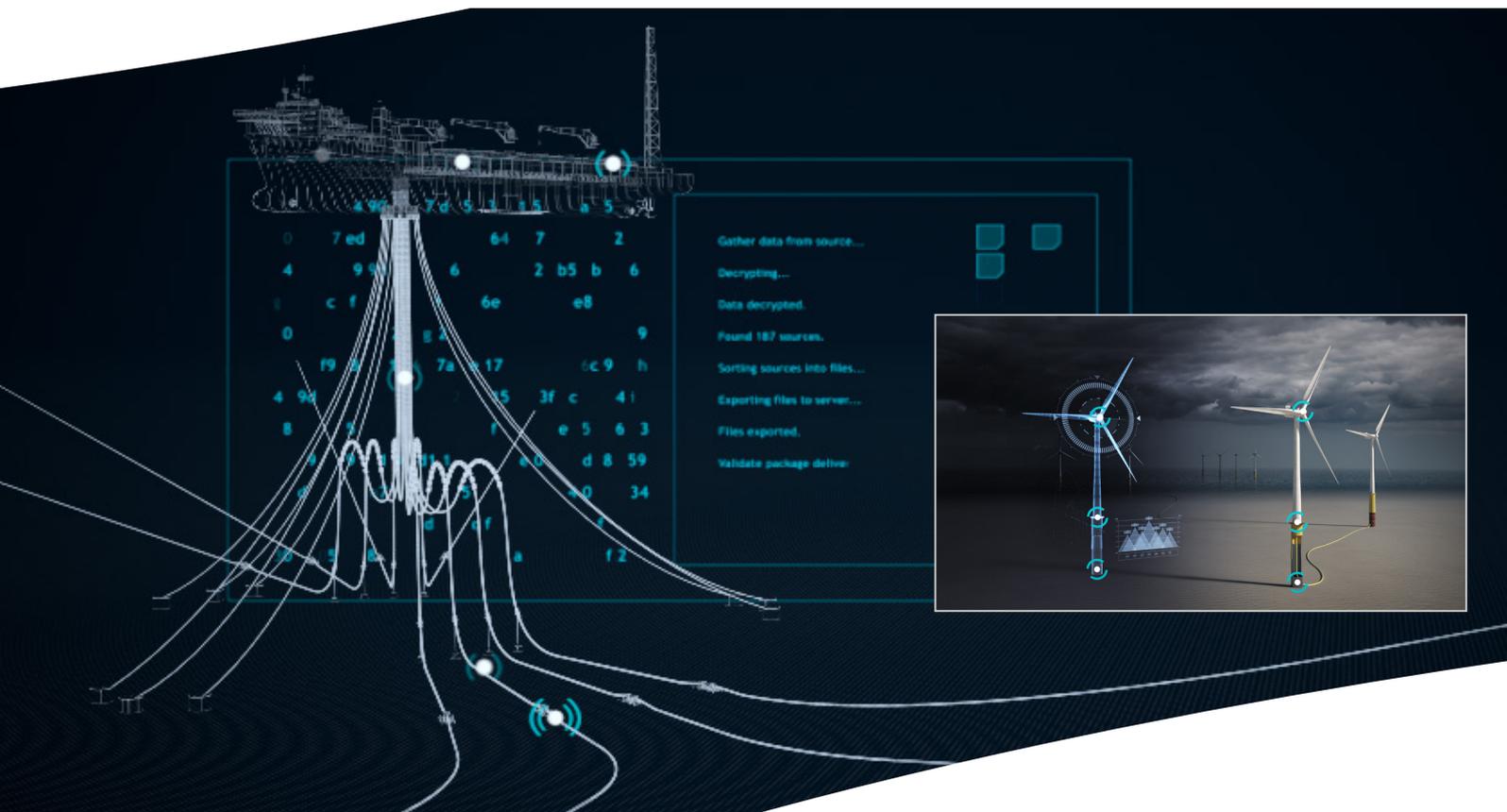


# 4insight® Asset Integrity

*Digital twin for lifetime extension and increased operational uptime*

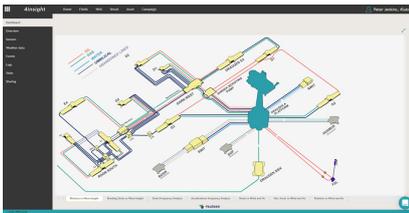
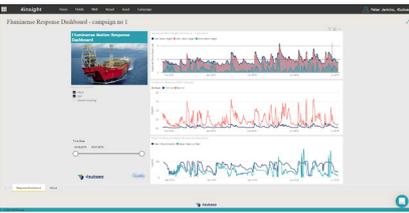
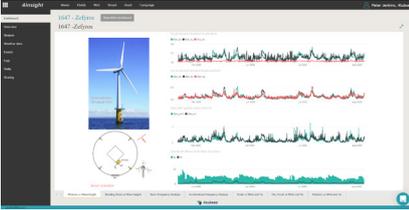


*4insight® Asset Integrity provides data-driven decision support based on live monitoring and anomaly detection algorithms, thereby reducing cost and increasing uptime. The cloud-based service also enables extension of lifetime through monitoring of loads and operational history. Insights are delivered simultaneously to onshore and offshore personnel.*

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® Asset Integrity, 4insight® Drilling, 4insight® Data Analytics, and 4insight® Marine Operations.

## KEY BENEFITS

- Detects anomalies before they develop into operational issues
- Provides operational decision support based on machine learning and AI
- Ensures immediate access to relevant information when needed for all stakeholders
- Enables safe sharing of data with third parties
- Reduces OPEX by avoiding unplanned repairs and replacements
- Reduces CAPEX by extended lifetime of assets beyond original design life
- Enables operators to have a global organisation with specialised teams that work closely with each asset regardless of location
- Reduces time spent on finding information and avoid misunderstandings



## Digital Twin as a Service

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

A production facility often has tens of thousands of sensors monitoring the condition of various equipment. The data is mostly used for simple alarms, while there is great value in running analytics on this data to create new insight enabling production optimisation, prediction and advanced anomaly detection using artificial intelligence to continuously assess enormous live data streams.

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

- Visual user interface allowing users to click on assets for immediate access to relevant information
- Comprehensive asset register including all documentation, metadata, live sensor data, and decision support
- Asset Risk module that provides accurate understanding of system risk among all stakeholders
- Overview of asset integrity status and recommended mitigating actions
- Easy access to live streaming of sensor data and cloud computing on large data sets
- Publishing tool for sharing insight and selected dashboards with third parties
- Open APIs for interfacing other systems

## 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 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 sub-sea 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](http://www.4subsea.com).

**4Subsea - Share ideas, move forward**

### Contact

+47 66 98 27 00  
[contact@4subsea.com](mailto:contact@4subsea.com)  
[www.4subsea.com](http://www.4subsea.com)

### Asker (HQ)

Hagaløkkvvn 26  
 1383 Asker  
 Norway

### Bergen

Nordåsdaalen 25  
 5235 Rådal  
 Norway

### Kristiansand

Narviga 21  
 4633 Kristiansand  
 Norway

### Stavanger

Kvålkroken 30  
 4323 Sandnes  
 Norway

### Rio de Janeiro

Av. Rio Branco 89,  
 Room 802 - Centro  
 RJ 20040-004 Brazil

### Aberdeen

18 Chattan Place  
 Aberdeen, AB 10 6RD  
 Scotland, UK