



James Fisher Asset Information Services



Scotland-Norway Joint Cluster Workshop 04.05.21

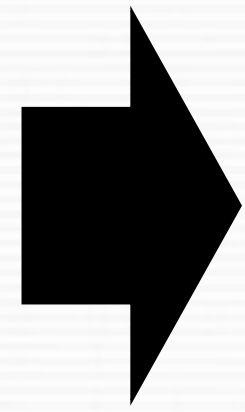
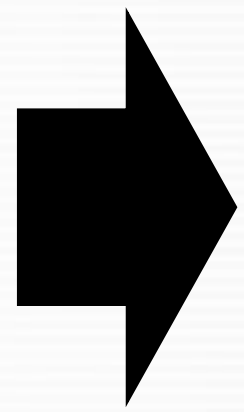
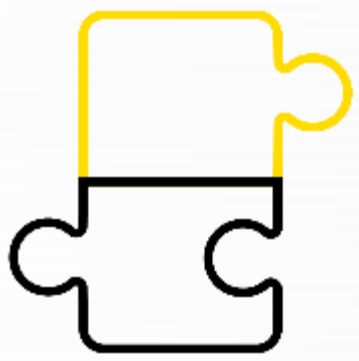


INTRODUCING KRAKEN



Kraken is a fault prediction and decision support system designed to accept inputs from any variety of systems used in cable monitoring, then, through the application of data science techniques, provide trending for anomaly development and failure prediction in order to allow operators to optimize intervention strategies.

WHAT PROBLEM ARE WE SOLVING?



Problem

Unexpected cable failures and unscheduled downtime resulting in inefficiencies, penalties, and excessive, related emergency response costs.

Solution

Cable decision support system using any incoming data streams from cable fibers or other methods related to power core monitoring.

Value

- Saving money
- Driving efficiencies
- Optimizing interventions
- Leading digitally

OUR OFFSHORE WIND ENERGY SOLUTION



Operational Risk Management

MERMAID

Weather and tidal forces simulation on marine operations

Phase:
Construction, O&M

Clients:
Vattenfall, RWE,
Jan De Nul

Digital Twin

R2S

Digital twin capability for teams managing assets and project lifecycles

Phase:
Construction, O&M,
Decommissioning

Clients:
BP, Vattenfall, Chevron, Exxon,
others

High Voltage Management

KRAKEN

Delivering lifespan operational assurance and monitoring asset integrity

Phase:
Construction through O&M

Under development

Marine Management

OWMS

Real-time operational insight for offshore assets

Phase:
Construction, O&M,
Decommissioning

Clients:
Moray East,
Gallopier, Rampion,
Humber Gateway
and East Anglia ONE

FLOW and Fixed WTG foundation monitoring

SAMS

Available and established solution in bespoke sensor technology. In use across multiple clients for foundations in fixed and FLOW

Phase:
O&M

Clients:
Confidential

Kraken: Cable Failure Prediction and Decision Support



Pain Point: Unexpected outages and downtime due to cable failures

Kraken is a bolt-on module to R2S that is currently under development

- Using data science techniques, Kraken can identify, locate, and characterize cable faults such as free-span, hotspots, cold spots and other anomalies and damage
- Kraken uses available data streams such as electrical load, DTS, TDR, LIRA, DAS and other data sets
- Allows for prioritization and optimization of resources by providing longer lead times for intervention activities



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FLOW AND FOUNDATION PROFILING

Partnering would benefit:

- Collection of data over significant and seasonal time periods required to understand and profile asset performance and behaviour
- Understanding specific behaviours related to soil composition, weather/wave, and other stressors using data science techniques based on incoming data streams to examine failure modalities
- Provide generalizable profiles to support ever-greater understanding of mooring considerations across a variety of conditions, seabed compositions, water depths, and weather events as FLOW



James Fisher
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Services





THE JOURNEY STARTS HERE



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