Aqualia and University of Girona developed a bioelectrochemical conversion process, that transforms CO$_2$ into valuable molecules to be used by chemical industries.

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).

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.

“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

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.