

Higher Education Reform Projects in South Eastern Europe

HRK Commitment 1999-2006

Beiträge zur Hochschulpolitik 6/2007

This publication contains presentations of higher education projects and funding possibilities, which were given in a South Eastern European Seminar in Kotor, Montenegro, in September 2006. Most of the presented projects result from the active support of higher education development in South Eastern Europe carried out by the HRK and its partner institutions over the period 1999-2006.

The HRK thanks German universities for the academic support and the German Federal Government as well as numerous German foundations and enterprises for the financial support of these activities.

The publication was financed with funds administered by the Federal Foreign Office within the framework of the Stability Pact for South Eastern Europe. The HRK thanks the Federal Foreign Office for its kind support.



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Introduction

This publication contains presentations on higher education reform projects in South Eastern Europe, which were given in the seminar "Strengthening Higher Education in South Eastern Europe – Results Achieved and Challenges Ahead" in Kotor, Montenegro, on 28 and 29 September 2006. Most of the presented activities were actively supported by the German Rectors' Conference (HRK) and its member universities over the period 1999 to 2006. The implementation of these projects was funded by the German Federal Ministry of Education and Research and the German Federal Foreign Office within the framework of the Stability Pact for South Eastern Europe as well as by numerous private foundations (Hertie Foundation, Stifterverband für die Deutsche Wissenschaft, Robert Bosch Foundation, Haniel Foundation) and enterprises (Consulting AG, E.ON Energy Bulgaria, Siemens AG). Meanwhile, a significant number of the projects succeeded in receiving further funding from national and European programmes. The HRK thanks all donors cordially for the financial support.

The seminar in Kotor was organised on the occasion of:

- the external evaluation of the HRK activities in South Eastern Europe (1999-2005) and associated peers' recommendations,
- the decision of the Stability Pact's highest decision-making body, the Regional Table, in Belgrade in May 2006 to transform the "Stability Pact for South Eastern Europe" from a conflict prevention initiative to a "regionally-owned Regional Co-operation Council" (RCC). The new RCC should be fully operational by early 2008.

Bearing this in mind, the specific objectives of the seminar were focused on stocktaking of seven-year-long project experience in higher education cooperation, networking of the projects, identifying development potentials of the projects and further funding possibilities in order to ensure the sustainability of the existing cooperation.

In this context it has to be highlighted that over the last seven years of cooperation, the project partners in South Eastern Europe significantly built their confidence and are now in the phase of taking initiative in their own transformation process. This publication can be seen as an evidence of this development.

However, especially at the given stage of their integration into the European Higher Education Area (EHEA) the HRK will stay a reliable partner in the region and will focus its future activities on the further support of the implementation of the Bologna Process, quality assurance and the development of human capital. Some concrete proposals for a future cooperation have already been made by the partners from the region during the seminar in Kotor.

The HRK thanks all participants for taking part in the seminar and all authors for their contribution to this publication. It also expresses its thanks to the University of Montenegro for hosting this event as well as to the German Federal Foreign Office for the financial support.

Rudolf Smolarczyk
Brankica Assenmacher

Looking into the Past for Future's Sake – 10 years of HRK Activities in South Eastern Europe

Dr. Gerhard Duda

German Rectors' Conference (HRK), Germany

HRK – Who are we?

- German Rectors' Conference – the political lobby organisation of German higher education institutions ("The Voice of the Universities")
- General Meeting, a Senate, a Board and a full time president who has to be a former rector (today: Prof. Margret Wintermantel)
- A supporting secretariate – staff: 70 persons
- My position: 1995-2005 responsible for relations with Central, Eastern Europe and since 2005 for European Union Research Policy

Bosnia and Herzegovina, 21-29 September 1996

- HRK and the German Academic Exchange Service (DAAD) organised the first trip of a group of 4 German scientists to Bosnia and Herzegovina after the war and the Dayton Agreement
- Universities in Mostar, Sarajevo, Tuzla and Banja Luka

Conclusions: We need

- material reconstruction, university reform and a positive European vision
- public awareness in Germany and more knowledge of the region and its higher education system
- money for projects and European cooperation

1996-1999 Political Activities of HRK

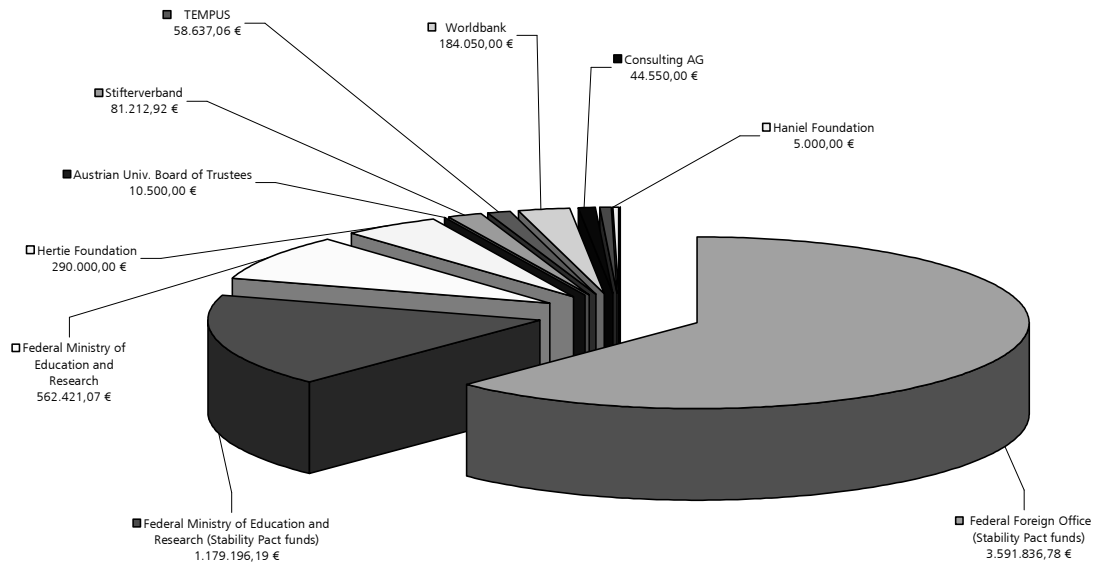
- Press articles and HRK brochures on situation of higher education institutions in SEE
- Co-ordination meetings with German scientists experienced or simply interested in cooperation with SEE

- Two workshops with representatives of the Serbian higher education opposition to the Serbian Law on Higher Education in Bonn and a letter of the German Science organisations to the Serbian government
- First fund-raising activities for Bosnia and Herzegovina
- Information visits to the region and development of international cooperation contacts (CRE/EUA (Lewis Purser), Council of Europe (Sjur Bergan), WUS Austria, Soros foundation e.a.)

June 1999

- The Kosovo War of Summer 1999 changed the thinking towards South Eastern Europe in the German public and government and in Europe in general
- German Stability Pact Initiative ("Regional cooperation pays") – **Signing Ceremony 10.06.1999**
- Start of the "Bologna Process" in **Bologna, 19.06.1999**:
 - Birth of a vision for a European Higher Education Area
 - Establishment of the CRE/EUA Task Force "Pristina Working Group" – an **informal European cooperation network** for higher education in SEE for the next 5 years

Supporting Institutions 1999 - 2007 Volume of Funds 6.025.624,02 €



HRK cooperation projects – innovative or naive

- Cross-border cooperation (BRIE and EULIMNOS)
- Bologna reform (BA/MA structure, ECTS e.a.)
- Internationalisation of study programmes (joint accreditation of a MA "European studies")
- Entrepreneurship training (Sarajevo conference and network)

HRK projects – further examples

- Business incubator run by a university (Romania)
- Organisation and management of a central university administration (Zagreb, Prishtina)
- European studies (curriculum development; libraries)
- Research training for young researchers (U Montenegro, U Shkodra)

International Evaluation of HRK projects in 2005

- 3 independent experts from Austria, Netherlands and Germany
- Positive judgement
- Recommendations: more mobility, concentration on transfer of expertise and knowledge

10 years and beyond

This meeting highlights the gradual transition from support action to normal cooperation.

The HRK has shown that it is reliable and not heading for short term political or economic profits. We hope for the gains of a long term investment in cooperation. The speed of the region will be different, but we want the whole region to move together – independently of old and new borderlines developing.

Chapter 1

Research-related Projects and Funding Programmes

EULIMNOS

Monitoring of Lake Shkodra and its Ecology

Dr. Andrej Perović

University of Montenegro

The EULIMNOS project was initiated in 2001 with the aim of establishing long-term cross-border co-operation between established scientists and students from the universities of Shkodra (Albania) and Montenegro with an interest in the conservation of Lake Skadar/Shkodra.

With a surface area of over 22.000 hectares, Lake Skadar/Shkodra is the largest lake in the Balkans located on the Albanian-Montenegrin border. It is the largest drinking water reservoir in the area and has important fishery and great tourist potential for the region. The physical-chemical, climatic and biotic characteristics of the lake constitute an almost unique ecosystem, having the status of a National park and classified as a wetland site of "International significance and importance" on Ramsar Convention in 1995.

The EULIMNOS project involving participants from the universities of Shkodra (Albania), Montenegro and Heidelberg (Germany) and was initiated and has been supported by the German Rectors' Conference (HRK). The scientific aim of the project is to obtain a comprehensive insight into the current ecological status of the lake and its tributaries and use these findings to develop recommendations for the sustainable development and management of the lake ecosystem. The scientific work of the EULIMNOS project has been divided into the following sub-projects:

- **Integrated Monitoring Project** used to classify Lake Skadar/ Shkodra using a high resolution approach to environmental quality standards in order to obtain a data basis for statistical approaches and geographic information systems (GIS).
- **Toxicological Assessment of Sediments using the 'Triad Approach'** applied to investigate sediment chemistry, sediment toxicity and alterations in the field such as modifications to

community structure, in brief, to obtain a comprehensive insight into the potential eco-toxicological hazard.

- **Analysis of bioavailability Organic Pollutants using 'Semi-permeable Membrane Devices': SPMDs.** The aim of the sub project is to use SPMD-based sampling in conjunction with appropriate bioassays and chemical analysis to identify readily bioavailability hydrophobic organic pollutants in the lake.
- **Taxonomic investigations** including macrophytes, algae, macrozoobenthos and fish were used to elucidate the ecological state of the lake and to link primary and secondary production data to both, eco-toxicological and economical parameters.

Other significant strategic outcomes of the project are expected to increase the scientific capacities of the participating universities, to strengthen the position of these universities within the international research community and to influence socio-economic and political agendas regarding the development of the lake and its environment. The laboratories have been equipped at both local universities and modern sampling and bio-test procedures have been installed. Project results have been presented at scientific conferences and published in international journals. Both sides, Montenegrin and Albanian, have built up research teams including young people working on their MA or PhD thesis and having the intention to continue with a scientific career later on.

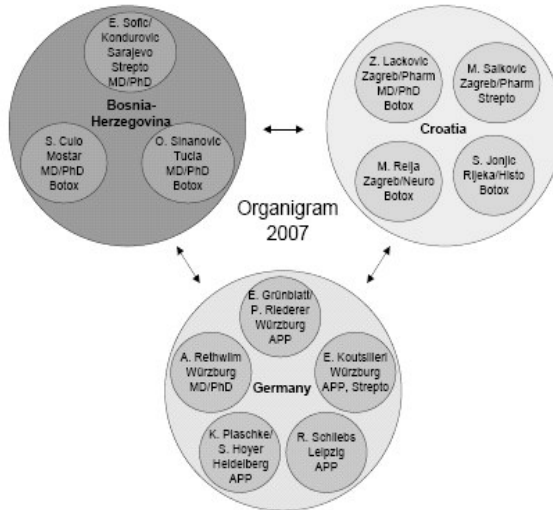
To further the aims of the EULIMNOS project, an '**Eco-education center and Biology station**' are currently being established at the lakeside. The purpose of this centre is to provide facilities for future research and education at all levels to both current EULIMNOS project members and other parties interested in the conservation and sustainable development of the Lake Skadar/Shkodra ecosystem.

Further information:
www.eulimnos.com

Research network "Clinical Neurochemistry"

Prof. Dr. Peter Riederer

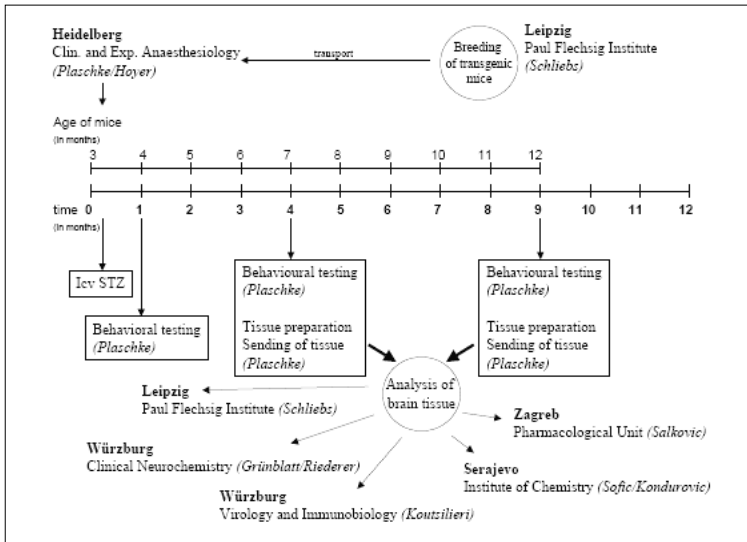
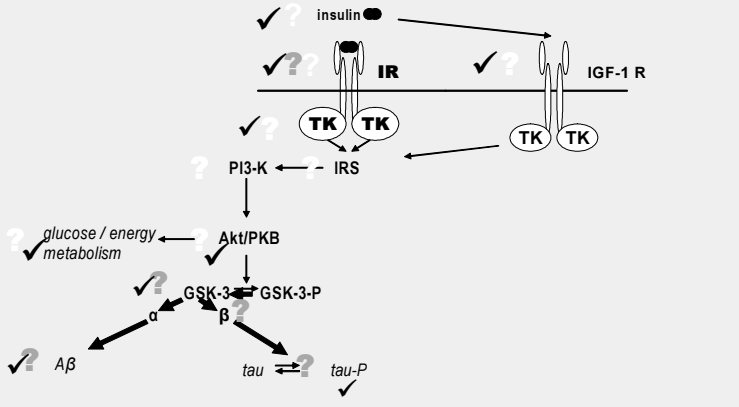
University of Würzburg, Germany

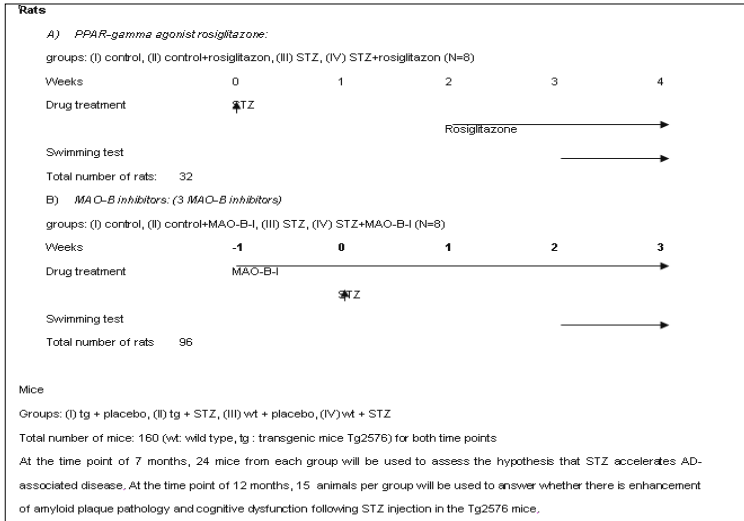


Developmental Potentials

- transfer of molecular biological technology
 - Copra, Sarajevo 1 month
 - Rustembegovic, Sarajevo 1 month
 - Osmanovic, Zagreb 10 months
- Set-up of research units able to compete within the EU 7th framework projects:
 - "Modelling Alzheimer dementia"
 - M. Salkovic, Zagreb
 - Sofic, Sarajevo
- Improvement of University structures
 - MD/PhD programme Z. Lackovic, Zagreb
 - Teaching/Educational Courses
 - Working-Group-Symposia: Symp. in Mostar, Nov. 2006

IR SIGNALING IN HUMAN AD & STZ icv RAT MODEL





Milestones Research

- Consolidation of building a "net of excellence" between the groups in Zagreb, Sarajevo, Mostar, Tuzla and Rijeka
- Transfer of molecular genetic approaches from the German groups to "SEE", e.g. transgenic mouse model of AD
- Transfer of basic research and clinical "know how" in the clinical use of botulinum toxin (Zagreb → Tuzla, Mostar)

Milestones Teaching/Education

- Conferences to develop a) the group interactions – Würzburg and SEE 2007 and b) the EU-directions for the MD/PhD-programme
- Student's/Post-Doc's Exchange Programme focusing research as well as "stability" and harmonization between academics
- "Climbing" up the impact factor-journals

2007 Potentials

- 7th Framework of the EU application
- Drug-oriented proposal to industry, e.g. Glaxo

The Future

- Enlargement of group cooperation
 - Serbia/Montenegro
 - Slovenia
- Financial investment will be necessary to the more rapid development of technologies in SEE groups. Exchange and teaching of students will not be successful without improving the technological set-ups.

The Zagreb Declaration

Is there a need for harmonization of PhD programmes on the European level?

Prof. Dr. Zdravko Lacković

University of Zagreb, Croatia
President of ORPHEUS

PHD (DSC) PROGRAMMES IN MEDICINE AND HEALTH SCIENCES IN EUROPE 2004

- Countries traditionally without PhD in Medicine (Germany, Austria, Switzerland)
- Countries with "two steps" PhD programmes (Magisterium of Science, DSc) mostly advance learning oriented
- Countries where PhD programmes consist of research only
- Countries with PhD programmes integrating advanced learning and research, sometimes with credit system ("Baltic credit system")
- Countries with PhD and DSc programmes (Hungary) or similar Candidate and DrSc (Russia)
- New experiments: Parallel MD/PhD programme (universities in Germany, for example Wuerzburg)

Major problem:

Lack of information and the lack of exchange of experience. In contrast to growing number of graduate Studies in English – PhD programmes are in most cases only nationally oriented. Internet research of 88 medical schools from 28 European countries showed: Only 16 (18.2 %) have a web page with sufficient and understandable information on PhD programmes.

EUROPEAN CONFERENCE ON HARMONISATION OF PhD PROGRAMMES
IN MEDICINE AND HEALTH SCIENCES
University of Zagreb – Medical School
Zagreb, Croatia, April 24-25, 2004

Article 1

PhD programme is intended to enable individuals, after completing and defending their PhD thesis, to carry out independent, original and scientifically significant research and critically evaluate work done by others.

Article 2

As in any kind of scientific peer review process, the reviewers of PhD thesis should be competent and independent from the PhD thesis, candidates and supervisor. In this sense, the participants of the Conference would like to encourage the inclusion of supervisors from other universities and countries.

Article 3

...necessary achievement is a PhD thesis based on original *in extenso* publications in internationally recognized scientific-medical journals. The independent contribution of the candidate should be clearly demonstrated (for example the candidate being the first author)...

Article 4

While the main demonstration of the achievement should be the thesis and published papers, PhD programmes should include theoretical basis as well as development of technical research skills in taught courses where appropriate.

Article 5

The Conference recommends to all universities to make their PhD programmes publicly available...

The Conference encourages the development of joint PhD programmes ...

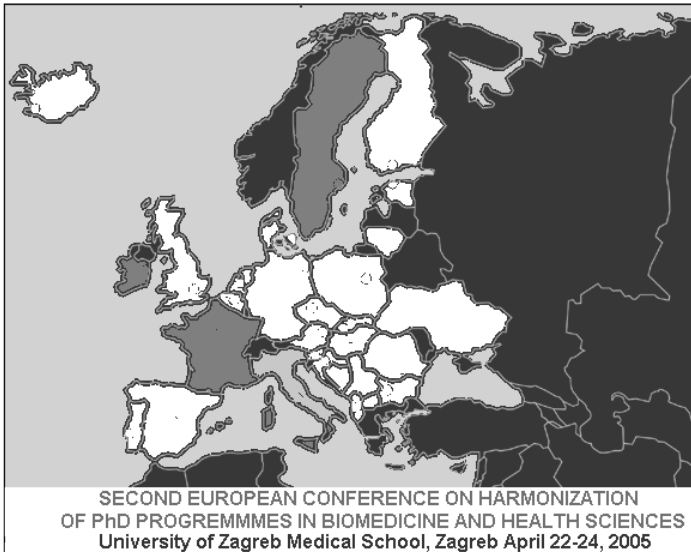
Article 6

The development of well-designed and high-quality PhD programmes requires substantial support by medical faculties, universities, national governments, the European Commission or private sponsors and other institutions in order to engage the best medical students into scientific research so as not to lose our future in medicine and public health.

- **Ministers are likely to endorse**
- **Legal frame is likely to follow**
- **EU is likely to help**
- **Keep/promote project, build up visibility, allow time and stages**

SOME ACTIVITIES AFTER ZAGREB CONFERENCE:

- Lecture at AMSE meeting in Manchester 2004
- Regional conference of universities in Žilina, Slovakia 2004
- Discussion with professors and students in Wuerzburg (2004). Medical school has MD/PhD programme (MD at Medical School, PhD at School of Natural Sciences)
- Baltic medical school meeting in Kaunas started from Zagreb's documents...



GUIDELINES FOR ORGANISATION OF PHD PROGRAMMES IN BIOMEDICINE AND HEALTH SCIENCES

SALZBURG CONFERENCE CONSENSUS

- The core component of doctoral training is the advancement of research knowledge.
- Embedding in institutional strategies and policies: universities as institutions need to assume responsibility for ensuring that the doctoral programmes and research training they offer are designed to meet new challenges and include appropriate professional career development opportunities.
- The importance of diversity
- Doctoral candidates as early stage researchers: professionals who make a key contribution to the creation of new knowledge.
- The crucial role of supervision and assessment
- Achieving critical mass
- Duration: three to four years, as a rule
- The promotion of innovative structures
- Increasing mobility
- Ensuring appropriate funding

SOME EUROPEAN PROBLEMS


- Unequal development
- Constant changes (Bologna Process) including introduction of PhD programmes as a "third cycle" of the Bologna Process


POSSIBLE CONSEQUENCES


- Are high criteria in some countries in danger?
- Small scientific communities: perpetuating *status quo* (or even worse because of a lack of intermediate degree and huge number of students enrolled in PhD Programmes)
- Common problem: lack of critical mass in all fields of biomedical and health research

WILL THE BOLOGNA PROCESS IMPROVE SCIENTIFIC PERFORMANCE OF THE "OLD CONTINENT"?

Maybe – but only with intensive collaboration


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NCBI




National Library of Medicine


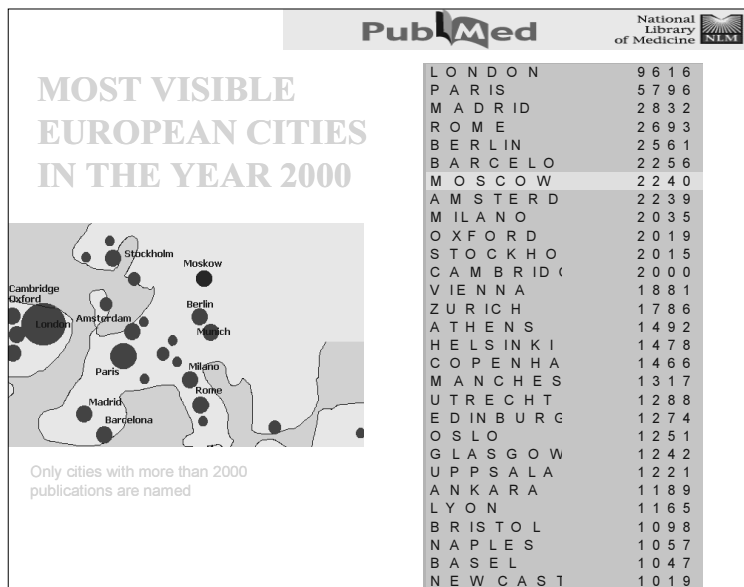
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			National Library of Medicine 	
Number of papers / 1 000 000 inhabitants	Sweden	711	Czech (c)	75
	Finland	594	Portugal	74
	Denmark	581	Estonia (c)	66
	UK (all)	537	Swiss	59
	The Nethe	522	Malta	49
	Norway	362	Poland	47
	Ireland	357	Turkey	38
	Belgium	347	Bulgaria	29
	Austria	317	Yugoslavia	23
	France	258	Russian (c)	19
	Slovenia (c)	256	Lithuania	18
	Germany	249	Latvia (c)	18
	Italy	218	Ukraine	15
	Iceland	218	Macedonia	10
	Spain	179	Belarus (c)	9.5
	Greece	154	BiH (c)	6
	Hungary	102	Romania	5
	Luxenburg	98	Moldova (c)	2
	Croatia (c)	94	Albania	0.6
	Slovakia (c)	75		



ORPHEUS

Organisation of PhD Education in Biomedicine
and Health Sciences in the European System

- President: Zdravko Lackovic (Zagreb)
- Vice president: David Gordon (Manchester)
- Secretaries: Irena Miseviciene (Kaunas)
Jadranka Bozikov (Zagreb)
- Members: Vincenzo Costigliola (Bruxelles)
Petr Hach (Prague)
Guy Haugh (Bruxelles, not confirmed)
Cees Leibrandt (UEMSA)
Seppo Meri (Helsinki)
Jadwiga Mirecka (Krakow)
Charles Normand (Dublin)
Hans Joachim Seitz (Hamburg)
Osman Sinanovic (Tuzla)
Laslo Vescei (Szeged)
Guenter Gell (Graz)

Literature

Lackovic Z, Božikov J (2005) European PhD Programmes in Biomedicine and Health Sciences. Proceedings of the Second European Conference on Harmonisation of PhD Programmes in Biomedicine and Health Sciences

<http://bio.mef.hr/conference>

UNIK-IZIIS Cooperation in Substructure Testing

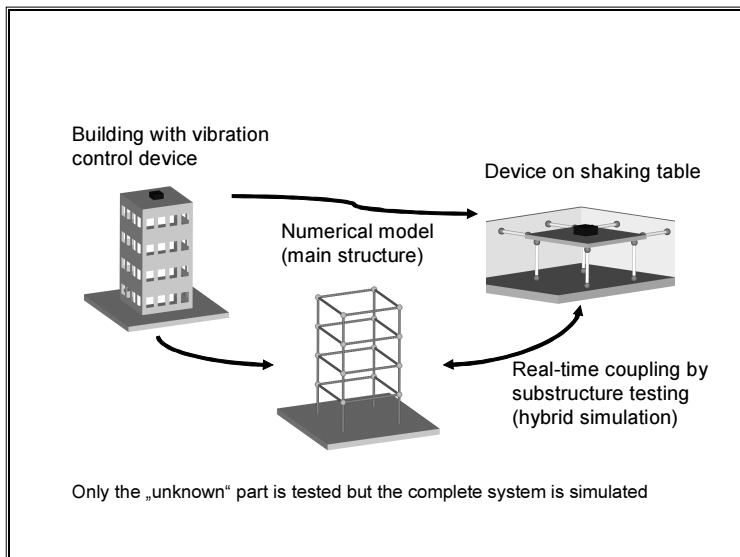
Prof. Dr. Uwe Dorka

University of Kassel, Germany

DFG project "Subshake" (Do360/22-1): Development of Substructure Test in Real-Time for Hydraulic Shaking Tables

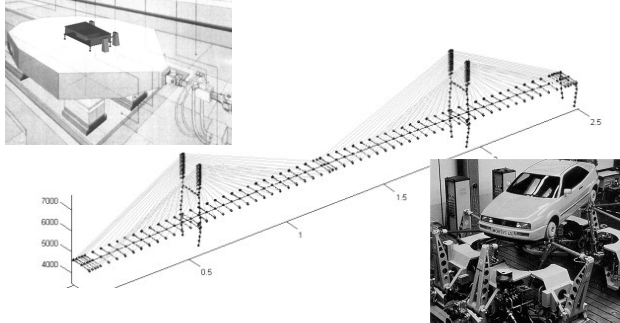
- Duration: 2 + 1 years
- Start: January 2006
- Budget: ca. 160.000,- € (2 years)
- Leading researchers:
 - Prof. Dr. Uwe E. Dorka, UNIK
 - Prof. Dr. Danilo Ristic, IZIIS

Rational of substructure testing using shaking tables



Other Applications

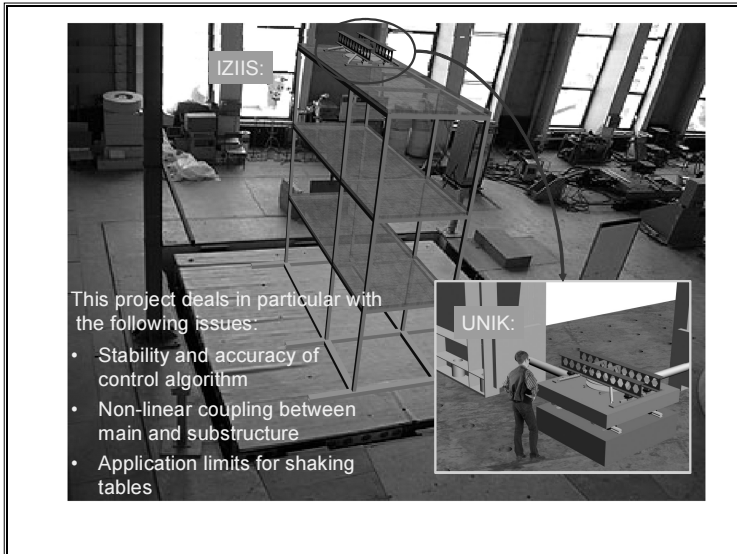
Linking different facilities in geographically distributed tests. e.g. to investigate the interaction between (1) structure, (2) semi-active TMD (3) vehicle and driver



Payload qualification
DFG project Do360/7
with German aerospace
DLR



Connecting various testing and computer facilities online will lead to new forms of hybrid simulation that will provide us with a better understanding of complex systems and their interactions, thus improving their versatility, economy, sustainability and not the least: Their safety!



Experience for Future Cooperation

- IZIIS is a reliable and committed research partner!
- Further development of basic resources is necessary at IZZIS:
 - The shaking table is missing one horizontal axis
 - Consolidation of basic financing: currently too dependent on external contracts
 - Unsolved problems with personnel structure
- Single project research funding ("DFG Normalverfahren"):
 - Adequate financial framework for German partner
 - Application phase too long
 - Only sporadic projects are possible
- Continuity is needed for sustainable, successful cooperation

Some Suggestions

- Install an "advisory group" to help IZIIS consolidate and strengthen its base and establish a network of institutions dealing with:
- *"Natural threats to sustainable development in South Eastern Europe"*
- This could be financed through the DAAD advisory program.
- Establish long-term research programs like:
- *"Seismic resilience of infrastructures in South Eastern Europe"*
- This could be designed along DFG's "Schwerpunktprogramme" and would benefit from a cooperative effort between DFG, HRK and TÜBITAK
- Utilize GMT-COOP to formulate the details of such proposals. This group is a brain child of HRK and has the following members: UNIK, RUB, IZIIS and METU.
- Their cooperative experience and effort yielded the following results:
 - Established a European group of 20 institutions and SMEs trying to start a European project on market oriented seismic rehabilitation technologies (MOISER group)
 - Established staff and student exchange partially through SOKRATES/ERASMUS and UNIK's ISU (international summer university with DAAD support)
 - Is currently negotiating a project proposal with NATO
 - and last but not least: Made this DFG project possible!

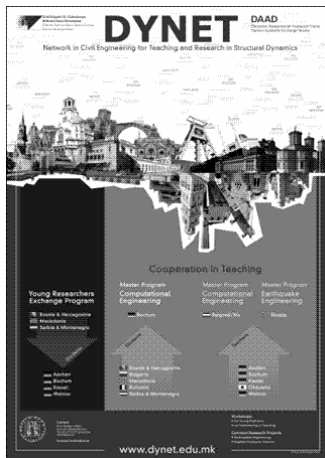
Higher Engineering Education and Research in Engineering Sciences in the South-Eastern European Graduate School "SEEFORM"

Prof. Dr. Rüdiger Höffer

Prof. Dr. Günther Schmid

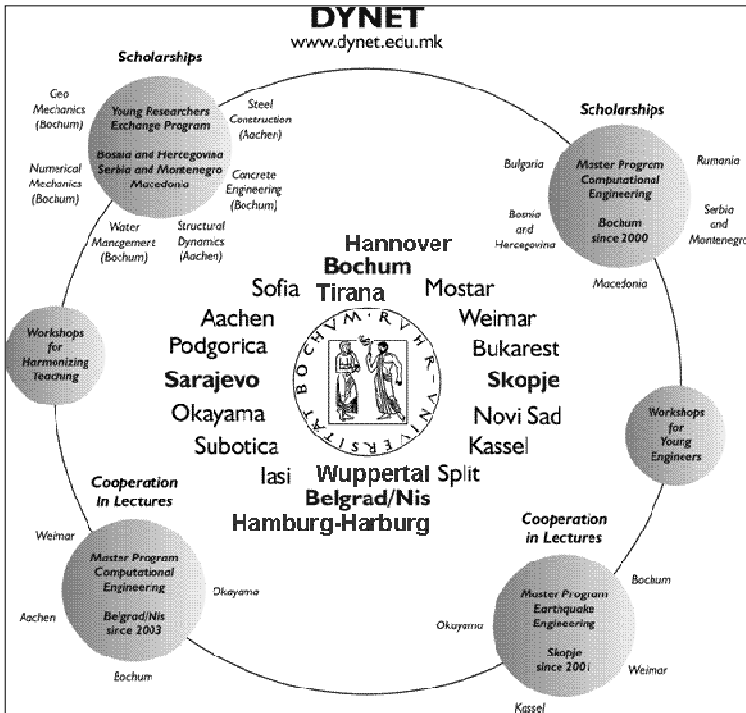
Ruhr University Bochum, Germany

PROPOSAL WITHIN THE SPECIAL DAAD PROGRAMME IN SPRING 2000



- Ruhr University Bochum maintained good relations to former Yugoslavia already in the 70s and 80s
- especially the Faculty of Civil Engineering cultivated scientific contacts to professors from Skopje (Macedonia), Sarajevo (Bosnia and Herzegovina), Nis (Serbia).
- Forwarding scientific contacts during the Collaborative Research Centre (SFB) No 151 "Structural Dynamics" at Bochum of 12 years duration
- Foundation of *DYNET* in 2000 on the initiative of Professor Günther Schmid, supported by DAAD with funds from the Stability Pact

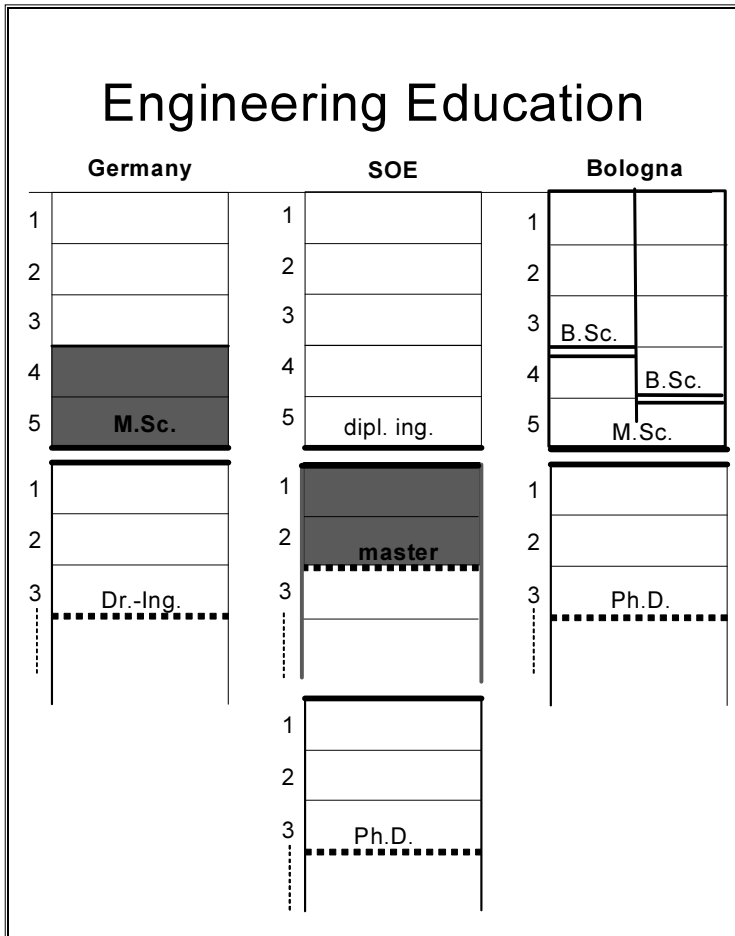
DYNET PARTNERS AT PRESENT



Engineering Education Components of DYNET

- Master Course Earthquake Engineering Institute of Earthquake Engineering and Engineering Seismology (IZIIS), Skopje; Start: 2001
- Master Course Computational Engineering Civil Engineering Faculty, Belgrade; Start: 2004
- Master Course Computational Engineering Ruhr University Bochum; Start: 2000
- Bachelor and Master Courses Earthquake Engineering/Structural Engineering Export of IZIIS to Tirana; Start: 2006-2007

COMPARISON OF ENGINEERING EDUCATION



**Master Course "Earthquake Engineering"
Institute of Earthquake Engineering and Engineering Seismology
(IZIIS), Skopje**

Opening 2000/2001

- 3 semester lectures: 15 examinations, 1 semester Master's thesis
- ECTS-system, Bologna compatible, DAAD scholarships
- 12 students acquired academic grade M.Sc. (Macedonia, Serbia, Albania, Bosnia and Herzegovina (BiH), Kosovo)
- Topics of Master Theses related to Seismic Hazards in SEE Region:
 - Seismic Motion, Seismic Vulnerability
 - Stability of Monuments and Structures in Earthquakes
- 3 PhD Candidates selected for SEEFORM
- Current profession of M.Sc. graduates: university assistants

Study courses in Tirana B.Sc., M.Sc.

- Exported from IZIIS, Skopje with Professors from Germany
- Branches: Earthquake Engineering, Structural Engineering
- Lectures in Tirana
- Experiments at IZIIS

**Master Course "Computational Engineering" in Belgrad/Nis
with professors from Germany**

Opening 2004/2005

- 2 semester lectures: 10 examinations, 2 semesters Master's thesis
- ECTS system, Bologna compatible, DAAD scholarships
- 3 students acquired academic grade M.Sc. (Serbia, Montenegro, BiH, Macedonia)
- Topic of Master's theses:
Static and Dynamic Analysis of Structures Foundations
- Current Profession of M.Sc. graduates: university assistants

Master Course "Computational Engineering" in Bochum

(compatible with Master Course in Belgrade)

- 3 semester lectures: 15 examinations, 1 semester Master's thesis
- ECTS-system
- Since 2000 about 30 DAAD scholarships for students from South Eastern Europe:
 - Minimum study time, students from SEE belonged to the best
 - 5 stayed for Dr.-Ing. degree at Ruhr University Bochum, others returned to SEE
 - Positions: university assistants, industry
 - 3 Ph.D. candidates selected for SEEFORM

The workshop component of DYNET

Young Engineers of SEE and Germany present their Diploma or Master's thesis

LOCATIONS:

- Herceg Novi 2002
- Budva 2003
- Herceg Novi 2004
- Vlora 2006

Sur Place Scholarships BiH Master Program

- Lectures at home university
- Thesis with 3 months stay in Germany
- 12 students: Sarajevo, Mostar, Banja Luka
- 2 PhD candidates selected for SEEFORM
- Current Profession: university assistants

Conclusion for Engineering Education:

- Stay in German institution is important:
 - Short (3 months per year)
 - Long (2 to 3 years)
- Sur place scholarship has to be sufficiently high (about 250 Euro per

month)

- Not quantity but quality is important
- Selection board with representative of scholarship donator
- Include co-operative research project with exchange of students

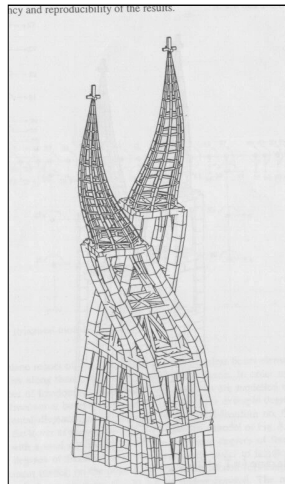
Examples of Research projects

INVESTIGATION OF SEISMIC STABILITY

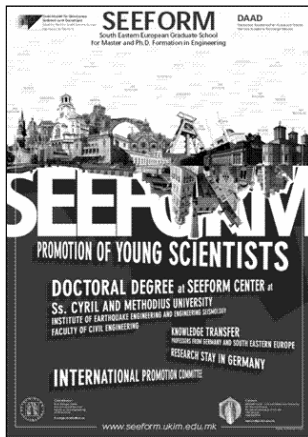
Experimental Model of Pascha
Mustafa Mosque in Skopje



Numerical Model of
Cathedral in Cologne



SEEFORM – The research component of DYNET



South Eastern European Graduate School for Master and PhD Formation in Engineering

Ss. Cyril and Methodius University
in Skopje, Macedonia

Faculty of Civil Engineering

IZIIS – Institute of
Earthquake Engineering and
Engineering Seismology

SEEFORM – Research Topics

- Earthquake Engineering and Engineering Seismology
 - wavelets analysis of ground motion
 - seismic waves
 - development of mathematical model for analysis of rubber bearings based on experimental results
 - seismic isolation of nuclear centrals and other important objects
 - protection of historical buildings
- Soil and soil-structure interactions
 - nonlinear static dynamic soil structure interaction
 - soil-structure interaction regarding safety and reliability of railways
 - carbonate complexes in interaction with artificial objects
 - geo-grids
- Constructions
 - reinforced concrete elements
 - structural components under the impact of fire
 - Steel connections
- Mechanics
 - elastoplasticity

SEEFORM – The Structure

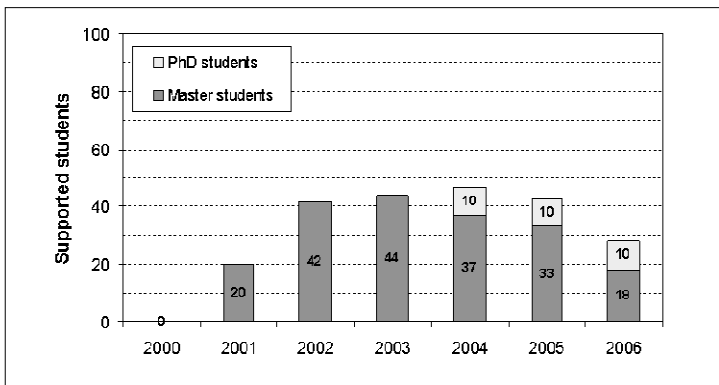
- Multilateral agreements between regional universities

► Selected candidates from South Eastern Europe



- Advisors from South Eastern Europe and from Germany
- PhD courses
 - two double-block courses a year at Skopje, each given by a SEE and a German professor;
 - topics of common concern, e.g.:
 - plasticity in mechanics;
 - nonlinear methods in structural engineering;
 - stochastic vibration;
 - experimental methods in large scale testing.
- 1st PhD seminar 31 August 2005 in Ohrid, Macedonia
- 2nd PhD seminar 25 August 2006 in Ohrid, Macedonia

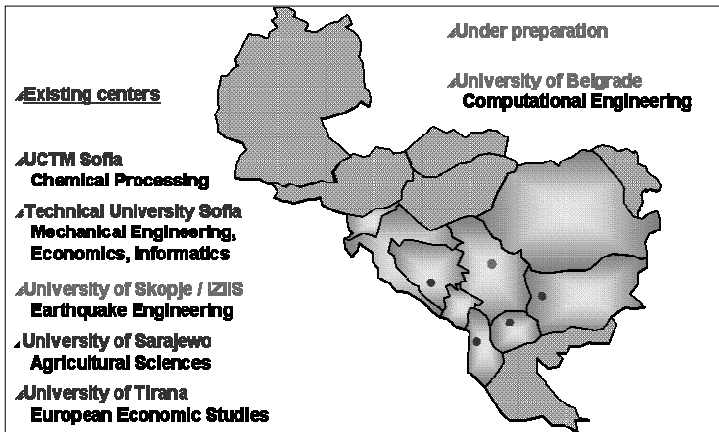
Financial assistance for Master and PhD students



SEEFORM – Situation

- Outcome
 - Academic successors
 - Intense scientific exchange between many European faculties
 - Making up the state of the art
 - Preparation of the introduction of Eurocodes
 - Centers of higher Engineering education and research
 - Infrastructure
- Dynamics of the network
 - Involvement of an increasing number of faculties
 - Non-academical partners
 - Centers of higher Engineering education and research

Regional centers of excellence



Support programmes for postgraduate students

Programme	Granting institution	Details
Integrated International Studies (ISAP)	DMMF / DAAD (both D)	internationality and credit system long-term collaboration EU mobility programmes
TEMPUS Programme	EU funds	at least two partners to be from EU countries complex application but interesting financing
ERASMUS-Mundus	EU funds	scholarships and reimbursement of study fees joint degree
International collaboration in education and research in Western Balkan Countries (WBC)	EU funds, 6th & 7th framework programme	(refer to application documents)
Industrial associations (German Chamber of Civil Engineers, MASCE, IMI)	Representation and chambers	Life-long learning for engineers diploma and specialisations Coordination of continuous education
Professional excellence	Private and semi-private institutes, companies	industrial research certification and component testing participation to European biddings

SEEFORM – Outlook

- Making SEEFORM a roof for bilateral and inter-regional PhD formation, exchange of young researchers, and initialization of projects
 - Network of research interests, self-organization (comp. GMT-Coop and beyond)
 - Exchange program for senior and young researchers
 - Structured PhD programs
 - Using competence for FP7 – applications:
 - mobility measures
 - ideas
 - Lobbying and European networking

ANNEX: DYNET Activities – Master Programmes

- ▶ **Master Course „Computational Engineering“, Ruhr University Bochum**
 - ▶ 2-years Master of Science Programme started Winter semester 2000
 - ▶ DAAD scholarships for students from the SEE region:
 - ▶ students of the 1st generation (2000): 7 Serbia & Montenegro, 2 Macedonia
 - ▶ students of the 2nd generation (2001): 5 Serbia & Montenegro, 3 Romania, 1 Bosnia & Herzegovina, 1 Bulgaria (8 students got positions in Germany)
 - ▶ Today: 2 years curriculum, 200 application a year from which 40 new students are selected
- ▶ **Master Course „Earthquake Engineering“, University Skopje**
 - ▶ operated by the Institute of Earthquakes Engineering and Engineering Seismology (IZIS)
 - ▶ 2-years Master of Science Programme started Winter semester 2001
 - ▶ applicants from almost the whole SEE region and beyond
 - ▶ until now 75 students supported by DAAD scholarship
- ▶ **Master Course „Computational Engineering“, University Belgrade**
 - ▶ operated by the Faculty of Civil Engineering
 - ▶ 2-years Master of Science Programme started Winter semester 2004
 - ▶ 15 students supported by DAAD scholarship in the 1st and 2nd generation

ANNEX: DYNET – Activities I

- ▶ **„Workshop for Young Engineers“**
 - ▶ young engineers present their recent Diploma and Master's Theses
 - ▶ International conference with participants from SEE and Germany
 - ▶ annual since 2002: workshops in Budvar and Horeg Nevi (2), Serbia & Montenegro
 - ▶ January/February 2006 in Vlorë, Albania
- ▶ **„Harmonizing of Teaching“**
– *coordination of curricula and teaching methods*
 - ▶ co-ordination and harmonisation of lectures and curricula
 - ▶ main subject areas:
 - ▶ Structural Dynamics
 - ▶ Computer Science in Civil Engineering
 - ▶ Timber Structures
 - ▶ Sustainable Higher Education in Engineering
 - ▶ status: regularly, from 2006 to be separately applied for
- ▶ **Workshops with Specific Topics**
 - ▶ „Computational Structural Dynamics“, February 2001, IZIS, Skopje

ANNEX: DYNET Activities II – Further Programme Tools

▶ Exchange of Professors

- ▶ German professors to SEE, primarily to Skopje and Belgrade
 - ▶ lecture on special subjects
 - ▶ cultivate scientific contacts and information of students
- ▶ SEE professors to Germany, primarily to Bochum, Aachen, and Hamburg
 - ▶ get scientific contacts in Germany
 - ▶ have access to special literature
 - ▶ catch up on study curricula

▶ Young Researchers Exchange Programmes

- ▶ support of qualified Diploma and Master students within the DAAD „BHSF“ programme (Sur-Place Scholarship Programme for Bosnia and Herzegovina)
- ▶ research stay in Germany for qualified students from Macedonia and Serbia & Montenegro with financial support through the Faculty of Civil Engineering, Bochum

▶ Financial Support for Materials

- ▶ technical equipment (laboratory tools, computer hardware, etc.)
- ▶ libraries (books, electronic journals, etc.)

Southeast European ERA-NET (SEE-ERA.NET) and the Pilot Joint Call

Dr. Hans-Jürgen Donath

International Bureau of the German Federal Ministry of Education and Research (BMBF-IB), Germany

1. SEE-ERA.NET – Transparency, Interactivity, Synergy

Objectives of SEE-ERA.NET:

- integrating Southeast Europe into the European Research Area
- coordinating bilateral research programmes with the Western Balkan countries among all partners
- improving interregional research cooperation
- adding value to existing bilateral S&T agreements
- contributing to the 'EU-Balkan countries Action Plan in S&T', adopted at EU Ministerial Conference in Thessaloniki in 2003

These objectives will be met through:

- exchange of information and of best practice on bilateral R&D activities
- needs analyses in the target countries (Western Balkan countries)
- support of policy dialogue and awareness raising in the EU Commission
- opening up the existing nationally funded (bilateral) research programmes

The SEE-ERA.NET consortium: 17 partners from ...

- Albania
- Austria
- Bosnia and Herzegovina
- Bulgaria
- Croatia
- France
- Germany
- Greece
- Hungary
- Former Yugoslav Republic of Macedonia
- Montenegro
- Romania
- Serbia
- Slovenia

2. The SEE-ERA.NET starting point:

- 14 countries
- 17 partners: 14 ministries and 3 funding agencies
- more than 70 inter-governmental agreements
- several thousands of institutional contacts
- >1.400 bilateral projects funded (2002-2004, bilateral programmes)

3. Achievements of SEE-ERA.NET so far

- *Reports:*
 - *Comparative summary report on the structures and procedures of existing bilateral R&D programmes targeting Southeast Europe*
 - *National systems of research of all West Balkan Countries* (incl. analysis of research priorities and programmatic activities)
 - *Specific R&D co-operation needs of the Western Balkan Countries*
- *SEE-ERA.NET Project Database:* Set of data on projects funded under bilateral R&D programmes and analytical assessment of these projects
- *Strategic political conclusions* of the Information Exchange Conference in Zagreb (Dec. 2005)
- *Political strategy papers, lobbying on European level* (Conference in the European Parliament in February 2005, DG Research, EU-Steering Platform)
- *Establishment of strategic partnerships* with international organisations, i.e.: EC/DG Research, EC-Joint Research Centre, COST, UNESCO-ROSTE, World Bank, NCP Training Projects (ERA WESTBALKAN+)

4. Core element of joint SEE-ERA.NET activities: the Pilot Joint Call for proposals 2006/2007

Opening up the existing nationally funded (bilateral) programmes

Launch/publication: November 2006; deadline: March 2007

- specific *thematic areas* (scientific disciplines):
 - *Food, Agriculture and Biotechnology.* Sustainable production and management of biological resources from land, forest, and

- aquatic env.
- *ICT*: Applications Research
- *Environment*: Environmental Technologies
- *instruments/funded projects*: short term research projects (mobility), summer schools, thematic networks
- *financial contribution* by most of the SEE-ERA.NET partners
- joint *funding strategy* including a "virtual" and "real" common pot
- *administration* by a "Central Administrative Body (CAB)"
- support of *partnering of applicants*: brokerage events (thematic conferences for researchers before the deadline: January/February 2007)
- *minimum requirements*: project consortium with at least *three participants from three different countries* (at least one from a Western Balkan country)
thematic networks: *five partners from three different countries* (two from Western Balkan countries)
- *more information soon at www.see-era.net*

5. Outlook

- *White Paper/Joint Action Plan* to be delivered in February/March 2007: strategic recommendations for future joint activities
- *2nd phase: SEE-ERA.NET Joint Call (main phase) 2008/2009*, based on the experiences of the Pilot Joint Call

SEE-ERA.NET contact details

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International Co-operation in Education and Research – Central, Eastern and South Eastern European Region ("Regional Call")

Dr. Hans-Jürgen Donath

International Bureau of the German Federal Ministry of Education and Research (BMBF-IB), Germany

Content

- Background and objectives
- What is supported?
- Who can apply?
- What are the conditions for funding?
- Key areas of BMBF and EU Funding Programmes

Objectives of the bilateral co-operation in Education and Research from the governmental perspective

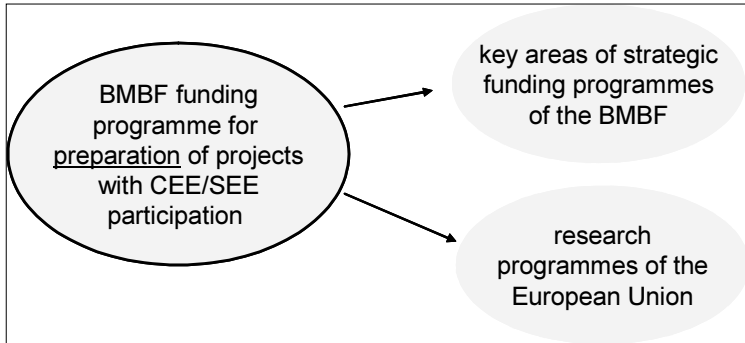
- strengthen co-operation and networking of German institutions with strategic European and international partners in order to explore knowledge, infrastructure and market opportunities
- support continuing integration of CEE/SEE institutions in European networks
- achieve synergies and improve competitiveness via opening and linking national funding programmes
- contribute to building the European Research and Education Area and to reach the EU's Lisbon target

Goals of the Regional Call:

- awareness building for options of joint research within national and European programmes
- strengthening international co-operation in national programmes
- strengthening joint participation in European programmes
- based on the "classical" government supported bilateral co-operation, focussing on the initiation of complex projects, financed under the respective national or European programmes

- supporting the preparatory phase of joint projects in strategic scientific areas

Instrument to set-up and implement joint R&D projects with CEE/SEE



Regional Call: www.bmbf.de and www.internationales-buero.de

Funding

Funding can be provided for

- travelling expenses of German experts
- visits of foreign experts to Germany (accommodation, per diem...)
- staff costs for feasibility studies
- costs of events (workshops, brokerage events...)
- physical resources (e.g. consumables for pilot investigations)

Maximum amount of funding: up to 50,000 € for the preparation of *particularly complex projects*

Who can apply?

Applications may be submitted by

- public and private institutions of higher education
- non-university research establishments
- hospitals
- commercial companies, especially SMEs

Size of consortia

- German applicant and at least two further institutions, one of them from CEE/SEE country

Assessment criteria

- thematic orientation towards the key areas of BMBF strategic funding programmes national
- prospects of the proposed project for receiving funding from national or European programme
- originality of the idea
- qualifications of the coordinator and the project partners
- potential for solving problems
- benefit of co-operation
- new partnerships
- commercial exploitation of the anticipated results
- promotion of young research talents

Key areas of BMBF strategic funding programmes and current calls

- *New technologies*
 - Information society
 - Microsystems Technology
 - Nanotechnology
 - Optical technologies
 - Production Research
 - Materials innovation for industry and society
- *Life sciences*
 - Health research
 - Biomedical research
 - Biotechnology
- *Sustainability*

Economics for Sustainability Framework Programme Research for Sustainability ("FoNa") System Earth
- Areas of *transport research* which are relevant to EU enlargement

Key Areas of Seventh Framework Programme of the EU

- Health
- Biotechnology
- Information and Communication Technologies
- Nanosciences
- Nanotechnologies
- Materials and New Production Technologies
- Environment (including Climate Change)

Contact

Information on the Regional Call can be obtained at:

International Bureau of the BMBF at the DLR
Königswinterer Straße 522-524
D-53227 Bonn, Germany

phone: + 49 228 3821 453

fax: + 49 228 3821 444

Internet: www.internationales-buero.de

Towards Framework Programme 7 – FP7

Saša Ivanović

Ministry of Education and Science, Montenegro

Contents

- Evolution of European research policy
- General Context of FP7
- FP7 – specific programmes
- Differences and new elements in FP7
- Links

A European research policy – Building the Europe of Knowledge

- "Lisbon" objective to transform the European Union into a knowledge economy and society
- A knowledge economy
 - research
 - innovation
 - education and training
- Complementary actions at European and national level; public and private

Lisbon strategy



Why research at European level?

- Pooling and leveraging resources
Assembling critical mass, enabling "big science", leveraging private investment
- Fostering excellence in research
Supporting European research careers and mobility of researchers, creating world class centres of excellence, EU level competition to drive up quality and creativity
- Better integration of research
Addressing pan-European challenges, coordinating national and regional policies, conducting comparative research at EU level, disseminating research results more widely

Key challenges for European research

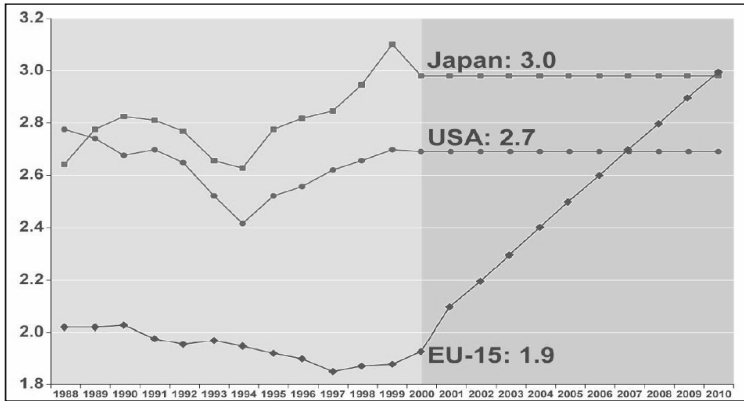
- Creating European centres of excellence through collaboration between laboratories
- Launching European technological initiatives
- Stimulating the creativity of basic research through competition between teams at European level
- Making Europe more attractive for the best researchers
- Developing research infrastructure of European interest
- Improving the coordination of national programmes

Strategic Objectives for EU Research Policy

Lisbon strategy

- EU to be the world's most dynamic and competitive knowledge economy by 2010
 - *Increasing research excellence*
 - *Creating the European Research Area*
- Greater coordination of research policies and activities
 - *Increasing research investment*
- Towards 3 % of GDP by 2010, with 2/3 financed by industry
- Improved environment for commercial developments

Research – filling the gap



R&D – European weaknesses

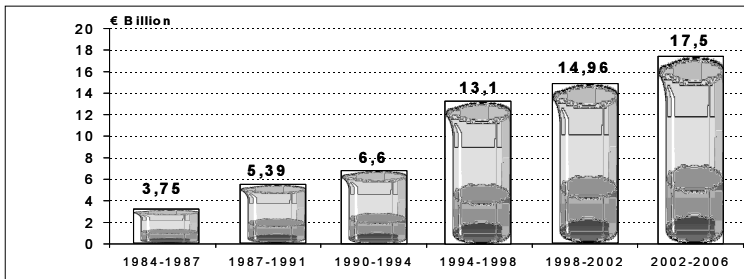
	EU-25	US	Japan
R&D intensity (% of GDP) ⁽³⁾	1.97	2.59	3.12
Share of R&D financed by industry (%) ⁽²⁾	55.9	63.1	73.9
Researchers per thousand labour force (FTE) ⁽³⁾	5.5	9.0	9.7
Share of world scientific publications (%) ⁽³⁾	38.3	31.1	9.6
Scientific publications per million population ⁽³⁾	639	809	569
Share of world triadic patents (%) ⁽¹⁾	31.5	34.3	26.9
Triadic patents per million population ⁽¹⁾	30.5	53.1	92.6
High-tech exports as a share of total manufacturing exports (%) ⁽³⁾	19.7	28.5	26.5
Share of world high-tech exports (%) ⁽²⁾	16.7	20.0	10.6

Note: ⁽¹⁾ 2000 data ⁽²⁾ 2002 data ⁽³⁾ 2003 data

EU Research – the story so far



Evolution of budgets of the EU Framework Programmes



Seventh Framework Programme

- for the period 2007-2013 should be **EUR 50 521 million**

FP7 – Specific Programmes

- *Cooperation* – Collaborative research
- *Ideas* – Frontier Research
- *People* – Human Potential
- *Capacities* – Research Capacity

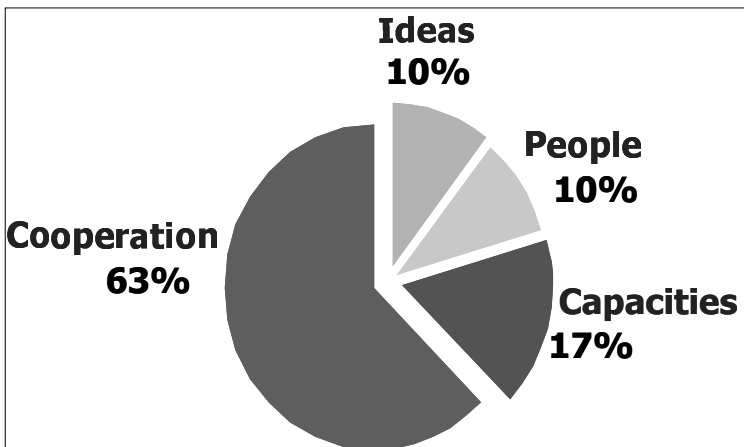
plus

- JRC (non-nuclear)
- JRC (nuclear)
- Euratom

FP7 – International Dimension

- Cooperation: 9 thematic areas: best way to integrate research efforts; also Specific International Action;
- Ideas: ERC; funding excellence; attract best researchers;
- People: Marie Curie actions: outgoing and incoming fellowships; networks of research;
- Capacities – International: research needs of third countries; coherence of national programmes.

Budget for FP7 specific programmes



Cooperation

- Support will be given to the whole range of research activities carried out in trans-national cooperation, from collaborative projects and networks to the coordination of national research programs. International cooperation between the EU and third countries is an integral part of this action.
This action is industry-driven and organized in four sub-programs:
- **Collaborative research** will constitute the bulk and the core of EU research funding
- **Joint Technology Initiatives** will mainly be created on the basis of the work undertaken by the European Technology Platforms
- **Coordination of non-Community research programs**
- **International Cooperation**

Cooperation – Collaborative Research

(32.365 M€) – 9 themes

1. *Health* (6.050 M€)
2. *Food, Agriculture and Biotechnology* (1.935 M€)
3. *Information and Communication Technologies* (9.110 M€)
4. *Nanosciences, Nanotechnologies, Materials and new Production Technologies* (3.500 M€)
5. *Energy* (2.300 M€)
6. *Environment (including Climate Change)* (1.900 M€)
7. *Transport (including Aeronautics)* (4.180 M€)
8. *Socio-Economic Sciences and the Humanities* (610 M€)
9. *Security and Space* (2.780 M€)

1. Health

- Biotechnology, generic tools and technologies for human health
- Translating research for human health
- Optimising the delivery of healthcare to European citizens

2. Food, Agriculture and Biotechnology

- Sustainable production and management of biological resources
- from land, forest, and aquatic environments
- "Fork to farm": Food, health and well being

- Life sciences and biotechnology for sustainable
- non-food products and processes

3. Information and Communication

- Technologies
- ICT Technology Pillars
- Integration of technologies
- Applications Research
- Future and Emerging technologies

4. Nanosciences, Nanotechnologies, Materials and new Production Technologies

- Nanosciences and Nanotechnologies
- Materials
- New Production
- Integration of technologies for industrial applications

5. Energy

- Hydrogen and fuel cells
- Renewable electricity generation
- Renewable fuel production
- Renewables for heating and cooling
- CO₂ capture and storage technologies for zero emission power generation
- Clean coal technologies
- Smart energy networks
- Energy efficiency and savings
- Knowledge for energy policy making

6. Environment and climate change

- Climate change, pollution and risks
- Sustainable management of resources
- Environmental technologies
- Earth observation and assessment tools

7. Transport

- Aeronautics and air transport

- Surface transport (rail, road and waterborne)
- Support to Galileo

8. Socio-Economic Sciences and the Humanities

- Growth, employment and competitiveness in a knowledge society
- Combining economic, social and sustainability objectives in a European perspective
- Major trends in society and their implications
- Europe in the world: understanding change
- The citizen in the European Union
- Socio-economic and scientific indicators
- Foresight activities

9. Space and Security research

- Space-based applications at the service of the European Society
 - Exploration of space
 - RTD for strengthening space foundations
- and
- Protection against terrorism and organised crime
 - Security of infrastructures and utilities
 - Border security
 - Restoring security in case of crisis
 - Security systems integration and interoperability
 - Security and society
 - Security Research Coordination and structuring

I. Cooperation – Collaborative research

(32.365 M€)

- Under each theme there will be sufficient flexibility to address both *Emerging needs* and *Unforeseen policy needs*
- Dissemination of knowledge and transfer of results will be supported in all thematic areas
- Support will be implemented across all themes through:
 - Collaborative research (Collaborative projects; Networks of Excellence; Coordination/support actions)
 - Joint Technology Initiatives

- Coordination of non-Community research programmes (ERA-NET; ERA-NET+; Article 169)
- International Cooperation
- Creating European centres of excellence through collaboration between laboratories
- Continuity with FP6, but with improvements, e.g. regarding instruments, procedures etc.
- Focused priorities
 - Where European value added is greatest
 - To support EU policy objectives

II. Ideas – Frontier Research

(7.460 M€)

- establishment of a European Research Council
ERC consists of 22 representatives of the European scientific community at the highest level
- support basic, frontier research
- funding excellence
- attract best researchers

III. People – Human Potential

(4.577M€)

Human resources

Making Europe more attractive for the best researchers

- Build on success of Marie Curie actions
- Trans-national, trans-sectoral, and industry-academia mobility
- Research careers and life-long learning
- International dimension

IV. Capacities – Research Capacity

(4.121M€) – 6 parts

1. *Research Infrastructures (1936M€)*
2. *Research for the benefit of SMEs (1.228M€)*
3. *Regions of Knowledge (126M€)*
4. *Research Potential (320M€)*
5. *Science in Society (329M€)*
6. *Activities of International Cooperation (182M€)*

7. Coherent development of research policies (70M€)

1. Research Infrastructures (1.936M€)

Support to existing research infrastructures:

- Transnational Access
- Integrating activities
- Research e-infrastructures

Support to new research infrastructures:

- Construction of new research infrastructures and major updates of existing ones
- Design studies

2. Research for the benefit of SMEs (1.228M€)

- Research for SMEs
- Research for SME associations

Under the Competitiveness and Innovation Programme (CIP):

- "Exploratory" awards
- Promote optimal participation in the *Cooperation* programme
- Promote assistance to SMEs by networks of intermediaries

3. Regions of Knowledge (126M€)

Development of regional "research-driven clusters"

Two objectives for European regions:

- Strengthen their capacity for investing in RTD and carrying out research activities
- Maximizing their potential for a successful involvement of their operators in European research projects

4. Research Potential (320M€)

EU action in this area will provide support to:

- Trans-national two-way secondments of research staff in the convergence regions
- The acquisition and development of research equipment in selected centres
- The organisation of workshops and conferences to facilitate knowledge transfer
- "Evaluation facilities" for research centres in the Convergence

Regions to obtain an international independent expert evaluation of their research quality and infrastructures

5. Science in Society (329M€)

- Strengthening and improving the European science system, including "self regulation"
- Broader engagement of researchers and the general public in science-related questions
- Reflection and debate on science and technology and their place in society
- Gender research, including the integration of the gender dimension in all areas of research
- An environment that triggers curiosity for science in young people, reinforcing science education at all levels
- Development of a policy on the role of universities
- Improved communication between the scientific world and the wider audience of policy-makers, the media and the general public

6. Activities of International Cooperation (182M€)

- "Horizontal" support actions and measures not carried out in the *Cooperation* or *People* programmes

Two interdependent objectives:

- Support competitiveness through strategic partnerships with 3rd countries in selected fields and by engaging the best 3rd country scientists to work in and with Europe
- Address specific problems that 3rd countries face or that have a global character, on the basis of mutual interest and mutual benefit

7. Support to the coherent development of research policies (70M€)

In addition, support to the coherent development of policies will complement the coordination activities under the Cooperation programme:

- Strengthening and improving the European science system
- Monitoring and analysis of public policies/industrial strategies
- Coordination of research policies

FP7 – differences and new elements

What are the differences between FP7 and its predecessors?

While building on the achievements of its predecessor, the Seventh Framework Programme will not be "just another Framework Programme". In its content, organisation, implementation modes and management tools, it is designed as a key contribution to the re-launched Lisbon strategy.

The **new elements in FP7** include the following:

- Emphasis on research themes rather than on "instruments"
- Significant simplification of its operation
- Focus on developing research that meets the needs of European industry, through the work of **Technology Platforms** and the new **Joint Technology Initiatives**
- Establishment of a **European Research Council**, funding the best of European science
- Integration of **International cooperation** in all four programmes
- Development of **Regions of Knowledge**
- A **Risk-Sharing Finance Facility** aimed at fostering private investment in research

FP7

1. To create European centres of excellence by means of collaboration between laboratories
2. To launch technological initiatives on an EU scale in promising industrial sectors by creating joint undertakings
3. To boost the creativity of basic research by means of competition between individual teams at the European level
4. To make Europe more attractive to the best researchers by increasing support for them
5. To develop research infrastructures of European interest based on the example of the trans-European networks
6. To strengthen coordination between national research programmes

Simplification of procedures

- Avoiding red-tape!
 - Reducing number of request to participants and light submission procedure
 - Reducing a priori controls (i.e. controls before the project is approved)
 - Increasing autonomy of consortia
 - Streamlining the selection process

- Rationalising the funding schemes
Exploring new modes of funding and simplifying the cost-based funding system

- Better presentation
 - Less bureaucratic and more user-friendly language
 - Reducing number and size of documents

Links

Towards FP7: official documents, policy positions, news, events and more:

www.cordis.lu/fp7/

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Saša Ivanović

Ministry of Education and Science

Department for Science and Higher Education www.mpin.cg.yu

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CIRKO-MES CE – An example of public-private-partnership (PPP)

Center for Development Research and Continuing Education
Mechanical Engineering Systems
Center of Excellence

Prof. Dr. Atanas Kočov

Faculty of Mechanical Engineering, University of Skopje, Macedonia
General Manager of CIRKO MES CE

e-BIZ in Macedonia

- 5 Business-based e-BIZ Centers
 - Apparel (www.newtrend.com.mk)
 - Footwear (www.modeur.com.mk)
 - Tourism (www.exploringmacedonia.com)
 - Fashion Industry e-Commerce (www.fashionmk.com)
- 2 University-based e-BIZ Centers
 - Regional Business Development Center (www.seeuniversity.com.mk)
 - Engineering Center of Excellence (www.cirko-mes.com)

CIRKO MES CE's co-investors

- MFC (Faculty of Mechanical Engineering)
- GTZ (Technology Transfer)
- USAID – e-BIZ Project
- SUN Microsystems

Investors:

E-BIZ Project	70 %
Faculty of Mechanical Engineering	28 % (in-kind)
GTZ	2 %
Total investment:	\$ 512 K

The main AIM OF CIRKO MES CE is to help SMEs for:

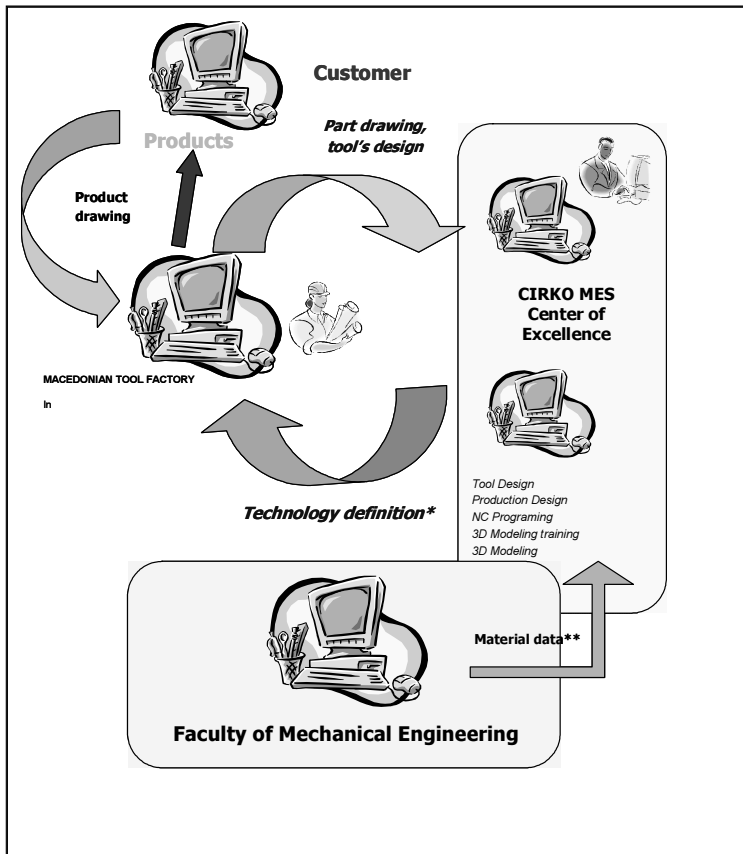
- Higher production quality
- Higher productivity
- Lower production costs
- Higher profits
- Faster reaction to the global market
- Better connections to your global supply chain and customers

The Center provides affordable access to:

- A supply of well skilled mechanical engineers
- The latest SUN Microsystems hardware and software
- Computer design applications for CAD and manufacturing
- A virtual engineering network tied to global resources
- A host of JAVA and C++ programmers trained in the latest integrated manufacturing system design and development
- Online training

TYPE OF OFFERED SERVICES

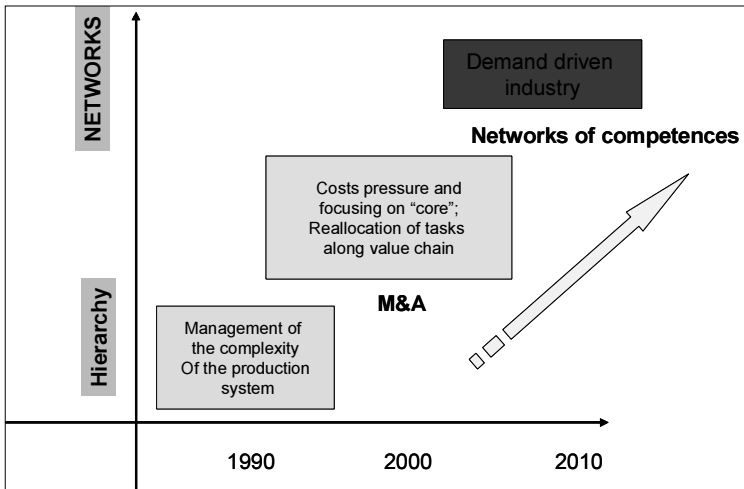
- Die design
- CAD, CAM, CAE
- Industrial design
- Training (C++, JAVA, SolidWorks)



Seminars, Conferences, workshops, trainings

- Advanced engineering technologies for the Macedonian tool and die design shops; one day seminar with international participation, experts from Slovenia; September 23-24, 2005
- Improvement of the marketing skills of the Macedonian tool and die design shops; 7 days seminar with international experts from TECOS-Celje, Slovenia; University of Ljubljana and Austrian Cluster of Plasticity; October 23-29, 2005
- Improvement of the marketing skills of the Macedonian tool and die design shops; 7 days seminar with international experts from TECOS-Celje, Slovenia; University of Ljubljana and Austrian Cluster of Plasticity; Celje, November 6-13, 2005
- 3D digitalization and 3D CAD model creation; 14 days training program in TECOS-Celje, Slovenia, for 4 participants from CIRKO MES CE
- SolidCAM; training for practical experience for Macedonian tool and die design machine tool shops; Skopje-Ohrid, May 23-25, 2006
- Numerical Simulation as advanced engineering technologies for improvement of the competitiveness of the Macedonian tool and die design machine shops; Ohrid, Macedonia, July 6-8, 2006
- Conference on Clustering and Networking, Rogla, Slovenia, September 6-9, 2006 – 4 participants sponsored by e-BIZ and CIRKO MES CE

NEW PROJECTS FOR THE FUTURE



MEVNet

Macedonian Engineering Virtual Network

Mission Statement

The MEVnet is designed for Macedonian SMEs from the field of mechanical engineering industry to serve them as:

- Provider of organized and meaningful mechanical engineering communication resource for scientists, researchers, members of the business community, SMEs dealing with tool and die design, government, academia, and the general public.
- Resource center to disclose resources, organizations, research activity, educational initiatives, scientific events, journals, books, articles, funding opportunities, industrial developments, market analyzes, jobs and every other initiative related to mechanical engineering and associated fields.
- Link between Macedonian SMEs and similar world wide networks to be able to exchange know-how technology and information related to best practice and innovation.
- Advisor to members regarding specific professional issues in the field of activity.

SUPPLY CHAIN/Clustering/Networking

Supply chain for Machine tool industry

All information at one place – only one step to needed information

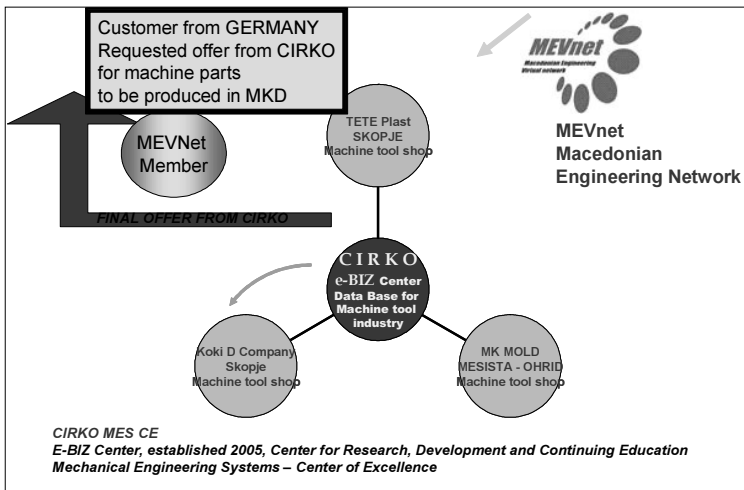
Web site (intranet and extranet – extended MEVnet)

- Company profiles, contacts, references

Benefits for machine tool shops:

- Data base of Macedonian tool shops – supply chain
- Common offer to received inquiries
- Common R&D projects
- Education and training (project management, school of quality, business excellence)
- Workshops, forums, seminars
- Knowledge and technology transfer
- Transportation logistics
- Support for custom rules and demands

Information at: <http://www.cirko-mes.com/mevnet.html>



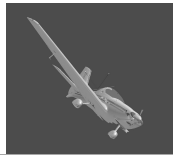
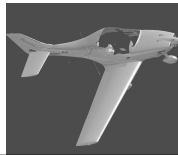
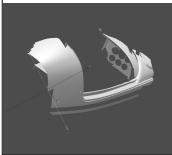
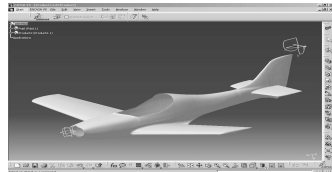
3D DIGITIZING – STRATEGY, GOALS AND USE

Use of the 3D digitizing technology

- mechanical engineering
- construction of tools for new products
- improving of the already existing tools and parts
- dimensional comparison
- medicine (plastic surgery)
- Dentistry
- Orthopedic
- Art and architecture

3D Digitalization

Project realized in cooperation TECOS-Celje, Slovenia and CIRKO MES CE for Slovenian sport's Aircraft producer



TECHNOLOGY PARK – RITC MACEDONIA

Aims of the project

- to build "technological city", which will create longterm conditions for development of creative class
- to develop conditions for global entrance of the region in the field of technologies and competitiveness
- prepare background for inflow of technological companies in the region
- to create knowledge (international university) and co-operative network based on strong development, research and education for the demands of Johnson Control Inc. and other investors in Macedonia

S-TIGER

Scientific and technological Innovation for Greater Economic Revitalization

Regional Conference

17-19 November 2006, Skopje, Macedonia

More info: www.maaa.org.mk or www.cirko-mes.com

Contact

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Mechanical Engineering Systems

Center of Excellence

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Results of the Working Group: Research-related Projects and Funding Programmes

Dr. Gerhard Duda

German Rectors' Conference (HRK), Germany

1. Modern research equipment

The participants of the working group agreed that modern research equipment is needed in the region in order to allow the research teams to cooperate with top research teams in Europe and the world, to train local young researchers adequately and to be attractive for international researchers oriented towards impact factor publishing.

The experience with some equipment delivered, but not used, being broken etc. has made donors and also HRK reluctant to invest in equipment unless there are guarantees for the sustainable use of these technical investments. The working group agreed on a set of preconditions necessary for a successful investment into equipment:

- Equipment should at least partially be co-financed by the receiving country or institution as a proof for the need for the equipment and of its "local ownership".
- The receiving side should have availability and should be willing to use resources to maintain the equipment (experimental substances; repair works; spare parts).
- The staff that will be handling the equipment has to be trained before the arrival of the equipment in the best possible way (costs for such a training possibly abroad have to be considered beforehand).

2. Research training/Doctoral training

Prof. Lacković reported about the results of the two European Conferences on harmonisation of PhD Programmes in Biomedicine and Health Sciences 2004 and 2005. The participants agreed that medical PhDs should be research based and not taught programmes,

while containing some taught modules e.g. on generic skills.

The working group discussed the problems of recognition of PhD degrees of other universities and countries and recommended to overcome this problem and to increase the quality of PhD training in general and the mobility of the PhD students by:

- creating collaborative, joint PhD programmes,
- establishing double mentorship of PhD theses,
- stimulating an international peer review of a thesis and
- mutually recognising the diplomas.

As a good example of international cooperation in doctoral training the "SEEFORM" project of the University of Bochum and of the Civil Engineering Faculty and the IZIIS Institute of Skopje was presented. The PhD candidates from the SEE region receive training in general and earthquake engineering and have mentors from Germany and the SEE region.

3. Transition from emergency funding of projects by support programmes to normal European research funding

The SEEFORM project has the potential of making the necessary transition from emergency support by stability pact sources to regular research and research training funding. The possibilities of Marie Curie funding in the framework of the EU FP 7 programme or the training programmes of the German Research Association (DFG) were discussed.

As a successful example of a DFG application the cooperation of the University of Kassel and the IZIIS of the University of Skopje were discussed. Both universities will be testing jointly an experimental device on the IZIIS shaking table.

4. Emerging excellence centres and political support

The working group discussed the necessity to find political support for the emerging excellence centres based on the experience of earthquake engineering. It was considered useful to study the creation of political advisory boards for such projects as done by the Bulgarian-Romanian Interuniversity Europe Centre (BRIE). Earthquake Engineering was considered to be in particular need for organised political support as:

- it is vital for the South European *Mediterranean* rim and the Balkan

peninsula, but not for the central and northern part of Europe and has to fight for attention e.g. in Brussels, but also in the national governments of SEE,

- political cooperation of Turkey, SEE, Greece and other Mediterranean states has to be established.

Personalities to be looked for as members of these advisory boards are preferably elder politicians and statesmen that are experienced, well known and enjoy respect across party lines.

5. Public and private funding sources as basis for the survival of emerging excellence centres in research

The working group agreed that a set of financing sources is necessary to build up the needed research staff and to acquire the obligatory equipment in a sustainable way.

The EULIMNOS project was presented in this context where young Montenegrin scientists succeeded in achieving first funds by the FP 6 in cooperation with Norwegian partners.

The 7 Framework Programme of the EU was presented to the participants. In addition the new SEE ERA-NET programme was presented combining the bilateral funds of SEE and other European states. The first pilot call is to be pronounced in November 2006 and will offer funds to mainly mobility related activities.

Further Information: www.cordis.lu/fp7/ (FP7) or www.internationales-buero.de (SEE-ERA.NET)

The Mechanical Engineering Department of the University of Skopje presented its efforts to develop services for small and medium sized companies in Macedonia and training offers for international companies that are about to start investments in Macedonia like the car parts manufacturer Johnson and Johnson. For the SME activities it received initial support by USAID and SUN Microsystems.

Chapter 2

Teaching-related Projects and Funding Programmes

Bulgarian-Romanian Interuniversity Europe Centre (BRIE)

Prof. Dr. Mimi Kornazheva

University of Rousse, Bulgaria

Director of BRIE-Rousse

Establishment of BRIE

The idea of BRIE was born 5 years ago, and since 2002 it has been transformed into reality through the provision of master degree programs for students from South Eastern Europe. So far, BRIE has been functioning as **the first cross-border project of the region** in education and its academic profile has been already established. That is why the introductory words of this report should firstly nominate ***the main contributors to the building of BRIE as a Stability Pact for South Eastern Europe network.***

The academic partners of BRIE are the following universities:

- University of Rousse "Angel Kantchev", Bulgaria (since 2000)
- Academy of Economic Studies Bucharest, Romania (since 2000)
- Chemnitz University of Technology, Germany (since 2000)
- European University Viadrina in Frankfurt (Oder), Germany (since 2000)
- University of Bonn, Germany (since 2000)
- University of Mainz , Germany (since 2000)
- University of Bremen, Germany (since 2000)
- University of Klagenfurt, Austria (since 2005)

Institutions, which have been supporting BRIE:

- The German Rectors' Conference (since 2000) – an initiator and an engine of the idea to bring together universities for the development of the region of South Eastern Europe and the border area at the Danube bridge
- the German Federal Foreign Office and the Federal Ministry of Education and Research through Stability Pact funds (since 2000)

- the Bulgarian Ministry of Education and Science and the Romanian Ministry of Education and Science through provision of state subsidies for BRIE (since 2002)
- the Bulgarian Ministry of Foreign Affairs and the Romanian Ministry of Foreign Affairs by signing the Agreement for Cooperation and Mutual Assistance for the Development of BRIE on 04.02.2005 (since 2002)
- Rousse and Giurgiu District and Local Authorities through lobbying and negotiating in favour of free movement across the border and through support for the housing of BRIE-Rousse and BRIE-Giurgiu (since 2000)
- Bulgarian and Romanian border governance authorities

Foundations and companies, which have been donating BRIE:

- ***Hertie Foundation (since 2002)*** has supported **38 students** of the European Studies master program with 2-year grants, as well as the **"Hertie Lecturers Program", visiting lecturers from Germany** and the organization of the **summer school in European integration** in Rousse (2003); in Chemnitz (2004), in Bonn and Brussels (2005)
- ***Stifterverband fuer die Deutsche Wissenschaft (since 2001)*** supported human resources at BRIE in 2001. Over the period 2002 to 2007 Stifterverband has provided grants for **14 students** of the master program in International Business Informatics (IBI) and for **4 students** of the master programme European Public Administration (EPA). Furthermore, Stifterverband funded scholarships for research purposes to young BRIE-lecturers.
- ***Robert Bosch Foundation (since 2003) supported 4 lecturers*** so far, three at University of Rousse (who have been teaching at the bachelor and the master programs in European Studies), and one at the Academy of Economic Studies (for the IBI master program in 2004-2005 academic year).
- ***Consulting AG (since 2004)*** financed the scholarships for **6 students** of IBI and for **4 students** of EPA.
- ***Siemens AG (since 2004)*** has donated a grant for **1 student** of IBI and provided an internship. Furthermore, Siemens AG funded

scholarships for research purposes to young BRIE-lecturers.

- **Haniel Foundation** has been supporting financially the human resources at BRIE since 2005 – a salary for a **project and extracurricular activities manager and his assistant**.
- **E. ON Energy Bulgaria (since 2005)** has donated grants for **4 students** at the European Studies master program.
- **Foundation "Dr. Zhelju Zhelev" (since 2003)** - Bulgarian Foundation, which has been donating books: more than 50 volumes, incl. proceedings of the Balkan Political Club.

Being the first functioning educational cross-border and trans-national networking structure in South Eastern Europe, BRIE has built the core of its corporate identity, which is visualized by the three pillars (the three "P") of the bridge in the BRIE logo:

- *BRIE is a follower of the Bologna Process and belongs to the European educational area (inter-university Partnership).*
- *BRIE contributes to the education of a new generation of professionals, committed to the European integration, to the region of South Eastern Europe and to the border area at the Danube bridge (university-professional practice Partnership).*
- *BRIE is a socially responsible network and functions in interaction with businesses, politicians, public administrators, NGOs and media for the regional development and the cross-border cooperation (university-public-private sector Partnership).*

In terms of its first pillar, BRIE fulfils its tasks within a cross-border (trans-national) academic management structure. The structure includes:

- ***BRIE Advisory Board*** under the auspices of **Prof. Dr. Rita Suessmuth, former President of the German Parliament, and Dr. Zhelyu Zhelev – former President of the Republic of Bulgaria**
- ***BRIE Board*** under the presidency of the ***Rectors of Academy of Economic Studies Bucharest, University of Rouse "Angel Kanchev" and the President of the German Rectors' Conference***
- ***BRIE Commission*** including BRIE-Rousse and BRIE Giurgiu offices

as an executive body

- **Three inter-university commissions** are supporting three of the academic activities at BRIE, i.e. the selection of students, curriculum development and examinations. The decisions are being made within the international environment of all-partner-universities' representation and then approved according the rules of University of Rouse and those of the Academy of Economic Studies.

So far, BRIE has been providing **two full-time bi-lingual (in German and English) joint master degree programs:**

- **European Studies at BRIE-Rousse** and
- **European Public Administration since 2006**

The studies of the first, second and the fourth semesters of the two programs are organized at the local BRIE sites. The third semester of the European Studies program takes place at the German or the Austrian partner university. The quality assurance is guaranteed by standard accreditation procedure. The program of European Studies has already been accredited by the German accreditation agency Acquin.

Regarding its **second pillar**, BRIE has been producing the most important asset for the region – **educated human capital, which has been acquiring the culture of co-operation**. Following our mission and goals, set up in 2000, and developing and implementing curricula relevant to the regional demands, **BRIE has been shaping the specific profile of its graduates:**

- They belong to a new generation of decision makers, who will be able to support the peace process, having observed the consequences of reconciliation after the fifties of the last century in Western Europe and the establishment of the European Union.
- They will be able to prevent from destruction and will start building the region anew, having seen the practical implications of the process of integration in terms of social and economic cohesion and the regional development policies of the European Community.
- They will be able to develop policy networks and epistemic

communities for the region, having experienced togetherness and friendships with 'the other' from the Balkans and having shared a common loyalty to the future of South Eastern Europe.

BRIE students are coming from 9 countries. The overall number of matriculated students till 2005 is: **140**

Country	Student numbers	Country	Student numbers
1. Albania	11	6. Moldova	4
2. Bosnia and Herzegovina	1	7. Romania	55
3. Bulgaria	45	8. Serbia and Montenegro	5
4. Kosovo	7	9. Russian Federation	1
5. Macedonia	11		

The average number of students per program and per cohort varies from 15 to 20. In terms of organizing the third semester mobility these student numbers are feasible. The opinion of students themselves is, that there should not be oversupply of BRIE graduates at the labour market.

The most objective evaluation of BRIE performance under the second pillar is the career start of BRIE graduates. Firstly, it has become evident, that ***the graduates have been immediately recruited and most of them, for decision-making positions.*** What is more, the demand has been exceeding the supply. In a formal and informal way, representatives of the private and the public sector organisations and companies have been searching for information about BRIE graduates. For example, out of 15 students who have graduated in 2004 as Masters of European Studies, all have immediately started their careers at ministry departments, local public administrations, private companies and universities.

As far as the third pillar is concerned, BRIE has been supporting the strategic change towards decentralization and development of regional and border area identity, thus adding value to the *transformation of two national peripheries into a European cross-border center*. The "Agreement for Cooperation and Mutual Assistance for the Development of BRIE..." between the governments of Bulgaria and Romania, which was signed on 04.02.2005 by the foreign ministers of the two states, is the first acknowledgement of the need for decentralization, and an evidence of the recognition of the emerging border area identity.

Nationally and locally, BRIE has been perceived as a leader in trans-frontier cooperation. Its mission "to open the borders" has been considered of primary importance. Secondly, BRIE has been viewed as a model, which has produced *a spill-over effect* for the emergence of other similar formats of networking across the border, for example "Euroregion Danubius" Association. The very existence of BRIE has been urging for formal and informal networks and formats of cooperation between students, lecturers, public administration and border authorities on both sides of the Danube. A lot of Romanians and Bulgarians came to know each other just because of BRIE and this constantly widening range of neighbour relations is one of the hidden effects of the cross-border network.

BRIE has been acting as a socially responsible network, as a *social engine* (to quote a BRIE student). So far, BRIE has been involved in the following applied research projects:

- on the feasibility of trans-frontier cooperation in 2001-2002;
- on the feasibility of cross-border cooperation in rural tourism in 2003-2004;
- on the creation of International Culture and Conference Centre after the name of the Nobel Prize laureate Elias Canetti in Rousse in 2002-2004;
- on the establishment of a Business Incubator in Giurgiu in 2002-2004.
- on personnel development of management specialists in Giurgiu county through an electronic training environment, in cooperation with local companies and NGOs, in 2005.

Elias Canetti Centre has started its activities in spite of judicial complications with heirs pretending for the houses of the Canetti family. Rousse District and Local authorities have provided facilities for the Canetti Centre – space for the office and the Austrian library, a salary for the librarian and the office manager. Bosch foundation has offered support and a cultural manager from Germany has been appointed. Thus, 2005 had been declared CANETTI YEAR and a range of international, national and local cultural initiatives had been organized.

BRIE has been developing its **legal provisions** for five years:

- Agreement between the Government of the Republic of Bulgaria and the Government of Romania for cooperation in the sphere of education, science, and culture
- Contract between the University of Rousse "Angel Kantchev" and the Academy of Economic Studies Bucharest
- Contract between the German Rectors' Conference and the University of Rousse "Angel Kantchev"
- Joint declaration of the Academy of Economic Studies Bucharest, the Romanian-Bulgarian Interuniversity Economic College at the Academy of Economic Studies Bucharest, the University of Rousse "Angel Kantchev" and the German Rectors' Conference for cooperation in the framework of BRIE – a project of the Stability Pact for South Eastern Europe
- Statute of BRIE, approved by the Academic Council of the University of Rousse "Angel Kantchev" and the Academy of Economic Studies Bucharest
- Contract for cooperation between Chemnitz University of Technology, Germany, and the University of Rousse "Angel Kantchev"
- Contract for the cooperation between the European University Viadrina in Frankfurt (Oder) and the University of Rousse "Angel Kantchev"
- Contract for the cooperation between the University of Klagenfurt, Austria, the University of Rousse "Angel Kantchev", and the Academy of Economic Studies Bucharest
- Decrees of the Council of Ministers of Republic of Bulgaria on the tuition fees at BRIE

- Agreement for Cooperation and Mutual Assistance for the Development of the Bulgarian-Romanian Interuniversity Europe Centre (BRIE) between the Government of the Republic of Bulgaria and the Government of Romania, signed on 04.02.2005 by the Foreign Minister of the Republic of Bulgaria and the Foreign Minister of Romania, and entered into force in 2006

The Joys and Anguishes of Developing International Teaching Programmes

Some reflections on SEE experiences in the field of European Studies

Prof. Dr. Reinhard Meyers

University of Münster, Germany

The Subotica Process and curriculum development

It is against the background described that, with the support of the Stability Pact and the German Rectors' Conference, a dedicated band of academics from Serbia, Romania, Great Britain, and Germany met in Subotica from November 2001 onwards, much inspired by the then rector of the University of Novi Sad, Prof. Fuada Stankovic, and aided and abetted by the dean of the Subotica Faculty of Economics, Prof. Stevan Vasiljev, in order to develop a **2-year Master Course in European Studies**.

The original idea was to form a project consortium consisting of:

- the University of Novi Sad, represented by the Faculty of Economics in Subotica
- the University of Cluj-Napoca
- the University of Timisoara
- the University of Münster
- the Nottingham Trent University
- the Zentrum für Europäische Integrationsforschung (ZEI) at the University of Bonn

This consortium should address itself to the following tasks:

- To enhance university cooperation in the field of study and research in European Studies, in correspondence with the Bologna Process of establishing a common European Higher Education Area with a special focus on European Integration
- To develop common curricula for European postgraduate studies that should be undertaken by the University of Novi Sad, in particular by its Faculty of Economics at Subotica, with the support

of the above mentioned universities

- To establish a network for the permanent exchange of information in all relevant spheres of teaching and research related to European Studies, which would be coordinated, in the first instance, by the Faculty of Economics of the University of Novi Sad in Subotica

The novel idea of the enterprise would have been a border-crossing triangular cooperation between Serbian, Romanian and Hungarian universities, supported by the Western European part of the consortium with advice, teaching materials and exchange of staff.

The second novel idea of the enterprise would have been an opportunity for the students to spend their first year at the home institution and to choose any of the consortium partners for spending their second year.

However ...

- the Hungarians decided that they were as yet too weak for the exercise,
- the Romanians discovered they had to travel from Timisoara to Subotica via Bucharest and Belgrade,
- the Dutch Government decided in 2004 that they would charge non-EU students € 8.500 a year in study fees,
- Nottingham Trent got a new VC who was only interested in the amount foreign students could pay towards the running of HIS university.

So, what we finally got was:

- a two-year English language Master course in European Studies run by the University of Novi Sad,
- in the teaching of which the Faculty of European Studies of Cluj-Napoca cooperates,
- supported by Professors Mike O'Neill and R. Meyers on a more personal basis from abroad,

and not to forget

- a series of European Studies Summer Schools starting in Novi Sad from 2003 onwards with the intention to provide a crash course on European Integration, thereby preparing participants for entry to the

Master Course.

The curriculum is as follows:

- To obtain the MA diploma in European Studies (120 ECTS credits), the student should complete courses in *four obligatory modules*, one *one-semester foreign language course* as well as *five elective courses* (4 if they have previously earned credits in the Summer School of European Studies). Total number of credits for all completed courses should be 90.
- *Master's thesis*: The student can submit his/her Master's thesis after he/she has earned at least 52 credits and with GPA (grade point average) of minimum 8.00. Master's thesis defended successfully is worth 30 credits.

Finance...

...was coming forward for the project in 2001-2004:

- from the Stability Pact via the German Rectors' Conference,
- from the Central European Initiative mainly for the summer schools,
- from the University Budgets of Novi Sad and Münster to a limited extent to cover administrative costs and the costs of preparing summer school teaching blocks,
- from my third source funds bonus in order to pay summer school student assistants.

The sources under a) and c) have meanwhile dried up...

Word of warning

In the academic year 2006/2007, students who started the postgraduate *European Studies Across Borders* in English the previous year, organized at the Centre for European Studies and Research (CAESAR) will continue their second year. After finishing the third semester, they can choose between writing their thesis (magister of science) or switching to the PhD programme and finishing it with a PhD thesis.

Due to educational reforms in Serbia conducted in compliance with the Bologna Process and the new Law on Higher Education from 2005, the traditional postgraduate studies after which a traditional master's title (magister of science) is awarded, are being revoked. Instead of this, three

year PhD studies are going to start in 2007/2008. Students who received both Bachelor's degree (after three or four years of studies) and Master's degree (after one or two years of studies) will be eligible for this programme. Those students who have completed their studies according to the old system of studying (four years), cannot enrol in PhD studies directly. They will have to complete master's studies and be awarded a master's diploma. Thus, the Expert Council of CAESAR, having the approval of the Teaching and Research Council of the University of Novi Sad, has decided to start with one-year master's studies in the academic year 2006/07.

Will this be the future?

- We started on a rather grandiose scale, trying to construct a triangular Master course *European Studies across Borders* depending on a lot of staff mobility and cooperative compromises between different regional university systems...
- We opened after a lot of organisational hassle in October 2005 a two-year English language Master course in Novi Sad on a more limited regional basis: students came from Serbia, Montenegro, Moldavia; Novi Sad staff was supported by professors from Romania, Germany, and Great Britain...
- We now look forward – mainly due to recent Serbian legislation – to a one-year Master in European Studies in Serbian AND PERHAPS another English-language Master course from 2007/2008 onwards...

Provisional *facit*

The project is a good example for the grinding down of a great idea on the stones of:

- limited administrative imagination underestimating the social and political potential of well preparing students for a role in a potential EU member state;
- limited, if not receding financial and personnel resources dedicated to Higher Education in (Western ??) Europe in general and the support of SEE programs in particular;
- the commercialisation of Higher Education with the concomitant change in Departmental attitudes – from

"Where can we help" to "What will this bring – in costs and in gains – for the Department and/or the University?"

Further information:

The full PPT file can be downloaded from our Web site:

www.uni-muenster.de/Politikwissenschaft/Doppeldiplom/aktuelles.html

Contact: meyersr@uni-muenster.de

Centre for Advanced European Studies and Research (CAESAR)

<http://www.caesar.ns.ac.yu/eng/>

Useful e-mail addresses:

ivanavuj@uns.ns.ac.yu

fuada@eunet.yu

bernadet@pf.ns.ac.yu

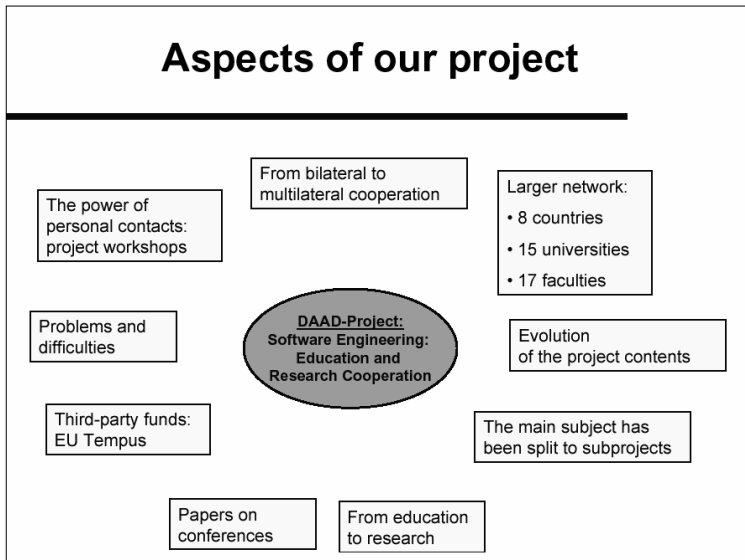
Software Engineering: a multilateral educational and research network for South Eastern Europe

Prof. Dr. Klaus Bothe

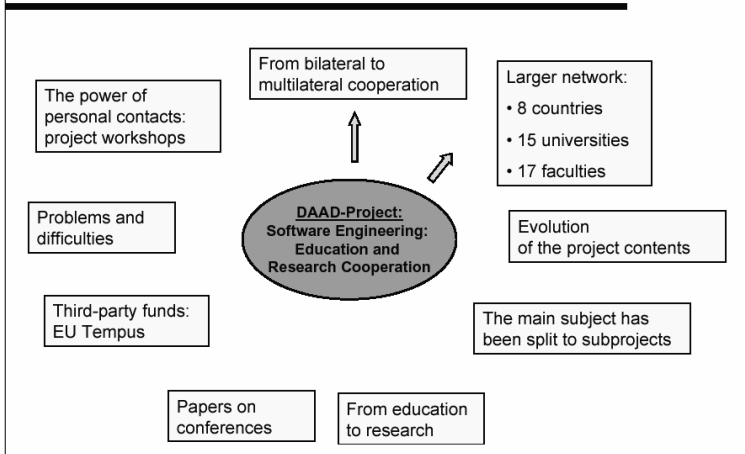
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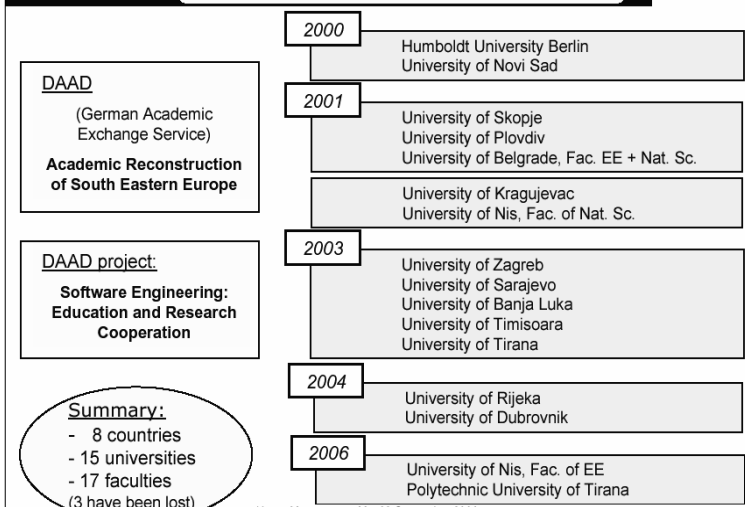


Aspects of our project: Evolving network

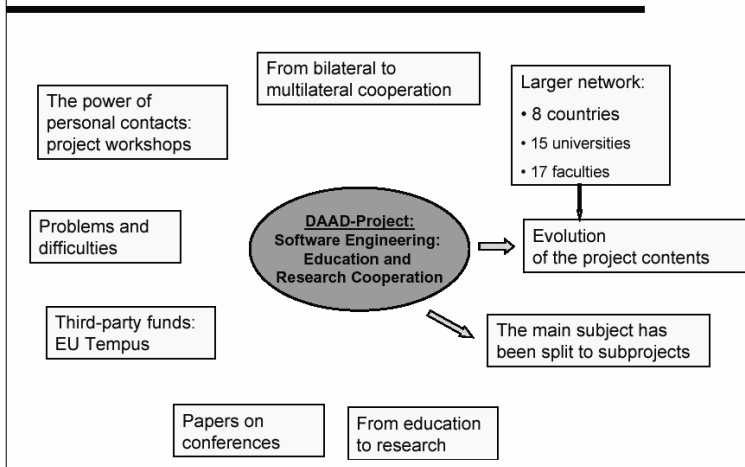


Participants: continuous development of a network

Stability Pact for South-Eastern Europe



Aspects of our project: Evolution of the project subject



Main subject: Improve software engineering education

Original state in South Eastern Europe:

- Software Engineering as a teaching discipline almost non-existent in the region
- The same for related disciplines (e.g. software project management)
- Attractive teaching materials extremely rare as teaching aids
- No emphasis on teaching methodologies
- Rather theoretically-oriented curricula
- Quite different contents of similar curricula at different universities
- Monolithic examinations at the end
- e-learning - non existent
- Little cooperation in that region

Software Engineering:

- Fundamental subfield of Informatics
- How to develop complex software systems

... improve this situation:

- Introduce SE as a teaching discipline
- Develop teaching materials for SE
- ...

Some results during the first phase

- **JCSE**

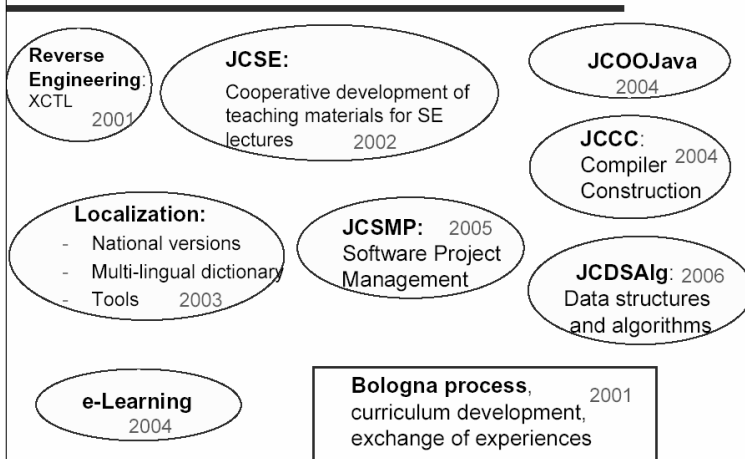
Joint course on software engineering:
Cooperative development, use, and
discussion of teaching materials for SE

- SE as a teaching discipline now existing everywhere at that region
- Discussion of teaching methodologies
- JCSE materials belong to the first attractive materials
- New practically-oriented curricula introduced covering SE
- Assessments now continual and practical
- Cooperation across informatics institutes of different universities / across countries
- Easier transition to Bologna-conform reforms

JCSE: Applications in real lectures

- *Novi Sad*:
2002-04: 2 times, English slides, 10 participants from industry,
2003-05: graduate students, 12 students in average per year
2004-06: undergraduate students, 65 students an average per year
- *Skopje*: English, 2 different courses since 2004
- *Plovdiv*: Bulgarian, 2 different curricula, 100 participants, since 2003,
textbook in 2006
- *Kragujevac*: Serbian
- *Zagreb (Dubrovnik)*: Croatian, 1 topic
- *Timisoara*: Romanian, 1 topic
- *Berlin*: 4 times (transparencies) + 5 times (ppt), German,
80 participants
- *Belgrade (Faculty Elec.Eng.)*: 2005, 2006, Serbian slides, 12 topics,
133 participants in 2005
- *Rijeka*: planned for 2007
- *Polytechnic University Tirana*:
planned for 2007 with the help of a guest lecturer

Evolution of the project contents



Cooperation in subprojects



From education to research

Issues:

- Cooperative development
- Reuse support
- Localization
- National versions
- eLearning

Main Project:
Pool of teaching materials

Publication of project results at conferences (eLearning, learning technologies)

- FIE 2005 (IEEE, Indianapolis)
- ICAIT 2005 (IEEE, Taiwan)
- OnlineEduca 2004 (Berlin)
- BCI 2005, 2003 (Tessaloniki, Ohrid)
- Eurocon, (Ljubljana 2003, Belgrade 2005)
- ITI 2003 (Dubrovnik)
- Run 2003 (Novi Sad)
- Delfi 2004, 2005 (Paderborn, Rostock)

Subproject XCTL:

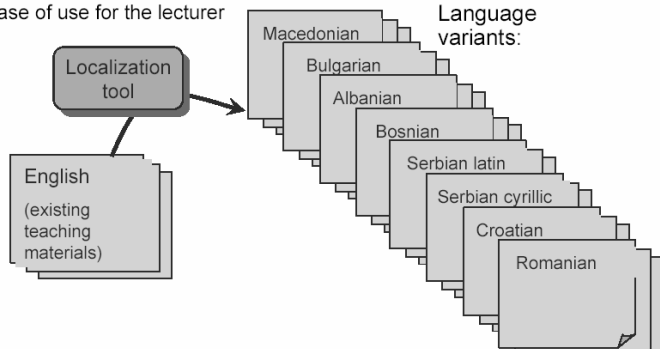
Cooperative development of a software system in experimental physics

Related projects:

- US: Swenet with 6 universities
- BMBF: MuSoft (11 persons for 3 years)
- EU: Ariadne

Research issue: Localization

- Existing teaching materials (e.g. in English) have to be localized / translated:
 - National laws
 - Ability of the students
 - Ease of use for the lecturer



The classical waterfall model (1970)

Analysis and Definition → Design → Implementation → Test → Usage and Maintenance

Source language → Target language

Translator

Problems?

Topic to be translated

Additional languages to be displayed

Localization Tool at work

English	Bulgarian	Croatian	German	Polish	Serbianian
Analysis	Анализ	Analiza	Analyse	Analiza	Анализ
Definition	Дефиниция	Definicija	Definition	Definicja	Дефиниција
Design	Проектиране	Projektiranje	Design	Projektowanie	Проектирање
Implementation	Прилагане	Uspostavljanje	Implementation	Implementacja	Тестирање
Maintenance	Поддршка	Podrška	Maintenance	Utrzymanie	Тестирање
Test	Тестирање	Proba	Test	Testowanie	Тестирање
Usage	Мониторинг	Koristenje	Use/Using	Uzycie	Користовање

Multilingual dictionary: automatic replacement of technical terms

Different language variants due to text length differences: partly translated slide

Error statistics: occurrence and correction

Phase	Requirements	Design	Implementation	Total
Occurrence	20%	38%	42%	100%
Correction	1%	2%	20%	23%
Remaining	19%	36%	22%	77%

faults introduced to the software

requirements review, design review

Преглед кода + тестирање јединица програма ("unit test")

Тестирање подсистема

Тестирање система и тестирање прихватљивости ("acceptance testing")

Грешке током употребе

Specific task of that tool: cope with layout problems

Existing layout does not fit for another language

DAAD project_Joint Course on Software Engineering | Извор: Software Metrics Symposium 1996, p. 178

The power of personal contacts: project workshops

Workshops in Software Engineering Education and Reverse Engineering:

- Novi Sad, YU, 2001
- Plovdiv, BG, 2002
- Ohrid, MK, 2003
- Zagreb, CRO, 2004
- Baile Herculane, RO, 2005
- Ravda, BG, 2006

Group photos 2001 - 2004



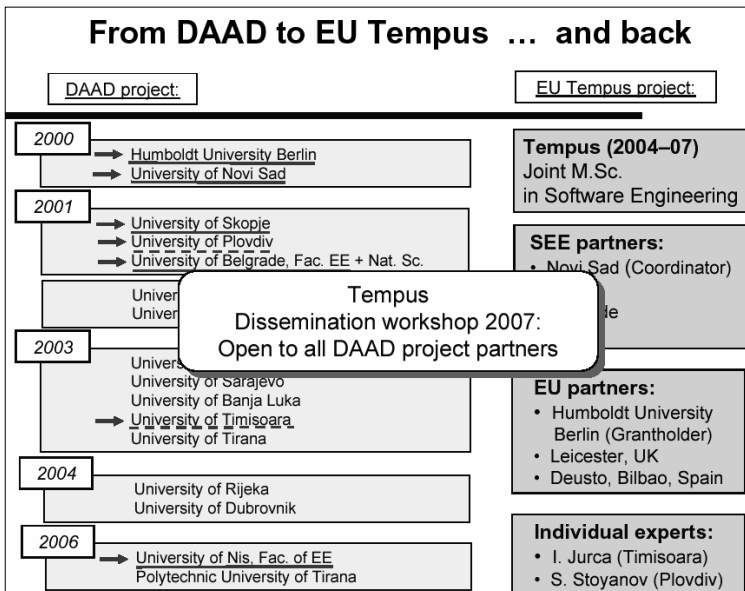
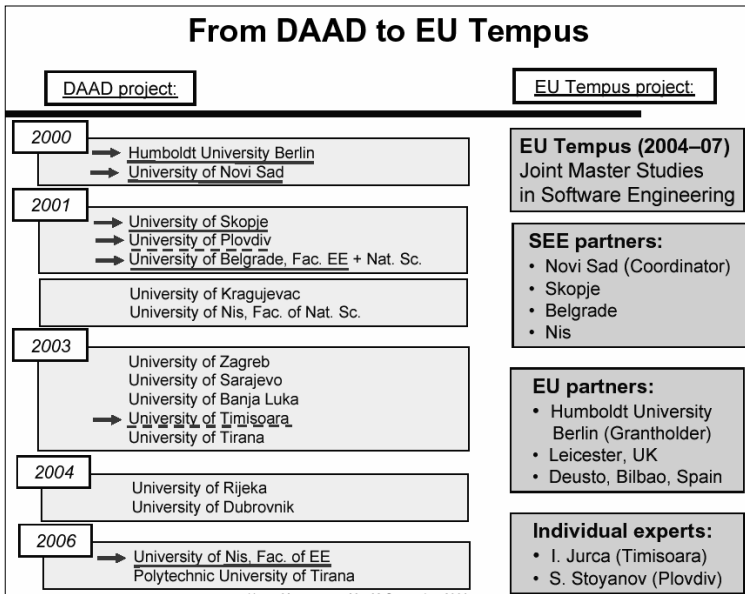
Workshop group photo 2005



Workshop group photo 2006



Third Party Funds: EU Tempus



Problems and difficulties

- More and more groups have joined us over the years due to useful project results:
 - Producing high-quality teaching materials is time-consuming
 - Similar international teaching material projects (US: Swenet with 6 universities, BMBF: MuSoft with 33 man years, EU: Ariadne ...)
 - Positive influence to the whole educational process
 - Personal contacts, exchange of ideas
 - ... and we have lost some members (Kj, Ns, Du)
 - Of course, the groups contribute differently to the project – depending on their: capacity, manpower, closeness to project goals etc.
 - groups actively producing materials – groups passively using material
 - core groups – marginal groups
 - Without the project – i.e. project funds from DAAD – it will be hard (or even impossible) to continue with the project
 - (DAAD annual conference 2004, Potsdam: "Without projects no cooperation")
 - Our workshops are the stimulating/motivating events to work in the sense of our project goals:
 - Presentation of results,
 - Personal contacts,
 - Different educational groups have been included: Professors, lecturers, assistants, master students, bachelor students
(During the lifetime of the projects several project members became full professors, students got positions in software companies)
- In case of less funds, at least the workshops should be kept.
- Strong workload:
 - All project results have been achieved without additional manpower and in addition to the ordinary work at home universities (educational work, research, academic administration/commissions etc.)
 - compare: BMBF project MuSoft for SE teaching materials with 11 persons for 3 years.

Development potentials and plans for the near future

- Introduce JCSE at additional universities: Rijeka, Tirana etc.,
- Extend the pool of teaching materials: OOJava, OOSMP, OCCC,
- Improve and extend the materials,
- Produce eLearning variants,
- Localization: inclusion of translation memory systems,
- Include software companies in education: projects for lab work,
- Exchange ideas of curriculum development (Bologna).

Further project information:

<http://www2.informatik.hu-berlin.de/swt/intkoop/daad/>

SEEPET – South East European network for the Promotion of Entrepreneurial Thinking in higher education

Prof. Dr. Slavica Singer

University of Osijek, Croatia

Sunčica Oberman Peterka

University of Osijek, Croatia

History of the project

- October 2004 – initiative for the project originated at the HRK conference in Sarajevo, BiH
- December 2004 – J.J. Strossmayer University in Osijek, Graduate program in Entrepreneurship with consortium was approved to realize the project
- January 2005 – beginning of the project activities
- January 2006 – end of the project activities

Project Consortium

- Graduate Program in Entrepreneurship, J.J. Strossmayer University in Osijek, Croatia, leading applicant
- Ss. Cyril and Methodius University in Skopje, Faculty of Mechanical Engineering, Faculty of Economics, Macedonia
- University of Tuzla, Bosnia and Herzegovina
- Entrepreneurship Research Center of Middle East Technical University (METU), Turkey
- Academy of Economic Studies Bucharest, Faculty of Economic Studies in Foreign Languages, Romania

Goal of the Project

- promotion of training of students in entrepreneurial thinking
- promotion of training of already working graduates within the framework of a life learning concept
- promotion of business transfer activities at higher education institutions

Main activities of the project

- Developing a questionnaire for identifying supply side of entrepreneurship education and conduct research among participating universities
- Developing a web site that is intended for anyone who would like to learn more about entrepreneurship education

Research on Supply side of entrepreneurship education

- February-March 2005 – research among partner institutions
- Universities that return back filled questionnaire:
 - J.J. Strossmayer University of Osijek, Croatia
 - Ss. Cyril and Methodius University in Skopje, Macedonia
 - Academy of Economic Studies Bucharest, Romania
 - University of Novi Sad, Serbia

Summary of the research results – UNDERGRADUATE PROGRAM

- Faculty of Mechanical Engineering of Ss. Cyril and Methodius University in Skopje has the "Entrepreneurship and small companies" course which is obligatory for all students.
- At the Bucharest University there is course titled "Entrepreneurial culture" as one of mandatory courses for all students at the Faculty of Economic Studies in Foreign Languages.
- At the University of Novi Sad there is course "Entrepreneurship and management of small and medium companies" at Higher Business School.
- At the University of Osijek a program in entrepreneurship will commence in the next academic year.

Summary of the research results – GRADUATE PROGRAM

- At the University of Skopje, entrepreneurship courses are available at Faculty of Economics; Faculty of Mechanical Engineering; Economic Institute; Institute for Sociological, Political and Juridical Research.
- At the Academy of Economic Studies Bucharest, Faculty for Economic Studies in Foreign Languages there is course "Innovative management and entrepreneurial culture" as one of mandatory courses (MBA program in German language).
- At the University of Novi Sad there is MBA Entrepreneurial Studies

- (their partner is FESTO from Austria) at the Faculty of Engineering.
- At the University of Osijek there is graduate program in Entrepreneurship.

Summary of the research results – OTHER

- **University of Skopje**
 - within the Faculty of Mechanical Engineering an Incubator center for students – Business Start-up was founded.
 - there are professors of entrepreneurship at the Faculty of Economics, Faculty of Agriculture, Faculty of Mechanical Engineering and Institute for Economy.
 - There are also student competitions for creation of business plans, which are supported by German Technical Support (competition has already ended) and British Council (competition has just started).
 - in development phase are courses for entrepreneurs, and there is also project work in small companies, as well as technology transfer activities.
- **Academy of Economic Studies Bucharest**

In cooperation between the Academy of Economic Studies Bucharest, University of Applied Sciences Gelsenkirchen and BRIE was founded a business incubator in Giurgiu, Romania.
- **University of Novi Sad**
 - has a Center for Entrepreneurship,
 - within other activities designed for support of entrepreneurship, in 2003 competition Business Idea took place within the University, and in 2005 competition Best Technological Innovation in Serbia.
- **University of Osijek**

There is a Center for Entrepreneurship in Osijek which operates outside of the University.

Web site – www.seepet.org

This Web site is intended for anyone who would like to learn more about:

- entrepreneurship education,
- entrepreneurship research and the results thereof,
- institutions that can be approached for help and information,

- higher education institutions that have already introduced entrepreneurship as a regular part of their curriculum,
- the Web site also provides relevant papers from this field, information on entrepreneurship conferences, new books, etc.

Content of the Web site:

- **Entrepreneurship education**
 - Undergraduate level
 - Graduate level
 - PhD programs
 - Executive education
 - Why is it important?
- **Entrepreneurial infrastructure**
 - Policy centres
 - Developmental agencies
 - Centres for entrepreneurship
 - Business incubators
 - Technology parks
- **Entrepreneurship in numbers**
 - GEM
 - Entrepreneurship education in Europe
 - The SMEs observatory
- **Resources**
 - Important documents
 - Interesting articles and abstracts
 - Useful links
 - Books on entrepreneurship
 - Journals
 - Conferences on entrepreneurship
 - Youth and entrepreneurship

Future of the project

- To make www.seepet.org more international, more active and more portal!

- international business plan competition?
- joint international doctoral program?

Contact

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The Network "Materials Science and Materials Technology" of the Albanian-speaking Universities

Prof. Dr. Heinrich Oettel

Institute of Materials Science

TU Bergakademie Freiberg, Germany

The "Network of Materials Science and Materials Technology" (NMST), a network of the Albanian-speaking universities offering courses in Materials Engineering, i.e. Materials Science, has been existing since November 2005.

Members: The Polytechnical University Tirana and the University Prishtina, both have complete courses in Materials Science/Engineering, and the Universities Tirana, Tetova, Elbasan and Vlora, giving lectures in this field for other technical courses like Mechanical or Civil Engineering, ship building, processing or Physics. It was a long way we had to cover and I am sure, that the process of forming a stable cooperation between these universities cannot be established so soon.

The beginning was a visit of a group of German university teachers at the end of 1999 in Kosovo, which means immediately after the war in Kosovo. The main aim of the visit, organized by the HRK in collaboration with the DAAD, was a stocking-up of the university situation in Kosovo, and as my special tasks a stocking-up of the technical and science faculties in Prishtina and Mitrovica.

The situation we found was depressing:

- As you know, about ten years the Kosovar professors could not teach in the university, but only in underground. The teaching took place in a very restricted manner without any contemporary literature, equipment or contacts to other institutions and colleagues.
- Experimental and active work of the students, important for education of engineers or physicists, was not possible, because no

suitable equipment existed. We found only some heavy and demolished old machines.

- The staff was overaged, young professors and junior employees with a sufficient qualification were seldom.
- The maintenance of the buildings was neglected over a long time; some buildings were damaged by war.

Summarizing the situation, an education of engineers or physicists on a level nearly like in Germany or other European countries was not possible. Additionally, the frame of mind of the majority of the professors and the staff reflected the catastrophic situation, real and helpful ideas about the reconstruction of the faculties and the university were scarce commodity.

In such a situation the fast and active support of the Prishtina university by German universities and scientists was absolutely necessary. At first, we defined the field of our collaboration:

- development of new curricula on the base of the Bologna Declaration taking into account the needs for the development of the region. We have realized this e.g. by workshops in Freiberg with Kosovarian and German professors or deans.
- Organization of internships for students and young assistants in the labs of institutes in Freiberg. It was a great experience for the students to make the first experiments by their own hands!
- Guest lectures of German professors, that means block courses for 3-5 days (Solid state physics, Basics of Materials Science, Processing, Building materials, Physical diagnostics, Phase equilibria and Phase transformations, Structure analysis, selected properties of materials...);
- stays of selected professors and lecturers in Freiberg for development of new teaching units and lectures;
- stays of postgraduates in Freiberg for carrying out experiments as the base of their magister and doctor theses (up to now two doctorates finished and two in preparation, two magister theses);
- stays of students in Freiberg working for their diploma theses.

Lastly all these activities should improve the level of education in Prishtina, Tirana and Vlora. But the main work load had the institutes in Freiberg. That is, why we had to change the strategy.

As a test for new forms of collaboration nearly three years ago the faculty of Mining and Metallurgy in Mitrovica organized a post gradual study "Materials science – basics and application", (10 postgraduate students). In this year the first postgraduates will finish this course. About 50 % of the lectures were given by Freiberg scientists mainly in Mitrovica/ Prishtina and three internships took place in Freiberg. We hope that some graduates of this course will improve the education of the faculty in the future.

Very helpful in this activity was the existence of the so-called Central Laboratory Unit for Materials diagnostics (CLU) of the Prishtina University, financed by the HRK and the German Federal Foreign Office (Stability Pact budget). What is it? Already during our first visit in Kosovo in 1999 we developed the idea of laboratories, which can be used not only by a single faculty or department. Rather they should serve especially for education of students of several faculties. The field of materials diagnostics/materials engineering seemed to be suited, because teaching in Materials engineering takes place in four faculties: Mining and Metallurgy (Mitrovica), Mechanical engineering, Civil engineering and Natural science/Physics.

The areas of this Central Laboratory of Materials diagnostics are:

- Mechanical testing (tension, bending, compression),
- Hardness testing (different methods),
- Optical microscopy and metallography,
- Ultrasonic defectoscopy,
- Magnetic failure detection.

We could open the CLU in 2003. Later we completed the CLU by a small mechanical workshop for preparation of the specimens. Today a remarkable defect in the concept is the missing of equipments for chemical analyses by physical methods.

This story sounds simple, but we had to solve a lot of problems.

- It is known, that in the Albanian region the historical grown university culture is quite different compared with the German conditions. The faculties in Prishtina are practically autonomous institutions, like small universities within the university. E.g. the faculties of Mining and Metallurgy and Mechanical engineering have their own lecturers in mathematics, chemistry, physics, mechanics etc. independently from the existing faculties for these sciences. These lecturers possess a great influence on the schedules in their faculties; therefore a real and effective collaboration between the different faculties is not well developed and very often undesirable. A lot of discussions and sometimes struggle was necessary to find a compromise, but this solution is partially ineffective and has to be improved in the future.
- We have to qualify the users, which should work in the CLU, because mostly the lecturers and the assistants had no sufficient experimental experiences in using modern equipment. This is a permanent task also in the future.
- Principally, the CLU should be a powerful base for quality control of materials use outside the university. But up to now this potential is not utilised enough.

Today the CLU is used by 4 faculties for practices and in summertime for so-called summer universities or schools, taking place since 2003. The summer schools are very successful and well accepted by the students and assistants not only from Prishtina, but also from Albania and Macedonia.

Very important for the forming of our network were the annual symposia "Materials and their Application". We started in 2001 in Prishtina, neglecting the boycott by the deans and the rectorate, they underestimated the potential and the interest of the people outside the university. Now in November 2006 we will organize the VI Symposium in Tirana. Organizers were the universities Prishtina, Tirana, Vlora and the state university Tetova. The number of participants was growing up from 50 to nearly 100 (university staff, students, people from the industry and the ministries from Kosovo, Albania and Macedonia).

These symposia were and are our base for scientific communication and active cooperation. They bring together specialists, lecturers and students from different universities, enterprises and institutions. Lastly these symposia induced the idea of a network. Prepared by two workshops in Freiberg and in Struga in 2005, the official foundation of the network took place in November 2005 during the V. Symposium in Tetova.

Today members are:

- University Prishtina
- Polytechnical University Tirana
- University Tirana
- University Vlora
- University Elbasan
- State University Tetova
- Technical University Bergakademie Freiberg
- LVQ Mühlheim/Germany (enterprise for certificated qualification of specialists in materials testing)

We are very hopeful to add some industrial partners in the next time.

The general objectives of the network are the coordination and organization of the studies in materials engineering (materials science and materials technology) in the Albanian-speaking universities (single lectures and complete courses). That includes also the permanent training of the lecturers. Our task of high priority is a common master course "Materials science and Engineering" of the universities in Prishtina and Tirana. The Freiberg university will control and support this project. What is the background of this common master study? The cited universities of the region are not able to guarantee an European standard of the master course in Materials Science and Engineering, but the economic development of the region requires and calls for specialists in this field, that means engineers for materials development and application, heat and surface treatment, finishing, materials technology, recycling, quality control of materials and products.

The realization of the common master study on a high level by the Albanian-speaking universities themselves, only controlled and supported by Freiberg, supposes some important activities like

- the development of new organisation schemes in the participating universities,
- development of complete new Albanian textbooks and monographs using a unified scientific terminology (a lot of the scientific terms in materials science have no Albanian translation or different foreign words are in use!),
- improvement of the laboratories and equipments taking into account the possibilities of cooperation and specialization of the universities.

This program of the network is very demanding and the realization needs a lot of time and the active support of all possible partners. We can achieve the aims only in cooperation with the ministries of education in the countries of the region. I hope this conference will activate these contacts and the collaboration.

I would like to give thanks to the HRK, the German Federal Foreign Office and the DAAD for their powerful support of the project and to all participants of the network for their activity and great engagement.

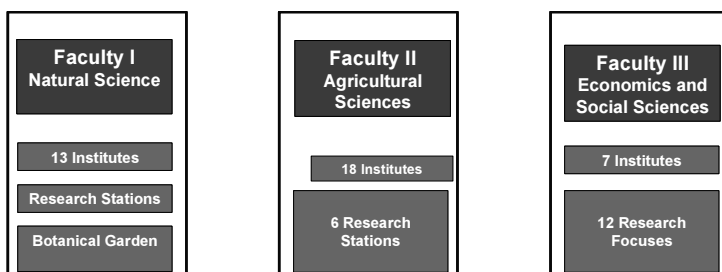
Sustainable Project Engagement for and with Universities in the Agriculture and Nutrition Sector in South Eastern Europe

Dr. h.c. Jochem Gieraths

Eastern Europe Centre

University of Hohenheim, Germany

Structure in Teaching and Research



Cross-sectional institutions



Cooperation in the DAAD special programme "Academic Reconstruction of South Eastern Europe" in the framework of the EU Stability Pact for SEE (2000-03)

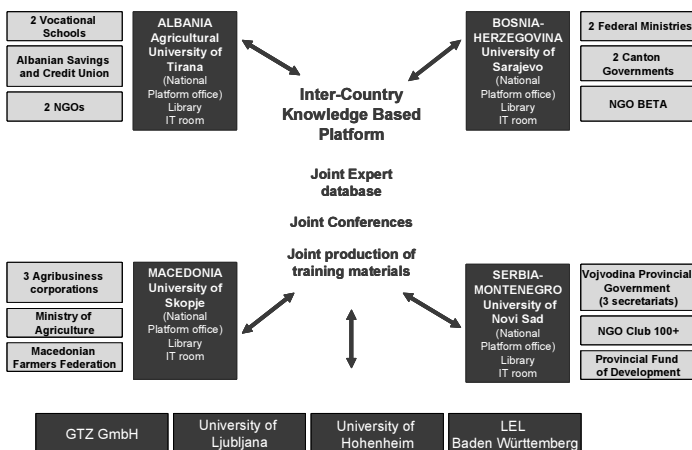
Annual exchange programmes for younger scientists of staff from Zagreb, Osijek, Belgrade, Novi Sad, Sarajevo, Tirana, Prishtina and Skopje to Hohenheim and further German universities and annual Joint Rectors Conferences in order to get acquainted with:

- Aims of the Bologna Declaration
- Enhancing regional cooperation
- Modularization of Curricula
- Introduction of two-tier system with B.Sc./M.Sc. degrees
- Quality Assurance

Tempus Cards Projects

- Restructuring and Modernizing the Food Technology in the Agricultural University of Tirana
S-JEP-09866-1995 (1995-1998)
- Improvement of the University Administration and Development of a Model for the University Administration (Tirana)
UM-JEP-13100-90 (1998-2000)
- Institutional Evaluation of the Agricultural Universities (Tirana, Prishtina, Novi Sad)
UM-JEP-16079-2001 (2002-2005)
- Reform of Agricultural Studies (Tirana, Prishtina)
CD-JEP-17089-2002 (2003-2005)
- Master's Studies in Agriculture (Tirana, Prishtina)
JEP-19021-2004 (2005-2008)
- Reform of Agricultural Studies in Croatia (Zagreb, Osijek)
CD-JEP-17108-2002 (2004-2006)
- Reform of Agricultural Higher Education in Serbia and Montenegro (Belgrade, Novi Sad)
JEP-18069-2003 (2004-2007)
- Building the European Food Science Education in BIH (Sarajevo, Banja Luka, Mostar)
IB-JEP-40035-2005 (2006-2009)
- Enhancing and Complementing Postgraduate Education in Balkan Countries with Emphasis on Regional Planning and Institutional Development (Tirana, Skopje, Sarajevo)
CD-JEP-15050-2000 (2001-2005)
- Balkan Agri-Sector Initiative for Capacity Building (Tirana, Skopje, Novi Sad, Sarajevo)
JEP-19027-2004 (2005-2008)

JEP BASIC – Organisation



Cooperation with other donors

- **German Agency for Technical Assistance GTZ**
Support of the Agricultural University Tirana
1992-1997 and 1998-1999
- **European Agency for Reconstruction/EuropeAid**
Kosovo Agricultural Higher Education and Training
1999-2000
- **European Agency for Reconstruction/EuropeAid**
Complementary Services for Strengthening Advisory and Support
Services Provided to Farmers and Rural Communities in Kosovo”

Cooperation with other donors

- With the support of the **HRK** a plant breeding laboratory was equipped at the devastated Agricultural Faculty of the University of Osijek in 2004
- With the aid of the **HRK** it was possible to transfer used laboratory equipment, furniture and computers for about 300.000 € to the University of Tirana in 2005.
- With the financial support of the **DAAD** it was possible to increase the sustainability of the achieved results by organizing an "alumni

meeting" for former cooperation partners and students from Balkan universities in Hohenheim and during the Anuga FoodTec in Cologne in 2006.

Lecturer Programme of the Robert Bosch Foundation

Lectorates in ...

- Niksic
- Mostar
- Tuzla
- Kragujevac
- Skopje
- Tetovo
- Dubrovnik

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TEMPUS Programme in Albania and its impact on Higher Education Institutions

Prof. Dr. Vaso Qano
Tempus Office Albania

HIGHER EDUCATION INSTITUTIONS IN ALBANIA

- UNIVERSITY OF TIRANA
- POLYTECHNIC UNIVERSITY TR
- AGRICULTURAL UNIVERSITY TR
- ACADEMY OF ARTS IN TIRANA
- ACADEMY OF SPORTS IN TIRANA
- UNIVERSITY OF SHKODRA
- UNIVERSITY OF ELBASAN
- UNIVERSITY OF KORÇA
- UNIVERSITY OF GJIROKASTRA
- UNIVERSITY OF VLORA
- PRIVATE UNIVERSITIES, TIRANA



BOLOGNA DECLARATION 1999

- Preparative work for understanding and starting implementation
- Legislative framework
- Working Plan and Working Teams: Ministry of Education – HEI

BERLIN CONFERENCE 2003

Signature of the Bologna Declaration

BERGEN CONFERENCE 2005

Active participation

LEGAL FRAMEWORK ON HIGHER EDUCATION

- New Law on Higher Education is preparing
- Amendments on existing Law, in order to implement Bologna Declaration (study cycles)
- Minister's of Education orders for the introduction of a Credit System compatible with ECTS and the Diploma Supplement

- Working Plan and Working Teams 2004-2006
- The Accreditation System of Higher Education in Albania (Accreditation Agency of Higher Education, Quality Assurance)
- Free mobility of students and teachers
- Rectors' Conference

PRIORITIES FOR CARDS NATIONAL PROJECTS - A L B A N I A

- Curriculum Development
- University Management
- Training Courses for Institution Building
- Structural and Complementary Measures

CURRICULUM DEVELOPMENT

- Definition of a Unified Curriculum for the same Faculties in different Universities
- Development of Life Long Learning for different professions
- Development of Technological Education
- Development and updating of the curricula for three cycles of studies

UNIVERSITY MANAGEMENT

- Strengthening of institutional, academic and financial autonomy in HE
- Strengthening of the capacity and mechanisms for strategic planning and financial management
- Enhancement of the Institutions' information and communication technology systems, mainly with the offices for foreign relations and student associations
- Stimulation of Institutional cooperation at regional level with special emphasis on technology transfer
- Development of accreditation and standards of the quality assurance
- Implementation of ECTS and of the Diploma Supplement

INSTITUTION BUILDING

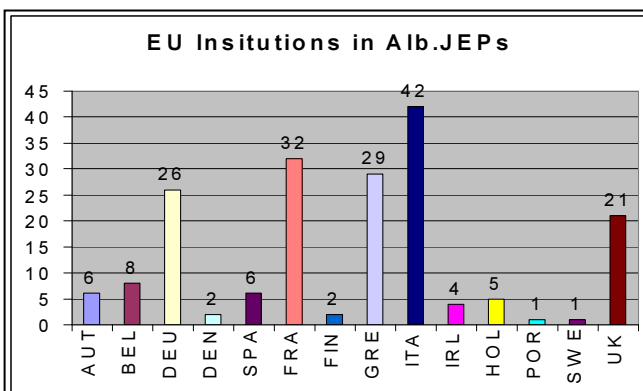
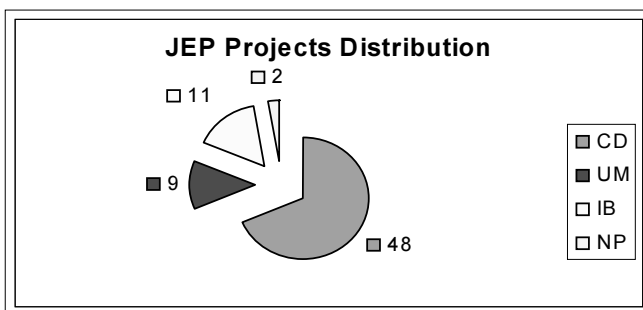
- Agriculture and Environment
- Law and Business Administration
- Continuous Education, Teacher Training

- Public Health
- Social, Natural and Engineering Sciences

STRUCTURAL COMPLEMENTARY MEASURES

- Perspective studies for the definition of the study structure in higher education
- Restructuring and introduction of new curricula
- Recognition of degrees and period of study
- Development of quality assurance systems

Tempus in Albania



Tempus JEP – 1992-2006, Contractor and Co-ordinator Countries

EU	CONTRACTORS	CO-ORDINATORS	PROJECTS
Austria	-	-	8
Belgium	3	3	9
Germany	16	11	28
Denmark	-	-	2
Spain	-	-	8
France	17	13	27
Finland	1	1	3
Greece	12	10	31
Italy	24	16	46
Ireland	-	-	4
Kosova	-	-	1
Netherlands	1	1	5
Portugal	-	-	1
Sweden	-	-	1
United Kingdom	6	5	22
Switzerland	-	-	1
U S A	-	-	1
Albania	-	14	
FYROM	-	3	
B I H	-	1	

TEMPUS funding over the years

YEAR	Tempus Funds in M Euro
1992 / 93	1,25
1993 / 94	2,5
1994 / 95	2,4
1995 / 96	3,5
1996 / 97	2,5
1997 / 98	2,5
1998 / 99	0,7
1999 / 00	1,6
2000 / 01	2,5
2001 / 02	1,5
2002/03	1
2003/04	1
2004/05	1
2005/07	2

CREATION OF EUROPEAN SPACE FOR HIGHER EDUCATION

1999 BOLOGNA DECLARATION

- Easily readable and comparable degrees
- System based on two main cycles
- Establishment of a system of credits
- Promotion of teacher and student mobility
- Promotion of European cooperation in quality assurance
- Promotion of the European dimensions in higher education

2001 PRAGUE COMMUNIQUE

- Lifelong learning
- Higher education institutions and students
- Promoting the attractiveness of the European higher education area

2003 BERLIN FOLLOW-UP

- Review of the progress
- Set directions and priorities for the next stages
- New countries joining the process
- Albania signed the Declaration

2005 BERGEN CONFERENCE

- Quality assurance
- Doctoral studies and research
- Qualification recognition
- Long life learning
- Three cycles studies

TEMPUS III 2000-2006

- JOINT EUROPEAN PROJECTS:
 - CURRICULUM DEVELOPEMENT
 - UNIVERSITY MANAGEMENT
 - INSTITUTION BUILDING
- INDIVIDUAL MOBILITY GRANTS
- STRUCTURAL COMPLEMENTARY MEASURES

1. EASILY READABLE AND COMPARABLE DEGREES

BOLOGNA DECLARATION

Adoption of a system of easily readable and comparable degrees, also through implementation of the Diploma Supplement

PRAGUE COMMUNIQUE

Ministers: To facilitate academic and professional recognition of course units, degrees and other awards, so that citizens can effectively use their qualifications, competencies and skills throughout the European Higher Education Area.

2005 BERGEN CONFERENCE

- Doctoral studies and research
- Qualification recognition
- Recognition of degrees

TEMPUS PRIORITIES AND ACTIONS IN ALBANIA

- Restructuring of several curricula and study programmes for Bachelor (3 years of study) and/or Master (minimum 2 years of study) degree courses waiting the new amendments in the law for higher education
- Development of several study programmes for basic university (Bachelor) and advanced university (Master) studies, in particular having in regard Agriculture, Natural Sciences and Engineering

2. SYSTEM BASED ON TWO MAIN CYCLES

BOLOGNA

- Adoption of a system based essentially on two main cycles, undergraduate and graduate
- The degree awarded to be relevant to the European labor market

PRAGUE

- Degree structure based on two main cycles, articulating higher education in undergraduate and graduate studies, has been tackled and discussed.
- Some countries have already adopted this structure and several others are considering it with great interest.

BERGEN

- Quality assurance
- Lifelong learning
- Three cycles studies

TEMPUS PRIORITIES AND ACTIONS IN ALBANIA

- Transformation of some four/five-year Master degree courses into a two-stage system with three/four-year Bachelor degree course followed by a one/two-year Master degree course
- Development of undergraduate study programmes (content, structure and methodologies)
- Development of postgraduate (master) programmes with duration of 1-2 years (content, structure and methodologies)

3. ESTABLISHMENT OF A CREDIT SYSTEM

BOLOGNA DECLARATION

Establishment of a system of credits – such as in the ECTS system – as a proper means of promoting the most widespread student mobility

PRAGUE COMMUNIQUE

- Greater flexibility in learning and qualification processes;
- the adoption of common cornerstones of qualifications, supported by a credit system such as the ECTS or one that is ECTS-compatible

TEMPUS PRIORITIES AND ACTIONS IN ALBANIA

- Supporting the introduction of a credit transfer system
- Development of Credit Transfer System in different universities

4. PROMOTION OF MOBILITY

BOLOGNA DECLARATION

Promotion of mobility for:

- students, access to study and training opportunities and to related services;
- teachers, researchers and administrative staff, recognition and valorization.

PRAGUE COMMUNIQUE, BERGEN CONFERENCE:

Ministers: commitment to pursue the removal of all obstacles to the free movement of students, teachers, researchers and administrative staff

5. PROMOTION OF QUALITY ASSURANCE

BOLOGNA DECLARATION

Promotion of European co-operation in quality assurance with a view to developing comparable criteria and methodologies

PRAGUE COMMUNIQUE, BERGEN CONFERENCE

- Vital role that quality assurance systems for quality standards
- Facilitating the comparability of qualifications throughout Europe.

- Mutual acceptance of evaluation and accreditation/certification mechanisms.

TEMPUS PRIORITIES AND ACTIONS IN ALBANIA

- Development and implementation of internal and external quality assessment systems related to evaluation of study programmes, courses, curricula, staff development, etc.
- Establishing University Accreditation Agency

6. EUROPEAN DIMENSIONS IN HE

BOLOGNA DECLARATION

- Promotion of European dimensions in HE:
- curricular development
- inter-institutional co-operation
- mobility schemes
- and integrated program

PRAGUE COMMUNIQUE, BERGEN CONFERENCE

Ministers: To increase the development of modules, courses and curricula at all levels with "European" content, orientation or organization.

TEMPUS PRIORITIES AND ACTIONS IN ALBANIA

- Contribution to the implementation of the Bologna Process
- Harmonization of the curricula to comply within the EU directives for regulated professions

7. LIFELONG LEARNING

PRAGUE COMMUNIQUE, BERGEN CONFERENCE

- Essential element of the European Higher Education Area
- Important for knowledge-based society and economy
- Improve social cohesion, equal opportunities and the quality of life

TEMPUS PRIORITIES AND ACTIONS IN ALBANIA

- Organisation of non university and postgraduate educational and qualification programmes (1-2 years) for training of specialists in

areas of strategic importance for joining the internal market of the EU like European Studies, ITC and Economics

- Development of Postgraduate Courses designed for continuous education/Life-long learning

8. HE INSTITUTIONS AND STUDENTS

PRAGUE COMMUNIQUE, BERGEN CONFERENCE

Ministers:

- Involvement of universities and of students as competent, active and constructive partners in the establishment of a European Higher Education Area
- Students should participate in and influence the organization and content of education

TEMPUS PRIORITIES AND ACTIONS IN ALBANIA

Strengthening of Student associations and Student Services, including Students Career Counseling, etc.

9. ATTRACTIVENESS OF THE EHEA

PRAGUE COMMUNIQUE, BERGEN CONFERENCE

- To enhance attractiveness of European higher education to students from Europe and other parts of the world
- The quality of higher education and research is and should be an important determinant of Europe's international attractiveness and competitiveness.

TEMPUS PRIORITIES AND ACTIONS

SO FAR THIS ISSUE WAS NOT ADDRESSED SPECIFICALLY
THIS WOULD BE A NEW PRIORITY FOR TEMPUS

The Johann Gottfried Herder Mobility Programme

German Visiting Lecturers on Teaching Assignments in South Eastern Europe

Rudolf Smolarczyk

German Rectors' Conference (HRK), Germany

Background

The Mobility Programme "Stiftungsinitiative Johann Gottfried Herder" is a joint project of several private foundations and of the publicly funded education and research organisations German Academic Exchange Service (Deutscher Akademischer Austauschdienst – DAAD) and German Rectors' Conference (Hochschulrektorenkonferenz – HRK).

The Mobility Programme was financed by the following foundations from 1999 to 2005: Alfried Krupp von Bohlen und Halbach-Stiftung, Fritz Thyssen Stiftung, Gemeinnützige Hertie-Stiftung, Robert Bosch Stiftung GmbH, Stifterverband für die Deutsche Wissenschaft, and ZEIT-Stiftung Ebeling und Gerd Bucerius. The DAAD has been contributing public funds to the programme since the summer of 2003.

In Spring 2005, the Hertie Foundation (Gemeinnützige Hertie-Stiftung), the Robert Bosch Foundation (Robert Bosch Stiftung GmbH), the Donors' Association for the Promotion of Science and the Humanities in Germany (Stifterverband für die Deutsche Wissenschaft), the German Rectors' Conference, and the German Academic Exchange Service decided to continue the Herder Mobility Programme up to and including the summer semester 2008.

From 1999 to 2005, the Mobility Programme "Stiftungsinitiative Johann Gottfried Herder" funded 133 Herder Lecturers on assignments involving 383 semesters of teaching in 100 higher education institutions of 21 countries of Central and Eastern Europe. The Mobility Programme is responding to changes in Europe by concentrating on South Eastern Europe.

Goals

The Herder Mobility Programme aims to improve higher education in South Eastern Europe by sending German university teachers to complete assignments in these countries. Funding is provided in the social sciences, humanities and cultural studies, with a particular focus on law, economics and business administration, social science, history and political science. The programme also supports German studies assignments. The Herder Mobility Programme particularly aims to promote courses with German as language of instruction. In exceptions, degree programmes taught in other languages and subjects may also be funded.

Target Group

The Herder Mobility Programme funds emeritus or retired German professors and lecturers. Where required, the programme will also fund assignments by university administrators.

Target Countries

Herder Lecturers can be sent on assignments to higher education institutions in the following countries:

Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Moldova, Montenegro, Romania and Serbia (incl. Kosovo 1244)

How Do Universities Apply?

Universities from the above mentioned countries submit their applications for Herder Lectureships to the German Rectors' Conference (Hochschulrektorenkonferenz – HRK). The Herder Mobility Programme aims to create cooperative focuses as a means of ensuring continuity when appointing subsequent lectureships at the host university. Besides cooperation with German lecturers, the programme also aims to encourage cross-regional collaboration in the relevant subjects.

To promote young and early-stage researchers and cross-regional collaboration, Herder Lecturers get the opportunity to integrate young and early-stage staff into the activities they pursue at their place of assignment (tandem funding) and to award scholarships for stays in Germany. Formal applications by universities are made up of:

- an application form
- a job description

Once the applications have been reviewed by the Programme Commission, the lectureships are selectively announced in Germany.

Contact

German Rectors' Conference (Hochschulrektorenkonferenz – HRK)

Mrs Milena Ivanov, M.A.

Referat C4, Ahrstraße 39, D-53175 Bonn, Germany

Tel. +49(0)228/887-105, Fax +49(0)228/887-180

E-mail: ivanov@hrk.de

URL: www.hrk.de/projekte_und_initiativen/119.php

How Do Lecturers Apply?

The Herder Lectureships are announced throughout Germany to enable emeritus or retired German university teachers (minimum requirement: a doctorate) to apply. The programme chooses and places suitable lecturers at the host university. To ensure the programme's sustainability, stays at universities in South Eastern Europe should last at least one semester.

Lecturers should send their applications to the German Academic Exchange Service (Deutscher Akademischer Austauschdienst – DAAD).

Applicants are requested to include the following documents and papers with the application form:

- a curriculum vitae describing their academic and career path,
- a list of their publications over the past five years,
- a detailed description of the courses they offer in the subject specified in the call for applications.

An independent Selection Committee decides on the applications. The Selection Committee convenes twice a year (spring and autumn).

Contact

German Academic Exchange Service (Deutscher Akademischer Austauschdienst – DAAD)

Mrs Marina Rädisch, M.A.

Referat 322, Kennedyallee 50, D-53175 Bonn, Germany

Tel. +49(0)228/882-636, Fax +49(0)228/882-444

E-mail: Raedisch@daad.de

URL: www.daad.de/jgh

Agreements, Payments and Funding

- The foreign university concludes an employment contract with the Herder Lecturer and generally pays the standard local salary; as far as possible, the host university will provide appropriate and free-of-charge accommodation for the lecturer.
- The German side pays a daily subsistence allowance on a monthly basis.
- In addition, lecturers receive a flat-rate payment to cover travel expenses and consumables.
- Lecturers on teaching assignments of at least one year qualify for subsidies towards relocation costs.
- The DAAD takes out health and private/personal liability insurance policies for the lecturers and, where appropriate, for accompanying spouses or partners.

Further Information

www.hrk.de

www.hrk.de/de/projekte_und_initiativen/119.php

Robert Bosch Foundation: Programs for Universities in South Eastern Europe

Jenni Winterhagen

Bosch Lecturer in Montenegro

Florian Reisky

Bosch Lecturer in Bosnia and Herzegovina

Content

- Robert Bosch Foundation
- Programs for Universities in SEE
- Lectureship Program

Robert Bosch Foundation

- one of the major German foundations associated with a private company
- holds 92 % of the capital stock of Robert Bosch company
- founded in 1964 in Stuttgart
- total expenditure 2005: € 55.6 m.
- five program areas

Program Area International Relations – Central and Eastern Europe (CEE)

For Universities in South Eastern Europe (SEE) relevant programs:

- Student Service–International
- "Theodor-Heuss-Kolleg" for democratic responsibility of youth
- Johann Gottfried Herder Initiative
- Robert Bosch managers of culture
- Lectureship program

Student Service – International

- Organized together with the German Student Service (www.studentenwerke.de)
- Young Graduates with interest or work experience in university administration
- German language knowledge

- Internship at the German Student Service (9 months)
- Training in German System of Higher Education

"Theodor-Heuss-Kolleg"

- 100 active young people from CEE (18-25 years)
 - Seminars on social responsibility, project management
 - develop or enhance project ideas
 - best concepts are funded by the Robert Bosch Foundation
- www.theodor-heuss-kolleg.de**

Robert Bosch Cultural Managers

- 12 graduates from CEE, work experience in cultural institutions
 - one-year internship in German cultural institutions
 - Training in cultural management
 - Project in the graduate's homeland after the internship
- www.moe-kulturmanager.de**

Lectureship Program in Central and Eastern Europe

The Program

- in existence since 1993/94
 - offering grants to young German graduates interested in Central and Eastern Europe
 - since 1999/2000 it is coordinated by the Eastern Europe Centre (Osteuropazentrum) at Hohenheim University
- www.boschlektoren.de**

The Lecturers

- teach at universities in Central and Eastern Europe
- and*
- support the host universities in realising projects
 - their teaching language is German

Lectureship program – Data

Since 1993/94 around 500 lecturers for:

- German Language
- German Linguistics and Literature
- Political Sciences

- History
- Economics
- Law
- Journalism
- Pedagogy
- Interpreting and Translating
- since 2002/03: Tandem Lecturers
- in 2006/07: 16 Lecturers in South Eastern Europe

Lectureships exist in:

- | | | |
|--------------------------|--------------|------------------|
| • Belarus | • Hungary | • Romania |
| • Bosnia and Herzegovina | • Kazakhstan | • Russia |
| • Bulgaria | • Latvia | • Serbia |
| • Croatia | • Lithuania | • Slovakia |
| • Estonia | • Macedonia | • Czech Republic |
| • Georgia | • Montenegro | • Ukraine |
| | • Poland | |

New Profiles in the Lectureship Program

- since 2006/07 four profiles (focuses) are offered
- the lecturers supports the university in projects in one of the profiles:
 - Higher Education Management
 - Further and Adult Education
 - Organisation Development
 - Doctoral Program
- a profile partner provides further training for the lecturer

Higher Education Management

Aims:

- designed to support the university in transformation processes within the European Higher Education Area
- helping the university to compete at international level

Examples:

- assistance in the creation or further development of programs of study
- support for initiation of inter-university cooperation

- assistance in the application for projects promoted by the EU
Profile partner is Oldenburg University.

Further and Adult Education

Aims:

- designed for universities who concentrate on training teachers and other professionals *or*
- who wish to further train their own university's teaching staff

Examples:

- assistance in the joint realisation of teacher further trainings
- general assistance in the further training of professionals (e.g. distance learning)
- support in the field of quality management

Profile partner is Kaiserslautern University.

Organisation Development

Aims:

- designed for universities who see potential for the constitution or reconfiguration of organisational structures
- these structures aim to enrich the academic environment outside regular classes

Examples:

- assistance in student's self-administration
- support for initiation of alumni work
- support of German clubs, theatre, sports, music, etc.

Profile partner is Hildesheim University.

Doctoral Program

- designed for participants preparing a doctoral thesis focusing on Central and Eastern Europe
- Program participants apply at universities according to their research objectives
- application for this program on the part of the universities is *not* possible

Profile partner is the German Council for Foreign Policy (DGAP) in Berlin.

Results of the Working Group: Teaching-related Projects and Funding Programmes

Dr. Hella Gerth

European University Viadrina, Frankfurt (Oder), Germany

The training projects selected for presentation proved to be success stories in terms of dissemination of good practice with regard to teaching reforms, regional networking and international, supporting the Bologna Process and – finally – of making best use of German (HRK, DAAD) and EU TEMPUS funds.

University of Muenster has been developing a trilateral 2 year post-graduate (Master) course in "European studies" with Universities in Serbia and Romania (start: October 2005). The course is open to students from the region and – for the time being – benefits from local industry grants. While a double diploma agreement was signed with Cluj/Romania, the fact that Serbian law does not yet allow is considered as an obstacle. With regard to funding future requirements (scholarships for foreign students, ensuring quality teaching in the region) the project is considering EU programmes such as TEMPUS, Jean Monnet Programme and ERASMUS MUNDUS.

Humboldt University (Berlin) initiated a multilateral educational and research network in Software Engineering (SE) involving EU (Bilbao, Berlin, Leicester) and South Eastern European partners (Novi Sad, Belgrade, Skopje, Nis). By introducing SE teaching to the region the DAAD and TEMPUS (2004-2007) based cooperation project has been enhancing regional scientific cooperation, designing research activities and facilitating the Bologna Process.

Technical University Freiberg reported about a cooperation project with Albanian language Universities which has led to improving the level of education by introducing a high standard quality control.

Ruhr University Bochum established the network DYNET to enhance scientific cooperation with West Balkan Universities in the area of Higher Engineering Education and Research. Since starting year 2000 the cooperation has been extended to 11 Southern European and 5 German universities. Financial support granted by HRK and DAAD enabled the project partners to include teaching and research into the DYNET cooperation. Activities reach from an annual workshop for young engineers of all project partners to a Master course on "Earthquake Engineering" in Skopje and the development of multilateral research projects.

University of Hohenheim started its engagement in reforms of university teaching and research in the agricultural and nutrition sectors of the Balkan region in the late 1990s. Supported by DAAD and the EU TEMPUS funds cooperation have been established with universities in Tirana, Prishtina, Zagreb, Osijek, Belgrade, Novi Sad and Skopje. Experiences in teaching reforms, including the modularization of teaching contents and the introduction of quality standards, were discussed in regional Rectors' conferences in Timisoara, Plovdiv, Sopron and Cluj-Napoca. As a result of these activities University of Hohenheim managed to get all agricultural universities and faculties of the Balkan region involved in EU financed country-focussed or regional TEMPUS projects (total: 3,5 Mio €), thus enabling them to initiate reforms of their curricula and teaching structures.

The presented projects confirmed the significance of investments in Higher Education in the "post conflict area" West Balkan and – in more general terms – the importance of visions and "academic entrepreneurship" shown by individual University staff, which in combination with limited public funds led to impressive results.

While each of the projects may be considered sustainable as far as current activities are concerned, they are all facing financial constraints when it comes to extending and consolidating regional teaching and research activities, fully developing the potential, enhancing cooperation with EU universities and increasing the mobility of students and faculty. During the discussion it was recommended to make full use of EU funds

such as Jean Monnet Programme, 7th Framework Programme and ERASMUS Mundus and envisage further cooperation with the business sector.

The experience made with launching the projects should be disseminated to other Higher Education institutions in Southeast Europe and EU Member States, for instance by sharing teaching modules, setting up a database and developing e-learning structures. The structure of the German University system that discouraged teaching staff from engaging in international activities by withholding any incentive was considered a major obstacle to extending the current activities.

Chapter 3

Higher Education in South Eastern Europe - Institutional Reforms, Challenges and Prospects

Institutional Reforms

EUA Evaluations in SEE

Lewis Purser

Irish Universities Association, Ireland

EUA Institutional Evaluations

Main features:

- strong emphasis on self-evaluation
- based on the mission and values of each university
- European and international perspective
- undertaken by peers
- strictly independent from national agencies and governments
- oriented towards improvement, not accreditation

Evaluation Process

- institutional self-evaluation process at each university
- self-evaluation report prepared by each university
- two site visits by EUA review teams
- report from EUA to each university
- when all universities in one country have participated, a cross-cutting sectoral report from EUA

Four central strategic questions

- What is the university trying to do?
(mission, aims, objectives and their appropriateness, how the university positions itself locally, nationally, internationally)
- How is the university trying to do it?
(processes, procedures, practices in place and analysis of their effectiveness)
- How does the university know it works?
(feedback systems in place, in particular quality monitoring and quality management)
- How does the university change in order to improve?
(strategic planning, capacity and willingness to change)

EUA evaluations in the region

Universities in SEE in context

- Transition process to a market economy
- Transition process to a democratic society
- Post-conflict, in many cases
- European integration process
- Changes in general education system
- Towards mass higher education
- New economic and social demands
- Financial crises

Bologna Process

- Coherent and cohesive European Higher Education Area by 2010
- Common degree structures: Bachelor, Master, PhD
- Greater academic and professional mobility
- European credit accumulation and transfer system
- Modularisation of teaching and learning
- Diploma Supplement
- Improved recognition of degrees and qualifications
- national and European frameworks of qualifications
- Common approach to Quality Assurance

General observations

- Teaching and learning
- Research
- Structures
- Governance
- Financing
- Administration
- Students
- Stakeholders

Teaching and learning

- Move from elite to mass HE systems
- Responding to new social and economic situations, including labour markets
- New approaches to disciplines and interdisciplinary work

- Staff resources and skills
- Infrastructure and resources
- Students

Research

- Collapse of research funding
- Poor research infrastructure
- Difficulty of maintaining international research links
- Lack of young researchers
- "Old-fashioned" concepts of research

Structures

- University or Faculties?
- Effectiveness and efficiency
- Administrative and technical support
- Infrastructure and investment

Governance and financing

- Roles of Ministries, Rectorates, Boards, Councils, Faculties, etc.?
- Strategic planning
- Implementation
- Monitoring
- Responsibilities
- Autonomy

Students and stakeholders

- Huge changes in society
- Universities "left behind"?
- Attitudes to students
- Involving students
- Involving stakeholders
- Partners in the educational process
- Essential feedback

Novi Sad Initiative and Beyond

Prof. Dr. Ladislav Novak

University of Novi Sad, Serbia

Presentation Roadmap

1. Novi Sad Initiative – International Seminar on Higher Education: “The University of the 21st Century – Emerging Models of Independence”,
Novi Sad, 28-30 October 2005
2. EUA Seminar on Higher Education and Research in South East Europe (SEE):
“Strengthening Higher Education in South East Europe: Priorities for Regional and European Cooperation”
Vienna, 2-3 March, 2006
3. Beyond Novi Sad Initiative – two regional initiatives

1. Novi Sad Initiative – a fresh start in creation of EHEA

Organised by:

- University of Novi Sad
- Executive Council of the Autonomous Province of Vojvodina
- German Rectors’ Conference (HRK)

Under the auspicious of:

- European University Association (President of EUA)
- Council of Europe (Head of Higher Education Department)
- Bologna Secretariat from Berlin to Bergen (Head of the Secretariat)
- ESIB (Chairperson of the Executive Committee)
- Magna Charta Observatory (Secretary General)

National HE institutions from EU participating in Novi Sad Initiative:

- Higher Education Authority of Ireland (Chief Executive)
- Scottish Higher Education Funding Council (Chief Executive)
- Council of Higher Education, Turkey (Vice President)
- Lower Saxony Ministry of Science and Culture, Germany (State Secretary)

- Finnish HE Evaluation Council, FINHEEC (Chairperson)
- National Agency for HE, Sweden (Head of the University Chancellor's Office)
- Oxford based HE Policy Institute, England (Director)
- Finnish Council of University Rectors, (Secretary General)

Main Seminar topics:

- Effective Institutional Autonomy – an Emerging Goal
Autonomy for universities to restructure themselves internally as they see fit and to negotiate common positions, projects and programs with sister institutions, nationally and internationally.
- Buffer bodies in the European Higher Education Area
Higher education buffer institutions have been established in a number of systems to act as an intermediary between universities and the government, and are concerned with such matters as funding of teaching and research, quality assurance, strategic policy development etc.
- Regional Cooperation – A Driving Force in Creation of the EHEA
Regional cooperation is understood here in a generic sense, offering a range of possibilities for initiatives which could provide solutions on the wider European scene.

2. EUA Seminar on Higher Education and Research in SEE

Consequences for Institutional Reforms and Development

- It supposes that HE institutions develop increasingly in a European context through reinforcing cooperation, strengthening the European dimension, and taking account of good practice on a number of ways.
- Strengthening the European dimension requires institutions that are autonomous and accountable to society. Governments in the region should continue to amend higher education legislation to integrate universities into one legal entity.
- Governments in the region should also seek to professionalize public management of higher education, through the creation of competent intermediary (buffer) bodies for specific tasks, such as funding, research management and quality assurance.

3. Beyond Novi Sad Initiative

Two regional initiatives:

- Postgraduate studies – MBA in Higher Education
- Regional Ministerial Conference in Higher Education:
“Pushing forward Institutional Questions in creating EHEA”
Dubrovnik, October, 2007

Motivation:

The discussion which has been followed the outcomes of the Novi Sad Initiative and EUA Conference in Vienna have proved that

- there is an evident lack of deep knowledge related to the university management and governance and in particular lack of general knowledge of the higher education system as whole.
- there is not a strong commitment of the governments of the countries in the region for the substantial reforms in higher education unless these reforms appear as a prerequisite in the process of the association with EU.

Further Information

Novi Sad Initiative:
www.nsinitiative.ns.ac.yu

EUA Seminar:
<http://www.eua.be/index.php?id=174>

University Governance and Management

New solutions and dilemmas

Prof. Dr. Radmila Marinković-Nedučin

University of Novi Sad, Serbia

Governance

- The space to make decisions
- Integration of the university/centralization as the main fear/obstacle
- Education – structure and policy
- Research – policy, priorities
- Social responsibility

Education

- General framework changed considerably
- Decision to start new programs from 2006
- Introduction of new curricula – starting from 2002
- Flexibility – still not enough understood
- Institution quality management – integrated on university level – still to be established in a proper way

Research

- General framework – new law
- Universities still not recognized as important partners in research policy of the state
- "window" to international projects – FP7
- Research clusters – identifying centers of excellences

Quality/Accreditation

- Accreditation bodies
- Procedures and level of accreditation
- Institutional and curricula accreditation
- Quality assurance still to be developed and better understood

Stakeholders

- State participation/accountability
- Students as partners
- Students parliament – transitional period
- Others?
- Policy paper lacking

Integrated university

- Law as the catalyst?
- Internal agreement within the given limits or beyond them?
- Complex structure of legal entities
- Financial constrains
- Management – professional approach?
- **Still promising new solutions**

Challenges for the B&H Higher Education Development

Zenan Šabanac

Bologna Follow-up Group

Representative for Bosnia and Herzegovina (B&H)

Basic facts

- Approx. 3.900.000 inhabitants
- 2 entities: Federation of B&H (FB&H) and Republic of Srpska (RS)
- 1 district (Brcko)
- 10 cantons in FB&H
- 14 governments
- 14 parliaments

Basic facts – higher education

- All higher education activities are subject to entity (in RS)/cantonal (in FB&H) laws on higher education (by Dayton Peace Agreement (1995))
- The role of the entity-level Federal Ministry of Education and Science (in FB&H) is to coordinate these activities between cantons
- The role of the state-level Ministry of Civil Affairs (MoCA) is to coordinate these activities between the two entities
- B&H signed Bologna Declaration in Berlin in September 2003
- Working Group for Higher Education in B&H/Bologna Committee for B&H (representatives of universities, student unions, ministries, CoE, OSCE, OHR, ADA, WB, Austrian, German and UK Embassy, ...)
- Ratification of the Lisbon Recognition Convention in January 2004
- B&H Rectors' Conference (February 2005, process of registration completed recently)

Universities and students in B&H

- 8 public universities (6 in FB&H and 2 in RS)
 - 96 faculties and academies
 - 5 high schools/colleges
 - approx. 86.000 students

- Private Higher Education Institutions
 - 3 universities (2 in RS and 1 in FB&H)
 - 9 faculties and colleges (8 in RS and 1 in FB&H)
 - Licenses issued at the level of the ministry of education (RS and cantons)
 - approx. 2.800 students

BP Stocktaking Report, Bergen, May 2005

Some improvement after Bergen

- New study programmes in line with Bologna Principles
 - University of Tuzla (started in 2003/04)
 - Universities of Sarajevo, Banja Luka, Mostar, East Sarajevo and Zenica (started in 2005/06)
 - University of Bihac and University "Djemal Bijedic" in Mostar (expected 2006/07)
- 33.36 % "Bologna" students in 2005/06 (excl. students of medicine, dentistry, pharmacy, veterinary and University of East Sarajevo)

Projects in Higher Education

- WUS Austria, Soros Foundation, DAAD
- TEMPUS III (revision of study programmes and curriculum, support of new Master programmes, technical support for universities – QA offices, individual mobility grants)
- Austrian Development Agency in B&H Project "Strengthening capacities of the MoCA in the field of Higher Education" (financing for the hiring of MoCA staff (ENIC) and B&H Rectors' Conference)
- Joint Project of the EC and CoE "Strengthening HE in B&H" (partners: MoCA, entity ministries of education, B&H Rectors' Conference, EUA)
 - Establishing the B&H National Information Centre (ENIC)
 - A model for internal and external Quality Assurance, development of accreditation standards for HEI
 - Development of the B&H Framework for higher education qualifications

What has to be done?

- Adoption of the Framework Law on higher education in B&H (as the main precondition for HE reform)
- Establishing the B&H Center for Information and Recognition (ENIC)
- Establishing the Agency for Development of HE and QA
- Developing overall B&H QF
- Reforming the financing of HE
- Further curriculum reform (master and doctoral programs, joint programs)
- University governance and management reform (integrated university)

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Mobility and Cooperation in the Higher Education and Research

Prof. Dr. Constantin Apostol

Academy of Economic Studies Bucharest, Romania
BRIE-Giurgiu Director

Strategic Goals of the Academy of Economic Studies Bucharest 2004-2008

- Integration in the European higher education and research area
- Achieving a top position in the international economic universities' ranking
- Improvement of the education process towards compliance with international standards for quality management and accreditation procedures
- Restructuring of curricula for the three levels of the higher education system – bachelor, master and doctorate – according to the Bologna Process and other requirements and trends
- Extending the international mobility programs for students, academic staff and researchers

Cooperation agreements with...

- Norwegian School of Management, Oslo, Norway
- Université d'Orléans, Université de Nantes, Université de Nancy 2, IUT Nantes, ENSAMCluny – France
- Università degli Studi di Torino, Bologna, Palermo, Messina – Italy
- ... and others

New bilateral agreements – Socrates/Erasmus

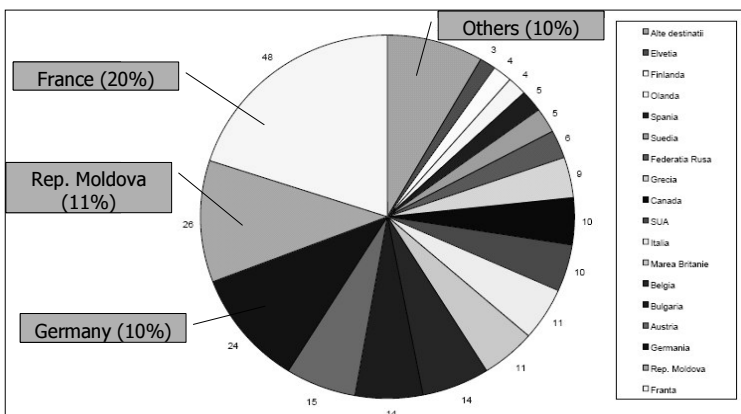
- Germany: Humboldt Universität zu Berlin, Fachhochschule Gelsenkirchen, Universität Trier
- France: Université de Nancy 2, Université Paris IX – Dauphine, Université de Poitiers, Université Louis Pasteur – Strasbourg,
- Hungary: Budapest Business School
- Netherlands: Universiteit van Amsterdam
- Poland: Graduate School for Business Economics Warsaw, Lazarsky

University of Commerce and Law

Double diploma international programs

- Romanian-Canadian MBA, in cooperation with University of Ottawa
- Executive MBA in cooperation with CNAM Paris
- German-Romanian MBA, in cooperation with Fachhochschule Gelsenkirchen and Business Incubator Emscher Lippe
- Master of International Business Informatics, in cooperation with University of Rousee, Bulgaria, German and Austrian partner universities (until 2006)
- 4 Master programs in cooperation with French Universities (Orleans, CNAM Paris, Université d'Auvergne)

Academic staff mobilities



Structure of mobility by destination country
(number of staff in total: 240 persons)

Student mobility

Statistics: 163 students, 1261 mobility months, 448 171 Euro financing
(232 258 Euro Erasmus, 215 913 Euro Phare)

Nr.	Destination country	Partner universities 2004/2005	Students 2004/2005	Percent in total 2004/2005	Partner universities 2005/06	Students 2005/2006	Percent in total 2005/2006	Change in no. of students (%)
1	Austria	2	8	4,91%	2	7	3,43%	-12,5%
2	Finland	1	2	1,23%	1	3	1,47%	50%
3	France	16	78	47,85%	18	83	40,69%	+6,41%
4	Germany	4	11	6,75%	8	23	11,27%	+109,1%
5	Italy	5	19	11,65%	6	16	7,84%	-15,78%
6	Netherlands	-	-	-	2	4	1,96%	-
7	Poland	-	-	-	1	2	1%	-
8	Great Britain	2	6	3,68%	3	10	4,9%	+66,6%
9	Portugal	2	12	7,36%	3	21	10,29%	75%
10	Spain	7	24	14,72%	8	27	13,23%	+12,5%
11	Sweden	1	3	1,85%	1	6	2,92%	100%
12	Hungary	-	-	-	1	2	1%	-
	TOTAL	40	163	100%	54	204	100%	+25,15%

BRIE as HRK initiated cooperation framework in South Eastern Europe

- Bulgarian-Romanian Interuniversity Europe Center (BRIE) was founded in 2000.
- BRIE programs:
 - European Studies – since 2002, BRIE-Rousse, accredited in Germany
 - International Business Informatics, 2002-2006, BRIE-Giurgiu
 - European Public Administration, starting in 2006, BRIE-Giurgiu

Academic partners of BRIE

- Academy of Economic Studies, Bucharest
- University of Rousse "Angel Kanchev", Bulgaria
- Chemnitz University of Technology, Germany
- European University Viadrina in Frankfurt (Oder), Germany
- University of Bonn, Germany
- University of Mainz, Germany
- University of Bremen, Germany
- University of Klagenfurt, Austria

German partner institutions, foundations and companies

- The German Rectors' Conference (HRK)
- Hertie Foundation
- Robert Bosch Foundation
- Stifterverband fuer die Deutsche Wissenschaft
- Siemens AG
- Consulting AG
- Haniel Foundation
- E.ON Energy AG Bulgaria

BRIE – Students in European Studies (66)Cohort 1 (2002-2004):

- Graduated – 15 students (4 from Romania, 2 from Albania, 1 from Russia – Kalmikia, 8 from Bulgaria)

Cohort 2 (2003-2005):

- 11 students (3 from Romania, 2 from Albania, 1 from Kosovo, 1 from Moldova, 1 from Macedonia, 3 from Bulgaria)

Cohort 3 (2004-2006):

- 16 students (1 from Albania, 4 from Kosovo, 1 from Bosnia and Herzegovina, 2 from Macedonia, 8 from Bulgaria)

Cohort 4 (2005-2007):

- 24 students registered (7 from Macedonia, 4 from Romania, 2 from Kosovo, 2 from Moldova, 3 from Albania, 6 from Bulgaria)

BRIE – Students in International Business Informatics (74)Cohort 1 (2002-2004):

- 27 students matriculated in the first year (13 from Romania, 12 from Bulgaria, 1 from Serbia and Montenegro, 1 from Albania)
- 17 students in the second year
- 7 graduates (4 from Romania, 1 from Bulgaria, 1 from Serbia and Montenegro, 1 from Albania)

Cohort 2 (2003-2005):

- 37 matriculated in the first year (27 from Romania, 5 from Bulgaria, 3 from Serbia and Montenegro, 2 from Albania)
- 18 students in the second year

- 14 graduates (9 from Romania, 1 from Bulgaria, 3 from Serbia and Montenegro, 1 from Albania)

Cohort 3 (2004-2006):

- 10 matriculated in the first year (4 from Romania, 3 from Bulgaria, 1 from Serbia and Montenegro, 1 from Macedonia, 1 from Moldova)
- 12 students in the second year

BRIE – New program: European Public Administration

Applicants:

16 from Romania, 1 from Bulgaria, 1 from Albania, 1 from Serbia (Kosovo), 1 from Republic of Moldova

Higher Education in Albania Reforms and Prospects

-Main objectives-

Prof. Dr. Myqerem Tafaj

Cabinet of the Prime Minister, Albania

Content:

1. Strategic goals
2. Access to higher education and its effects
3. Institutional reform
4. Curricula reform

1. Strategic goals of HE reform

Increasing the number of the citizens who continue and finish tertiary education, in order to preced the development *of a modern knowledge-based society*.

A qualitative education is the key to the economic, social and cultural development and *the garancy for the development of the democratic national identity*.

Fast development of education and science in our country is priority.

It is based on national necessity of:

- Increasing fast the level of education for young people
- Democratic development
- Fast development of social market economy
- Stabilisation of the employment and social problems
- Joining and integration in EU.

Rapid increase of the education level of young people is the main way *to reduce the level of the poverty, unemployment, increase the well-being and development of democratic citizenship*.

Implementation of this process requires:

- A contemporary, long-term and well studied package of policies,
- A sufficient political support in the country,
- Enormous and wise investments,
- International cooperation

2. Acces to higher education and its effects

Increase of the number of graduated employees

Long term objective:

- By 2020, at least 20 % of the active population (able to work) has finished *higher education*.
- Only 11 % of the active population finished higher education (INSTAT, 2006).
- Without an intensive promotion and development of the tertiary education we will have a *critical backward situation compared with European countries*.

Increase of number of students in the tertiary and Post-secondary education

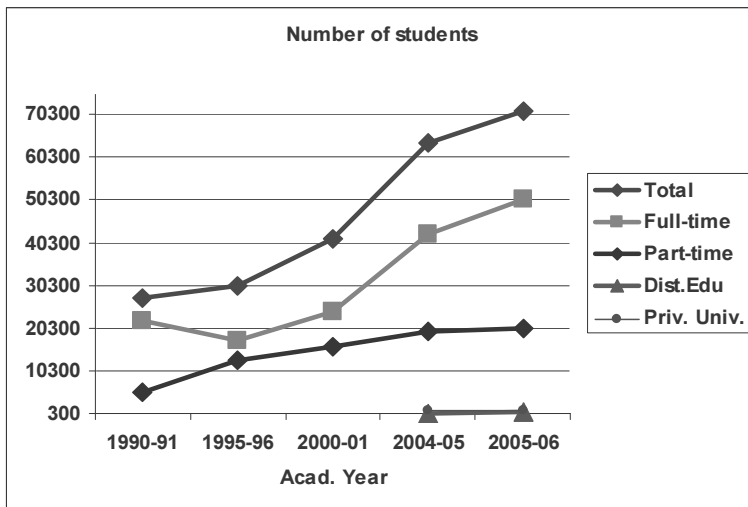
Increase of number of students in high school and secondary education

Gross enrolment ratio:

2003/04	56 % (134.745 high school stud.)
2015	75 % (180.000 high school stud.)
2020	80 % (200.000 high school stud.)

Criteria for admissions to the post-secondary and tertiary education:

Matura examination – introduced in 2006



12 public and 10-12 private universities

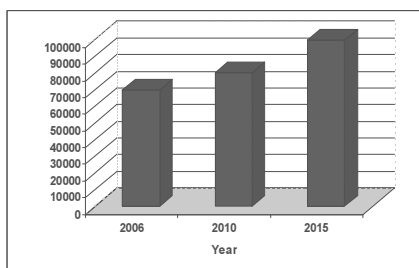
Increase of students number

2010: 80.000 *Students* (23 stud./1000 inhabitants)

An optimistic estimation!?

As reference

Average Nr. stud. in EU



Stud./1000 inhabitants:

By 2006: 20 students (14-15 full-time students)

By 2010: 23 students

By 2015: ~30 students (100000 stud. or 55 % enrolment ratio)

3. Institutional reform to set up a Science System

Integration of higher education and research

- 12 public HEIs and 12 private universities
- 38 research institutes of Academy of Science and branch ministries – under reforming process

Main aim: Integration of higher education and research for setting up the *Science System*. The characteristics of the Science System:

- To be *innovative*
- To increase the *human* and *material* resources
- To ensure the *effective use* of the resources for the priorities: rapid increase of the *education level for the young people*

Advantages of integration of higher education and research:

- Avoids *non effective investments* for a non effective research network of institutes outside the universities
- Enables concentration, *effective* use of academic and research human capacities for teaching and research
- *Creates spacious capacities* necessary for the increase of students' number
- Use effectively of institutes *buildings, labs, experimental unit and libraries*
- *Less administrative costs* for a more effective and efficient research network

Integration of research institutes with the universities

In process:

- *Non-university research institutes* (i.e. The Academy of Science and some branch ministries) getting to be integrated within the *new system of science*
- Interdisciplinary Research Centers
- Academy of Science *should have the classic honorific* status of the academy like Societies Academia

Development of human resources in the institutions of Science System

Training of teachers and researchers

- Education: "pre-service" as well as "in service" educational service offered by HEIs (long life learning)
- Research: the focus should be placed in giving the researchers an overview of how a quality research can be conducted, evaluated, used, and published in international journals

Development of human resources in the institutions of Science System

- The increase the *number of qualified academic staff professors compared to the fast and continuous* increasing number of the enrolled students
- Adapting the structure of *Research Group within the department* and a more competitive system in nominating and hiring of the academics based on real academic merits
- *Research Group*, lead by highly qualified staff *Professor* – with *time-limited mandate* gained in an open and transparent *competition* at national level

Junior staff (teachers, researchers)...

- Long term policy for "*brain gain*" already started a UNDP project
- "*1000 young scientists*" Program: for *best students* who have studied at home and abroad, and will be the new generation within *10 years*.
- "*Groups of Excellence*" Program: New positions for scientists with *PhD* degree from foreign universities

Re-evaluation of the role of the different universities in the Science System

- Public universities in Tirana will be supported for three levels of studies: Bachelor, Master, PhD
- Regional public universities will strengthen further and will play the role of "Regional Development Centres".
Levels of studies: Post-secondary and Bachelor
- *Non-public higher education institutions* – *Bachelor studies*
- Clear and well defined requirements and standards at national level

for three study levels for new and existing HEIs and programs

Financial support for the Higher Education and Science

- *Increase of investments* for the higher education and science in order to reach *the average of the OECD countries by 2015*
- *Increase of study fees, esp. Master and PhD studies*
130-300 USD/year
- Institutionalization of the *Research and Development Centres in the universities* for receiving grants through programs/projects
- Competitive system for students' scholarships

Adapting a modern system of governance of the institutions of the Science System

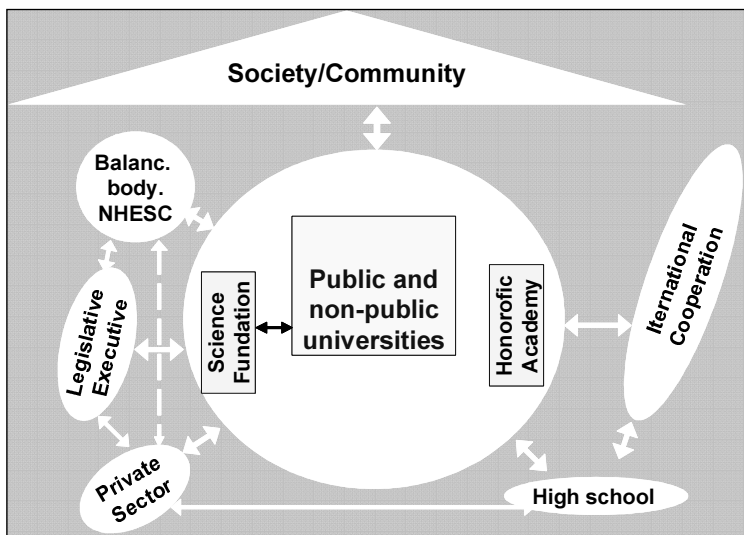
- Creation of a *National Higher Education and Science Council (NHESC)* = consultative body and balanced (already established in July 2006)
- Creation of *Albanian Foundation of Science*
- Changing current system from "Senate-Rector" to "Governing Board – Rectorate – Senate"
- Internal Quality Assurance System inside HEIs

Increase of capacities for teaching, research and lodging for students

- Constructing new buildings for teaching and research as well as fitting the existing university buildings and some research institutes
- Setting up central laboratories in the universities
- Setting up PC centres and those for distance learning
In 2007/08 each student and professor in the universities must have *access to the Internet and e-mail.*

International cooperation – necessity!

- Intensification of international cooperation is a necessity for the institutions of the science system of a small country like Albania.
- Twinning programs
- Joint degree
- Joint research projects
- Diploma recognition
- Internal Quality Assurance



4. Curricula Reform

General principles:

- analytical competences
- ICT and language competences
- inter-disciplinary nature of curricula
- flexibility of curricula
- employment opportunity

Curricula of post-secondary studies:

- last 4 semesters
- lead to a specific profession
- module system makes possible transfer of credits to Bachelor studies
- can be organized: full-time, part-time, distance education

Curricula of "Bachelor Studies"

- The development of higher education of the B.Sc. level should respect the standards of ISCED and ECTS system.
- The higher education of the first professional level "*Bachelor*" should remain the main form of higher education in Albania.
 - Full-time studies
 - Part-time studies
 - Distance learning or e-learning education
- National Qualification Framework
- External Quality Assurance for all levels and forms of education

Curricula of "MSc" and "PhD" studies

The graduate studies of "MSc" and "PhD" will be developed in accordance with international standards and ECTS system.

From 2007/08: MSc and PhD

- MSc studies:
 - MSc 4 semesters
 - MBA 2-3 semesters
 - Intensive international collaboration (Joint Degree)
- PhD studies:
 - Fundamental reform to increase the level
 - Intensive international collaboration (sandwich system)

Investment fund

- *Target in 2015: 2500 Euro/student/year*
- It is possible to do a big investment?
 - Increase of *Budget for education (at least double!)*
 - Adapting *study fees*
 - More *private higher education* (but not lower quality)
 - *Long term loan* – special law by Parliament!!!?
 - *Grants, donations*
 - Support from *private sector esp. for research activities*

Ss. Cyril and Methodius University in Skopje on the road to the EHEA

Prof. Dr. Boris Krstev

University of Skopje, Macedonia

Ss. Cyril and Methodius University in Skopje was founded in 1949 and today it consists of 23 different faculties and 11 research institutes. The language of instruction is Macedonian, however some courses are taught in the minority languages and English language for some postgraduate courses. The University organizes postgraduate studies on 17 different faculties and two research institutes with total of 148 disciplines. During the academic 2005-2006 the university has enrolled about 40 000 students.

Bologna

Ss. Cyril and Methodius University in Skopje is actively following the Bologna Process, accepting the Bologna Declaration as platform for integrating in European higher education area with the following priorities:

- Development and securing the *academic autonomy*
- Introducing *Credit Transfer System*
- Harmonization and *compatibility of the study programs* with the EU model of university
- System of Quality assurance with *evaluation and accreditation* of the higher education institutions and study programs
- Student and academic staff *mobility*
- *Competitiveness* at home and abroad

TEMPUS Assistance for compatibility development of education

Since the PHARE program establishment in the Republic of Macedonia in 1996, the European Commission supports an intensive cooperation between the higher education institutions in EU member states and Central and South Eastern Europe.

In that context, the TEMPUS program should be highlighted as the most powerful instrument for the support of the higher education institutions

which should play an active role in the creation of the European Higher Education Area in accordance with the Bologna Declaration as a founding document and a strategy for Ss. Cyril and Methodius University in Skopje. The mobility promotion and students' participation strengthening in the intensive East-West and West-East mobility is immanent to the TEMPUS activities.

Within the TEMPUS program on a national level the cooperation has been realized by 74 Joint European Projects and 20 Compact and Structural Measures. About 330 grants have been awarded for mobility of the academic and administrative staff.

The overall financial support of the European Commission within the TEMPUS program amounts to 27.3 million euros.

UNIVERSITY NETWORKS

The University is actively participating in the following networks:

- Ss. Cyril and Methodius University in Skopje has become a member of **UNICA-Network of Universities of the Capitals of Europe**. This is a network of 41 European universities and it stands for capacity of 131 000 teachers and 1.5 million students.
- Our University has maintained the cooperation with the **Inter-university Center CIRCEOS** located in Bari, Italy in the field of filology and culture.
- The University is the founding member of the **Balkan Academic Network** which was established in April 2006 and will be administered by the Aristotle University in Thessaloniki, Greece.
- **Central Eastern University Network** in the field of business management, macroeconomics, education and culture, international politics and security, EU studies
- The University **Mobility Network MIREES** within the INTERREG III program with Bologna University in Italy
- **CEI Uni Net** – Network of the Universities of the member countries of the Central European initiative promoting interuniversity cooperation in the countries of Central, Eastern and Southeastern Europe by supporting academic mobility and introducing joint programs such as PhD and Master studies in English.

Bologna Process and Lisbon Strategy – European Framework for the Development of Higher Education in South-East Europe

Prof. Stefan Dukiandjiev

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Introduction

Higher Education (HE) in Balkan countries follows good traditions. However, due to the long period of isolation during the dissolution of Yugoslavia, most new countries have had limited opportunity to participate in increasing cooperation in the field of HE in Europe and the world. According to the Maastricht Treaty, education in the European Union (EU) has not been a subject of extended integration policy, due to the necessity of respecting the rich diversity and national identification of each member state. However, within cooperative programmes such as Erasmus, Lingua and Leonardo, a gradual accumulation of reasons and motivation to go beyond traditional cooperation and to work for harmonisation of standards, criteria and methods in education started to grow.

The Bologna Process (BP) has no borders or limits in approaching HE, unlike the EU has in some of its competencies regarding education. It appeared to be a good chance for countries which are not members of the EU to participate in this trans-European process, to benefit from its results, to provide their own contributions to its implementation and finally to become part of the European Higher Education Area (EHEA).

Implementing Bologna action lines is a highly demanding endeavour for all European countries and especially for the Balkan region. It requires the engagement of strong financial support and the involvement of devoted politicians, administrators and academics with experience in the reform of HE and in international cooperation. These countries face additional problems due to the outdated organisation and management of former Yugoslavian universities. Due to the excessive autonomy of their faculties, universities are acting like loose associations of their

constituents rather than efficiently integrated institutions. This is handicapping them not only in their long-term strategic planning for the development and provision of modern study programmes, but also in the area of new responsibilities, including the development and provision of institution- and capacity-building training programmes for non-academic partners and institutions in the region and its countries.

In this respect, international assistance is of crucial importance for the successful implementation of the BP. Many bilateral programmes – by Austria, Germany, France and Italy provide support for the implementation of Bologna action lines. The most systematic assistance is provided through the EU Tempus programme, which is the HE component of the community assistance programme for the Western Balkans – CARDS. These countries have already accumulated positive experience in the efficient use of different types of Tempus projects for assisting HE reform. In the last years, they have been working to exploit Tempus' potential to support the overall organisation of the BP and for the implementation of concrete action lines. There is a relatively good balance between academics' initiatives (bottom-up approach) and commitments from university and ministry authorities (top-down approach) in the promotion of relevant applications and the realisation of selected projects.

Current development of the Bologna Process

The BP is currently the most important initiative for the reform of HE in Europe. Its most important characteristic is that it focuses on the interest of the students, and respectively the graduates. In this respect, it seeks to provide for an area of enhanced mobility for students and teachers in an atmosphere of increased transparency, trust and mutual recognition of qualifications among universities. Its final objective, the EHEA will be the right environment for bringing together teachers, students and employers as partners for the modernisation of HE in order to serve better the increasing demands of the integrated labour market.

One of the valued features of Europe is its balance between diversity and unity. The BP respects the necessity to preserve the national diversity and identification and tries to establish bridges that make it easier for

individuals to move from one education system or country to another without hindering the specific nature of every HE system. The process aims at providing better prospective for all European students for getting better knowledge, relevant skills and competencies and finally to increase degrees' employability within each country and throughout Europe.

Bologna Declaration was a result of continuing accumulation of reasons, understanding and beneficial circumstances for further improvement and upgrading of trans-European co-operation in HE.

On the basis of the surveys and analysis of the implementation, at each conference proposals for introducing new action lines and goals have been discussed and concrete recommendations have been formulated for further upgrading of the process. The BP is undergoing useful development through the contribution from all players, authorities, academics, students and employers.

Berlin conference focussed on the assessment of the first results of the implementation of the BP. It addressed also the management and the follow-up instruments. The Ministers agreed to put priority to the introduction of Bachelor and Master Cycles, developing quality assurance and recognition of degrees and study abroad. They stressed their attention on the necessity to create link between the EHEA and the European Research Area (ERA) and to consider them as two pillars of the Lisbon process. A new action line was introduced – organisation of Doctoral study as a third level of the overall university three tiers structure.

One of the major decisions of the Bergen conference was for development of national and European frameworks for qualifications. This is part of the evolution of the BP linked to the increasing social dimension in respect of the two major sides – the graduates and the labour market. All university study programmes have to define clearly the knowledge, skills and the competencies that the students can acquire to meet the qualifications frameworks, what will secure employability of degrees. Each degree has to provide to the students two exits: one for continuation of their study in the next cycle and the other, for finding realisation in the labour market.

Lisbon strategy

At the beginning of the 21 century, the EU found itself not fully prepared to confront the changes associated with the globalization issues and the challenges of a new knowledge-driven economy. The rapid and accelerating pace of change urged to set clear strategic goals for building knowledge infrastructures, enhancing innovation and economic reform, and modernising social welfare and education systems.

A special programme, Lisbon Strategy, was accepted by the European Council in March 2000. The main goal of the strategy is the Union *"to become by 2010 the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion"*. The concrete measures of the overall strategy are aiming at:

- preparing the transition to a knowledge-based economy and society by better policies for the information society and R&D, as well as by stepping up the process of structural reform for competitiveness and innovation and by completing the internal market;
- modernising the European social model, investing in people and combating social exclusion;
- sustaining the healthy economic outlook and favourable growth prospects by applying an appropriate macro-economic policy mix.

In 2002 a special program "Education and Training 2010" was designed in order to put the education and training in service of the Lisbon strategy. The development of the process and the achievement of Lisbon goals have been subjects of regular assessment and reviewing. The conclusions of the 2004 review clearly indicated a serious delay and problems in the realisation of Lisbon strategy. Critical underachievement was identified also in the refocusing of the education according to "Education and Training 2010" objectives. In 2005 it was decided to re-launch the Lisbon process by introducing corrective measures. Among others, specific attention was devoted to the improvement of all levels of education and specifically the HE, which was recognized to be of crucial importance. Commission formulated a new policy presented in its Communication from April 2005: "Mobilizing the Brainpower of Europe: enabling universities to make their contribution to Lisbon Strategy". The document declares the knowledge and the innovation engines of

sustainable growth in Europe today and that the universities are crucial for achieving the upgraded Lisbon goals set by the 2005 Spring European Council.

This new Education policy of the Commission is a subject of continuing tuning. In the most recent Communication (May, 2006), there is a strong statement that the modernization of the universities is acknowledged as a core condition for the success of the broader Lisbon Strategy.

Universities are unique with their interlinked roles of education, research and innovation.

The EU countries have 4 000 institutions, over 17 million students and some 1.5 million staff – of whom 435 000 are researchers. European universities have enormous potential. However, the surveys show that this potential is not used efficiently. For this reason Commission calls for the creation of conditions enabling the universities to improve their performance and to become more competitive and to accomplish their part in the creation of the knowledge-based society envisaged under the Lisbon strategy. Among others, the Communications ask for additional effort to be directed:

- to break the barriers around universities in Europe and to double the number of graduates, teachers and researchers engaged in mobility programmes;
- to achieve the core Bologna reforms by 2010 in all EU countries: comparable qualifications (short cycle, Bachelor, Master, Doctorate); flexible, modernised curricula at all levels which correspond to the needs of the labour market, and trustworthy quality assurance systems;
- to secure simpler and quicker recognition of the professional practice on the basis of the common European Qualifications Framework (EQF).

Lisbon Strategy and Education and Training 2010 are designed for the EU member states, but it is recommended to be considered by the acceding, current and further candidate countries. Romania, Bulgaria and Turkey are developing policies and structures for implementation of Lisbon strategy. Among other they are focusing on the increase of the

investment in education, technology transfer, research and development, and innovation. Bulgaria has developed a Science, Technology and Innovation Policy, and National Innovation Strategy. The investment in research and development, and innovation in particular, is a key to changing Romania's current development paradigm. Western Balkan countries are not directly involved in the Lisbon process. However, the consideration of its goals have been part of the package of conditions to be accomplished for signing the Stabilisation and Association Agreements between the individually countries and the EU. Croatia, Macedonia and Albania have already signed these agreements and now they address Lisbon process within the more advanced phase of the integration process.

Bologna Process and Lisbon strategy

The BP remains primarily an intergovernmental initiative driven by agreements and commitments made by national authorities. However, the evolution of process by adding more action lines and new social dimension has been constantly upgrading its role and place for the overall socio-economic development. This is leading to progressive integration of its initiatives with those of the EU that has appreciated the enormous contribution of the BP to the modernisation of the HE. The EU started providing bigger financial support and broader involvement of its institutions in the BP. The European Commission holds a consultative post in the Bologna Follow-up Group. In addition, programmes such as Erasmus Mundus and Tuning Educational Structures in Europe are born from the goals laid out in Bologna and realised through the logistical support of the EU. From the other side, Bologna is using prior collaborative links created within the EU programmes of mobility and exchange, Socrates, Erasmus, Leonardo and Tempus.

In September 2003, the Education Ministers Conference in Berlin recognised the role of the BP for the Lisbon strategy and the programme "Education and Training 2010". This was confirmed in the recent documents of the European Commission. There is shared understanding about the need of further development of the coordination between the BP and the Unions' programmes and initiatives.

The Bologna Process is a common framework for all European countries

With the 45 European participating countries, the BP is going well beyond the border of the EU. This attributes to it an additional mission in restructuring of the HE in the non EU member countries. For Balkan region, Bologna is complementing HE assistance provided within the CARDS Programme for Serbia, Montenegro, Albania and Macedonia, or by PHARE for Croatia. CARDS provides also assistance to the reorganization of the Vocational Education and Training. South-East European countries are beneficiary of the 6th and will be of the 7th Framework Research programme. Associated countries already participate in the Leonardo da Vinci and the Socrates programme. Special place is devoted to defining a lifelong learning strategy and this is the major axe of the new generation of EU educational programmes, Socrates, Erasmus, Leonardo, for the period of 2007-2013 brought together in one Integrated Lifelong Learning Programme. The procedure for the participation of the Western Balkan countries in these programmes is currently under elaboration.

In the given situation, in the field of HE, Tempus programme is the major instrument for its reforming within the scope of the current European trends. In the same logic, Tempus provides good opportunities for the implementation of the BP in Western Balkan countries.

Implication of the Bologna Process in the reform of the HE

The BP provides a common European framework for all SEE countries. Bulgaria, Greece and Romania signed the Declaration in Bologna in 1999, Croatia in Prague in 2001, and other countries have joined the process in Berlin 2003. Western Balkan countries needed time for preparation to enter the BP. The necessity to show full commitment and readiness to implement the agreed principles was precondition for signing Bologna Declaration. This had a catalytic role for better understanding the imperative need to proceed with the national reform in the HE. In SEE countries the involvement in the BP has influenced in positive way the preparation of the new HE laws. Successful implementation of Bologna principles asks for coordinated involvement and actions from the ministries of education and the

individual universities. With a certain delay, SEE countries established their national teams of Bologna promoters. This was done in Tempus promoted partnership with a number of EU countries. The preparation of strategies and action plans for implementation of individual action lines and the process as whole are initiated. However, it is difficult to say that the ministries, as well as the universities, are doing enough for securing all necessary conditions for the implementation of the BP. There is a need to speed up the development of complex institutional (ministries and universities) programmes and action plans. The needed financial allocations for supporting the universities are not secured. The ministries and the universities still have to develop synergetic interaction and mutual support. The weaknesses were noted within the stocktaking exercise (evaluation) of the introduction of new degree system, developing quality assurance systems and recognition of degree and study abroad, which was organized by Bologna Follow-up Group as a part of the preparation for the Bergen meeting. The progress in these three issues is visible. However, additional effort is needed for realizing the expected progress, which will be evaluated at the next Ministerial Conference in London in May 2007.

Tempus programme in support of the implementation of the Bologna Process

The EU countries have developed national programmes for the implementation of the BP. In some of them, HE laws were amended in order to create suitable legal framework for the implementation of the process. Additionally to this, a number of international structures were created for enabling a cooperative approach to the major Bologna issues (e.g. ENQUA – European Network for Quality Assurance). The major Community educational programme, Socrates is completely directed to support the BP.

The Western Balkan countries are also developing programmes and measures for the implementation of the BP. However, they dispose with limited human and financial resources. In this regard, it is understandable that Tempus Programme provides unique and extremely useful opportunities as instrument both for reforming the HE and for lining up other European countries in the BP. Since 2000, Tempus

priorities, agreed annually between the Commission and the Ministries of education, have been framed fully in line with Bologna principles and goal for the creation of EHEA.

Tempus programmes is achieving its objectives through three types of projects: Joint European Projects (JEPs), Structural and Complementary Measures (SCMs) and Individual Mobility Grants. All of these projects can support defined action lines of the BP or the general promotion actions for its implementation.

Restructuring of the study programmes according to Bologna principles

National Tempus priorities for the Balkan countries are jointly established by their HE authorities and the European Commission. They are very similar in consistence of the common role and objectives of the programme for all of them.

According to the Tempus priorities, the Curriculum development JEPs provide support to the local university for:

- reforming of existing or creation of new undergraduate or postgraduate (Master) study programmes according to Bologna principles;
- updating of content, creation of modular structure, introduction of ECTS and new methodologies;
- promoting mobility of teachers and students and full recognition of study periods spent at partner institutions.

National priorities put the JEPs objectives directly in line with the BP, and concretely to the restructuring of the study programme according to Bologna criteria.

Majority of Tempus projects in Balkan countries, have been related to curriculum development. Large number of subject areas has benefited the experience of different EU universities within this type of projects. Some JEPs are taking the responsibility to address the problem at national level, by bringing together all relevant faculties in the international partnership. Most of these projects are aimed at the reorganisation of the first level studies, as a basis for further formulation of the corresponding master programmes. Other projects address simultaneously the development of the Bachelor and the Master programmes. It is important to note that

together with the formal introduction of 3 + 2 or 4 + 1 architecture in the university studies, the Curriculum development projects promote implementation of other Bologna principles – introduction of modular structure, development of European credit system, improvement of the method of students' examination. Finally, they introduce basic elements of quality culture and control as a first phase of development of quality assurance systems.

Building capacity for reform and implementation of the Bologna Process

University Management JEPs provide direct support to the reform of the HE in all Western Balkan countries. This support has had concrete impact on the implementation of the new laws on HE, what means also an impact on the implementation of the BP, provided that the new HE laws for the two countries are in line with its principles. Areas of particular interest, where Tempus is providing important contribution are:

- introduction and strengthening of mechanisms of strategic management at higher education institutions, including optimisation of the faculty-university relationship;
- developing quality assurance system and introduction of European Credit Transfer System and Diploma Supplement;
- promotion of close links to the local and regional economy through technology and knowledge transfer.

Conclusion

In our opinion, the BP is making a real revolution in the European HE. Its first frontier in establishing the EHEA by year 2010 demands an increasing effort of all relevant actors – teachers and students, faculties and countries, European institutions. There is already common understanding that 2010 is not the end of the process. Getting bigger social content and functions, the BP will continue its evolution and development for enabling the HE in Europe to accomplish its role of engine of the extended Lisbon process for better future of all countries in the United Europe.

Results of the Working Group: Higher Education in South East Europe Institutional Reforms, Challenges and Prospects

Zenan Šabanac

Bologna Follow-up Group

Representative for Bosnia and Herzegovina

International cooperation on institutional reform in SEE

In which field?

- Lisbon/Bologna Process (mobility, joint degrees, quality assurance, qualifications framework)
- Improve information about/increase acceptance of the Bologna Process
- Improve interaction between governments/ministries and HEIs in home country and the region
- University reform (integrated university, social responsibility, stakeholders)
- Reintegration of research and teaching

How?

- Link between cooperation activities and the every-day work at HEIs
- Policy making (universities as partners)
- pan-European networking through regional (SEE) networking:
 - regional accreditation agency (standards) network
 - transparency and harmonization of qualifications frameworks
 - joint study programmes

Panel discussion

Possibilities and necessities of funding international higher education projects

Moderation:

Prof. Dr. Srbijanka Turajlić

Chair of the Board, Alternative Academic Educational Network (AAEN),
Belgrade, Serbia

Panellists:

Maren Diale-Schellschmidt

Delegate of the German Industry and Commerce for Serbia, Montenegro,
Macedonia and Albania

Prof. Stefan Dukiandjiev

Tempus Office Serbia and Montenegro, International Tempus
Coordinator, Belgrade, Serbia

Prof. Dr. Myqerem Tafaj

Advisor for Education and Science in the Cabinet of the Prime Minister,
Tirana, Albania

Prof. Turajlic introduced the panellists and presented the objectives of the panel discussion. She pointed out that the historical effort to create the European Higher Education Area (EHEA) needs the close cooperation of different stakeholders and an intensive dialogue on the aims and instruments within the Bologna Process between them. It has to be noticed that this dialogue does not work very sufficiently in South Eastern European countries, especially concerning the cooperation between the higher education institutions and the industry, because of many reasons. Another crucial aspect of the implementation of the EHEA is the financing of the higher education sector. The panellists were asked to focus their contributions on these two objectives presenting their view on the main needs in the development of higher education systems in South Eastern Europe (SEE) first.

From the point of view of the German industry sector Mrs Diale-Schellschmidt pointed out that the German industry is very interested in close cooperation with higher education institutions. In Germany this kind of cooperation has a long and fruitful tradition. Looking at SEE this tradition, however, does not exist. With regard to graduates from SEE universities German companies acting in the region are faced with a lack of skills and competences in the field of practical industry experience. Applicants having such competences combined with the knowledge about regional economical structures and behaviours have the best chances to get a job in international companies.

The new study programmes within the Bologna Process offer the opportunity to develop curricula closer oriented towards the needs of the industry sector, thus rising the employment opportunities in the region and outside the region.

The German industry and the German government support the development of the practical industry experience offering traineeships for students from SEE in German companies. The Committee on Eastern European Economic Relations – Ost-Ausschuss der Deutschen Wirtschaft offers the "Zoran Djindjic Scholarship Programme" especially for this purpose. The programme is concentrated on engineers, IT specialists and economists at the moment and seems to be very attractive for advanced students and young graduates. The industry in the countries and the international enterprises represented in the region seem to be too weak for a significant financial support of the higher education sector. In general, it is, however, necessary to make aware the benefit resulting from the close cooperation between the two sectors.

In the following discussion contributors added:

- Regarding the cooperation between higher education institutions (HEIs) and especially foreign companies it has to be taken into account that, when developing new curricula, HEIs usually have to answer the demands of the companies and that there is a kind of competition between academic and economic aspects of such cooperation. The results are not always in favour of the academic necessities inside the curriculum.
- HEIs should strongly develop the cooperation with small and medium-sized enterprises (SME) in the field of R&D. These

enterprises usually do not have the full necessary capacities in R&D at their disposal to be able to develop new products and state-of-the-art technologies. SME need the cooperation with HEIs in this field to be competitive with their products on the market.

- HEIs should take care on their fundamental research activities usually provided without participation and support of companies. It is the obligation of the government to develop and to finance the necessary research capacities of HEIs.
- The international cooperation in the development of curricula usually offers graduates a better access to the international labour market.

Prof. Tafaj stated that joint research activities should be the main content of higher education activities and international higher education co-operation. The existing structure shows the opposite because of little research potential of SEE HEIs. The responsible governments are requested to develop the research capacities at HEIs offering financial sources and organising a system of competitive application procedures for support.

Prof. Tafaj highlighted the demand for autonomy of HEIs discussed in Workshop 3 of the seminar. He expressed that there is not only the question to offer more autonomy to HEIs by the government. Taking the present structure into account, it is also necessary to develop and to strengthen the experience of universities in the management of more autonomy. The development and improvement of management capacities and the development of research capacities are crucial for the positive future development of higher education systems in SEE countries. Both action lines need close international cooperation and exchange of experiences.

In the following discussion one contributor added:

The international cooperation strengthens the experience concerning the performance of applications to the different international programmes and the management of the project activities.

Prof. Dukiandjiev underlined the positive results of the HRK activities in SEE and especially the efforts touching upon the cross-border

cooperation in the Western Balkans. The cross-border cooperation will be one of five components of the new EU programme IPA – Instrument for Pre-Accession Assistance – starting in 2007, and it will concern all beneficiary countries of the programme. For the Western Balkan Region the IPA will replace the CARDS programme ending in 2006. The IPA will provide financial aid for candidate and potential candidate countries to EU membership including educational programmes.

Prof. Dukiandjiev informed that the Tempus programme will be prolonged from 2007 until 2013 and should be used for the implementation of Bologna aims in SEE. Applications for Tempus III may be submitted until 15 December 2006. The first application round for Tempus IV is expected to take place in the second half of 2007.

Additional more attention should be directed to the new programme IPA in future because of the offered support for capacity building and regional cooperation. The EU programmes will remain to be a very important source for international cooperation in higher education in future.

Enclosure

List of participants

Name	Institution
Apostol, Prof. Dr. Constantin	Director of BRIE-Giurgiu, Academy of Economic Studies Bucharest, Romania
Assenmacher, Brankica	German Rectors' Conference, Bonn, Germany
Benhacine, Prof. Dr. Djamal	Munich University of Applied Sciences, Munich, Germany
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Bothe, Prof. Dr. cs. nat. Klaus	Humboldt University Berlin, Institute of Computer Science, Berlin, Germany
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Janoschka, Oliver	Bosch Lecturer in Mostar, Bosnia and Herzegovina
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Kornazheva, Prof. Dr. Mimi	Director of BRIE-Rousse, University of Rousse, Rousse, Bulgaria
Körner, Klaus	European Commission, Directorate-General for Education and Culture, Brussels, Belgium

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Krstev, Prof. Dr. Boris	Vice Rector of the University of Skopje, FYRO Macedonia
Lackovic, Prof. Zdravko MD, PhD	University of Zagreb; President of ORPHEUS (Organisation of PhD Education in Biomedicine and Health Sciences in the European System), Zagreb, Croatia
Marinkovic-Neducin, Prof. Dr. Radmila	Rector of the University of Novi Sad, Novi Sad, Serbia
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Oettel, Prof. Dr. Dr. h.c. Heinrich	Polytechnic University Bergakademie Freiberg, Head of the Institute for Metallurgy, Freiberg, Germany
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Petronijevic, Prof. Dr.-Ing. Mira	University of Belgrade, Vice Dean of the Faculty of Civil Engineering, Belgrade, Serbia
Purser, Lewis	Irish Universities Association, Dublin, Ireland
Qano, Vaso	Director of the Tempus Office Albania, Tirana, Albania
Radic, Dr.-Ing. Zoran	University of Belgrade, Department of Hydraulic and Environmental Engineering, Belgrade, Serbia

Radonjic, Prof. Dr. Dragan	Vice-Rector of the University of Montenegro
Reisky, Florian	Bosch Lecturer in Tuzla, Bosnia and Herzegovina
Riederer, Prof. Dr. Peter	University Würzburg, Clinical Center, Head of the Clinical Neurochemistry, Hospital und Polyclinic for Psychiatry and Psychotherapy, Würzburg, Germany
Ristic, Prof. Dr. Danilo	Ss. Cyril and Methodius University in Skopje, Deputy Director of IZIS, Skopje, Macedonia
Sabanac, Zenan	BFUG Representative for Bosnia and Herzegovina, Ministry of Civil Affairs, Bosnia and Herzegovina
Schmid, Prof. Günther, PhD	Ruhr University Bochum, Faculty for Civil Engineering, Bochum, Germany
Smolarczyk, Rudolf	German Rectors' Conference, Bonn, Germany
Stanovic, Dr. PD Tanja	Dean of the Faculty for Tourism, University of Montenegro
Tafaj, Prof. Dr. Myqerem	Advisor for Education and Science in the Cabinet of the Prime Minister, Tirana, Albania
Turajlic, Prof. Dr. Srbijanka	Chair of the Board, Alternative Academic Educational Network (AAEN), Belgrade, Serbia
Verbic, Branislav, Prof. Dr.-Ing. sc.	University of Sarajevo, Sarajevo, Bosnia and Herzegovina
Vucetic, Dr. Aleksa	University of Montenegro, Faculty for Tourism
Winterhagen, Jenni	University of Montenegro, Bosch Lecturer, Niksic, Montenegro
Wochele, Christian	German Rectors' Conference, Bonn, Germany

Programme

27 September 2006

Arrival of participants via Podgorica or Tivat	
8.00 pm	Joint dinner in the Restaurant Galion Šuranj street, Kotor

28 September 2006

9.00 am	<u>Welcome address</u> Mrs Marija Catovic, Mayor of the City of Kotor
9.10 am	<u>Opening address</u> Looking into the past for future's sake – 10 years of HRK activities in South Eastern Europe Dr. Gerhard Duda, German Rectors' Conference (HRK)
9.30 am	<u>Host's address</u> Experiences and results of cooperation with the HRK Prof. Dr. Dragan Radonjic, Vice-Rector of the University of Montenegro
10.00 am	<u>Impulse address</u> The impact of project sustainability and networking within South Eastern Europe Rudolf Smolarczyk, German Rectors' Conference (HRK)
10.20 am	Coffee break
10.40 am - 1.00 pm	Parallel Workshops Part I
1.00 - 3.00 pm	Lunch at the Faculty of Tourism and Hotel Management – Fakultet za turizam i hotelijerstvo, University of Montenegro
3.00 - 6.00 pm	Parallel Workshops Part II

Workshop 1: Teaching-related projects and funding programmes	
Moderation: Dr. Hella Gerth, European University Viadrina	
10.40 am - 1.00 pm	<i>Part I: Short presentations of selected projects</i> (status quo, regional implementation of the respective project, funding sources, development potentials and plans)
	Implementation of the study programmes on "European-Studies" in South Eastern Europe Prof. Dr. Reinhard Meyers, University of Münster
	Higher Engineering Education for South Eastern Europe Prof. Dr. Günther Schmid, Ruhr University Bochum
	Software Engineering: a multilateral educational and research network for South East Europe Prof. Dr. Klaus Bothe, Humboldt University Berlin
	Networking of Albanian-speaking universities in materials science and materials engineering Prof. Dr. em. Heinrich Oettel, Freiberg University of Technology
1.00 - 3.00 pm	Lunch in the Faculty of Tourism
3.00 - 6.00 pm	<i>Part II: Continuation of presentations and discussion</i>
	Sustainable Project Engagement for and with Universities in the Agriculture and Nutrition Sector in South Eastern Europe Dr. h.c. Jochem Gieraths, University of Hohenheim, Managing Director of the Eastern Europe Centre
	Tempus programme in Albania and its impact on HE institutions Vaso Qano, Director of the Albanian Tempus Office

	<p>Robert Bosch Foundation Programs for Universities in South Eastern Europe Jenni Winterhagen, Bosch Lecturer in Niksic, Montenegro Florian Reisky, Bosch Lecturer in Tuzla, Bosnia and Herzegovina</p>
7.00 pm	Joint dinner

Workshop 2: Research-related projects and funding programmes

Moderation: Dr. Gerhard Duda, German Rectors' Conference (HRK)

10.40 am - 1.00 pm	<p><i>Part I: Short presentations of selected projects</i> (status quo, regional implementation of the respective project, funding sources, development potentials and plans)</p>
	<p>Research network "Clinical Neurochemistry" Prof. Dr. Peter Riederer, Clinical Centre, University of Würzburg</p>
	<p>The Zagreb Declaration on Harmonization of PhD programmes in Biomedicine and Health Sciences in Europe Prof. Dr. Zdravko Lackovic, University of Zagreb and President of ORPHEUS (Organisation of PhD Education in Biomedicine and Health Sciences in the European System)</p>
	<p>EULIMNOS – Monitoring of Lake Shkodra and its Ecology Dr. Andrej Perovic, University of Montenegro</p>
	<p>Institute of Earthquake Engineering and Engineering Seismology, IZIS Prof. Dr. Uwe Dorka, University of Kassel</p>
1.00 - 3.00 pm	Lunch in the Faculty of Tourism

3.00 - 6.00 pm	<i>Part II: Continuation of presentations and discussion</i>
	Research in Engineering Sciences in the South-Eastern European Graduate School SEEFORM, Skopje, FYR of Macedonia Prof. Dr. Rüdiger Höffer, University of Bochum
	Southeast European ERA.NET (European Research Area-Net) Dr. Hans-Jürgen Donath, International Bureau of the German Federal Ministry of Education and Research (BMBF), Section "Europe"
	7 Framework programme of the European Union Sasa Ivanovic, Ministry of Education and Science of Montenegro
	Cirko Mechanical Engineering Systems Centre of Excellence (CIRKO MES CE) in Macedonia Prof. Dr. Atanas Kocov, University of Skopje, General Manager of CIRKO MES CE
7.00 pm	Joint dinner

Workshop 3: Higher Education Reforms in South Eastern Europe Institutional reforms, Challenges and Prospects	
Moderation: Dr. Rolf Peter, German Rectors' Conference (HRK)	
10.40 am - 1.00 pm	<i>Part I: Presentations to the university development in South Eastern European Countries</i>
	Evaluation of the Higher Education Systems in South Eastern Europe by the European University Association (EUA) Lewis Purser, Irish Universities Association (IUA)
	Novi Sad-Initiative and Beyond Prof. Dr. Ladislav Novak, University of Novi Sad

	<p>Mobility and Cooperation in the Higher Education and Research</p> <p>Prof. Dr. Constantin Apostol, Academy of Economic Studies Bucharest</p>
1.00 - 3.00 pm	Lunch in the Faculty of Tourism
3.00 - 6.00 pm	<i>Part II: Continuation of presentations and discussion</i>
	<p>Challenges for the Bosnian Higher Education Development</p> <p>Zenan Sabanac, BUFG Representative for Bosnia and Herzegovina, Ministry of Civil Affairs</p>
	<p>University governance and management – new solutions and dilemmas</p> <p>Prof. Dr. Radmila Marinkovic-Neducin, Rector of the University of Novi Sad</p>
	<p>Higher Education in Albania – Reforms and Prospects</p> <p>Prof. Dr. Myquerem Tafaj, Advisor for Education and Science in the Cabinet of the Prime Minister</p>
	<p>Macedonian Higher Education – Reform, Challenges and Prospects</p> <p>Prof. Dr. Boris Krstev, Vice Rector of the University of Skopje</p>
7.00 pm	Joint dinner in the restaurant "Splendido"

29 September 2006

Reports from the workshops	
9.00 - 9.15 am	<p>Workshop 1: Projects mainly focused on teaching</p> <p>Rapporteur: Dr. Hella Gerth and Oliver Janoschka</p>
9.15 - 9.30 am	<p>Workshop 2: Projects mainly focused on research</p> <p>Rapporteur: Dr. Gerhard Duda and Christian Wochele</p>

9.30 - 9.45 am	Workshop 3: Projects focused on institutional reforms in Higher Education Rapporteur: Zenan Sabanac
9.45 - 10.15 am	Questions and discussion Moderation: Brankica Assenmacher
10.15 - 10.30 am	Coffee break
Final panel discussion: Possibilities and necessities of funding international higher education projects Moderation: Prof. Srbijanka Turajlic, PhD, Chairwomen of AAEN, UNESCO Chair for Higher Education Management	
10.30 - 11.45 am	Participants:
	Mrs Maren Diale-Schellschmidt Delegate of the German Industry and Commerce for Serbia, Montenegro, Macedonia and Albania
	Prof. Dr. Stefan Dukiandjiev International Tempus Coordinator
	Prof. Dr. Myquerem Tafaj Advisor for Education and Science in the Cabinet of the Prime Minister
12.00 am	End of the seminar
12.30 am	Lunch (open air) in the Old Town of Kotor
3.00 pm	Sightseeing
	Departure of participants