



FIG Young Surveyors Network

*2020 – 2021 Report
2021 Working Week*

Kwabena Obeng Asiamah

Chair, FIG Young Surveyors Network



During the past year, the FIG Young Surveyors Network, like many other groups face a new reality. However, as the surveyors of tomorrow, young surveyors did not relent in their efforts towards facing up challenges. From this new challenge came a silver lining. Our 5th Young Surveyors Conference (5YSC) held online last year in four different time zones in two languages, brought together 1,200 young surveyors from around the world.

2020 also ended with the completion of the term of our former Chair, Melissa Harrington. YSN is grateful for her inspirational leadership and service to the network first as vice chair, and then as chair. To the active young surveyors around the world who worked on our initiatives - the VCSP, Mapping the Plastic, Learning styles in Surveying, and the GeoNext teams, who kept the fire burning through these times. We are very grateful to you for putting in the effort to live up to the vision of this FIG term “Volunteering for the Future”. You are the heroes.

As we look forward into the next chapter of our network, our best days still lie ahead of us. So, let us join hands and continue working towards our vision, “To Inspire the Next Generation of Surveyors”.

Alone we can do so little, together we can do so much!
(Helen Keller)

Ferah Pirlanta Köksal

Vice-Chair, FIG Young Surveyors Network

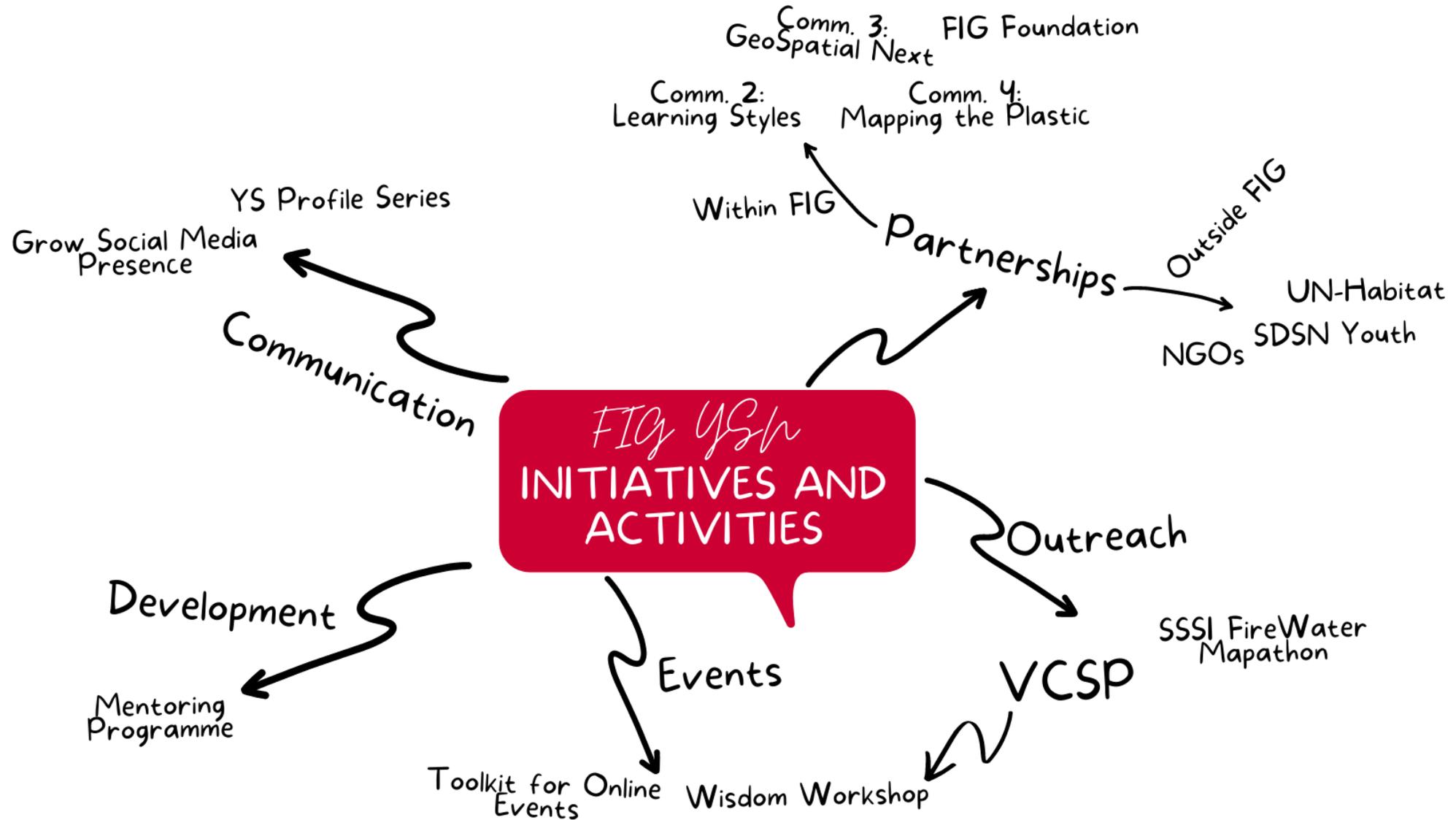
“Many small people, who in many small places do many small things, can alter the face of the world.”. As quote says, every little action that anyone does matters. FIG Young Surveyors Network was able to adapt to the “new normal” with having regional online events that had more people than people use to attend physically. Our former Chair Melissa Harrington and Kwabena Asiana had a successful term not only with this event but also with collaborations with FIG Commissions and working on VCSP.

The world is changing, and our profession is adapting and improving to the change every day. As Young Surveyors, our intention is to stay up to date, develop the network by collaborating, understand the importance of sustainability and raise more awareness on that.

I am excited for my new role as Vice Chair of FIG YSN and to be working with our Chair Kwabena for the next two years (along with my role representing FIG Young Surveyors European Network at Council of European Geodetic Surveyors (CLGE)). I look forward to the future of FIG Young Surveyors Network. We will work to stay connected within the regions, keep the current projects, and start valuable initiatives.



Summary of our Activities

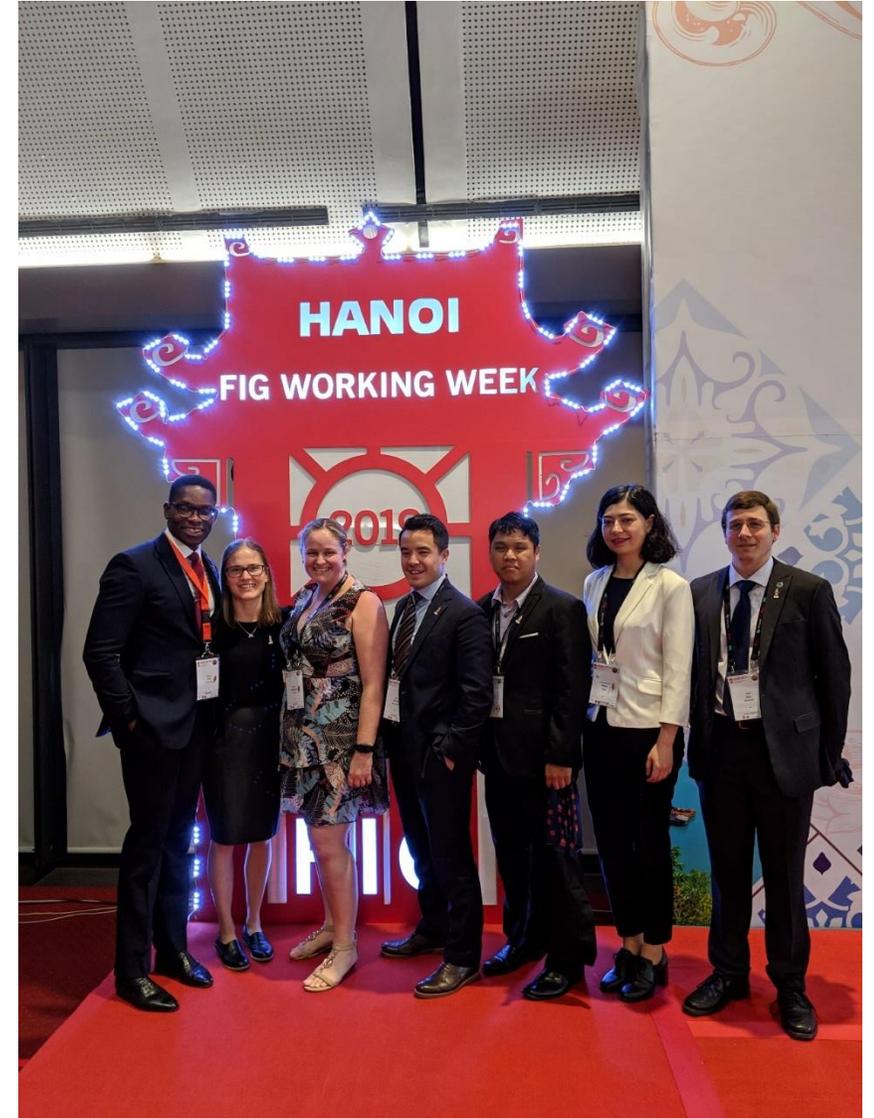


Advisory Group

The YSN Advisory Group is a platform and way to preserve the institutional memory of the network, allowing for the transition of knowledge between the FIG YSN and wider the FIG Network.

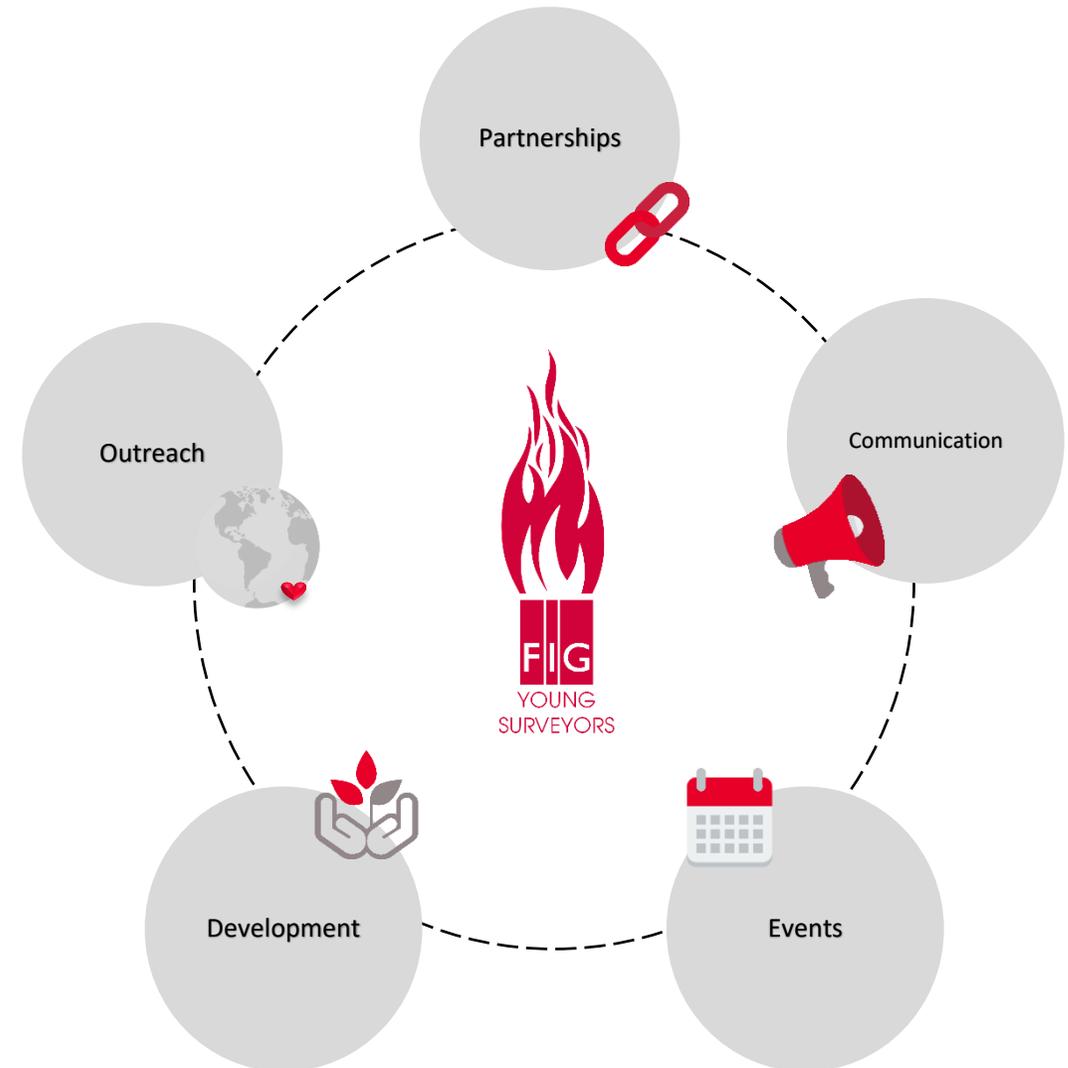
The YSN Advisory Group with invited members:

- Kingsley Yaw Sam, Africa Rep.
- Nel Underwood, Asia Pacific Rep.
- Ferah Pirlanta Koksak, Europe Rep.
- Jacob Heck, North America Rep.
- Melissa Roberts, South America Rep.
- Nigel Sellars, Ex-Officio
- Franka Grubisic, Ex-Officio
- Shirley Chapunza, Ex-Officio



Our Initiatives

- Five key initiatives to achieve the Vision for the FIG YSN
- Each have a purpose and an outcome, achieved through one or more projects.
- Existing Toolkits will be reviewed, developed and adapted regionally.



Partnerships

The aim of this initiative is to create new and strengthen existing partnerships to develop, exchange information and meet global challenges.

2020 Summary

Thank you to our partners for their continued support of the FIG YSN, in particular the FIG Foundation and Corporate Members. Without your support we could not hold events and connect YS from around the world to give back and build a better future for the surveying profession.

The following pages will provide an overview of our activities in the partnership initiative over the past year...





Commission 2: Learning Styles in Surveying Education

This is a joint FIG Commission 2 and FIG Young Surveyors Network project that is looking at the way students learn and study in the context of blended learning. Working group 2.3 will contribute to the final Commission 2 report *Enhancing Surveying Education through Effective Blended Learning* through considering the different approaches learners have in the context of blended learning. The aim of this questionnaire is to explore the learning and studying approach used by surveying students globally and better understand how these approaches differ across regions, age, religion and gender. This input will be informed by the questionnaire on learning styles and validation of these results in workshops at the Working Weeks in 2021 and 2022.

Progress since the endorsement of Work Plan in FIGWW in Hanoi in April 2019

A literature review was completed in 2020, the questionnaire was designed and ethics approval gained during 2020. Note that in this context “surveying” means all the professional areas covered by FIG Commissions. The questionnaire has been sent out through FIG networks and we currently have 190 responses, including from most regions of the world. Commission 2 will be presenting on these results at a workshop on blended learning at the 2021 Working Week for validation. **Chethna Ben** presented at the 5th Young Surveyors Conference: Social Distancing Edition on May 9th, 2020. Her presentation was on the work of WG2.3 including preliminary results of the questionnaire.



**Contacts: Chethna Ben (Fiji), Franka Grubisic (Croatia),
Mudit Kapoor (India)**





Commission 4: Mapping the Plastic

Millions of tonnes of plastic waste end up in our oceans every year and constitutes an environmental problem of global proportions with hugely significant negative impacts. The lack of a means to analyse the spatial and temporal extent and quantum of plastic waste is a significant obstacle to eradicating plastic waste from waterways.

Working Group 4.3, a joint Commission 4 and Young Surveyors Network undertaking, is FIG's response to this overwhelming plastics problem. Our objective is to enable the accurate mapping of plastic waste within waterways and provide regulators with reliable spatial information with which to identify unsustainable waste disposal practices, infrastructure shortcomings and inform robust land use controls with the goal of eradicating the dumping plastic waste into rivers.

Remote sensing data from satellites, airborne platforms and UAV's available in different spatial, spectral and temporal resolutions has the potential to provide long-term qualitative and quantitative assessment and monitoring of plastic pollution at specific 'hot spots'. Assessment of the spatial extent and variability of plastic is possible due to the unique spectral signature of polymers in the near-infrared part of the electromagnetic spectrum





Commission 4: Mapping the Plastic



Contact Person: **Melissa Harrington** (New Zealand)

Partnerships and Work to Date

Trimble has very kindly donated hardware and software to assist with field survey work in 'hot spot' areas. Young Surveyors Network volunteers will be involved with plastics surveys where possible.

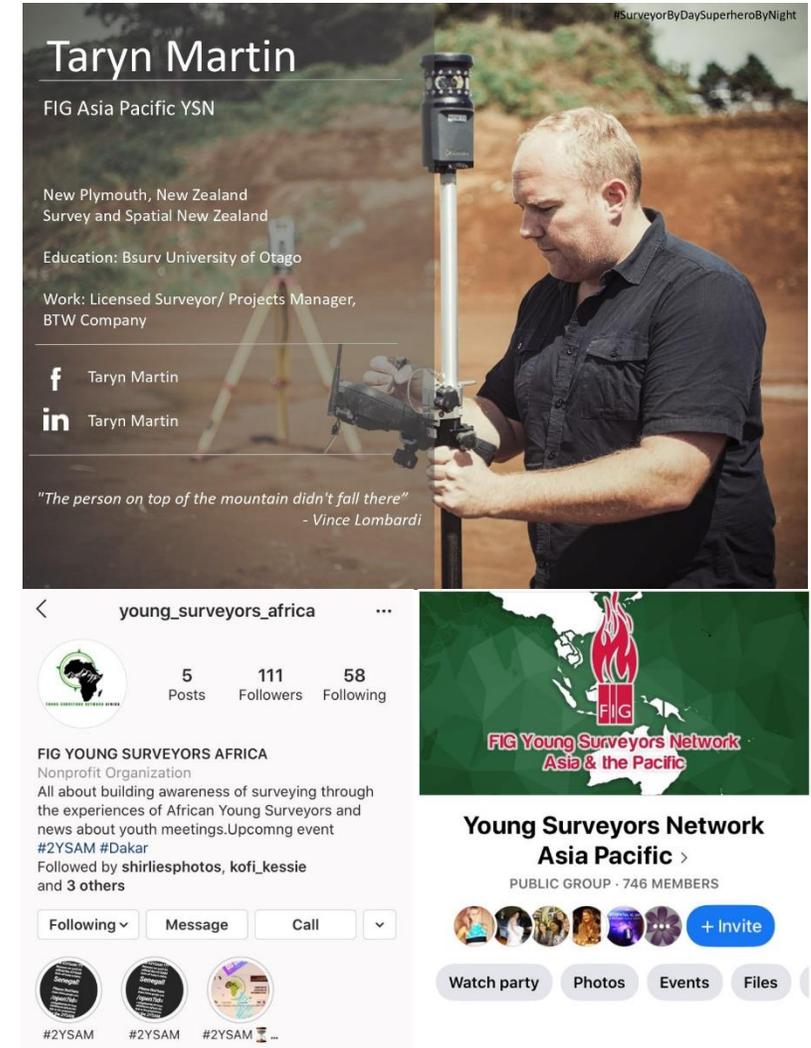
Relationships with GreenHub, Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Aotearoa Plastic Pollution Alliance (APPA) in New Zealand were formed at the 2019 and, despite Covid, have endured. Our involvement with the NZ Marine Geospatial Information Working Group has resulted in plastic waste being added as a database input of the national MGI inventory.

In May 2020 WG 4.3 and Greenhub submitted a proposal for the Plastics Monitoring in Vietnam Rivers Pilot Study to the World Bank and the Ministry of Natural Resources and Environment of Vietnam. This project is a pilot study of plastic pollution assessment using UAV/remote sensing techniques. Though bid was unsuccessful, a successful tenderer, the German Research Centre for Artificial Intelligence (DFKI), has been approached with an offer to co-develop strategies. FIG and in particular President Rudolph's assistance is needed our efforts to become involved in this project.



Communication

- Aim:
 - To improve communication and awareness of FIG and the FIG Young Surveyors Network via social media and other digital platforms.
- 2020 Summary:
 - An increase in the number of engagements on the Social Media Platforms.
 - Regeneration of [FIG Young Surveyors LinkedIn Page](#), and the creation of a company page for a smoother interaction with young surveyors.
 - [Young Surveyors' Profile Series](#) was continued and made more regular with features from around the world to promote regional networks and YSN ambassadors.
 - Participation in the FIG monthly newsletter.
 - Reporting of YSN activities outside FIG with an article in [Jan-Feb 2020 Issue](#) of GIM International - Page 31.





Communication



Our Social Media Activities so far...



Twitter
2330 Followers
1632 Tweets

Facebook
Page: 5,930 Likes
Group: 11,300 Members

LinkedIn
Group: 281 Members
Company page: 100 followers



10,000

Over 10,000 Young Surveyor Connections around the Globe



Outreach

- Aim:

To enable the Young Surveyors to be involved with volunteering and outreach projects to prepare young surveyors for the world (career and personal) by providing a unique perspective, and allowing them to connect, promote and share knowledge with others.





The Volunteer Community Surveyor Programme (VCSP)



We are Mapping the World a Better Place with the Volunteer Community Surveyor Program, an FIG YSN Outreach Initiative.

The FIG VCSP has had a successful first year of the four-year Way Forward Strategy. With one [e-Volunteering event](#), one [Wisdom Workshop](#), and two strong partnerships for our current deployments, the VCSP Team have managed to achieve all our goals for the year. It has been a massive learning experience for all of us who have been involved but we have had strong support from many new and potential partners including Cadasta, the GLTN, and the FIG Foundation. Along with funding from these fantastic groups and the FIG YSN allocating funds to this as the YSN Outreach program, other donations were made from private companies in Australia and Canada. But more are required in order for the VCSP to meet her goals over the coming three years.

Thanks to the efforts of Sylion and Tom, seven Volunteer Community Surveyors are currently deployed in Tanzania, Kenya, and Uganda (supported by the new VCS Mentors) and with enough funding, we feel confident that we can continue this trend and achieve our commitment. We are pleased to also announce that Trimble has generously supplied the VCSP with Catalyst units to use on deployments now and into the future thanks to Jordan's efforts.



Volunteer Community Surveyor Program

By UN-Habitat GLTN and the Young Surveyors Network of the International Federation of Surveyors (FIG)



The Volunteer Community Surveyor Programme (VCSP)



The VCSP Knowledge Portal remains a long term goal but we have made some serious ground including defining our concept and searching for appropriate technology and partners thanks to Chethna. What's coming this year? Well, keep an eye out for our plans for 2021-2022 on our social media pages, but in general we plan to strengthen our partnerships, continue the momentum we have started during the past year with further in-Country deployments, at least another Wisdom Workshop, and a number of e-Volunteering events. We will keep building our VCSP Core Team too and aim to have a fantastic website to show from our massive efforts of Roshni. There will be more opportunities for young surveyors to volunteer as we gain traction.

You will also see the VCSP represented well at the upcoming eWorking Week with most of our current VCSs attending the event and a number of our VCSP Team members presenting their papers. Learn more about the e-Volunteering Firewater event that we helped SSSI with in late 2020, learn about the benefits of the VCSP through the eyes of one of the original VCSs (Israel), and try upskill yourself at and e-Volunteering event in collaboration with Working Group 3.6, Geospatial Next.

Contact Person: **Claire Buxton** (New Zealand/Canada)



Map the world a better place!

If you haven't yet, please sign up to our mailing list via our new webpage: www.fig.net/vcsp

If you know of any potential funding partners, please share our [case for support](#) with them.



The SSSI FireWater Mapathon



In late 2019 and early 2020, Australia experienced a swathe of significant bushfires of unprecedented ferocity. The Surveying & Spatial Sciences Institute (SSSI) responded to the industry's desire to contribute in a positive way by organising a national-scale map-a-thon, their second bushfire-focussed mapathon of 2020 - the FireWater Mapathon.

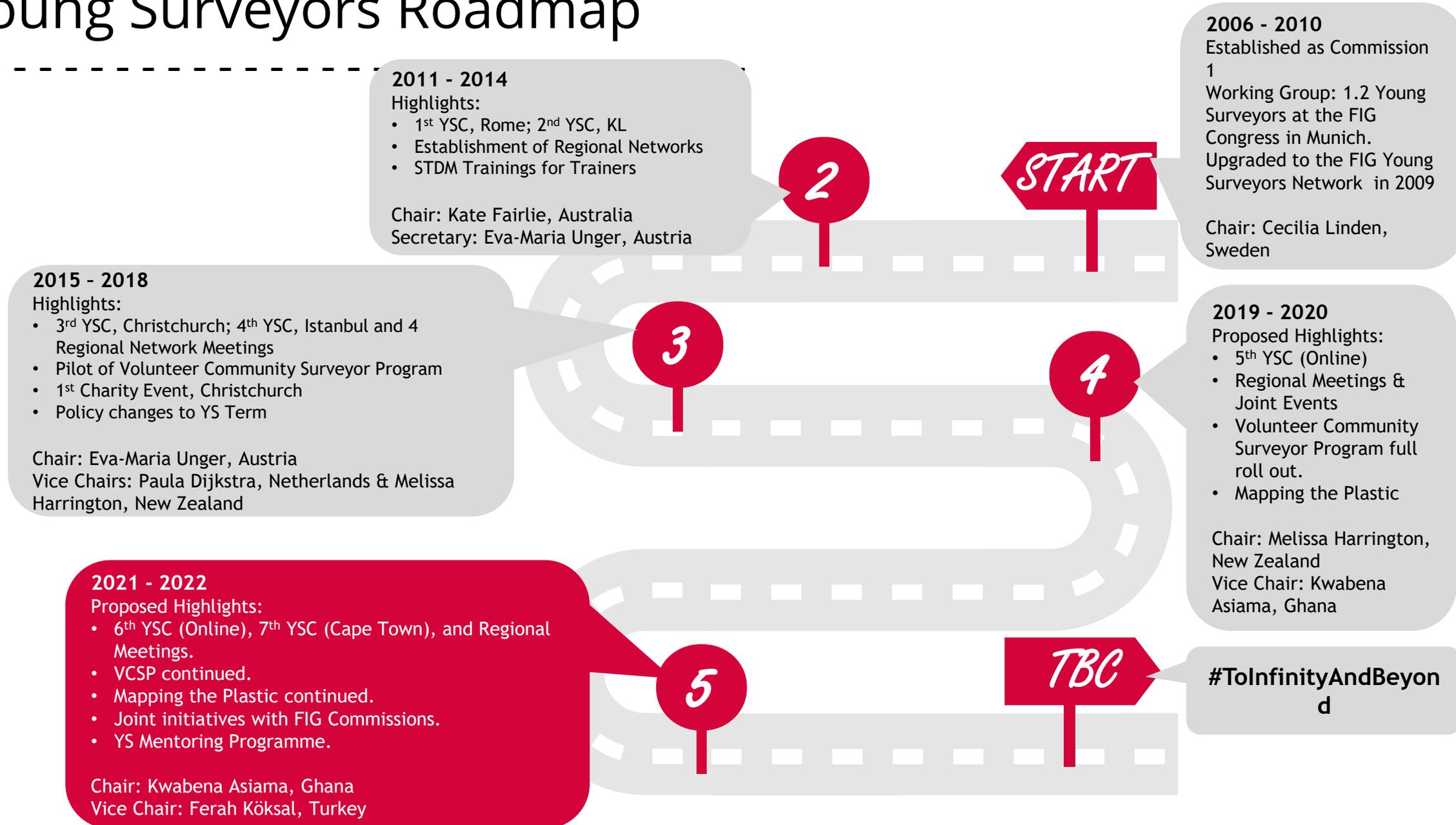
The FireWater Mapathon was held on 31 October 2020 and focused on bushfire preparedness efforts. Participants collected data on static water infrastructures (such as dams, water tanks and swimming pools) to support firefighting efforts by providing information on where these vital sources of water could be found for emergency management personnel to be validated and used to update the accuracy and completeness of foundation spatial data used by emergency management.

Over 400 e-Volunteers from 37 countries participated in the FireWater Mapathon over 24 hours, collecting spatial data on static water infrastructure to support bushfire preparedness efforts. In total, 515,000 hectares were mapped with over 37,000 new infrastructure features digitised. The VCSP team was key in providing 24-hour moderation to the SSSI Firewater Mapathon, and instrumental in bringing it to the global stage by utilising the 11,000-member strong FIG Young Surveyors Network.



Contact Person: **Roshni Sharma** (Australia)

FIG Young Surveyors Roadmap





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fig.youngsurveyors@gmail.com