

Creating a more efficient solution to agricultural greenhouse gas emissions

Turning agricultural waste gases into a useful resource such as biogas is a good way to reduce greenhouse gas emissions. Biogas, Energising the Countryside (ETC) intends to make this economically viable at remote locations and for small-scale producers. The project develops a low-cost small-scale gas conversion device to be installed on farms. In the long-run Biogas ETC aims to accelerate Europe’s transition towards a decentralized supply of sustainable energy.

Name	Biogas, Energising the Countryside (ETC)
Project Type	Innovation – Develops and brings to market climate-relevant knowledge, products and services
Lead Partner	Utrecht Sustainability Institute (USI), University of Utrecht
Project Partners	Utrecht Sustainability Institute (USI), University of Utrecht Cornelissen Consulting B.V. (CCS) Imperial College London (ISL) Fraunhofer IWES (IWES) GDF SUEZ Netherlands Organisation for Applied Scientific Research (TNO) Province of Utrecht (PoU) Wageningen University and Research Centre (WUR)
Project Manager	Sander de Vries, University of Utrecht
Project Location	Pan European, co-ordinated from the Netherlands
Project Start Date	January 2013
Theme	Developing a bio-economy

The climate change issue

A major source of greenhouse gases is livestock manure. CH₄ (methane), the main constituent of biogas, is a particularly potent greenhouse gas so burning biogas as fuel has the dual benefits of avoiding methane emissions and avoiding the burning of gas from non-sustainable sources. However, the biogas conversion process is under-utilised due to the fact that part of the products can only be sold locally, and local demand is not always there. For small and remote farms, this means that investment in biogas conversion is simply not economically viable.



The project solution

Biogas ETC aims to make the transformation of agricultural waste into biogas economically viable on a small scale, allowing farmers in remote locations to create and market biogas, increase their income and reduce their greenhouse gas emissions. This will be achieved by developing a small-scale gas upgrading system with relatively low running costs, which can be installed on individual farms to create a high quality fuel from their waste products, suitable for transportation or injection into the gas grid. The system could be made available to smaller and less profitable farms on a rental basis to reduce investment risk. The biomethane provided by this system can be used as a replacement for natural gas, or as a transport fuel, which both command a higher market price than the heat and electricity traditionally created by biogas, meaning that the farmers will see a higher return on investment.

Additionally, biomethane is always in demand and can be transported and marketed anywhere, while heat can only be utilised locally, if at all. The project will also help farmers identify market strategies and potential risks, creating a business plan so that they can market their products effectively, increasing their profits while reducing their emissions.

The role of Climate-KIC

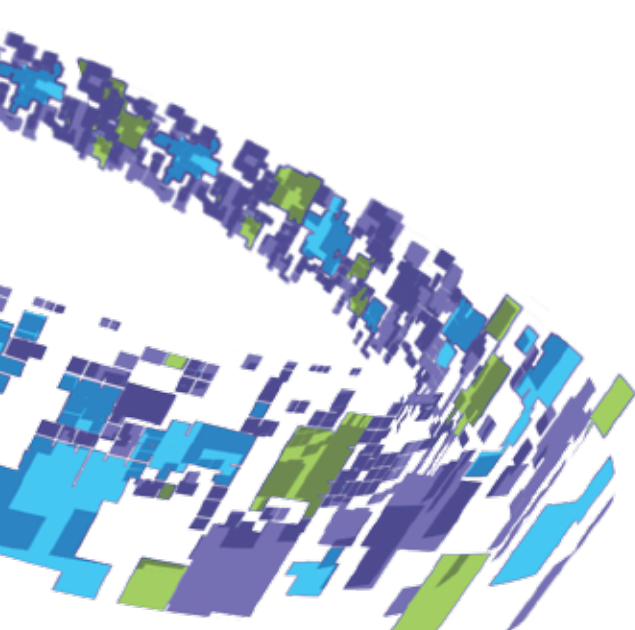
Climate-KIC provided Biogas ETC with vital funding to their project, as well as access to a network of valuable partners who helped to improve the efficiency and effectiveness of the project.

“Being Climate-KIC affiliated brings legitimacy to your project, and provides help with the creation of valuable and long-lasting relationships with partners who are driven by the same ultimate objective.”

Sander de Vries

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Biogas ETC



About Climate-KIC

Climate-KIC is an initiative of the European Institute of Innovation and Technology (EIT) with a mission to create sustainable growth by addressing climate change mitigation and adaptation. As Europe's largest public-private innovation partnership we integrate education, entrepreneurship and innovation. By bringing together communities we help transform knowledge and ideas into economically viable products or services that help to mitigate climate change.

To find out more about this project or about working with Climate-KIC, visit www.climate-kic.org