

Volumen de material a reciclar

Si suponemos un valor medio de aerogeneradores a reciclar del orden de 2 GW al año y suponiendo una potencia media de 2MW de aerogenerador individual tendríamos 1000 AEG por año.

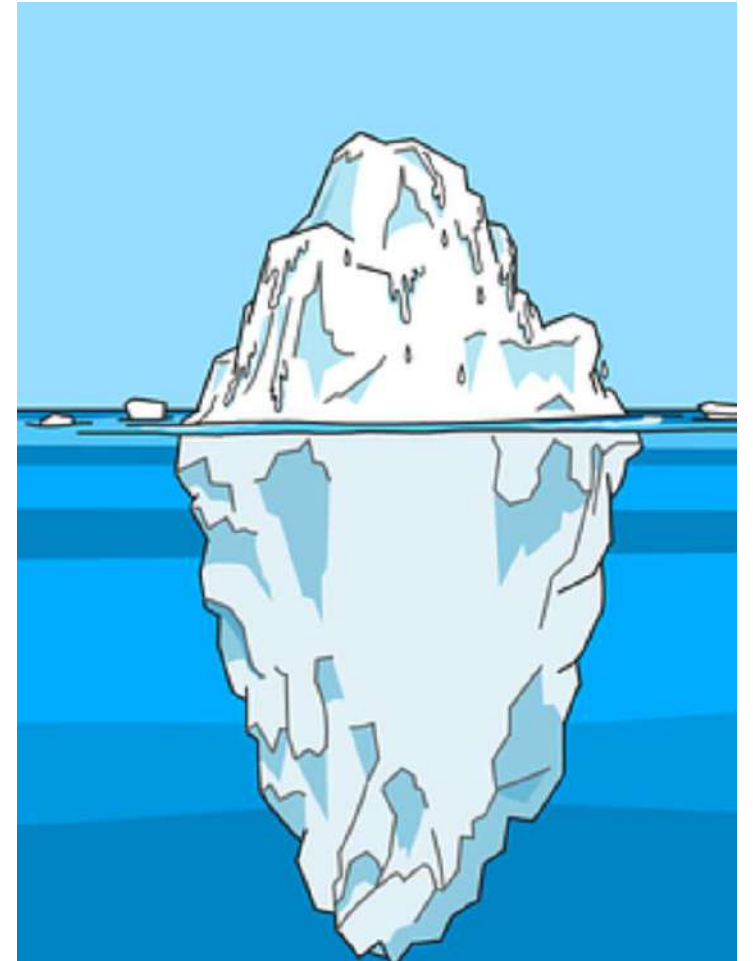
3000 palas a reciclar con un peso medio de unas 7 toneladas nos daría aproximadamente 21000 toneladas de material a tratar.

¿ES MUCHO O POCO?

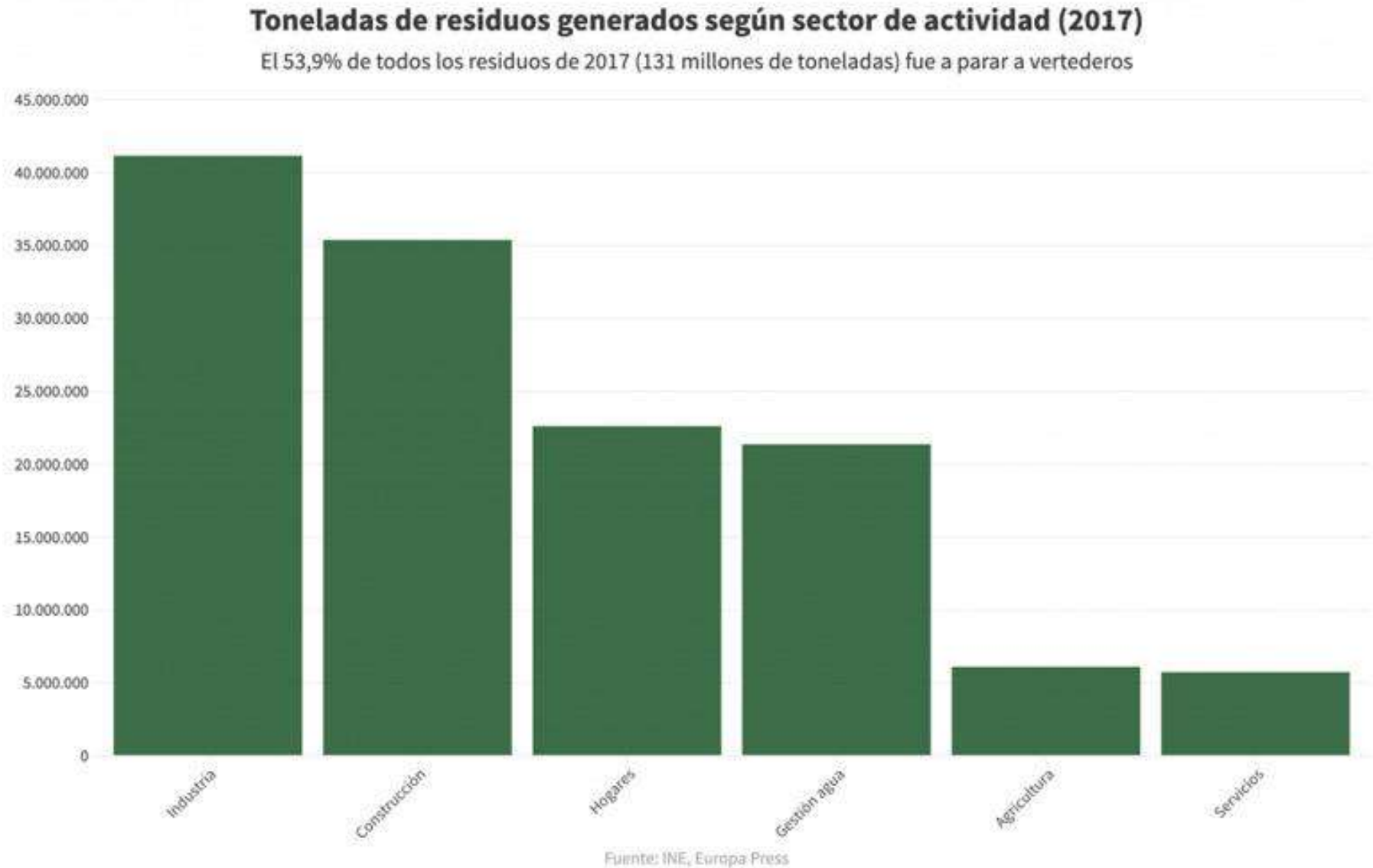
En España se reciclaron 1.5 millones de toneladas de envases en 2019 y la tasa de reciclaje está alrededor del 50% (objetivo de la UE), eso quiere decir que otro millón y medio de toneladas se enviaron a vertederos o se incineraron.

El peso de todas las palas a reciclar durante un año representa solo el 1.4% del peso de los envases no reciclados.

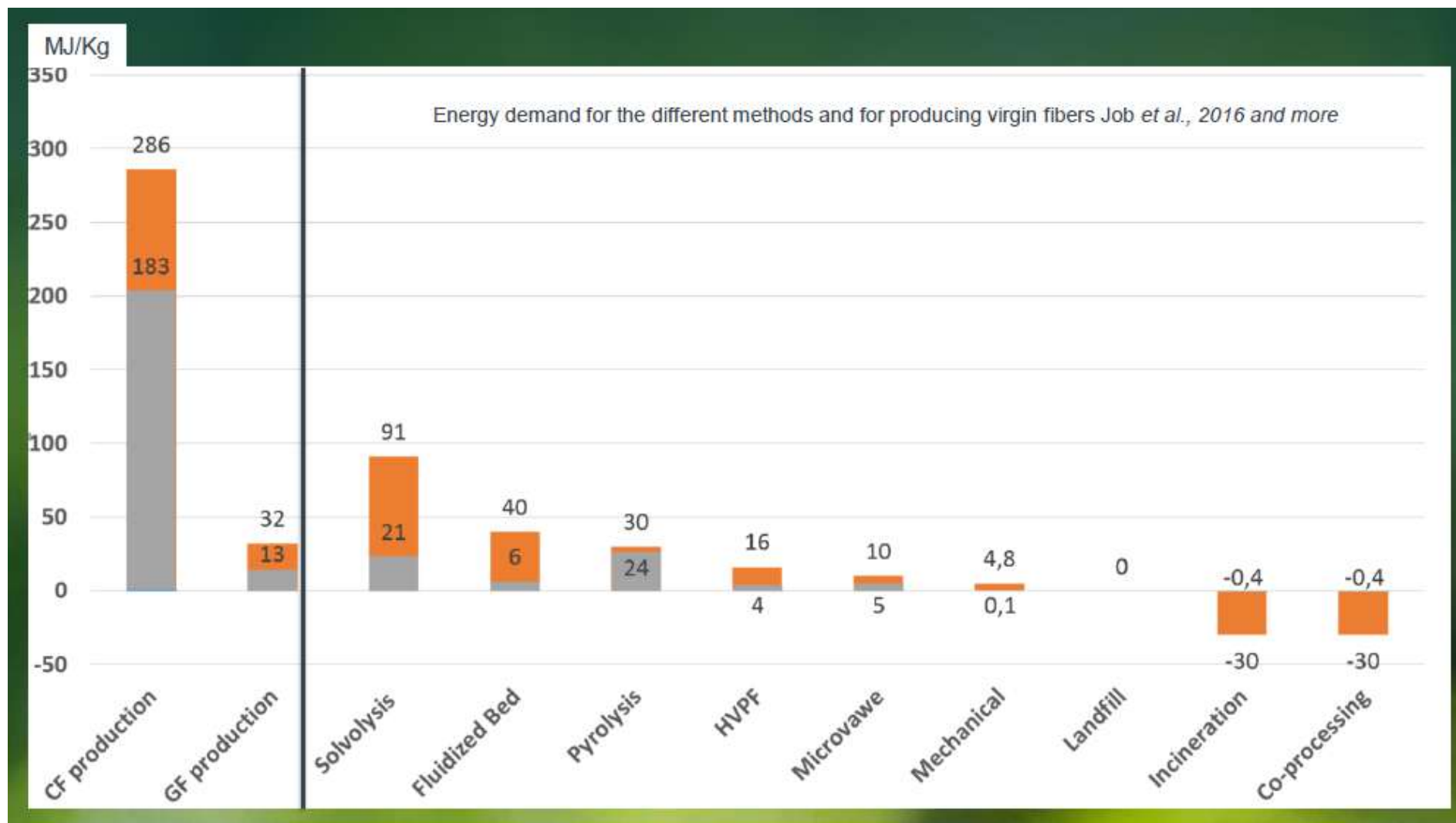
Las empresas del sector eólico están decididas a contribuir a que ese pequeño porcentaje pueda ser reciclado y contribuir de esa manera a la economía circular



Volumen de residuos en España (2017)



Demanda energética en la obtención de fibras



DecomBlades consortium awarded funding for a large, cross-sector wind turbine blade recycling project

DecomBlades partners

SIEMENS Gamesa

Siemens Gamesa is a global leader in the wind power industry, with a strong presence in off-shore, onshore and service. Siemens Gamesa will add value to the project by applying its knowledge about blade structure and design, market expectations and promotion of circularity in the wind sector.

Vestas

As the world's largest wind energy OEM, Vestas brings an extensive level of expertise around the composition and manufacture of turbine blades. Vestas contributes a broad spectrum of knowledge on the expected lifetime of a blade, its production volume, and on assessing the potential for recyclability.

LM WIND POWER

LM Wind Power – a GE Renewable Energy business is a world leading blade designer and manufacturer, with more than 228,000 blades produced since 1978 corresponding to 113GW installed capacity. LM Wind Power will lead the work to establish product disposal specifications, supporting new business models for blade recycling solutions.

Ørsted

Ørsted is the world's largest owner and developer of offshore wind farms with more than 6,000 employees globally. For Ørsted it is important that there exist sustainable recycling solutions for all parts of our wind farms. Therefore, Ørsted will take the role as project lead in DecomBlades.

ØHJHANSEN

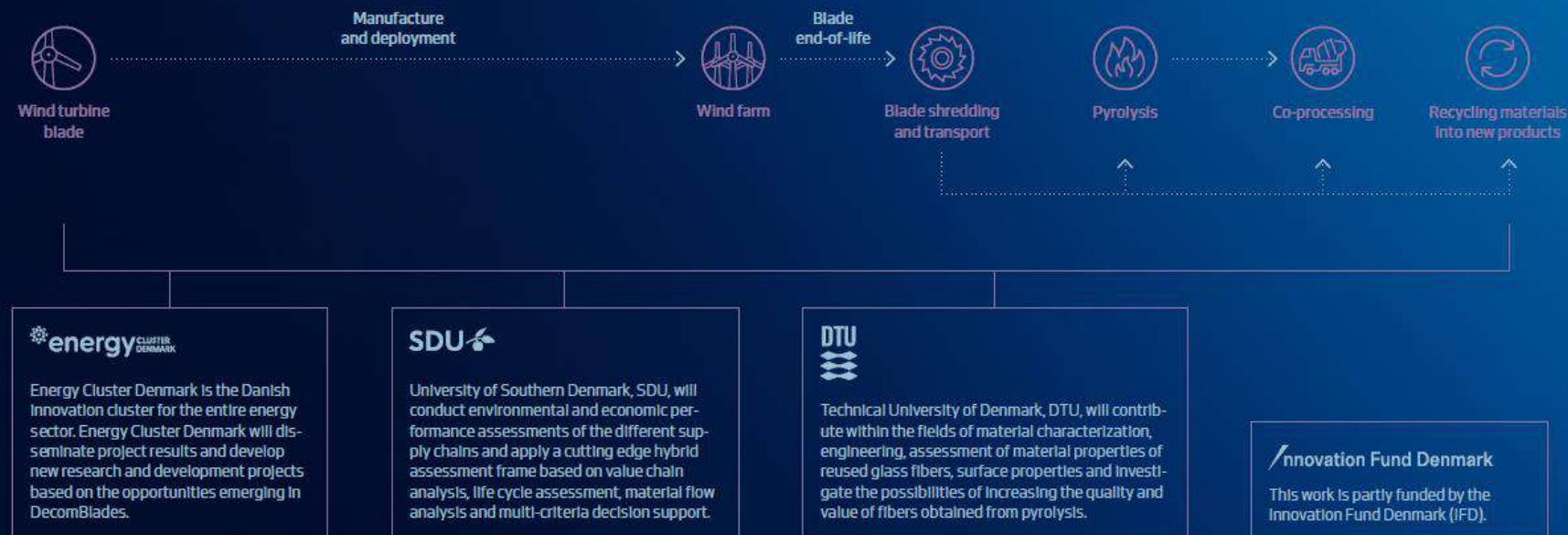
HJHansen Recycling will be lead on the work regarding the common prerequisite for all three technologies: Pre-processing (cutting of blades), transportation to recycling facilities and solutions on shredding and sorting of the blade materials.

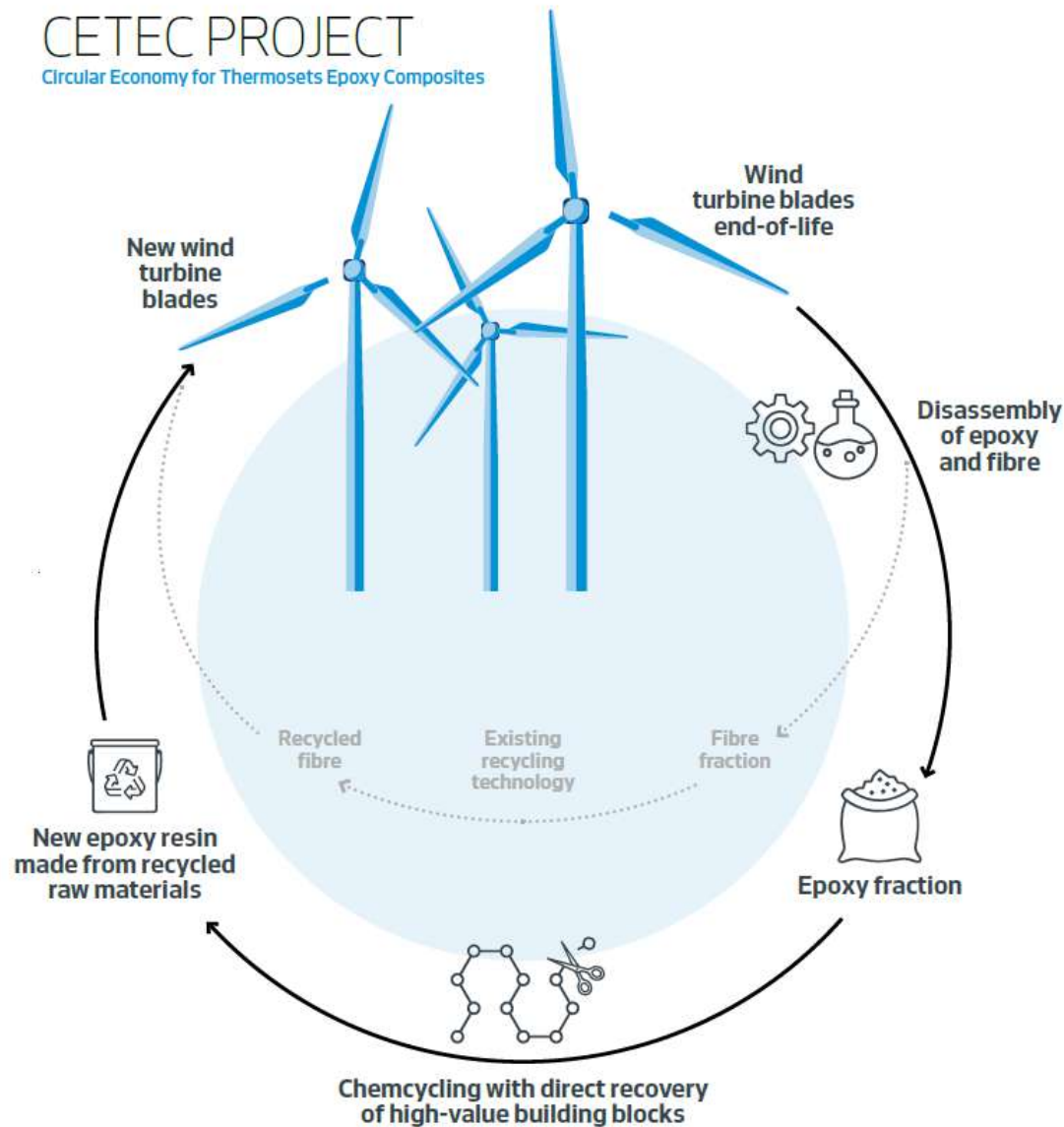
MAKEEN POWER

MAKEEN Power has developed a technology that enables conversion of plastic waste to a useful resource. MAKEEN Power's role in the project consists of designing and building the pilot pyrolysis facility to recover and reuse the blade materials.

FLSMIDTH

FLSmidth is going to investigate the possibilities of using shredded blade material and ashes from the pyrolysis process in the cement production process. The main objective of FLSmidth is to evaluate possible solutions on how to incorporate these materials in the cement production on a global scale.





Partners



**DANISH
TECHNOLOGICAL
INSTITUTE**

Danish Technological Institute (DTI) is an independent research and development institute. Based on knowledge and experience from prior work with composite disassembly technologies, DTI will drive the development and scaling of best-fit strategies that enables disassembly and re-use of composite components at end-of-life.



**AARHUS
UNIVERSITY**

Aarhus University is a globally oriented, academically diverse and research-intensive university. With the sustainability of polymer-based materials being a crucial challenge to society, Aarhus University takes part in the CETEC project as developer of a chemcycling process for epoxy materials.



With more than 8,000 employees globally and nearly 130 years in business, Olin is the largest back-integrated Epoxy supplier worldwide. Our Epoxy resins, novolac resins, curing agents, and our AIRSTONE™ and LITESTONE™ system lines enhance product performance in wind energy and other applications. As the leading producer of Epoxy material for the wind industry, we provide our technological expertise to CETEC in the development of circularity-enabling technologies. These innovations will further increase the efficient use of resources and advance the fundamentals of sustainability.



Vestas is the energy industry's global partner on sustainable energy solutions and with more than 136 GW of wind turbines in 84 countries, we have installed more wind power than anyone else. With our industry-leading ambition to build zero-waste wind turbines by 2040, we will drive the commercialization and implementation of the circular economy technology developed in the CETEC project.



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