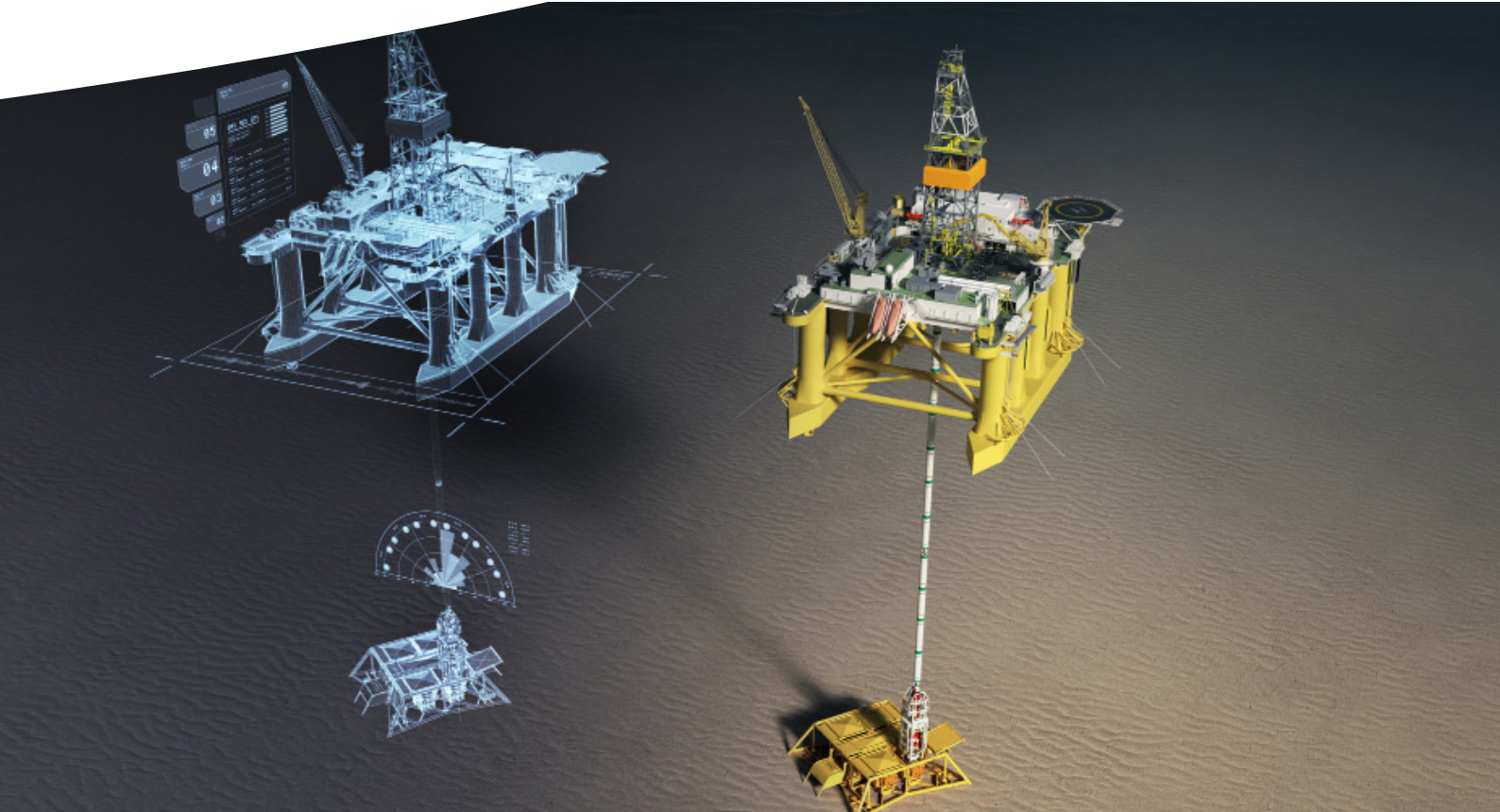# 4insight® Drilling DynOps

Optimise rig operability and accelerate situational awareness
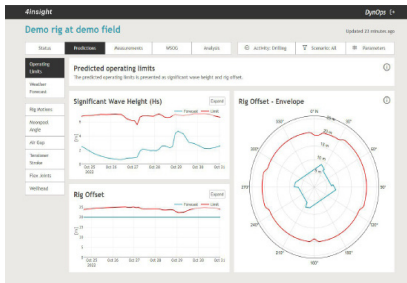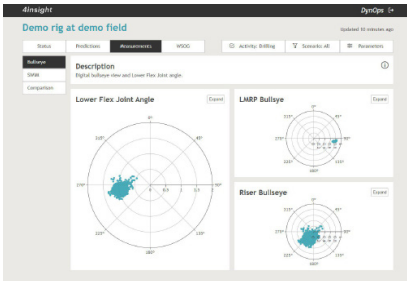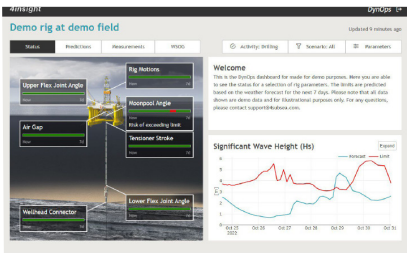

4insight® DynOps is a digital service that enables operators and rig contractors to increase insight and predictability in planning and execution of operations, resulting in enhanced operability on any weather dependent operation.

4insight® is a digital service empowering engineers to create and distribute decision support based on analytics. The service enables you to connect to and collect large amounts of data. Users can choose from a large selection of readily available applications or tailormade their own apps running on 4insight®.

KEY BENEFITS

- Uses prevailing weather and machine learning to increase size of operational envelopes
- Reduces waiting on weather resulting in shorter operations
- Facilitates consistent data-driven decisions
- Creates awareness of potential problems before they happen
- Integrates measurements to increase accuracy of prediction
- Provides guidance on actions to increase operability
- All data available through REST API for easy access and integration
- Agnostic solution where operators can choose methodology
- Empowers decision-makers to understand analyses easily

Digital Operability Prediction

4insight® Drilling provides operators with critical decision support delivered simultaneously to onshore and offshore personnel.

Traditionally, for each drilling operation, there are well-specific operation guidelines (WSOG) that states maximum limits for safe operations, typically derived from riser and mooring analyses. Due to its static and condensed nature, the WSOG includes unintentional conservatism needed to cover all conditions.

The 4insight® DynOps solution utilises optimised predictors based on analysis data, measurements, and weather forecasts to provide guidance reflecting the conditions experienced and the current mode of operation. With the unintentional conservatism in the WSOG removed, operability is increased and WoW is reduced.

Data from measurements and analyses are combined in a meaningful way that builds situational awareness and reduces the risk of misinterpreting data and its consequences.

Features

- See how weather forecast will affect the future rig operability
- Automatic validation of uploaded analysis results through API
- Be informed about possible present and future hazards
- Be advised on necessary actions to optimise rig operability
- Visualise the state of limiting parameters in one easy-to-understand view
- Predict the effect of changes in rig configuration on operability
- See predicted vessel motions many days in advance
- Use measurement data to increase the accuracy of prediction

System Architecture

The architecture behind 4insight® is designed to receive and compute large amounts of data, unlocking the true potential of the data to ensure the best possible decision support for operators. The service contains Digital Twins of the assets and helps operators improve data quality and manage the ownership, security, sharing and use of data, while at the same time reducing operational costs and risk. 4insight® is a multi-tenant solution residing on Microsoft Azure.

4subsea

4Subsea is a leading provider of technology and services that help operators optimise energy production from subsea oil & gas fields and offshore wind farms. We combine domain expertise with data analytics and digital services to maximise lifetime of assets, reduce operational cost and optimise future projects through data-driven design.

The company was established in 2007 and clients include the major energy operators as well as the large suppliers of subsea equipment. 4Subsea is headquartered in Asker, Norway with additional offices in Bergen, Kristiansand, Stavanger, Rio de Janeiro, and Aberdeen. 4Subsea is a company in the Subsea 7 Group. More info at www.4subsea.com.

4Subsea - Share ideas, move forward

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