



REGIONALNA ENERGETSKA AGENCIJA  
NORTH-WEST CROATIA  
SIEVEROZAPADNE HRVATSKE  
REGIONAL ENERGY AGENCY



# BioRES - Sustainable Regional Supply Chains for Woody Bioenergy

**EU Horizon 2020  
Coordination and Support Action**



BioRES has received funding from the *European Union's Horizon2020 research and innovation programme* under grant agreement No 645994



## 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:

high woody biomass potential;

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)



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## **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)





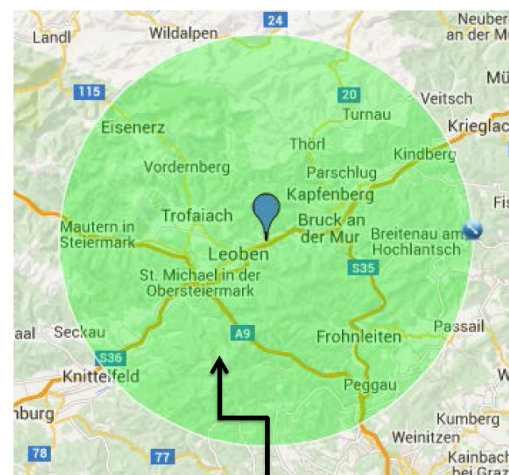


## Best Practice Example from Austria: Biomassehof Leoben



### Location, Biomass-potential:

© waldverband stmk & lk steiermark



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

**lk** Landwirtschaftskammer  
Steiermark

**WALDVERBAND**  
steiermark gmbh

[www.biomassehof-stmk.at](http://www.biomassehof-stmk.at)



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## 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