



### Biogal – The green biogas plant in Boleszyn

Biogal was founded in 2012 and currently employs over 40 people. The company obtains raw materials such as manure and self-grown corn from its own pig farm and from other local farmers to produce biogas. In addition, Biogal also processes agri-food industry waste products such as post-distillery brew, fruit and vegetable residues and overdue food.

Biogal's activity is beneficial especially for the pig producers who do not have enough agricultural area to meet the Nitrates Directive requirements. Biogal deals with energy production from a combination of renewable sources, waste food products processing, organic fertilizer production (productized with the name Naturgal) as well as obtaining of wind and solar energy. The company is currently implementing several wind energy investments for local villages and towns.

The agricultural biogas is produced in the natural manure methane fermentation process. Naturgal is produced in the mesophilic fermentation process, and it is recommended for vegetable crops, ornamental plants, fruit trees, shrubs as well as field crops and affects both the natural beneficial development and high quality of crops. Obtained electricity and heat constitute an effective element of infrastructure development, allowing for electricity supply for Biogal's own needs, for other local farmers, residents and for public sector institutions. The heat supply is provided for 2 local factories, 3 schools, 2 churches and 350 single-family houses – the company supplies energy to 4 nearby villages and built a 27 km long heat pipeline. The constructed heating network is routed to the construction and housing elements manufacturing plant and serves for precast concrete products drying.



Photo: BIOGAL

#### KEY WORDS

Biomethane, pig manure, organic fertilizer

#### COUNTRY

Poland

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## ADDITIONAL INFORMATION

Biogal is a biogas plant in Boleszyn and deals with production of energy from renewable sources cogeneration, waste food products processing as well as organic fertilizer production. The electricity and heat generation processes are a result of methane fermentation in agricultural biogas plants and take place in an environmentally sound manner and constitute an innovative form of modern agriculture.

Biogal's activity is beneficial especially for the pig producers who do not have enough agricultural area to meet the Nitrates Directive requirements. The Nitrate Directive primarily aims at limiting the adverse environmental impacts of animal husbandry separated from plant production in agriculture. It requires to designate Nitrate Vulnerable Zones and to adopt the legislation necessary to mitigate agricultural nitrogen pollution. The application of manure to agricultural fields stimulates crop production but also contributes to nutrient pollution due to nitrate leaches from soil during heavy precipitation events. A biogas plant allows for reduction of these processes.

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## ABOUT BRANCHES

**BRANCHES** is a H2020 “Coordination Support Action” project, that brings together 12 partners from 5 different countries. The overall objective of **BRANCHES** is to foster knowledge transfer and innovation in rural areas (agriculture and forestry), enhancing the viability and competitiveness of biomass supply chains and promoting innovative technologies, rural bioeconomy solutions and sustainable agricultural and forest management.



This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 101000375

## THE PARTNERSHIP



National Research Council of Italy  
**Institute of BioEconomy**  
Department of Biology, Agriculture and Food Science



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