

**Report to the 31<sup>st</sup> General Assembly  
FIG Working Week in Stockholm, Sweden, June 2008**

**FIG Commission 2 – Professional Education**

**Report of Activities 2007-2008**

**1. General**

The Commission 2 Work Plan 2007-2010 building on the experiences of the previous period tries to fulfil and implement the FIG Council Work Plan. Commission 2 in general aims:

- To perform needs analysis of Commission representatives and FIG Academic members
- To develop further the FIG Surveying Education Database and facilities using educational and internet standards
- To organize annual workshops on actual topics related to education and training
- To investigate the use of information and communication technology to support networked professional education
- To organise, jointly with other Commissions, Regional Summer Schools for solving problems, filling educational gaps and for building communities within young professionals.

To support the development of the publication, the Commission will also conduct:

- Workshops
- Summer Schools
- Joint Projects.

**2. Activities**

**Working Week 2007**

12-17 May, 2007. Hotel Kowloon Shangri-La, Hong Kong, SAR

On the Annual Meeting Prof Bela Markus and WG chairs (Prof Arvo Vitikainen and Mr Gert Steinkellner) introduced the work plan accepted by the General Assembly.

A “Round Table on Education in Asia and the Pacific” and the “Meeting of FIG Academic Members” supported tuning the work plan, helping the needs analysis.

During the Working Week 6 technical sessions were organized by Commission 2. After the review 21 presentations were accepted and 17 papers presented. The main topics were as follows: Curriculum Development, e-Learning and Knowledge Management, Building a Sustainable Future, Marketing and Sustainability in Education, The Future of Surveyors. The average number of participants was between 15 and 20.

## **Preparation of a Summer School on Urban 3D modeling**

23-29. August 2008. Szekesfehervar, Hungary

**Aims:** To give an overview of modern data acquisition, data processing and modeling methods related to 3D modeling in urban environments. During the summer school students can take part in keynote lectures, practical hands-on exercises and fieldwork.

**Topics:** Heritage management, Data acquisition in Heritage management, 3D data sources, 3D data acquisition methods, Digital terrestrial photogrammetry, Laser scanning, Terrestrial laser scanning, Building Information Models, 3D modeling, bird's eye view, street view, 3D spatial analysis and visualization, 3D rendering, 3D animation

**Venue:** Lands and GI Knowledge Center, Faculty of Geoinformatics, University of West Hungary, Address: Budai út 43., Székesfehérvár, Hungary H-8000

**Target group:** The maximum number of participants is 50. Participation is open to all students and people interested in any of the following fields geoinformatics (e.g. UNIGIS), surveying, cartography, heritage management, municipal and regional planning, architecture, environmental sciences, disaster management, telecommunications

### **Joint Project proposal**

Spatial Data and Knowledge Infrastructure for Efficient Land Management (ELM) by Dr. Reinfried Mansberger BOKU - University of Natural Resources and Applied Life Sciences, Department for Landscape, Spatial and Infrastructure Sciences, Peter Jordan Strasse 82 A 1190 – Vienna

The objectives of the CEEPUS-network "ELM" are

- to develop a joint vision for land management in Central and South-East Europe
- to establish a framework for knowledge sharing on the topic of Spatial Data Infrastructure (SDI)
- to establish a framework for knowledge exchange on the topic of Land Management Processes
- to promote and enable international mobility of teachers and students in the field of the network
- to improve efficiency of land related processes by using ICT (Information & Communication Technologies)
- to harmonize the education and training in land management studies
- to make lobbying for future-orientated land management
- to build strong inter-personal and team skills by emphasizing collaborative coursework
- to bridge the gap between academic standards and up-to-date skills relevant in today's workplace

The CEEPUS-Network "ELM" by the proposal will start in the study year 2008/09.

## **3. Working Groups**

### **3.1 Working Group 2.1 – Curriculum development**

Policy issues

- To support the mobility among professionals, teaching staff and students using credit transfer.

- To support the implementation of „Bologna” changes (BSc / MSc / PhD / Professional masters) and recognition.
- To facilitate the harmonization of curricula.
- To define a “core knowledge base”.
- To guarantee life-long learning with educational and training services.
- To serve the needs in the new professional challenges.
- To exchange ideas on Quality Management and Accreditation.

Chair

Prof Bela Markus (Szekesfehervar, Hungary), email: mb@geo.info.hu

### Activities

#### **Symposium on Curriculum Development**

7-9 June, 2007. Czech Technical University (CTU), Prague, Czech Republic

The FIG Symposium with the motto of Scientia Est Potentia (Knowledge is Power) was organized in Prague, between 7 and 9 June 2007 in the cooperation with the Faculty of Civil Engineering at CTU and the Commission 2 – Professional Education. The Organizing Committee was chaired by Aleš Čepěk (CTU). The main purpose of meeting was to initiate discussion between Working Group 2.1 members, to introduce their experiences on Curriculum development. The papers were independently and blindly reviewed by 2 scientific committee members. All the accepted contributions (full papers) were published in the proceedings volume (ISBN 978-80-01-03718-8), on CD-ROM and on the symposium website ([http://geoinformatics.fsv.cvut.cz/wiki/index.php/Scientia\\_Est\\_Potentia](http://geoinformatics.fsv.cvut.cz/wiki/index.php/Scientia_Est_Potentia)).

During the meeting Working Group leaders presented the current activities of Commission 2, furthermore the workplan was reviewed in the light of the most important events for the period of 2007-2010. It was decided that a workshop on e-Learning will be organized in 11-13 June 2008, at ITC (Enschede, Netherlands) by Liza Gronendijk, chair of WG 2.2. The workshop will focus both on theory and practice of e-Learning, therefore Commission 7 sessions planned to involve. WG 2.3 on Educational Management and Marketing chaired by Gert Steinkellner, BEV (Vienna, Austria) will present their results in March 2009, in Vienna. Prof. Arvo Vitikainen (Helsinki, Finland), chair of WG 2.4 stated in the present world requirements for knowledge in real estate management are expanding fast, the educational programs have to have options where students can really specialise in real estate economics, therefore his WG prepares a meeting on the necessary changes.

Twenty-one presentations were given in nine sessions during the symposium. Professor Stig Enemark (Aalborg University) in his keynote presentation encouraged the interaction between education, research and professional practice, underlying the importance of curriculum development as the key to the future. The speakers represented 11 countries, educational and governmental institutes as well as private companies from all over Europe and also from Canada, United States and Hong Kong. There was a separate session summarizing the Bologna changes in Slovakia, Czech Republic, Canada and Croatia. One session was devoted to the e-Learning methods where the speakers presented their experiences on e-Learning tools, materials and some examples in teaching of surveying, cartography and geoinformatics with e-learning tools on computer-supported platforms. There was a brainstorming session to define a “core knowledge base” for surveying education moderated by Ann Johnson.

### 3. 2 Working Group 2.2 – e-Learning

#### Policy issues

- To explore the movement from traditional face-to-face teaching towards an integrated learning environment, the changing role of the academic staff.
- To discuss the technical, political, legal, organisational and cultural problems of e-Learning.
- To exchange experiences on content development methods (Multimedia, CBT, Quizzes etc) and student support (Virtual Club / Library, Communication techniques, Teamwork tools).
- To identify the Educational Portal functions
- To disseminate Educational Metadata

#### Chair

Liza Groenendijk, ITC (Enschede, Netherlands), email: groenendijk@itc.nl

#### Activities

**Preparation of an International Workshop** Sharing Good Practices: e-Learning in Surveying, Geo-information Sciences and Land Administration, Jointly organised by the International Federation of Surveyors (FIG) Commission 2, Commission 7 and the International Institute for Geo-information Science and Earth Observation (ITC).

11-13 June 2008 Enschede, The Netherlands

Rationale: Training institutions in the field of Surveying, Geo-information Sciences and Land Administration are more and more experimenting and implementing e-Learning approaches and tools in their educational practice. Through online learning, new forms of learning are possible and more students, like those in developing countries, can be reached. For many academic institutions e-Learning is a relatively new concept. But a growing number of institutions have gained experience with e-Learning and related educational concepts in recent years. Practical examples and good practices are now available.

Aim: The international workshop aims to bring together professionals engaged in e-Learning and distance education in Surveying, Geo-information Sciences and Land Administration. The workshop is meant to be an active event, offering the participants the opportunity to demonstrate and/or try out good practices and to share their experiences. E-Learning in Surveying, Geo-information Sciences and Land Administration in technologically less advanced countries will get special attention. Also, the changing requirements priorities in the application fields will be addressed.

Target group: Teaching staff, instructional designers, educational managers from universities and technical training institutes engaged in surveying, geo-information science and land administration; land professionals; geo-information providers (topographic survey institutes, cadastres, cartographic institutes), and relevant organisations and NGO's in the field of land administration and development cooperation. Participants from ITC's partner organisations in Africa, Asia and Latin America are especially encouraged to participate.

#### Key note speakers:

- Prof. Stig Enemark, President of FIG (Session through Video Conferencing)
- Nicholas Frunzi, Director of Educational Services, ESRI, USA
- Prof. Paul van der Molen, Vice President of FIG, ITC, The Netherlands

- Prof. Bela Markus Chair FIG Commission 2, UWH, Hungary
- András Osskó, Chair FIG Commission 7, Budapest Land Office, Hungary

#### Technical Sessions

1. Good practices in e-Learning and distance education
  - Practical examples: online courses, exercises, tools and approaches
  - ICT based courses for the surveying and land administration professional
2. Engaging in e-Learning
  - The changing role of the academic staff
  - Learning approaches and content development
  - Integrated learning environments
  - Costs and benefits in e-Learning
  - Blended approaches
3. Continuous Professional Development
  - The use of social software to support networking and lifelong learning
  - Student support (Virtual Club, Communication techniques, Teamwork tools).
4. International Cooperation and/in e-Learning
  - EduGi, EduSDR
  - Joint Educational Programmes
  - GI-NET and the role of e-Learning
  - Technical, political, legal, organisational and cultural problems of e-Learning
5. Educational needs and challenges
  - Changing priorities in the application fields
  - Expansion of the scope of Land Administration
  - e-Governance

#### Presentations of good practices

The scientific committee welcomes presentations which demonstrate good practices in eLearning: like examples of online courseware, online communication tools, and setup of virtual learning environments. Emphasis on typical e-learning objects in the field of Surveying, Geo-information Sciences and Land Administration. The scientific committee values presentations of good practices as an opportunity to stimulate discussions and exchange positive experiences.

#### Hands-on workshop

In addition to the presentations, a hands-on workshop session will be organized. The organization strongly encourages participants to demonstrate and try out in practice new e-Learning tools. In parallel sessions participants will be invited to demonstrate and/or participate in hands-on e-Learning sessions. Computer facilities and support will be available. Discussions on the use of these tools in different educational settings and countries.

### **3.3 Working Group 2.3 – Educational Management and Marketing**

#### Policy issues

- To observe and register the new challenges of our profession respond to them.
- To survey the needs for academic members and provide required services.
- To analyse the market and respond by LLL services.
- To promote the need on CPD (Continuous Professional Development).
- To disseminate experiences in recruitment and marketing.
- To distribute know-how in Project and Quality Management.
- To encourage young surveyors (students) on their career.

- To serve ALUMNI and use its power.
- To build twinning and thematic networks.

Chair

Gert Steinkellner, BEV (Vienna, Austria), e-mail: gert.steinkellner@bev.gv.at

#### Activities

- Technical session at the Prague Symposium
- Preparation of a Workshop on **Educational Management and Marketing**, March 2009. Vienna (Austria)

### **3.4 Working Group 2.4 – Real Estate Valuation and Management Education (Joint WG with Commission 9)**

Policy Issues

- Surveyors are traditionally well educated to basics of real estate legislation and markets. In the present world requirements for knowledge in real estate are expanding fast. It is not anymore possible to educate surveyors to all traditional tasks in unified programs but the programs have to have real options where students can really specialise in real estate economics. This is needed in the market (thousands of new jobs) and examples of some countries show that this kind of education is possible and also very attractive for students and markets.

Chair

Prof. Arvo Vitikainen (Helsinki, Finland), e-mail : arvo.vitikainen@tkk.fi

Co-Chair Prof. Kauko Viitanen (Helsinki, Finland), e-mail : kauko.viitanen@tkk.fi

#### Activities

In the spring of 2008 a comparative study on how the education of real estate economics is arranged in different countries will be made at the Department of Surveying, Helsinki University of Technology. The following countries are planned to be included in the study: the Nordic Countries (Finland, Sweden, Denmark, Norway), Germany, Austria, The Netherlands, Estonia, Poland, Hungary, France, Italy, Slovenia, Great Britain, Australia, USA. The study will be made by the students of the Candidate Seminar of Real Estate Economics as their Candidate Thesis. The study will be made as literature research and by interviewing the contact persons of FIG Commission 2 and teachers from various universities. The study will concentrate on comparing the education (real estate valuation, facilities management and land management), contents of the study programme, study entities and focuses, extent of the education (credits), number of students, teaching methods, and which different educational institutions the education is given in (which study programmes), etc. The outcome gathered from different countries will be composed into a summary report. The contents of the report will be preliminarily presented at the Commission 2 meeting at the FIG Stockholm Congress. It will be published in the future publication "The Future of Surveying Education" of Commission 2 and presented at the Sydney Congress.

#### **4. Communication**

**Commission 2 website:** In June 2007 the new website was introduced ([www.geo.info.hu/fig2](http://www.geo.info.hu/fig2)) as a communication tool to strengthen knowledge sharing, community building between the delegates, academic members and other parties interested in the FIG Commission 2 activities. The registration is controlled by Commission chair and WG leaders. The acceptance of the registration gives access not only for viewing, but also for publishing of news, important events in the event calendar, articles, presentations, photos, and it gives also possibility to take part actively in the forum of needs analysis and many other topics.

A special edition of Commission's Newsletter supported FIG WW in Hong Kong.

#### **5. Calendar of Events**

- Workshop on e-Learning, 11-13 June 2008, Enschede (Netherlands)
- Workshop on Educational management and marketing, March 2009, Vienna, Austria

#### **Commission Officers**

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**Bela Markus**  
Chair of FIG Commission 2  
February 2008

Commission web site: [www.fig.net/commission2](http://www.fig.net/commission2)  
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