



Joint Workshop  
FIG Commission 3 & Commission 7  
and Annual Meeting  
MALTA 16-20 NOVEMBER 2015



International Federation of Surveyors  
Fédération Internationale des Géomètres  
Internationale Vereinigung der Vermessungsingenieure  
FIG COMMISSION 3  
Spatial Information Management



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Fédération Internationale des Géomètres  
Internationale Vereinigung der Vermessungsingenieure  
FIG COMMISSION 7  
Cadastre & Land Management



Malta Institution of Surveyors

## Crowdsourcing Of Land Information

A JOINT WORKSHOP FIG COMMISSION 3 & COMMISSION 7  
[Including Commissions 3 and 7 Annual Meetings]

16-20 November 2015, Le Méridien St. Julians Hotel / St. Julians, STJ1017, Malta, Europe

### WORKSHOP OBJECTIVES

Citizens, through crowdsourcing / Volunteered Geographic Information (VGI), are increasingly volunteering their knowledge, personal time and energy using the Internet and on-line tools to get work done, to obtain input and to stimulate action. Current applications include counting birds, checking water quality and creating new base mapping for developing countries – OpenStreetMap is the best example. Crowdsourcing has only recently been directly applied to the capture and management of land rights within the land administration sector. Is it feasible and can it help to rapidly shrink the security of tenure chasm? This workshop will explore how we can engage citizens through crowdsourcing within a new citizen collaborative model for land administration that would be much more inclusive for the disadvantaged and vulnerable, increase access to land markets and help support poverty reduction. The workshop will also investigate new exploitation, development and use methodologies of VGI derived information to various geographic and social scientific disciplines that make use of mapping, GIS, SIM and SDI systems and procedures. The aspiration is that these will give rise to the examination and legalisation of the legitimacy of big geodata and related processes and management procedures as a reliable spatial, environmental and sustainable infrastructure on local, as well as on global, scales.

**Official workshop homepage** <http://com3fig.wix.com/fig-commission3-2015>

<http://com7fig.wix.com/fig-commission7-2015>

### WORKSHOP THEMES

The workshop will have two major themes representing the interests of commissions 3 and 7:

**Commission 3:** "The Role of Citizens and Experts in Sensing Geographical Information"

**Commission 7:** "Crowdsourcing Land Rights"

### COMMISSION 3 WORKSHOP THEME

The mission of FIG Commission 3 is to study the impact and role of Spatial Information Management (SIM), Spatial Data Infrastructures (SDIs) and Participatory Mapping (PM) on economic, social and environmental aspects of local authorities in general, and on the empowerment of local authorities in particular. Investigating the international knowledge and practice on how surveyors, as well as the public, may assist real estate markets, land administration, good governance, environmental management, and planning initiatives by providing with reliable spatial information and relevant infrastructures.

Close to ten years now, there exist digital geographic information sources established and maintained by the public and citizens (Geoweb2.0), in addition to traditional or official (authoritative) sources. Commonly referred to as crowdsourced VGI or Neogeography, PM has revolutionized common practices and protocols on how geographic data are acquired, maintained, analysed, visualized, and used.





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This influences common practice since it allows a more complete and broad knowledge of the environment we live in in all aspects of life. Moreover, it supports new services to take place, applications and processes to be developed, all of which are location based.

The aim of this commission 3 workshop theme is to investigate the processes and conventions dealing with geospatial 'big data' (big geodata), mainly in respect to land administration (e.g., good governance, efficient operations of property markets, affordable planning and appropriate environmental management), but more generally in respect to the collection, processing, interpretation, administrative, and analysis levels. In the workshop theme, ideas and discussions will be made and presented in relation to the new exploitation, development and use methodologies of VGI derived information to various geographic and social scientific disciplines that make use of mapping, GIS, SIM and SDI systems and procedures. The aspiration is that these will give rise to the examination and legalisation of the legitimacy of big geodata and related processes and management procedures as a reliable spatial, environmental and sustainable infrastructure on local, as well as on global, scales.

This workshop will provide an opportunity to discuss acquisition, synthesis, integration, use, archiving, and the place of VGI, PM and crowdsourcing in SDI and SIM workflows.

### Commission 3 Topics

While the workshop focus is on effective utilization of VGI within the framework of SDI and SIM, a larger number of topics of interest related to SDI, SIM, VGI and crowdsourcing will be discussed. Topics will include, but are not limited to:

- ↳ National Mapping Agencies (NMAs): practices with VGI and managing of spatial information; theory, applications and best practice studies
- ↳ Land management tools and innovative spatial information solutions addressing global and national challenges; focus on open-source solutions
- ↳ Utilization of VGI and crowdsourcing with SDI and SIM on collection, dissemination, analysis, maintenance, and visualization
- ↳ Applications of VGI in managing the built environment, legalization monitoring, property registration, planning reforms
- ↳ Early warning systems, climate change, natural disasters and environmental protection: adapting working paradigms; case studies and possibilities
- ↳ Tackling VGI and PM credibility issues: interoperability, uncertainty, quality, authenticity, validity
- ↳ PM and Citizens Science – case studies and processes

### COMMISSION 7 WORKSHOP THEME

The mission of FIG Commission 7 is to:

- ↳ Provide a forum for enhancing and exchanging knowledge about cadastre, land administration and land management world wide
- ↳ Encourage the development of pro poor land management and land administration
- ↳ Promote the importance of development of sustainable land administration as infra-structure for sustainable development to underpin economic growth
- ↳ Promote the application of innovative and advanced technology in cadastre and land administration
- ↳ Promote awareness of the role of surveyors in land administration matters to the public and among stakeholders

Crowdsourcing uses the Internet and on-line tools to get work done by obtaining input and stimulating action from citizen volunteers. It is currently used to support scientific evidence gathering and record events in disaster management, as witnessed in the recent Haiti and Libya crises, for example. However, new applications are emerging in the land administration domain where citizens, usually with help from trusted intermediaries, are directly capturing and maintaining information about their land and natural resource rights.

Mobile phones are becoming pervasive and in less developed countries have become a global development tool. The technology is progressively integrating GNSS positioning, microphones, digital cameras and video capabilities. This facility provides citizens with the





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opportunity to directly participate in the full range of land administration processes from accessing land information services, recording property boundaries through to secure payment of land administration fees using 'mobile' banking.

Examples of emerging solutions include: the USAID Mobile Applications to Secure Tenure (MAST) project in Tanzania where USAID is working with the Ministry of Lands to issue Certificates of Customary Right of Occupancy; Rainforest Foundation UK is supporting indigenous forest people in the Congo and Cameroon, for example, to secure their land and natural resource rights and involve them in overall forest governance arrangements; the FAO SOLA Team have recently developed 'Open Tenure' to address the need of people in many countries to have their tenure rights recognised at a community level through the use of mobile devices and crowdsourcing techniques; Esri are working with Dutch Kadaster in Columbia to capture land rights with mobile technology; and Cadasta is implementing a global platform to manage crowdsourced land rights information.

The focus of this workshop will be to bring the developers and early adopters of crowdsourcing of land rights into a forum to share their approaches and experiences and build good practice in this embryonic and exciting approach to land administration.

### Commission 7 Topics

Topics will include, but are not limited to:

- ↳ Mobile technology to support the recording of evidence of land rights
- ↳ Experience and case studies of working with citizens to crowdsource evidence of land rights
- ↳ Citizens' reactions to perceived benefits of crowdsourced land and natural resource rights
- ↳ Use of LADM / STDM in this application
- ↳ Approaches to authenticating crowdsourced evidence of land rights
- ↳ Experiences in using trusted intermediaries / para-surveyors to support citizens in recording evidence of land rights and approaches to scaling-up operations
- ↳ Managing access and privacy around the sensitivity of land and natural resource rights information
- ↳ Experience in formalising crowdsourced land rights with Land Registration and Cadastral Agencies
- ↳ Global platforms to manage and provide access to the crowdsourced evidence of land rights

### PAPER SUBMISSION FOR COMMISSIONS 3 AND 7

It is very important that all submitted papers focus on the workshop theme and topics. All papers are to be submitted through the EasyChair system (details below). All registered delegates can present a **single presentation/paper only**. Two channels for submitting papers are available:

#### Full paper refereed channel

Full paper submission deadline: 1 September 2015

Notification of acceptance for presentation: 17 September 2015

Notification of acceptance through the peer review: 22 September 2015

Final revised paper submission deadline: 8 October 2015

Papers submitted in this channel (approximately 6000 words in English) must present significant scientific results. Manuscripts must describe original work that has neither been published before, nor is currently under review elsewhere.

High-quality accepted submissions will be considered for publication in an international scientific journal.

#### Extended abstract refereed channel

Extended abstract submission deadline: 13 September 2014

Notification of acceptance for presentation: 17 September 2014

Full paper submission deadline: 8 October 2015





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The extended abstract should be 350 to 500 words in length (in English) describing the objectives, results, conclusions and significance of your work (relevant artwork can be embedded). Please note that full paper is to be submitted after acceptance for presentation.

### Submit your paper to

FIG paper format can be downloaded from the workshop website. Please submit papers through the EasyChair Conference Management System, via this link: <https://www.easychair.org/conferences/?conf=fig32015>.

## PROGRAMME

A first, general indication of the programme:

### Joint Workshop

16 November 2015 (evening): opening and welcome drinks

17-19 November 2015: technical sessions

20 November 2015: technical tour

### Commission 3 Annual Meeting

16 November 2015: Ice Breaker

17 November 2015: Commission 3 Annual Meeting

### Commission 7 Annual Meeting

15 November 2015: Ice Breaker

16 November 2015: Commission 7 Annual Meeting

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## VENUE

Le Meridien St Julians Hotel & SPA, 39 Main Street, Balluta Bay, St. Julians, STJ1017, Malta, <http://www.lemeridienmalta.com/>

## ACCOMMODATION

Le Meridien St Julians Hotel & SPA, 39 Main Street, Balluta Bay, St. Julians, STJ1017, Malta, <http://www.lemeridienmalta.com/>  
(list of hotels will be published on workshop website)

## REGISTRATION FEES COMMISSION 3

(Including the welcome drinks, lunches, and coffee breaks during the four days of technical sessions – 16-19 November 2015):

Early bird registration fees 250€

Full (late) registration 300€

Young Surveyors / Student registration 150€

Early Bird registration ends 15 September 2015

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### Commission 3 Chair

**Dr. Geom. Enrico Rispoli**

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### Commission 7 Chair

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### Local Organizing Committee

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