WINDnovation Engineering Solutions GmbH

Engineering service provider

About this organisation

Development of components for wind turbines, in particular rotor blades made of fibre composites. Development and optimisation of fibre composite structures for aeronautics/ automotive and shipbuilding.

Rotor blades for wind turbines in composite lightweight design, System integration, Optimisation of composite lightweight structures, R&D, Structural layout and verification, Lightweight material design

Wagner-Régeny-Strasse 14
12489 Berlin
Berlin
Germany
windnovation.com

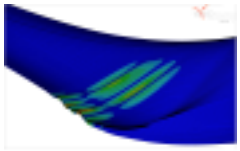
Organisation type
Small or medium-sized enterprise

Sectors
Others:

Employees
10 up to 49

Turnover
€2m - €10m

Funding
n/a



Main areas covered	Design of Wind Turbine Blades, Composite Design, Smart devives, Benchmarking of Composite Materials, Consulting Services
Infrastructure	FEA with ANSYS, Optimization with p7, OpenFoam, SOLIDWORKS, AutoCAD
Certifications	ISO9001:2015
Keywords	Composite Design, Wind Energy, Aeroelastics calculations, Rotor blade design
Memberships	Rotorblatt-Allianz

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Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Systems and end products, Others (Design Documentation for Composite Structures)		✓	✓
Services & consulting Consulting, Engineering, Prototyping, Validation, Simulation, Technology transfer, Approval		✓	✓
Field of technology			
Design & layout Lightweight manufacturing, Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction		✓	
Functional integration Sensor technology, Material functionalisation		✓	✓
Measuring and testing technology Component and part analysis, System analysis		✓	✓
Modelling and simulation Loads & stress, Life-cycle analysis, Optimisation, Structural mechanics, Materials	✓	✓	✓
Plant construction & automation Plant construction, Handling technology		✓	
Recycling technologies Downcycling, Material separation, Recycling, Upcycling, Others		✓	

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Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing			
Coating (surface engineering)			
Fibre composite technology Fibre spraying, Filament winding, Manual lamination, Resin infusion process, Pre-preg processing, Vacuum infusion		✓	
Forming			
Joining			
Material property alteration			
Primary forming			
Processing and separating			
Textile technology Preforming, Textile surface treatment and finishing, Weaving		✓	

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Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Bioplastics, Biocomposites, Wood	✓		
Cellular materials (foam materials) Closed-pore, Open-pore	✓	✓	✓
Composites Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Natural fibre reinforced plastics (NFRP), Laminates	✓	✓	✓
Fibres Glass fibres, Carbon fibres, Natural fibres	✓	✓	✓
Functional materials			
Metals			
Plastics Thermoset plastics			✓
Structural ceramics			
(Technical) textiles Laid webs, Nonwovens, mats	✓	✓	✓

Contacts

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