

A worker in an orange safety suit and white hard hat is operating industrial machinery on a ship's deck. The machinery consists of several vertical cylindrical units with orange railings. The worker is wearing a white hard hat with the word "PULSE" on it. The background shows the sea and a cloudy sky.

**ACTEON**

DATA AND  
ROBOTICS

# INSPECTION AND MONITORING

Technologies to empower data-driven decision-making and support safe, efficient performance and asset integrity

STRUCTURAL MONITORING

[www.acteon.com](http://www.acteon.com)



Acteon has the tools and experience to understand your asset integrity and monitoring challenges. Our world-class digital platforms and analysis tools enable our customers to make data-driven decisions. We deliver a total service solution through our in-house technology, manufacturing and integration capabilities and support throughout the life of an asset.

**REPEATABILITY**  
**DIGITAL TWIN**  
**OPTIMISATION ANALYTICS**  
**REAL TIME MONITORING**  
**DATA PROCESSING**

**ACTEON**  
Structural monitoring

**PULSE**  
Structural  
Monitoring

## WHY WORK WITH US?

**Acteon offers end-to-end solutions to measure, collect, orchestrate, process and display real-time and inspection asset data, thereby helping to develop insights to drive operational performance, enhance integrity and assist in decision-making for late-life options.**

### Market-leading services and integrated solutions

As integrated marine structural health specialists, we take a holistic approach and look at the short-, medium- and long-term needs of assets. When clients are looking to develop longer-term strategies, we work in partnership with them to specify their detailed monitoring needs and consider the options for delivering and implementing long-term value with the least environmental impact. These commitments can be framed to involve equipment and/or service provision through contracts in which we are hired to deliver data or insights straight to vessel control rooms or personal desktops.

### Maximising the value of data throughout the asset life cycle

We partner with you to maximise the value of the data gathered across the life of your asset, thereby providing operational insights, anomaly detection, design verification and life extension. By designing and deploying services that integrate the best equipment, we can collect all the sensor data into a single environment for the most efficient orchestration and analysis. This enables you to view the entire picture of your asset's health, key performance indicators and warning systems within a single workstation on a desktop or mobile device. Our powerful autonomous capabilities enable operational optimisation that reduces persons on board and intervention costs.

### A proven track record for delivery

Our proven track record extends across monitoring, measurement, inspection and analysis, all of which can be delivered as a seamless service. We can build applications that are repeatable or customisable across a wide range of assets and industries, including for renewable energy, offshore oil and gas, nearshore and land-based infrastructure. We have monitored wellhead and riser fatigue on hundreds of oil and gas facilities worldwide and have a similar track record for pipeline vibration monitoring. Our systems are proven and flexible, and suit the most challenging of environments, from blowout preventor motion monitoring in the Caspian Sea to wellhead fatigue monitoring during loop currents in the Gulf of Mexico. We have been working in the renewables market for over a decade and building experience across the development of the fixed offshore wind markets in Europe. We offer a comprehensive range of technologies to acquire, handle and store data. This includes super-low-energy autonomous loggers capable of powerful subsea data processing, compression and transfer through acoustic transmission. We also offer by-wire or fibre solutions for your synchronised data requirements in subsea and topside applications. As integrators, we take responsibility for delivering your data from the asset to the cloud using existing infrastructure, modern IOT/LTE or satellite networks.

### Investing in technology to support our clients' challenges

We have invested in an integrated digital platform to collect, orchestrate, process and display all the data and insights associated with the assets being tracked and monitored. The platform enables us to set up automated triggers to instantly inform you of anomalies or failures, all while storing the data for further predictive analysis. Our subsea data hubs and loggers offer the possibility of powerful data analysis autonomously coupled with super-fast, acoustic-modem data transmission. This enables near-real-time insights. Furthermore, our cloud-based infrastructure collates and orchestrates data throughout an asset's life, thereby keeping the data reliable and easily accessible for publication, analysis and visualisation. We can also provide higher-level asset insights by combining the power of reliable measured inputs with advanced analytics and digital twins. Our systems are supported by expert service teams enabled to support our digital infrastructure remotely and therefore minimising travel and persons on board associated with our service.

# ACTEON INSPECTION AND MONITORING

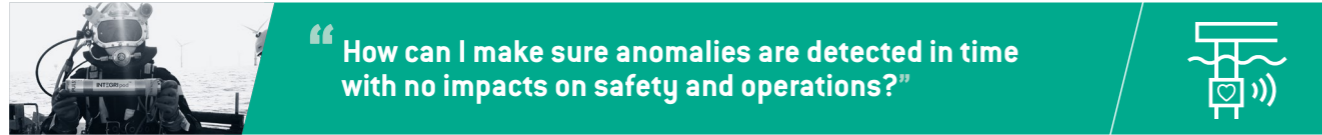


## Inspection and monitoring

- 1/ Mooring line monitoring
- 2/ Flexible riser integrity monitoring
- 3/ Conductor and wellhead monitoring
- 4/ Riser monitoring
- 5/ Environmental and metocean monitoring
- 6/ Pipeline span integrity
- 7/ Platform structural monitoring
- 8/ Subsea jumper monitoring
- 9/ Position monitoring
- 10/ Cloud-based and data insight management
- 11/ Digital twin
- 12/ Corrosion monitoring



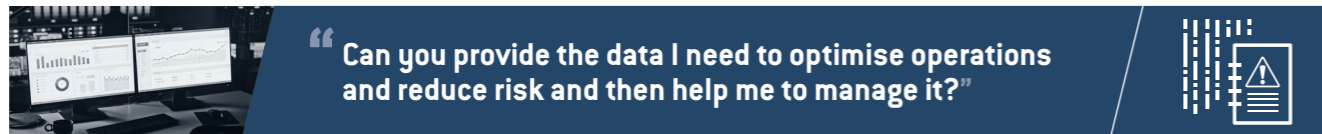
# SOLVING YOUR INSPECTION AND MONITORING NEEDS



## Acteon solution

Each intervention is unique to a client's asset, but our approach is always the same: we deploy the most appropriate technology to monitor the asset and integrate all the collected data into a single environment for interpretation and analysis.

**Proof point:** We design and deploy services that collect data in the most efficient package without compromising on data quality. Data interpretation enables us to identify any long-term impacts on asset performance to verify the design, provide remedial recommendations and confirm or extend the life of the asset. We set up automated triggers that provide instant confirmation of any real-time failures or anomalies that could affect marine life, the environment or asset integrity.



## Acteon solution

We define a complete structural health monitoring solution with you, from defining the issue to choosing sensor options and setting up key-performance-indicator-based alarms and condition monitoring measurements, through to processing and analysing the data for operational optimisation.

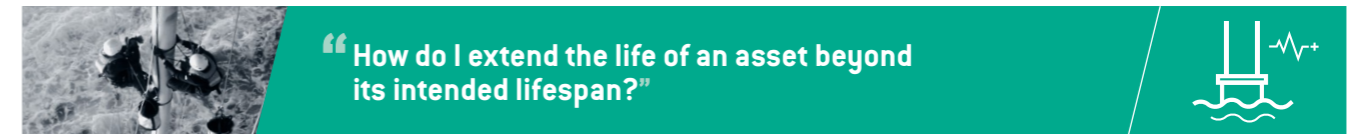
**Proof point:** We offer the seamless collection, storage, orchestration and processing of your data to simplify interfaces and to maximise the value of insights. Data handling is optimised by integrating it from the sensor to the edge to the cloud to handheld devices through our advanced NX2 digital ecosystem. In addition to measuring and collecting data, we also manage all your data in one place, which enables us to combine data sets, identify relationships and derive critical insights. We aim to reduce the environmental impact of our services by using automation, remote support and digital platforms while delivering the continuous insights required to support life-extension decisions.



## Acteon solution

Our infrastructure and monitoring modules enable us to build the right solution from the outset. We work closely with you to determine what you are trying to find out from monitoring and specify what needs measuring to accomplish this.

**Proof point:** We apply domain knowledge built on an impressive worldwide track record of hundreds of projects monitoring dynamic and corrosion-prone systems in the renewables, oil and gas and nearshore marine markets. Our solutions are built around standardised concepts and technology building blocks that are customised for each unique requirement. Our digital platforms integrate into your infrastructure or we can provide data via our data portals or more bespoke networks. We can enhance or reconfigured our modular solutions if you want to extend and standardise a service package to suit multiple needs.



## Acteon solution

We monitor and measure environmental stimuli and system responses and use these data to analyse the useful lifespan of an asset, thereby enabling you to make the case for life extension.

**Proof point:** Our proven track record extends across monitoring, measurement, inspection and analysis and we deliver services as a seamless team. We train digital twins with our data to enhance the insights we provide over the life of an asset. These data collection and analysis services for life extension are available worldwide and in any market, including oil and gas and renewables.



**ACTEON** | DATA AND ROBOTICS

**ELECTRONICS AND TOOLING**

 **seatronics**

**GEO-SERVICES**

 **Benthic** |  **TERRASOND** |  **UTEC**

**STRUCTURAL MONITORING**

 **PULSE** | Structural Monitoring

**ACTEON** | ENGINEERING, MOORINGS AND FOUNDATIONS

**ADVANCED SYSTEMS ENGINEERING**

**MARINE FOUNDATIONS**

**MOORINGS AND ANCHORS**

**ACTEON** | ENERGY SERVICES

**CORROSION MANAGEMENT**



**CUTTING AND DECOMMISSIONING**

**ENERGY RESOURCING**



**FLEX-LAY AND RETRIEVAL**



**ACTEON**

MARINE ENERGY AND INFRASTRUCTURE SERVICES

[www.acteon.com](http://www.acteon.com)