

SOKRATES-PROGRAMM * INTENSIVPROGRAMM (IP)

Application forms for Intensivprogram and Instructions on completing the application forms for Intensive Programmes (you find it in many languages!) just go into http://europa.eu.int/comm/education/programmes/socrates/erasmus/forms_en.html

1.. Project title „RESPONSIBLE USE OF SOIL, LAND USE AND REGIONAL DEVELOPMENT”

1a.. ABSTRACT -

Our common soils are ‘per excellence’ very important for sustainable development, ever since the World Summit for Environment and Development in Rio de Janeiro in 1992, where Agenda 21 was adopted and the Framework Convention on Climate Change was signed. The trend towards uncontrolled sealed surfaces and damage of an asset that is extremely short and cannot be reproduced, is continuing. The targeted reduction in the growth rate of permanently sealed surfaces is to be achieved by looking for concrete measures and solutions.

The aims of this project are to co-operate in the development of measures against uncontrolled sealing and damage of soil and land. We want to work on concepts for solving these complex problems in cooperation with graduate students and Ph.D. students from six Danubian countries (DE, AT, HU, SK, BG, SI) and also representatives of science and political administration.

The project is organised in three parts. First we want to analyse the impact of the threats related to soil and show actual trends in landuse. Secondly, within a future search workshop in Neusiedl am See we will develop operational procedures and work on actionplans for responsible use of soil and resource-sparing regional development.

Finally, the result of this process will be a development concept as a starting point for a ‘learning region’ in the Danubian space. This means, we have to create awareness among all the stakeholders in the region for a responsible use of our soils and by learning from each other more and more.

1B.. LINK BETWEEN THE PROJECT AND THE EUROPEAN POLICY STATEMENT (EPS)

The Intensivprogram (IP) “Responsible use of soil, landuse and regional development” is promoting several objectives, which is also mentioned within the BOKU policy strategy paper. The main objectives of the EPS:

- Improving the educational establishment at the BOKU for languages and at the ELLS universities, for stimulating the attractiveness of international partner universities and also to facilitate making exams for short time guest students.
- Promoting the participation of the BOKU to coordinate IP’s. This will help to attain several objectives: on one hand taking shyness for going abroad for the BOKU students, this will help to increase the number of outgoing students (especially heading to Eastern European countries). On the other hand there is a big chance for the BOKU, of presenting itself to international students and lecturers, which will come back later to the BOKU, having a longer duration of staying, and they will improve the rate of incoming students. Additionally an IP is fostering an international atmosphere – Internationalisation at home – which is a key word of the strategy of internationalisation.

- Extension of ODL competencies (<http://www.odl.org/>) at the BOKU in order to develop innovative studies and intensified use of ODL within educational courses.

Since a very long time the BOKU is concerned to confirm the regional co-operation with the neighbouring countries. Since the BOKU is very sensible and feeling a wide responsibility according to their geographic position and common history with the neighbouring countries in the east, we have chosen several universities from the accession countries (Budapest University of Economics and Public Administration, TU Zvolen, Slovak Technical University in Bratislava, University in Gödöllő and University in Ljubljana)

As it is defined in the EPS, there will be also high quality monitoring in connection with the IP. All the students and lecturers will make an evaluation about the program. The results of this interpretation of the questionnaire will help to modify and improve the program in the following years. Therefore the realisation of this IP will be of high importance for implementing the EU policy statements.

The BOKU professes in the 'Leitbild' (mission statement) to be an international performer in research and teaching, cooperating across national and international borders and initiating open mindedness towards new developments. The IP "Responsible use of soil, land use and regional development" is supporting various objectives, mentioned in the strategy for internationalisation (<http://www.boku.ac.at/zib/strneu3.html>)

- The most important goal in the next few years can be characterised by the key-words 'Internationalisation at home' meaning increased teaching of staff mobility, the offering of international and interdisciplinary study programs as well as the establishment or development of an 'international class room'.
- In the interest of a better use of synergy effects, both in general teaching and in continuing education, as well as in research, the development of international cooperation networks should be considerably strengthened.
- Structured development of foreign language courses for each subject area through development of 'special modules' in certain thematic key areas, but also of intensive programs or international excursions ("Travel courses")

The goals of this IP are to work out a common vision for measures against uncontrolled sealing and damage of soil and land, intending a balanced production and also developing concrete measures for integrated land utilisation to initiate a 'learning region'.

- Within a more and more digitalised world the use of new information technologies gets continuously more important, to cooperate with the participating partner universities from six countries. There should be no segregation between the use of practical application and non utilisation, but fostering much more the use of the new medias for integrative learning methods. On the basis of longterm experiences at the BOKU, we shall foster virtual knowledge transfer by e-learning with an own website.
- The joint project is supporting the personal information exchange of the students and teachers and gives an access for new scientific methods and is also reducing prejudices with a lifelong effect and most of all improving the knowledge of languages.
- Within the EU action programme like SOCRATES life-long learning has more and more considerable influence. Within our understanding we know already that an integrated knowledge base will be definitely an advantage of a place and this is developing with an increasing speed. As a contribution for bringing together within a joint dialogue

representatives of many scientific subjects and educational spheres from the region, we will stimulate regional problems for intending a 'learning region' in the future.

2. RATIONALE, OBJECTIVES, TARGET GROUPS

2.1.. APPROPRIATENESS AND BACKGROUND

The present evolution of international climate policy will definitely influence within a reasonable space of time all questions of landuse and soil cultivation.

The climate convention is going more than ever to convert into a Meta-process.

The special announcement of the International Panel on Climate Change (IPCC) for land use and forestry is combining in an emphatic way all issues of land use, climate protection and economic development of the regions. There exists a huge demand not only for developing and checking methods and also delivering realistic estimations about potential and storage length, but much more than up to now to make clear the interrelationship of facts also beyond the scientific community, for getting more influence within political judgements.

In the year 2002, 15 European Environmental ministers have outlined first steps towards a strategy to protect soils, on a level with cleaning up our water and air. The European Parliament resolution on the Commission communication 'Towards a Thematic Strategy for soil Protection' (COM(2002) 179) <http://europa.eu.int/comm/environment/soil/> is targeting to conserve landuse for example preventing sealing the soil next to other protected goods. As a first step we will try to integrate the strategic goals of soil protection and to implement it on a regional basis

2.2 .. AIMS AND OBJECTIVES

Soils are not visible, only its surface and they are covered with plants, streets, houses, industries, places and many others. Our ground has primarily various functions for the environment and the human beings. Within competing land uses and with losses of the multifunctionality of the ground, there are arising conflicts which we will demonstrate within this project.

The five main soil research clusters (see BLUM, W.E.H., 2003) serve as a theoretical framework for the realization of this project (see attachment)

- 1.. Within a first step we will analyze the interdependencies of the eight threats of the soil, which are demonstrating soil degradation and soil loss (soil sealing, soil compression, local and diffuses contamination, soil erosion, eutrophication, salinisation, nutrient depletion, soil acidification)
- 2.. Development and harmonisation of methods for the analysis of the state of the eight threats to soil and their changes in time (GIS, etc.)
- 3.. Relating the eight threats to driving forces (Antriebskräfte) and pressures = Cross linking with EU and other policies (agriculture, transport, energy, environment etc.)
- 4.. Analysis of the impacts (Auswirkungen) of the eight threats, relating them to soil deliverables into other environmental compartments (loss of biodiversity, climate change, changes in population, water stress etc.)
- 5.. Development of operational procedurs for the mitigation of the threats = responses. How to establish regional development with great responsibility in relation to the vertical system of land use (biomass production) for getting an economic yield of the soil.

The aim of this project will be to carry out the essential goals of the 'European Soil Thematic Strategy' which are demonstrated with the eight threats of the soil. It will be necessary to

guarantee the functional ability and availability of terrestrial and aquatic ecosystems considering qualitative and quantitative aspects. To guarantee effective soil protection it is necessary to avoid an ongoing sealing process of the valuable resource of soil, to safeguard the fertility of the soil through erosion, prohibiting measures and agriculture with an ecological bias, also with the support of methods for an economic use of the soil, involving great responsibility. As a result of the Intensiveprogram we will achieve a concept for the strategy of a learning region, to obtain the goals of a resource saving regional development.

2.3.. TOPICS TO BE TAUGHT DURING THE IP

If we want to achieve new ways for a sustainable land use we will have to integrate different topics of science, practical work and politics. The sequence of teaching and learning will be build up as follows. At the beginning of the Intensiveprogram we will handle the five main soil research clusters in five topics in Block 1. In this Block 1 we will deal with the results of the data analysis.

- i.. Introduction and analysis of the interdependencies of the soil loss and soil degradation (Session I)
- ii.. Development and harmonisation of methods of dataanalysis about the state of the soil (Session II)
- iii.. Presenting the driving forces and pressures of the ecosystem soil (Session III)
- iv.. Describing the impacts of soil degradation in relation to other environmental issues (Session IV)
- v.. Developing operational procedures for sustainable landuse and regional development (Session V)

In continuation of the theoretical and practical explanations with the topics of sustainable landuse, we will develop a future search workshop (Block2) for the following project week (Block 3)

2.4.. INNOVATIVE ASPECTS OF THE PROGRAM IN RELATION WITH EXISTING TEACHING PROGRAMS

Discussing new patterns of sustainable landuse and regional development we have to ask the question, how we will obtain harmonisation of different demands of yields in a spatial and temporary aspect. Within the framework of this Intensiveprogram we shall span a bridge between scientific basics and systemic advisory issues to get more influence for objective political decisions.

The students of the participating institutions will have the opportunity within the framework of their education to get official credits for all educational events for their studies which are offered during the Intensiveprogram. The participating universities are already offering lectures on the subject of landuse and regional development. The innovative aspect within this Intensiveprogram will be, that the students will illustrate critically the data and facts in cooperation with international well known scientists after getting a theoretical background and having done the dataanalysis. It will result in a discourse on an European level because experts from universities of the Danube region will participate.

2.4 PEDAGOGICAL AND DIDACTIC DISPOSITION

The didactic concept pursues a transdisciplinary tendency. The architecture of knowledge integration distinguishes between three levels – Understanding (verstehen) of real world problems, conceptualizing (begreifen) through synthesis by methods of knowledge integration

and causal explaining (erklären) based on arguments arranged according to propositional logic.

The goal of this Intensiveprogram is to co-operate in the development of a common vision of measures of sustainable landuse, having in mind a balanced production system, as also for developing and transferring concrete measures for a 'learning region'.

The conversion of contents and methods of the five main soil research clusters will be initiated as social learning within a participatory and dialogue discourse. According to this intention, a holistic discussion with appropriate stakeholders of the region will be necessary, who are participating within an environmental dialogue and will modify the change. This ecologisation process could initiate the transition for a sustainable development according to a 'learning region'.

All topics will be proved by written documents and working papers and will be published on the website before the Intensiveprogram will start. There will be an essential didactic approach in relation for new communication technologies with the new medias. The participants will have the possibility of a virtual knowledge transfer, in relation to the FORUM on the website www.new-bridges.net and also there will be a 'team workspace' on the website <http://www.boku.ac.at/e-learning> to communicate with each other.

The whole process will be accompanied by action research. In such a way co-operating action research for regional activative work in relation to supervision and controlling processes may contribute towards elaborating the experiences of team-work and the range of knowledge in international teams.

2.6.. BENEFICIARIES OF THE PROJECT

The selection of the academic participants will be selected at the actual institutes according their performance and with regard for a topic relating to their thesis.

Reason for selecting the lecturers and instructors:

Dr. Miklos is the minister of environment in Slovakia and one of the chief authors of LANDEP methodology, which was admitted from UNCED '92 into AGENDA 21 as an integration management method for natural ressources. He was performing an essential subscription towards the development of the Territorial System of Ecological Stability (TSES) and therefore he could integrate this system into the legislature of Environment, Agriculture and Territorial Planning in Slovakia. Minister Miklos was the president of the administrative board of UNEP (1999) and also the founder of the 'UNESCO CHAIR for Ecological Awareness and Sustainable Development' in Banska Stiavnica.

Mrs. Husenicova is Assistant Professor at the STU Bratislava and has done crossborder projects in city and regional planning between Austria and Slovakia.

Prof. Pouhalev is engaged at the Department of Management and Natural Ressources in Sofia and he is active as a biologist and socio-economic scientist within three research projects at the forestry training center in Rhodopi mountains, in Petrohan training center in the West Balcan mountains and at the Vrazhdebna education center.

Prof. Csemez is active at the Institute of Landscape Planning and Regional Development in Budapest and he was elaborating fundamental studies about sustainable landuse and

modelling of the landscape. He was participating in the region of Neusiedlersee in Hungary for the development of Environmental Impact Assessment Planning and he is also coordinator of crossborder measures for sustainable development of communication in sensitive regions.

Prof. Onodi is the head of the Institute of Economy of the Environment at the SZIE in Gödöllő and he is responsible for the branch of studies in Agro Economy and Environment. Dr. Onodi is managing the department of Space and Settlement planning and he is also responsible for the adjustment of various viewpoints for sustainable land use in the field of land use planning on the local and supralocal level. The data (GIS) criteria and methods of promotion for the National Agro Environmental program for Hungary have been elaborated at the institute and will be placed at the students disposal during the whole Intensive program.

Assistant Professor Prus has longtime experience in soil research. He is teaching as a senior lecturer the students of the Forestry faculty, but also in Landscape architecture and Zoology. He has specialised in the subject of soil monitoring and evaluation and also for environmental impact assessment.

Prof. Finka has established a center of excellence for City and Regional Development at the Faculty of Architecture at the STU in Bratislava. Within this scope of a very important european scientific institution he has published several publications for regional planning in Slovak, German and English.

Prof. Priewasser has achieved at the Institute of Business and Regional Economic and Environment, some valuable results for this project and has elaborated several studies about regional system management, metabolism analysis and sustainable municipal and regional development (Local and regional Agenda 21)

Prof. Metzka is engaged in the fields of water construction and water conservation at the Department of Civil Engineering in the Fachhochschule Deggendorf. The main efforts in education are hydrology and ecology and modern waste water treatment. The Center of water and Environment at the Fachhochschule Deggendorf is realizing projects in the field of environmental equitable rainwater management in settlements, integrated river basin management and flood protection.

The regional stakeholders who will be engaged at the future search workshop (Block2) will be chosen from the municipality of Neusiedl am See as active members in environmental protection. They are representatives from various professional organisations who are politically active in the region working in communities or NGO's. The 'stakeholders' from the region should provide local basic knowledge for responsible land use and arranging arguments for measures in regional development to support the idea of a 'learning region'.

In the focus of the project 'Responsible Use of Soils, Land use and Regional Development' we have to ask the question: In which case can we communicate between science and professional practical fields and also with the general public, to develop for all the participants an understanding for the problems of sustainable land use and soil protection. Most of all we have to keep in our minds to protect the soils for future generations and promote biological variety within the landscape and in the soil. This will guarantee the equality of chances for future generations. See 'Soil declaration from Osnabrück' (OBE) "Local solutions for a global problem". SOS – Save our soils!

3.. ENVISAGED OUTPUTS

3.1.. OUTPUTS OF THE PROJECT

For the first time in one of the European regions we will transfer operational goals and objectives for soil protection within the basis of the 'EU soil communication': "Towards a thematic strategy for soil protection" – COM (2002, 179 Brussels). Within this strategy there are explicitly mentioned the objectives of our application, in particular the eight threats of soil.

Aspired goals for sustainable landuse and soil protection and harmonising different demands of landuse should be accepted and balanced from a social and economic point of view and most of all significant in a scientific – technological – and ecological way, all of this regarding future generations. Within a scientific approach one can only put up scenarios, which is the basis for political decisions.

The course of development for getting results from the IP is following two tendencies:

1.. The theoretical concept will be placed at the students disposal in a proper shape of worksheets, collection guidelines and proven educational materials. During the entire IP there will be a website inclusive a FORUM available for the participants. The datas and facts of the first analysis will be the basis for the workshop. The common working language is English.

2.. For realizing the expected goals a process will be initiated as an innovative beginning, which the students can transfer in their region as a result of the IP. Because most of the citizens realize that shaping the future character of their community or environment is an important task. The local community as a 'learning organisation' will be characterized by a shared vision for perspectives of the future and creating new qualities of team learning. If we want to bring society into the art of governance and to encourage the creativity of all social groups, than they should realize their intellectual potential for solving all kinds of problems.

The results of this IP should be realized in practical applications. In order to encourage all the participants to promote the problems of a sustainable landuse, we need a better communication between science and society, and also politicians for gaining the basis for clear decisions. We deeply believe that, in order to realize a sustainable land use and soil protection we have to start with a 'learning region'.

WORKING PROGRAM INCLUDING ALL ACTIVITIES AND THE TIME SCHEDULE

1.. Preparatory work 9/2004

Establishing the organisational structure of the IP. All activities for the participants will be distributed by e-mail and the FORUM. Establishing the guiding principles for data collection. This will help to compare the results.

2.. Kick-off meeting – Nov 4th – 5th 2004

Completion of the program. Contacting the officials and the surrounding in Neusiedl am See. Developing the procedure of the program:

- The representatives of all institutions will bring statements about their intended methods and planning means in the field of sustainable landuse and their strategies in relation to EU standards.
- Selection of a final heading for the lectures at the workshop, regarding the five main soil research clusters.

- Defining information material for the students. Determining a list of criterias for selecting the students.
- Precise formulation of the workshop instructions for the students (data material, mapping, inquiries etc.)

3.. Selection of the students at the partner universities 11/2004

4.. Consultation in the institutes at the partner universities 11/2004

5.. Preparatory work and realization of data collection 12/2004 till 2/2005

Inventory of four soil research groups by the students (state of the art of soil, driving forces, impacts and consequences). Data collection according to availability. Describing of the process of collaboration through action research.

6.. Virtual communication 11/2004 till 09/2005

Clarification of open questions in relation with the given tasks. Exchange of methodical and other questions with regard to the content during data collection.

7.. Intensiveprogram Neusiedl am See Feb. 28th to March 12th 2005

Joint IP for two weeks in the springtime 2005 in Neusiedl am See under the auspices of the Academia Danubiana (www.academia-danubiana.net) Elaborating common goals for sustainable development for the protection of soil, water and air, according to the Kyoto protocoll. Creating innovative examples and creative measures for regional policies of a ressource-saving and especially soil protecting regional development.

+ Monday till Wednesday 28.02 – 02.03.2005 3 days

Lectures (L) and Seminars (S) BLOCK 1

Theoretical and practical examples for the topic of the five main soil research clusters. (see nr. 2.3) Representatives from the universities and experts from the region will have lectures and will also carry out practicable exercises with the participants. The range of topics reach from an introduction into ecology of time about soils, till crossborder problems of an intolerable policy of soils.

Wednesday afternoon – Excursion to ‘Salzwiesen’ and ‘Einser Kanal’ near Apetlon.

i.. SESSION 1 – Introduction and analysis of the interdependencies of the soil loss and soil degradation

+ MIKLOS (L) – Territorial System of Ecological Stability (TSES)

+ BLUM (L+S) – A new paradigm for sustainable landuse as a ‘bridge’ between science and politics

ii.. SESSION 2 – Development and harmonisation of methods of dataanalysis about the state of soil

+ PRUS (L) – The indicators for soils form the European Environmental Agency

+ POUHALEV (L+S) – Indicators of landuse for sustainable development for settlements

iii.. SESSION 3 – Presenting the driving forces and pressures for the ecosystem soil and sustainable landuse

+ HUSENICOVA (L) – Planning devices and legal regulations for sustainable land use and soil protection,

+ PRIEWASSER (L+S) – Landusemanagement in relation to socioeconomic issues

iv.. SESSION 4 – Describing the impacts of soil degradation in relation to other environmental issues

+ FINKA (L) Quality management and responsible resource policy for the protection of the environment

+ ONODI (L+S) Regional development as a tool for responsible landuse and soil protection

v.. **SESSION 5 – Developing operational procedures for sustainable landuse and regional development**

- + METZKA (L) Open spaces in municipal and regional planning
- + CSEMEZ (L+S) Regional and global landuse policy in relation to the Rio+10 conference

+ Thursday till Saturday, 03..03. – 05.03.2005 – 3 days, **Future search workshop BLOCK 2**
The participating lecturers, students and stakeholders of the region will elaborate trends, strategies and concepts for a sustainable landuse and soil protection and most of all creating actionplans for realisation measures. This three day workshop will be guided by professional moderation and accompanied by action research. (<http://www.futuresearch.net/>)

+ Sunday 06.03.2005 one day – Excursion to the national parc Neusiedlersee. The participants are students.

+ Monday till Friday 07.-11.03.2005 five days – **Project week BLOCK 3**
Elaborating various topics within group work by the students. See chap. 2.3. This week will be guided by the coordinator of the IP.

+ Saturday 12.03.2005 one day – Presentation of the results
Describing the results how to manage the ressource of soil considering the Local AGENDA21 (<http://www.un.org/esa/sustdev/documents/agenda21/index.htm>) and the ecological footprint (<http://www.agenda21-netzwerk.de/footprint/index.htm>), to confirm citizen awareness in politics and administration for supporting the idea of a learning region

8..Follow up 04/2005 – 09/2005 Results

Elaborating a joint publication. The results will be available in a written form for the International Union of Soil Sciences and should be also a base for further development of a 'learning region'.

3.2 ECTS – EUROPEAN CREDIT TRANSFER SYSTEM

Within the IP we will make use completely of the ECTS points. They will be attributed within this project work, just the same as all the preparatory work, the diploma work and dissertations. (http://europa.eu.int/comm/education/programmes/socrates/ects_en.html)

The program of the IP lasts 13 days and the participating students will get 10 ECTS points. The students will receive also 5 ECTS points for data collection as a preliminary investigation for the IP with a final report (2 weeks) and also additional 5 ECTS points for participating at the IP in Neusiedl am See and elaborating a positive report.

3.3 BENEFITS AND SPIN-OFFS FROM THE PROJECT

The consequences for integrating the IP into the instruction courses of the partner universities will be, that the students will get fully accepted the ECTS credit points. One of the main tasks in the future for regional planning will be to propose an optimisation process of a site for ressource intensive landuse, taking into consideration all kinds of sustainability. For attaining the accessible reduction of increasing permanent sealed land a negotiation process should start with concerned stakeholders, reducing the overhanging needs for new building sites in relation to the demands of enterprises, neutralizing reserves of building sites, an effective policy for soils of the public sector and specially favoured promotion of area sparing building constructions and area-recycling. The declaration of soil protection from Osnabrück should be a basis for the coming international activities, as it is presently supported from the

International Union for the Protection of Nature (IUCN), especially from the committee of Environmental legislation (CEL). The results of the project will be published and they will be available for instruction work within regular teaching. The results will be used also with e-learning instruction work.

4. EVALUATION AND DISSEMINATION

4.1.. MONITORING

The supervision of the IP will be managed by adequate institutions at the participating universities, especially from the side of the coordinating BOKU. The starting points will be the reports of the IP coordinator, which will be produced on the basis of critical discussions by the students and their instructors. An additional information means are anonymous questionnaires which will be completed by the students.

Within the adjustment of e-learning an impartial verifying criteria is available, for monitoring the quality and intensity of the IP.

For guaranteeing the project goals, time schedule and the budget, we will establish the following measures

- Within the FORUM there are internal project commentaries
- Message of return by an interim report
- Evaluation of the activities

4.2.. ASSESSMENT OF THE QUALITY OF THE OUTPUT

The lectures will be evaluated by the students, in relation to organisational matters, quality of instruction and other aspects. Common discussion about the results by students and instructors. Finally a joint report will be produced by the students and lecturers together with the regional stakeholders for improving future activities. This makes it possible to revise the IP in the following 2nd and 3rd year. The whole process of the IP will be supervised by action research. This will help to illustrate within the whole program, the success or failure of planning decisions and their transposition within various methods

- Elaborating a set of questions for the whole work
- Accompanying the process with different methods of actionresearch (Interviews, questionnaire, research diary)
- Describing the process of cooperation between the various members
- Considering new formations of the IKT

4.3.. DISSEMINATION

The consequences of this project should be passed on to other universities but also with all the contacts of the International Union of Soil Sciences for getting additional presuppositions for e-learning.

This process will be supported by action research. In such a way action research may contribute for regional promotion activities in a sense of supervision and process managing, for preparing the experiences of working in teams and especially of the cooperation of international teams.

5.. PARTNERSHIP COMPOSITION AND CONTRIBUTION

5.1.. PARTICIPATING INSTITUTIONS

BOKU – The topic of a sustainable soil management is a main task on all levels at the Institute of Soil Research (<http://www.boku.ac.at/boden/>) at the University of Natural Resources and Applied Life Sciences in Vienna with the director Prof. Winfried F.H. Blum. As a general secretary of the International Union of Soil Sciences (<http://www.iuss.org/>) Prof. Blum has supported in the year 2000 a conference with the topic “Neue Wege zu nachhaltiger Bodennutzung” – “New aspects for sustainable landuse”, in cooperation with the German Foundation for the Environment at the EXPO 2000. The contribution and results of this interdisciplinary professional conference is the theoretical background of this IP project application (BLUM / KAEMMERER / STOCK, Hrsg.: Neue Wege zu nachhaltiger Bodennutzung. Erich Schmidt Verlag, Berlin, 2000).

BOKU – The organisation of this IP will be managed by Prof. Kvarda . He was managing and directing scientifically in the years of 1998 – 2000 an INTERREG IIB project “BRIDGE Lifeline Danube”, together with project partners from eight cities along the Danube within four countries. See <http://www.new-bridges.net>

<i>Lecturer</i>	<i>University</i>	<i>Lecture in Session</i>
Prof. Miklos	TU Zvolen	I
Prof. Blum	BOKU Wien	I
Doz. Prus	Univ. Ljubljana	II
Prof. Pouhalev	Univ. Sofia	II
Doz. Husenicova	STU Bratislava	III
Prof. Priewasser	Univ. Linz	III
Prof. Finka	FASTU Bratislava	IV
Prof. Onodi	Univ. Gödöllö	IV
Prof. Metzka	FH Deggendorf	V
Prof. Csemez	Univ. Budapest	V

The lecturers will participate within Block 1 and 2 at the IP

The Fachhochschule Deggendorf is performing a practical education, but they are also involved in applied research and development and is specially interested in a wider cooperation with communities and business. The total number of persons within this institution – 2300 students, 70 professors, 150 lecturers, 70 non scientific members. The FH Deggendorf offers nine degree courses: Civil Engineering, Business Studies, Electronic Engineering, International Management, Bachelor Mechanical Engineering, Master of Business Administration (MBA), Media Technology, Business Informatics, Information Systems an Management. The FH Deggendorf was already a partner during our research project ‘BRIDGE Lifeline Danube’. We were experiencing excellent cooperation and working together.

For one or the other topic within this IP we will invite leading experts also from non universitarian institutions, reporting about new issues and important problems about the soil and ressource conserving policy.

Our colleagues Minister Miklos, Csemez and Onodi were already co-operating within the BRIDGE project. Prof. Csemez has elaborated a design concept for a green-way system and was planning in the Danube national parc Szigetkös. Prof. Onodi was elaborating a structureanalysis for settlements along the Danube. There are already existing contacts since a

very long time between Prof. Blum, Prus and Lobnik. Prof. Pouhalev was last year a senior advisor for an international students conference for landscape planners in Bulgaria, which was organised of the European Landscape Architecture students – ELASA association.

<http://www.elasa.org>

Prof. Kvarda has since a very long time scientific contacts with the STU in Bratislava and has realised several projects in cooperation with Minister Prof. Miklos in landscape ecology.

5.2 TASKS OF THE PROJECT PARTNERS

The project partners are involved mainly with several tasks, taking care for the students, co-operation with the program development, giving lectures and taking part during the IP. The cooperating institutions (Diploma students and Ph. D. Students) will collect all the datas, during the first kick off and the IP in Neusiedl am See, as it is mentioned in the five research clusters.

BOKU – Prof. Kvarda – Project organisation, managing, accomplishing and finishing the procedure of all activities.

BOKU – Prof. Blum – Scientific coordination and lecture according to the intentions of the IP UNESCO CHAIR of ecological awareness and sustainable development – Minister Miklos, Lecture and taking care of the students

STU Bratislava – Doz. Husenicova - Lecture and taking care of the students in cooperation with Prof. Kvarda. Point of main effort: Optimising landuse in residential areas.

UNI.SOFIA – Prof. Pouhalev - Lecture and taking care of the students. Point of main effort: Ecology and environmental protection, landscape architecture.

BKAE Budapest – Prof. Csemez. Lecture and taking care of the students. Point of main effort: Regularity of a landscape change in the region of the Neusiedlersee and just there applying GIS as a part of the greenway system

SZIE Gödöllő – Prof. Onodi - Lecture and taking care of the students.

FH DEGGENDORF – Prof. Metzka - Lecture and taking care of the students.

UNI. LJUBLJANA – Prof. Lobnik - Lecture and taking care of the students.

FASTU BRATISLAVA – Prof. Finka - Lecture and taking care of the students.

UNI. LINZ – Prof. Priewasser - Lecture and taking care of the students.

5.3.. COOPERATION AND COMMUNICATION

Effective cooperation and communication will be guaranteed with a permanent contact by e-mail, as also by supplementing discours on the occasion of the first kick off, during the workshop and by finishing the work. Furthermore the external communication is running on the Internet by an adapted FORUM, as also in a chatroom on the BOKU e-learning platform and by telephon and Fax. The website is adjusted on the server at BOKU. The participating institutes are: UNESCO CHAIR in Banska Stiavnica, STU Bratislava, University Sofia, University Budapest and Gödöllő, Fachhochschule Deggendorf and University Ljubljana. The main spoken language will be english.

5.4.OTHER ORGANISATIONS WITHOUT RECEIVING A SOCRATES GRANT

+ Community Neusiedl am See. Contact person: Deputy to the Burgenland parliament and major of Neusiedl Mr. Kurt Lentsch. <http://www.neusiedlamsee/>

The IP event will initiate the commencement of a seminar and lecture session within the activities of the Academia Danubiana. During the IP in Neusiedl we will invite for the three days 'future search workshop' experts as active members for the dialogue from the region of northern Burgenland and the Bratislava region.

+ The regional planning firm Regionalconsulting ZT G.mb.H. is managing the INTERREG project JORDES+, see: <http://www.regcon.at> contact person Dr. Kurt Puchinger

6. PLANNING ACTIVITIES

6.1.. WORKING METHODS

+ **MANAGEMENT:** The IP will be coordinated by Prof. Kvarda. There is a professional responsible person at each partner university, who is usually also involved as an instructor. This group is preparing together the whole program and they are authorized for all questions with regard to the content. The coordinator acts as a substitute for the group and is adjusting the procedure with the International office. <http://www3.socleoyouth.be/> Within the IP a discussion will go on with the lecturers, for elaborating with the students the results about their special knowledge of the five soil research clusters. The students will work out projects in several groups after an intensive discussion during the 'future search workshop' getting support by the professors by a virtual knowledge transfer.

+ **RESEARCH AND PEDAGOGICAL METHODS**

i.. In a first step there will be set up standardized guiding principles for the five main soil research groups. With assistance of the instruction principles the datas will be collected locally. It will be necessary for all participating universities to make a collection of indicators about the five main soil research clusters (analysis of the eight threats to soil, analysis of the state, driving forces and pressures, analysis of the impacts, development of operational procedures)

ii.. With the help of 'team workspaces' on the Internet all results for the participants will be available. This makes it possible to get a critical discussion about the methods, also with regard to the content. The responsible director of e-learning at the BOKU, Mr. Claus Rainer Michalek will install on the BOKU e-learning platform an own team-workspace for the IP, which will be helpfull for the students courses. See: <http://www.boku.ac.at/e-learning>

iii.. Organizing a two week IP

- 1.. At the beginning we will have lectures about various topics for the five main soil research clusters for clarifying research ambiguities. Within the following discussions we will compare and review the datas and facts from the various countries.
- 2.. Additionally we will have practical seminars about the topic 'ecology of the soil'. This will help for getting an emotional relationship to the project. The participants will get an introduction to the microcosmos of the soil by watching it with the miscroscope. (Soils from arable land and the forest)
- 3.. Within a future search workshop "Searching for a common ground for our common Soil" the participants will get a broad overview about our common problems with the soil difficulties. An endeavour of a 'learning community' enables to build up a common vision for a mutual topic, which is leading finally to harmonise different demands of landuse.
- 4.. Within the following project week the students will elaborate in various groups concrete proposals about the topics of the IP and will finally produce a publication.

+ **JOINT DESIGN:** The idea of a joint design will be created during the IP

+ **TYPES OF MEETINGS:** Working sessions of the team coordinators and workshop

+ **TELECONFERENCING:** Symultaneous and asychron communication (chat, discussion board and message system on the BOKU e-learning platform.

6.2.. LINKS WITH OTHER PROJECTS

The mutual regional development strategy for the region Vienna – Bratislava – Győr JORDES+ is a document, which is describing the procedure for the regional corporation at all levels of the region finding advantages for further development. JORDES+ <http://jordes.org/> Joint regional development strategies between Győr-Bratislava and Vienna. This procedure gives policy a certain basis for the potentiality and target idea of the sharing regional cooperation, for instance the guidelines for development. Within the main points of effort in education, science and research a project will be adapted for a learning region about the future biosphere region Győr- Bratislava-Vienna. This will help to have the opportunity in the future for tangible synergies if we continue the IP.

Caused by humanity, the climate change demonstrates that working based on scientific knowledge will be of essential importance in the future. Therefore we recommend emphatically the adjustment of an Intergovernmental Panel of Soils (IPS; Intergovernmental commission of soils) which will be supported by the following institutions: International Union of Soil Sciences, German Soil Association, Stgt.)

6.3.. DEVELOPMENT STRATEGY

Within this international established IP, experts from science, planning and practical work of city and regional planning, soil sciences, nature protection from 6 european countries, will collect their comprehensive experiences for effective soil protection. The work up of scientific subjects leads to an essential significance as a basis for political decisions. The results will be transferred as a learning strategy, which shall help to increase the awareness about soils and as the International Union of Soil Sciences in Vienna is recommending, to put the issue of soils permanently on the international Agenda.

On an European level the University of Sustainable Ressources and applied Life Sciences (BOKU) is already active in various networks in cooperation with teaching, research and development. In November 2003 at the BOKU an association was founded, in cooperation with two technical and two agrarian universities. This association is promoting the cooperation of projects, seminars and teaching sessions for integrated land utilisation and also developing a curriculum called “Ecological design in the solar age”.

In the field of research, the BOKU is competing with equal and high value universities on a world wide level, on the other hand the BOKU is offering an exchange of knowledge for accession countries and the third world.

6.4 SUSTAINABILITY STRATEGY

The support of ERASMUS1 can be seen in a substantial way as a start for further activities. The IP is convertible, for a learning region, because of the high inherent financial part of the participating partner institutions, as also the assistance of the community of Neusiedl am See. The vision in relation to the regions, to learn from each other on a permanently growing higher level is directed towards making the people in the region more and more confident with the idea of a ‘learning region’.

- The results of an economic soil policy will be worth reading in schools, political institutions and administration
- For realising soil issues, environmental education projects for all ages will be evolving continuously.

- Developing and proceeding of a website for the IP program

6.5 OVERALL WORKPLAN

6.5.1 PRELIMINARY ARRANGEMENTS

Establishing the organisational structure 9/2004 5 pers./day
 These activities will be distributed for the participants by e-mail and the BOKU e-learning platform. Establishing of guidelines for data analysis to guarantee the compatibility of the results. There are all partners deputized with lectures and a coordinator for the organisation.

6.5.2 KICK OFF MEETING Nov.4th-5th 2004

Seminarhotel Wende, Neusiedl am See – Seestraße 40-42 tel. +43-2167-8111

<http://www.hotel-wende.at>

Gathering of the scientific delegates 20 pers./day
 Development of the program with a presentation of the IP proceeding. The delegation of the partner institutions will report about their intentions, methods and means for planning in relation to sustainable landuse and the related strategies to the EU-standards.

- Selection of the topics for the lectures and finishing the content of the seminars according to the five main soil research clusters
- Defining information materials for the students and determining a list of criterias for selecting the students
- Formulating the work packages for the students (local datas, maps, questionnaires, etc.)
- Each partner institution is responsible for distributing the information to the students
- At the kick off meeting a clear definition for the teaching method will be defined from the participating lecturers, on the basis of pedagogical and didactic necessities (see point 1.5)

6.5.3 SELECTION OF THE STUDENTS

Selection of the students at the partneruniversities 11/2004 5 pers./day
 At the competent institutions the students will be selected for the IP by the professors

6.5.4 INFORMATION FOR THE STUDENTS

Information and consultation at the partner institution. 11/2004 30 pers./day
 Introduction of datanalysis by the professors

6.5.5 INVENTORY

Preparatory work and carrying out the data analysis 12/2004-02/2005 200 pers./day
 Inventory of four soil research clusters by the students (Analysis of the eight threats to soil,¹ Analysis of the state, driving forces and pressures, analysis of the impacts) The inventory of the datas by the students will be carried out in each country at their disposal.

¹ You will find indicators for sustainable landuse within the 'environment' website from the EU "Towards a local sustainability profile: European common indicators – technical report.
http://europa.eu.int/comm/environment/urban/pdf/local_sustainability_de.pdf

6.5.6 VIRTUAL COMMUNICATION

Clarifying of problems in relation with the tasks of the working packages 30 pers./day
Exchanging of methods and questions with regard to the content (guidelines, worksheets)
during data collection on the chat-room, discussion board and message system.

6.5.7 INTENSIVEPROGRAM NEUSIEDL AM SEE Feb: 28th till March 12th 2005

address: Seminarhotel Wende (see nr. 6.5.2)

2 weeks, 13 days, Lectures (L) and Seminars (S) 300 pers./day

BLOCK 1 – LECTURES AND SEMINARS 2 and ½ day Feb. 28th till March 2nd 2005

- i.. (Session I) Introduction and analysis of the interdependencies of the soil loss and soil degradation
- ii.. (Session II) Development and harmonisation of methods of dataanalysis about the state of the soil
- iii.. (Session III) Presenting the driving forces and pressures of the ecosystem soil
- iv.. (Session IV) Describing the impacts of soil degradation in relation to other environmental issues
- v.. (Session V) Developing operational procedures for sustainable landuse and regional development

Within BLOCK1 the participating professors are giving lectures about the five main soil research clusters and afterwards within the following seminar there will be an intensive discussion with the students about the results of the inventory.

BLOCK 2 “FUTURE SEARCH WORKSHOP” March 3rd till March 5th 2005

The future search workshop is a concentrated way of working and clearly structured. The proceeding structure refers to an ongoing desirable dialogue and is promoting an emotional gathering and interpersonal growing of the participants. It also enables all the stakeholders to better understand their joint position and assuming more responsibility.

The common goal is a vision, based on the groups hopes and finally specifying measures what can be done on different problems with priorities on short and long time actions.

In a future search workshop the participants design within three days the system's most desired future. The method is based on six phases (1. Searching for common ground, 2. Desirable trends, 3. Prouds and sorries 4. Future scenarios 5. Formulation strategies 6. Plans for action). The participants have different tasks and are working continuously in changing groups. Finally the groups are suggesting possible remedies and are specifying for each problem area what can be done by whom, how and when. Finally each group is presenting an integrated action plan what they are working on in the following project week.

BLOCK 2 – “PROJECT WEEK” March 7th – March 12th 2005

Elaborating concrete study works by the students, about their chosen topic. Within the project week the students are working in groups on several projects which will be finished in the last phase of the follow up.

6.5.8.. EVALUATION

The evaluation after the IP is done by the students themselves and there will be also a self evaluation by the lecturers, which will be negotiated within a common discussion. This will happen at the end of the IP.

6.5.9 FOLLOW UP

Producing a final publication. Elaborating the conclusions and consequences of the project week and writing a report.

7. CONTRIBUTION TO TRANSVERSAL POLICIES

- + Considering the selection of the students one should take into consideration a weighed gender participation.
- + The necessity of handicapped people will be taken under consideration, with the selection of the seminar place, at excursions, accomodation facilities, as also by transport matters and if it is necessary individual adjustment will be taken.
- + The changes of equality at the BOKU are also for foreign students selfevident. The BOKU is greatly indebted to be aware of an international understanding of tolerance between national cultures and professional understanding. The incorporation of universities from the EU candidate country Bulgaria is seen as a contribution for promoting economic disadvantaged regions.
- + We are considering this IP as a contribution for an intercultural dialogue and lifelong learning process by including stakeholders from the region at the future search workshop in Neusiedl am See, the northern part of the Burgenland, Bratislava region and Western Hungary. The main spoken language will be english. This will help improving the knowledge of a foreign language and will support the vocabularies, but especially the professional words in use.
- + The practicability to communicate with each other within the FORUM on the website <http://www.academia-danubiana.net> and having an own team workspace <http://www.boku.ac.at/e-learning/> is providing a brand new dimension for our project. See also: http://europa.eu.int/comm/education/programmes/elearning/programme_en.html

8. CONTRIBUTION TO THE ANNUAL SOCRATES PROPOSALS

The IP's role is to contribute to several advanced priorities of the action programme SOCRATES in the years of 2004 and 2005.

- + The IP is encouraging the acquisition of scientific knowledge about sustainable development in the field of integrated land utilisation and regional science. Since this subject is associated within agriculture and regional development (see nr. 1) we will investigate this topic within a transdisciplinary manner.
- + The formation of the professors and students are reflecting the enlargement of the EU. Within this IP the Eastern European partner universities will be equally engaged. Intercultural understanding and tolerance will be promoted between the participants, by coordination of individual activities during the IP and within the follow up. See also: <http://europa.eu.int/comm/education/socrates.html>

This IP is encouraging also an intercultural dialogue and equality of the potentials in addition to the objectives for attaining sustainable development and an intensive integration of Eastern European universities in scientific activities. Regarding gender equality the selection of the students will be balanced, handicapped students will get special support for participating and socio-economic disadvantaged students will be promoted. A contribution towards controlling xenophobia and racism will be accomplished by an active working together in mixed teams by the students.

If we aspire new research methods and educational concepts, we have to change our traditional opinion within our scientific comprehension. We have to engage ourselves within group processes, which are evolving dynamically and leave open the intended procedure. Within this IP we will organise in a joint innovative project and a directed learning process the exchange and promotion of knowledge between all the participants for joining everyday experiences and the knowledge of universities in cooperation with the wisdom of industry, business and NGO's.

Such a network of academic and professional representatives from different branches enables a transdisciplinary process, which must tackle several quite different issues which together are crucial for success:

- Produce knowledge that is scientifically reliable
- Address important issues in society to produce knowledge that is relevant for the future development of society and nature
- Involve actors and stakeholders in society in stimulating the mutual learning process between science and society that is necessary to producing knowledge that is effectively used²

The IP is creating a common platform with the help of a future search workshop, to provide 'common ground' between the stakeholders from the region and the academics, preparing available issues of sustainable land use for politicians and decision makers. The theory of team-learning is starting with a dialogue in order to abolish inherent assumptions of the team members and to admit an authentic mutual thinking. In such a way it can happen, to see the world in an other perspective and what everyone is observing with their own eyes, but mutual team learning can contribute towards new perspectives and reflexion of visions.

If we want to solve the problems of soil degradation and develop an understanding in the society for creating a sustainable use of the soil and an integrative land management, we have to choose this interdisciplinary and transdisciplinary method. Also this will be an additional brick for the climate alliance of European cities and communities within this intercultural dialogue between the two EU countries Austria and Germany and the neighbouring regions with the new accession countries of Hungary, Slovakia, Slovenia and Bulgaria.

9. OTHER ASPECTS

For promoting new ways of cooperation between administration and academic institutions and encouraging a common ground of the participants, we were starting already in the years of 1998 till 2000 an INTERREG IIB project called BRIDGE Lifeline Danube. You will find it on our website <http://www.new-bridges.net> with first results about economic aspects for regional development. The project was obviously a first step at the beginning of a process for sustainable development in the Danube region.

We have founded November 2003 a postuniversitarian institution called 'Academia Danubiana' at the Center of Environmental Studies and Nature Conservation (ZUN) in continuation of the BRIDGE project and have also arranged a scientific meeting 'Wien in Mitteleuropa' in cooperation with the Institute of the Danube Region and Central Europe

² KLEIN, Julie Thompson / GROSSENBACHER.MANSUY, Walter / HÄBERLI, Rudolf / BILL, Alain / SCHOLZ, Roland W. / WELTI, Myrtha (eds.) (2001): Transdisciplinarity: Joint Problem-solving among Science, Technology and Society. An Effective Way for Managing Complexity. Basel+Boston+Berlin: Birkhäuser

(IDM). <http://www.idm.at/> The Academia Danubiana is considered as a model for future oriented teaching and research. We will encourage at the Academia Danubiana projects and seminars and international study programmes and will further develop the issues for integrated land utilisation in our 'Kulturlandschaft' for getting better integration with the neighbouring countries in science and administration. We were already establishing a website including a FORUM as a priority activity in the project. <http://www.academia-danubiana.net> At the moment our association has first contacts with an INTERREG project called JORDES+ (<http://www.jordes.org>)

In cooperation with the STU in Bratislava our first seminar is called 'Landscape without borders'. Fixing of an aim will be the flowing of different spatial demands into each other and like patches of watercolours on wet paper, different regions soft overlapping will intermingle in an ecotone. But also we have to practise the task for alternative perspectives as a training how to perceive the world seen from another viewpoint.

The University of Natural Resources and Applied Life Sciences (BOKU) is also a member of the foundation committee at the 'UNESCO CHAIR for sustainable development and ecological awareness' in Banska Stiavnica. Regarding this relationship we will combine the activities of the IP.

Sustainable cultivation of soils is creating multifunctional viewpoints. The International Union of Soil Sciences (represented by Prof. Blum in Vienna) is organising comprehensive conferences with representatives from science, professional fields and politics, for several topics like development of settlements, demands of land, ecological issues, metabolism of resources and determining for the purpose of indicators. The scientific management of the project 'Responsible use of soil, land use and regional development' will be executed by Prof. Blum from the Institute of Soil Sciences (IBF) and Prof. Kvarda from the Center of Environmental Studies and Nature Conservation (ZUN) at BOKU.

10.. CONTACTS

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