



REFRESH NEWSLETTER

Smart, circular recycling of wind turbine blades

About REFRESH

The REFRESH project - *Smart dismantling, sorting and REcycling of glass Fibre REinforced composite from wind power Sector through Holistic approach* - has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement no. 101096858.

The project consortium brings together 11 partners from 5 countries: ACCIONA Construcción (Spain), CETMA (Italy), CIRCE (Spain), ETAT9 (France), EuCIA (Belgium), Enecolab (Italy), GEES Recycling (Italy), Gjenkraft (Norway), MTB Manufacturing (France), RINA Consulting (Italy), TECNALIA (Spain).



Co-funded by
the European Union



REFRESH recycling processes show promising environmental benefits

In a groundbreaking study, the REFRESH project has published promising results from its initial life cycle assessment (LCA) of the project's processes for recycling glass fibre and carbon fibre reinforced composites from end-of-life (EoL) wind turbine blades. The analysis highlights significant environmental benefits for the REFRESH mechanical recycling and thermal recycling processes compared to traditional disposal methods, including a reduction in climate change impacts of >70% for the thermal processes compared to incineration.

This study, based on high-quality primary and experimental data, provides a comprehensive and data-driven assessment of innovative recycling processes for composites derived from EoL blades.

[Read the press release](#)

Gjenkraft secures NOK60 million to build commercial recycling plant for wind turbine blades

REFRESH partner Gjenkraft AS has successfully completed a capital raise totaling NOK60 million, enabling the launch of commercial operations at its first industrial recycling plant in Høyanger, Norway. With an annual capacity of 2,800 tonnes, the facility will become the world's first commercial-scale plant dedicated to the recycling of wind turbine blades.

Gjenkraft's proprietary pyrolysis technology makes it possible to recycle

close to 100% of wind turbine blade materials – including glass fibre, carbon fibre, oils, foams, and metals – turning them into valuable raw materials.

The technology delivers significant reductions in greenhouse gas emissions compared to incineration, while eliminating the need for landfilling and reducing the extraction of virgin raw materials.

[Read the press release](#)

REFRESH mechanical recycling plant under construction



Construction of the REFRESH mechanical recycling demonstration plant at Gees Recycling's factory in Aviano, Italy, is well underway. In Gees' patented process composite materials recycled from decommissioned blades will be combined with resin and press-moulded at high pressure to produce rigid panels.

A key component of the new panel production line is a new 5.5 m x 1.3 m 6400-ton hot press. The plant also includes new equipment for air filtration, weighing, conveying and storage, a mixing system and a resin handling line, control system, and CNC finishing. [Read more](#)

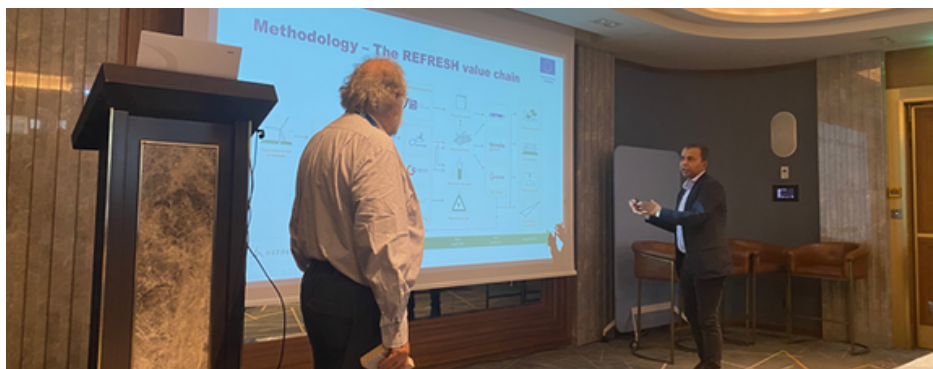
SAVE THE DATE: REFRESH online workshop

We're organising an online workshop on 17th November.

This will provide an opportunity to learn more about the REFRESH technologies for cutting blades, shredding and sorting of the blade materials, and the thermal and mechanical recycling processes.

More information coming soon!

9th Annual Wind Blade Materials Innovation and Sustainability Forum



REFRESH participated in the 9th Annual Wind Blade Materials Innovation and Sustainability Forum in Istanbul.

Anurag Bansal, Head of Strategic Innovations at ACCIONA Construcción, Technology & Innovation Division, and Giorgio Betteto, CTO at Gees Recycling, teamed up to present an overview of the REFRESH project's holistic approach to blade recycling, exploring end-user requirements, the Gees mechanical recycling process, and potential applications for recycled materials.

[Read more](#)

CIRCE discusses microwave-assisted blade recycling at PYROLIQ III

REFRESH partner CIRCE participated in PYROLIQ III – 2025: Pyrolysis and Liquefaction of Biomass and Wastes, in Cetraro, Italy.

The CIRCE presentation *Experimental microwave-assisted EoL wind turbine blades recycling: Role of chemical recycling route on oils quality and process techno-economics* was delivered by Ignacio Julian.

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MEET OUR PARTNERS

RINA Consulting (project coordinator)

RINA Consulting is one of Italy's top engineering consultancies and part of the multinational group RINA. With a global network of more than 5,300 talented professionals, RINA is committed to simplifying complexities with a focus on energy transition, ESG and digitalisation.


[Read more](#)

ACCIONA Construcción

In the REFRESH project, construction and engineering company ACCIONA Construcción SA is exploring ways of integrating recycled wind blade materials into products for the construction sector. It will manufacture three prototypes using materials recycled from blades.


[Read more](#)

CETMA

CETMA brings its extensive experience in innovative materials and processes to the project. It leads the REFRESH work package focused on design for circularity and life cycle assessment, where a key objective is to manufacture new products using high amounts of secondary materials.


[Read more](#)

The REFRESH partners



[Further information](#)

[Contact us](#)

The REFRESH project September 2025

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