FIREFLY

FlexIble, predictive and Renewable Electricity-powered electrochemical toolbox For a sustainable transition of the catalyst-based European chemicaL industrY.

€ 11,078,742.50

48 MONTHS

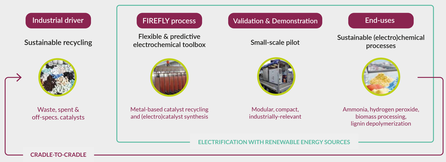
16 PARTNERS

6 COUNTRIES

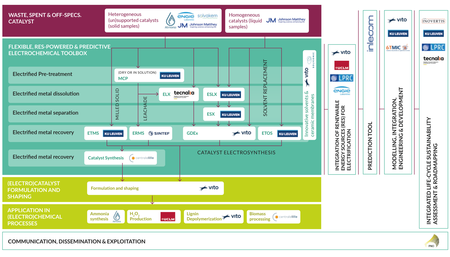
OBJECTIVE

Power-to-catalyst and chemicals fostered via electrochemical recycling

The FIREFLY project aims to electrify a large part of the chemicals value chain in a sustainable way (environmental, economic and social): **power-to-catalyst and chemicals fostered via electrochemical catalyst recycling.**



CONCEPT



The FIREFLY concept proposes a revolutionary approach to (electro)catalyst manufacturing by introducing RES and utilising secondary resources such as waste and off-specification catalysts. This will simultaneously reduce the production costs and improve the sustainability of the chemical industry.

MCP: Mechanochemical processing
ELX: Electroleaching
ESLX: Electro-driven solvoleaching
ESX: Electro-driven solvent extraction
ERMS: Electrochemical recovery from molten salts
ETMS: Electrochemical transformation in molten salts
ETOS: Electrochemical transformation in organic solvents
GDEx: Gas-diffusion electro-crystallisation

IMPACT

New electrochemical conversion routes for the chemical industry

By leveraging downstream synthesis of strategic metal-based (electro)catalysts, the FIREFLY project is expected to develop at TRL6 a sustainable process for the flexible, RES-powered electro-driven recycling of metals.

COORDINATION TEAM

VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V. (VITO)

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STAY IN TOUCH

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WEBSITE
https://www.firefly-project.eu/

Funded by the European Union under Grant Agreement No 101091715. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.