



# PRODDIA®

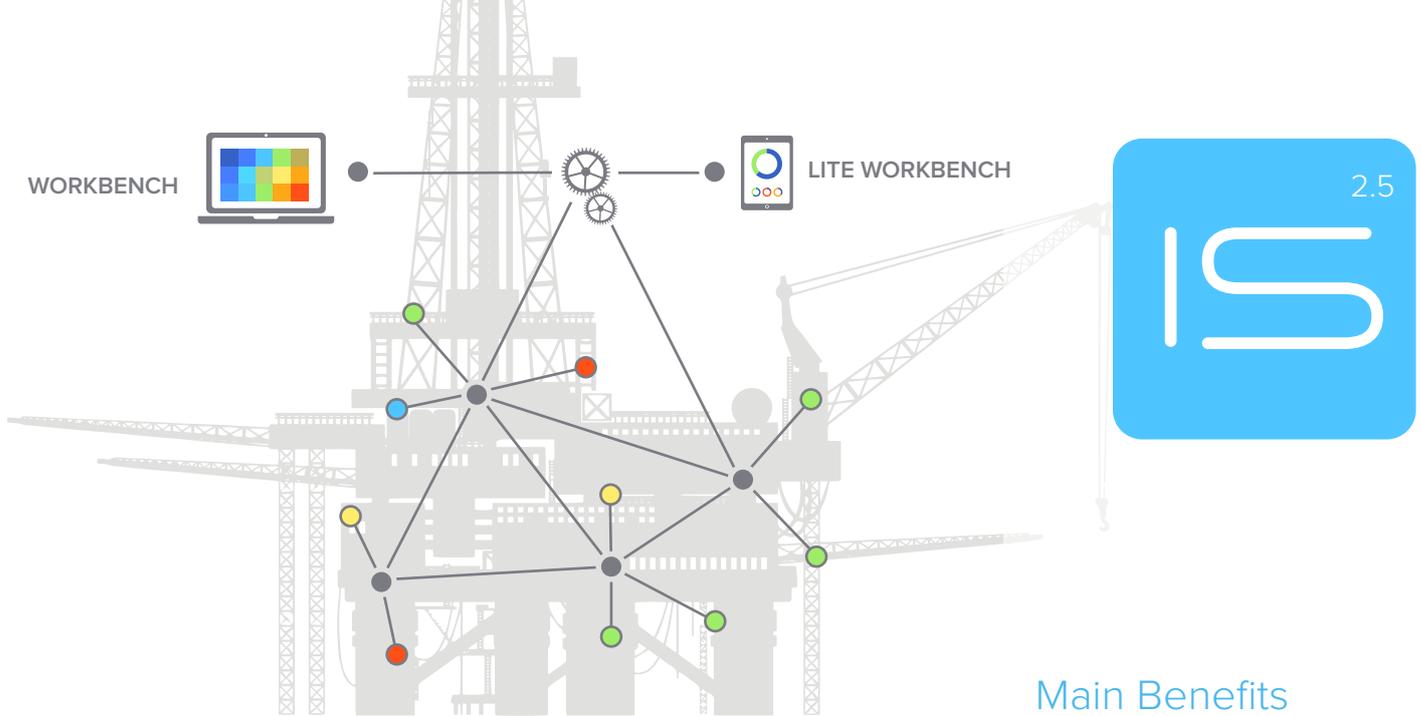
Structural Health Monitoring for Complex Structures



PRODDIA® IS, the easiest way to monitor the structural condition of complex structures, whether in the design phase or in deployed systems.

PRODDIA® IS is a Structural Health Monitoring solution aimed at the detection, localization and severity estimation of damages in complex critical structures.

Capable of monitoring and managing simultaneously a large number of different assets in diverse industries, such as Oil & Gas or Hydropower, Proddia® IS highly contributes to increased safety and cost reduction of specialized remote inspection operations.



PRODDIA® IS represents the state of the art in SHM systems for highly complex critical structures, where a vast diversity of arrangements demand increased flexibility.

PRODDIA® IS effectively combines model and experimental data through a patented technology and uses the appropriate number of sensors to achieve an accurate diagnosis and prognosis of its structural status with an extremely high degree of reliability

Using mainly off-the-shelf solutions, PRODDIA® IS works with a wide spectrum of sensor technologies and data acquisition systems. Additionally, the system continuously tracks the quality and consistency of raw data from physical sensors. PRODDIA® IS is implemented under a flexible architecture where a multi-master database and unlimited processing centers and workbenches can coexist, thus enabling a scalable cloud-ready solution.

Relevant information is visualized and explored effectively and intuitively with PRODDIA® IS Workbench, providing different customized versions for different usage scenarios, whether for control rooms or field operations. Indication of damage estimate mapped with color-coded severity on the component model and correct physical location are available without any loss of information coherence in all different devices.

PRODDIA® IS enables an unparalleled easiness in the deployment, visualization and integration of an SHM system.

## Main Benefits

### Extended Asset Lifetime & Reduced Risks

Via an effective diagnosis and prognosis of the critical components' Remaining Useful Life, PRODDIA® IS provides extended operational usage of complex critical structures, enabling extra earnings and protecting high investments.

### Significant Reduction in O&M Expenditure

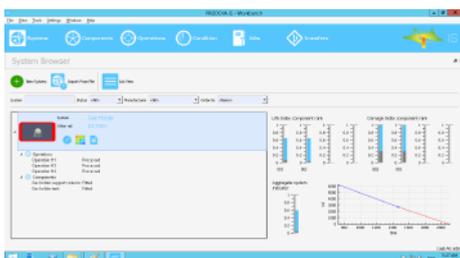
It saves time, materials, labor and operating costs by: reducing time to repair/maintenance, minimizing specialized inspection operations and diminishing expensive unscheduled maintenance operations, especially in remote areas or in inaccessible parts of structures. The results are easily integrated with maintenance management systems, providing more effective solutions for intervention and logistics planning.

### Increased Safety

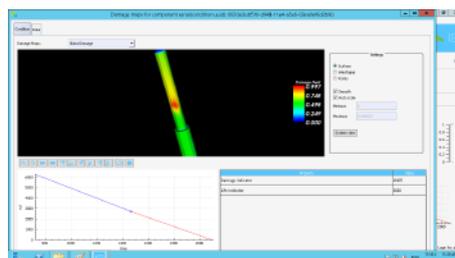
PRODDIA® IS provides low-risk inspections and increased safety of systems as a result of the continuous analysis of monitored components/substructures.

Dashboard provides an integrated overview of your assets with integrated customizable indicators

Explore damage maps and extract useful information from your structures



Overview of the system with an integrated prognostic horizon plot



Manage components, data acquisition bundles and system models

## Contacts

**Critical Materials S.A.**  
 Headquarters and Technical Centre: SPINPARK Building  
 Avepark - Science and Technology Park  
 4805-017 Guimarães  
 Portugal  
 Phone: +351 253 421 032  
 Fax: +351 253 421 033  
 info@critical-materials.com  
 www.critical-materials.com

