



DANUBIOM

Improving sustainable bioenergy use with multinational co-operation in the Danube Region

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Introduction of SZIE



- ▶ The Szent István University (SZIE) has three faculties at the Gödöllő Campus:
 - ▶ Faculty of Agriculture and Environmental Sciences;
 - ▶ Faculty of Economics and Social Sciences;
 - ▶ Faculty of Engineering;
- ▶ The **Faculty of Agriculture and Environmental Sciences** is one of the oldest faculties.
 - ▶ It can trace its roots back to 1920, when the Agricultural Department was established within the Budapest University of Sciences.
 - ▶ In 1945, the University of Agricultural Sciences was founded in Budapest, and it moved to Gödöllő in 1950.
 - ▶ Since 2000, the faculty has been a part of Szent István University.
- ▶ Education at the faculty:
 - ▶ Eight BSc, eleven MSc programs, and four PhD schools.
 - ▶ A variety of short courses and post-graduate specializations.
 - ▶ Many of the courses are available in English.
- ▶ Research at the faculty
 - ▶ Complex scientific innovation in biological technologies, as well in production, breeding, processing and marketing chains;
 - ▶ Cutting-edge knowledge and technologies to users in the form of innovation projects;
 - ▶ The Faculty has good relations and runs research and development programs with Hungarian and foreign research institutes, universities and agricultural companies.



EU funded projects at SZIE



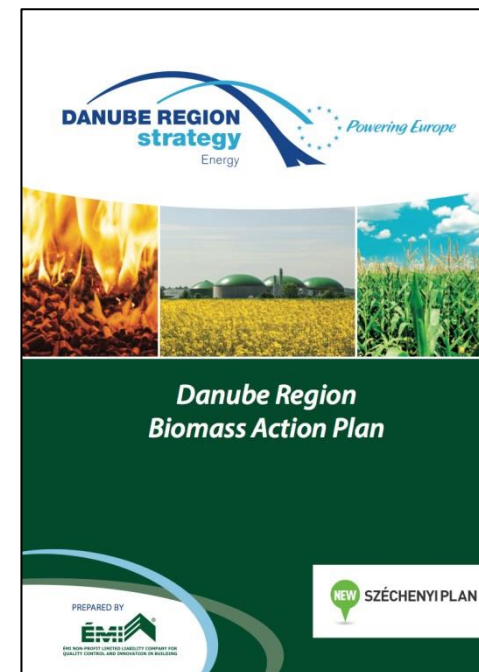
- ▶ AGRIDIAG (LLP)
- ▶ ENVIEVAL (FP7)
- ▶ QUESSA (FP7)
- ▶ GuardEN (SEE)
- ▶ BioCore (FP7)
- ▶ Coach BioEnergy (CEP)
- ▶ SENSOR (FP6)
- ▶ etc.



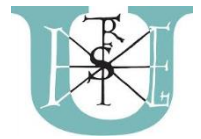
Main results of the DRBAP



- ▶ Biomass has the greatest significance among renewable energy sources in the Danube Region;
- ▶ Forestry sector is the main biomass supplier and is going to keep its dominance to 2020;
- ▶ Significance of the agriculture and waste sector will increase rapidly to 2020;
- ▶ Biomass supply is continuously increasing;
- ▶ Bioenergy production is dominated by solid biomass;
- ▶ Most bioenergy is consumed in the form of heat and no change is expected to 2020;
- ▶ The majority of consumed energy derives from solid biomass and no change is expected to 2020;
- ▶ There is lack of available biomass related data in the Danube Region;
 - Access to reliable data is difficult;
 - Existing data are heterogeneous.

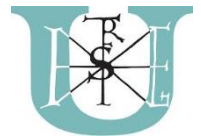


Main problem areas in the region



- ▶ Information deficit: general knowledge on renewable energy technologies (RET), environmental aspects, quality requirements of biofuels, liability of commercial partners/providers – consumer protection;
- ▶ Contradictory/not relevant national and EU level policies;
 - inefficient energy utilization in bioenergy power plants;
- ▶ Inappropriate technologies:
 - missing of holistic technologies: lack of knowledge related to complex decentralized energy systems/value chains based different biomass feedstocks;
 - problem of fit of investments emerging from different regional circumstances (infrastructure, economic situation, social aspects).

Goal of the project proposal

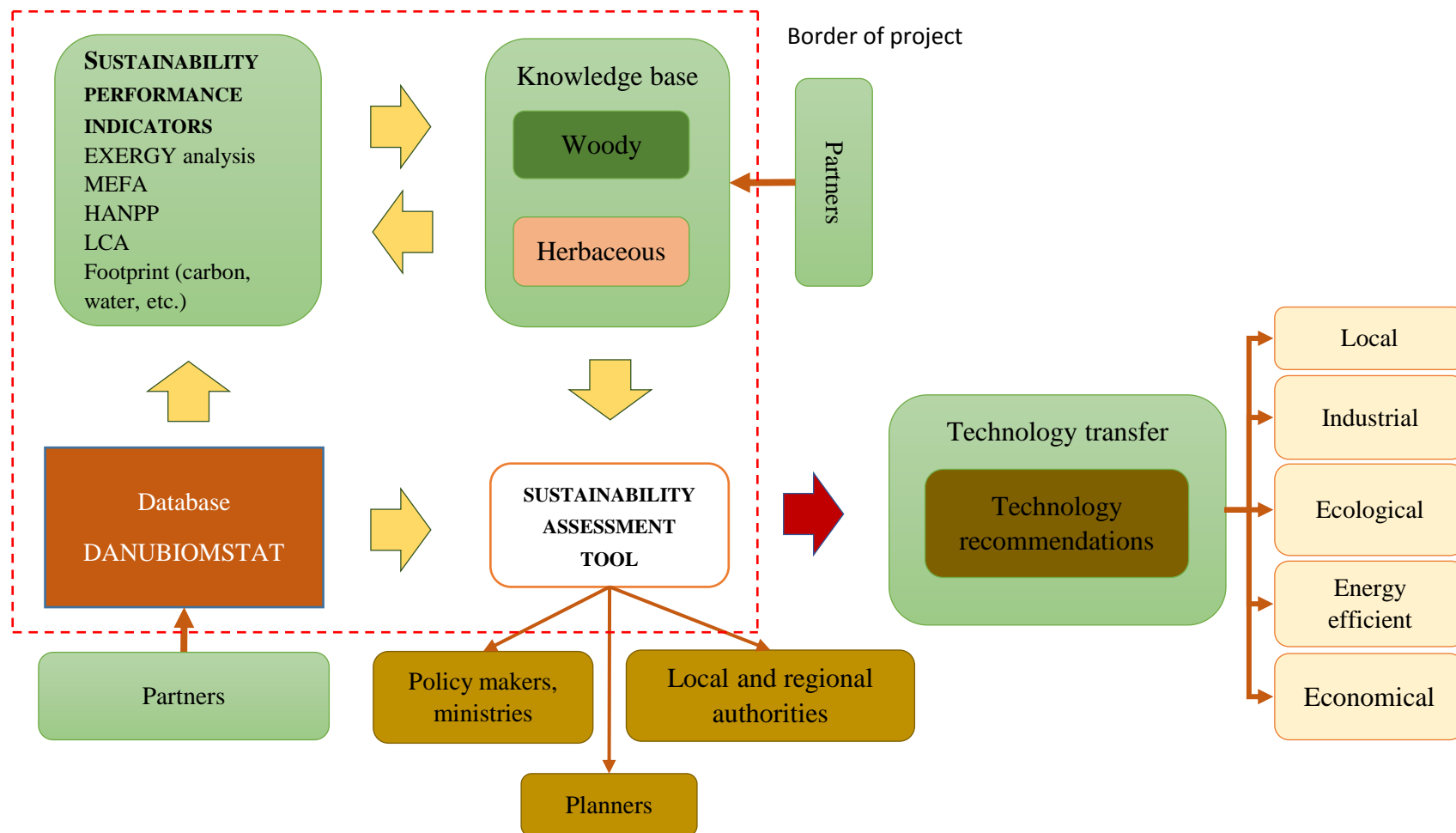


The overarching goal – to enhance a more sustainable and efficient use of bioenergy by defining mutually acceptable criteria for biomass utilization, and harmonizing key policy measures.

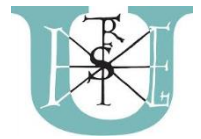
Goals:

- ▶ improve environmentally sustainable and energy efficient bioenergy utilisation in the Danube Region;
- ▶ define criteria of an environmentally sustainable bioenergy utilisation in the Danube Region;
- ▶ propose necessary harmonization of policy in line with the sustainability requirements;
- ▶ Preparing a tool to rank most common technologies according to their performance in sustainability;

Concept of the project



Assistance and outputs



The proposal intends to assist the following activities:

- ▶ development decisions/investments by comparing complex value chains to characterise environmental and energy performance;
- ▶ technology transfer specified according to the local/regional circumstances;
- ▶ policy development and permitting procedures by local authorities.

Planned outputs:

- ▶ Establish uniform bioenergy statistical data base in the Danube Region;
- ▶ Develop performance characteristics for various bioenergy value chains;
 - Environmental performance, energy efficiency, economics and social effects;
- ▶ Develop knowledge base on bioenergy value chains;
- ▶ Provide ready to use technology advice for given circumstances;
 - Production technologies, utilisation technologies, transport, recycling;
- ▶ Set up a handy and robust sustainability assessment tool (SAT) for bioenergy developments based on:
 - Statistical data base, performance indicators, partners' experiences;
- ▶ Provide up-to-date planning assistance.



Possible partners and stakeholders



The proposed cooperation from both the profit and non-profit sector enhances exchange of knowledge and experiences not just among partner countries, but also between research institutions and their SME counterparts.

In this regard potential project partners may come from the following areas or institutions:

- ▶ research institutions in the renewable energy sector dealing with both technical and social aspects of energy transition;
- ▶ entrepreneurs providing technology and services in the renewable energy sector;
- ▶ typical governmental and private energy consumers;

Possible stakeholders and target groups:

- ▶ users of biomass based energy sources like households, municipalities, entrepreneurs;
- ▶ energy providers, ESCO-s;
- ▶ feed-stock providers: forestry and agricultural companies, biomass processing SME-s;
- ▶ technology providers: stove and boiler producers.



Next steps



- ▶ Preparation of the detailed project concept in July–August;
- ▶ Dissemination of the project concept among potential participants in August–September;
- ▶ Organization of a workshop to the autumn of 2014 and discussion of the concept with the workshop participants;
- ▶ Finalization of the project concept and the establishment of a project consortium by the end of 2014;
- ▶ Submission of the project proposal to open calls in 2015;
- ▶ Execution of the project from 2015 onwards.

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