

INNOVATION FUND

Deploying innovative net-zero technologies for climate neutrality

INSPIRE-PV: Industrial Scale-up of high-value PV REcycling

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

INSPIRE-PV will deploy the world's first large-scale, high-value photovoltaic (PV) recycling facility, establishing a fully circular value chain for end-of-life solar panels. With a treatment capacity of 10 000 tonnes per year from 2033 onwards, it will recover silicon, silver, copper, aluminium and glass with near-virgin purity. By replacing primary extraction, the project will achieve 129% relative greenhouse gas (GHG) emission avoidance compared with the reference scenario. The project demonstrates how circular manufacturing can significantly reduce emissions in the non-ferrous-metals sector.

INSPIRE-PV is innovative because it combines, for the first time, precisely controlled thermal pyrolysis, advanced mechanical sorting and mild-chemical treatment in an automated, integrated process that extracts high-purity silicon ($\geq 99.99\%$) and silver ($>80\%$) without hazardous reagents. Its twin-site configuration — ROSI Energy Iberia (Spain) for delamination and bulk-material recovery, and ROSI Alpes (France) for refining — optimises logistics, energy use, yields and costs. This approach goes far

COORDINATOR

ROSI

LOCATION

France | Spain

CATEGORY

Energy intensive industries (EII)

SECTOR

Non-ferrous metals

AMOUNT OF INNOVATION FUND GRANT

EUR 5,000,000

EXPECTED GHG EMISSIONS AVOIDANCE

63,706 tonnes CO₂ equivalent

STARTING DATE

01 May, 2025

FINANCIAL CLOSE DATE

31 July, 2026

ENTRY INTO OPERATION DATE

31 August, 2027

CALL NAME

InnovFund-2024-NZT

beyond conventional mechanical recycling (e.g., shredding), achieving up to 98% material recovery while fully complying with the EU Industrial Emissions Directive. Over ten years, the project will avoid more than 63 000 tonnes of CO₂ equivalent emissions, equal to the annual emissions of around 30 000 cars, while supplying Europe's semiconductor, electronics and glass industries with locally sourced, high-quality critical raw materials.

The project supports the Circular Economy Action Plan by maximising reuse and recycling of waste from green technologies. It also contributes to the Critical Raw Materials Act by reducing import dependency and securing sustainable secondary raw materials. By

providing a replicable model for resource-efficient, high-value recycling of PV panels, INSPIRE-PV helps prepare the EU for the rapidly growing volume of solar waste expected in the coming decades.

The new plant in La Puebla de Híjar (Aragón, Spain), together with the upscaled pilot site in Saint-Honoré (France), will create about 75 direct and indirect jobs. The project will revitalise local industrial areas, strengthen regional skills in renewable energy and recycling sectors, and anchor a European PV recycling cluster. Its scalable design can be replicated across the EU, fostering sustainable growth, competitiveness and energy sovereignty.

| Participants

ROSI

France

ROSI ALPES

France

ROSI ENERGIA IBERIA SL

Spain

Additional information on the [EU Funding and Tenders Portal](#).