

**Report to the 35<sup>th</sup> General Assembly  
FIG Working Week 2012 in Rome, Italy**

**FIG Commission 3 – Spatial Information Management**

**Report of Activities 2011-2012**

**1. General**

Commission 3 2011-2014 work-plan is based on several concrete terms of reference:

- Management of spatial information concerned with land and property (data, tools, policies, standards, and regulations);
- Spatial data infrastructure (SDI) – collection technologies, integration processes, maintenance, visualization, standardization, and dissemination;
- Management and dissemination of knowledge and skills for SIM (Spatial Information Management);
- Impacts on organizational structure, business models, Public-Private-Partnerships, professional practice, and administration; and,
- Management of spatial information in supporting good governance.

Within these terms of reference Commission 3 2011-2014 work-plan consists of the following main mission statements, namely:

- 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 e-commerce.

Based on these terms of reference and missions, Commission 3 Working Groups focus on the contribution of spatial information for sustainable development. Commission 3 continues to address 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.

Commission 3 delegates have expressed their strong interest in organizing annual meetings and workshops while concentrating on the specifically identified needs/topics. As in last couple of years, Commission 3 continued the peer review option at its own symposia, and in addition to publishing the accepted peer reviewed papers in special issues of international

professional journals (currently in the Survey Review Journal and Surveying and Land Information Journal).

## **2. Organization and Working Groups**

Commission Chair: Prof. Dr. Yerach Doytsher

### **Administration and Communication**

Vice-Chair for Administration (Communication): Dr. Sagi Dalyot

Vice-Chair for Administration (Events): Mr. Gerasimos Apostolatos

### **Working Groups**

Vice-Chair and Chair of WG 3.1: Prof. Dr. Hartmut Mueller

Vice-Chair and Chair of WG 3.2: Prof. Dr. Ioannidis Charalabos

Vice-Chair and Chair of WG 3.3: Prof. Dr. Peter van Oosterom

### **Working Group 3.1 – SIM Infrastructure**

Chair: Prof. Dr. Hartmut Mueller, Germany

WG 3.1 focus on SIM policy issues. Within the information society domain SIM serves as an integrator of components designed for Spatial Information Infrastructure, mainly in urban areas. SIM is a facilitator for IT-based services used by planners, administrators as well as by the public. Thus, the general topics of the WG 3.1 activity involve: NSDI / GSDI - Spatial Data and Information Infrastructure; modelling and geo-visualization; legal aspects related to SIM; and, SIM in respect to LBS.

The national delegates and members of WG 3.1 actively participated in the FIGWW'2011 held on May in Marrakech, Morocco, and in the Annual Commission 3 workshop held on October in Paris, France (see more details below).

The activity of WG 3.1 is oriented to a FIG-publication on guidelines to establish an efficient SIM Infrastructure in urban areas by addressing legal, institutional and technical issues (planned as a joint publication with WG 3.2 to be published at the FIG Congress 2014).

### **Working Group 3.2 – Technical Aspects of SIM**

Chair: Prof. Dr. Ioannidis Charalabos, Greece

WG 3.2 focus on SIM technical issues. New tools, techniques and policies are required to baseline and integrate the social, economic and environmental factors associated with spatially managing urban areas in general, and cities/megacities in particular. Technical aspects are concerned with: 2D, 3D, and 4D spatial data collection and management; integration and update of spatial data-bases; standardization of information and metadata; and, visualization of information.

The national delegates and members of WG 3.2 actively participated in the FIGWW'2011 held on May in Marrakech, Morocco, and in the Annual Commission 3 workshop held on October in Paris, France (see more details below).

Together with WG 3.1, the activity of WG 3.2 is oriented to a joint FIG-publication on guidelines to establish an efficient SIM infrastructure in urban areas addressing legal, institutional and technical issues (to be published at the FIG Congress 2014).

### **Working Group 3.3 – 3D Cadastre (Joint Working Group with Commission 7)**

Chair: Prof. Dr. Peter van Oosterom

WG 3.3 focus on 3D Cadastres issues. The increasing complexity of infrastructures and densely built-up areas requires a proper registration of the legal status (private and public), which can be provided to a limited extent by the existing 2D-cadastral registrations. An on-going main objective of WG 3.3 is to establish an operational SIM infrastructure framework for 3D-Cadastres. The operational aspect addresses: a common understanding of the terms and issues; and, a description of issues that have to be considered before 3D-cadastres can be implemented. Topics dealt within the activity of WG 3.3 are: 3D-Cadastre - models, SDI and time; 3D-Cadastre and its usability; and, analysing alternatives for the realization of a 3D cadastre model. An important work has been done by the WG in preparing a very detailed questionnaire and gathering information regarding the status of 3D Cadastre in many different countries worldwide. More detailed information can be found on the WG 3.3 website <http://www.gdmc.nl/3DCadastres/>

The activity of WG 3.3 is oriented, inter alia, to a FIG-publication on guidelines to establish 3D-cadastres (a “Primer on 3D-Cadastres”), addressing legal, institutional and technical issues (to be published at the FIG Congress 2014).

### **3. Events**

In 2011 Commission 3 has been active in 3 international events:

#### **A very active participation in the annual FIGWW 2011 conference (May 18-22), Marrakech, Morocco with 11 technical sessions:**

- TS01I - Spatial Information Applications I
- TS02B - Spatially Enabled Society
- TS02C - Spatial Data Infrastructures I
- TS02I - Spatial Information Applications II
- TS03C - Spatial Data Infrastructures II
- TS03I - Spatial Information Applications III
- TS05C - Spatial Data Infrastructures III
- TS05I - Spatial Information Processing I
- TS06B - Spatial Data Infrastructures in Support of Climate Change and Risk/Disaster Management I
- TS08C - Spatial Data Infrastructures in Support of Climate Change and Risk/Disaster Management II
- TS09C - Spatial Information Processing II

Another 6 joint technical sessions (with Commission 7)

- TS07A - SIM and Cadastre
- TS01C - 3D Cadastre and 3D Information
- TS01J - Land Registration

- TS02G - 3D Cadastre and Case Studies
- TS03A - Towards Cadastre 2034 - A Panel Discussion with International Experts
- TS07G - Innovative and Pro-poor Land Records and Information System

And a third group of 3 joint technical sessions (with Commissions 5/7/8)

- TS04C - SIM and Planning
- TS08B - Disaster Risk Management
- TS06G - GNSS and Land Deformation

The number of presentations was 3 to 5 per session, which brings it to a total figure of more than 80 presentations in Commission 3 sessions. More detailed information can be found on <http://www.fig.net/pub/fig2011/techprog.htm>

**The annual 2011 FIG Commission 3 workshop/conference (October 25-28), Paris, France (local organizing committee chair – Mr. Rafic Khouri) on "The Empowerment of Local Authorities: Spatial Information and Spatial Planning Tools". Close to 50 participants arriving from 19 countries worldwide have attended 8 technical sessions:**

- TS 1: Opening of the Workshop (invited keynote speeches)
- TS 2: GIS Systems and Tools
- TS 3: Spatial Planning Tools
- TS 4: Technical Aspects of SIM
- TS 5: Spatial Data Infrastructure
- TS 6: Cadastre and Cadastral Management
- TS 7: Environmental Issues and Modelling
- TS 8: Best Peer-Review Papers

The total number of presentations at the event was approximately 35. More detailed information can be found on the conference website:

<https://sites.google.com/site/figcom3/proceedings-1>

**2<sup>nd</sup> International Workshop on 3D Cadastres – jointly with Commission 7 (16-18 November 2011), Delft, The Netherlands, with 9 technical sessions and 4 working sessions (each one in 3 separate sessions):**

- TS 1: Legal Aspects I
- TS 2: Technical Aspects I
- TS 3: Prototypes I
- TS 4: Technical Aspects II
- TS 5: Organizational Aspects I
- TS 6: Prototypes II
- TS 7: Modelling
- TS 8: Legal Aspects II
- TS 9: Organizational Aspects II
- WS 1: Legal Framework 3D Cadastres (in 3 separate sessions)
- WS 2: Initial Registration of 3D Parcels (in 3 separate sessions)
- WS 3: 3D Data Management (in 3 separate sessions)
- WS 4: Visualization, Distribution and Delivery of 3D Parcels (in 3 separate sessions)

The total number of presentations at the event was more than 30. More detailed information can be found on the workshop website: <http://3dcadastres2011.nl/programme/>

## **Planned Events for 2012**

### **Commission 3 will participate and/or organize 4 conferences and workshops:**

Will participate in the annual **FIGWW 2012** conference (May 6-19), Rome, Italy, with 14 technical sessions (commission 3 sessions as well as several joint sessions with other commissions), with approximately 70 planned presentations.

Will organize (jointly with Commission 7) the **3rd International FIG workshop on 3D-Cadastrals**, Shenzhen, China, 25-26 October 2012. A call for participation has been published and abstracts submission is open via the EasyChair link <http://www.easychair.org/conferences/?conf=3dcad2012> (abstracts submission deadline is 15 June 2012).

Will participate in the **8th FIG Regional Conference**, Montevideo, Uruguay, 26-29 November 2012.

Will organize the **Annual FIG Commission 3 workshop/conference**, Athens, Greece, 11-14 December 2012 (jointly with the 2012 WPLA workshop). A call for participation and submission of papers will be published shortly.

### **Prof. Dr. Yerach Doytsher**

Chair, FIG Commission 3

February 2012