



## DEMETER – DEMONSTRATING MORE EFFICIENT ENZYME PRODUCTION TO INCREASE BIOGAS YIELDS

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### THE DEMETER DISSEMINATION WORKSHOPS

The DEMETER project organizes **tailored dissemination workshops** where a comprehensive overview on the **achievements of the project** are offered to interested stakeholders and users at various **academia, industry and public levels**. Results, updates and project progresses are presented to selected participants involved and active in the DEMETER actions in order to boost the dissemination of the project results, increasing their impacts and visibility towards a wider audience.

The **first DEMETER workshop** was organized in the framework of **Ecomondo**, the leading fair of the green and circular economy, on November 7th, 2018, in Rimini (Italy), by **CiaoTech**, the DEMETER partner responsible of the Life Cycle Assessment, the Techno-economical evaluation and exploitation, and communication and dissemination project activities. This international event relies on an innovative format that brings together all sectors of the circular economy in a single platform: from material and energy recovery to sustainable development.

In the post petroleum era, the Biogas is an important renewable energy resource with high increasing developed in last few decades. It represents a big opportunity for stabilization rural areas, concretely agriculture sector. This technology can facilitate the supply of energy and in general it can contribute to the transition towards the Bio-economy.

The number of operated biogas plants is rapidly increasing and biogas plants require a stableness of the process of anaerobic fermentation with biogas production for efficiency treatment, also for good quality of the developed biogas. The research is moving to find techniques and solutions to enhance the biogas production. And, in this direction, the use of enzyme is on the most promising solutions.

To efficiently convert biomass and agricultural, industrial and municipal waste into -based materials, enzymes play an indispensable role.

In biogas plants, enzyme preparations can be used as a tool for increasing the efficiency of methane production from organic materials streams. Enzymes could help in improving biogas yields and waste treatment capacity, but they could also improve the treatment of waste streams that were formerly not eligible for anaerobic digestion due to their low biodegradability.

However, currently available enzymes have not specifically been developed for biogas production and are evaluated by “trial and error”.

The biomass conversion requires:

- the availability of enzymes that have been proven to be effective in practice and
- that can be produced at an industrial scale.

In this context, the DEMETER project partners gave an insight on how what explained above can be possible.



*DEMETER dissemination workshop in Rimini (Italy), 7<sup>th</sup> November 2018*

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On November 28th 2018 a **second dissemination workshop** was organized by **DBFZ (DEUTSCHES BIOMASSEFORSCHUNGSZENTRUM GEMEINNUETZIGE GMBH)**, one of the DEMETER partner, in **Leipzig (Germany)**.

This event was included in the frame of the regular biogas expert meeting at DBFZ in cooperation with the Saxon State Office for Environment, Agriculture and Geology, the Helmholtz Centre for Environmental Research – UFZ and an environmental institute of Leipzig.

The topic of the workshop was the following: “Influence of substrate preparation on the biogas process – What can enzymes, mills and other really do?”

The biogas expert meeting was a forum in which the opportunities, but also the limits of energy production from biogas were analyzed and discussed. In addition, it dealt with current issues of agricultural and municipal biogas production and use. Speakers from the region and external speakers on particularly interesting issues presented their experiences, so that an industry network was created and the flow of information was sustainably improved. This could make a noticeable contribution to the optimized production and use of biogas as a regenerative energy source in Saxony and the neighboring federal states.

Around 50 stakeholders coming from who sell disintegration technologies (mills, ultrasound and also enzyme products), and also from practice and research institutes and ministries participated in the event.



*DEMETER dissemination workshop in Leipzig (Germany), 28th November 2018*

Find our more information, the presentations given and the photo/video gallery of the events in the DEMETER website <http://www.demeter-eu-project.eu/>



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