

DIGITAL HULL TRACKING

Targeted Assets > FPSO - External Hull

FPSOs are constantly exposed to harsh environmental conditions, where mechanical stress, impacts, or structural fatigue increase the susceptibility to corrosion, as well as heighten its vulnerability to deterioration over time. Some of the challenges to guaranteeing their structural integrity are:

 Discontinuities

 Pitting

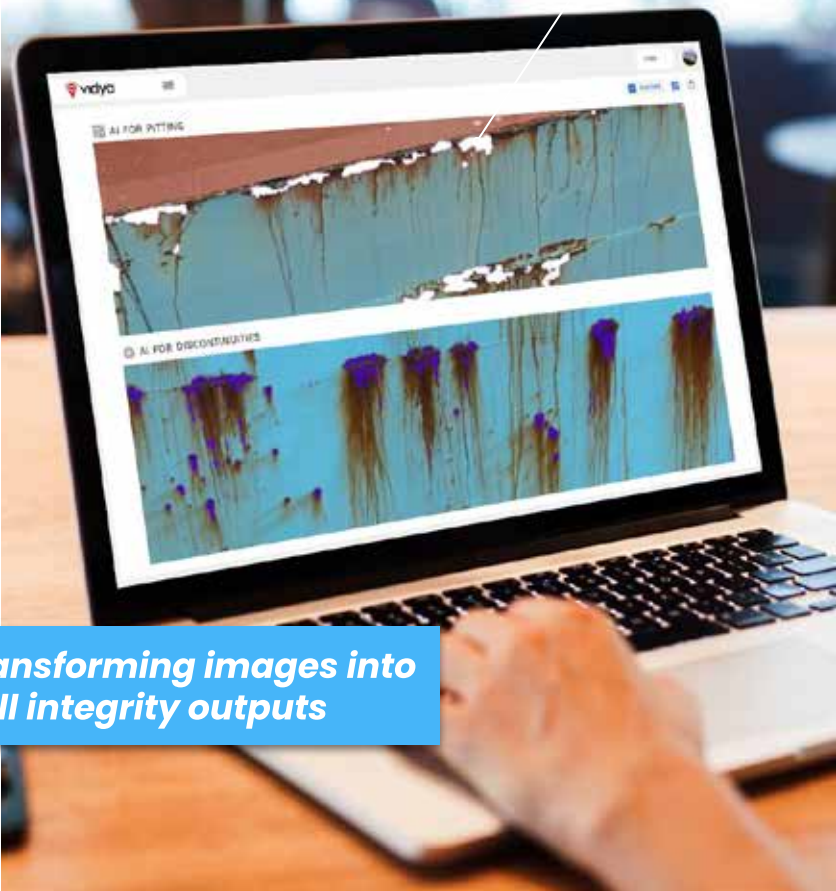
 Corrosion

 Welding

 Coating

More than just mapping anomalies, the solution reduces POB in inspection phase, enhance control over temporary repairs, and monitor the evolution of structural degradation over time.

AI Computer Vision for pitting and potential discontinuities detection



Transforming images into hull integrity outputs

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How we deliver it?

Visual dashboard & Reports for your company addressing:

- Potential discontinuities, pitting and critical corrosion points mapped and classified
- Integrity notes generation on SAP or other CMMS systems
- Results based on inspection standards, such as the *Hull Inspection Grading Manual*



RESULTS

Context: FPSO – External Hull – 30,000m² – 15 years old

90%

Less rope access for integrity assessment

90%

Precision of AI for Hull Anomaly Detection

HSE+

Positive impact on Health, Safety and Environment



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Application Workflow



The solution combines reality capture via drone images in a 3D environment with Artificial Intelligence to **view, locate, classify and quantify potential discontinuities, pitting and critical corrosion points.**

As a result, the application provides a digital and visual management system for hull inspection, with anomalies mapped and classified with maintenance action support and generating integrity notations **in 20 days.**