



Electrochemical Device for Sustainable CO2 Utilization

 **Timeline** | 02/2024 to 01/2026

 **ICIQ People** | [Prof. López Research Group](#)
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 **Budget** | 359.663,40€

 **Call** | CLIMA 2023

SUMMARY

The **EDISON** project aims at developing and building a device able to convert CO₂ in ethanol and water in H₂O₂ at a minimum selectivity of 70% employing non-critical raw materials, and guided by the technoeconomical analysis of the process. To this end, four research groups at ICN2, ICFO, and ICIQ (2) have assembled in a consortium that has all the competences needed for the development of the materials, their characterization at the atomistic level, the construction of the prototype device, and a full life-cycle and technoeconomic analysis informed by device performance to identify challenges in large scale operation, further technology deployment, and viability. The project will place our groups at the frontier of research in e-Fuels in the European context generating a knowledge seed for future initiatives.

WORK PLAN

WORK PACKAGES	Year 1	Year 2
WP1. ELECTRODE DESIGN (ICIQ, ICFO)		
WP2. CHARACTERIZATION (ICN2, ICFO, ICIQ)		
WP3. DEVICE (ICIQ, ICFO)		
WP4. MANAGEMENT (ICIQ)		

CONSORTIA



Project coordinator

