Preface

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2014 DIAnet International School is a Project linked to the Danube:Future framework. A presentation of the Danube:Future Project will allow a better understanding of the DIAnet International Schools, as part of the Project.

1. THE DANUBE: FUTURE PROJECT

The Danube:Future project is aimed at supporting the sustainable development of the Danube Region by providing knowledge-based services to the institutional actors in the Danube River Basin (DRB). The Danube:Future team of researchers and administrators represents the largest intellectual actor in the Basin with the combined powers of the Alps-Adriatic Rectors' Conference¹ (AARC) and the Danube Rectors' Conference² (DRC).

¹ http://www.alps-adriatic.net/

² http://www.drc-danube.org/

A host of interdisciplinary methods is necessary to deal with our legacies, both cultural and natural, which may limit the possibilities for future developments. Danube:Future seeks to contribute to the sustainable development of the DRB by transcending disciplinary boundaries and by tackling sustainability problems through inter- and trans-disciplinary approaches.

The Alpen-Adria-Universität Klagenfurt (Austria), the University of Trieste (Italy), the University of Natural Resources and Life Sciences – BOKU – Vienna (Austria) and the University of Novi Sad (Serbia), are the Core Partners of the Project.

1.1 DANUBE: FUTURE IN THE CONTEXT OF THE EUSDR

Danube:Future is a Flagship Project of the EU Strategy for Danube Region³ (EUSDR), Pillar no. 3, Priority Area no. 7 (PA 7), *Knowledge Society*, since September 24th, 2013. The Strategy seeks to create synergies and coordination between existing policies and initiatives taking place across the Danube Region.

The EUSDR⁴ addresses a wide range of issues. These are divided among 4 pillars and 11 priority areas. In particular, pillar no. 3, *Building prosperity in the Danube Region*, focuses on innovation, information society, competitiveness of enterprises, education, labour market and marginalised communities. These goals can be reached by improved cooperation in order to reduce the pronounced divide across the Region. This cooperation can cover legislative improvements, exchange of experiences and implementation of joint projects that cannot be taken in isolation, but have to be addressed in a holistic way to reach the most sustainable solution.

The general aim of the EUSDR strongly supports the Europe 2020 Strategy. EUSDR projects must take into consideration the Europa 2020 principles, i.e. they must:

- (a) contribute to smart growth by improving the framework conditions to transform ideas into marketable products or services;
- (b) contribute to sustainable growth by fighting climate change and reducing pollution;
- (c) *contribute to inclusive growth* by reinforcing the human capital through education and training.

³ http://www.danube-region.eu/

^{4 &}quot;Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – European Union Strategy for Danube Region" [COM(2010) 715, 8.12.2010].

In order to implement these principles, an EUSDR Action Plan⁵ has been approved which foresees within PA no. 7⁶ the Action "To strengthen cooperation among universities and research facilities and to



upgrade research and education outcomes by focusing on unique selling points", where Universities and Research Centers should engage in stronger cooperation in various fields.

Danube:Future is a concrete example of how to reach these goals through the cooperation between DRC and AARC Universities and relates the Europe 2020 Strategies to the challenges on the macro-regional level, as reflected in the Pillars of EUSDR. While Danube:Future is considered primarily as a contribution to PA 7 of the EUSDR, it has strong links to other Pillars and Priority Areas. The contribution of Danube:Future in capacity building and research is highlighted in relation to:

- Pillar 1 Connecting the region: transportation network evolution (PA 1), transition pre- to post-fossil society (PA 2) and nationalism, war, tourism (PA 3);
- Pillar 2 Protecting the environment: results of the research module will be useful for the restoration and maintenance of the quality of waters by the hydro-morphological change (PA 4), for the management of environmental risks as toxic sediments (PA 5) and for the preservation of biodiversity, landscapes and the quality of air and soils (PA 6);
- Pillar 3 Building prosperity: results of the capacity building module enhance the development of green/blue economy (PA 8) and strengthen the education for people (PA 9);
- Pillar 4 Strengthening the Region: through contributing to the political and institutional structures (PA 10) and to social prosperity (PA 11).

Moreover, it should be noted that the main focus areas for intervention in the DRB, as identified by the International Commission for the Protection of the Danube River⁷ (ICPDR), are well covered by Danube:Future. The long-term interdisciplinary perspective will support an efficient *protection of water resources* as well as the reduction of *toxic chemical releases* by revealing legacies

^{5 &}quot;Action Plan of the EU Strategy for Danube Region" [SEC(2010) 1489, 8.12.2008] - page 60.

⁶ http://groupspaces.com/KnowledgeSociety/

⁷ ICPDR is located in Vienna (Austria). www.icpdr.org

of past activities. Together with *flood risk mitigation* this will contribute to creating *healthy and sustainable river systems*.

1.2 A NEW CONCEPT OF A LONG-TERM PROJECT

Danube:Future⁸ is planned for a 7-year period from 2013 to 2020. However, it is expected that the Project will last even longer. Danube:Future entails several activities and is divided into three Modules:

- Core Module: it is aimed at establishing an open-access knowledge base to which capacity building and research projects can contribute, thus increasing their visibility and accessibility. The outcomes of the Danube:Future Project are available to organizations, institutions and decision makers. Furthermore, new tools for the DRC and AARC Universities will be developed for supporting decision makers and fostering green jobs.
- Research Module: the DRB has a troubled political and environmental history. Environmental problems abound and hinder economic growth and sustainable development. Danube: Future takes into account the long-term legacies of this troubled history with a strong focus on humanities and social sciences through new interdisciplinary research approaches.
- Capacity Building Module: it is aimed at developing trainings in cultural
 and natural heritage, enhancing institutional capacity building for green
 jobs, and strengthening regional networks. It takes into account existing
 initiatives and frameworks dealing with sustainable development research.

DANUBE: FUTURE: A COMPLEX STRUCTURE

Danube:Future was approved as Networking Project according to the "Criteria for Label of Flagship Project" of the EUSDR PA7. The Core Partners focused their attention on building a project proposal which was expected to make a significant impact for several Countries of the Danube Region in the fields of research, higher education or information technology. The "Label Priority Area 7 Flagship Project" acknowledges the extraordinary importance of a project for the Danube Region Knowledge Society.

⁸ http://www.danubefuture.eu/

⁹ The document is available on the page dedicated to the Flagship project on the EUSDR PA7 website (http://groupspaces.com/KnowledgeSociety/pages/projects).

A Flagship Project translates the desire and ambition in a specified field of a Priority Area (Action) into an activity/project. A Flagship Project is the result of a policy discussion and may serve as pilot example for the desired action. The structure of a Flagship Project is either: (a) a single project or (b) a set of projects (a group) operating in the same field. A set of projects may include single projects: e.g. flagship projects and linked projects, which may also cover different topics.

Danube:Future can be identified as a set of projects where different activities are aimed at supporting the sustainable future for the Danube River Basin as a challenge for the interdisciplinary humanities. Thanks to the Management of Danube:Future, represented by the four Core Partners, the Project was well structured and is coordinated with the DRC, the AARC and the EUSDR PA7 Steering Group, in line with their policies.

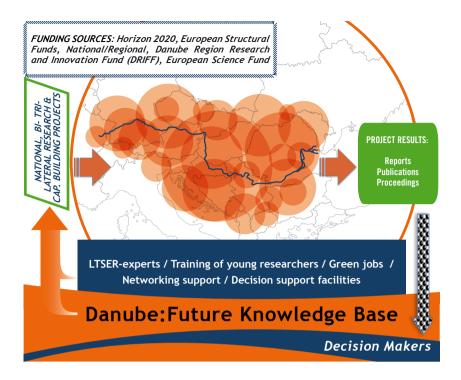
How could the Flagship projects be funded?

In the EU Commission's Communications on the EUSDR, it is reported: "No new EU funds, no new EU legislation, no new EU Structures" 10. The Commission prepared the Strategy on the understanding that this implies no special treatment, in budget or legal terms, for the Region. There could be additional international, national, regional or private funds, although better use of existing funds is emphasized. It is clear that the EUSDR Projects, in order to be effective, need to prove to have an important impact on the macro-region (thus, they are eligible to become Flagship Projects), and, at the same time, project managers must be as smart as to find funds for developing them.

In the 2014-2020 period, several EU Funds are available for financing Flagship Projects (i.e. Danube:Future): Horizon 2020, Life Plus and Erasmus Plus. The Structural Funds are also a good source for funding, in particular the several European Territorial Cooperation Operational Programmes (16 Crossborder and 5 Transnational programmes). In addition, the upcoming DRIFF (*Danube Region Research and Innovation Fund*, another Flagship Project of the EUSDR PA7) will be another valuable funding source in the future.

The figure below shows how Danube:Future works. Several local, regional, bi-national or trilateral capacity building and research projects are linked to the Danube:Future Core Module, whose ongoing knowledge-base is made available to all projects. The projects/activities contribute to creating network, improving knowledge, building capacities and so on. Danube:Future has the potential to create endless activities.

^{10 &}quot;Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions", 8.12.2010, page 12.



1.3 WHY DANUBE:FUTURE IS A STRATEGIC WAY FOR BUILDING CAPACITIES IN THE DANUBE REGION?

Danube:Future targets all 19 countries in the Danube catchment. The Alps-Adriatic Rector's Conference and the Danube Rector's Conference represent together more than 90 universities, thus they are the largest possible institutional knowledge-producing and disseminating group of organizational actors. Other institutions and organizations are welcome to contribute to Danube:Future.

Danube:Future will promote the Knowledge Society in all countries of the DRB in several ways:

- By having a lasting effect on research and teaching in the humanities fields within the Region, bringing young scholars to the forefront of international research in highly competitive contexts.
- By supporting the creation of green jobs and strengthening civil society organizations, thus enabling the DRB countries to cope with the challenges of the future and take steps towards a more sustainable development of their economies.

 By creating a living heritage making the environmental and cultural heritage of the DRB visible and bringing it into the context of sustainable development.

Sustainability research and capacity building activities of the DRB countries can profit from one another in multiple ways. If a new type of interdisciplinary methods and approaches is used, changes in governance, values, organizational structure of society and developments in the social, economic and legal situation can be linked to changes in biodiversity, sediment mobility, soils, climate, precipitation, discharge patterns and water quality. This will enable better and viable policies for the sustainable development of the Danube River Basin and will support Smart Specialization Strategies¹¹ (S3).

2. THE DIANET INTERNATIONAL SCHOOLS IN DANUBE: FUTURE

The DIAnet International School (DIS) is a training course aimed at PhD students and young Post-Doc fellows wishing to strengthen capacity building skills. DIS is the first Capacity Building project linked to Danube:Future. Thanks to the contribution of the Friuli Venezia Giulia Region (European Social Fund 2007/13), together with the CARIGO Bank Foundation of Gorizia, the School was planned for a three-year period (2013-2015). The University of Trieste hosts the DIAnet Schools at the Conference Center in Gorizia¹². The town of Gorizia is the ideal Venue of the event because it is located on the border between Italy and Slovenia and represents the crossroads between Eastern and Western Europe. The Isonzo river, its history related to the World War I and its environmental problems, is a good case study for the participants.

DIAnet Schools are designed to foster networking among young researchers and teachers. DIS is a project about capacity building born at regional level, extended to the Danube Region. The Project contributes to protecting the environment, developing people skills and strengthening knowledge society at international level, as prerequisites for the development of intra- and inter-regional projects in the Danube River Basin.

The DIS program has three different thematic focuses. While the 2013 edition was devoted to "Interdisciplinary Methods for the Sustainable Development of the Danube Region", the 2014 edition focused on "The Role of Natural Heritage for the Sustainable Development of the Danube Region". The 2015 School will focus on "The Role of Cultural Heritage for the Sustainable Development of the Sustainable Deve

¹¹ http://s3platform.jrc.ec.europa.eu/home

¹² Website: www.danubefuture.eu/facilities

opment of the Danube Region". The DIS themes are in line with the sustainability challenges as identified by Europe 2020 and by the EUSDR.

The sustainability challenges require international and interdisciplinary approaches. By offering experience in interdisciplinary group work on sustainability issues, DIAnet schools engage in capacity building in a crucial area and at a crucial moment.

The University of Trieste, in cooperation with the Alpen-Adria-Universität Klagenfurt, the University of Natural Resources and Life Sciences (BOKU) Vienna and the University of Novi Sad — the Core Partners of Danube:Future — offers a unique opportunity for young career researchers to familiarize with issues related to the sustainable development of the Danube River Basin.

The DIS lasts 10 days, and includes two main phases: theory and practice. While lectures give an overview on a wide range of sustainability-related topics, two full-day excursions offer students a great chance for case study.

The second half of each edition is devoted to group work: participants are divided into six working groups, each of them representing a variety of disciplines and countries. Groups are trained to work on developing a common project idea, which should address one of the societal challenges of Horizon 2020 and take into account the challenges of the DRB. The purpose of this activity is to help participants approach the complex world of Europlanning. Draft project proposals should ideally represent the Programming Phase, where the problems and the main objectives and priorities for intervention are identified, and the subsequent Identification Phase, where a pre-feasibility study is carried out and a preliminary project proposal is drafted. At the end of the School, groups present their projects with an immediate feedback from an evaluation committee.

It is advisable that the Group work activity continue beyond the School in the framework of the long-term Danube:Future Project, where participants can further develop their ideas taking advantage of the existing expertise. Once projects are finalized (Formulation Phase), they are ready for fund applications. The Danube:Future Management strongly wishes that this activity will result in full proposals.

Enhancing the researchers' skills in project drafting is of paramount importance for their future career. Universities, of course, benefit from the researchers' training and project ability, as they — particularly small and medium-sized institutions — are able to take part in solid international partnerships.

The purpose of DISs is indeed to give participants – and Universities alike – long-term opportunities for networking and exchanging good practices.

3. 2014 DIANET INTERNATIONAL SCHOOL PROCEEDINGS

Following the success of the first DIS Proceedings in October 2013, which were presented during the 2nd EUSDR Forum in Bucharest (Romania), the Organizers decided to publish an annual edition of the Proceedings.

The first School edition, on "Interdisciplinary methods for the sustainable development of the Danube Region" was held between 13th and 22nd April, 2013. Thirty-seven participants from 18 Universities and from 12 Countries of the Danube Catchment attended the School. Two full-day excursions along the Idrica River (Slovenia) and to Aquileia (Italy), 12 lectures on different topics, and several hours of Working Group activities were organized. Six project proposals were developed by the participants and represent the main results of this edition, as published in the 2013DIS Proceedings.

The objective of this publication is to collect and disseminate the outcomes of the second of the three editions of the "DIAnet International School", which was held in Gorizia (Italy) between 22nd and 31st March, 2014.

The Countries which were represented during the 2014DIS and the related number of participants (shown in brackets) are the following¹³:

- Albania (3), Universiteti i Shkodrës "Luigi Gurakuqi"
- Austria (2), Alpen Adria Universität Klagenfurt and University of Wien
- Bulgaria (1), University of Ruse
- Croatia (4), University of Rijeka and University of Zagreb
- Czech Republic (3), Charles University Prague, Czech University of Life Sciences, Palacký University
- Hungary (1), Eötvös Loránd University
- Italy (5), University of Trieste
- Romania (5), "Babes-Bolyai" University
- Serbia (4), University Of Novi Sad
- Slovakia (1), Constantine the Philosopher University Nitra
- Slovenia (6), University of Nova Gorica, University of Primorska and University of Ljubljana

¹³ The personal page of each participant is available at this link: http://www.danubefuture.eu/participants.

Other interesting data are the participants' different research fields. Considering that several participants reportedly work on more than one research fields (ERC Panels¹⁴), all 6 Panels of "Social sciences and Humanities" (SH) were covered with a particular interest in "SH3 – Environment and society"; 5 of 9 Panels of "Life Sciences" (LS) with a particular interest in "LS8 – Evolutionary, population and environmental biology", and 5 of 10 Panels of "Physical and Engineering Sciences" (PE) with a particular interest in "PE10 – Earth system science". Seventeen of the thirty-five participants work on more than 2 Panels. It is also interesting that 7 participants work on fields belonging to 2 ERC Domains, while 3 students work on all 3 Domains. This shows that 50% of the School participants have an interdisciplinary background.

The 2014DIS was opened by the Rectors of the four Core Partners (Alpen-Adria-Universität Klagenfurt, the University of Trieste, the University of Natural Resources and Life Sciences (BOKU) Vienna and the University of Novi Sad), who were in Gorizia on March 22nd to sign the "Cooperation Agreement aimed to develop the Danube:Future Project" and welcome the guests.

A scientific introductory lecture was given by the Leader of the 2014DIS, Dr Gertrud Haidvogl from BOKU Vienna, who spoke about the large biodiversity of the Danube and the related issues of its rich natural heritage and sustainability.

The first 4 days of the School were devoted to scientific excursions and lectures. Two were the main topics of the edition:

- Ecology and environmental sciences: five lectures and an excursion to Slovenia, to the Idrija Mercury Mine and Tolmin. Eleven teachers were involved;
- Sustainability and nature conservation: five lectures and an excursion to the Lower Isonzo River at Isola della Cona (*River Isonzo Mouth Reserve*).
 Nine teachers were involved.

The 20 teachers involved in the School come from six Universities: University of Trieste, University of Udine, Alpen-Adria-Universität Klagenfurt, BOKU Vienna, University of Nova Gorica and University of Primorska Koper. Local experts took part in the excursions.

The most important activity of the School was the Group work, aimed at developing new project ideas. One lecture on the "Project Cycle Management" introduced the Group Work while a lecture on "Designing trans-disciplinary projects for sustainable development" was delivered by Prof. Verena Winiwarter, the Danube:Future Coordinator.

¹⁴ Taking into consideration the 3 Disciplinary Domains (SH, LS and PE) and the 25 Panels covering all research fields (as identified by the European Research Council) http://www.danubefuture.eu/participants.

Six Working Groups were formed, taking into consideration: (a) different levels of experience (PhD students or Post-Doc Fellows); (b) different nationalities of the participants; (c) interdisciplinary composition of the Working Groups; (d) gender. A Facilitator, supported by the School Leaders, followed the Groups in their activities on a daily basis with a final brainstorming session. Working Groups learned how to proceed in building a project proposal from problem analysis to drafting a Logical Framework Matrix through the definition of the project goals and objectives, to planning the resulting activities (Work Packages and Tasks) and the expected outcomes.

The 2015 DIAnet International School will be held again in Gorizia, between 14th and 23rd March, 2015. It will focus on "The role of cultural heritage for the sustainable development of the Danube region".

In the light of the experience on the first two editions, the Danube:Future Management wishes to extend this training opportunity beyond 2015.