

PROJECT PARTNERS

- Four Research and Technology Development performers focusing on demo sites characterisation and validation and preliminary development of solutions;
- Four engineering and technology companies are responsible for the manufacturing and implementation of the solutions;
- Six REIIs acting as data providers and integrating the developed solutions in their facilities;
- Four horizontal partners for results validation, project business exploitations, dissemination and knowledge transfer.



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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: 48 months (01.11.2019 - 31.10.2023)

CONTACT



@retrofeedEU



@Retrofeed EU project



retrofeed.eu



Project coordinator:
Diego Redondo, PhD
Fundación CIRCE
dredondo@fcirce.es



THE PROJECT

RETROFEED is a four-year project (01-11-2019 / 31-10-2023), 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.

INNOVATION

1 CIRCULAR ECONOMY CONCEPTS

2 BIO-BASED SOURCE FEEDSTOCK

3 STEEL INDUSTRY RESIDUES AND SIMILARS FOR OTHER INDUSTRIAL SECTORS AS AN ALTERNATIVE FEEDSTOCK

GOALS

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

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

Adapt REII equipment for the provision and use of bio-based feedstock as fuel or raw material for improving the processes' environmental performance.

Improve the control system of retrofitted processes to deal with higher variability in feedstock while improving overall technical, economic and environmental performance.

Develop a Decision Support System for assessing the best retrofitting options and operation plan for the improved processes to achieve a high impact on the production chain.

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

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

AGROCHEMICAL



Demo site: FERTIBERIA

Location: Huelva



ALUMINIUM



Demo site: ASAS

Location: Akyazi



CEMENT



Demo site: SECIL

Location: Maceira-Liz



CERAMIC



Demo site: TORRECID

Location: Alcora



STEEL



Demo site: FERRIERE
NORD

Location: Friuli



Demo site: TENARIS

Location: Zalau

