

Horizon Europe Brokerage Event Cluster 6 Calls 2025

Warsaw, 27 May 2025

Catalytic Reaction Engineering for Sustainable Technologies (CREST) Group - 2

Francesca Demichelis

Politecnico di Torino



This project has received funding from the European Union's Horizon Europe research and innovation programme, under Grant Agreement No 101059839







Topics addressed:

- HORIZON-CL6-2025-01-ZEROPOLLUTION-03: Environmental biotechnology applications in the service of the remediation of polluted ecosystems
- HORIZON-CL6-2025-01-ZEROPOLLUTION-02: Environmental impacts from the production of crops for bio-based industrial systems.
- HORIZON-CL6-2025-01-CIRCBIO-02: Improving ecodesign of products and development of testing methods for products prioritised under the Ecodesign for Sustainable Products Regulation.
- HORIZON-CL6-2025-01-CIRCBIO-11: Demonstration of reduced energy use and optimised flexible energy supply for industrial bio-based systems
- HORIZON-CL6-2025-01-BIODIV-01-two-stage: Living labs and lighthouses cocreating innovative solutions for forests and freshwater ecosystems restoration





Project idea

- Conversion of 2G-biomass into energy and soil enrichment nutrients
- Anaerobic digestiona and pyrolysis
- Evaluation of the proposed solution through LCA and LCC analysis
- Eco-design of alternative agricultural practice and bioremediation of polluted sites







Main expertise

- Anaerobic digestion and dark fermentation for energy production (CH₄ and H₂) and nutrient recovery from digestate
- Pyrolysis of biomass and industrial waste for biochar production and its application
- Eco-design, Life Cycle Assessment and Costing

Industrial







Accademic



Smart Solutions for Smart Communities

Projects



















Contact details

• Francesca Demichelis, tenure track



- francesca.demichelis@polito.it
- Politecnico di Torino
- Academic institution
- Italy



copus https://www.scopus.com/authid/detail.uri?authorld=57192870361



Scholar https://scholar.google.com/citations?user=bzNpb_UAAAAJ&hl=it&oi=ao