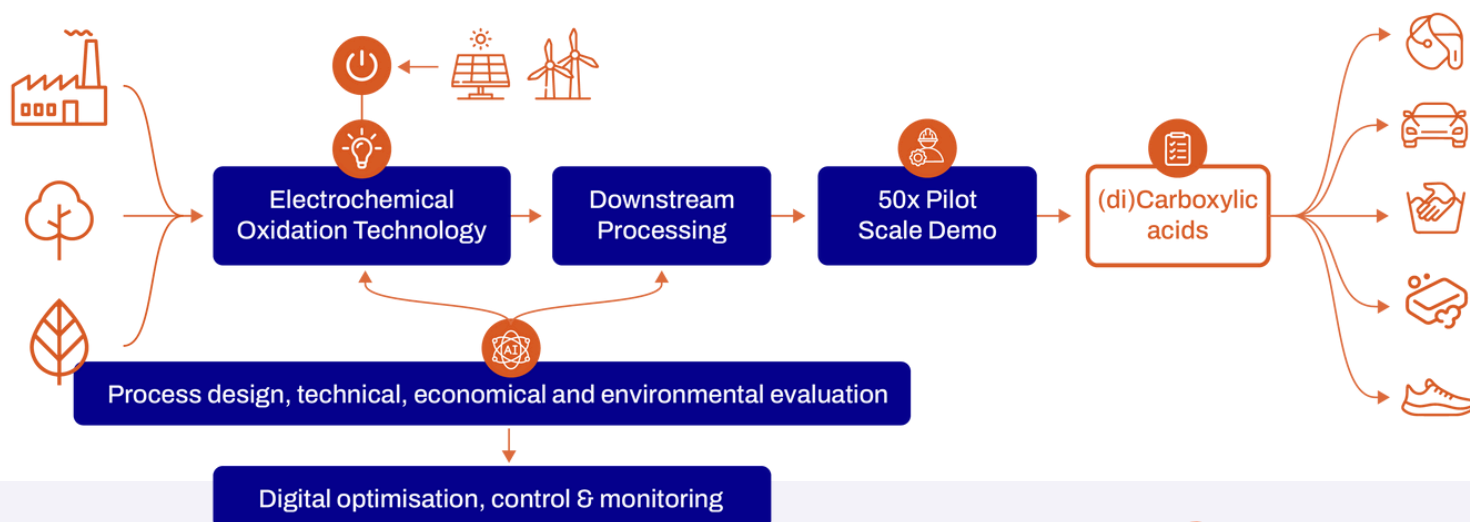


Electrochemical Oxidation of cYclic and biogenic substrates for high efficiency production of organic CHEMicals

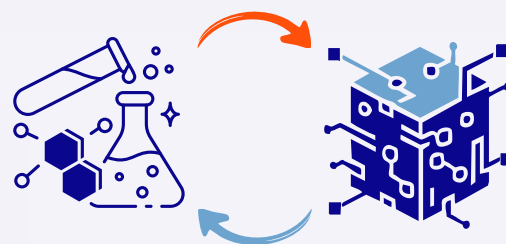
The Concept

ELOXYCHEM is a Horizon Europe project focused on replacing conventional chemicals processes through a novel electrochemical conversion platform and drop-in technology, leveraging renewable industrial feedstocks and waste streams from traditional thermochemical chemicals production.



Goals

- Reduce** by 30% energy use in energy intensive processes
- Support** EU independence from fossil fuels
- Enable** techno-economic feasibility of new technologies and processes
- Empower** the potential of renewable energies



Combine the electrochemical oxidation processes (EOPs) advantages with the opportunities of AI-based digital technologies

Latest Progress

- Validation of electrochemical processes compatible with **renewable energy** integration and variable power loads
- Reduction potential** identified for greenhouse gas emissions, energy use, and chemical waste compared to conventional routes
- Initial **social and environmental impact** assessments confirming the sustainability potential of the technology

Project Partners



MAX PLANCK INSTITUTE
FOR CHEMICAL ENERGY CONVERSION



IMPERIAL



etaflorence
renewableenergies