



# Integrating FLEXAS™ and MEC-FIT™ for Flexible Riser Integrity

A Strategic Alliance of industry leading inspection and analysis tools in the arena of flexible riser integrity.

**ANNULUS** FLEXAS™ independent structural integrity and fatigue life estimate & VACUUM check, including sensitivity **TESTING DESIGN** analyses to reduce risks and integrity management planning by JOINT DEVELOPMENT OF experienced flexibles experts INSPECTION PLAN MEC-FIT™ **INSPECTION** Flexible Riser Inspection Intervention **OUTER TENSILE ARMOR** engineering, ANTI-WEAR TAPE planning, and INTERVENTION construction INNER TENSILE ARMOR AND INTEGRITY management, **MANAGEMENT** ANTI-WEAR TAPE and longterm integrity PRESSURE ARMOR management INTERNAL PLASTIC INNER CARCASS **ARMOR WIRE DEFECT** pitting, wire misalignment **IDENTIFICATION** FLEXAS™ Original Design simulated & re-evaluated with wire damage **SIMULATIONS** included for life extension/ fitness for service assessment W---

**REPORTING** 

## A New Offering in **Flexible Integrity** Management

Reducing operational uncertainty. Delivering cost and schedule savings.

#### A COMPLETE OFFERING

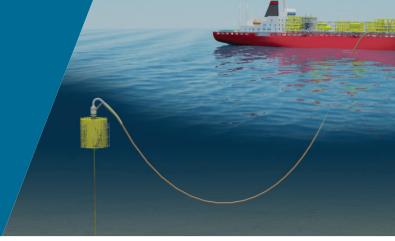
Inspection matrix evaluated

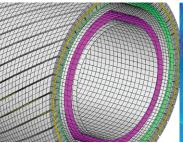
between required parties

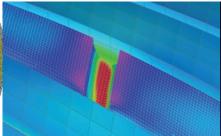
- Integrity Management planning
- Visual and MEC-FIT<sup>™</sup> inspection
- Assessment with FLEXAS<sup>™</sup> and intervention planning and construction management for execution
- Life of field riser model updates and analysis
- Future inspection planning guidance

#### **VALUE PROPOSITION**

Life extension assessment through more accurate, less conservative, analysis based on more detailed inspection data through the Integration of INTECSEA's FLEXAS™ and Innospection's MEC-FIT™ inspection system.











### **FLEXAS**<sup>TM</sup>

- More realistic simulations leading to increased accuracy for fatigue life predictions
- Single integrated flexible riser global analysis with detailed multi-layer models and direct stress recoveries
- Elimination of secondary local stress analyses with detailed segment models
- Direct stress recovery from the global analysis, increasing accuracy

#### VALIDATION

- Deepstar qualification program
- Independent Operator Experimental benchmarking
- Validation against Experimental and numerical references
- Selected by NASA and qualified for missioncritical analysis for manned space flight.

#### MEC-FITTM

- Combined DC magnetic field and Eddy Current field to detect single or multiple wire damages in up to 3 layers
- Capable of detecting cracking, pitting and general corrosion as well as wire misalignment and gaps
- Mapping wire layers, identifying details of individual findings
- No couplant by annulus flooding required
- External deployment from installation or by ROV
- Fast scanning
- Inspection track records of flexible risers with 15° to 55° wire arrangements



WWW.INTECSEA.COM
TECHNOLOGY@INTECSEA.COM

