



A new generation of smart, sustainable wind turbine blades

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EOLIAN is developing bio-based, repairable and recyclable vitrimer composites and advanced sensors for highly reliable and sustainable wind blades.

- Composite materials based on bio-based vitrimer polymers and basalt fibre reinforcements
- Embedded electronics enabling structural health monitoring and de-icing functions.

Facilitating a circular economy: EOLIAN blades will offer a longer service life, be simpler to repair, and easier to repurpose and recycle.

Key advantages of EOLIAN blades

-  20% longer service life
-  20% faster to repair
-  75% reduction in ice accretion
-  40% lower recycling cost
-  **15% lower turbine lifetime cost**

Partners



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