



## PROJECT PARTNERS

Participant name	Short name	Country
University of Natural Resources and Life Sciences, Vienna (Coordinator)	BOKU	Austria
European Biogas Association	EBA	Belgium
ATRES	ATRES	Germany
Association Nationale des Industries	ANIA	France
Kompetenzzentrum für Ernährung, Cluster Ernährung	Cluster	Germany
Federation Italiana dell'Industria Alimentare	FEDERALIME	Italy
Federation of the Food and Drink Industries of the Czech Republic	PK ČR	Czech Republic
Lebensmittelcluster Niederösterreich	ECOPLUS	Austria
Technical University of Łódź	TUL	Poland

## CONTACT FOR MORE DETAILS

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## FABbiogas

**BIOGAS PRODUCTION FROM  
 ORGANIC WASTE IN THE EUROPEAN  
 FOOD AND BEVERAGE INDUSTRY**



## BACKGROUND

The ongoing debate related to the Europe 2020 strategy about the availability of sustainable bio-energy resources and the food-or-fuel discussion have revealed the urgency of using untapped waste streams to produce energy. Anaerobic digestion of industrial waste provides a promising alternative to standard waste treatment. The motivation behind the project is to further expand supplies and trigger increases in the demand for biogas/bio-methane (CHP units, transport, grid injection) from the organic fraction of Food and Beverage (FAB) industry wastes.

The FABbiogas project aspires to change the mindsets of all stakeholders in the waste-to-energy chain by promoting residues from FAB industry as a new and renewable energy source for biogas production. Project outputs will support the diversification of energy sources within FAB companies, leading to wide-spread valorization and efficient integration of FAB residues into energy systems and boosting the realization of a growing number of biogas projects in Austria, Czech Republic, France, Germany, Italy and Poland.



## BIOGAS FROM FAB INDUSTRY WASTE

The FAB industry represents a crucial sector of the European economy. Organic residues from production processes harbour a widely untapped potential for energy generation. A promising option for exploiting these residues is their use for biogas production. FAB industry branches with the biggest benefit comprise meat processing, breweries, sugar/starch production, dairy industry, and fruit/vegetable production.

The practical examples given below demonstrate that by implementing biogas technology for the treatment of waste streams, substantial economic and ecological savings are possible.

The use of slaughterhouse residues as renewable energy source can avoid waste treatment costs and, at the same time, contribute to the reduction of production costs. The generated electricity has been shown to cover about 40 % of an abattoir's electricity demand and up to 90 % of demanded heat.

The energy potential of an average brewery (100,000 hl/a) derived from brewery waste amounts to 1.79 GWh (spent grains, brewer's yeast, etc.). Upon biogas implementation 75 % of a brewery's electricity demand and 35 % of its heat demand have been generated.



## EXPECTED RESULTS

- Awareness raising events targeting all involved stakeholders will illustrate the high energy potential of FAB waste resulting in increased renewable energy production of 35,000 toe/a and hence, 183,000 t CO<sub>2</sub>/a saved.
- Maps depicting existing waste biogas plants and FAB waste streams, including 12 – 18 best practice examples and recommendations how to overcome barriers leading to an expected impact of comprehensive waste stream mobilization from FAB branches.
- 12 – 18 preliminary feasibility studies will prepare the ground for future projects on implementing the use of FAB waste for sustainable bio-energy production and trigger investments of 7.5 million euros.
- The establishment of national advisory services on using FAB waste for biogas production will implement extensive biogas expertise in FAB associations becoming sustainable contact points for industry requests about integrating the renewable bio-energy resource FAB waste.
- Information compendium (handbook, DVD, IT-tool) for a future standard on efficient use of FAB waste. FAB-biogas results comprise the set of tools and guidelines needed for creating a European reference standard on industrial FAB waste usage for bio-energy generation.

