

Commission 3

Spatial Information Management

Annual Report 2012

FIG General Assembly, May 2013, Abuja, Nigeria

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 the Surveying and Land Information Science Journal).

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

WG 3.1 focuses 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'2012 held on May in Rome, Italy, in the 8th FIG Regional Conference, held on November in Montevideo, Uruguay, and in the Annual Commission 3 workshop held on December in Athens, Greece (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

WG 3.2 focuses 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'2012 held on May in Rome, Italy, in the 8th FIG Regional Conference, held on November in Montevideo, Uruguay, and in the Annual Commission 3 workshop held on December in Athens, Greece (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 focuses 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).

Events

In 2012 Commission 3 has been active in 4 international events:

(a) A very active participation in the annual FIGWW 2012 conference (May 6-10), Rome, Italy with 23 technical sessions:

- First group of 7 joint technical sessions
- TS01D: Spatial Data Infrastructure

- TS02H: Technical Aspects of Spatial Information I
- TS02M: Cartography and Mapping Solutions
- TS05E: Technical Aspects of Spatial Information II
- TS07D: GIS Applications
- TS08H: 3D Principles and Technology
- TS09E: GIS Algorithms

Second group of 6 joint technical sessions with Commission 7

- TS03B: Volunteered Geographic Information
- TS04C: Cadastre and Spatial Information
- TS05A: 3D and 4D Cadastre I
- TS06B: e-Governance
- TS06F: 3D and 4D Cadastre II
- TS07B: Cadastral and Land Administration Perspectives

And a third group of 10 joint technical sessions with other Commissions (8, 7/8, 5/6, and 10)

- TS08I: Low Cost Surveying and Mapping
- TS03E: Planning Policies and Procedures II
- TS05D: City Development and Planning
- TS05H: Remote Sensing I
- TS06I: Remote Sensing II
- TS07G: Planning, Environment and Water Management
- TS08J: Building Information Modelling - BIM
- TS08M: Surveying and Cultural Heritage I
- TS09C: Surveying and Cultural Heritage II
- TS09F: Risk Management in Planning and GIS

The number of presentations was 3 to 5 per session, which brings it to a total figure of close to 100 presentations in Commission 3 sessions. More detailed information can be found on http://www.fig.net/fig2012/technical_program.htm

(b) Participation in the 8th FIG Regional Conference, Montevideo, Uruguay, 26-29 November 2012 with 4 technical sessions.

- TS01D: Data and Land information Systems
- TS02C: SDI-Spatial Data Infrastructure
- TS04D: Calculation and Visualization of Geodata
- TS08D: Cadastre and Land Information Systems

More detailed information can be found on

<http://www.fig.net/pub/uruguay/techprog.htm>

(c) The annual 2012 FIG Commission 3 workshop/conference (December 10-14), Athens, Greece, jointly with FIG Task Force on Property and Housing, and 2012 UNECE WPLA workshop on "Spatial Information and Informal Development, Property and Housing". Close to 100 participants arriving from more than 25 countries worldwide have attended 16 technical sessions:

- TS1: Spatial Data Infrastructures
- TS2: Spatial Processing
- TS3: Data Modelling

- TS4: Spatial Planning and Real Estate Properties
- TS5: Hellenic Cadastre and Spatial Planning Action Plan
- TS6: The Hellenic Cadastre
- TS7: Technical Aspects I
- TS8: Technical Aspects II
- TS9: Legalization Policies
- TS10: Legalization of Informal Development
- TS11: Experience from Legalization Projects I
- TS 12: Experience from Legalization Projects II
- TS13: The Economic Crisis, Property and Housing
- TS14: Informal Development and Property Markets
- TS15: Property and Housing Aspects
- TS16: Institutional and Technical Aspects

The total number of presentations at the event was more than 70. More detailed information can be found on the conference website:

<https://sites.google.com/site/figcom3athens2012/topics>

(d) 3rd International Workshop on 3D Cadastres – jointly with Commission 7 (25-26 October 2012), Shenzhen, China, with 6 technical sessions:

- Session 1: Legal Aspects
- Session 2: Systems and Applications
- Session 3: Modelling
- Session 4: Organizational Aspects
- Session 5: Visualization
- Session 6: Technical Aspects

The total number of presentations at the event was more than 20. More detailed information can be found on the workshop website:

<http://www.cadastre2012.org/eProgramme.aspx>

Planned Events for 2013

Commission 3 will participate and/or organize 2 conferences and workshops:

- (a) Will participate in the annual FIGWW 2013 conference (May 6-10), Abuja, Nigeria.
- (c) Will organize the Annual FIG Commission 3 workshop/conference, Skopje, Macedonia, 6-9 November 2013 (jointly with FIG Task Force on Property and Housing and the South-East European Research Association on Geo Sciences). A call for participation and submission of papers will be published shortly.

Prof. Dr. Yerach Doytscher, Chair
FIG Commission 3

February 2013