


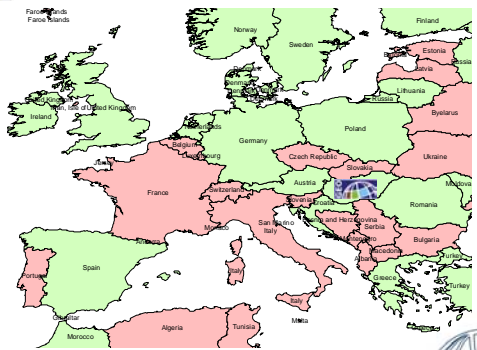


**Future Education Perspectives
FIG Commission 2**




**Bela Markus
University of West Hungary
College of Geoinformatics**

EU – FIG Academic Members



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GEO - branches

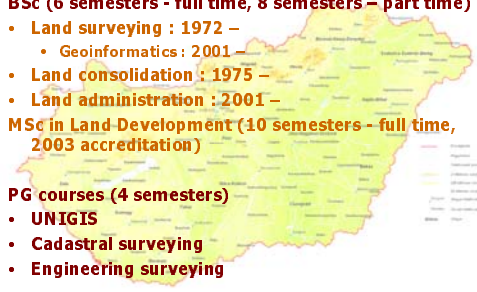
BSc (6 semesters - full time, 8 semesters – part time)

- Land surveying : 1972 –
 - Geoinformatics : 2001 –
- Land consolidation : 1975 –
- Land administration : 2001 –




MSc in Land-Development (10 semesters - full time, 2003 accreditation)

PG courses (4 semesters)

- UNIGIS
- Cadastral surveying
- Engineering surveying




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Hungary today

BSc - Generalisation

- From 400+ to 100 BSc branches
- Surveying
 - Surveying and Land Management – GEO
 - Within civil engineering - BUTE
- Cartography
 - Informatics - ELU



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GEO - changes

BSc in Lands (180+30 credits)




- Geomatics
- Land Management
- Land Administration
 - Law

MSc specialisations (120 credits)

- Geoinformatics
- Land-Development
 - Sustainable, Environment specific
- Real Estate Management
 - Economics



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CPD

**Just enough.
Just in time.
Just for you.**

- OLLO
- DLG
- NKP
- PRONET
- UNIPHORM
- SDILA
- LIME
- PANEL-GI
- EMGISc
- NODE
- URBAX



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**FIG Commission 2
Professional education**

Prof Pedro Cavero






Working Group 2.1 – Virtual Academy

Policy issues

- The movement from discrete computer assisted learning (CAL) tools towards an integrated virtual learning environment.
- Technical, political, legal, organisational and cultural problems.
- Copyright and accreditational problems
- The role of the lecturer and human communication in general.

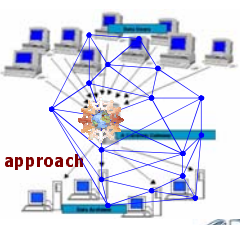
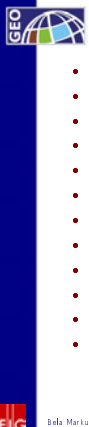

Chair

- Prof. Esben Munk Sørensen (Denmark), e-mail: ems@i4.auc.dk

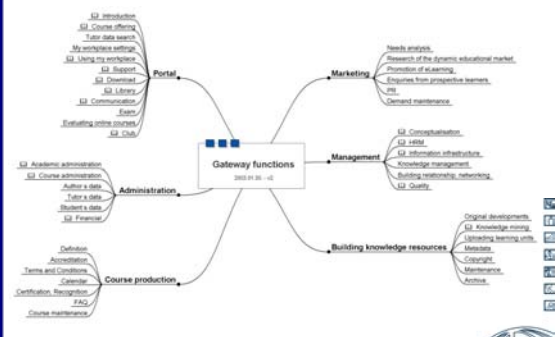





Gateway - organizational functions

- Marketing - Strategic needs analysis
- Authoring learning objects (metadata)
- Gathering - Knowledge mining
- KB (Content) management
- Interoperability
- KB analysis, evaluation
- Sharing knowledge units
- Accreditation, recognition
- Support PoLs / students
- Knowledge management
- Collaboration, Bottom-up approach
- Platform independency

Gateway functions

**Working Group 2.2
The Studies of Surveying in Latin America**

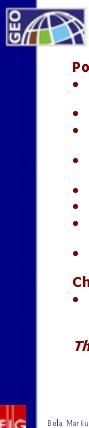

Policy issues

- To have a good knowledge of the educational situation in this continent
- To create an Educational Thematic Network which could help
- To establish strong links among academic institutions in Latin America
- To facilitate the free flow and exchange of ideas, projects and people among the institutions
- To facilitate the harmonization of curricula
- To facilitate a "common educational base"
- To facilitate mobility among professionals, teaching staff and students
- To improve the conditions of professionals, when and where it is necessary, and increase the work possibilities of the graduates

Chair

- Prof. Graciela Loyacono, School of Surveying, Universidad Nacional de Córdoba (Argentina); e-mail: loyaconog@infovia.com.ar

The results of this first step will be given in the regional meeting to be held in Latin America in 2005



Working Group 2.3 – Mutual Recognition

Policy issues

In the light of the achievements of the Task Force on Mutual Recognition of Professional Qualifications (1998–2002), and in order to support the principle of the free movement of surveyors world-wide, the primary aim of the Working Group is: To improve the knowledge and available information about relevant aspects of professional education in order to implement the process of mutual recognition of professional qualifications, with the aim of developing guidelines for implementing FIG policy in this area.

Chair

- Dr. Frances Plimmer (United Kingdom), e-mail: fplimmer@hotmail.com

Working Group 2.4 – Knowledge in SIM

A Joint Working Group with Commission 3

Policy issues


- To integrate the resources of the Commissions 2&3 using the experiences of professionals in knowledge transfer and the know-how of spatial information management (SIM)
- To analyse present status and trends of Information / Knowledge Management
- To outline the implementation of the results of Information / Knowledge Management in the Spatial World
- To define the necessary elements and routes of professional development in the rapidly changing area of SIM

Chair

- Prof. Bela Markus (Hungary), e-mail: mb@geo.info.hu

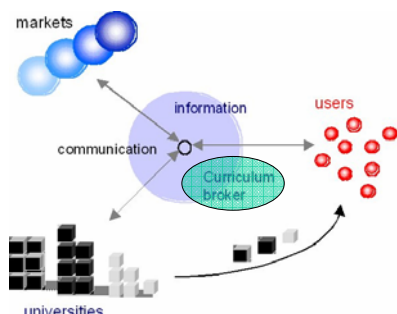
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Metadata



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Global market




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KM

- Data are simply pieces of information with no context.
- Data that can be viewed in context becomes information.
- Information that is analysed and can be applied is knowledge.
- When this knowledge is distilled, organized, stored and redeployed according to specific user needs, then an organization is employing Knowledge Management.



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Data / knowledge policy issues

- Development**
 - RAD methods
 - Interoperability
- Transfer**
 - Data management / Knowledge management
 - Data mining / Knowledge mining
 - Data sharing / Knowledge sharing
 - Data infrastructure / Knowledge infrastructure
 - Spatial Educational Data Infrastructure
 - eGovernment / eLearning
 - Industry – Academic partnership
- Networking**
 - Where to get data / knowledge
 - Twinning / Networked education

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WG 2.5 – Capacity building in Land Management

A Joint Working Group with Commission 7

Policy issues

- To study and develop integration of professional and land management projects, especially in developing and transition countries.

Chair

- Prof. Ulf Jensen (Sweden), e-mail: ulf.jensen@lantm.lth.se

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Working Group 4.4 – Education and CPD

A Joint Working Group with Commission 4

Policy issues

- **Hydrographic education & CPD**

Chair

- **Adam Greenland (United Kingdom), e-mail: adam.greenland@pola.co.uk**

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Working Group 9.1 – Education of Valuers

A Joint Working Group with Commission 9

Policy Issues

- Address disparity and deficiencies in educational programs and/or training of valuers in FIG member organizations.
- Education on valuation through information network in FIG (an integrated virtual learning environment). Let education move, not people.
- Educational ladder. A stepped way of advancing be planned for improving the knowledge of valuation.
- An educational package of valuation be created and offered on the homepage of FIG and intentionally, targeted to the developing countries and those economies under transition.
- Generate co-operation in education and create a network for supporting the contact persons.

Chair

- **Prof Kauko Viitanen (Finland), e-mail: kauko.viitanen@hut.fi**

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Workplan

2004-2006

- To develop further the FIG Educational database and facilities using educational and internet standards
- To perform needs analysis of Commission 2 members and FIG Academic members
- To reinforce contacts to Educational Commissions of International Organisations on the related professions (ICA, ISPRS, IAG AGILE etc.)

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Workplan

2006-2010

- **Communication**
 - To improve dissemination of information on educational theory and practice to the members across the world
 - To strengthen knowledge transfer between FIG Commissions, to inspire activities on knowledge networks
 - To organize annual seminars on actual topics related to education and training

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Workplan

2006-2010

- **Co-operation**
 - To investigate the use of information and communication technology can support networked professional education, like eLearning, educational platforms and portals etc.
 - To endorse international researches in surveying education and training and to initiate joint projects on this field (curriculum development, educational material development, joint MSc courses, quality assurance etc.)
 - To organise jointly International / Regional Summer Schools for solving problems, filling educational gaps and for building communities within young professionals

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Co-operation

- **ICA**
 - 21st International Conference on the History of Cartography, Budapest, 2-8 July 2004
 - Summer school
- **ISPRS**
- **IGSM**
 - Istanbul, 2005
- **EEGECs: European Education in Geodetic Engineering, Cartography and Surveying.**

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Future events – Comm 2

- eLearning, FIG WW 2005, 16-21 April, Cairo
- Knowledge Transfer, Comm 2/3+, Sep 2005, Budapest or Sopron
- IACS – Best practices, Summer School, 2005

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Future

- **Strategic issues**
 - Needs analysis (surveying the future)
 - Curriculum
 - Joint diploma, network development
 - Capacity building
 - Business models
- **eLearning**
 - ODL methods & technologies
 - Using web resources (eg. FIG Reference Library, forum)
 - Content development
 - Networked education
- **CPD**
 - Life-long learning, carrier
 - Building communities
 - Knowledge management
- **Recognition**
 - Quality management

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FIG Education Database - Discussion Groups

FIG Discussion Groups

Welcome to FIG Discussion Groups

FIG Surveying Education Database hosts the following discussion groups.

Discussion Groups for Universities and Institutions

- General Discussion for Institutions
- Current Research
- Current CPD
- Looking for Partners for Research Projects
- Looking for Partners for Students Exchange
- Virtual Academy/News on Virtual Programmes
- Academic Members

Discussion Groups for Students and their Organisations

- Students' Corner (General Discussion and Chatting Groups)
- Student to Student (Looking Contacts and Study Programmes)

For general description of the features of discussion groups and the etiquette, click the Help button on the navigation bar. These instructions are available on all pages of discussion groups.

All groups, excepting the Academic Members, are available for all users.

The page is maintained by the FIG Office. Last revised on 2001-03-23.

FIG Academic members

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Terima Kasih

mb@geo.info.hu

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Future project plans – Comm 2

- **EU**
 - **TEMPUS**

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Bologna objectives & TEMPUS

- adoption of a system of easily readable and comparable degrees;
- adoption of a system essentially based on two main cycles, undergraduate (bachelor - BSc) and graduate (master – MSc);
- establishment of a system of credits – such as in the European Credit Transfer System (ECTS) - as a proper means to promoting the most widespread student mobility;
- promotion of mobility by overcoming obstacles to the effective exercise of free movement;
- promotion of European co-operation in quality assurance with a view to developing comparable criteria and methodologies; and
- promotion of the necessary European dimensions in higher education.

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TEMPUS projects

The Tempus Programme awards three sorts of grants:

- **Joint European Projects** are structured projects to achieve clearly defined objectives over two, or three-year periods, and for which grants are awarded primarily to groups of institutions - universities - cooperating together ('consortia').
- **Structural and Complementary Measures** are shorter-term activities supporting national reform and targeting specific needs, with grants awarded through a relatively light selection and award procedure. These activities can have a duration from a few weeks to one year;
- **Individual Mobility Grants** are awarded to individuals – professors, lecturers, members of staff or ministry officials – in order to help them to travel to other countries for work related to a particular reform process. These grants can vary in duration from one to eight weeks.

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Joint European Projects

Three types of JEPs have been developed:

- **Curriculum Development Projects** focus on the content and method of teaching in higher education institutions in the Partner Countries. They aim to create new courses or update existing courses and to enhance the skills of teaching staff;
- **University Management Projects** focus on the restructuring of the management, organisation and administration of universities;
- **Training Courses for Institution Building** focus on developing the administrative and institutional structures of the Partner Countries through the provision of courses aimed at improving the practical knowledge, and up-dating the skills, of non academic staff.

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TEMPUS – eligible countries

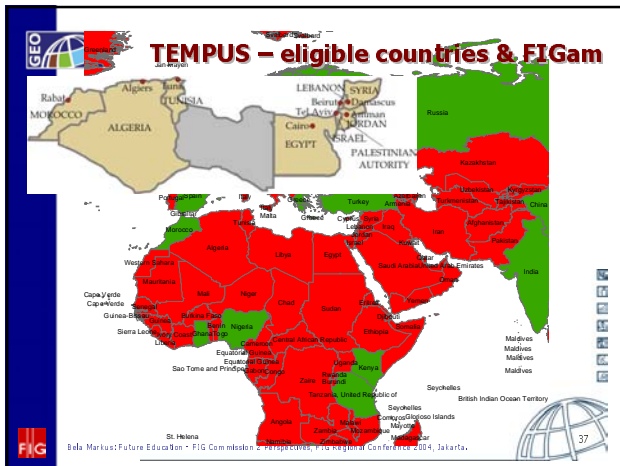
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TEMPUS – eligible countries & FIGam

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TEMPUS – eligible countries & FIGam

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Future events – Comm 2

- eLearning, FIG WW 2005, 16-21 April, Cairo
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GIS in Land Management 3rd International Summer School in GIS, 2003

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Working groups - 2003

The students will be enrolled into 4 thematic working groups, lead by the following tutors:

- **WG1: Land Administration and Cadastre** – Paul van der Molen (ITC) – Ádám Podolcsák (GEO),
- **WG2: Land Management and Rural Development** - Reinfried Mansberger (BOKU) – Judit Nyíri (GEO),
- **WG3: GeoInformation in Nature Protection** – Zoltán Vekerdy (ITC) – Takács András Attila (GEO),
- **WG4: Lands and Mapping – Impact of the EU accession** – Gerhard Muggenhuber (BEV) - Gábor Remetey-Fülöpp (MoARD).

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IACS – Best practices International Summer School, 2005

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Aims

- Next year SS will focus on the area of **Integrated Administrative Control Systems** and widening the perspective towards land administration, cadastre, land use planning, land consolidation, land development, data integration, change detection and analysis, environmental management
- Special emphasis will be given to the new **EU countries**

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Co-operation

- **ICA**
 - **21st International Conference on the History of Cartography, Budapest, 2-8 July 2004**
- **ISPRS**
- **IGSM**
 - **Istanbul, 2005**
- **Association of GI Laboratories in Europe**
 - **AGILE, Estoril, Portugal, 26-28 May, 2005**
 - **GISplanet, Estoril, Portugal, 30 May - 3 June, 2005**
 - **EUGISES, 2006**



EEGECS

„EUROPEAN EDUCATION IN GEODETIC ENGINEERING, CARTOGRAPHY AND SURVEYING“
SOCRATES THEMATIC NETWORK

- **WORKING GROUP 1: „UNDERGRADUATE EDUCATION“**
- **WG 2: An introduction to the paradigm of research in Geomatics**
- **WG 3: CONTINUOUS EDUCATION: Promote the use of innovating teaching methods, collaboration between institutions and create international master programmes, etc.**
- **WG 4:**
- **WG 5: Increase the mobility of undergraduate students, lectures, researches and administrative staff in Europe.**
- **WG 6: QUALITY ASSURANCE: Increase the quality of teaching and move towards a common accreditation system.**

