

SLOVENIA

Restructuring and
developing physical
potential and
promoting innovation

Location

Luče

Programming period

2007 – 2013

Axis / Priority

Axis 1 – Improving the competitiveness of the agricultural and forestry sector

Measure

M123 - Adding value to agricultural and forestry products

Funding (EUR)*

Total budget 1 459 443
EAFRD 516 058
National/regional 172 020
Private 771 365

Project duration*

2009 – 2014

Project promoter

Biomasa Rok Suhodolnik s.p.

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Two RDP funded projects enabled a company specialised on biomass heating to grow by financing the purchase of mobile wood chipper and later on a pelleting system.

Summary

A sole proprietor Mr. Rok Suhodolnik, specialised in wood biomass heating systems, has successfully set up of over 3000 boiler rooms and around 20 district heating systems across Slovenia. Over years the business was extended to the production of wood chips.



RDP support contributed to expand the business through two projects. At first a high capacity mobile wood chipper was purchased and a few years later, a new pelleting line was installed. The business was set up on an old industrial site which was converted into a modern centre combining the production of wood biomass products and generation of electricity.

Results

The annual production is between 3000-4000 tonnes of pellets and 300 000 Nm³ of wood chips.

Nine jobs were created at the biomass centre.

Annually 3 150 MWh of electricity is produced from wood biomass thanks to Biomasa.

Lessons & Recommendations

- ❑ The enterprise could grow steadily by being able to recognise and respond to the market needs.
- ❑ Experimenting, innovating and developing new products are key characteristics for a business to ensure tailor made solutions for every customer.
- ❑ The investments supported by the RDP were carefully planned and were based on the needs of a wide network of biomass heating system operators that were supported over the years.

Context

Rok Suhodolnik used to live on a mountain farm in the Upper Savinja Valley in the northern Slovenia. In 1993 the family decided to invest in wood biomass heating system as alternative to heating oil that was commonly used at that time. By being one of the first in Slovenia to use a wood chip boiler, the farm soon became a demonstration site. At that time, they also constructed and assembled their own wood chipper. Accumulated knowledge and experience led into the creation of a business on installing biomass heating systems. Over years, the micro enterprise Biomasa installed around 3 000 wood biomass heating systems across Slovenia.

In 2005/2006 Biomasa was awarded a concession for managing a wood biomass district heating at four locations in the Upper Savinja Valley. As forest residues depots in vicinity of forests were too complicated to manage due to strict legislative requirements, they looked for a central storage space. An opportunity arose when a sawmill in nearby Nazarje went bankrupt and its production spaces located in the industrial zone became available. A part of the zone was rented to storage of forest residues and produce wood chips.

The expertise in setting up and managing district heating systems was successfully transferred to about 20 other locations in Slovenia. After some time, the insolvent business that owned the space requested a step by step purchase of the entire area. The old sawmill was dismantled and sold for recycling. The enterprise decided to take over the available space to address a growing demand for quality biomass products and electricity generation.

Objectives

The objectives of the Biomasa company through this project were to:

- revitalise the industrial zone and establish a biomass centre
- increase the production capacity of wood chips
- start producing wood pellets.

Activities

The setting up of the biomass centre was supported by RDP funds through two projects. In 2009, the first investment was made by purchasing a high capacity wood chipper, one of the largest in this part of Europe. The machine was manufactured by taking into the requirements of the investor. This project also financed

the purchase of equipment for separating, cleaning, grinding and drying of wood chips.

In 2013, another project was implemented and this financed installing a new wood pelleting production line, including dosage systems and buffer tanks. A new storage for biomass energy products was also constructed and equipment purchased.

The rest of the buildings on the site were restored with own funds.



Key results

- RDP support and own investment helped revitalise 50 000 m² of the industrial.
- The annual production is between 3000-4000 tonnes of pellets and 300 000 Nm³ of wood chips. These are mainly supplied to customers in Slovenia including larger consumers of district heating systems, some of them are also managed by Biomasa.
- The wood residuals for production of woodchips and pellets are mainly supplied from local forest owners in the region. By adding value through production of wood chips and pellets nine jobs were created at the biomass centre.
- By supplying its own biomass to customers the enterprise has better monitoring and control over the functioning of the biomass heating systems they are responsible for.

“The investment supported by RDP helped the company to realise the plans quicker. However, one needs a clear vision, careful planning and also some guts. We follow three key motives: ecology, energy independence and economic effectiveness.”

Rok Suhodolnik, Biomasa director and owner

- Lessons learned from the company's experience in the use of the CHP units and biomass district heating management are being transferred to other customers.
- The investments helped in closing of the production circle. Wood residuals are used for production of wood chips and pellets. Part of wood chips is used for cogeneration system, which uses wood gas for simultaneous production of heat and electrical power. Several CHP units (Combined Heat and Power) were tested and are now operating at the location. Annually 3150 MWh of electricity is produced from wood biomass. The electricity is used to operate the entire production site and surpluses are sent to the national electricity network. The heat is used to dry the wood chips, and thus improve their quality.



Key lessons

The Biomasa enterprise was growing as a business steadily by recognising and responding to the market needs.

The practical experience obtained by operating and testing the heating systems and other products at the businesses own production site played an important role in providing high quality solutions to the customers. Experimenting, innovation and development are strong characteristics of the business.

The company established a strong network of different specialised companies that operate jointly in a group and it comprises of 30 persons of different expertise that can provide complex solutions and take over large projects.

The investments supported by the RDP were carefully planned and were based on the needs of a wide network of biomass heating system operators that were supported over the years.

Additional sources of information

n/a