The 4insight® valve service enables operators of subsea developments to efficiently track the operation and condition of subsea manual valves by direct input from 3rd party intervention companies.

4insight® is a digital service providing key decision support to energy operators. The service enables domain experts to collect large amounts of data and create new insight based on machine learning and AI. Users can choose from a large selection of readily available applications or tailor make their own apps running on 4insight®. The portfolio includes 4insight® Subsea Asset Integrity, 4insight® Drilling, 4insight® Wind Energy, 4insight® Data Analytics, and 4insight® Marine Operations.

**KEY BENEFITS**
- Reduces maloperation and excessive torque of valves
- Early detection of slow valves enabling replacement before failure
- Saves time by optimising the valve operation management process
- Ensure that barriers are intact between all stakeholders working with valves
- Allows delivery of results digitally
- Enables engineers to monitor valve operation campaigns in a dynamic dashboard
- Integrates with company systems through REST APIs
- Secure access to any 3rd party working with valve data
- Upload documents, videos and pictures to complement the valve operation work
Digital Logbook for Valve Operations

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

A subsea field development often has hundreds of manual valves operated by ROVs or divers. These valves act as crucial safety barriers avoiding unwanted spill of hydrocarbons into the environment. During subsea intervention work, replacements, or new tie-ins, it is imperative that the valves are correctly positioned and fit for purpose so that the barriers remain intact.

The 4insight® valve service enables companies and 3rd party intervention companies to maintain and track valve status. This ensures alignment between all stakeholders working with valves and barriers. Degrading valves can easily be identified in a dynamic dashboard by comparing valve performance with valves of similar types.

A key principle behind the 4insight® service is its open APIs and open accessibility. Operators are free to hook onto any data stream of raw or processed data through open APIs. The operator is also free to give access to the solution and its data to any third-party organisation of choice.

Features

- Allows 3rd party to upload valve operation data during a campaign
- Comprehensive dashboard where all data is visible in one place
- Make barrier status report and share with all stakeholders
- Overview of historical information and performance of different valves
- Upload documents, videos and pictures to document valve status and health
- Find valves using the powerful search engine
- Secure access to any 3rd party working with valves and barriers
- Organise valve operations in separate campaigns
- Expose all data through REST APIs

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.