Innovative pellets made of forest and/or agricultural biomass



INOPELET

Innovative pellets made of forest and/or agricultural biomass and wood residue to reduce dependence on fossil fuels and contribute to environmental protection through reduction of CO_2 emissions

The main goal of the project is to develop a pellet based on innovative pretreatments of forest and/or agricultural biomass and wood residue from veneer production that would meet the highest qualitative standards and be more energy efficient than pellets that can be found on the market today, and which could be used in heating systems of households and smaller public institutions. Pellets made from biomass, as the most favorable form of solid biofuels, are defined as a compressed cylindrical product with a high calorific value that, when used, provides autonomy similar to natural gas and heating oil. The raw materials that will be used in the project activities are forest biomass of lower quality classes (oak, ash and poplar), harvest residues of agricultural crops (corn, soybeans and sunflower) and wood residues from veneer production. Biomass pretreatment will produce pellets with a reduced content of mineral substances (ash), increased calorific value and better various physical and mechanical properties with the aim of achieving the highest market quality levels. Furthermore, with its improved high-energy properties, inopellets will reduce the mass and volume consumption of the necessary fuel during the heating season, which would consequently reduce transportation costs and the necessary storage space. In addition, the improved pellets would be more resistant to moisture, which would reduce the risk of quality loss and facilitate the conditions for its storage.

MORE DETAILS

CHALLENGE ADDRESSED

6.- Grow the forest-based bioeconomy through circular use and value-added products

DOMAIN

Research and development

TYPE OF SOLUTION

Circular, bio-based products

KEYWORDS

innovative; biomass; pretreatment; pellet

DIGITAL SOLUTION

No

INNOVATION

Yes

COUNTRY OF ORIGIN

Croatia

SCALE OF APPLICATION

Cross-border/multi-lateral (several countries)

START AND END YEAR

2020 -

CONTACT DATA

OWNER OR AUTHOR

Bjelin Otok Ltd

Ines Baričević

ines.baricevic@bjelin.hr

https://www.bjelin.com/en/company

REPORTER

Competence Centre Ltd

Ivan Ambroš

ambros@cekom.hr

REFERENCES AND RESOURCES

MAIN WEBSITE

https://www.bjelin.com/en/company

PROJECT WEBSITE

https://www.inopelet.hr/hr/

PROJECT REFERENCE

--

RESOURCES

--

LOGO OF BEST PRACTICE

LOGO OF MAIN ORGANIZATION

BJELIN

PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood 4.0

POST DATE

24 Mar 2023

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

Link to Rosewood 4.0

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

cesefor
Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León