PROJECT PARTNERS

The consortium consists of four RTD - Research and Technology Development performers focussing on the characterisation and validation of the demo-sites and the development of the preliminary design of some solutions; four engineering and technology companies in charge of the manufacturing and implementation of the RETROFEED solutions; six REIIs acting as data providers and integrating the solutions developed in their facilities; and four horizontal partners for results validation, project business exploitations, dissemination and knowledge transfer.

RETROFEED: Implementation of a smart RETROfitting framework in the process industry towards its operation with variable, biobased and circular FEEDstock

Coordinator: Fundación CIRCE - Centro de Investigación de Recursos y Consumos Energéticos
Total cost: 15,468,861.25 €
EU contribution: 9,914,870.01 €
Call: H2020-NMBP-SPIRE-2019
Type of action: Innovation Action (IA)
Duration: 42 months (01.11.2019 - 30.04.2023)

CONTACT

@retrofeedEU #retrofeed

linkedin.com/company/retrofeed

www.retrofeed.eu

Project coordinator:
Dr. Ana Isabel González Espinosa
Fundación CIRCE
aigonzalez@fcirce.es

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869939

Retrofeed
smart retrofitting in process industry

ABOUT THE PROJECT

RETROFEED is a three and an half-year project (01-11-2019 / 30-04-2023), whose main objective is enabling the use of an **increasingly variable, bio-based and circular feedstock in process industries** through the retrofitting of core equipment and the implementation of an advanced monitoring and control system, and providing support to the plant operators by means of a DSS – Decision Support System – covering the production chain.

GOALS

To increase the knowledge on REII processes by deploying advanced modelling techniques and implementing a new monitoring infrastructure in different steps of the production chain.

To implement a circular economy approach leveraging on retrofitting for the introduction of by-products and waste streams as alternative feedstock.

To adapt REII equipment for the provision and use of bio-based feedstock whether as fuel or raw material, thus replacing traditional feedstock for improving the processes environmental performance.

To improve the control system of retrofitted processes in order to deal with a higher variability in feedstock while improving their overall technical, economic and environmental performance.

To develop a Decision Support System for assessing the best retrofitting options and operation plan of the improved processes in order to achieve a high impact over the whole production chain.

To ensure results replication and the exploitation of the retrofitting potential in REIIs through a retrofitting methodology, contributions to standardisation bodies and capacity building programs.

INNOVATION

1 Circular economy concepts applied to retrofitting

2 Bio-base sources as alternative feedstock

3 Steel industry residues and other similar residues for other industrial sectors as alternative feedstock

www.retrofeed.eu

THE APPROACH

RETROFEED approach is demonstrated in **five resource and energy intensive sectors** within six companies in the consortium.

AGROCHEMICAL

REII: FERTIBERIA
Location: Huelva

ALUMINIUM

REII: ASAŞ
Location: Akyazi

CEMENT

REII: SECIL
Location:
Maceira-Liz

CERAMIC

REII: TORRECID
Location: Alcora

STEEL

REII: FERRIERE NORD
Location: Friuli

REII: TENARIS
Location:
Zalau - Calarasi