

'Matchmaking': European biogas technology meets project partners in emerging and developing countries

Issued by GreenCape

20 Dec 2021

Emerging and developing countries need clean and affordable energy, but technology and know-how are not always available.

The international Horizon 2020 project Digital Global Biogas Cooperation now publishes an online platform to find ideal partners easily and without costs. Local biomass sources in particular are to be used efficiently and sustainably - the Austrian Energy Agency has already analysed 50 projects worldwide.

"Biogas can be converted into electricity, heat, gas or fuel. It therefore plays an essential role in freeing us from our reliance on oil, coal and natural gas and transforming the world's energy supply," says Bernhard Wlcek of the Austrian Energy Agency, which is a project partner in the international Horizon 2020 project Digital Global Biogas Cooperation (DiBiCoo). In line with the Sustainable Development Goals of the United Nations (UN), DiBiCoo promotes "affordable and clean energy" not only in Europe, but also in emerging and developing countries.

"In Europe, there is cutting-edge technology for renewable energy production. At the same time, however, many places in the world lack key technologies as well as know-how to implement sustainable biogas projects, although clean energy is urgently needed. This is where DiBiCoo can build a bridge," Bernhard Wlcek continues. Now, the DiBiCoo consortium, which has been in existence since October 2019 and successfully connects 13 organisations from Europe, Argentina, Ethiopia, Ghana, Indonesia and South Africa, has reached a milestone with the release of a new tool: The Biogas and Gasification Matchmaking Platform biogasplatform.eu.

Biogas and Gasification Matchmaking Platform

An online digital platform for biogas and gasification stakeholders.

The Biogas and Matchmaking Platform is a free online platform which facilitates worldwide networking.



'Matchmaking': Finding ideal partners for biogas projects

The digital business-to-business platform can be used free of charge and serves to establish successful and sustainable international business relationships. Innovative ideas from local project developers can use the networking platform to find suitable business partners for project realisation quickly, easily and under fair market conditions. In addition to these matchmaking opportunities, the DiBiCoo website also provides factsheets and further information.

Municipal waste, sewage or plant material: 50 biogas projects around the world

Experts from the Austrian Energy Agency have analysed more than 50 biogas projects worldwide as part of the project. "These examples show how renewable bioenergy can be effectively produced in different countries with a wide range of initial conditions in terms of infrastructure, existing gas and electricity grids and suitable biomass - such as municipal waste, process and waste water and harvest material from invasive plants," explains Bernhard Wlcek.

Using local biomass sources efficiently and sustainably

The top five technically and economically promising projects will now receive advisory support in the implementation of their goals with the help of individual feasibility studies and will subsequently advance in their region as best-practice examples on a demonstration scale. In this context, projects that make particularly efficient and sustainable use of local biomass resources were selected.

Sustainably producing electricity and protecting biodiversity at the same time

In Ethiopia, for example, a collaborative project between Bahir Dar University and Lake Tana and other Waterbodies Protection and Development Agency is being supported, which primarily uses invasive water hyacinths from the water body as a co-substrate in anaerobic digestion to produce biogas. This will not only generate electricity sustainably for local power supply (1,600 kWe), but will also protect the natural biodiversity of the lake.

Other project developers use municipal or industrial waste, such as organic fractions, thin stillage and process waste water, to generate power, which is mainly used locally for self-supply of electricity. Biomethane itself can also be used and distributed directly by feeding it into local gas grids in other cases. A comprehensive overview of the demonstration projects and the selection process can be found on the project website: DiBiCoo.org.

'Best cases' of how implementation can take place

Energy production on the scale of 1,400 to 3,100 kWe (electricity) not only demonstrates the technical feasibility, but also shows other project developers how similar projects can be realised with qualified partners and advanced biogas technology. The biogas matchmaking platform provides a unique digital infrastructure and thus the prerequisites for successful future energy projects all over the world.

Project partners:

Instituto Nacional de Tecnología Agropecuaria (Argentina) Iceaddis IT Consultancy PLC (Ethiopia) Institute for Sustainable Energy and Environmental Solutions (Ghana) Inisiasi Pengkajian Resiliensi - Resilience Development Initiative (Indonesia) GreenCape and Selectra CC (South Africa) WIP Renewable Energies GmbH & Co. KG (Germany) Fachverband Biogas e.V. (Germany) ARGE Kompost & Biogas Verband (Austria) Austrian Energy Agency, AEA (Austria) Latvia University of Life Sciences & Technologies (Latvia) European Biogas Association (Belgium)

Project coordination:

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

- " New reports forecast ~32 GW of installed renewable energy capacity in SA by 2030 18 Apr 2024
- " South African projects seize opportunity to tackle climate crisis and create jobs 2 Apr 2024
- * Energy resilience workshops for agricultural producers in the Western Cape 18 Jan 2024
- [®] South African Plastics Pact's members are leading investment in SA's transition towards a circular economy 10 Jan 2024
- " Samanjalo and Green Guru Solutions wins first 2023 Mpumalanga green solutions pitch challenge 7 Nov 2023

GreenCape



GreenCape is a non-profit organisation that drives the widespread adoption of economically viable green economy solutions from South Africa.

Profile | News | Contact | Twitter | RSS Feed