REPORT
Workshop "Students Today – Students Tomorrow: *Status and Vision*"

Kate Fairlie, Australia (on behalf of Cecilia Linden, Sweden, Workshop Facilitator)

1. Introduction

This workshop addressed student life around the world, with a focus on regional variations to studies and job prospects.

Two main topics were introduced: that of "*studies"* and "*soft skills*" with general questions to improve the flow of discussion including:

- *What are the priorities of studies in different countries?*
- *How are surveying studies marketed?*
- *What makes a student choose surveying?*
- *How do students attain jobs?*
- *What is the student contribution and/or involvement in their university, national representative body? And their knowledge of the FIG?*

Participants were split into four groups – a random process seeking for each group to have a mix of backgrounds, ages, cultures and nationalities. These four groups were led by Young Surveyors:

- Cecilia Linden, Sweden, Chair of the FIG Young Surveyors WG
- Thorsten Schwing, Germany, Vice-Chair FIG YS WG
- Kate Fairlie, UK/Australia, Regional Coordinator of the FIG YS WG
- Eva-Maria Unger, Austria, Austrian Student Representative

2. Workshop Results

Below follows a brief coverage of the discussion surrounding the topics given above, given in timeline fashion throughout a surveyors education. Table 1 also summarises key regional differences in surveying studies.

Discussions were free flowing and unrestricted – it was acknowledged that no one solution could be applied worldwide, because indeed different regions are facing different problems. Greater collaboration and interaction between FIG members and indeed the wider profession (beyond just "surveying") is required to ensure we are no longer 'recreating the wheel' but that each individual and group is moving forward in their expertise.

2.1 Getting to University

In general, it was acknowledged that the profession faces a significant problem in a lack of visibility: prior to university, few students know what surveying involves.

The European and developing country trend is that students attend university straight from high school. The US, UK and Australia differ slightly in that a small number of students (estimates of 10-20%) are "mature-aged", and have chosen to study to gain a professional qualification for the work they already do or as a complete career change. These two types of students have a different outlook on the 'university lifestyle' – younger students place greater emphasis on the choice of university and location than on the actual degree, lifestyle and having fun is seen as important. Older students are more career conscious, as too are some of the seemingly few scholarship holders.

In general, most students learn of surveying through personal contact – either a friend is a surveyor, or they have heard of the degree through university marketing. Many marketing examples were given that targeted primary and secondary school students, however it is still too early to determine the results.

Interestingly, few participant surveyors had sons or daughters that chose the career, many preferring "architecture" or "construction/property management" degrees out of a perception that these professionals 'managed' surveyors and the surveying workflow.

2.2 University

The structure and focus of surveying studies varies regionally. Across the European Union (EU) the Bologna process has been introduced, with an overall positive response. Some resistance is still felt, relating primarily to bachelor degree accreditation (few jobs *currently* are available to bachelor-only degree holders in Europe). There are concerns also over the time required to complete such a degree – UK students now require an extra year of study and students cannot

begin masters courses until they have completed the bachelor degree in its entirety.

There was general consensus that surveying should be addressed further in secondary education, and that greater workplace access (in the form of continuing professional development, or CPD) to university courses may be required (note that this is significant in the UK and Australia, but few reports of similar programmes elsewhere).

Australia is the only country in which students of surveying can simultaneously study any other degree (eg. A double degree B Engineering with B Arts or Law or Science etc.). The US and UK offer only a joint degree in surveying and civil engineering. In Europe, a "double degree" has the meaning that you receive a dual-country degree – ie: two degrees in the same discipline from two different countries.

In Austria the surveying degree has an overlap with Informatics. Many countries (eg. Australia) also emphasise the Information Technology (IT) element of surveying; Canada offers ties with biomedical imaging. In contrast to the European Union (EU) countries, many core subjects (such as Maths) are taught by non-surveying faculties in the US and Australia.

2.3 Paying for University

EU students pay per semester, the UK per year and the US and Australia per subject. The "price" of a degree increases along this scale – it most expensive in the US, quite expensive in Australia and the UK and relatively cheap by comparison in many EU countries (if not free!). The number of scholarships and subsidies is perhaps roughly comparable to the price of the degree – many developed nations are increasing the number of scholarships to attract surveying students.

The UK and US see high levels of student debt. Few nations see students working outside of summer breaks; Australians as the exception generally work part time (in the profession) throughout their degree (8-20hours per week) – and this is encouraged by lecturers.

2.4 International Exchange

A university in Paris recently implemented compulsory student exchange during their studies – this may also be the case in India. Student exchange was seen as essential to 'softskill' development, and should be encouraged in all cases. Within the EU, the Bologna process is seen as a strong aid to student exchange, although greater financial support is required.

Credit transfer is still difficult, and the costs of international study can be prohibitive.

2.5 Networking and Beyond University

Most countries have some form of networking, generally through their national organisation. Most experience difficulties in attracting active student participation. Seemingly in contrast to this, however, most students appear to find work via their network.

It is quite common for university staff to network internationally, albeit informally and 'haphazardly'. International student and young surveyor interaction is almost unheard of, and difficult to sustain throughout the dynamic transition of student to graduate to professional.

There has been little use of technological networking to date, however one shining example told how Jamaican students learnt practical 3D laser scanning methods through an Australian university via video teleconferencing.

Mentoring was considered by all participants as extremely important and under-utilised – greater facilitation and enabling is needed. Mentors need to be trained just as much as mentees.

3. Conclusions

The situation of students varies regionally, however there is a general trend of low participation in national and international representative bodies. Potentially this is as a result of confusion (which body to join?) or low marketing (who are you and what's in it for me?). The number and dedication of student volunteers at the Vienna meeting, in contrast, clearly demonstrated that when approached and invited this body was more than willing to help.

From an educational structure viewpoint, the Bologna process has increased transparency and international awareness, with the mobility of students a significant outcome. This mobility however does not translate into the workplace with professional accreditation not 'international' – this may restrict workforce mobility in the surveying sector, and does not encourage surveying 'aid' in non-EU European countries (eastern Europe) where significant shortages in senior professionals have been seen. Bologna has further

improved student funding (following on from ERASMUS).

Concerns remain about the integrity of the degree – there has been a growing focus on softskills, and whilst these are acknowledged as important it was largely agreed that they should be developed outside of the lecture hall, for instance, whilst on international exchange. With growing demands on student's time and finances, the core essentials of surveying (eg. Maths) should not be neglected.

Emphasis on new methods of knowledge transfer are also required to help bridge the gap between developed and developing countries and enable students no matter the difficulties of distance or cost. Technology is a key enabler to this, and should be better utilised across representative and educational bodies.

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	European Union	UK	US	Australia et al.
Pre-university awareness of surveying	Low Awareness of good job prospects in Eastern Europe/developing countries (eg. Bulgaria, Turkey)	Low	Low	Low Awareness of good job prospects in Eastern Europe/developing countries (eg. Bulgaria, Turkey, Asia)
University attendance	Straight after high school. Few mature age students.	~10-20% mature aged These are changing careers or accrediting professional experience. Professional development courses often run from universities.	~10-20% mature aged These are changing careers or accrediting professional experience.	~10-20% mature aged These are changing careers or accrediting professional experience. Professional development short courses often run from universities.
Scholarships	Few surveying-specific scholarships.	Few scholarships	Small number of scholarships, some surveying specific (based on competitions).	Several significant scholarships, some surveying specific.
Fees	Low Pay per semester. Low-Medium student debt	Medium Pay per year. High student debt	High Pay per subject High student debt	Medium Some student support (can defer fees; youth allowance) Pay per subject Low-Medium student debt
Structure	Bologna. Overall response positive. Some resistance: – Few jobs available to bachelor-only degree holders – Cannot begin masters if only one bachelor degree subject to go. Double degree possible only with the meaning 2 (same) degrees from 2 different universities in different countries.	Under Bologna UK students now require 1 extra year of study. Joint degree in Surveying and Civil Engineering possible	Similar to Australia. Joint degree in Surveying and Civil Engineering possible	4 year undergraduate, 1-2 year masters. Masters not a prerequisite for PhD studies. (exc. University of Melbourne similar to Bologna). Double degree (ie: 2 different degrees from same university) possible with almost any other degree (including Law, IT, Science, etc… but not other Engineering degrees)

Work during study	Few students work outside of summer breaks. Work during study is discouraged.	Few students work outside of summer breaks.	Unknown	Most Australian students work throughout their degree in the surveying profession. This is encouraged.
International exchange	ERASMUS, a university exchange and scholarship program encourages and enables international exchange A university in Paris has implemented compulsory student exchange, as may also be the case in India	ERASMUS	Unknown	International exchange is encouraged , some scholarships available. A small number of students take advantage of this however there are problems relating to exchange of credits and the language of instruction.
Beyond University	Work found using networks, university contacts. CLGE and LEONARDO. Sweden has "work fairs" at many universities, which promote graduate employment opportunities	Work found using networks, university contacts. Industry recruitment events are held at universities	Work found using advertisements, university and personal contacts	Work most often found early on in degree, students work part time and then continue full time on graduation. Many career fairs at university also. Strong local networks, students participate passively.
Networks	Mostly passive involvement, many opportunities – RICS has "matrix" a youth representative group. – Many national organisations, but active youth involvement rare – Many euro-centric international organisations, with strong participation	Passive involvement, several national representative bodies	Seemingly no national representative bodies/participation. Involvement, passive or other is state-dependent. No financial support to attend international events.	Mostly passive involvement. This has increased with Young Ambassador initiative of FIG2010. Some confusion over which organisation to join with state surveying, business, property and spatial representative bodies.

Table 1: Summary of Regional variations (Workshop "Students Today – Students Tomorrow: Status and Vision")