BIOELECTROCHEMICAL CONVERSION OF CO_2

35-45%
of biogas is CO_2,
a harmful gas of the environment.

"Our innovative technology is a carbon sink, converting CO_2 into organic compounds instead of being released and harm the environment!"

Ledicia Pereira Gomez, Project Manager at Aqualia

HOW TO CONVERT THE CO_2, IN ORDER NOT TO RELEASE IT INTO THE ENVIRONMENT?

WHAT?

Aqualia and University of Girona developed a bioelectrochemical conversion process, that transforms CO_2 into valuable molecules to be used by chemical industries.

WHEN?

Currently this technology is at TRL 5 and it is expected to reach TRL 7 by the end of the project. AQUALIA is anticipating to be able to introduce these processes in the market 2 years after the project ends (2023).

HOW?

Bioelectrochemical conversion is a process that occurs using electricity and bacteria.

Aqualia adapts this technology in order to use CO_2 as a feedstock to be converted, and thus avoid its release into the environment.

The CO_2 converted is extracted from the biogas, using a saturation column to isolate it from the biomethane. Thanks to this process, the CO_2 collected is at a liquid state and can therefore be used as feedstock in the Bioelectrochemical system.

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Want to learn more about bioelectrochemical conversion of CO_2?

- Listen to our webinar on **Technologies for urban biowaste and wastewater valorisation**.
- Discover our **SCALIBUR project**.

SCALIBUR aqualia Universitat de Girona

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Picture 1: Full scale biogas upgrading system for fuelling cars (ABAD Bioenergy ®)
Picture 2: Biogas upgrading column connected to BES reactor (Czech Republic)