Report to the 45th General Assembly FIG Working Week 2022, Warsaw, Poland

FIG Commission 2 – Professional Education

Report of Activities 2020-2021

1. General

Professional surveying education has strong traditions in face-to-face and active/practical learning supported by strong theoretical learning. The work of Commission 2 has focused on building on the 2010 FIG Publication 46 Enhancing Surveying Education through e-Learning and expanding this guidance to blended learning. Professional education has been through an unprecedented upheaval and restructure firstly to provide surveying education during the COVID pandemic, assessing the lessons from this emergency online teaching, and making decisions on how this informs future approaches to surveying education. It is now generally accepted that the future for surveying education will involve 'blended' (or hybrid) learning which combines face-to-face and online learning. During the first half of the current term, Commission 2 focused on learning the lessons from our emergency response to the pandemic. A challenge for surveying education is to develop the right blend of f2f and online education for each context.

As we head towards the end of this current Commission 2 term, understanding best practice options in blended learning is the priority issue for surveying education. During this term many surveying education institutions have been developing new ways to 'blend' the f2f and online modes of learning. IN response, the major activity of Commission 2 has been to develop a report on blended learning for surveying education. The draft report will be presented at the Congress and feedback received will inform the final version to be published in late 2022.

The theme of blended learning is also relevant to the concept of "life-long learning" and professional development is therefore relevant to Commission 2. This connection is discussed in a paper by the chairs of Commissions 1 (Winnie Shiu) and 2 (David Mitchell) as well as Stig Enemark and James Kavanagh presented at the 2020 FIG Working Week "On 'Blended' learning and the benefits for surveying education, professional development and 'life-long learning'". Commission 2 also has two key publications in 2021 (i) featured in the 2021 GIM International article by all FIG Commission chairs "Key global and technology drivers impacting Surveying: Reflections by the FIG Commission Chairs", and (ii) a publication by David Mitchell in the Coordinates Magazine "Surveying Education - Prospects and Challenges post COVID-19".

There were five Commission 2 sessions and a workshop at the 2021 FIG e-Working Week:

- 02.1 Regional Academic Networks: Lessons from COVID-19 for SDG Goal 4 (education)
- 02.2 Innovation in Professional Education during COVID-19 Session 1
- 02.5 Innovation in Professional Education during COVID-19 Session 2

- Blended Learning: lessons from our responses to COVID-19 WORKSHOP
- Coordination of Global to Regional Geodetic Efforts through the United Nations (Joint Com 2 & 5).

During 2020 and 2021 the work of Commission 2 was communicated through the Commission 2 website (http://www.fig.net/organisation/comm/2/) and social media: LinkedIn Commission 2 Group (https://www.linkedin.com/groups/7404450/), Facebook FIG Group (https://www.facebook.com/internationalfederationofsurveyors), FIG Twitter (https://twitter.com/FIG_NEWS), FIG Instagram (https://twitter.com/FIG_NEWS), FIG Instagram (https://www.instagram.com/figsurveyors/?hl=en).

2. Working Groups

2.1 WG 2.1 Developing academic networks for knowledge sharing

Working Group 2.1 aims to support regional academic networks sharing knowledge and experiences. The work of WG2.1 and case study FIG presentations have helped knowledge sharing and capacity building in regional academic networks. Drawing on this experience WG2.1 has contributed a section to the final Commission 2 report *Enhancing Surveying Education through Effective Blended Learning* with WG2.1 on regional academic networks. A key message is how they can support knowledge sharing and capacity building using blended learning approaches.

The Latin America Land Administration Network (LALAN) commenced in 2020 with funding from School for Land Administration Studies - SLAS (joint initiative of the Netherlands Kadaster and Faculty ITC). The experiences of LALAN were presented in recent FIG Working Weeks.

The Chair of WG 2.1 Dimo Todorovski in Joint Commission 7 and Commission 2 annual meetings during 2020 and 2021. Periodical communication between Chair Commission 2 and Chair WG 2.1 and FIG headquarters.

Organization of session for FIG WW 2022 Congress is underway and WG2.1 will present in **Session 2.4 Blended Learning for Surveying Education** on regional academic networks.

2.2 WG 2.2 Innovative learning and teaching / "Curriculum on the Move"

Innovation in learning and teaching remains a key priority for Commission 2 with 2 sessions at both the 2020 Working Week (15 papers), and the 2021 e-Working Week (12 papers) focusing on Innovation.

WG2.2 have made a major contribution to the final Commission 2 report *Enhancing Surveying Education* through Effective Blended Learning, relating to the challenges and best practices in blended learning.

WG 2.2 organised and chaired one session within FIG WW 2019.

Commission 2 ran an online workshop at the 2020 FIG Commission 7 Annual Meeting in October 2020 - Session 2: Blended learning: lessons from our responses to COVID:19. Moderated by David Mitchell, with Chethna Ben as the Rapporteur, this session focused on the lessons from moving learning and teaching online during COVID-19 responses. The workshop included the following presentations and discussion:

- Chethna Ben, University of South Pacific, University of South Pacific experience in online learning for students across many islands.
- David Mitchell, RMIT University, How are students learning and studying during COVID-19: Preliminary results of student questionnaire
- Dimo Todorovksi, University of Twente, Blended learning: lessons from our experience regard response to Covid19; Faculty ITC, University of Twente, the Netherlands
- Kelly Lickley, RICS Online and Blended learning in RICS professional development
- Followed by a discussion

This theme was built upon at the 2021 FIG Commission 7 Annual Meeting, with Commission 2 running an online Annual Meeting and seminar in September 2021. Chaired by David Mitchell (chair) and Dimo Todorovski (chair-elect), this seminar involved presentations on progress with each of the final Commission 2 report chapters and a flood discussion with feedback and suggestions for each chapter. This discussion has informed the development of the report.

Organization of session for FIG WW 2022 Congress is underway and WG2.2 will present in **Session 2.4 Blended Learning for Surveying Education** on god practices in blended learning. In this session, the major Commission 2 report will be presented for feedback and discussion.

2.3 WG 2.3 Joint Commission 1 and 2/YSN working group - Learning strategies and approaches 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 has made a big contribution to the final Commission 2 report *Enhancing Surveying Education through Effective Blended Learning* through the questionnaire on learning preferences and approaches in the context of blended learning. The members of WG2.3 contributed to a chapter in the final report on lessons learned from the response to the pandemic, including the perspectives of students and staff.

Progress since the endorsement of Work Plan in FIGWW in Hanoi in April 2019 The questionnaire was distributed through FIG networks with around 200 responses from most regions of the world. Commission 2 will be presenting these results at a workshop on blended learning at the 2021 Working Week for validation.

Chethna Ben presented the work of WG2.3, including results of the questionnaire **at the 5th Young Surveyors Conference** and the 2021 Commission 2 Annual Meeting and Seminar.

3. FIG/FAO Academic Forum

A Letter of Agreement between FIG and FAO was in place for 2020. The general objective of this Letter of Agreement is to disseminate the "Guidelines", raise awareness, develop capacity, engage professional, academic and teaching institutions, and develop partnerships and networks between FAO Tenure staff and FIG surveyors as key land, natural and built environment professionals globally and regionally, towards improved governance of tenure and support to the application of the "Guidelines". Within the context of the FIG Work Plan, the FIG Council has a vision 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."

The academic forum at the FIG Congress in Warsaw is session **TS09B: FIG Academic Forum: VGGT and UNCCD COP 14**. This session is organized in cooperation with FAO and will be broadcast. The VGGT and improved governance of tenure are one of the main thematic tracks of the FIG Congress. This joint FAO/FIG session presents experiences related to the integration of the VGGT into the implementation of the United Nations Convention to Combat Desertification (UNCCD). In 2019, the 14th Conference of the Parties to the UNCCD adopted a landmark decision on land tenure. Decision 26/COP14 acknowledges the importance of secure land tenure for addressing desertification, land degradation and drought (DLDD), and for improving human wellbeing and livelihoods. To date, the UNCCD stands as the only multilateral environmental agreement to explicitly focus on land tenure.

4. Commission 2 at the upcoming FIG Congress, 11-15 Sept 2022 Warsaw, Poland

- In addition to the FIG/FAO Academic Forum there will be 5 sessions involving Commission 2:
 - o TS07F: Innovation in Curriculum
 - TS04E: Blended learning in practice
 - TS01F: Professional Standards, Practice Development and Lifelong Learning: Joint Commission 1 and 2
 - TS03A: Blended Learning for Surveying Education
 - o TS03B: Coordination of global capacity development: Joint Commission 5 and 2
- The Commission 2 meeting will be held in the lunch break on Monday, 12 September between 13:00–14:30. In this meeting we will discuss the development of the upcoming FIG report, and have preliminary discussions on working groups for the next term 2023-2026.
- Commission 1 and 2 joint dinner at the FIG Congress Commission 1 and 2 will once again join
 together to organize our commission dinner at a local restaurant. This is always a great chance to
 catch up with friends and meet new colleagues.

5. Cooperation with other Commissions

Professional education was a key theme in the 2020 Working Week in the Commission 5 session: *FIG AP CDN / UN GGIM AP / UN SCOG ETCB - Open Meeting* to seek comments from delegates interested in geodetic capacity development matters, operational, academic, scientific, commercial and leaders in geodetic surveying. Commission 2 also had a joint session with Commission 5 at the 2021 FIG Wokring Week entitled "Coordination of Global to Regional Geodetic Efforts through the United Nations". Commission 2 and 7 held a joint session at the 2020 FIG Working Week *TS05A - Responsible Land Administration Teaching Essentials* (*Commission 2 and 7*). Commission 2 has also held annual meetings and workshops at the 2020 and 2021 FIG Commission 7 Annual Meetings.

As mentioned above, Commission 2 is involved in joint sessions with Commission 1 and Commission 5 at the 2020 FIG Congress:

- TS01F: Professional Standards, Practice Development and Lifelong Learning: Joint Commission 1 and 2
- TS03B: Coordination of global capacity development: Joint Commission 5 and 2

6. Concluding remarks

I would very much like to acknowledge and thank the significant contribution from many members of Commission 2 to the events during this current term and also into the conception and writing of our upcoming FIG publication on blended learning. The achievements of Commission 2 would not have been possible without this volunteer efforts from many people.

I would als like to congratulate Dr Dimo Todorovski for being elected as the chair-elect for the term 2023-2026. I know that Commission 2 is in very good hands going forward. I want to thank the Commission 2 community very much and look forward to your continuing engagement.

David Mitchell Chair, FIG Commission 2 www.fig.net/commission2