# FIG Commission 2 – Professional Education

# Work Plan 2015 – 2018

### 1. Title

Professional education

### 2. Terms of Reference

- The domain of professional surveying education (vocational, higher and academic education, and continuing professional development)
- The role of professional education and its relation to the public sector, private sector and professional organizations.

# 3. Mission statement<sup>1</sup>

Promote good practices in professional surveying education by:

- Exploring the needs of society and endorsing universities and other educational organizations to develop mechanisms and processes that will help to meet those needs.
- Supporting and promoting advances in survey education through identification of core surveying knowledge
- Promoting cooperative ventures in surveying education and research
- Supporting the building of capacity for surveying education in the developing world
- Reinforcing contacts to educational commissions of related professions

# 4. General

FIG Commission 2 is the domain of professional surveying education. The traditional core areas for the commission are: 1) curriculum and core surveying body of knowledge, 2) teaching and learning methodology, 3) marketing and management of professional education and 4) accreditation and quality assurance.

During the last term Frank (2008, 2012) and Greenfeld (2010, 2012) centred on the understanding of the surveying core body of knowledge. Recent developments and discourse justify the broadening of the scope of FIG Commission 2 from surveying education to educating

<sup>&</sup>lt;sup>1</sup> <u>http://www.fig.net/commission2/index.htm</u> (assessed 15.01.2015)

the land professional (Enemark & Williamson, 2004; Enemark, 2008, 2009, 2010; Magel et al. 2009; Mitchel & Enemark, 2008).

Innovative learning and teaching has always received major attention in FIG and FIG Commission 2. This is reflected in the work of Enemark (2004, 2007, 2009; Enemark & Gallant, 2012) promoting innovative teaching and learning approaches in surveying education, in particular project- and problem-based learning. E-learning, open learning and knowledge management achieved major attention by Markus (2005, 2008, and 2010). The work on elearning resulted in the most recent publication by FIG Commission 2: FIG Publication No. 46. Enhancing Surveying Education through e-Learning. Markus (2010) mentioned the following two challenges for FIG Commission 2 that are still highly relevant to consider: ubiquitous learning and open education. For the new term these will be embraced and further explored.

There has been a noticeable trend in recent years, particularly in English speaking countries, of a declining population of surveyors and the need to attract promising young surveyors into surveying (Frank, 2010). Various approaches and recruiting tools have been developed and shared during recent FIG Commission 2 events.

Developing educational and skills qualifications of surveying professionals and technicians is one of the other main concerns for FIG Commission 2. For some countries this is of more concern than others. In the United States ABET is used to allow standard recognition of educational surveying qualifications (Frank, 2007, 2009, 2010). In the United Kingdom, RICS has developed educational criteria that allow universities to assess the suitability of their curricula to the professional needs (Plimmer, 2003; Frank, 2010). With the rapidly changing surveying profession it is a continuous challenge to maintain a system of standardization. The former chair of FIG Commission 2 has worked intensively on defining educational surveying qualifications and in relation to the core surveying body of knowledge and learning and teaching methodologies (Frank, 2012).

For its new term, 2015 -2018, FIG Commission 2 will continue to build on the work carried out by the former commission chairs. FIG Commission 2 has developed for the term 2015 - 2018 the following focus areas. These will be discussed and worked out in concrete actions during the first Commission 2 meeting in 2015:

### Becoming an active Commission

- Attracting more contributing members and strengthening the working groups
- Increase visibility and impact

#### Professional education world-wide

- Stimulate world-wide participation and exchange
- Special attention to professional education in the countries/member associations less represented at FIG events,

The chain of professional surveying education

Supporting the education continuum in surveying education: vocational education, higher education and academic education. Towards inclusion of polytechnics and vocational training institutions in the work of FIG Commission 2 activities

Towards educating the land professional

- > Preparing for new challenges in the surveying profession
- > Bringing land administration and land management into the surveying education

One (or more) of the vision statements will be selected for an FIG Commission 2 publication.

In addition to the specific activities above, Commission 2 will support and contribute to FIG Task Forces, Permanent Institutions and Networks, in particular to the Young Surveyors Network, the OICRF and the FIG Foundation.

### 5. Working groups

The work of FIG Commission 2 is organized in four working groups. Each of the working groups represents an area of focus in professional surveying education. During the four-year term of office workshops at least one Commission 2 workshop will be organized. Ideally, each planned event will focus on one or more themes from a working group.

### Working group 2.1 – Towards educating the land professional

#### **Objectives**

- To share good practices in surveying curricula and programs across educational institutions and across countries
- To suggest changes in curricula and propose new educational programs to respond to the changing nature of the surveying profession
- To discuss and describe core competences (knowledge, skills and attitudes) for the education of the land professional

### <u>Chair</u>

Dr.-Ing. Fahria Masum (Germany): masum@landentwicklung-muenchen.de

### Co-chairs

Reshma Shresta, Nepal, (<u>shrestha19012@itc.nl</u>) and Gordon Waymuba, Kenya, (<u>gowayumba@gmail.com</u>)

### Specific projects

The recent discussion in FIG Commission 1 on the definition of a surveyor (see the discussion on LinkedIn, FIG Commission 1) will guide the FIG Commission 2 and in particular Working Group 2.1 for its new term. The concept of the land professional, the land administration and/or land management professional and related curricula and core body of knowledge will a particular challenge for Working Group 2.1 during this term of office.

The working group will further be involved in developing initiatives to support professional education at other levels than the academic education, such as the level of polytechnics and vocational training institutions.

### <u>Workshops</u>

- From 25 27 of November 2015 the Workshop "Strengthening Education for Land Professionals and Opportunities for SDI Development" will take place in Kathmandu, Nepal. The workshop will be organized by the Nepal Institution of Chartered Surveyors (NICS) and the Nepal Remote Sensing and Photogrammetric Society (NRSPS); jointly with ISPRS Working Group IV/4. Website: www.workshopnepal2015.com.np
- 2. The intention is to organize a workshop on professional surveying education in Africa. The Eastern African Land Administration Network (ELAN) is interested to host such a workshop next to their annual meeting. Proposed time: 2016.
- 3. A combined international Commission 2/Commission 7 workshop on cadaster, land administration and land management education. The intention is to bring together the universities/institutions working in the land administration and land management domain. Relevant international bodies such as UN Habitat, GLTN, FAO and WB should be involved. Cooperation with ESRI, Thomson Reuters and other corporate members needs to be explored. The ITC University of Twente will be the host organization. Proposed time: 2018

### **Publications**

- Technical papers at Working Weeks, Regional Conference and Commission 2 workshops.
- Workshop Proceedings
- FIG Publication: 'A framework for land administration and land management professional education' together with Commission 7.

### Time table

- Draft publications will be presented and discussed at the FIG Working Weeks
- Working group final report and publication will be presented at the dedicated session during the FIG Congress in 2018.

### **Beneficiaries**

• Higher education institutions, national associations, governments, international governing bodies, cadaster and land registration organizations; chartered surveyors, private surveyors and FIG Corporate Members.

# Working Group 2.2 – Innovative learning and teaching

### **Objectives**

• To exchange and promote good practices in teaching and learning methodologies in professional education of the surveying and land professional

- To make recommendations for learning methods and teaching formats under specific circumstances: distant learning, off-the-job-training, life-long learning and continuous professional education, and organizational learning.
- To promote ubiquitous learning and open learning approaches
- To promote organizational learning in FIG and its members
- To support the FIG in promoting innovative ways of organizing workshops, conferences and congresses.

### <u>Chair</u>

Dr. Audrey Martin (Ireland): audrey.martin@dit.ie

### Specific projects

The new chair of this working group will continue to work on e-learning as an important aspect of innovative learning in surveying education. There is a tentatively plan for a workshop in Dublin for May/June 2016. The FIG Commission 2 Workshop could be linked to the annual DIT eLearning Summer School.

Strengthening knowledge management and organizational learning in FIG and its members will be a theme for this working group. The use of OICRF, Surveying Reference Library and Surveying Education database, as a knowledge and learning platform for FIG will be explored and further developed. This will be done together with the responsible members and the FIG Secretariat. The new FIG website is an important factor in this initiative.

FIG Commission 2 intends to support the FIG Council in designing dynamic technical sessions, use of innovative ways of reporting, organising challenging workshops and promote the online involvement and participation. This should be achieved by working together with Young Surveyors Network and the FIG Secretariat.

### Workshop

• FIG Commission 2 Workshop in Dublin linked to the annual Dublin Institute of Technology eLearning Summer School. Proposed period: May/June 2016.

#### **Publications**

- Technical papers on e-learning and innovative approaches in teaching and learning during Working Weeks, Regional Conference and Commission 2 workshops.
- Workshop Proceedings
- FIG Learning Platform

### Time table

- Special sessions during all FIG Working Weeks and Regional Conferences and during FIG Commission 2 Workshops and other relevant commission events to discuss the FIG Learning Platform
- Working group final report will be presented at the dedicated session during the FIG Congress in 2018.

### **Beneficiaries**

Higher education institutions, surveying professionals, Young Surveyors and potential surveyors, FIG Office and Secretariat and FIG Members; FIG Corporate Members; public in general (open access).

# Working Group 2.3 – Demand for and supply of Professional Education

### **Objectives**

- Promoting the interest by potential professionals in surveying education.
- Marketing of professional surveying education
- Increase opportunities to pursue surveying education all over the world.
- Explore how to strengthen the education continuum in surveying education: vocational education, higher education and academic education.
- Bridging the gap between the education sector and the labor market

# <u>Chair</u>

Dr. Nadezda Kamynina (Russia) (kamyninan@gmail.com)

### Special projects

In the European Union programs are going on to stimulate, raise awareness and increase student enrolment in surveying education. There are programs addressing the relation between surveying education and the labour market. It is foreseen that in the new term working group 2.3 will pay attention to these European developments and experiences from programs such as: GeoSkills Plus (Leonardo program), the Tempus GE-UZ and the LLL GI-N2K among other initiatives.

The Young Surveyors within FIG have a strong interest and can contribute much to this working group. Some Young Surveyors will join this group for the new term.

# <u>Workshop</u>

Workshop to share European experiences in the GeoSkills Plus (Leonardo program), the Tempus GE-UZ, the LLL GI-N2K program and other European initiatives related to the demand and supply of surveying professionals and education. Workshop proposed for 2017; could be combined with the workshop in Dublin by Working Group 2.2.

# Publication(s)

- Technical papers at Working Weeks, Regional Conference and Commission 2 workshops.
- Workshop Proceedings
- Publication(s): Conditions and principles of marketing professional survey education. <u>Time table</u>

- Draft publications will be presented at FIG Working Weeks according to the timetable to be developed by the Working Group Chair.
- Working group final report will be presented at the dedicated session during the FIG Congress in 2018.

#### **Beneficiaries**

Individuals, potential surveyors, higher education institutions, vocational schools, society, labor market, public and private sector; FIG's corporate members; young surveyors and potential surveyors.

### Working Group 2.4 - Accreditation and Quality Assurance

**Objectives** 

- To compare and support academic accreditation of surveying education programs
- To explore and support the mutual recognition of surveying education degrees

### <u>Chair</u>

Prof. Alias Abdul Rahman (alias.fksg@gmail.com)

### Special projects

The globalization of surveying education poses questions concerning the rigor of survey programs and the appropriate depth and breadth of topics within the various programs (Frank, 2010). The mutual recognition of surveying education degrees in the world will continue to be a main issue for FIG Commission 2 and in particular Working Group 2.4. Cross-border professional education and internationalization (accreditation, standards) are two other related themes.

Workshop(s) To be decided

### Time table

- Outcome of activities will be delivered according to the timetable to be developed by the Working Group Chair
- Working group final report will be presented at the dedicated session during the FIG Congress in 2018.

### **Beneficiaries**

Higher education institutions, surveying professionals, licensed and chartered surveyors, employers and governments; national associations.

#### **Publications**

• Technical papers at Working Weeks, Regional Conference and Commission 2 workshops.

Workshop Proceedings

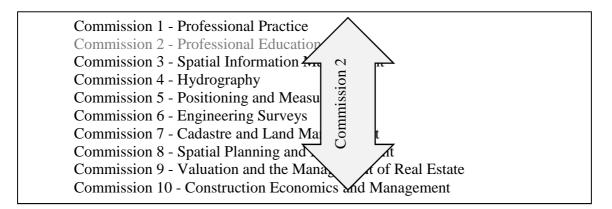
# 6. Academic Forum

The Academic Forum is the platform for FIG Academic Members. Traditionally Commission 2 has a leading role in the Academic Forum. During the FIG Congress 2014 in Kuala Lumpur the Forum discussed and prepared an initial statement on Academic responsibilities and the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT).

For its new term, FIG Commission 2 wishes to continue to play an instrumental part in the Academic Forum and working with the Council to explore partnership with FAO and FIG Academic Partnership program.

# 7. Relation to other Commissions and Task Forces

By its nature FIG Commission 2, Professional Education, has a relation to all the other technical commissions as is illustrated in figure 1. However, with some commissions it has a stronger relation than with others.



*Figure 1.* The position and function of FIG Commission 2 in relation to the other Commissions.

Commission 2 works closely together with Commission 1 and in particular with Working Group 1.1 - Changing Nature of Work and the Role of a Surveyor.

Commission 2 has a close connection to Commission 7 Cadastre and Land Management. The changing nature of the surveyor or land professional is best illustrated by the trends and developments in cadaster and land management.

FIG Commission 2 has a role in supporting the Young Surveyors Network, some of FIG Task Forces like Africa Task Force and the OICRF (The International Office for Cadastre and Land Records) (OICRF).

Traditionally the chair of FIG Commission 2 is a member of the FIG Foundation.

#### 8. Continuous Commission activities

- LinkedIn Group: <u>http://www.fig.net/commission2/index.htm</u>
- Newsletter
- FIG Surveying Education database: need for member to work on it!!
- Stimulate young surveyors involvement
- Improved communication and online involvement
- Engage with corporate members/associations/UN Bodies/WB/FAO
- Increase global reach and new membership.

#### 9. Commission Officers

#### **Commission Chair**

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#### Vice-chair and Chair Working Group 2.1

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### **Chair Working Group 2.2**

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