



FIG Young Surveyors Network Report

5th FIG Young Surveyors European Meeting
FIG Working Week 2017

Hello - Hei

Thank you to everyone who attended the 5th FIG Young Surveyors European Meeting and FIG Working Week 2017 in Helsinki, Finland.

The theme 'Surveying the World of Tomorrow - From Digitalisation to Augmented Reality' had a clear technical focus, encouraging us to think about future technological possibilities within the wider field of surveying and how we, as young surveyors, can apply our energy, technical knowledge and skills to solve global issues.

Young surveyors are the future and we recognise that tomorrow is a short time away. Today we must not only question how to make things digital and accessible, but it is also how we can use technology as a tool help others and add new dimensions to what we see around us.

The FIG Working Week 2017 was incredibly successful we had a number of events: 5th FIG Young Surveyors European Meeting, STDM Awareness Event, and two sessions during the FIG Working Week including our workshop on 'Who Mentors You?' and a joint session with UN Habitat GLTN on Innovations for the Social Tenure Domain Model.

A key highlight of the FIG Working Week 2017 for the FIG Young Surveyors Network was the announcement of the FIG YSN Volunteer Community Surveyor Program. This program provides a unique opportunity for trained young surveyors to apply their technical skills and work alongside their peers to give back to areas of greatest need!

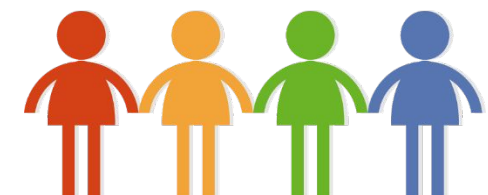
Overall, the combination of technical sessions, workshops, trade exhibition and social functions of the FIG Working Week 2017 highlighted the opportunities for the future in terms of the information that we gather and how this can be used more efficiently.

Eva Maria Unger
Melissa Harrington
Tuomas Jylhae

Chair FIG Young Surveyors Network
Vice Chair of Administration FIG Young Surveyors Network
FIG Young Surveyors, Finland

**'Young
Surveyors are
not only the
future of our
profession, they
are the bridge
connecting the
old and the
new'**

Chryssy Potsiou
FIG President





5th FIG Young Surveyors European Meeting

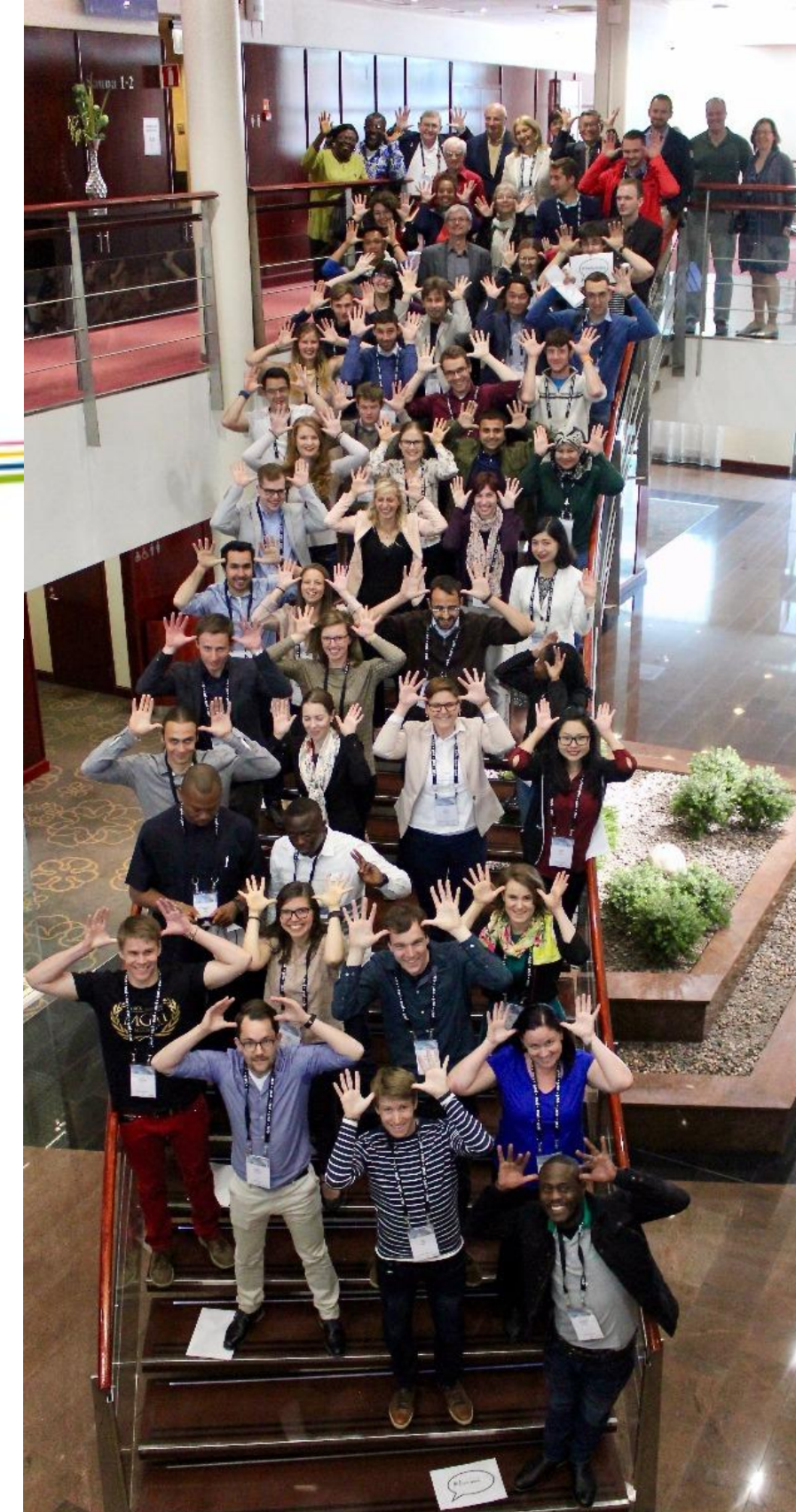
Surveying the World of Tomorrow -
From Digitalisation to Augmented Reality

#5YSEM

The 5th FIG Young Surveyors European Meeting was held on May 28 2017, prior to the FIG Working Week events. The theme 'Surveying the world of tomorrow - From digitalisation to augmented reality' provided an exciting basis for presentations by young surveyors from around the world.

In total 50 enthusiastic young surveyors from 20 different countries gathered to share and explore the world of tomorrow with fellow peers with focus on two key themes: The evolution: Then, Now and Beyond and Delivering the Digital Dream

The 5YSEM provided a unique insight into the future, and the opportunity to study ideas and solutions of today and innovate for tomorrow.



Supported by:



5YSEM Opening Session

The meeting started with an opening ceremony and photo session. The ceremony entailed short welcome speeches by the representatives of the Finnish Association of Surveyors (MAKLI), the Finnish Association of Geodetic and Land Surveyors (MIL), the International Federation of Surveyors, FIG Foundation, Council of European Geodetic Surveyors (CLGE) and the FIG Young Surveyors.

This session provided valuable insight into the history of Finland, which this year is celebrating its 100 year anniversary 'Suomi 100', and FIG as well as setting expectations for the 5YSEM and the Working Week.

Young Surveyors had a warm welcoming from Finnish Association of Surveyors (MAKLI) and Finnish Association of Geodetic and Land Surveyors (MIL) and we thank them for their hospitality. Following this warm welcome, Chryssy Potsiou, Chair of FIG, highlighted the importance of young surveyors to FIG and the world of tomorrow and solving key technical and professional challenges.

John Hohol, from the FIG Foundation, then welcomed us with a presentation on the history of the FIG Foundation that left us feeling grateful for their continued support.

The final presentation was by the FIG Young Surveyors Network chair Eva-Maria Unger, introducing the new Vice Chair of Administration, Melissa Harrington. The presentation encouraged involvement throughout the 5YSEM and Working Week and presented the 2015 - 2018 YSN Workplan.



Martti Pietikainen (MAKLI), Paavo Haikio (MIL), Chryssy Potsiou (FIG President) and Eva-Maria Unger (FIG YSN Chair)



Tuomas Jylhae, Melissa Harrington (FIG YSN), John Hohol (FIG Foundation) and Mairolt Kakko (CLGE).

'Alone we can do so little; together we can do so much' - Helen Keller

The evolution: Then, Now and Beyond I

Presentations in this session highlighted the evolution of surveying and technology and answered the question: How have the dots of our profession been connected? We have learnt from the past and innovated for the future.

The first presentation was from Liisa Kemppainen, Finland sharing her experiences from working with the Building Information Model (BIM) for the new Helsinki Airport. We learnt that Building Information Modeling (BIM) is changing the way how surveyors work, think, collaborate and earn money. Using and sharing multidimensional digital representations of buildings are the driving forces for the digitalisation of our work. This affects many tasks surveyors and GIS professionals perform, e. g. cost estimation, GIS analysis, engineering surveying, construction work, land management and facilities management.

The second presentation was by Robert Mears, New Zealand the winner of a competition organised by the New Zealand Institute of Surveyors Young Professionals Group and supported by a local recruitment company Eighty4 Recruitment. Rob provided a candid presentation on his perspective of the conference theme 'Surveying the world of tomorrow - From digitalisation to augmented reality'. Each attendee had a different perspective on the theme, but all arrive at the same conclusion: we must use our technical skills to provide solutions to global issues.

The final presentation for this session was by FIG Foundation Grant recipient Biplov Bhandari of Nepal. The presentation shared his experience and lessons learned in community engagement and empowerment through the use of technology. Biplov provided an excellent presentation which provided valuable insight into the use of Sahana Software and how this technology can be used for messaging and alerts.

'We are changing the world with technology' - Biplov Bhandari



Speed Dating

A key part of the 5YSEM was encouraging networking and engagement with YS and FIG delegates from around the world. This was one of the first YSEM with a wide international attendance.

During the first coffee break, representatives from Croatia, Netherlands, Iran and New Zealand organised highly successful 'Speed Dating' activity between the YSEM and the BIM for Surveyors Workshop which was happening simultaneously.

Each participants were given either a question or an answer, and were tasked with finding their partner. This event saw strong friendships form for the rest of the YSEM and Working Week.

Thank you to everyone who participated!



The evolution: Then, Now and Beyond II

After the speed dating our second technical session began, continuing the theme of connecting the dots between our professions history, today and the future.

The first presentation was by Ine Buntinx of Belgium providing an introduction to and sharing her research that has been completed for 'its4land' on innovations for land tenure. Ine presented the benefits of a socio-technical approach for land tenure tools in east africa, highlighting the need for 'fit for purpose' land administration.

The second presentation was by FIG Foundation Grant recipient Mladen Femic of Montenegro sharing his experiences on the development of the land use plan for the first highway in Montenegro. His presentation was interactive with a number of photographs and videos describing the extent and complexities involved with the project.

The final presentation was by Victor Chuks Chibueze of Nigeria sharing providing a fresh perspective on time management as a tool for young surveyors. Good time management allows you to accomplish more in a shorter period of time, which leads to more free time, which lets you take advantage of learning opportunities, lowers your stress, and helps you focus, which leads to more career success.



'If you have two frogs, eat the ugliest one first' - Victor Chuks Chibueze

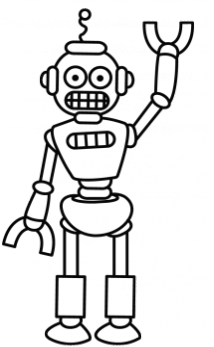
Game Show: The Robots are Rising!

The FIG Young Surveyors are always looking for ways to make events inspirational and at the same time educational - for everyone! This year for the first time we held a gameshow involving the presenters and participants from the audience.

Questions for the game show were formulated from the morning's opening ceremony, and technical sessions. The game show was well received by all and will be making a comeback at future events.



‘Tell me and I forget. Teach me and I remember. Involve me and I learn’ - Benjamin Franklin



Delivering the Digital Dream

The afternoon sessions provided an opportunity for young surveyors to work collaboratively on three topics:

- Building Information Modelling - BIM is real, from IFC to Virtual Reality
- CLGE Dynamic Professional Knowledge Base (DPKB)
- Mapping for resilience: Crowdsourced mapping in crises



The summary of these workshops are shared on the following pages.

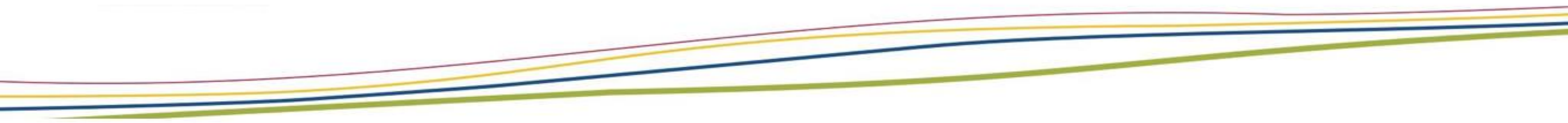


Workshop Coordinators: Franka, Ines, Edgar and Diane



Question Time!

‘Everyone you will ever meet knows something you don’t’ - Collaborative Learning



Delivering the Digital Dream

Building Information Modelling - BIM is real, from IFC to Virtual Reality
Edgar Barreira & Ines Vilas Boas, Portugal

Purpose/aim of workshop: The workshop had the aim to collaborate and form the vision of the role of the surveyors in achieving the challenges of BIM.

Result/outcomes of workshop

What are the tasks Surveyors can do for BIM?

- Compare BIM model with the real as-built building
- Project Management on the site
- Act as a professional with standards concerns and to be part of the QA/QC team
- Be part of the BIM coordination team

What are the three main skills must use add-value for BIM works?

- Data modelling;
- Accuracy focus;
- GIS knowledge to mashup geo-information;

What is preferable? Virtual Reality or Augmented Reality? For what use cases?

- No preferable one. The attendees considered both are important, for different use cases. Some of the feedback about Virtual Reality focused on the Design phase and to prepare emergency plans. Some of the feedback about Augmented Reality focused on the Construction phase and to review the real building after construction (to compare with the projected building).

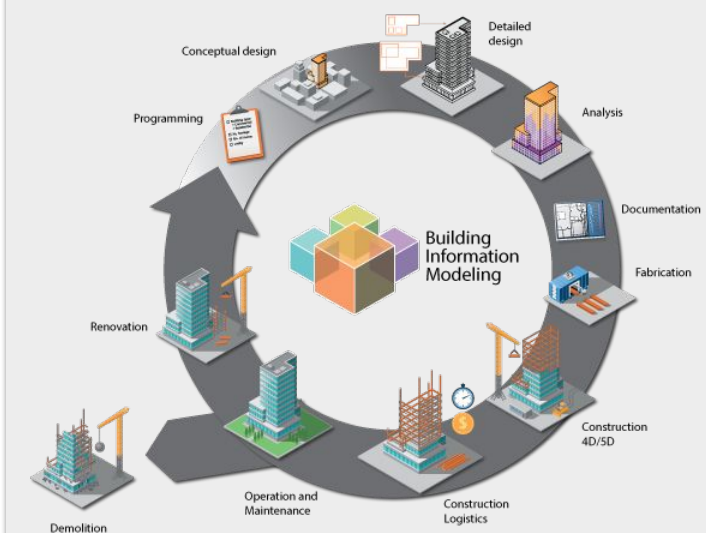
Do you want to work in BIM in the future?

- Yes, no doubt! All the attendees were motivated to learn more about BIM and to use the skills to improve BIM projects.

Can BIM improve the salaries of the Surveyors?

- A lot of doubts! The attendees had some doubts about the way the Surveyor can show another ones how valuable can be its knowledge to speed-up the implementation of BIM workflows.

...to manage the
lifecycle of
buildings...from
systems to new
systems of
systems...



Delivering the Digital Dream

CLGE Dynamic Professional Knowledge Base (DPKB)
Diana Becirevic, Croatia

Purpose/aim of Workshop:

The Development of the CLGE DPKB and Involvement of YS in CLGE Projects.
It had become obvious during the past years that there is a considerable lack of information when it comes to national rules, regulations and practices of geodetic surveying throughout Europe. At the same time there was a rising demand for such concise information.

CLGE decided to take the initiative and drafted a concept for a so called “Dynamic Professional Knowledge Database”. The CLGE database will be in English and is meant to be a regularly updated comprehensive collection of all relevant information about the profession of Geodetic Surveyors in all CLGE Member countries.

A very important aspect of the database is to provide an information pool and guidance for individual Geodetic Surveyors who are interested in providing their services in other countries mobility within the profession.

Result/outcomes:

The CLGE DPKB is an interesting project and is good to have all information regarding the people involved in our profession in the same place.

There is missing data for countries involved in the CLGE, and we have developed a manual to assist with populating this information. A time line of events leading to the CLGE General Assembly in September has been established, where the next steps will be presented.

...an
information pool
and guidance for
individual
Geodetic
Surveyors...



Delivering the Digital Dream

Mapping for resilience: Crowdsourced mapping in crises
Franka Grubisic, Croatia

Purpose/aim of Workshop:

Natural disasters create serious problems all around the world. They are inherently linked with land and thus the surveying profession. The workshop started with everyone assessing what is the biggest threat to their home country and brainstorming ways in which our profession can help. Thus, the aim of the workshop was to show to Young Surveyors that their contribution counts and highlight that the contribution of the surveying profession is key in addressing land issues in areas where natural disaster occurred.

Result/outcomes:

The result of these efforts is an increased awareness of disaster risk within the participants of the workshop. Together, we need to seek to build applications and tools to inform decision-making, while developing networks for these efforts to become sustainable. This process is evolutionary, with opportunities for experimentation, learning, failure, and adaptation, and Young Surveyors are the one to be leading the way.

...
Build
Inform
Deliver
...



Guest Presentations

The final technical session of the day was inspirational for attendees. With presentations from Kengo Okada from Ripro and CheeHai Teo former FIG President.

Kengo provided an update on the Japanese Earthquake following his presentation at the 3YSC at the 2016 FIG Working Week in Christchurch, New Zealand and his companies smart stake markers and future enhancements. This technology is providing excellent monitoring services in areas of significant land movement. During Keno's presentation we were encouraged to think differently about our role and our survey marks:

‘Boundary stake markers divide countries, but sometimes just one small stake can connect countries and people’ - Kengo Okada

CheeHai Teo presented ‘On the move’ highlighting the importance of young surveyors to not only our profession but the world. During this presentation you could hear a pin drop, all young surveyors were engaged and learning about the United Nations Secretariat Global Geospatial Information Management (UN-GGIM) and sustainable development. We were encouraged to reduce the gap between old and new, and think about solutions to global issues involving people, prosperity, peace, partnership and the planet.

‘Challenges are opportunities’ - CheeHai Teo



Closing Ceremony

At the closing ceremony organisers took the opportunity to express our appreciation and gratitude to our sponsors: Trimble, Ripro, FIG Foundation, National Land Survey of Finland, the Finnish Association of Surveyors (MAKLI), and the Finnish Association of Geodetic and Land Surveyors (MIL).

Presenters, chairs and rapporteurs were given gifts alongside the organising committee for the YSEM. After a very full and productive day, it was time to relax, socialise and enjoy some Finnish hospitality.

All of the participants and honoured guests joined together at the Holiday Bar to savor local cuisine and to enjoy conversation and music.

Thank you to everyone!



Supported by:



FIG YSN Charity Run

Following the success of the first FIG YSN Charity Fun Run/Walk the YSN organised another around the picturesque lake of Töölönlahti in Helsinki, Finland.

Despite the cold conditions we had around 50 participants running and walking together for a cause, to give back! As surveyors we have a prominent role in contributing to the betterment of the world and we are aware of the role we are playing in the world today and tomorrow. We would like to say thank you to everyone who participated and we hope to see you back next year in Istanbul.

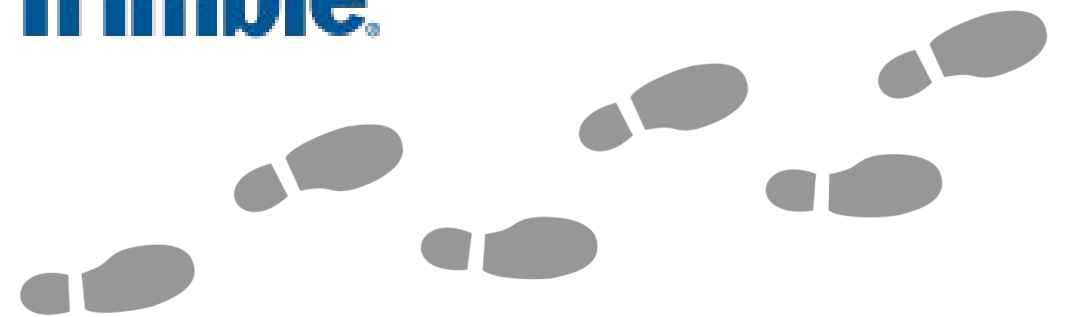
Another special thank you to our platinum sponsor Trimble who did an amazing job gearing us up with SX10 Total Station T-Shirts.

We generated 1290 Euro which was given to:

- Humanitarian Open Street Maps
- FIG Foundation

Humanitarian Open Street Maps is a worldwide, non-profit organization, registered in the United States with offices in Washington D.C., USA and Jakarta, Indonesia.

The FIG Foundation is always a great supporter of the FIG YSN and we wanted to take this opportunity to give something back to them.



UN-Habitat GLTN FIG YSN STDM Awareness



The STDM is an initiative of UN-HABITAT to support pro-poor land administration. STDM is meant specifically for developing countries, countries with very little cadastral coverage in urban areas with slums, or in rural customary areas. It is also meant for post conflict areas. The focus of STDM is on all relationships between people and land, independently from the level of formalization, or legality of those relationships.

Participatory enumeration is used during the data gathering stage in the implementation cycle of STDM. Rather than creating specialist teams of external enumerators, it is often more effective to have people from the community be the main enumerators.

The FIG YSN together with UN-Habitat GLTN organised this 1-day Awareness Raising Training during the FIG Working Week 2017 in Helsinki, Finland

This 1-day Awareness Raising Training of a pro- poor land information system event will endow 'Young Ambassadors' with the skills to facilitate STDM introductions. With the knowledge gained through the event they are going to be champions of STDM in their regions as well as be able to assist in further research and support UN-Habitat/FIG in future work pertaining to rolling-out STDM.

'Becoming those agents of change who are needed on the ground' - Eva-Maria Unger



FIG YSN Session during the FIG Working Week 2017

Who Mentors You?

Date: Wednesday 31 May 2017

Time: 11 -12:30pm

Room: 207 Trimble

There are a number of challenges being presented to the surveying and spatial science community; global trends, technology changes and a declining number of surveyors worldwide. To ensure the future of our profession we need to establish a well connected global community and the Young Surveyors Network and mentoring is key to this.

The objective of this session was to build upon foundations set by the YSN Workplan and the workshop from the FIG WW 2016 'the future of our network'. In this workshop the YSN developed a theme and hashtag #bemybuddy and a mentoring sign up form to facilitate mentoring within FIG. Following the evaluation of these components, it was decided to hold a second workshop to create a mentoring toolkit.

This session highlighted the benefits of mentoring to the mentee, mentor and organisation. Following this the group formed five working groups all focusing on components for the toolkit.

#bemybuddy

- Mentoring Relationship - Components for Success
- Mentoring Skills
- Stages of Mentoring
- Potential Issues and Solutions

Results of this workshop have contributed immensely to the YSN Mentoring Toolkit that is currently under review.



FIG YSN Session during the FIG Working Week 2017

Social Tenure Domain Model Development Innovations (FIG YSN and UN-Habitat GLTN)

Date: Wednesday 31 May 2017

Time: 2 - 3.30pm

Room: 216

The objectives of this were:

This joint YSN and UN-Habitat GLTN session exposed participants to improvements in the Social Tenure Domain Model including ease of customisation, web-based development and approach, and readiness for release of software platform QGIS 3.

The YSN provided an overview of young surveyors who have been trained in STDM between 2013 and 2017.

During this session the FIG YSN chair Eva-Maria Unger, announced its involvement and leading position in implementing STDM in areas of need. This pilot project is titled: FIG YSN Volunteer Community Surveyor Program and is (to begin with) a small scale short term pilot that helps GLTN/UN Habitat and FIG YSN to learn how a large-scale program might work in practice.

The VCSP is defined as a joint competence based volunteer program with GLTN (facilitated by UN-Habitat) and the FIG YSN.

VCSP is an innovative volunteer program that is a powerful driver for both social impact and professional development.

The VCSP leverages on the skills, experience, talents and education of young surveyors, matches this competence with the needs of GLTN, particularly in GLTN's county level implementation plans and programs.

For more information [here](#)

To sign up/register your interest [here](#)





To be continued...

Eva-Maria Unger
Melissa Harrington
Tuomas Jylhae

Chair FIG Young Surveyors Network
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