



# BioVill

*Increasing the Market Uptake of Sustainable Bioenergy*

## Bioenergy Villages (BioVill) Increasing the Market Uptake of Sustainable Energy



© WIP

SPECIFIC TITLE OF THE PRESENTATION



KEA



AUSTRIAN ENERGY AGENCY



REGIONALNA ENERGETSKA AGENCIJA  
NORTH-WEST CROATIA  
REGIONALNA ENERGETSKA AGENCIJA  
SEVERNOZAPADNE HRVATSKE



SDEWESSKOPJE

GREEN ENERGY

Flourishing Innovative Business Cluster



SKG

GOZDARSKI INŠTITUT SLOVENIJE

SLOVENIAN FORESTRY INSTITUTE

# Key Facts

## Bioenergy Villages (BioVill) Increasing the Market Uptake of Sustainable Energy

Objective	The overall objective of the BioVill project is to support the development of regional bioenergy concepts and the establishment of “Bioenergy Villages” in Croatia, Macedonia, Romania, Serbia and Slovenia.
Duration	03/2016 – 02/2019
Budget	EUR 1.99 Mio.
Funded by	European Union’s Horizon 2020 Research and Innovation Programme
No. of Partners	9
No. of Countries	7: Germany, Austria, Slovenia, Croatia, Serbia, Macedonia

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under Grant Agreement N° 691661



# The Project Consortium

---



Deutsche Gesellschaft für Internationale Zusammenarbeit, Germany



Wirtschaft und Infrastruktur GmbH & CO Planungs KG, Germany

Klimaschutz- und  
Energieagentur  
Baden-Württemberg  
GmbH



**KEA**

Klimaschutz und Energieagentur Baden-Württemberg GmbH, Germany



AUSTRIAN ENERGY AGENCY

Austrian Energy Agency, Austria



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

Regional Energy Agency of North-West Croatia, Croatia



ISEWESSKOPJE

International Centre for Sustainable Development of Energy, Water and Environment Systems Zagreb - Office Skopje, Macedonia

**GREEN ENERGY**  
Romanian Innovative Biomass Cluster



Green Energy Association, Romania



GOZDARSKI INŠTITUT SLOVENIJE  
SLOVENIAN FORESTRY INSTITUTE

Slovenian Forestry Institute, Slovenia

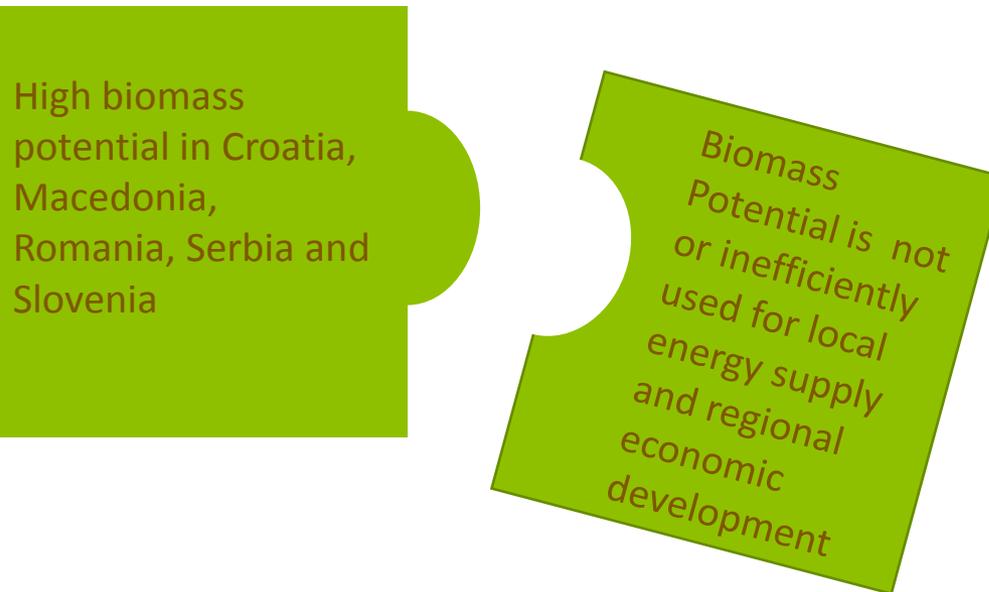


SKCG

Standing Conference of Towns and Municipalities, Serbia

# The Challenge

---



# How to address this challenge?

---

BioVill supports the implementation of the bioenergy village approach in communities in five South East European partner countries Croatia, Macedonia, Romania, Serbia and Slovenia.

## Benefits of the bioenergy village approach:

- Increased use of renewable energies
- Support the development of the bioenergy sector
- Strengthening the local and regional economy
- Positive effect on climate change and environmental protection



Target Countries

# What is a bioenergy village?

---

A bioenergy village is a village, municipality or community which produces and uses most of its energy demand from local biomass sources e.g. agriculture, forestry and waste and from other renewable energies.

A bioenergy village usually combines several technologies of different sizes such as woodchip boilers, pellet stoves, logwood boilers, biogas plants, combined heat and power plants.

A small district heating grid distributes the heat to the consumers.



© GEA



© Dietmar Hagauer, AEA



© WIP

# Key Characteristics of a bioenergy village:

---

- Sustainability:** The biomass feedstock is produced locally and in a sustainable way.
- Energy Self Sufficiency:** A large share of the power supply and the heat demand are covered by locally produced biomass or other renewable energies.
- Local ownership:** The business model allows also consumers, farmers and forest owners to become shared owners of the installations.
- Regional development:** The added value remains within the village and supports the local and regional economic development.
- Public Participation:** The creation and management of the bioenergy village is based on a high level of public participation.
- Resource Efficiency:** The energy concept of a bioenergy village includes also energy efficiency and energy saving measures.
-

# Bioenergy Village Untermaßholderbach, Germany

---

**Concept:** 2.3 km long district heating network. Households are heated using the waste heat from the local biogas plant.

**Energy technologies:** biogas plant 350 kWel and 250 kWth, woodchip boilers 200 kWth, PV plants

**Type of Biomass used:** energy crops, slurry, manure, wood chips, (wood from surrounding forests)

**Installation year:** biogas plant in 2005; heating network in 2013



©Bioenergiedorf  
Untermaßholderbach

# Bioenergy Village Untermaßholderbach, Germany

---

## Heat:

- Supplied users: 30 properties
- Renewable heat supply rate: 100%
- Heat generated/year: 400,000 kWh

## Power

- Power use: fed into the grid
- Renewable power supply rate: 1200%
- Power generated/year: n.a.



©Bioenergiesdorf  
Untermaßholderbach

# Project Objectives

---

## Overall Objective

Fostering the development of the bioenergy sector in selected European countries by means of strengthening the role of locally produced biomass as a main contributor for energy supply on local level, considering opportunities of market uptake or expansion for local farmers, wood producers or SMEs

# Project Objectives

---

## Specific Objectives

1. 5 villages have developed the institutional set-up and energy management concept for becoming a bioenergy village.
2. Mobilization of at least 62 GWh/y heat and power based on solid biomass in at least 5 target villages based on the exchange of European best practices.
3. Increase public acceptance of sustainable bioenergy and raise public awareness on commercial opportunities.
4. Capacity Building of users and key actors in business and legislation

# Impacts of the BioVill Project

---

- More Sustainable energy:** Increasing the **share of sustainable bioenergy** in the final energy consumption.
- Reducing transaction costs:** Reducing substantially and measurable **the transaction costs for project developers** (e.g. municipalities, SMEs) as well as for the permitting authorities, while needs for environmental impact assessments, including considerations for indirect impacts and energy balance are still fully addressed.
- Better frameworks:** Development of **better policy**, market support and financial frameworks, notably at national, regional and local level.
-

# Activities of the BioVill project

---

1. National and local framework analysis (policies, legislation, stakeholder landscape)
2. Technological and economic assessments of local bioenergy value chains
3. Development of the institutional set-up and energy management concepts for the potential Bioenergy villages
4. Capacity building on financing schemes and business models
5. Involvement and active participation of citizens and all relevant stakeholders in the planning and implementation process.



©GIZ



©REGEA



©WIP

# Thank you for your attention

---

Jens Adler • E-Mail: [jens.adler@giz.de](mailto:jens.adler@giz.de) • Phone: +49-351-850 342 10