



FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

General Assembly – Friday, June 2017

Agenda Item 29:

Commission Chairs Highlights from the
FIG Working week, Helsinki



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From digitalisation to augmented reality

Surveying the World of tomorrow.....

- **Living** of Tomorrow in a digitalised world
- **Professional behaviour** in a digitalised world
- The **contribution** of our profession... in a digitalised world
- Setting the scene for you our debate during our 3 days, packed program



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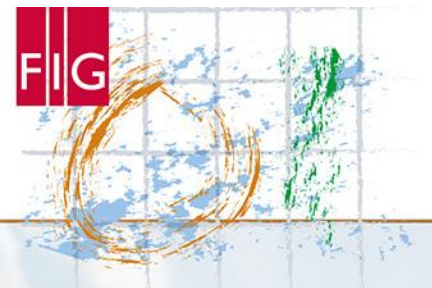


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Are we embracing the global transformative forces- trends?

- It is about
 - using what we have already, from basic resources, through to Big Data and beyond,
 - to be more efficient and to improve peoples lives in a sustainable way
(Geomatics World Oct 2016)
- Drawing out the highlights and impacts from commission reports.....



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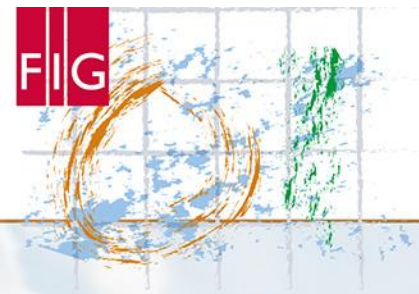


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Your contribution in a transformative World

You in your technical session considered the opportunities to:

- **Capture**- integration, being authoritative, data acquisition
- **Compute** - interpretation of deeper & richer data, and technologies, Internet of things, Big Data
- **Create** – innovate, being smart enough?
- **Collaborate**- open and capable of long and short term perspectives, inter disciplinary approach, working across professional sectors
- **Communicate** – multi stakeholders, leadership



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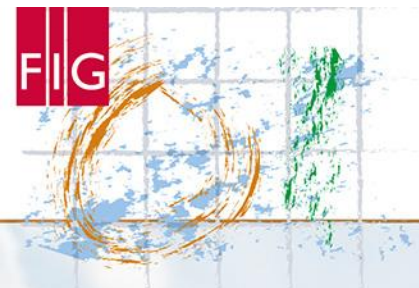


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Commission 10

Collaborative & Capture

- Pre-WW Workshop : BIM for Surveyors
 - - 55 attendees/ 27 countries
 - Fundamentals in BIM education and research
- Technical sessions
 - Integration of BIM, GIS, laser scanning and other applications.
 - Sharing evidence based learning from BIM projects



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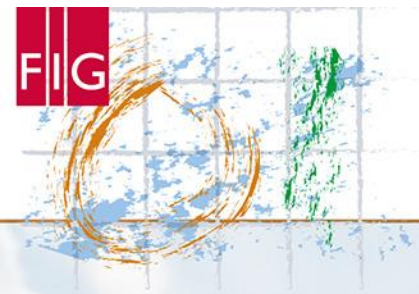


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Commission 5

Compute and Capture

- Authoritative and acknowledging the high importance of UN-resolution GGRF

- Geodynamics / tectonics influencing Reference Frames -Kinematic / Dynamic Datum

Capture and innovate with emerging Technologies:

- Unmanned Aerial Vehicles (UAV, UAS); joining Photogrammetry and Engineering Geodesy,

- Nb, conversations including Drones/ UAVs in **Comm 3**

Similarly,

- **Comm 4** new technology and sensors in hydrograph practice.



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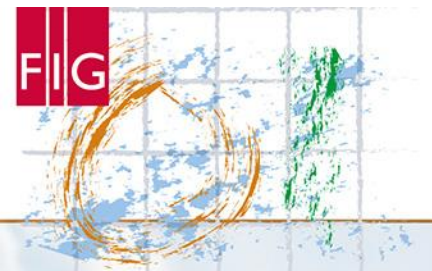


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Commission 9 And 8

Compute, Capture, collaborate

- Hot Interest and deliberations over Block chain technology
- Discussion involving authoritative standing/ is it hype/ levels of transparency? And **Comm 7**- how far can be applied to Land Management and Cadastre issues.
- Working with GLTN of partners on the “Guidebook to the Valuation of Unregistered Land”



Comm 8

- Combining themes in Spatial planning, urbanization, economics, linking to the implementation of the UN New Urban Agenda
- Create rural-urban divide modulaites
- Collaborating across professional sectors (CIWEM joint publication in 2018)



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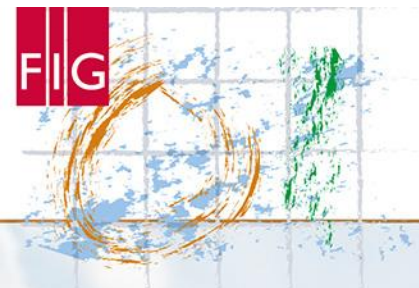


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Commission 4

Create and Collaborate

- Economics combined with technical interface of the blue economy and marine cadaster
- And, Cross commission working on Challenges in emergencies and disasters:
- **Comm 4** the relevance of hydrography in disaster management were discussed.
- **Comm 7 & 8** Challenges and opportunities for islands and coastlines : Envision structured spatial planning for resilience in disaster management as part of development



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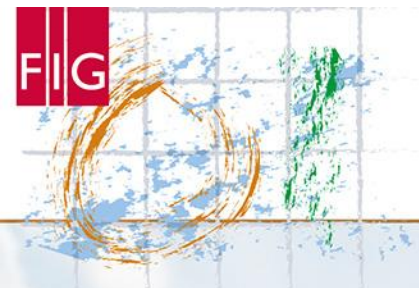


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Commission 3

Communicate, compute and create

- The continuous technological progress of Spatial data infrastructure and relationship to people, considering:
 - Converges of data in a 3D and appropriate management methodologies, e.g. Drones, aerial photogrammetry and crowdsourcing
 - Noting **Comm 7** 3D discussions on technological aspect missing the legal



People focus/ collaboration:

- Service providers need to optimize and evolve the application of these innovations to the sophisticated user needs.
- Noting **Comm 7** social impact of new technologies needs to be investigated



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Commission 7

Communication, Collaboration and Create

Three key messages:

- Implementation of new technologies and big data acquisition and management of big data are challenging existing business models
- blockchain technology application to Land Management and Cadastre issues
- **Profession needs to be further developed:**
 - To be open to related skills and to search for coalitions with other professionals from IT, social and economic science etc
 - Surveyors of the future: leadership, authority, mastermind
 - Remain behind, visible in global initiatives (UN GGIM, FAO initiatives against poverty, UN Habitat on New Urban Agenda)

***From digitalisation to augmented reality:
creating added value for all land professionals***



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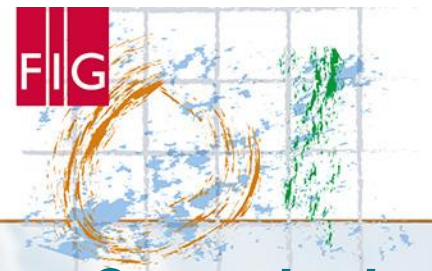


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Commission 1 And 2

Communication, collaborating & Professional Behavior/ Practice

, Comm 2

- Innovation in education, Curriculum on the Move and expected publication in 2018
- Collaborative Academic Forum/ FAO on VGGT leading to action plan

Comm 1

- Ensuring that there is need for FIG to address the hidden bias towards women.
- Continuing to final drafts are updates on International Boundaries, and Mutual Recognition (update # 27)
- And.....



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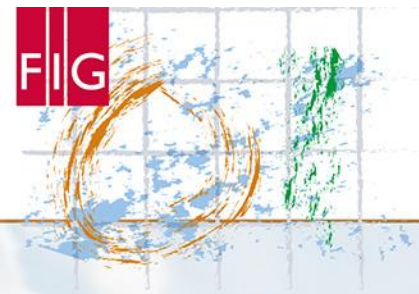


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Standards and Ethics

Standards (taking the lead from the FIG Network, a need for standards)

- **Comm 1** will review the existing code of conduct on mutual recognition and propose an amendment to address diversity in all forms (specfically gender)
- **Comm 9** valuation standards for the 21st century.
- Comm 10 Construction Standards and Regullation, including consider BIM
AND
- **Comm 5** Multi-GNSS as the standard of the immediate future

Key message- Transparency, trust and authenticity is the request for the future from us as Professionals



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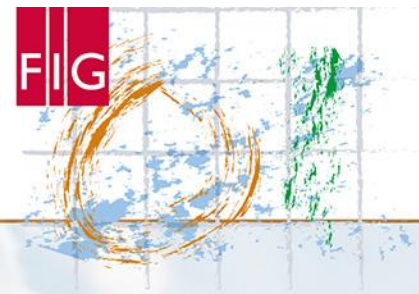


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Inspirational Short Sessions

- **What:** Our TED talk equivalent to inspire?
- **Located:** 7 in the program, 90 minutes, each with up to 12 papers
- **Delivery:** timely manner- perhaps only 4 minutes!
- **Authors:** nominate and/ or chairs select
- **Format:** various methods tried, panel worked well
- And, **Focus:** on discussion and debate
- **Ultimately:** Key messages have to be delivered fast, succinctly and with a purpose



Feedback: *well received and encouraged to progress*



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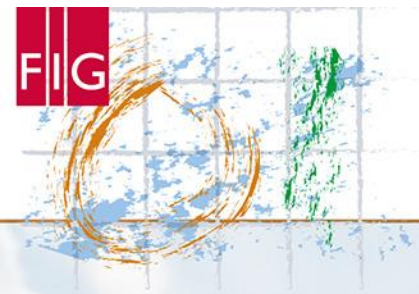


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Collaborative Process

We report

- Significant number of attendees – thank you
- Interesting range of papers presented by you and your colleagues
- Good interactions between speakers and participants through Q&A session
- Constraints: time to discuss, no-shows (less this year)

And

Devising and developing the Program:

- Huge thanks to Commission Chairs for their considerable hard work over 6 months...
- Huge thanks to Claudia Stormoen Pedersen



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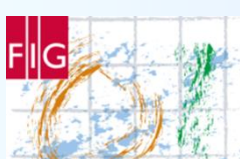


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May 29 - June 2 **Helsinki Finland**



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

FIG COMMISSION 3
Spatial Information Management

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We are looking forward to meet you

**Thank You for
Participation**