



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



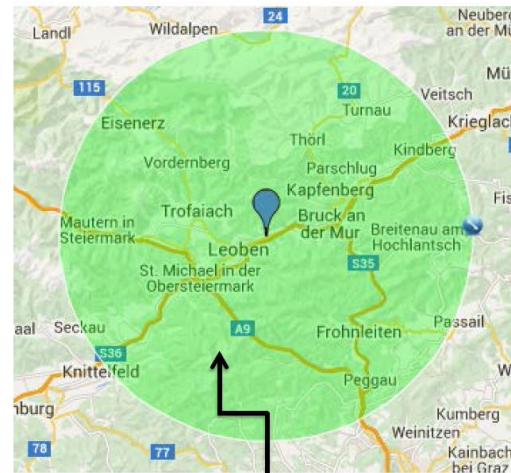
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Location, Biomass-potential:

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action circle: 30km Radius for suppliers and customers

lk Landwirtschaftskammer
Steiermark

WALDVERBAND
steiermark gmbh.

catchment area:

~138.500 inhabitants

72,3% forest

~ 70% farmers, privat

~ 30% municipality,
church

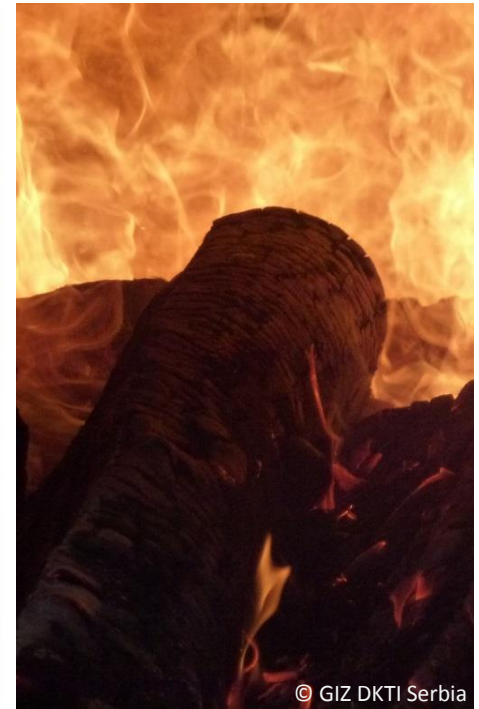
5 big heating plants

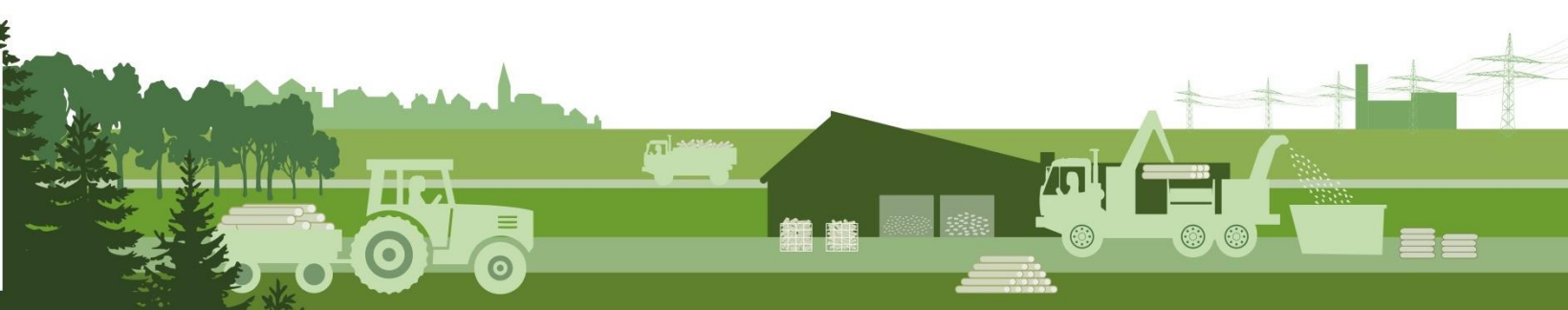
several small
heating plants

www.biomassehof-stmk.at



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



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