



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
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REFRESH

Scaling up recycling technologies for wind turbine blades

Online workshop

17th November, 14:00-16:00 CET

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Webinar: Scaling up recycling technologies for wind turbine blades

REFRESH is organising a webinar on 17th November to present the progress made in developing innovative technologies for recycling end-of-life wind turbine blades. The webinar is free to attend: [REGISTER NOW](#).

A circular future for wind energy

The wind energy industry is committed to promoting a circular economy which reduces environmental impacts throughout a wind turbine's life cycle, including the end-of-life phase. Most components of a wind turbine have established recycling routes, but the rotor blades, which mainly comprise highly durable composite materials, present a complex challenge. Existing recycling solutions for glass fibre reinforced composites are not yet widely available or economically competitive.

WindEurope reports that thousands of smaller wind turbines will reach the end of their operational life in the coming years. By 2030, Europe is expected to generate ...

... over 50 kilotonnes of end-of-life blade waste. Scaling up sustainable recycling and repurposing solutions, such as those being developed in REFRESH, is essential to transform these materials into useful new products and applications.

The webinar will present the progress being made by the REFRESH project, focusing on the first part of the REFRESH value chain. Presentations will cover: Blade preparation for recycling: blade cutting (ETAT9); shredding and sorting technologies (MTB); Composites recycling processes: mechanical recycling (GEES Recycling); pyrolysis (Gjenkraft); microwave-assisted pyrolysis (CIRCE); treatment of non-recyclable dust and fines (Enecolab).

A preliminary LCA study has recently highlighted the potential environmental benefits of the REFRESH recycling processes.

Project coordinator RINA Consulting will host the meeting and partners ACCIONA, EuCIA, CETMA and TECNALIA will also be attending.

Who should attend? This webinar is suitable for industry, research and policy professionals interested in learning about the state-of-the-art in recycling composite materials and wind turbine blades. The presentations will offer an overview of each technology in the value chain, the challenges to be addressed, and the innovations REFRESH is developing.

The REFRESH repurposing strategy



The table made by CETMA using repurposed blade parts and a top manufactured by Gees Recycling.

There are many examples of the traditional repurposing strategy, with entire blade sections being transformed into applications such as playgrounds,

pedestrian bridges, and urban furniture. An alternative approach involves segmenting the blade into standardised construction elements like beams and ...

panels, which could lead to a wider range of applications. To explore this approach, REFRESH partners CETMA and ETAT9 built two prototype picnic tables based on a design developed by Jelle Joustra of Delft University of Technology.

The table built at ETAT9 was exhibited at JEC World 2025 in Paris. The CETMA table combines repurposing with the

mechanical recycling process being developed in REFRESH: the top is a panel manufactured by Gees Recycling using recycled blade materials.

Using the experience gained from this work, the REFRESH team is now developing its own design for a repurposed prototype.

[Read more](#)

Owens Corning and Gjenkraft sign LOI to advance circular solutions for composite waste



Owens Corning's Glass Reinforcements business and REFRESH partner Gjenkraft have signed a letter of intent (LOI) to jointly develop scalable, circular economy solutions for post-industrial composite waste.

The collaboration will focus on integrating the high-quality recycled fibres recovered by Gjenkraft's process into Owens Corning's glass fibre products, helping close the loop for

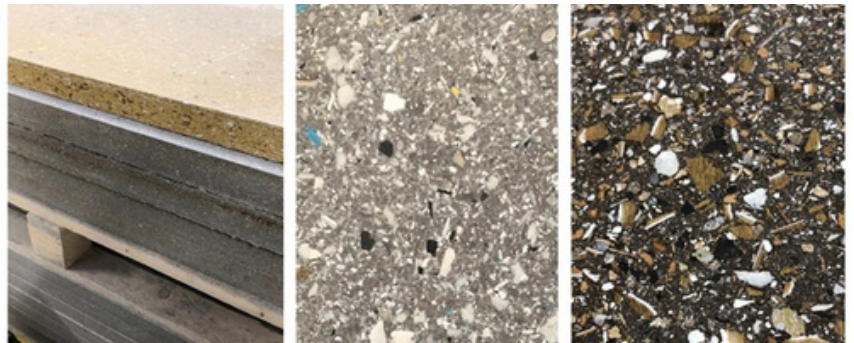
advanced materials. Gjenkraft's technology uses a thermal process to break down composite production scrap into valuable raw materials which can then be reused. This creates an opportunity to drive the reuse of composite waste, reduce landfill contributions, and provide manufacturers with innovative ways to recycle and repurpose these materials.

[Read the press release](#)

MEET OUR PARTNERS

Gees Recycling

Italian company Gees Recycling specialises in processing industrial waste materials. As part of the REFRESH project, Gees is using this expertise to design and build a plant to recycle end-of-use wind turbine blades into new products.



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Enecolab

Italian company ENECOLAB focuses on innovative solutions to improve the eco-compatibility of production processes, with the aim of 'zero waste.' The goal is to produce new raw materials and energy from end-of-life materials that are non-reusable, non-recoverable, non-recyclable.



[Read more](#)

The REFRESH project October 2025

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Further information

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