced surveyors meet.
- Carbon Offset project – FIG planted 100 trees outside Kuala Lumpur.

Engaging the Membership



General Assembly 2014

Kuala Lumpur, Malaysia, 16–21 June

FIG 27th General Assembly was held during the XXV FIG Congress in Kuala Lumpur, Malaysia at the Kuala Lumpur Convention Centre. At the General Assembly 61 member associations were represented.

The main issues decided by the General Assembly were elections and decision on the venues of FIG Working Week 2017 and FIG Congress 2018. Prof. Chyssi Potsiou, Technical Chamber of Greece, was elected President for the term 2015–2018. Prof. Potsiou has been active within FIG since 1982 and has served as vice-president since 2011, Chair of Task Force for Housing and Property, and as FIG Commission 3 chair for the period 2007–2010. Prof. Rudolf Staiger, DVW Germany was re-elected as Vice President. Prof. Staiger has been chairing the FIG Commission 5, Positioning and Measurement, from 2006–2010. Dr. Diane Dumashie, Royal Institution of Chartered Surveyors, United Kingdom was elected as Vice President for the term 2015–18. Dr. Diane Dumashie has been chair of the FIG Africa Task Force 2009–14. She was chair of the FIG Commission 8 on Spatial Planning and Economic Development 2002–2010.

The Venue for the FIG Working Week 2017 will be Helsinki Finland, co-organised by the Finnish Association of Geodetic and Land Surveyors (MIL) and Finnish Association of Surveyors (MAK-LI), with the National Land Survey of Finland (NLS) as partner. 2017 is the 100th year of Finnish independence. The FIG Congress 2018 will take place in Istanbul, Turkey, co-organised by the Turkish Chamber of Survey and Cadastre Engineers. The Turkish Chamber of Survey and Cadastre Engineers have for many years wished

to attract the congress to Turkey and they are looking very much forward to welcoming all FIG members to Istanbul.

John Hohol, NSPS, USA and Iain Greenway, ICES, UK were both appointed Honorary Members of the Federation. Both have been very active within FIG for many years. One new member association was admitted, The Institute of Surveyors (St. Lucia) Inc. ISSL and Botswana Surveying and Mapping Association is returning as member. In addition, the membership application of several affiliate, academic and corporate members were endorsed.

All Chairs Elects of the 10 FIG Commissions and Young Surveyors Network were with applause appointed Chairs of Commission for the term 2015–2018.

Changes to FIG Statutes

FIG General Assembly has for several years discussed the voting structure for elections during FIG General Assemblies. It has been positive to see the engagement of many FIG members both as participants in a working group and in discussions at sessions during the FIG conferences and General Assemblies during the last three years. This year the voting structure was tabled for final voting and approved. All members up to 999 members get 1 vote, members with 1,000 members and over get 2 votes and members with 5,500 or more members get 3 votes. Further two changes to the statutes were approved on force majeure and FIG Task Forces. The changes were already implemented at the first session of the General Assembly and the new voting structure was used for the elections during the second session.



John Hohol receives his certificate of appointment to FIG Honorary Member.

FIG Council had received two proposals from members and during the first session of the General Assembly there were interesting discussions on election period of the President as well as on regional nomination bodies. FIG Council encourages members to actively participate in discussions in FIG.

The General Assembly further decided on the membership fees for 2016 to be the same as in 2015 (and the previous years) so 4.48 EUR per member up to 5,500 members. It was decided to set up a new reserve for IT apart from the already existing reserve for events.

Engaging the Membership



Experiencing the amazing Malaysian Culture.

The FIG Congress 2014

Kuala Lumpur Malaysia 17–21 June 2014

XXV FIG Congress- a celebration, celebrating the culmination of collective efforts and collaborative actions of the term 2011–14.

“The FIG Congress is our global forum where sciences, technologies, knowledge and practices come together; where issues, initiatives, researches and results converge and where cultures, diversity, specialization and expertise assemble”; said FIG President Teo Chee Hai, at the opening ceremony of the Congress.

The FIG Congress was for the first time since its beginning in 1878 held in Asia, and the silver jubilee Congress was a culmination of the four-year FIG Work Plan for the current FIG Council as well as the start of a new 4 year term with a new FIG President and two Vice Presidents elected at the General Assembly.

Since Kuala Lumpur, Malaysia was selected as destination for the 2014 Congress, the Lo-

cal Association, PEJUTA, the Local Organising Committee and FIG had worked intensely on the preparations to make this Congress a special experience for all participants. This culminated from 16–21 June in a mix of sessions, events, tours and impressions. The Congress offered more than 170 technical sessions over the four Conference days with around 550 presentations, a welcome reception for all attendants, 3-day exhibition, technical tours, social tours, a Malaysian dinner and Gala dinner. Partners were the World Bank, FAO, UN-ESCAP, UN-GGIM, UN-Habitat/GLTN. The Congress attracted more than 2,500 participants from almost 100 countries.

This Congress was co-organised between FIG and the Association of Authorized Land Surveyors Malaysia, PEJUTA with the cooperation from Land Surveyors Board Malaysia, Department of Survey and Mapping Malaysia, Malaysia Convention & Exhibition Bureau, Board of Quantity Surveyors, Malaysia, Board of Valuers, Appraisers and Estate Agents Malaysia, City Hall of Kuala

Lumpur and Royal Institution of Surveyors Malaysia. Primary Supporters were Malaysia Convention & Exhibition Bureau, Malaysia (MyCEB), Department of Survey and Mapping Malaysia (JUPEM) and Land Surveyors Board Malaysia. A special thanks to all contributors, bringing this Congress to a success.

The Congress was a celebration and culmination of the collective efforts and collaborative actions taking place during the last four years.

The theme of the XXV FIG Congress ‘Engaging the Challenges, Enhancing the Relevance’ could not have been chosen better. Not only a series of impressive developments as the Global Geodetic Reference Frame, Global Geospatial Information Management and GNSS World are under co-ordination for implementation. Also a series of approaches and tools as for example ‘Fit-for-Purpose’ Land Administration and the Social Tenure Domain Model demonstrate that FIG, together with its partners and the profession, are ready to engage challenges as undernourishment, shelter, climate change and economic progress with its sciences, technologies, knowledge and practices.

The World We Want

‘Politicians and governments can do more to embrace the revolution in data gathering and analysis; to use evidence-based policymaking to design programmes that work. So too the surveyors who produce some of the most important data of all’ said the Prime Minister of Malaysia, the Honourable Dato’ Sri Mohd Najib bin Tun Haji Abdul Razak, in his opening speech. He added: ‘We should work to improve existing information infrastructure, including spatial data infrastructure; and to implement policies to ensure that spatial data is reliable, accessible for re-use, and can be easily integrated into collaborative environments.’

The new joint FIG/World Bank ‘Fit-for-purpose’ land administration publication is in alignment to this vision and its core dimensions. During the introduction of this approach at the FIG Congress it became clear that further communications and discussions with colleagues in surveying and with professionals from other disciplines are needed in order to get a clear understanding of this approach. The approach is based on key principles as general boundaries, use of aerial imagery, purpose related accuracy and opportunities for updating.

Cadastre 2014

The Congress was a mixture of celebration, contribution and commitment. Celebration among other things of the Cadastre 2014 that does not only represent ideas and concepts but also the collective Professional passion and



Engaging the Membership

abilities to better comprehend and apply evolving concepts. A new FIG publication is available on Cadastre 2014 with the title: 'Cadastre 2014 and beyond'. The authors were thanked for the way in which this Vision has been brought to the profession and the users of products and services from the profession. This vision and way of thinking has been a key to the development of modern cadastres.

Declarations

A number of joint declarations were celebrated including the Joint FIG-World Bank Declaration on Fit-for-Purpose Land administration, the Suva Statement on Spatially Responsible Governance in the context of Small Island developing states, the UN-GGIM-AP Kuala Lumpur Declaration on Spatially Enabling Governments and Societies.

During the FIG/UN-GGIM-AP Technical Sessions on Global Geodetic Reference Frame, a joint Statement was adopted. The UN-GGIM-AP/FIG Statement on Global Geodetic Reference Frame recognized the growing need for an accurate and stable Global Geodetic Reference Frame to support, inter alia, earth observation, including sea level and climate change monitoring, natural hazard and disaster management and a wide range of other activities in public and private sectors throughout the World, contributing towards inclusive social progress, environmental sustainability and economic development.

The Statement was adopted by the UN-GGIM-AP Executive Board at its meeting on 20th June during the XXV FIG Congress and urges member states and their representatives within UN-GGIM-AP together with all member states and their representatives at the fourth session of the Committee of Experts on Global Geospatial Information Management, to support the approval of a draft resolution on Global Geodetic Reference Frame for Sustainable Development, and to submit to the 2013–14 session of the UN General Assembly for final adoption; and FIG member associations and all other membership groups of FIG, to take appropriate initiatives to inform and encourage the representatives of their respective countries to the fourth session of the Committee of Experts on Global Geospatial Information Management, to support the approval of the draft resolution on Global Geodetic Reference Frame for Sustainable Development and its submission to the UN General Assembly.

Carbon Offset Tour

Presidents and Heads of delegations of FIG member associations were invited into the jungle of Malaysia during the technical programme to plant 100 trees on behalf of the Congress. This programme is initiated by the Malaysian Convention and Exhibition Bureau, MyCEB in line



Prime Minister of Malaysia, the Honourable Dato' Sri Mohd Najib bin Tun Haji Abdul Razak testing his present at the Opening Ceremony.

with the Prime Minister's commitment to offset 40% carbon emissions by year 2020. FIG XXV Congress donated RM 5000 to this programme to secure the sustainability.

The event was set up by president Azmi Mohd Zin of Pejuta, the Association of Authorised Land Surveyors Malaysia, and his fellow member of the Local Organising Committee of the FIG Congress together with the Forest Research Institute Malaysia (FRIM) and took place at FRIM grounds, adjacent to the Botanical Garden on the outskirts of Kuala Lumpur. All delegates received a special green shirt to wear during the tour together with a hat to protect from the sun.

FIG Vice President Rudolf Staiger together with president Azmi unveiled a plaque commemorating this special event and handed over a cheque from the Congress to FRIM.

The 100 trees were various heavy hardwood trees that were planted at Field 10, Jalan Rahman Ali, FRIM.

The planting of the trees was followed by a traditional Malaysian lunch in the Botanical Garden, before the delegates returned to the Kuala Lumpur Convention Center.

Exhibition

56 international and national exhibitors found their way to the three-day exhibition and the hall was packed with participants during the breaks between the sessions but also in-between. A new feature, the Bunga Raya Platform, was allocated in the exhibition area for technical/product presentations, briefings or launchings and throughout the day there were various presentations by the exhibitors.

Social Events

The FIG Congress is also about networking, meeting old acquaintances and meeting new friends and colleagues from all over the world. The Welcome Reception was an excellent occasion to meet and greet in nice surroundings at



FIG Vice President Rudolf Staiger gives the cheque from the congress to FRIM.



Engaging the Membership



Goodbye from the local organising committee

Kuala Lumpur Convention Center. Accompanying persons were offered a special full day tour designed for them in Kuala Lumpur and surroundings. The Malaysian Evening/Foundation dinner was a cultural experience with Malaysian food, music and art&crafts. The cooks gave explanations to the various food that was placed at stations around the hall, and in-between

the guests could walk around and make their own various crafts such as batik paintings, songket weaving, pewter smithing and henna art painting.

The Gala dinner consisted of a 10 course dinner with a variety of entertainment during the evening both by a virtuous violin performer, a local cultural group and finally a live band. The

international participation on the dance floor increased towards the end of the evening.

The Congress finished with a closing ceremony in which FIG President Teo summarised the main outcomes of the congress and of the last four years. He described from the vision: "A Profession, armed with knowledge and best practices, extending the usefulness of surveying for the benefit of society, environment and economy, increasingly positioned in significance and relevance, next door to everywhere", how membership has been engaged, how FIG has been engaging the global challenge in order to enhance the significance and relevance towards the betterment.

At the closing ceremony President Teo was acknowledged for the successful congress together with the local organising committee, represented by President of PEJUTA, Mohammad Azmi Mohd Zin and Co-congress director Sr Hasan Jamil. President Teo was also recognised for his leadership and strong commitment to the Federation. President Teo concluded his term of office by the end of 2014.



Young Surveyors Conferences

2nd Young Surveyors Conference during FIG Congress 2014

The Young Surveyors had their own successful Conference in a hotel next door and had further access to the full congress programme as well. The atmosphere was dynamic, interactive and with a focus to documentation

via social media. Eva-Maria Unger from Austria presented the results of this event to the general assembly of FIG: 'Yes we are the future and we are dreaming big'. During the three conference days there were both plenary sessions with many high level speakers as well as several workshops. 180 Young Surveyors had found their way to the FIG Congress.

FIG Foundation had through a competition selected eight Young Surveyors from various parts of the world to attend the full congress. These young surveyors presented their papers in a special session on their thoughts and visions for the future.

Young Surveyors from the Asia/Pacific area also held their first regional meeting during the congress.

1st FIG Young Surveyors American Meeting

The 1st FIG Young Surveyors North American Meeting was held in sunny San Diego, California on April 14-15 2014. The 25 enthusiastic

surveyors from 15 states had a lively discussion on how to establish a Young Surveyors presence and program within North America. The discussion pointed out that there is the need for interaction, collaboration and communication between the young and the more seasoned professionals. Mr. Bryn Fosburgh, Vice

President of Trimble presented his view on the current and future trends of surveying and encouraged Young Surveyors and Professionals to embrace new technology and new applications. On day 2 the participants collected ideas on how to establish and form the Network. These ideas included Mission and Vision statements, how to organize, how to communicate and identification of future events. The discussion focused on mutual benefits for NSPS, State societies and Young Surveyors and Young Professionals. At the presentation to the Governors it was seen that there is an enthusiastic response to establish such a Network. The group walked away extremely educated, enthusiastic, motivated and determined to work on establishing the Young Surveyors and Young Professionals Network within NSPS Associations.

2nd FIG Young Surveyors European Meeting

FIG Young Surveyors organized the 2nd FIG Young Surveyors European Meeting on 7 October 2014,



A number of YS doing Gangnam style as their group photo – Young Surveyors Conference in Kuala Lumpur.

taking place at the Technical University Berlin. Around 150 Young Surveyors attended the well organized and inspiring meeting. The Danish Association of Surveyors, DDL, had even organized a bus full of surveying students coming from Denmark to attend the meeting and InterGeo. All participants at the Young Surveyors meeting also received a free ticket for the exhibition at Intergeo on 8 October 2014.

At the opening FIG Vice President Rudolf Staiger greeted all participants stressing that the surveying profession needs the next generation. He encouraged all participants to use the opportunity to meet in an International environment in spite of "easier" communication channels through the internet. He encouraged all to be active in their national associations and also internationally through FIG. FIG Foundation President John Hohl remarked that the average age of a surveyor world wide is 54!

Engaging the Membership

Engagements and Visits

FIG continues to aim at being visible and engaged in national and regional member activities. 2014 brought many interesting and inspiring visits and meetings. FIG President CheeHai Teo, the Vice Presidents as well as Commission or Network Officers represented FIG and met members from around the world at various occasions during 2014.

Among other places President Teo visited GeoSiberia, Novosibirsk, Russia. This year's GeoSiberia was a milestone for the organizers, the tenth edition and this event has grown to become a recognized forum, one that combines an international exhibition and scientific conference, providing participants to gather annually and the opportunity to make and renew friendships, to debate and demonstrate the utility and usefulness of geospatial sciences, technologies and practices for sustainable national development and nation building.

Further visits were paid to Hong Kong Polytechnic at the celebration of their 30th anniversary, the National Taiwan University, Taipei, Chamber of Surveying Cadastre Engineers of Turkey, Costa Rica, InterGeo, Germany. The Technical Chamber of Greece visited the FIG Office in Copenhagen together with incoming President Chrissy Potsiou and President CheeHai Teo.

Delegation from Brazil visiting the FIG Stand at InterGeo.



At the opening ceremony of GeoSiberia 2014.



Meeting the students at the Siberian State Academy of Geodesy.



33rd National Surveying and Spatial Information Conference at National Taiwan University, Taipei. From left: L-R: Prof. Liang-Chien Chen, Dr. Guey-Shin Chang, Ms Ching-Hsu Wang, Mr. Jeng-Lun Liu, Dr. San-Cheng Chang, Prof. Jia-Yush Yen, and FIG President CheeHai Teo.

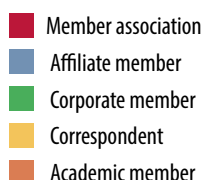


FIG President CheeHai Teo with Winnie Shiu at the 30th Anniversary of Hong Kong Polytechnic.

Engaging the Membership



Map based on information in May 2015.



Member Associations (December 2014)

Algeria	Ordre des Géomètres-Experts Fonciers (OGEF)	Germany	DVW – Society of Geodesy, Geo-information and Land Management
Australia	Surveying and Spatial Sciences Institute (SSSI)	Ghana	Ghana Institution of Surveyors
Austria	Austrian Society for Surveying and Geoinformation	Greece	Technical Chamber of Greece
Bahamas	Bahamas Association of Land Surveyors (BALS)		Hellenic Association of Rural and Surveying Engineers
Belarus	Land Reform Association	Hong Kong SAR, China	The Hong Kong Institution of Engineering Surveyors
Belgium	Union Belge des Géomètres-Experts Immobiliers	Hungary	Hungarian Society of Surveying, Mapping and Remote Sensing
Benin	Syndicat National des Géomètres-Topographes et Assimilés du Bénin	Indonesia	Ikatan Surveyor Indonesia
Bosnia-Herzegovina	Geodetic Association of Herceg-Bosnia	Iran, Islamic Republic of	Iranian Professional Society of Surveying Engineers (ISS)
Brazil	Brazilian Society of Cartography, Geodesy, Photogrammetry and Remote Sensing (SBC)	Israel	Association of Licensed Surveyors in Israel
Brunei Darussalam	Brunei Institution of Geomatics (BIG)	Italy	National Council of Italian Surveyors
Bulgaria	Union of Surveyors and Land Managers in Bulgaria	Jamaica	The Land Surveyors Association of Jamaica (LSAJ)
	Chamber of Graduate Surveyors	Japan	Japan Federation of Surveyors
Burkina Faso	Association des Géomètres et Topographes du Burkina (AGT-B)	Kenya	Institution of Surveyors of Kenya (ISK)
Cameroon	Ordre National des Géomètres du Cameroun	Korea, Republic of	Korea Cadastre Survey Corporation
Canada	The Canadian Institute of Geomatics	Kosovo	Kosova Association of Surveyors
China	China Institute of Real Estate Appraisers and Agents (CIREA)	Latvia	Latvian Associations of Surveyors (LMB)
	China Land Science Society (CLSS)	Lebanon	Ordre des Géomètres-Topographes du Liban
	Chinese Society of Geodesy, Photogrammetry and Cartography	Liberia	Cadastral Surveyors Association of Liberia, Inc. (CASUAL)
Congo D.R.	Fédération des Ingénieurs Géomètres-Topographes	Lithuania	Lithuanian Association of Property Valuers
Costa Rica	Colegio de Ingenieros Topógrafos de Costa Rica		Lithuanian Association of Surveyors
Croatia	Croatian Geodetic Society	Luxembourg	Ordre Luxembourg des Géomètres (OLG)
Cyprus	Cyprus Association of Rural and Surveying Engineers	Malaysia	Association of Authorised Land Surveyors Malaysia
	Cyprus Association of Valuers and Property Consultants	Mali	Ordre des Géomètres Experts du Mali (OGE)
Czech Republic	Czech Association of Certified Property Appraisers	Malta	The Malta Institution of Surveyors
	Czech Union of Surveyors and Cartographers	Mongolia	Mongolian Association of Geodesy, Photogrammetry and Cartography (MAGPC)
Denmark	Danish Association of Chartered Surveyors (DdL)	Morocco	Ordre National des Ingénieurs Géomètres-Topographes (ONIGT)
Egypt	Egyptian Committee of Surveying and Mapping	Nepal	Nepal Institution of Chartered Surveyors
Estonia	Association of Estonian Surveyors (EGÜ)	Netherlands	Geo-informatie Nederland (GIN)
Ethiopia	Ethiopian Surveying Professionals Association (ESPA)	New Zealand	New Zealand Institute of Surveyors
Fiji	Fiji Institute of Surveyors	Nigeria	Nigerian Institution of Estate Surveyors and Valuers
Finland	Finnish Association of Geodetic and Land Surveyors (MIL)		Nigerian Institution of Surveyors
	Maanmittausalan ammattikorkeakoulu- ja opistoteknisten Liitto MAKKLI ry		The Nigerian Institute of Quantity Surveyors
France	Ordre des Géomètres-Experts (OGE)	Norway	Norges Jordskiftekanidatforening (NJKF), faglig gruppe af Tekna and GeoForum
	Association Française de Topographie (AFT)	Palestinian Authority	Licensed Surveyors Association in Palestine
Gabon	Association des Professionnels de l'Ingenierie Topographique du Gabon, APIT Gabon	Papua New Guinea	Association of Surveyors of Papua New Guinea (ASPNG)
Georgia	Society of Professionals of Land Information Technologies (SPLIT)		

Engaging the Membership

*) New member from 2015 who have applied and were admitted into membership up until the time of printing.

Philippines	Geodetic Engineers of the Philippines, Inc.	St. Lucia	The Institute of Surveyors (St. Lucia) Inc. ISSL
Poland	Association of Polish Surveyors	Sweden	Swedish professionals for the built environment
Portugal	Order of Engineers --- College of Geographical Engineering	Switzerland	geosuisse – Swiss society of geomatics and Land Management
Puerto Rico, USA	Professional College of Engineers and Land Surveyors of Puerto Rico	Syria	Order of Syrian Engineers and Architects (OSEA)
Romania	Romanian Association of Private Surveyors	Togo	Ordre des Géomètres du Togo
	Union of Romanian Geodesy	Trinidad and Tobago	Institute of Surveyors of Trinidad and Tobago
Russian Federation	Federal Service of State Registration, Cadastre and Cartography (Rosreestr)	Tunisia	Association Nationale des Ingenieurs Géomètres-Experts Tunisiens (ANIGET)
	Non-commercial partnership “Self-regulated organization of activity of cadastral engineers”	Turkey	Chamber of Surveying Engineers of Turkey
Senegal	Ordre National des Géomètres Experts du Senegal (ONGES)	Ukraine	Ukrainian Society of Geodesy and Cartography
Serbia	Serbian Union of Surveyors	United Kingdom	Chartered Institution of Civil Engineering Surveyors (ICES)
Slovak Republic	Chamber of Surveyors and Cartographers, CSC		The Royal Institution of Chartered Surveyors (RICS)
	Slovak Union of Surveyors and Cartographers	Uruguay	Surveyors Association of Uruguay (AAU)
Slovenia	Association of Surveyors of Slovenia	USA	National Society of Professional Surveyors (NSPS)
South Africa, Republic of	South African Council for Professional and Technical Surveyors	Vietnam	Vietnam Association of Geodesy – Cartography – Remote Sensing
Spain	Spanish Association of Geodetic Surveyors	Zimbabwe	Survey Institute of Zimbabwe
Sri Lanka	Surveyors’ Institute of Sri Lanka		

Affiliate Members (December 2014)

Albania	Central Office of Immovable Property Registration – IPRO	Macedonia (FYROM)	Agency for Real Estate Cadastre (AREC)
Argentina	Consejo Federal De Catastro De La Republica Argentina (C.F.C)	Mexico	National Institute of Statistics, Geography and Informatics (INEGI)
Australia and New Zealand	ANZLIC – the Spatial Information Council	Moldova, Republic of	Agency for Land Administration and Cadastre of Republic of Moldova
Azerbaijan	State Committee for Land and Cartography, State Aerogeodesy Corporation, Azerbaijan	Mongolia	Administration of Land Affairs, Construction, Geodesy & Cartography
Belgium	General Administration of the Patrimonial Documentation	Namibia	Office of the Surveyor General, Ministry of Lands, Resettlement and Rehabilitation
Brunei Darussalam	Survey Department, Ministry of Development	Nepal	Survey Department, Government of Nepal
Cambodia	Ministry of Land Management, Urban Planning and Construction	Netherlands	Cadastre, Land Registry and Mapping Agency
Chile	Servicio Hidrográfico y Oceanográfico de la Armada de Chile	Norway	Statens kartverk, Norwegian Mapping and Cadastre Authority
China	China Land Surveying and Planning Institute	Romania	National Agency for Cadastre and Land Administration
Colombia	Instituto Geográfico Agustín Codazzi	Russian Federation	Siberian State Academy of Geodesy
	Unidad Administrativa Especial de Catastro Distrital – UAEC	Saudi Arabia, Kingdom of	Ministry of Municipal and Rural Affairs
Croatia	State Geodetic Administration of Republic of Croatia		General Commission for Survey (GCS), General Directorate of Geodesy and Land Survey (GLS)
Cyprus	Cyprus Lands and Surveys Department	Sri Lanka	Survey Department, Sri Lanka
Denmark	Danish Geodata Agency	Sweden	Lantmäteriet – The Swedish Mapping, Cadastral and Land Registration Authority
Fiji	Ministry of Lands and Mineral Resources	Switzerland	Swiss Federal Office of Topography, swisstopo
	iTaukei Land Trust Board	USA	United States Department of Commerce, National Oceanic and Atmospheric Administration NOAA
Finland	National Land Survey of Finland		
Guatemala	Guatemalan Registry of Cadastral Information (Registro de Información Catastral de Guatemala – RIC)		
Hungary	Institute of Geodesy, Cartography and Remote Sensing (FÖMI)		
Iceland	Registers Iceland		
Iran	National Cartographic Center of Iran (NCC)		
Iraq, Republic of	General Directorate for Surveying, Ministry of Water Resources		
Israel	Survey of Israel		
Italy	Italian Society of Photogrammetry and Topography (SIFET)		
Japan	Geospatial Information Authority of Japan/Geodetic Department		
Jordan	Department of Lands & Survey, Ministry of Finance		
Lesotho *)	Land Administration Authority (LAA)		

Engaging the Membership

Academic Members (December 2014)

Australia	RMIT University, Department of Geospatial Science
	The University of Melbourne, Department of Geomatics
	University of New South Wales, School of Surveying and Spatial Information Systems
	University of Southern Queensland, Department of Surveying and Land Information
	University of Technology Sydney, School of Construction Property & Project Management
Austria	University of Natural Resources and Applied Life Sciences Vienna, Institute of Surveying, Remote Sensing and Land Information
Belgium	Antwerp Maritime Academy, Institute for Hydrography
	ECAM – Haute Ecole Leonard de Vinci, Département Construction
	University of Applied Sciences Kaho Sint-Lieven, Department of Engineering in Construction and Land Surveying
	University of Liege, Unit of Geomatics
Botswana	University of Botswana, Faculty of Engineering and Technology
Brazil	Universidade do Vale do Rio dos Sinos – UNISINOS, Centro de Ciências Exatas e Tecnológicas
Canada	Université Laval, Département des sciences géomatique
	University of Calgary, Department of Geomatics Engineering
	University of New Brunswick, Department of Geodesy and Geomatics Engineering
China	Renmin University of China, School of Public Administration, Department of Land & Real Estate Management
	The University of Nottingham Ningbo China, Faculty of Science and Engineering
Colombia	Universidad de los Andes – Civil and Environmental Engineering
	Universidad Distrital Francisco José de Caldas, Facultad de Ingeniería
	Universidad Distrital Francisco José de Caldas, Facultad del Medio Ambiente y Recursos Naturales
Croatia	University of Zagreb, Faculty of Geodesy
Cyprus	Neapolis University Pafos, Real Estate and Construction
Czech Republic	Brno University of Technology, Faculty of Civil Engineerin, Department of Surveying
Denmark	Aalborg University, Department of Development and Planning
Ethiopia	Bahir Dar University, Institute of Land Administration
Finland	Aalto University, School of Engineering, Department of Real Estate, Planning and Geoinformatics
	Helsinki Metropolia University of Applied Sciences, Land Surveying
	Rovaniemi University of Applied Sciences
France	Ecole Supérieure des Géomètres et Topographes (ESGT)
Gabon	Ecole Nationale du Cadastre et des Sciences Geographique, ENCSG
Germany	Anhalt University of Applied Sciences, Faculty of Surveying Engineering
	Berlin Institute of Technology, Department for Geodesy and Geoinformation Science
	Technische Universität München, Faculty of Civil Engineering and Surveying
	University of Stuttgart, Institute of Engineering geodesy (IIGS)
Ghana	University of Mines and Technology, Department of Geodetic Engineering
Greece	National Technical University of Athens, School of Rural and Surveying Engineering
Hong Kong SAR, China	The Hong Kong Polytechnic University, Department of Land Surveying & Geo-Informatics
Hungary	The University of West Hungary, Faculty of Geoinformatics
Ireland	Dublin Institute of Technology, Department of Geomatics
Israel	Technion – Israel Institute of Technology, Mapping and Geoinformation Engineering
Jamaica	University of Technology Jamaica, Division of Surveying and Geographic Information Sciences
Kazakhstan	East Kazakhstan State Technical University named after D. Serikbayev, Geodesy, Land Management and Cadastre
	Kazakh National Technical University after K. I. Satpaev, Department for Strategic Planning and Development
Kosovo	University of Prishtina, Faculty of Civil Engineering and Architecture, Department of Geodesy
Latvia	Riga Technical University, Faculty of Civil Engineering, Department of Geomatics
Lebanon	Lebanese Canadian University (LCU), Faculty of Engineering
	Lebanese International University, LIU, Department of Surveying Engineering
Malaysia	Universiti Teknologi Malaysia, Department of Geomatics Engineering
Mexico	Universidad Autónoma de Nuevo León, Topography Department of the Civil Engineering
Nepal	Land Management Training Centre, Dhulikhel Municipality
Netherlands	ITC – Faculty of Geo-Information Science and Earth Observation of the University of Twente
New Zealand	University of Otago, The School of Surveying
Nigeria	ABIA State Polytechnic, ABA, Nigeria, Surveying and Geoinformatics Dept.
	Nnamdi Azikiwe University, Faculty of Environmental Sciences
	University of Lagos, Faculty of Environmental Sciences
Norway	Norwegian University of Life Sciences, Department of Mathematical Sciences and Technology
	Bergen University College, Faculty of Engineering
Oceania	University of the South Pacific, Land Management & Development Department
Palestinian Authority	Palestine Polytechnic University, College of Engineering and Technology
Poland	Agricultural University of Cracow, Faculty of Environmental Engineering & Land Surveying
Puerto Rico, USA	University of Puerto Rico, Mayagüez Campus, Civil Engineering Department
	Polytechnic University of Puerto Rico, Geomatic Sciences Department
Romania	“1 Decembrie 1918” University of Alba Iulia, Department of Topography and Cadastre
	Technical University of Civil Engineering – Faculty of Geodesy, Bucharest
Russian Federation	Moscow State University of Geodesy and Cartography, Economic and Land Management
	State University of Land Use Planning, Vice-rector for International Cooperation
Rwanda	INES-Ruhengeri, Head of Department: Land Administration and Management
Senegal	University of Thies, UFR Science of engineering
Serbia	University of Novi Sad, Faculty of Technical Sciences
Slovenia	University of Ljubljana, Faculty of Civil and Geodetic Engineering

Engaging the Membership

*) New member from 2015 who have applied and were admitted into membership up until the time of printing.

South Africa, Republic of	University of Cape Town, Division of Geomatics in the School of Architecture, Planning and Geomatics
Spain	Technical University of Madrid, Higher School of Engineers in Surveying, Geodesy and Cartography University of Jaen Spain, Ingenieria Cartografica, Geodesica y Fotogrametria
Sri Lanka	Sabaragamuwa University of Sri Lanka, Faculty of Geomatics
Sweden	Royal Institute of Technology, Real Estate Planning and Land Law Department of Real Estate Science at Lund University
Switzerland	University of Applied Sciences Northwestern Switzerland, School of Architecture, Civil Engineering and Geomatics
Trinidad and Tobago	University of the West Indies, Department of Geomatics Engineering & Land Management, Faculty of Engineering
Turkey	Istanbul Technical University, Department of Geomatic Engineering
Uganda	Makerere University, Geomatics and Land Management





United Kingdom	Kingston University, Faculty of Design
	Oxford Brookes University, School of Built Environment
	Reading University, Henley Business School, School of Rural Estate and Planning
	Sheffield Hallam University, Faculty of Development & Society
	The University of Nottingham, Institute of Engineering Surveying and Space Geodesy
USA	University of the West of England, Faculty of the Built Environment
	New Mexico State University, Surveying Engineering
	Texas A&M University – Corpus Christi, Conrad Blucher Institute for Surveying and Science
International	University of Houston, College of Technology
	UNIGIS International Association

Correspondents (December 2014)



Tonga.

Corporate Members (December 2014)

PLATINUM LEVEL

	Bentley Systems, www.bentley.com
	Environmental Systems Research Institute, Inc. (ESRI), www.esri.com
	Leica Geosystems AG, www.leica.com
	Trimble Navigation Ltd, www.trimble.com



SILVER LEVEL

	COWI A/S, www.cowi.dk
	Geoweb S. p. A, www.geoweb.it
	Thomson Reuters, http://grm.thomsonreuters.com
	Meridian+, www.agpmeridian.com
	The State Enterprise "State Land Cadastre Centre", Ukraine, www.dzk.gov.ua

BRONZE LEVEL

	AED-SICAD Aktiengesellschaft, www.aed-sicad.com
	GIM International – Geomares Publishing, www.gim-international.com
	KQ Geo Technologies Co, www.kanq.com.cn
	RIPRO Corporation, Japan

BASIC LEVEL

	Derinsu Underwater Engineering & Consulting, www.derinsu.com
	NEH Engineering Survey and Mapping Limited Company, Vietnam

REGIONAL LEVEL

	Branco Etera Ltd, Kazakhstan
	Concord Surveying Works Co., http://concordsurveying.com
	Coordinates Magazine, www.mycoordinates.org
	GEO:connexion Ltd, www.geoconnexion.com
	ISQ Portugal, www.isq.pt
	JKO Surveyors & Consultants (Pvt) Ltd, Sri Lanka, www.jko.lk
	MundoGEO, Brazil, http://mundogeo.com
	Orbits Engineering Firm, www.orbitseng.com

OTHER SPONSORSHIP

	Den danske Landinspektørforening (DdL), http://www.landinspektoren.dk/
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Engaging Global Challenges

Commissions

FIG Commissions are the “powerhouses” of the Federation, delivering knowledge and disseminating best practices through its activities. Members should benefit from their membership in FIG by actively engaging in the Commissions and supporting enthusiastic national delegates to actively collaborate and participate in the work and activities of the Commissions. This is vital in order to bring the benefits of FIG membership to the local members.

Commission 1 – Professional Practice

Chair: Leonie Newnham (SSSI, Australia)

Chair-elect: Mr. Brian J. Coutts (NZIS, New Zealand)

Commission 1 had five Working Groups during the term 2011–14:

- WG 1.1 – Changing Nature of Work and the Role of a Surveyor. A workshop on ‘The Changing Role of the Surveying and Spatial Professional – Looking towards 2020 and beyond’ was held in Melbourne organised by the Working Group.
- WG 1.2 – Regulation Approaches that Provide Secure Tenure who decided to support the work of Working Group 1.1. They undertook work on the ethical aspects of regulation for next work plan.
- WG 1.3 with special focus on building links between various African surveying communities – Community of Practice on Professional Standards and Practice.
- WG 1.4 – International Boundary Settlement and Demarcation which was finalised with FIG Publication 59.
- WG 1.5 – Social Media and Surveyors (Joint Working Group with the Young Surveyors Network). This group had discussion of the various aspects of social media and surveying professional held throughout working weeks and the Congress. They also used social media to share work on the definition of a surveyor developing discussion using Commission 1 LinkedIn group and twitter for the Melbourne Workshop held in September 2013. Used Skype format to engage surveyors from around the world in workshop discussion led by Robyn McCutcheon. Join the FIG Commission 1 sub-group on LinkedIn.

Commission 2 – Professional Education

Chair: Steven Frank (ACSM, United States)

Chair-elect: E.M.C (Liza) Groenendijk (GIN, The Netherlands)

Commission 2 has especially worked with the areas of curriculum, learning methodology, education marketing and recruitment, and education



Chairs 2011–14 and incoming commission chairs at FIG Congress 2014.

From left:

Commission 1 Chair Leonie Newnham (SSSI, Australia) and Chair-elect Mr. Brian J. Coutts (NZIS, New Zealand); Commission 2 Chair Steven Frank (ACSM, United States) and Chair-elect E.M.C (Liza) Groenendijk (GIN, Netherlands); Commission 4 Chair Dr. Michael Sutherland (CIG, Canada) and Chair-elect Angela Etuonovbe (NIS, Nigeria); Commission 5 Chair Dr. Mikael Lilje (ASPECT, Sweden) and Chair-elect Ing. Volker Schwieger (DVG, Germany); Commission 3 Chair-elect: Enrico Rispoli (CNGeGL, Italy) [Chair, Dr. Yerach Doytsher, ALS, Israel, not in photo]; Commission 6 Chair: Prof. Gethin Wyn Roberts (ICES, United Kingdom) and Chair-elect Ivo Milev (USLMB, Bulgaria); Young Surveyors Network Chair Kate Fairlie (SSSI, Australia) and Chair elect Eva-Maria Unger (OVG, Austria); Council member Rudolf Staiger; Commission 7 Chair Daniel Roberge (CIG, Canada) and Chair-elect Gerda Schennach (OVG, Austria); Commission 8 Chair Wafula Nabutola (ISK, Kenya) [Chair-elect Kwame Tenadu, GhIS, Ghana not in photo]; Commission 9 Chair Prof. Frances Plimmer (RICS, United Kingdom) [Chair-elect Dr. Liao Junping, CIREA, China not in photo]; Commission 10 Chair Robert Sinkner (CUSC, Czech Republic) [Chair-elect Mr. See Lian Ong, RICS, Malaysia, not in photo].

Engaging Global Challenges

assessment. Commission 2 had during this term three Working Groups:

- WG 2.1 – Curriculum and Survey Body of Knowledge that was involved in the Publication of initial Body of Knowledge in US publication SaLIS and had presentation at Rome and Mayaguez
- WG 2.2 – Learning and Teaching Methodology, presenting papers in Marrakech, Rome, Mayaguez, Moscow, Tyler, and Kuala Lumpur
- WG 2.3 – Marketing and Management of Professional Survey Education who presented papers presented in Marrakech, Rome, Tyler, and Kuala Lumpur.

In addition to workshop activities, Commission 2 also reviewed and recommended a series of articles on the Body of Knowledge for Surveying printed in the Surveying and Land Information Science journal. While not covering all aspects of surveying, the articles are good guidelines for developing technical curricula for surveying education programs.

Commission 3 – Spatial Information Management

Chair: Dr. Yerach Doytsher (ALS, Israel)

Chair-elect: Enrico Rispoli (CNGeGL, Italy)

Commission 3 has during the term specifically worked with: Increasing awareness about successful and qualitative SIM approaches and achievements within the “e-Society” framework by demonstrating good practice, including availability, reliability, efficiency, and accessibility of spatial information for better decision making and processes; Support of spatial information and SIM-tools usage by surveyors and by all decision-making participants to serve the goals of good governance; Share good practice on managerial processes and infrastructure required for data handling, using of information and knowledge distribution; Share good practice and develop high-level methods and techniques for merging and managing updated spatial information at various levels according to market requirements; Establish and maintain data – and data-quality-standards – relevant to SIM, while cooperating with international spatial data standards committees; and, Encourage the use of spatial information within e-government and ecommerce.

Based on these terms of reference and missions, Commission 3 Working Groups have focussed on the contribution of spatial information for sustainable development. Commission 3 also addressed the phenomenon of rapid urbanization and its impacts with emphasizing on the identification of spatial tools and general principles, norms and standards designed for good governance whilst using reliable and accessible spatial information.

The working groups were: WG 3.1 – SIM Infrastructure, WG 3.2 – Technical Aspects of SIM, WG 3.3 – 3D Cadastre (Joint Working Group with Commission 7).

Commission 3 organized the Annual FIG Commission 3 workshop/conference in Bologna Italy, 4–7 November 2014.

Commission 4 – Hydrography

Chair: Dr. Michael Sutherland (CIG, Canada)

Chair-elect: Angela Etuonovbe (NIS, Nigeria)

Commission 4 had five Working Groups:

- WG 4.1 resulting in the FIG Publication 62: *Ellipsoidally Referenced Surveying for Hydrography*
- WG 4.2 – Standards and Guidelines
- WG 4.3 on Optimizing Multi-Sensor Systems for Hydrographic Applications
- WG 4.4 – Maritime and Marine Spatial Information Management
- WG 4.5 – Hydrography in Africa.

Commission 4 representatives have been active in producing publications (both FIG Publications and other), organizing workshops/conferences/conference sessions, participating in FIG Task Forces, and pertinently representing FIG on international Boards and at international meetings. In 2014 Commission 4 has been involved in IHO Capacity Building Seminar, Monaco, March 5–6; and FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) meeting, April 11–17. Mr. Gordon Johnston together with FIG Office organised a joint IHO-FIG-IMO-IOC Strategic Capacity Building meeting in Copenhagen, November. Commission 4 continues to represent FIG on the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) jointly with IHO and ICA with 4 representatives.

Commission 5 – Positioning and Measurement

Chair: Dr. Mikael Lilje (ASPECT, Sweden)

Chair-elect: Ing.Volker Schwieger (DVW, Germany)

Throughout the term FIG Commission 5 has investigated practical solutions to global survey problems, and facilitated technical activities pertaining to the development, use and integration of technologies for positioning, measurement, survey infrastructure, and the associated standardisation, best practice and fundamental reference frame issues.

Commission 5 has during the term had five active 5 Working Groups:

- WG 5.1 – Standards, Quality Assurance and Calibration
- WG 5.2 – Reference Frames

- WG 5.3 – Geodetic and Positioning Infrastructure
- WG 5.4 – Kinematic Measurements
- WG 5.5 – Ubiquitous Positioning joint with IAG / Commission 6.

As an outcome two publications have been published: FIG Publication 64 *Reference Frames in Practice Manual, Commission Working Group 5.2 Reference Frames, FIG Guide 2014* and an updated 2nd edition of Publication 49 on *Cost Effective GNSS Positioning Techniques*.

Commission 5 is working closely together with International Association of Geodesy (IAG); International Society for Photogrammetry and Remote Sensing (ISPRS) and The Institution of Navigation (ION) as well as UN-OOSA, where Mikael Lilje participated in The Ninth Meeting of the International Committee on Global Navigation Satellite Systems (ICG) and UN-GGIM. FIG Commission 5 was involved in a joint FIG/UN-GGIM statement with the aim to change from the current system where contributions to the development of a global geodetic reference frame are undertaken on a “best efforts” basis to one where they are made through a multilateral collaboration under a UN mandate.

Commission 6 – Engineering Surveys

Chair: Prof. Gethin Wyn Roberts (ICES, United Kingdom)

Chair-elect: Ivo Milev (USLMB, Bulgaria)

Commission 6 has been active with 3 Working Groups and 3 study groups: WG 6.1 – Deformation Monitoring and Analysis; WG 6.2 – Engineering Surveys for Construction Works and Structural Engineering hereunder: Study group 6.2.1 – Fibre Optic Sensor, Study Group 6.2.2 – Laser Scanners (joint with Commission 5) and Study Group 6.2.3 – Ground Based Synthetic Aperture Radar; WG 6.4 / 5.5 Ubiquitous Positioning Systems. At the Congress, Commission 6 had 5 technical sessions and 7 joint with commission 5.

Commission 7 – Cadastre and Land Management

Chair: Daniel Roberge (CIG, Canada)

Chair-elect: Gerda Schennach (OVG, Austria)

For the period 2011–2014, FIG Commission 7 has prioritized the following actions: promoting land rights infrastructures and good land governance to contribute to sustainable development; developing a better preparedness and response to natural disaster and climate change; developing a better cooperation between land surveyors aiming to develop the capacity and governance in land administration; developing cadastral perspectives; investigating direct involvement of citizens into e-land administration processes; co-operating with international organizations in

Engaging Global Challenges

land tenure issues. Commission 7 has worked with the following Working Groups:

- WG 7.1 – Pro Poor Land Tools
- WG 7.2 – Land Administration, Natural Disasters and Climate Change
- WG 7.3 – Cadastral Perspectives; 3D Cadastre – Joint WG with Commission 3
- WG 7.4 – Land Management Reforms.

Commission 7 held its annual meeting in Quebec, Canada with a very good representation and with special focus on Smart cities and Spatially Enabled Society, Land Administration, Disaster Management and Climate Change and Improvement of Quality of Living. Commission 7 has contributed to the joint FIG/WB Publication No. 60 *Fit-For-Purpose Land Administration*. Together with Federal Office of Topography, Swisstopo Wabern, Switzerland, the FIG Publication No. 61 *CADASTRE 2014 and Beyond* was published as a follow up on the very successful publication from 1998 on Cadastre 2014.

Commission 8 – Spatial Planning and Development

Chair: Wafula Nabutola (ISK, Kenya)

Chair-elect: Kwame Tenadu (GHIS, Ghana)

The activities of Commission 8 in the years 2011–2014 have involved all levels of physical planning, which enable environmentally sustainable development to occur.

There have been four Working Groups:

- WG Group 8.1 – Planning Strategy for Urban Development and Regeneration
- WG 8.2 – Informal Settlements Issues in Spatial Development Planning and Governance;
- WG 8.3 – Re-engineering of Mega Cities
- WG 8.4 – Land Policies; Land Use Planning Control and Implementation.

Regarding Spatial Planning, Commission 8 continued to assist in building the capac-

ity of knowledge and skills via case studies, workshops, collaboration and consultation; Contributing to environmentally sustainable development; and Humans Living conditions in a changing globalised world. At the FIG Congress 2014 in Kuala Lumpur the commission was involved in 19 technical sessions and 100 papers. Emerging issues for the commission are Rural Urban Migration and the Impact on Rural Economy and Urban economy; Rapid Urbanization where urban policies are needed; Infrastructure is overwhelmed – Water, Sewers, waste water, solid waste, liquid waste, energy, food security in both urban and rural, conflict over resources; and the role of PPP in meeting these pressing needs.

Commission 9 – Valuation and Management of Real Estate

Chair: Prof. Frances Plimmer (RICS, United Kingdom)

Chair-elect: Dr. Liao Junping (CIREA, China)

The work plan of the Commission has focused on highly relevant themes through three Working Groups:

- WG 9.1 – Property taxation which recognises the social and economic value of real estate and provides revenue (normally) to fund public services, for the benefits of the wider community.
- WG 9.2. – Large scale land acquisition for agriculture, which follows on from the highly successful previous four years work on compulsory purchase and compensation, and is investigating the issue of land grab – a highly topical and controversial issue causing international concern, as well as severe individual and social hardship in 2/3 relevant communities. It is anticipated that this work should link into the interests of the wider international

community, thereby providing opportunities for inter-organisational collaboration.

- WG 9.3 – The management of public property assets in developing countries with a view to presenting guidelines on best practice for the public sector management community.

FIG is a founder member of the International Property Measurement Standard Coalition and Chair of Commission 9, Frances Plimmer has been FIG contact person to the coalition. The aim of the Coalition is to enable properties to be measured on a transparent basis that promotes market efficiency through greater confidence between investors, occupiers and funds.

Commission 10 – Construction Economics and Management

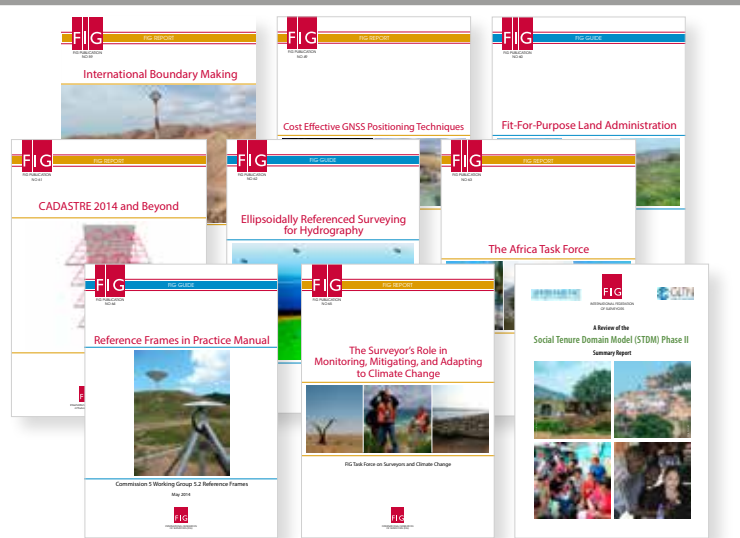
Chair: Robert Sinkner (CUSC, Czech Republic)

Chair-elect: Mr. See Lian Ong (RICS, Malaysia)

The commission has in this term concentrated on the following themes: Construction technologies, methodologies and livable cities; Improving conditions in informal settlement with innovative construction methodologies; Large size construction management support by surveyors; Green Management, Green Contracts and Procurement; Sustainable housing, “green building” programmes and indexes; Innovative house building and mass customisation in housing; Whole Life Cycle Assessment; and Publicising and promoting the work of surveyors to the public, particularly young people, governments and non-governmental organisations, and enhance its perception of the value of surveyors and the services that they deliver. During the term a new topic was introduced, BIM – Building Information Modelling, and at the Congress 2014 a special session on BIM was organized with an overwhelming participation.

FIG Publications in 2014

- FIG Publication 59: *International Boundary Making* – FIG Report
- FIG Publication 60: *Fit-For-Purpose Land Administration* – FIG Guide
- FIG publication 61: *CADASTRE 2014 and Beyond* – FIG Report
- FIG Publication 62: *Ellipsoidally Referenced Surveying for Hydrography* – FIG Guide
- FIG Publication 63: *The Africa Task Force 2009–2014* – FIG Report
- FIG Publication 64: *Reference Frames in Practice Manual* – FIG Guide
- FIG Publication 65: *The Surveyor's Role in Monitoring, Mitigating, and Adapting to Climate Change* – FIG Report
- FIG Publication 49 (Second and updated edition) – *Cost Effective GNSS Positioning Techniques* – FIG Report
- *A Review of the Social Tenure Domain Model (STDM) Phase II* Summary Report.



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Task Forces

A FIG Task Force researches and advises on matters of an administrative or of a general policy nature. During this 4 year term 2011–2014, FIG President and Council established two new Task Forces for the term 2011–2014 on Surveyors and the Climate Change and on Property and Housing. The Council also decided to sustain two already existing task forces on Africa for the term 2011–2014 and on Spatially Enabled Society that finalised its work in 2012.

FIG Task Force on Surveyors and the Climate Change

Chair: Prof. John Hannah (NZIS, New Zealand)

The Task Force on Surveyors and the Climate Change has throughout the last years identified areas where surveyors can assist uniquely the international community to better understand the effects and impacts of climate change and can provide advice on how to mitigate and cope with the effects of climate change. The task force has also considered the skills of a surveyor, on the design and use of any global measuring, monitoring and management systems that might be used to mitigate the effects of climate change.

As a result FIG Publication 65 “The Surveyor’s Role in Monitoring, Mitigating, and Adapting to Climate Change,” was published. The study concluded that it is necessary to develop fit-for-purpose land administration systems that reflect property rights, and give security of

tenure; to use precise spatial measurement both to monitor change and help implement adaptation strategies; to develop and manage land information databases; to undertake long-term land use planning; and to help to develop adaptation strategies.

FIG Africa Task Force

Chair: Dr. Diane Dumashie (RICS, United Kingdom)

The key purpose of the task force was to enable the surveying profession in Sub Saharan Africa to deal with social responsibility in terms of contributing to achieving the MDGs. In this regard, the role of the surveyors as change agents engaging with the politicians and civic society is important. Africa faces considerable challenges in the near future, and development must be accelerated further. The Task Force finalised its work with the FIG Publication 63: The Africa Task Force that presents the results from the activities of ATF over the period 2009–2014. ATF developed a workshop manual, resulting from deliberations at workshops, roundtables and published outcomes of three workshops. These workshops addressed the challenges Sub-Saharan African FIG Member Associations face in addressing their capacity issues. Each of the workshops emphasised the importance of good land governance and the role of the Sub-Saharan African Surveying Profession in contributing towards meeting the key challenges of poverty

alleviation, economic growth, and environmental sustainability. It is imperative that African land professionals remain engaged in initiatives that will enable them to make a difference.

FIG Task Force on Property and Housing

Chair: Prof. Chryssy Potsiou (TCG, Greece)

The Task Force investigated the challenges and major threats resulting from the current global financial crisis, and identified new roles for the surveyor to secure access to land and property rights, secure mortgage rights, sustainable housing, housing rights and land market, redevelopment and urban regeneration. The aim was to develop awareness, vision and key strategies as well as investigating tools and techniques around: institutional development and legislation; improvement of coordination of various stakeholders in the housing markets; land tool development for affordable housing; and finding examples of good practice. Invited speakers have during the four years provided information on relevant topics, such as country profiles on housing policies, housing markets and the challenge of informal housing. A joint FIG/UNECE Publication on “Informal Development. Challenges and Solutions from South-East Europe” has been published. It is a peer reviewed publication, based on in-depth research in Albania, Greece, Montenegro, Cyprus and the Former Yugoslavia Republic of Macedonia.

► Read more: www.fig.net/organisation/tf

Permanent Institutions and Networks

International Institution for the History of Surveying & Measurement (IIHSM)

Director: Jan de Graeve (UBGE, Belgium)

Since the general Assembly of Kuala Lumpur, where John Brock presented a fascinating paper on the history of surveying in early China, IIHSM had a one week congress in Australia on Norfolk Island in the middle of the Pacific Ocean. It is a remarkable historic place as it houses the descendants of the mutineers of the Bounty. Half of the papers were presented by local historians and political representatives and half by surveyors and visitors with an interest in the historical aspects of surveying. Congratulations are expressed to John and his partner for the very fine organization.

Alan Wright (1934–2013) whose death was noted in the last Report, has left a big hole in the organization with the loss of his presence in

our working group. The IIHSM has been able to find a home for his vast collection of Electronic Distance Measuring (EDMs) devices which have been presented by both his family and Malcolm Draper to the Ghent University in Belgium. This should be of interest to the present and future generation of student surveyors and hopefully also attract visitors to the University Museum. A selection of the collection was on show to the public during the 2014 summer conference of the ICA History of Cartography Section at the university premises. In due course there will be a permanent display when the building works at the University are complete. Summer 2014 the Group met the Struve Arc committee to help progress the project to enhance the Struve Arc by incorporating Central European countries and thence over the Mediterranean Sea and down the Arc of the 30th meridian to South Africa. The

full Cape to Cape arc (North Cape to Cape Province) was the original dream of Sir David Gill and Struve’s son Otto. The delegation continue to find and study documentation on the arc measurements and were pleased to find an original signed copy by Wilhelm Struve of his Report of 1867, dedicated to the Ambassador of Sweden Baron Wrede. With the loss of Alan Wright and other Board members getting older, interested colleagues will be welcome to join the team.

The International Office for Cadastre and Land Records (OICRF)

Director: Dr. Christiaan Lemmen (GIN, Netherlands)

OICRF serves as a documentation and study centre for land administration. OICRF maintains a digital library that contains 12,087 publications (December 31, 2014), which includes conference documents, magazine articles and reports on land administration. In 2014 the digital library got about 19,851 visitors. About 13,099 papers have been downloaded.

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Initiatives have been started in relation to developments in keeping overview in different land rights worldwide. This will be discussed during the World Bank Conference on Land and Poverty 2015.

Young Surveyors Network



The FIG Young Surveyors Network has at the end of 2014 completed its first full term as a Network. Characteristic for 2014 was the establishment and expansion of local and regional Young Surveyor Networks, in the following regions: Africa: Nigeria, Kenya, Senegal and South Africa; Europe: CLGE; North America: NSPS; Asia: Philippines, Japan, and Malaysia. Young Surveyors Network is well represented on social media with discussions and information updates.

Young Surveyors held its 2nd Young Surveyors Conference in Kuala Lumpur during the FIG Congress. Hereto there were: Regional Meetings, 2nd European YS Meeting, 1st North American YS Meeting, 1st Asian Pacific YS Meeting (during the FIG Congress), 2014 AfricaGEO YS Programme, STDM Training of Trainers in Kuala Lumpur and Addis Ababa, Ethiopia.

Some of the questions that YSN have asked and discussed are:

- Why should national associations have a Young Surveyors representative or network?
- What are good examples of Young Surveyor Networks worldwide?
- How can Young Surveyors help the national associations?
- What are the most important issues for Young Surveyors?
- How is FIG Young Surveyors Network organised?
- Who are international and regional representatives?

FIG Standards Network

The network liaisons with standards bodies and NGOs to ensure lead contacts to Technical Committees, to proposing priorities on FIG's standardisation activities and to advise and provide information on standards to FIG members. The Standards Network has members from all of the FIG Commissions. Standards Network has mainly been involved in: ISO/TC 172 SC6 Work on Survey Instrument Standards (14 standards) and ISO/TC 211 Geographic Information/Geomatics (64 Standards and projects) with Commission 5; ISO 19152:2012 Land Administration Domain Model with commission 7 and Proposal for an International Measurement Standard of Property in cooperation with commission 9.

Cooperation with Sister Organisations

Joint Board for the Geospatial Information Societies (JB-GIS)



2014 Annual Meeting of the Joint Board of Geospatial Information Societies (JBGIS) was held in connection with the UN-GGIM meeting in August in New York, US and was attended by nine of the ten participating international organisations. William Cartwright of the International Cartographic Association chaired the meeting. Prof. Chris Rizos of the International Association of Geodesy was unanimously confirmed as the Chair of JB-GIS and the Joint Board thanked Prof. William Cartwright for his chairing of the Joint Board over the past three years. The meeting agreed to support ICA's initiative for an "International Map Year" that will be launched at ICA's 2015 Congress. The initiative will seek to showcase and raise awareness of the contributions and importance of geospatial information, of cartography and of maps. The fourth Session of UNGGIM endorsed ICA's proposed initiative for the "International Map Year" for 2015/2016. The meeting discussed and noted the JB-GIS Ad Hoc Committee on Disaster and Risk Management will be convening 2015 GI4DM Conference in Montpellier, France in September 2015. The meeting also considered and noted another follow-up publication proposed by ISPRS provisionally titled as "Application of Geo-information to Enhance Disaster and Risk Management: Case Analyses of Functions and Processes" with an acronym AGENDA.

An informal JB-GIS meeting was held during the FIG Congress 2014.

IPMS Coalition

FIG is part of the International Property Measurement Standards Coalition (IPMSC), a group of professional and not-for-profit organizations from around the world that has decided to come together to develop an international standard for property measurement. The aim being to work together to develop a unified office property measurement standard that will ensure that property assets are measured in a consistent way, thus creating a more transparent marketplace, greater public trust, stronger investor confidence, and increased market stability. FIG's participation is delegated to FIG Commission 9: Valuation and Management of Real Estate, and has in 2014 been represented in the Coalition by its Chair, Frances Plimmer. Colleagues from ACCO and the Standards Network supported FIG Commission 9 in this work.

In November 2014 The International Property Measurement Standard Coalition launched a new International Property Measurement Standard (IPMS) for Office Buildings. The new standard is expected to lead to increased transparency and consistency across real estate markets, which benefits the way property assets, are managed and, ultimately, how financial decisions are made by investors, corporate occupiers, buyers and sellers. IPMS for Office Building represents an international effort to create a uniform method for measuring property and is expected to replace some of the existing standards currently in use around the world. Having developed such a standard for offices, the IPMS will next turn its attention to other property types in its aim to develop single measurement standards for all kinds property. FIG is proud to be part of these efforts.

International Union of Notaries Conference on Land Tenure Security in Asia

12-13 December 2014, Ho-Chi-Minh City, Vietnam

The International Union of Notaries (UiNL) is an international non-governmental organization promoting, coordinating and developing the role and functions of notaries throughout the world. UiNL aim to be a global network with a common ambition to work at the service of a more just, humane and harmonious society. This conference addressed a range of land tenure issues in Asia including land tenure challenges and opportunities in Asia and the Pacific (GLTN); social issues (AIPP/ILC), cultural issues (University of Waseda), localized sustainable development programs (UNDP) and land pricing issues (FAO).

The thematic sessions of the Conference revolves around land tenure settings in Asia, land titling and proposed solutions. President CheeHai Teo represented FIG and in his presentation said "confronting and addressing land challenges is very necessary if we are concerned about and want to achieve sustainable development" and called for innovative and inclusive solutions recognizing the voluntary guidelines on the responsible governance of tenure, embracing the continuum of land rights and fit-for-purpose land administration.



ICA

On October 9-13, 2014 Yerach Doytsher, Chair of FIG Commission 3 attended as FIG representative the 10th Jubilee

Cartography and Geoinformation International Conference in Zagreb, Croatia.

Enhancing the Relevance



Co-operation with the World Bank

Annual World Bank Conference on Land and Poverty 2014

Washington DC, USA 24–27 March 2014

The World Bank and FIG has had strong formal partnership since 2007. Over the past years FIG and the Bank have jointly organized successful spatial tracks for this annual Conference. The 2014 conference focused on building a shared understanding of best practices in land governance by providing opportunities to strengthen collaboration between diverse experts.

FIG and the Bank jointly and successfully organized a day-long Forum on “Spatial Innovation and Good Practices”. The Forum, was open to all registered participants to the Conference and over 130 responded. The Forum covered a number of themes focusing on the contribution of spatial technologies and practices to support the Post-2015 Development Agenda. These themes include data collection, data management, data access, data and information sharing, analysis and analytics, visualization and presentation and delivery systems and services particularly when considering the challenge in locating, connecting and delivering information with both geographic and temporal context from differing scales and sources to governments and societies.

The Forum witnessed the launch of the joint World Bank and FIG Declaration on Fit-for-Purpose Land Administration providing the framework on getting the right data and information, the right processes and technologies, all for the right purposes. This Declaration is part of the Joint FIG and World Bank Publication on Fit-for-Purpose Land Administration (FIG Publication Number 60) with Prof. Stig Enemark as the lead author and Dr. Keith C Bell (WB), Dr. Christiaan Lemmen and Robin McLaren as his co-authors. Emerging from earlier joint events is the concept of “fit-for-purpose” indicating that land administration should be designed to meet the needs of people and their relationship to land in support of security of tenure for all, the sustainable management and use of land and natural resources. This perspective calls for a flexible approach rather than rigid demands that may be unsustainable for jurisdictions dependent on donor funding. Such flexibility allows for land administration systems to be incrementally improved over time should it be found necessary. As such the Declaration and the accompanying joint publication presents such a flexible approach. The one-day Forum observed a move beyond land administration to pervasive spatial integration of society. The partners and



The World Bank Conference covered many issues of relevance, and attracted several partners and sponsors.

participants at the Forum are at the forefront, channelling these developments for progressive global change. Country level experiences shared at the Forum affirmed this good news, as there are good progresses.

The Forum concluded that the barriers to closing this gap are no longer technological, spatial technologies and practices are today pervasive, affordable and accessible, but rather of capacity, institutions and politics. It is now overdue to bring these worlds together. The partners and participants at the Forum have yet to make significant stride in political, institutional and capacity development at scale.



Co-operation with the United Nations

UN-Habitat / GLTN – Global Land Tool Network

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FOR A BETTER URBAN FUTURE



During 2014 FIG has undertaken several activities together with GLTN in order to support GLTN Phase 2 Programme

Implementation within the Programme Global Land Tool Network (“GLTN”). The overall objectives of the programme is to contribute to poverty alleviation and the MDGs through land reform, improved land management and security of tenure through the development of pro-poor and gender sensitive land tools, policies and approaches.

The specific objectives and activities were to support the development of tools in regard to Cost and Financing of Land Administration Services (CoFLAS) and Valuation of unregistered land and properties; to support GLTN's capacity development initiatives targeting young survey-

ors network, civil society organisations, land professionals and other GLTN/FIG network partners, and to support GLTN's knowledge management and awareness building activities targeting land professional organisations, FIG/GLTN network partners and member-organisations of GLTN's land professional cluster.

Modernising Land Agencies Budgetary Approach: Costing and Financing of Land Administration Services in Developing Countries (CoFLAS)

The development of CoFLAS started in 2011 with a review, investigation and preliminary report prepared by Lantmäteriät. FIG/GLTN organised two Expert Group Meetings in 2013 that brought together global experiences of land administration reform professionals to understand, in particular, information that was required and to chart the process forward. The EGMs were convened to gather and share global experiences and practices in support of this tool



The participants at the Expert Group Meeting held in Bangkok, October 2015.

development and to ensure that the information collected would be structured in a manner that can be applied in a global manner under a very broad range of legal, institutional, and administrative contexts. CoFLAS was developed to assist policy makers and those responsible for land administration to adopt appropriate technologies and methodologies that will provide and sustain land administration services more efficiently, cost effectively and with options most appropriately tailored for incorporating all tenure types.

Enhancing the Relevance

The CoFLAS tool was launched during the XXV FIG Congress in June 2014 in Kuala Lumpur, Malaysia. The launch triggered a need for a validation exercise. A validation workshop was convened by FIG and GLTN in Bangkok, Thailand on 15–16 October 2014. The validation workshop again gathered a group of land administration professionals of varied experiences who assessed the sufficiency of the current version (now referred as CoFLAS I), identified gaps and shortcomings. The workshop also analysed the challenges and opportunities before CoFLAS I and made recommendations whereby the tool can be taken to the next level in its development.

Global Land Tool Network (GLTN) is now preparing to bring the validated CoFLAS tool into a new phase, piloting at country level. FIG, its membership and corps of volunteers that were involved in this tool development over the past three years are immensely privileged, able to contribute towards conceptualizing and designing this land tool, one within the suite of 18 land tools embedded in 5 overarching themes envisaged by GLTN to bring about improved efficiency and effectiveness to land administration and management towards securing land and property rights for all.

At various occasions, hereunder the UN-ECE WPLA meeting in Copenhagen in May 2014, FIG President CheeHai Teo presented the CoFLAS tool.

Valuation of Unregistered Land and Properties Tool

During the FIG Congress 2014 two sessions were organised to discuss Valuation of Unregistered Land and Properties. It was decided to organise another expert group meeting which was held in Bangkok, Thailand, 13–14 October 2014. Valuation of unregistered lands & Properties is a collaborative activity between Global Land Tool Network (GLTN) facilitated by UN-Habitat, FIG and other key partners. GLTN has embarked on a process to develop a tool for the valuation of unregistered lands and properties.

The expert group meeting brought together 20 experts from 13 countries, both academics and practising professionals of diverse background with varied experiences on all continents. The experts were brought together to facilitate the development of a framework document on current thinking and methodologies for the valuation of unregistered lands and properties, based on current valuation standards, practices and research. There is general consensus that about seventy percent (70%) of land ownership units in developing countries are not formally registered and the initiatives for land registration are not achieving the desired results. This adversely affects owners of unregistered land and properties,



who in most cases are the disadvantaged groups that could not access valuation services. The key objective of this initiative is the development of a land tool to support the valuation of unregistered land and properties that can benefit the vulnerable and marginalised groups. This will be another collaborative effort involving partners of GLTN and stakeholders.

GLTN and FIG brought together experts to facilitate the development of a framework on current thinking and methodologies for the valuation of unregistered land and properties, based on valuation practices and practices research.

The Expert Group Meeting:

- discussed on the coverage of current thinking and methodologies for the valuation of unregistered land based on current standards, practices and research
- reviewed the background discussion paper, debated and commented, all to ensure that the background discussion paper addresses the intended purpose; and
- provided the forum for the experts gathered to understand and creatively contribute towards the development of a concept and conceptualize a framework for the valuation of unregistered land and properties.

The EGM was as much a brainstorming workshop with participants actively providing ideas and inputs, not merely content with constructive and critical review of the background discussion paper. The EGM discussed, debated and concluded that the valuation of unregistered land and properties is doable within the current practice scenario albeit with flexible, creative and innovative approaches and alternatives, the approach should underpinned by the concept

of the “Fit-For-Purpose” (FIG/World Bank, 2014). GLTN will conclude this phase of the initiative and will be strategizing how to take this tool development process forward.

3rd Development Universities

17–19 November 2014, Dakar, Senegal

The Third “Development Universities” organised by the FGF (Fédération des Géomètres Francophones- Federation of the French Speaking Surveyors) and co-sponsored by FIG and UN-Habitat/GLTN were held on 17–19 November 2014 in DAKAR, Senegal.

This successful event hosted by the “The Ordre National des Géomètres-Experts du Sénégal” gathered about 160 participants from Sub-Saharan Africa countries. The theme of the Third “Development Universities” was “The Role of the Surveyor in Urban Space”.

Social Tenure Domain Model (STDM)

STDM is a tool of the Global Land Tool Network. It comprises both a new concept of tenure, as well as software to realise the concept. The STDM workshop allows participants to appreciate the concept of STDM and its main objectives to develop land reform, security of land tenure and security for all. Additionally, it can be applied to support pro-poor land administration systems in developing countries, countries without proper cadastral system as well as for slum areas in urban and developed cities. Apart from that, it can also be applied in, but not limited to, disaster management, property management, taxation and natural resource management. The focus of STDM is on relationships between people and land, as distinct from the level of formali-

Enhancing the Relevance

zation, or legality of these relationships. GLTN and FIG, especially Young Surveyors Network organised two STDM Workshops during 2014. The first Training of Trainers on STDM Use and Application was held in connection with the FIG Congress 2014 with 35 participants and trainers from 14 countries, primarily from Asia. The FIG Foundation partly funded 12 participants to attend the STDM workshop. The second workshop was held in Addis Ababa, Ethiopia in November 2014 with 35 participants from 14 countries participants primarily from the Africa Region.

In 2013 FIG undertook a peer review of the STDM Phase II with a group of recognized academics, researchers and practitioners from FIG's membership base. Reviewers affirmed the five crucial elements of the STDM – its flexibility, simplicity, affordability, inclusivity and its advocacy for good governance. They believed STDM can help to improve the wellbeing of societies through better administration of land and its resources; this administration can be made more effective by improving the processes, collection and aggregation of associated land information. Within FIG, STDM is seen, and was thus reviewed as, a pro-poor, participatory and affordable land tool. It is an alternative and/or another option to “doing business” in the land sector and has the potential to provide security of tenure at scale due to its innovative approach. The results from the peer review was published in a pamphlet.

UNESCAP, FAO and UN-Habitat Regional Multi-Stakeholder Consultation on Land Tenure in Asia-Pacific 11–12 June 2014, Pattaya, Thailand



UNESCAP, FAO and UN-Habitat co-organised a Regional

Multi-stakeholder Consultation on Land Tenure in Asia-Pacific. The event was supported by FIG and was attended by about 60 participants that included those from 18 countries in Asia-Pacific. Participants also came from civil society organizations as well as from governments and international organisations. At the two-day event, participants discussed on land policy, land governance, land-based regulatory framework and associated initiatives, identified gaps and key issues for follow up actions.



United Nations Global Geospatial Information Management

Most activities have revolved around the Global Geodetic Reference Frame and the outcome was a Joint Statement that was endorsed by the UN-GGIM-AP Executive Board at its meeting on 20th June 2014 during the FIG Congress 2014, and also unanimously adopted



Excited STDM participants to venture new possibilities with STDM in Kuala Lumpur.

by the General Assembly of FIG at its second session on 21 June 2014. The Joint Statement, has since being forwarded to UN-GGIM Secretariat and reflected at the 4th Session of GGIM. FIG has been a member of the UN-GGIM Working Group on A Statement of Shared Guiding Principles for Geospatial Information Management that is expected to review the interventions and comments made at the 4th Session. The aim of the Working Group is to complete its task with a draft-final proposed Statement for the consideration of UN-GGIM at its 5th Session.

Proposed United Nations General Assembly Resolution on Global Geodetic Reference Frame

The objective of this United Nations Resolution is to ensure the sustainability and enhancement of the Global Geodetic Reference Frame by:

- Encouraging enhanced global cooperation in geodesy;
- Encouraging maintenance and enhancement of geodetic infrastructure;
- Encouraging free and open geodetic data access policies and reducing data security concerns;
- Motivating Member States to improve international engagement on geodetic matters;
- Facilitating improved intergovernmental coordination of geodetic activities, standards and infrastructure development; and
- Providing recognition that the contributions by Member States to the global geodetic infrastructure are to the benefit of all.

The aim of this Resolution is to mandate the development of a global geodetic roadmap that addresses key elements of Global Geodetic

Reference Frame sustainability and enhancement including: the implementation of geodetic instrumentation and the associated data analysis and product generation, coordinated policies; common standards, methods and approaches; and options for sustainable investment including those made through strategic international partnerships.

21st Meeting of the International Steering Committee on Global Mapping 5 August 2014,

United Nations Headquarters in New York

The meeting included presentations and participations from member states, international organizations and industry reaffirmed the high usability of geospatial information to inform global sustainable development and the significance of various global mapping initiatives. ISCGM will continue to advocate the significance of these initiatives and leadership it should take in the field of global mapping.

Fourth Session of the United Nations Committee of Experts on Global Geospatial Information Management 6–8 August 2014,

United Nations Headquarters in New York

The Fourth Session brought together senior executives from national geospatial information authorities within Member States, and international geospatial experts from across the globe.

The main objectives of the UN-GGIM are to provide a forum for coordination and dialogue among Member States, and between Member States and relevant international organizations and to propose work-plans and guidelines with

Enhancing the Relevance



UN-GGIM-AP – Third Plenary Meeting Kuta, Bali, Republic of Indonesia.

a view to promoting common principles, policies, methods, mechanisms and standards for the interoperability and inter-changeability of geospatial data and services. The deliberations and the outcomes of the Fourth Session further recognized and underscored the critical role of geospatial information management and the need for enhanced collaboration and joint initiatives to advance the development, usefulness and use of geospatial data and tools to support global sustainable development.

Global Forum on the Integration of Statistical and Geospatial Information,

4–5 August 2014,

United Nations Headquarters in New York

Preceding the Fourth Session of UN-GGIM was the United Nations Global Forum on the Integration of Statistical and Geospatial Information. The Global Forum aimed to continue the global consultation and communication on the development of a global statistical-geospatial framework, initiated by the UN Statistical Commission and UN-GGIM.

Third High Level Forum on Global Geospatial Information Management

22–24 October 2014, Beijing, China

The Third High Level Forum on Global Geospatial Information Management was hosted by Government of PR China through the National Administration of Surveying, Mapping and Geoinformation (NASG) with the theme 'Sustainable Development with Geospatial Information'. This

Forum is organized based on the mandate from the United Nations Economic and Social Council (ECOSOC) to convene global forums to promote comprehensive dialogue on global geospatial information management with all relevant governments, non-governmental organizations and the private sector. FIG was represented by Vice President Pengfei CHENG and President CheeHai TEO. The Forum adopted the Beijing Declaration at the conclusion of the Forum.

UN-GGIM-AP – Third Plenary Meeting

10–12 November 2014 Kuta, Bali,

Republic of Indonesia

The Regional Committee continues to operate under the United Nations Regional Cartographic Conference for Asia and the Pacific (UNRCC-AP) and submit its report as well as recommendations to the Conference. The aim of the Regional Committee includes to identify regional issues relevant to geospatial information management, take necessary actions and contribute to global discussions so that the economic, social and environmental benefits of geospatial information will be maximized in Asia and the Pacific region. The main theme for the Third Plenary Meeting was that of disaster management and the sub-theme, capacity development. Sessions were scheduled with presentations from member states addressing the theme and the sub-theme. In addition, there was also a Special Session on Land Tenure jointly with UN-Habitat/GLTN and supported by the World Bank and FIG.

As a result of the joint special session on land tenure, the Regional Committee recognized that Asia-Pacific, a region covering approximately 30% of the global land mass; of differing levels of economic development; home to 4.1 billion or 2/3 of the world's population and with increasing levels of urbanization; where 7 of the world's 10 largest cities is expected to be located by 2025; where incidences of undernourishment and poverty remains high; a region prone to natural disasters from climate phenomena; and where climate change is of increasing severity.

The Regional Committee expressed its appreciation to the Global Land Tool Network facilitated by UN-Habitat for cooperating with UN-GGIM-AP to convene the Special Session on Land Tenure, and the World Bank and FIG for their support and contribution towards an informative and successful session. The Committee encourages National Geospatial Information Agencies and National Mapping Agencies to engage and contribute towards effective national land information, administration and management systems with their fundamental data leading towards better governance, management and administration of land. For FIG, the Regional Committee resolved to support the development of the Cadastral Template 2.0, the successor to the PCGIAP supported Cadastral Template and encourage Member States to contribute information to the Cadastral Template 2.0 towards promoting better knowledge dissemination and sharing and promoting better practices.



Food and Agriculture Organization of the United Nations

In 2014 During the FIG Congress FAO together with FIG

organised a special agenda at the FIG Academic Member Forum on how the Voluntary Guidelines can be implanted into professional education and curriculum development, and in research and knowledge sharing. The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security promote secure tenure rights and equitable access to land, fisheries and forests as a means of eradicating hunger and poverty, supporting sustainable development and enhancing the environment.

UN Habitat-GLTN/FIG Joint Technical Session on Improving Women's Access to Land and Property was also supported by FAO. At the session the participants discussed the need for inclusive approaches to land administration and management needs to take into account gender dimensions. There are on-going efforts to reduce the barriers related to women's access to land and property.

Expert Group Meeting on Sustainable Urban Development In Asia and the Pacific
2–3 December 2014, UNCC, Bangkok, Thailand

The United Nations has recognized the importance of urbanization and will be convening the Third United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in 2016. A “New Urban Agenda” will be adopted then. Habitat III will be the first United Nations global summit after the adoption of the “Internationally Agreed Development Goals” in 2015.

The Expert Group Meeting on “Sustainable Urban Development in Asia and the Pacific: Towards a New Urban Agenda” was organized to identify priority issues that could be deliberated at the upcoming 6th Asia Pacific Urban Forum (May 2015) and leading into Habitat III (October 2016).

FIG was represented by President CheeHai Teo who made a presentation outlining the importance of land and secure tenure rights in addressing the sustainable urban development challenges and aspirations in Asia and the Pacific. The outcomes of both APUF-6 and the High Level Regional Preparatory Meeting are expected to feed directly into the Habitat III process.

**United Nations Office for Outer Space
Affair (UNOOSA)
Report on the Ninth Meeting of the
International Committee on Global
Navigation Satellite Systems (ICG-9)
9–14 November 2014 Kuta, Prague,
Czech Republic**

The ICG has been formed as a result of recommendations of the UN Committee on the Peaceful Use of Outer Space (COPUOS), as ratified by the General Assembly of the UN. FIG is an Associate Member of the ICG. Mikael Lilje attended as FIG representative to UNOOSA.

ICG issued a Joint Statement outlining the highlights of the broad scope of work across the ICG. Mikael Lilje gave a presentation on the FIG Manual from the FIG Technical Seminar on Reference Frame at the working group C meeting. The cooperation between ICG and FIG was mentioned several times in the plenary sessions. The proposed UN resolution on Global Geodetic Reference Frame for sustainable development was presented.



Building a Sustainable Future

The FIG Foundation is an independent body under the International Federation of Surveyors and has been established for the purpose of raising funds to finance surveying education development projects and supporting young surveyors in order to build a sustainable future.

The FIG Foundation will build a sustainable future by:

- grants and scholarships to projects, for instance to develop curricula for surveying education, training and capacity building, especially in developing countries;
- encourage research into all disciplines of surveying and to disseminate the results of that research;
- promote high standards of education and training for surveyors and to facilitate continuing professional development;
- educate people in the disciplines of surveying, particularly in developing countries and countries in transition;
- promote the use of distance learning, networking, eLearning and knowledge management if surveying education and continuing professional development;
- promote the exchange of surveying personnel for greater understanding of all facets of the profession of surveying;
- support by seed funding conferences, meetings of young surveyors and similar events in co-operation with international agencies such as the United Nations.

The FIG Foundation awarded eight Young Surveyors Conference Fellowships to provide funding for young surveyors from six world regions plus two additional from developing countries to attend the FIG Congress in Kuala Lumpur:

- Odil Akbarov (Uzbekistan),
- Asmae Azzoui (Morocco),
- Chandan Das (Nepal),
- Jonathan Gustafson (Usa)
- Odkhuu Khalzan (Mongolia)
- Melissa Robert (Uruguay)
- Irena Rojko (Slovenia)
- Emily Tidey (New Zealand).

Irena Rojko, Asmae Azzoui, Odil Akbarov, Chandan Das and Melissa Robert also attended the FIG-UN-Habitat/GLTN Train the Trainers Workshop on Social Tenure Domain Model (STDM) just prior the FIG Working Week.

Simon Hull, University of Cape Town, South Africa received a scholarship to conduct a



FIG President CheeHai Teo and President of the FIG Foundation John Hohol together with the eight sponsored participants to FIG Congress 2014.

research trip to the Netherlands and Germany during September and October 2014.

Jamal Browne, The UWI St. Augustine, Trinidad And Tobago and FIG YS Chair Eva-Maria Unger received a grant to help support their participation at the World Bank Land & Poverty Conference, March 2014.

The National Society of Professional Surveyors (NSPS), USA was supported to conduct the Young Surveyors meeting in North America. CNGeGL, Italy was supported to help Young Surveyors to attend the Commission 3 Workshop 4–7 November 2014 in Bologna, Italy.

Six Young Surveyors were granted a scholarship to attend the 2nd FIG Young Surveyors European Meeting in Berlin, Germany:

- Xhemail Islami (Macedonia)
- Eftychia Kalogianni (Greece)
- Ferah Pırlanta Köksal (Turkey)
- Jakov Maganić (Croatia)
- Milos Pandzic (Serbia)
- Eva Maria Unger (Austria).

The Foundation is also proud to acknowledge Trimble Navigation as an FIG Foundation Charter Partner.



► Read more: www.fig.net/foundation

**The FIG Foundation –
How Can I Contribute?**

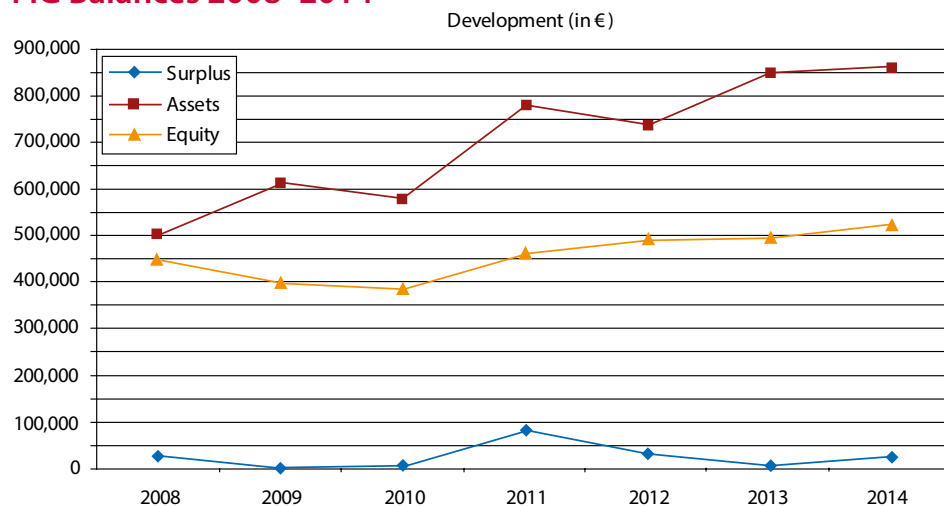
Companies, associations, institutions, events, surveyors’ groups and individuals may contribute to the Foundation. Large donations will be recognised by a plaque or a certificate of different categories reflecting the sum of donation.

Income and Expenditure Account 2012–2014

REGULAR INCOME	Result 2014 ^{*)}	Budget 2014	Result 2013	Result 2012
Subscriptions				
(all figures in Euro)				
Member associations	259,444	260,000	260,145	309,305
Affiliate members	28,880	28,000	25,460	26,980
Corporate members	80,990	77,000	77,893	85,815
Academic members	11,000	10,500	20,750	19,780
Less bad debts	-38,041	-15,000	-20,775	-19,519
Less change in provision for doubtful debts			-10,937	-39,063
	342,273	360,500	352,536	383,298
Financial income	2,993	5,000	4,399	7,631
Less banking costs	-616	-250	-763	-1,177
Events and other (incl. advertisements)	81,910	80,000	80,000	52,017
Total regular income	426,560	445,250	436,172	441,769
REGULAR EXPENDITURE				
Administration	204,954	215,500	195,482	207,211
Marketing and publications	28,947	35,000	19,930	17,714
Council and executive management	153,161	161,000	180,876	161,061
Commission support	33,000	33,000	33,000	33,002
Total regular expenditure	420,062	444,500	429,288	418,988
Surplus/deficit of regular income over regular expenditure	6,498	750	6,884	22,781
PROJECTS AND DEVELOPMENT				
Events – funds received by FIG	31,684	10,000	20,046	20,000
Development spent	-12,764	-30,500	-21,192	-12,860
SURPLUS OF THE YEAR (REGULAR)	25,418	-19,750	5,738	29,921
RESULT				
Overall surplus/deficit in the year – normal activities	25,418	-19,750	5,738	29,921
Total reserve at the year end	524,128		498,711	492,973
Events reserve	25,000		25,000	25,000
IT reserve	50,000		25,000	
General reserve	449,128		448,711	467,973
General reserve as a % of regular annual expenditure	107%		105%	112%

*) The accounts will be adopted by the General Assembly 17 May 2015. The income and expenditure presentation follow the template approved by the General Assembly in 2009.

FIG Balances 2008–2014



Mr. Bruno Razza, Vice President in charge of finances.

Key Contacts

FIG Council 2013–2014

President



Mr. **CheeHai Teo** (2011–2014)
(Association of Authorised Land Surveyors
Malaysia)
chteo.surveyor@gmail.com

Vice Presidents



Prof., Dr. **Chryssy A Potsiou**
2011–2014
(TEE and HARSE, Greece)
chryssyp@survey.ntua.gr



Mr. **Bruno Razza**
2013–2016
(CNGeGL, Italy)
b.razza@cng.it



Prof., Dr. **Rudolf Staiger**
2011–2014
(DVW, Germany)
rudolf.staiger@hs-bochum.de



Dr. **Pengfei Cheng**
2013–2016
(CSGPC, PR China)
chengpf@sbsm.gov.cn

ACCO Representative



Prof. **Yerach Doytsher**
2013–2014
(ALS, Israel)
doytsher@gmail.com

FIG Office



Ms. **Louise Friis-Hansen**
FIG Manager
louise.friis-hansen@fig.net
Tel. + 45 9391 0810 (direct)



Ms. **Claudia Stormoen Pedersen**
FIG Event and Office Coordinator
claudia.stormoen@fig.net
Tel. + 45 9391 0812 (direct)



Ms. **Hanne Elster**
FIG Event and Office Coordinator
hanne.elster@fig.net
Tel. + 45 9391 0811 (direct)



Ms. **Maria Bargholz**
Bookkeeper
finance@fig.net

International Federation of Surveyors

Kalvebod Brygge 31–33
DK-1780 Copenhagen V
DENMARK
tel. + 45 3886 1081
e-mail: fig@fig.net
web site: www.fig.net

FIG Communication

Communication is essential for FIG having members and stakeholders scattered all over the world. The many activities of FIG are communicated to a broad range of professionals and others, and FIG uses various channels to reach as many as possible. FIG is also thankful for the communication each member and others provide to FIG.

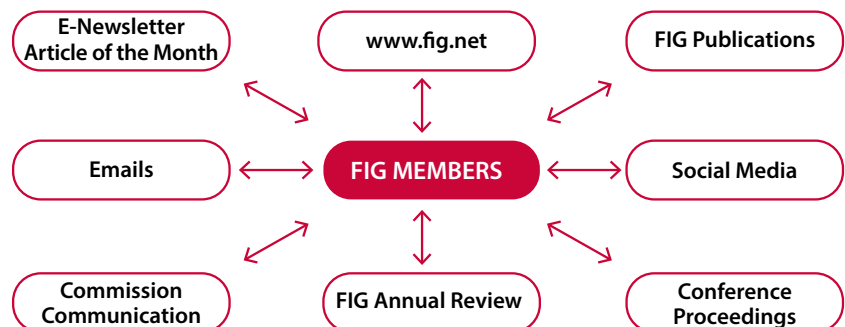


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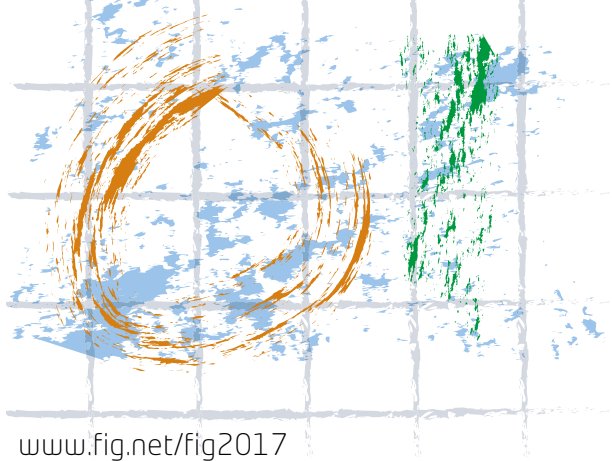
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FIG Office, Kalvebod Brygge 31-33, DK-1780 Copenhagen V, DENMARK, tel. +45 3886 1081, email fig@fig.net, www.fig.net

FIG PLATINUM CORPORATE MEMBERS

