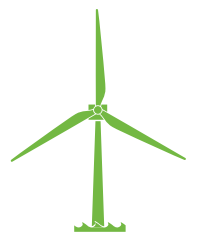
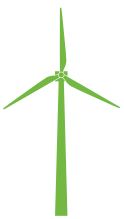
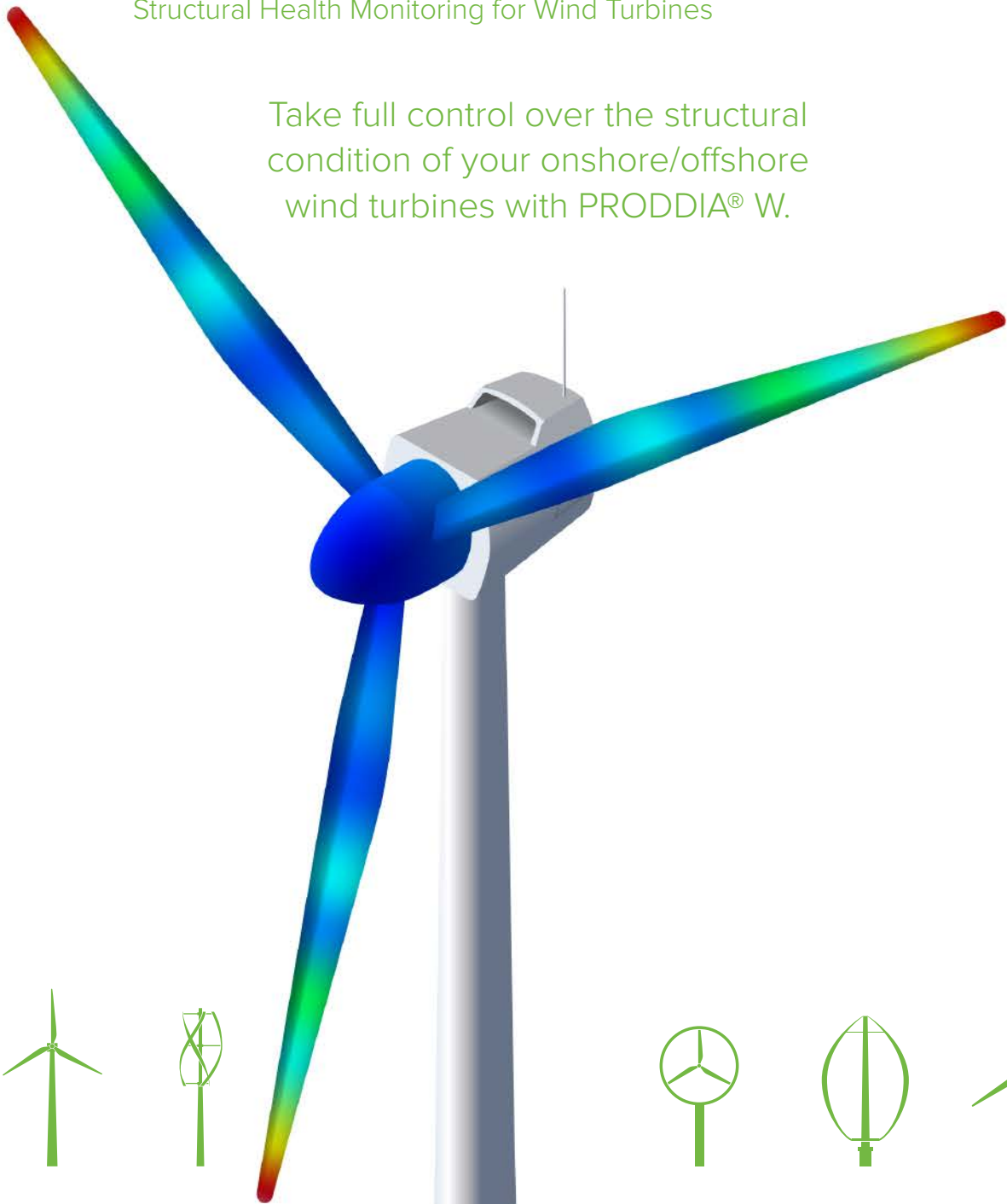


PRODDIA® W^{3.5}

Structural Health Monitoring for Wind Turbines

Take full control over the structural condition of your onshore/offshore wind turbines with PRODDIA® W.



PRODDIA® W is an integrated Structural Health Management system supporting O&M decision makers with key information on the structural condition of critical components, such as blades, foundations and towers. By simultaneously managing a large number of assets at wind farm, turbine and component level, it increases availability while decreasing expenditure in O&M operations and extending component lifetime.



Main Benefits

Increased Wind Turbines Availability

Relying in real material condition status instead of statistical failure history, PRODDIA® W presents higher efficiency than existing systems. Augmented accuracy increases wind turbines availability, by preventing long stops and minimizing failure effects.

Significant Reduction in O&M

Expenditure - Save materials, labour and operational costs by reducing time of repair/maintenance, minimizing inspection operations and reducing expensive unscheduled maintenance, especially in offshore structures

Extended Asset Lifetime & Reduced

Risks - By releasing real time status of critical structural components, PRODDIA® W allows the extension of wind turbine useful remaining life, providing extra earnings and protecting high investments made.

Integration with O&M Management

Systems - PRODDIA® W structural health data can be easily accessed by existing condition monitoring systems, providing a complete view of system health and improving maintenance decisions

WORKBENCH



LITE WORKBENCH



PRODDIA® W uses patented technology effectively combining model and experimental data to achieve an accurate diagnosis and prognosis of the structural status, with high degree of reliability.

Additionally, Proddia® W offers:

- **Multi-damage detection** – PRODDIA® W detects most common structural material changes, in composites (cracks, delamination, debonding etc..) and in metals, (cracks, corrosion, etc..)
- **Customization** - flexible and easy to operate, PRODDIA® W can be entirely configured to your specific set of operations. Provides efficient monitoring, intuitive damage maps and prognosis information of a large number of assets, scaling from wind farms, to wind turbines and even component level.
- **Cost effective control system** - PRODDIA® W is capable of using a reduced number of sensors and operates with a wide spectrum of standard sensor technologies and data acquisition systems.
- **Easy deployment, visualization and integration.**



Damage tolerance analysis 3D histogram with load cycles

Component	Load Point	Damage Level	Damage Level	Damage Level	Damage Level	Damage Level
100-001-001	10	100	100	100	100	100
100-001-002	10	100	100	100	100	100
100-001-003	10	100	100	100	100	100
100-001-004	10	100	100	100	100	100
100-001-005	10	100	100	100	100	100
100-001-006	10	100	100	100	100	100
100-001-007	10	100	100	100	100	100
100-001-008	10	100	100	100	100	100
100-001-009	10	100	100	100	100	100
100-001-010	10	100	100	100	100	100

Detail of DTA data on a specific load point

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