

FIBERSAIL

Shaping the structures of tomorrow

Our Inspiration

"If you cannot measure it, you cannot improve it" (William Kelvin)

Our Proposition

A Big Data Analytics tool based on a real time shape sensing system that will help wind turbine operators maximize performance and availability while preventing failures and reducing maintenance costs.

The Problem

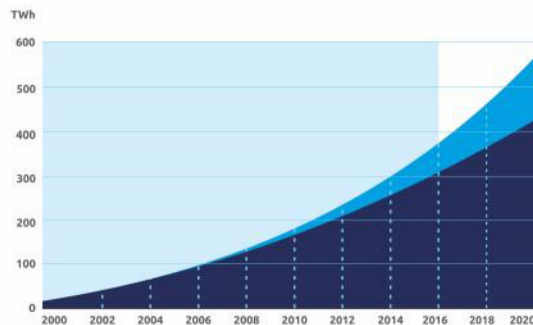
The wind industry faces an immense challenge as turbine sizes increase rapidly. Failure, O&M and downtime costs hinder the industry's huge energy generation potential.

One of the key parts of the wind turbine that accounts for about 22% of the total costs is the rotor blade. Failures on these components are often catastrophic and happen without warning. In order to improve performance it is critical to know the precise blade strength to apply the right load.

The Market Opportunity

Blade incidents can cost up to \$1 million.

Furthermore, taking into consideration that onshore average downtime for blade repair is



Source: EWEA

Four days and knowing that this can easily grow to a month's period in offshore cases, the **loss in production may range from \$10,000 onshore to \$100,000 offshore.**

There is a clear industry imperative to ensure failures are kept to a minimum through maintenance strategies such as condition monitoring of critical components.

Our Solution

To monitor in real time the shape and behavior of windmill blades using a smart condition monitoring system based on our unique shape sensing FBG fiber optic technology. The real-time information and data analytics (descriptive, predictive and prescriptive analytics) provided will help wind turbine operators increase performance and availability while preventing failures and reducing maintenance costs for their windmills.

We help increase availability, prevent failures and create a more efficient maintenance strategy.

Business Model

Our delivery of critical information that will enable operators to improve the performance of wind farms and maximize profits for wind turbine owners is based on two distinct revenue models: we provide our unique continuous real-time monitoring hardware for a fixed price and our big data analytic services for a yearly fee.

IP Strategy

We are protected by a published European Patent from September 2015. A licensing with NASA is underway.

We are seeking VC partners to connect us to the wind industry

Achievements

Fibersail has won the 6th edition of BGI – IUL/MIT acceleration program in 2015.

Raised €250k (Caixa Capital VC and Business Angel).

Top5 finalist at Wartsila Mastermind Competition.

PortXL startup finalist (3 month acceleration program).

Currently we are the subject of interest from wind blade manufacturers and research institutions in the Netherlands, Denmark and Italy.



Out Team



PEDRO PINTO, CEO and Founder is an entrepreneur with a passion for wind dynamics and background in IT and olympic sailing.



PEDRO FERREIRA, PhD candidate, R&D&I Officer, is a structural engineer and scientist motivated by new discoveries and challenges with fiber optics.



JORGE ROSA, MSc, as in UI/UX Designer, is a software developer challenged by the potential of Big Data and prescriptive information.



NADIA ZIGIRIDOU, MSc, Financial Analyst is an enthusiastic and committed business developer.

Our Vision

In the future, critical structures will be smart enough to optimize performance and improve reliability, preventing failures automatically. We aim to drive this trend as a main contributor to the creation of such structures.

Contacts

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