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EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:

ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES

Ensuring our Rapid Response to Change
Ensuring the Surveyor of Tomorrow

THE FIG AGENDA and ACHIEVENTS 2015-2018

Prof Chryssy Potsiou, FIG President
National Technical University of Athens,
Greece
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The globalization of our profession 140 years of FIG

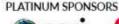




















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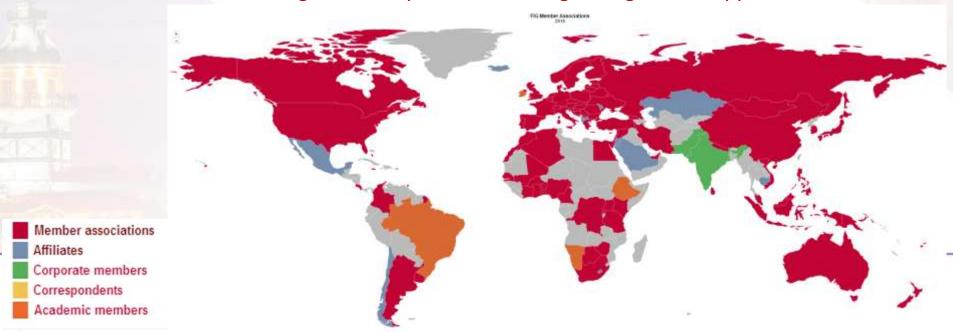
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Participation

More than 250000 surveyors

- Various levels of participation (www.fig.net)
- ✓ getting informed, networking
- ✓ teamwork engagement,
- ✓ goal setting, commitment to collective objectives,
- ✓ joint consultation in decision making, at all levels of administration.
- ✓ We have the knowledge and the power to make global growth happen







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Our vision

The vision of FIG is of a modern and sustainable surveying profession in support of society, environment and economy by providing innovative, reliable and best practice solutions to our rapidly changing and complex world, acting with integrity and confidence about the usefulness of surveying, and translating these words into action.

FIG supports international collaboration:

- Members
- Sister associations, regional bodies,
- UN bodies, including FAO and the World Bank, and other professionals,

in support of governments for the implementation of the ambitious Sustainable Development Agenda 2030















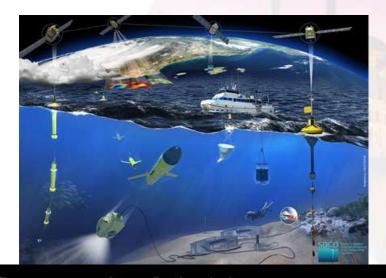
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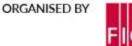
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The value of our evidence-based location information, tools and services

- The geospatial transformation of the society supports
 - > Transportation
 - > property markets, access to credit mechanisms,
 - > construction, city modeling, monitoring
 - > fair taxation, disaster recovery, humanitarian support
 - > agriculture & water management,...
 - we cannot measure or monitor sustainability and growth without the intelligent use of evidence-based geospatial data
 - Technology & Internet has changed the way people work and live
 - helps us to "uncover" the missing information and reduce inequalities...
 - > Development of indicators to monitor the progress



There are many data collection devices we collect: Authoritative and non-authoritative data, good enough for various purposes

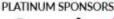




















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The Digital Economy - an opportunity for everyone?

The road to digital transformation:

Challenges & opportunities & a lot of unanswered questions...

- ✓ Provide the digital infrastructure- Develop the **platforms** types of investment? Metropolitan areas? rural areas? benefits? connectivity & density (people & business)
- ✓ Engage governments: affordable energy to enable connectivity,
- ✓ Informal sector? regulations, openness & stability to attract investors
- ✓ Enable digital financial inclusion? To support sustainable digital and technological entrepreneurship
- ✓ Create the digital society: Skills? The young generation
- ✓ **Information**: mapping the jobs & training facilities to measure the gaps
- job cuts? New jobs? retraining? Skill flow?
- ✓ Education? **on-line training**? certification?



















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The Sustainable Development Agenda 2030 was signed by 193 UN state members in 2015

Surveyors' contribution to the Sustainable Development Agenda 2030: 17 goals(SDGs), 169 targets and 230 indicators.

































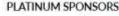


















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The Sustainable Development Agenda 2030 Goal 1 and target 1.4.

- ✓ SDG1. End poverty in all its forms everywhere.
- ✓ 1.4. by 2030, countries should ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.



























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SDGs: do your homework!

- ✓ Use the crowd in a powerful way.
- ✓ "bring the people to the data" increase the usability of the data
- ✓ secure **property rights for all**! "**informal settlements** and the missing data",

 The great economic divide: 2.5 billion people can register property rights and 5 billion they can't.

Property rights are one of the drivers of economic growth as well economic freedom

- ✓ policy issues! technical issues! "make it simple...if you can"
- ✓ adopt fit-for-purpose land administration,
- ✓ standards and the blockchain technology, IoT
- ✓ the need to "focus and set priorities" for "implementation",













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Surveyors' Role in the Age of Disruption

From the need for providing society with

> reliable, evidence-based, open or low cost data

for decision-making, toward the need to manage a "tsunami" of geodata

- > extended use of affordable smart devices; crowdsourcing
- > 5G mobile network technology, 40-60% higher speeds by 2020: massive creation & consumption of data
- > the Internet of Me, Internet of Things,
- Internet of Value, Blockchain & Distributed Ledger Technology (DLT)
- Machine learning, cognitive computing for all to improve human decision-making
- > Autonomous vehicles & drones



















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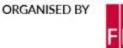
See the opportunity not the complexity

- "with a 10% increase in high-speed Internet connections, economic growth increases by 1.3%" and leads to "democratization of innovation."
- "in a world where only 40% of the population have access to the internet; we could boost the global GDP by \$1 trillion by connecting another 327 million people." 5G will enable low-cost, low-power sensors to be embedded in building, appliances, and vehicles. It will be a key enabler of the "internet of things."

The World Economic Forum



















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Examples of crowdsourced 2d (2015) and 3d cadastral surveying (2018)



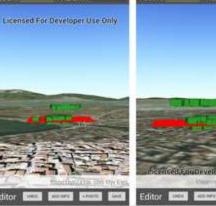


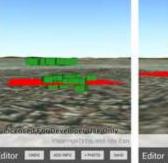


- every person has something of value to contribute; what is the "risk"?
- work may be done faster and cheaper and with fewer errors when validation systems are in place
- validation is critical in surveying
- when crowdsourcing is used in surveying, <u>it</u>
 <u>requires training of volunteers</u>
- easy application for data-collection that is not positionally critical

General Rule

- it may involve the collection of information that is required to be neither positionally precise nor dimensionally accurate, yet, important enough to achieve the SDGs, and
- as long as positioning and validation improve the use of VGI information will be extended.















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Where is the Data: increase our skills

- Have compassion, cooperate-work with others, deal with diversity,
- increase our digital fluency & computing skills to ensure democratization and make digitalization a peaceful transition power for the benefit of all
- In the digitalized world to be capable to infuse codes and algorithms with our values





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- ✓ benefits All of us,
- ✓ means All of us,
- is the key to success for All of us
- ✓ If we are not diverse, we are not global!















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"global" surveyors

It is the mandate of FIG to create "global" surveyors capable to contribute to the sustainable development agenda.

Surveyors who will have a "global education" that covers all fields of surveying but also who will have an understanding of the "global challenges" and who will be capable to develop the profession and work efficiently everywhere in order to improve every part of our world, so that nobody will be left behind.

Surveyors all over the world are committed and encouraged to test and take advantage of the current and emerging technological developments in order to improve their service to society.















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The Global Surveyors' Day 21st of March

A good opportunity for MAs to inform their members about the values and the challenges of globalization and of participation in FIG.



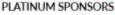




















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Our mission

Assess & Increase the value of geospatial **data**, our **land tools** and our services for all people to maximize benefits

Our mission:

- to deliver more benefit, more transparency, more safety, more environmental quality, more growth, more fairness, more education, more gender equality, more efficiency in governance of urban and rural areas....more freedom
- This is our contribution to the dream of a future intelligent city, a <u>happy city</u>, and a sustainable management of natural resources. Our contribution to the Sustainable Development Agenda 2030.
- Since 2012 **UN World Happiness Reports** (Happiness: a Holistic Definition of Development) GNH variables: real GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity, and perceptions of corruption
- Value of our geospatial data can be measured: Efficiency gain & Productivity gain















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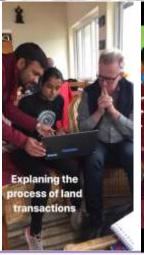
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The YSN

- ✓ international network with strong regional engagement,
- ✓ Several regional events have been held,
- ✓ UN-Habitat/GLTN-FIG Young Surveyors Volunteer Community Surveyor Program (VCSP) is a powerful driver for both social impact and professional development. 13 YS participated in 7 GLTN Programs
- ✓ STDM Training of Trainers (280 YS from 65 countries trained)

























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2016: 7000 € **PhD FIG F Scholarship** to Mr. Mukupa (Zambia)

2017:

- ✓ Introduction of **FIG Commission Publication Author Support Grant** of up to 28,000 € over a maximum of four years
- ✓ 7000 € FIG Foundation **PhD Scholarship** awarded to Mr. Collins Mwungu (Kenya)
- ✓ FIG Foundation grant in support of new initiative by UN-Habitat/GLTN (Global Land Tool Network) and FIG Young Surveyors Network Volunteer Community Surveyor Program (VCSP)
- ✓ Creation of informational **videos** on applying for grants
- **74,227 €** *Grants awarded (2015-2017)*
- 80,140 € Income (2015-2017)

33 Total Grants awarded (2015-2017)

Thanks to Trimble- Charter Foundation Partner and William Marbell for continued generous support since 2002 and sponsor of **FIG Foundation dinner** since 2010.



Directors
John Hohol,
Mike Barry,
Pengfei Cheng,
Orhan Ercan,
L. Groenendijk,
Daniel Steudler,
Paul van der
Molen















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Cooperation with GLTN

- ✓ Congress special sessions
- √ WB sessions
- ✓ IAB GLTN meeting in 2017, & 2018
- ✓ Publications
- ✓ YSN STDM training, Volunteer Community Surveyor Program

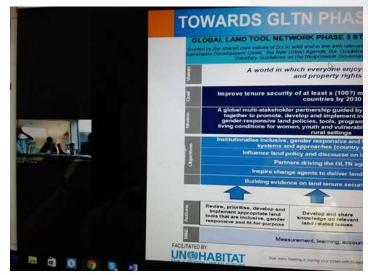
 VCSProgram

 GLT
- ✓ ARN FFP workshop
- ✓ FIG Foundation
- ✓ Professional cluster lead

GLTN IAB meeting, 2018



GLTN IAB virtual meeting, 2017





















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FIG Publications 2015-May 2018

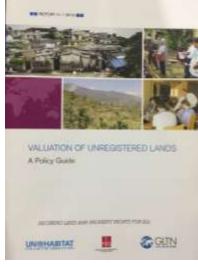
in cooperation with GLTN















The Social Tenure Domain Model - A Pro Poor Land Tool in English, Japanese, French, Arabic



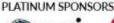
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STANDARDIZATION

Land Administration systems and Implementation Measuring & managing Property

The Social Tenure Domain Model - A Pro Poor Land Tool in English, Japanese, French, Arabic

ILMS, IPMS, ICMS,
develop and implement
international standards for the
measuring of land and property and
enabling global comparison of
construction project costs

- ✓ LADM implementation
- ✓ LADM II will be developed: valuation, blockchain, 4D
- ✓ Operationalization by the Open Geospatial Consortium
- ✓ GLTN STDM widely used
- ✓ Cadastral template 2.0 56 countries















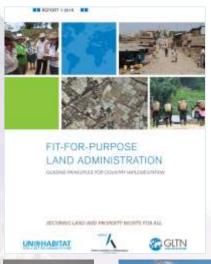


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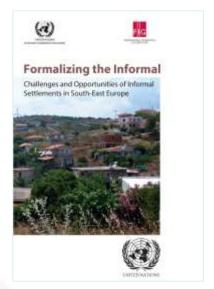
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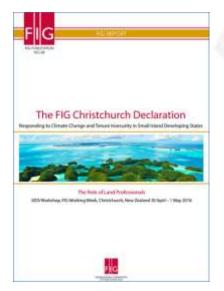
FIG Publications 2015- May 2018



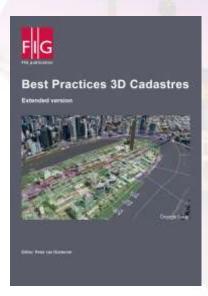










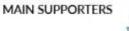






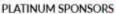




















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Collaboration with FAO

- > 2017 WW : FIG academic forum and commission 2 are doing excellent work to influence courses;
- > FIG Action Plan for members: implement VGGT & policy topics; learn from existing experiences; promote VGGT technical guides & participate in reviewing them; establish national multi-stakeholder platforms in all countries; introduce UN-FAO e-learning programs in corresponding curricula
- > 1 session on land consolidation
- > 2018 Congress: FIG academic forum focus on VGGT, 1 session on VGGT & 1 session on land consolidation

VOLUNTARY GUIDELINES ON THE

Responsible Governance of Tenure

OF LAND, FISHERIES AND FORESTS IN THE CONTEXT OF NATIONAL FOOD SECURITY



















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Collaboration with UNGGIM

- > UN GGIM Expert Group on Land Administration, March, Amsterdam, (C. Lemmen)
- > UN-GGIM: Europe Fourth Plenary Meeting, June, Belgium (VP Lilje
- ➤ **Technical Seminar on Reference** by FIG Com 5 and FIG APCDN, in cooperation with Japan Federation of Surveyors, IAG, UN-GGIM-AP and ICG, July, Japan, R.Sarib
- > the 7TH UNGGIM Session NY, August 2016:
 - President participated (presentation at UNGGIM Academic Network), VP Lilje, G.Schennach
- > 6th UN-GGIM-AP Plenary Meeting & FIG APCDN, October, Japan VP Lilje, Rob Sarib
- > 5th UN-GGIM High Level Forum, subcommittee on Geodesy, Nov, Mexico, VP Lilje







MAIN SUPPORTERS



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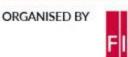
The World Bank

President, VP DD & VP OE as well as Com8 & 9 Chairs participated in the WB conferences March 2017 & 2018, master classes and strategic sessions

Finnish reception in USA, GLTN, HABITAT FOR HUMANITY receptions: networking events

- MoU FIG/WB on joint research & conferences in 2018 (Greece)
- President presented a paper, chaired TSs (2017&18)
 the progress on the compilation of the FIG / UNECE
 Guidelines for Formalizing the Informal
- Strategic sessions on FFP, Valuation of unregistered lands, Gender in 2017 & 2018
- Celebrations for the Global Surveyors Day

















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Cooperation with UNECE WPLA

- President presented her on-going research on informal development in the region and on formalization practices; as well as the progress of the compilation of the guidelines for formalization
- President participated in the 10th session of the Working Party on Land Administration and is elected as UNECE WPLA bureau member in March 2017 and made a presentation about a future joint research

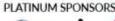




















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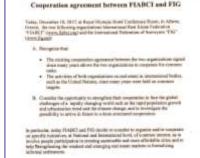
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Cooperation with FIABCI events, 2017, 2018

Agreement for Cooperation with the
International Real Estate Federation
(FIABCI) on Sustainable Real Estate
Markets and Formalization of Informal
Development









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FIG MAJOR STRATEGIC EVENTS 2015- May 2018















High-Level June FIG / Woold-Bank Conference Sustainable Real Estate Markets Policy Framework and Necessary Reforms 19 S 20 September 2016

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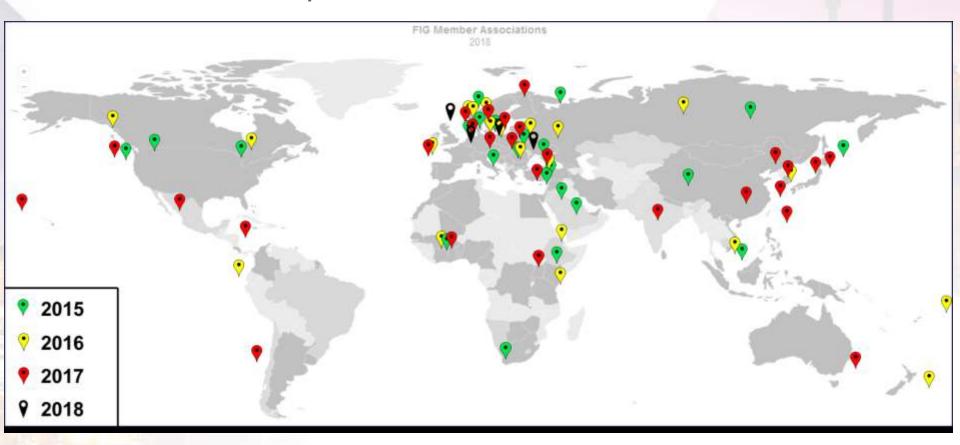


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Global FIG representation in activities and events





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COMMISSION F, PROYESSIONAL EDUCATION

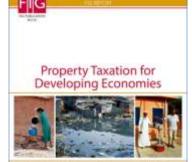
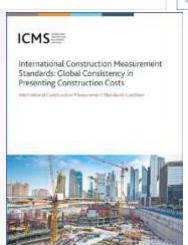


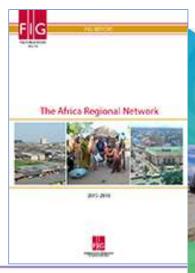
FIG Pub on New
Trends in Spatial
Information:
Surveyors' Role in
the Era of
Crowdsourcing

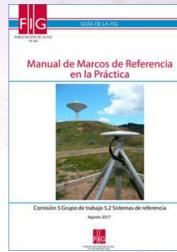


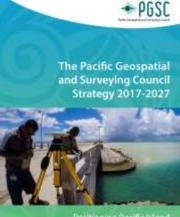
































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FIG Office FIG Council **FIG Commission Chairs** FIG TF Chairs

Chairs of Permanent Institutions and Networks FIG members

Thank you all for the great cooperation and your valuable contributions in 2017











