

The floodplain of the Danube, Germany



© Photo SGIT 2016

# Intelligent use of biomass along the Danube

R&D network formation with German, Hungarian, Slovak and Romanian partners

## Project specifics and main objectives

International project within the framework of the program "International Cooperation in Education and Research; Central, Eastern and Southern Europe" (Regional call for proposals).

## The project has the following objectives

### Short-term perspective:

1. Identification of research cooperation directions (in scope of the Danube regional biomass use)
2. Signing of the memorandum of understanding and mutual cooperation (MOU).

3. Development of a concept for practical project implementation (taking into account the already identified partners and involvement of new ones: mostly from the industry sector).

4. Preparation of a package of documents for raising funds (presumably in the framework of "Horizon 2020" program).

### Long-term perspective:

1. Formation of a Scientific and Industrial Cluster for joint projects implementation in the context of biomass (in particular) and green energy (in general).
2. Development and strengthening research, technological and business cooperation among the countries of the Danube Region.

## Project description:

The economic development of the European Union and the associated countries brings about an increasing demand for energy. The situation leads to an excessive use of forests as a cheap energy source. In this connection, the project focuses on search of new sustainable energy sources as an alternative to the use of high value timber.

The partners' collaborative activity implies searching for a balanced solution in the areas of growing, storing and processing of biomass, using new biomass resources, identifying the most promising locations for growing and processing of biomass (from harvesting methods by means of mechanized harvesting technology to the final product: biogas, pellets, briquettes and other forms of energy raw materials such as 2nd generation fuels). Our challenge is to ensure that biomass energy is produced in such ways that not only reduce global warming pollution, but also protect the environment and do not increase the price for food. This context implies a search for a multi-purpose solution at the intersection of bioenergy, sustainable agriculture, forestry, water treatment and soil protection that will take into account long-term and short-term prospects for the use of biomass in the Danube region. This means that our task is not only to increase the role of biomass as an energy source, but also to strengthen the partnership among the countries of the region (business and scientific context) by improving the levels of energy independence, employment and environmental protection.

The cooperation in the framework of the project involves the process of transition from the generalized goal of "Improving the Efficiency of Bioenergy" to finding specific technical and economic solutions for the Danube region.

## The project involves two phases:

1. The identification of a common partner strategy for actions. The formal result: signing (MOU). Duration: from 09.2015 to 09.2016.

2. The preparation of the project documents package. The formal result: application for funding. Duration: from 09.2016 to 02.2017.

### General strategy:

**Step1:** The identification of the partners' opportunities & motivation and further formation and development of a joint action concept (Workshops in the participating countries).

**Step2:** The development of a common memorandum of understanding. (MOU): partnerships agreement & general plan of joint actions.

**Step3:** The identification of suitable call(s) and focus on the specific topic according to its (their) requirements.

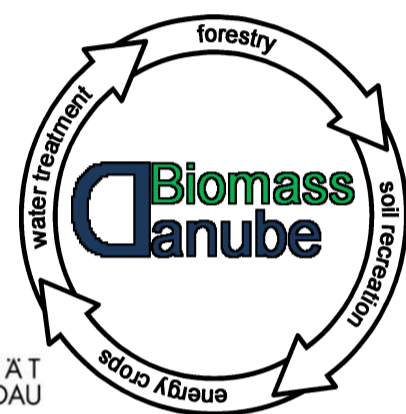
**Step4:** The adoption of a communication channels.

**Step5:** The identification tasks + directions for each partner.

**Step6:** The creation of working packages.

**Step7:** The developing of a local working group.

**Step8:** The integration of a scientific outcome into one document package (presumably for Horizon 2020) + search for business/ industry partners.



## Intelligent use of biomass along the Danube



### Associated SMEs:

D-SME GIS systems, Germany

D-biogas systems, Germany

SMEs Poland Biogas from Poland

GEFÖRDERT VOM



## Milestone planning: (Gantt chart)

#	Work package	2015												2016												2017	
		9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2								
1	Development of common objectives and strategy	█																									
2	Meeting with German project partners	█																									
3	Hungary: coordination meeting													█													
4	Slovakia: coordination meeting													█													
5	Romania: coordination meeting													█													
6	Preparation and implementation "follow-up" workshop in Tübingen, Germany													█													
7	Launch MOU and evaluation of previous work (all partners, lead SGIT)													█													
8	Signing the final documents													█													
9	Preparation for application EU program (all partners, lead SGIT)													█													
10	Project management and coordination SGIT	█												█												█	

Project implementation through two phases

Plantations near Fertőd, Sopron, Hungary



© Photo: SGIT, January 2016

SUA(Biomass plant) Nitra, Slovakia



© Photo SGIT, April 2016

WEHRLE Umwelt, Germany



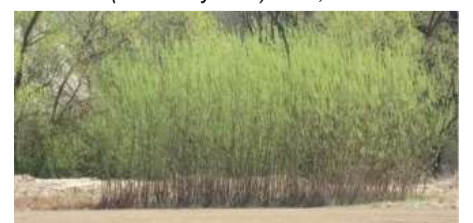
© Photo SGIT, June 2016

University of Bucharest, Romania



© Photo SGIT, June 2016

SUA (University farm) Nitra, Slovakia



© Photo SGIT, April 2016