

Powering the Future: Advancing Electrochemical CO₂ Conversion with the WaterProof Project

Electrochemistry and catalysis are poised to play a significant role in the shift towards renewable alternatives, including the utilisation of CO₂ as a feedstock for the production of chemicals and materials.

In collaboration with our partners in the WaterProof consortium, Avantium has dedicated the past four years to scaling up our CO₂-to-formic acid conversion technology. This project has led to substantial advancements in catalyst and electrode development, as well as process and cell engineering. These elements will be integrated in a state-of-the-art automated demonstration unit. A campaign is scheduled for January 2026 to showcase this technology.

In this presentation, I will discuss key developments achieved throughout the project, with a focus on the collaborative efforts involved. And look ahead at challenges to come, future projects and beyond.