



MINISTRY OF FOREIGN AFFAIRS AND TRADE
OF HUNGARY

SZENT ISTVÁN UNIVERSITY

Hungary / Central Hungary
Kohlheb – Gyuricza – Kovács – Tóvári

DANUBIOM Project Workshop

Introduction to the Szent István University

- Main profile
 - Research and education
- Typical activities in the field of bioenergy
 - SRC trials
 - Technology development
 - Environmental assessment
 - LCA, MEFA, HANPP, GIS



Most important references, projects relevant to the topic of the workshop

- SENSOR (FP7) - environmental indicators
- BioCore (FP7) – feed stock availability, feasibility study
- Coach-BioEnergy (CENTRAL EUROPE) – methodology for energy strategy development, environmental assessment for bioenergy value chains
- GuardEN (SOUTH-EAST EUROPE) Standardisation of water and soil protective agricultural production



Background

- Danube Region Biomass Action Plan (ÉMI)
 - Problem areas are identified
 - Joint declaration: no need for additional sustainability criteria
- European Commission worries about bioenergy
 - GHG and energy efficiency
 - Sustainable use of resources
 - Strategy development are promoted
 - Legislation is adjusted



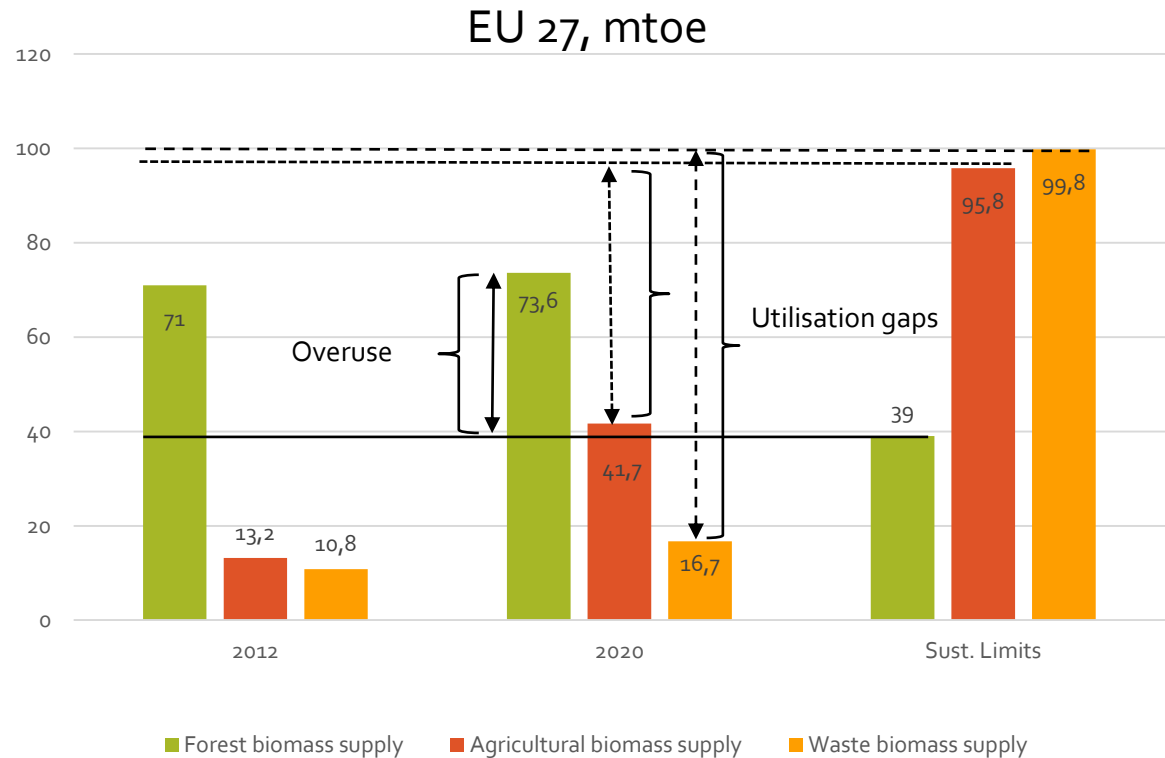
Challenges

- Woody resources
 - Increasing demand
 - Decreasing availability



Overuse

- Waste&agric. res.
 - Utilisation gap



Sources: SWD(2014) 259 final; EEA 7/2006



NEW SZÉCHENYI PLAN

MINISTRY OF FOREIGN AFFAIRS AND TRADE OF HUNGARY

DANUBIOM Project Workshop, Budapest 13. November 2014



DANUBE REGION strategy Energy

Problem areas - DRBAP

- Information deficit on RE technologies and environmental aspects;
- Fragmented bioenergy market and energy infrastructure;
- Contradictory/not relevant national and EU level policies;
 - inefficient energy utilisation;
- Inappropriate technologies:
 - missing holistic technology application: lack of knowledge related to complex decentralised energy systems;
 - problem of fit of investments and technologies

Sustainability risks (SWD(2014) 259 final)

- Resource depletion
 - Soil erosion
 - Reduction of SOC
 - Decreasing water table



Shrinking
cultivation
area

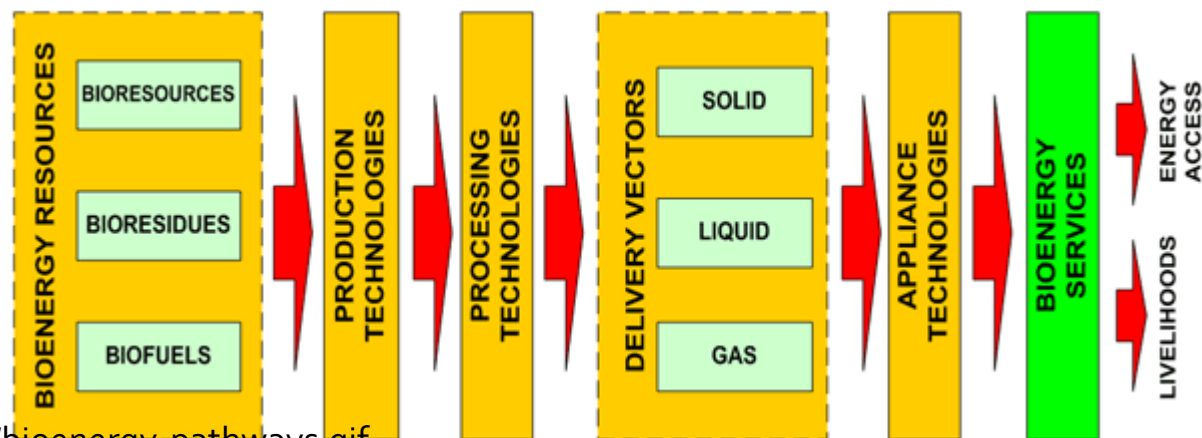


Forrás: EEA 37/2004, Centeri Cs.

- Inefficient bioenergy generation
 - Increasing emissions from land use land use change and forestry (LULUCF);
 - Deteriorating life cycle GHG emission performance;
 - Indirect impacts, e.g. indirect land use change;
 - Airborne emissions.

Solutions – current developments

- Analysis of bioenergy pathways
 - Main aspect: GHG, energy efficiency
- Adjustment of legal framework
- Support for community based utilisation
- Setting environmental standards



Project ends and means

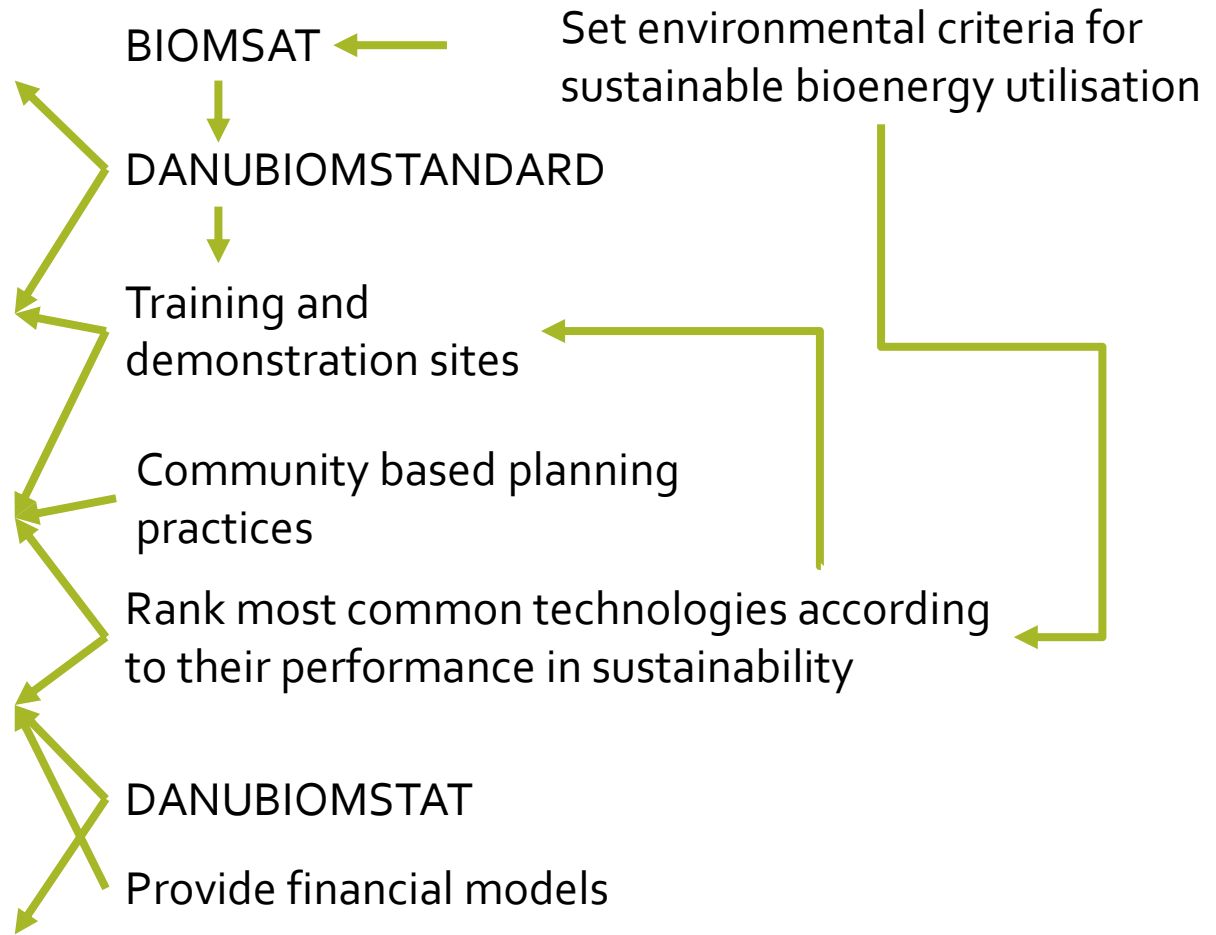
Improve environmentally sustainable and energy efficient bioenergy utilisation

Increase awareness of sustainable bioenergy practices

Assist the development of a sustainable bioenergy infrastructure

Enable a well-functioning bioenergy market

Propose necessary harmonization of policies in line with the sustainability requirements



Team and contact

- **Csaba GYURICZA**, PhD in Agricultural Sciences, Assoc. Prof., Dean of the Faculty of Agricultural and Environmental Sciences, Director of Institute of Crop Production.
 - *Areas of expertise*: land use, energy crop production systems, biomass utilisation.
- **Norbert KOHLHEB**, PhD in Social Sciences, Assoc. Prof. of the Institute of Environmental and Landscape Management.
 - *Areas of expertise*: environmentally sustainable bioenergy utilisation, social assessment of renewable energy sources.
- **Gergő Péter KOVÁCS**, PhD in Agricultural Sciences, Assist. Prof. of the Institute of Crop Production, Director of SZIU Pilot Farm for Crop Production and Biomass Utilisation.
 - *Areas of expertise*: biomass utilisation techniques, energy crop production systems.
- **Péter TÓVÁRI**, MSc in Agricultural Engineering, Assist. Prof. of the Institute of Crop Production.
 - *Areas of expertise*: biomass utilisation methods, complex decentralised energy systems.

Szent István University

Address: 2103 Gödöllő, Páter K. u. 1

Tel.: +36 28 522 000

THANK YOU FOR YOUR KIND ATTENTION

<http://www.guarden.eu/>

<http://www.coach-bioenergy.eu/>

<http://www.mkk.szie.hu/>

Structure of the project

- WP1. Project management and coordination
- WP2. Communication, knowledge management and dissemination
- WP3. Developments of relevant bioenergy pathways in the DR
 - Stakeholder analysis
 - Market development – On-line platform, ESCO
 - Financing model
- WP4. Creation of the common data base
 - Screening of data sources
 - Development of a data management scheme - DANUBIOMSTAT
- WP5. Danube Region BioEnergyStandard
 - BIOMSAT
 - Setting Sustainability Criteria
 - Develop a Standard - DANUBIOMSTANDARD
- WP6. Technology and knowledge transfer
 - Planning methodology – social aspects, stakeholders
 - Technology development and adjustment
 - Demonstration sites – innovation network of excellence

