BioRES - Sustainable Regional Supply Chains for Woody Bioenergy

EU Horizon 2020
Coordination and Support Action
Key Facts of the EU-Project BioRES

Project Objective: Market uptake of domestic woody bioenergy supply chains by introducing the innovative concept of **Biomass Logistic and Trade Centres** (BLTCs) as regional hubs increasing local supply and demand based on cooperation with European partners.

Implementation: Setting up new BLTCs in Serbia, Croatia, Bulgaria in areas with high woody biomass potential; as up today there are no BLTCs operating in the 3 countries with focus on the domestic market.

Project Duration: January 2015 - June 2017 (30 months)

Project Budget: 1,86 Mio. EUR funded by European Union’s Horizon 2020 research and innovation programme

Consortium: 9 Partners from 7 EU member countries (Germany, Austria, Belgium, Finland, Slovenia, Croatia, Bulgaria) and Serbia (in EU accession process)
What are Biomass Logistic and Trade Centres (BLTC)? (within the scope of BioRES)

- BLTCs are local or regional centres with optimized logistics and trading organization, where different woody bioenergy products (or heat) are marketed at standardised quality focusing on the domestic market uptake.

- At the initial investment stage, a BLTC can be a marketing and sales platform → can develop into a BLTC with its own production, storage and logistic facilities when the local market reaches critical volumes allowing the amortisation of investments.

- A BLTC develops adaptive business models for competitively operating as intermediary organising regional bioenergy supply chains (e.g. consortium of private shareholders and investors or managed by a municipality).

**Requirements:**
1) Nomination of executives representing the BLTC
2) MoU/statute of BLTC constituting for supply and sale contracts
Identifying potential Biomass Logistic and Trade Centres (BLTCs) locations in Serbia, Bulgaria and Croatia

Based on: 1) Criteria Checklist 2) Stakeholder Consultation 3) Local market assessment of supply and demand

Following essential criteria need to be fulfilled:
1. FINANCE OPTIONS: existing interest of private investors/local authorities
2. MARKET DEMAND: existence of local consumer market
3. KNOWLEDGE: existing awareness of the population
4. SUPPLY: Woody biomass potential and existing supply chains (30-40 km radius as orientation)

Following other criteria need to be evaluated:
1. Price and supply structure of competing energy carrier
2. Number and composition of farmer cooperatives and forest owners/associations in region
3. Features of possibly feasible location/plot for BLTC set-up
4. Sustainability (e.g. certification)
Best Practice Example from Austria: Biomassehof Leoben

Location, Biomass-potential:

- catchment area:
  - ~138,500 inhabitants
  - 72.3% forest
  - ~70% farmers, privat
  - ~30% municipality, church
  - 5 big heating plants
  - several small heating plants

action circle: 30km Radius for suppliers and customers

www.biomassehof-stmk.at

BioRES has received funding from the European Union’s Horizon2020 research and innovation programme under grant agreement No 645994
BLTC’s Woody Bioenergy Products
Project Objectives

1. A total of at least 6 - 8 new Biomass Logistic and Trade Centres (BLTCs) distributed over at least 2 of the 3 countries.

2. Sales agreements with energy consumers in rural areas for a total of at least 8,000 tons per year (in average 1,000-1,500 tons per year per BLTC) of woody bioenergy products, backed by at least the same volume of delivery agreements with producers.

3. A total of at least 12 trainers (representatives of commercial associations of bioenergy producers or of regional energy agencies) and at least 400 potential actors along the supply chain are trained and their capacities developed on how to implement and manage regional supply chains for quality woody bioenergy products from sustainable forestry.
Activities / Steps for Achieving the Objectives

- International knowledge sharing and technology exchange of best practice operations
- Identification of at least 15 priority locations for new BLTCs based on a set of criteria
- Assessment of regional market potentials for the production and use of woody bioenergy products
- Stakeholder dialogue, local consumer information and awareness building
- Initiating the establishment of investor groups/organisational structure of new BLTCs
- Conducting site-specific feasibility studies
- Developing training material, brochures and practitioner’s guidebook
- Enhancing local capacities at all stages along the regional supply chains for quality-controlled woody bioenergy products from verified sustainable forestry
- Advisory services for BLTC business plans as well as for sale agreements on supply and demand side

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Expected Impacts

- The share of woody bioenergy on the domestic market is increased
- Fostering the development of the bioenergy sector by implementing woody bioenergy as a reliable and standardized fuel
- Ensuring sustainability by mobilising woody biomass from verified sustainable forest management
- Transaction costs & lead time required for the development of a new BLTC until the start of operation have been reduced
- Better local policy and commercial frameworks for BLTCs
- New Jobs for rural actors/SMEs along the local value chain development
- Fossil energy demand for heating/electricity is reduced due to fuel switch to woody bioenergy products → measurable significant CO2 emission reduction on regional level
- Improvement of energy efficiency occurs from the localization of woody bioenergy trading → reducing transport distances and carbon footprint

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