

Project title:	CO₂-based methane and protein production for decarbonizing industrial processes
Project acronym:	CARMA
Project number:	ATCZ00278
Overall budget:	1 107 399,82 EUR
Overall ERDF funding:	885 919,85 EUR
FFPW budget:	277 450,32 EUR
ERDF funding:	221 960,25 EUR
Project duration:	01. 04. 2026 – 31. 12. 2028
FFPW Responsible leader:	MSc. Koushik Roy, Ph.D.
FFPW Project Coordinator:	Lucie Rybová

Programme: INTERREG Austria – Czechia 2021–2027

Priority: P1 – Research and Innovation

Specific target: 1.1 – Research and Innovation



Project partners:

Lead partner: K1–MET GmbH

Project partner 2: University of South Bohemia in České Budějovice
Faculty of Fisheries and Protection of Waters (FFPW)

Project partner 3: Johannes Kepler University Linz
Institute of Process Engineering

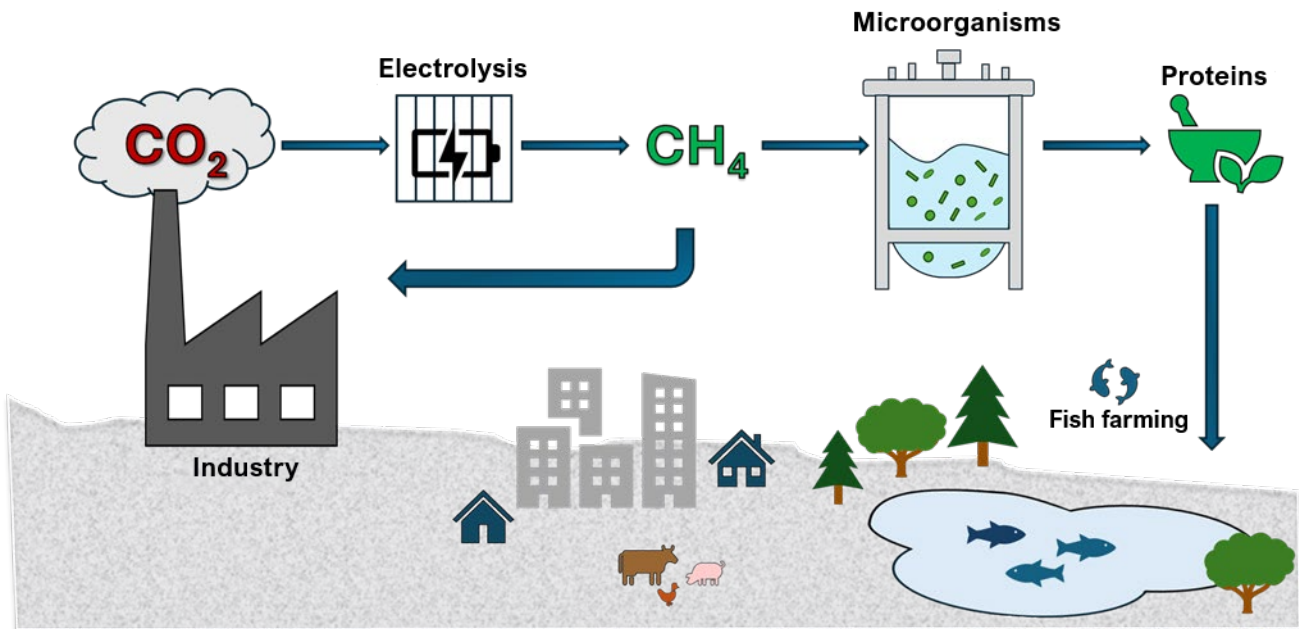
Project partner 4: Mendel University in Brno

Project description: The CARMA project delivers an innovative solution for a sustainable future by converting CO₂ emissions into methane through electrolysis and subsequently using microorganisms to produce high-quality biomass. This alternative protein source has significant potential as a nutrient-rich feed ingredient for aquaculture. CARMA thus combines advanced technologies with an environmentally friendly approach and opens up new opportunities in the field of circular economy.

Project aim:

The aim of the CARMA project is to connect industrial decarbonization with the production of sustainable proteins through a cross-border innovation chain utilizing industrial CO₂. The project uses industrially produced CO₂, which is converted into methane through electrolysis and subsequently transformed into protein-rich microbial biomass (“C1-gas-protein”) using biotechnological processes.

CARMA delivers an innovative solution that supports the circular bioeconomy, reduces greenhouse gas emissions, and decreases dependence on imported protein resources. At the same time, the project brings together the expertise of partners from the Czech Republic and Austria in the fields of clean technologies, biotechnology, and aquaculture, creating a foundation for new cross-sector collaborations.



Are you interested in new opportunities for using CO₂ in the production of sustainable feed? Follow the results of the CARMA project and become part of our innovation network. By joining the stakeholder network, you will gain access to up-to-date project information, the latest research results, and invitations to expert events.

To register, simply scan the QR code.

