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DEGLI STUDI DI TRIESTE



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REPORT OF THE 1st DIANET INTERNATIONAL SCHOOL

Gorizia April 13th – 22nd, 2013

1. OVERVIEW of the PARTICIPANTS

By the Call Deadline of January 28th, 2013, 56 candidates had sent their application form via their AARC/DRC University. On March 13th, 2013, 40 were admitted based on the quality of their application. In the end, the 2013 DIANET INTERNATIONAL SCHOOL was attended by 37 students or recent post-docs:

www.danubefuture.eu
dianetschool@units.it



ALBANIA	Universiteti i Shkodrës "Luigj Gurakuqi"	1
AUSTRIA	Alpen Adria Universität Klagenfurt	1
BULGARIA	University of Ruse	1
CROATIA	University of Zagreb	4
	University of Split	1
CZECH REPUBLIC	Czech University of Life Sciences	1
HUNGARY	Eötvös Loránd University	2
	University of Pécs	2
ITALY	University of Trieste	8
	Free University of Bozen/Bolzano	1
KOSOVO	University of Prishtina	2
ROMANIA	"Babes-Bolyai" University	3
	Vasile Goldis Western University of Arad	1
SERBIA	University of Novi Sad	5
SLOVAKIA	Constantine the Philosopher University Nitra	1
SLOVENIA	University of Nova Gorica	1
	University of Maribor	1
	University of Ljubljana	1

2. OVERVIEW of the TEACHERS

In total, 31 teachers (professors, research assistants, researchers) participated:

University of Trieste:	Professors	7
	Researchers	7
University of Udine	Professors	1
Alpen-Adria Universität Klagenfurt	Professors	2
Universität für Bodenkultur Wien	Professors	1
	Researchers	3
University of Maribor	Researchers	1
University of Primorska	Professors	1

Other Organisations	Monfalcone Port Authority	2
	Kallipolis	2
	Elettra-Synchrotron	1
	ICTP	1
	Excursion guides	2

3. OVERVIEW of the STRUCTURE OF THE PROGRAMME

The 2013 DIANET SCHOOL was composed of 66 hours of activities divided into:

- LECTURES: 18 hours in 6 days – 18 teachers involved
- SEMINARS: 9 hours, in 6 days – 23 teachers involved
- PROJECT WORK: 18 hours in 6 days, 5 of which were plenary discussions on the daily results of the groups' work;
- EXCURSIONS: 2 all-day excursions, the first one to the Northern Isonzo River (Slovenian part: Korada route, Kambreško, Most na Soči and Tolmin - 2 teachers and 3 guests involved), the latter one to the Lower Isonzo River and archaeological site of Aquileia (Italian part: 2 teachers and a guest involved) and the Port of Monfalcone;
- OTHER ACTIVITIES: introduction ceremony, final results and presentation of the project works

4. OVERVIEW of the FUNCTIONS of the website as tool for interdisciplinary teaching and dissemination, “Interactive Teaching Tool”

Due to the generous contribution of the CARIGO Bank Foundation, the University of Trieste was able to develop the website of the DANUBE:FUTURE Project (www.danubefuture.eu), which includes an area dedicated to the DIAnet School. The website is the main tool to create and foster the network of Universities, research centres and stakeholders interested in the DANUBE:FUTURE Project.



As regards the DIAnet area of the website, since the University of Trieste is holding three editions of the School (in 2013, 2014 and 2015), there is a specific area for each one of them which includes the description (call, draft programme, facilities, etc.) and the list of the lectures and other activities – which links to the details (teachers involved, description of the activity, research field). School participants have an area dedicated to their project works – where they can upload the documents of their works, developed during the school.

The teachers involved in the project can upload and update relevant documents and study material, which can then be accessed and downloaded by school participants and by teachers and participants of future editions as well. This process of dissemination reinforces the interdisciplinary aspect of the project and creates an ever-growing database on the topics relevant for the Danube Basin sustainable development.

5. OVERVIEW of the RESULTS

During DIANET 2013, students should gain basic knowledge of several methods useful for research on the sustainable development of the Danube River Basin, learn to interact meaningfully in an interdisciplinary group and learn to tackle pitfalls of interdisciplinary communication. Participants were divided into 6 groups so that each group would represent a variety of disciplines and countries and also a mix of more senior and junior members. On the last day of the school, groups presented their research proposal - which should ideally represent a part of an application to a funding authority - on a particular challenge for the sustainable development of the Danube River Basin, also analyzing its links to other such challenges. Students received feedback on their co-developed papers. Students were invited to pursue their co-developed ideas further after the school. While groups differed in the quality of their work and in their ability to conduct successful interdisciplinary communication, all groups developed an original idea and carried out the task to formulate the core of a research proposal. (See below, 5.2. for details)



5.1. Themes of Project Works

A	BioBricks - The Fate and Effects of Sewage Sludge-Based Bricks on Human Health and Water Resource Quality
B	Green and Integrated Transport on the Danube River Extending and Enhancing the existing Motorail (Car trains) System in the DRB
C	Implementing organic food production in the DRB
D	Green floating islands
E	Restoration of Ancient Inland Waterways to Promote Sustainable Tourism in Borderlands
F	The Development of a Decision Supporting System for Wellbeing in the Danube River Basin: DeWOS (Danube Wellbeing Operation System)

5.2. Evaluation of the work

GROUP A

➤ Scholarly Evaluation

The group has selected an original and interesting theme. The project proto-proposal has a clear structure. The project spells out three objectives which are described on an adequate level of detail. With regard to its viability for development of a successful proposal, the proposal is a start, but major revisions and expansion would be necessary.

➤ Transdisciplinary Evaluation

The project presents a significant step forward into the direction of green buildings, a particular need in the countries of the former Eastern Bloc.



GROUP B

➤ **Scholarly Evaluation**

The connection to relevant documents of the “Grand Challenges” is well thought of and convincingly argued. The problem is clearly analysed. Arguments are stated and plausible; but nowhere are quantitative indicators addressed – nor is it indicated how they could be selected. The project proto-proposal would need major revisions in order to become a feasible submission to a funding agency. The approach is rather technocratic, without paying real attention to the expected effects on sustainable development of the DRB.

➤ **Transdisciplinary Evaluation**

The project’s particular strength is the long-term perspective it takes (on to 2050) this is necessary and has laudably been taken. The proposal takes into consideration several possible financial resources, this is another strength.

GROUP C

➤ **Scholarly Evaluation**

The theme is original and would present a major contribution to sustainable development of the DRB. The socio-metabolic approach is a methodically convincing innovation for the assessment of the quality of organic farming. The proposal is more a draft for a paper than a research proposal. The connection to Horizon 2020 and the ICPDR are completely absent from the proposal, but the group spent a lot of effort familiarizing themselves with methods and thinking about their appropriate use.

➤ **Transdisciplinary Evaluation**

The proposal has many interesting aspects, taking up the challenges mountain regions face and the demographic challenge. The project addresses the need to change the perception of progress (reverting to traditional lifestyles). The link made to permaculture is very interesting.



GROUP D

➤ **Scholarly Evaluation**

For the most emphasized argument in favour of the floating islands (reduction of pollution) no clear argument is made (e.g. how much reduction per ha or any other unit...). The word “methods” is not even mentioned in the proposal, only human ecology is mentioned, but not explained in any detail. The structure of the project, detailing 4 objectives, is sufficient. There is a good descriptive figure at the end, but it is not referred to in the text. Low Coherence.

➤ **Transdisciplinary Evaluation**

The subject is „really new“, it is an interesting approach to water quality, the spreading of environmental protection to the eastern part of the DRB is of particular value.

A very important and valuable outcome is the effect on youth employment.

GROUP E

➤ **Scholarly Evaluation**

The proposal is well written, figures are helpful and well developed. The connections to Horizon 2020 and ICDPR are spelled out at the beginning, they are clear and not exaggerated. There is a specific chapter on methods detailed for each work package. The proposal exceeded the page limit; some parts could be reduced. Quite mature, could be used as the core of a full-fledged research proposal. We encourage the group to develop it further, as it seems to have real potential.

➤ **Transdisciplinary Evaluation**

The link between the Adriatic Sea and the DRB is particularly important in the light of EU policies, this is definitely an added value, worth to be developed in more detail.



GROUP F

➤ **Scholarly Evaluation**

The project framework in Figure 1 gives a clear connection to Horizon 2020 and DRB, but details are not given. Methods or disciplines involved are not mentioned in the proposal. The project shows a high degree of coherence. The proto-proposal is already quite developed, but would need some revision to become feasible for funding.

➤ **Transdisciplinary Evaluation**

This is the most interesting project with regard to content. The TOOL it creates addresses a very important desideratum for decision makers and could be used also for other fields.

5.3. SWOT- Analysis, Lessons Learned and Planned Improvements

Strengths:

- The school benefitted from the international composition of the students and from their broad disciplinary background and experiences in interdisciplinary work.
- The lectures addressed topics important for sustainability and enhanced methodological skills.
- Types and mixing of courses (lectures, seminars, group work) were appropriate to stimulate discussions among the students and in the groups.
- The working group sessions successfully motivated students to discuss sustainability problems and to develop joint projects.
- The use of strategic documents such as Horizon 2020, Danube River Basin Strategy, ICPDR-documents as basis for the group projects was helpful for the working groups and led to proposals which stand a chance of being developed into a full proposal.



Weaknesses:

- The workload for students was high; the program always covered the full day from Sunday April 14th to Sunday April 21st.
- Two input lectures of 1.5 hours each were too long and inputs from the last lectures on Thursday and Friday could not be adequately integrated in the group projects.
- The aims of the group work (preparing a part of a project proposal) were not fully clear especially for less experienced students.
- Some projects developed by the groups do not show a specific link to the Danube and the Danube River Basin.
- Although clear links between the two daily lecture-topics were intended, in the end the contents were not well adjusted because of the limited time for instruction of and exchange between the teachers.
- The overall connection of the lecture topics was not clearly visible.
- The time to prepare this International School was very short.
- The workload and effort was very high also for teachers and especially facilitation.
- English proficiency of teachers was not always adequate.

Chances:

- Considering the short preparation time there was a high interest in the International School which proves that the topic is important for PhD-students and young researchers in the DRB and Alps-Adriatic region.
- There will be a much longer time for preparing the next International School; integrating the experiences and lessons learned from the first edition is a chance for eradicating anticipated weaknesses.



Threats:

- The low consideration of specific problems of the DRB in the lectures and group works will continue if in the forthcoming schools teachers are not requested to pay more attention to that in their lectures.
- The success of the group projects will continue to differ without introducing students in more detail into the aims of the group work and the use of recommended strategic documents.

Lessons learned and planned improvements:

- There will be an afternoon for individual work during the week.
- Lectures will be split into 50% of presentation time and 50% discussion time.
- All lectures will be concentrated in the first days of the school followed by group work in the second part.
- Teachers will be instructed in more detail and especially requested to link their topic to the DRB.
- A lecture providing an overview of existing sustainability problems in the Danube river basin linking the different lecture topics will be foreseen.
- More detailed instructions for group work are foreseen to enable also less experienced students to get familiar with the targets.
- There will be a professional facilitator for the second half of the school (development of group project).



6. OVERALL BUDGET OF THE SCHOOL

Major Type of Cost / detailed	Friuli Venezia Giulia Region - E.S.F. 2007/13	CARIGO Bank Fundation	University of Trieste (in kind)	Alpen-Adria Universität Klagenfurt (in kind)	BOKU Wien (in kind)	Other Universities of AARC and DRC (Udine, Primorska, Maribor) (in kind)	TOTAL COSTS
TEACHING BODY							
Person-hour costs			€ 9.775,00	€ 2.590,00	€ 4.290,00	€ 1.836,00	€ 18.491,00
Travel			€ 300,00	€ 395,00	€ 456,00	€ 300,00	€ 1.451,00
Accommodation	€ 625,00						€ 625,00
STUDENTS							
Accommodation	€ 7.800,00						€ 7.800,00
Living costs	€ 9.350,00						€ 9.350,00
ORGANIZATION							
Person-hour costs			€ 3.400,00	€ 9.950,00	€ 1.800,00		€ 15.150,00
Travel			€ 40,00	€ 203,00			€ 243,00
Staff	€ 3.000,00	€ 4.550,00	€ 2.850,00				€ 10.400,00
Secretariat and dissemination costs	€ 795,00	€ 350,00					€ 1.145,00
CONFERENCE CENTER FACILITIES							
Renting costs (in kind, on tariffs)			€ 5.900,00				€ 5.900,00
Equipment costs	€ 4.000,00						€ 4.000,00
Cleanups	€ 1.100,00						€ 1.100,00
Instrumentation	€ 1.550,00						€ 1.550,00
EXCURSIONS							
Travel	€ 880,00						€ 880,00
ICT							
Website	€ 900,00	€ 7.100,00					€ 8.000,00
(partial)	€ 30.000,00	€ 12.000,00	€ 22.265,00	€ 13.138,00	€ 6.546,00	€ 2.136,00	€ 86.085,00



7. CONTRIBUTION OF THE DIANET School to HORIZON 2020

- The nature of the sustainability challenges addressed by Horizon 2020 (health, demographic change and wellbeing; food security, sustainable agriculture, marine and maritime research, and the bio-economy; secure, clean and efficient energy; smart, green and integrated transport; inclusive, innovative and secure societies; climate action, resource efficiency and raw materials) requires international and interdisciplinary approaches. Each of these challenges will play out differently in different areas of Europe and will require both localized knowledge (as reflected, e.g. in knowledge of local languages and historical legacies influencing the available paths for development) and an overarching approach.
- By linking a specific area, the Danube River Basin, a target area of a macro-regional strategy of the EU with the Grand Challenges of Horizon 2020 and building an interdisciplinary network of young scholars, DIANET schools contribute to the preparation and workability of Horizon 2020. By offering experience in interdisciplinary group work, DIANET schools engage in capacity building in a crucial area and moment. By mapping the EUSDR challenges onto Horizon 2020, DIANET schools pave the way for successful participation in Horizon 2020.

8. CONTRIBUTION OF THE DIANET School to CAPACITY BUILDING (E.S.F.)

Why does the DIANET INTERNATIONAL SCHOOL contribute to the goals of the E.S.F.? The aim of the DIANET Project - *Danube Initiative and Alps Adriatic Network* follows the goals set forth by Axis 5 of the European Social Fund 2007-13 (Regulation EC No 1081/2006): *“promoting partnerships, pacts and initiatives through networking of relevant stakeholders, such as the social partners and non-governmental organisations, at the transnational, national, regional and local levels...”*

But whereas the E.S.F. usually develops activities only for the people of one single region, the DIANET SCHOOL is an innovative project that develops scientific and educational cooperation for and among people coming from several European regions. The School is in fact a clear



example of transnational partnership, where different people, from different higher education institutions of different countries (18 Universities of 12 countries), work together towards the same objective.

The Danube River Basin is a case study developed with interdisciplinary and comparative methods. The DIANET School does not only study the environmental problems of sample areas of the Danube region, but also offers interdisciplinary insights into the subject matters pertinent to the Isonzo river basin, dealt with directly on site (on the territory) from different perspectives by specialists from different fields and different countries and with experts' contribution.

For instance, the study of the problems relating to mercury pollution coming from the Slovenian area of the upper Isonzo river into the Gulf of Trieste (where the Isonzo river flows into the sea) is a clear example of how researchers from the FVG region and from Slovenia could exchange views on how to solve the pollution problems and therefore develop new projects for the EU planning period 2014-2020 (as Italian-Slovenian cooperation).

Such an interdisciplinary approach to transnational problems, dealt with by the participants to the DIANET School through the elaboration of specific Project Works, is key to the development of new ways to cooperate among interested countries and to create a network of qualified and competent researchers and environmental operators, trained with innovative methods to face the challenges of an evolving society.

With these goals in mind the FVG authorities have approved this new approach to the development of new kinds of higher education training programmes.

9. DANUBE:FUTURE in PA7 EUDSR

DIANET schools are designed to foster networking among young researchers (and their teachers). They contribute to all priority areas of Pillar 1, "Connecting the region" because teachers and students come from universities of the area and engage into research in all thematic areas (intermodality, sustainable energy, culture and tourism). The particular contribution of DIANET, does, however lie in priority area 2, protecting the environment, The



DIANET Initiative develops people and skills and contributes to strengthening knowledge society, two of the priority areas of pillar 3. Finally, DIANET is about capacity building on a regional level, hence, contributes to strengthening the region. As first phase of Danube:Future, a research program dedicated to long-term research on the sustainable development of the Danube River Basin, DIANET offers networking and capacity building, two necessary prerequisites for the development of intra- and inter-regional projects in the DRB.

10. 2014 DIANET INTERNATIONAL SCHOOL

The next edition of the International School will be held in Gorizia from March 22nd to March 31st 2014. The theme of the 2014 school is “The Role of Natural Heritage for the Sustainable Development of the Danube Region”.

The Organizing Committee

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