

# Experience the Benefits

Real time sensory technology  
and expert consultancy from SMS

Cost Reduction | Enhanced Safety | Increased Production Performance



Providing award winning expertise -  
making a genuine difference to our  
clients operational success



## Our global experience

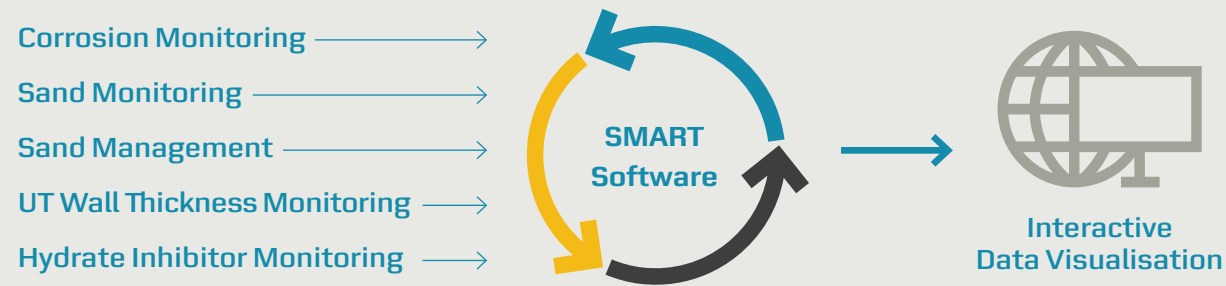
Since 2004 SMS has offered our clients a clear competitive advantage by truly understanding their requirements, expert domain knowledge and commitment to service excellence.

As the leading supplier of innovative solutions to the oil and gas industry SMS create client value with cutting edge sensor technology, award winning data visualisation software and engineering consultancy.

SMS makes a genuine difference to you, our client's, operational success.

## Redefining the sensory data landscape

Intelligent sensors, big data visualisation and interactive reporting are current development streams at SMS.



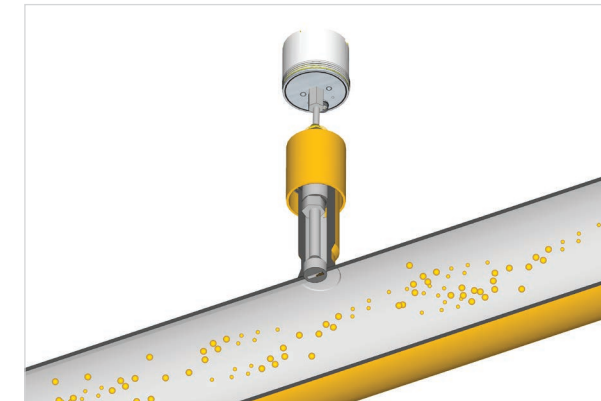
Through collaboration with our industry partners and higher academic institutions we have developed a range of real-time sensory technology to help our clients maximise their advantage.

SMS has redefined how sensing data is realised, combining secure data transmission with state of the art hardware and data visualisation software to create an exciting interactive customer experience.






SMS' focus is to deliver life of field efficiency leading to increased production & improved safety, through the adoption of our innovative technology. Read on for our cohesive range of flexible modular monitoring packages.

## Corrosion Monitoring

Corrosion monitoring provides a direct and online measurement of metal loss/corrosion rate in industrial process systems. Corrosion monitoring is a key component of any asset integrity program.



### Product Benefits

-  Early indication of increasing fluid corrosivity
-  Key data for corrosion management and RBI
-  Proactive monitoring extends equipment and asset life
-  Correlation with process parameters to determine effect on system corrosivity
-  Evaluation of corrosion control / prevention techniques (e.g. chemical inhibition)

### System Overview

SMS corrosion monitoring provides a direct method of monitoring the corrosivity of the fluid, and evaluation of corrosion control and prevention techniques thus ensuring efficient and safe operation of process plant.

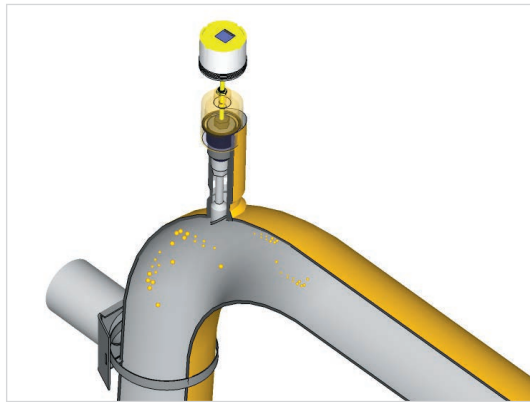
SMS provides a range of corrosion monitoring devices and systems ranging from corrosion coupons to state of the art high resolution wireless corrosion probes.

### Features

- Reliable and field proven design.
- Available for HPHT and sour gas.
- Wireless data transmission, cabled or logger options.

# Sand Monitoring

Non-intrusive acoustic sand monitors and intrusive erosion probes are invaluable tools in detecting the presence and effect of solids production.



## System Overview

SMS offers a range of systems that can monitor produced well solids to give clients confidence to safely carry out operations informed by quality, real time data. SMS offer this service as both a remotely monitored or fully manned service. SMS offer training, support and maintenance in the operation of these systems.

## Product Benefits



### Acoustic Sand Detectors

- Non-intrusive design, ideal for HPHT / sour gas application
- Provides an instantaneous response to sand production
- Simple, cost effective and fully portable system



### Intrusive Erosion Probe

- Highest resolution available on the market
- Elbow mounted design for increased efficiency
- Increased safety through double block barrier

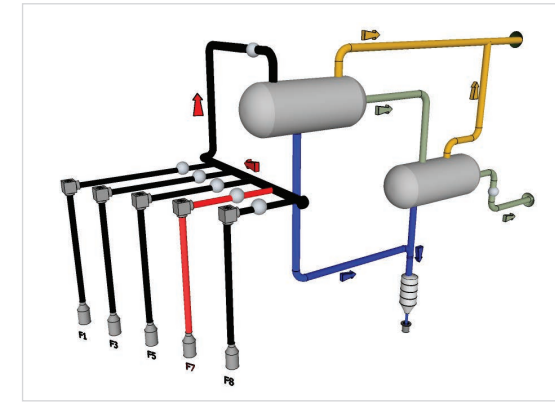


### Sand Sampling

- Provides solids size distribution and quantification
- Fully portable and closed loop system design
- Flexible hose connection & interchangeable mesh size

# Sand Management

SMS Sand Management Consultancy team works with clients to reduce the risks associated with sanding and produced solids, saving both money and time while meeting all health and safety compliance requirements.



## System Overview

Sand Management Consultancy can be deployed to clients who require support for individual well sand production or can be rolled out to an entire platform / field to define a holistic sand management strategy.

Some of our services include; gap analysis, sand production risk management and mitigation, management process implementation, monitoring, removal and disposal recommendations and sand handling limitations.

## Product Benefits



### Gap Analysis / System Review

- Review current sand management processes & procedure
- Compile implementation & engineering plan
- Reduced maintenance costs and enhanced production



### Sand Management Strategy / Operator Guidelines

- Tailored Sand Management Strategies in accordance with industry best practice
- Identification of potential hazards and associated risks
- Recommendation on mitigation methods and improvement opportunities



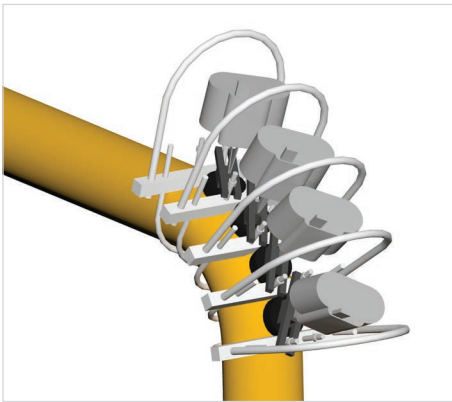
### On-going Support / Sand Focal Point

- Production optimisation
- Safety assurance
- Dynamic alarming and anomaly management



# Real-Time UT Wall Thickness Monitoring

A non-intrusive solution for realtime monitoring of corrosion and erosion in process pipework. Combining established ultrasonic wall thickness measurement, state of the art realtime data transmission hardware and SMS' data visualisation suite.








## System Overview

Delivering accurate and repeatable results the Real-Time UT Sensors are clamped externally to the pipewall, making installation safe, efficient and cost effective.

The system measures absolute wall thickness, not averaging or extrapolation. This allows early identification of corrosion / erosion activity. Areas of high risk can be monitored continuously, delivering accurate and repeatable results.

## Product Benefits

-  **Cost efficiency – no personnel onsite.**
-  **Increased safety – no personnel required at erosion hot zones**
-  **Proactive monitoring extends life of equipment and asset**
-  **Allows real time informed decision making**
-  **Can be remotely monitored providing global visibility**

### Features

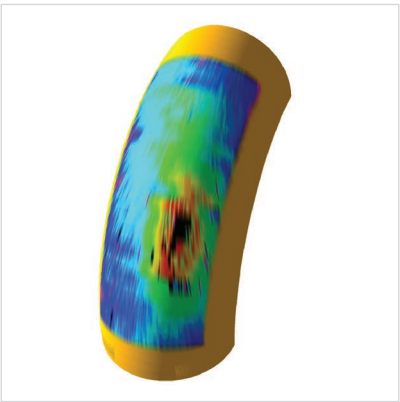
**Repeatable reliable improved data accuracy and trending.**

**Non-intrusive, ideal for HPHT and sour gas application.**

**Intrinsically safe.**

# 3D UT Wall Thickness Profiling






Thousands of measurements can be acquired in minutes to provide a clear and accurate understanding of remaining life expectancy of pipework.



## System Overview

The scanner continuously records UT wall thickness measurements as the scanning head is moved over the inspection surface. Using these readings we can then produce the 3D profile showing the complete wall loss of the inspected area of pipe. The ability to perform 360° in service erosion and corrosion profiling ensures that no points of risk are missed out.

## Product Benefits

-  **Higher probability of detection than single point UT**
-  **Early identification of areas of concern**
-  **Repeatable and reliable method of tracking wall loss**
-  **Complete 360° coverage – no areas missed**
-  **Optimisation of maintenance to model component life expectancy**

### Features

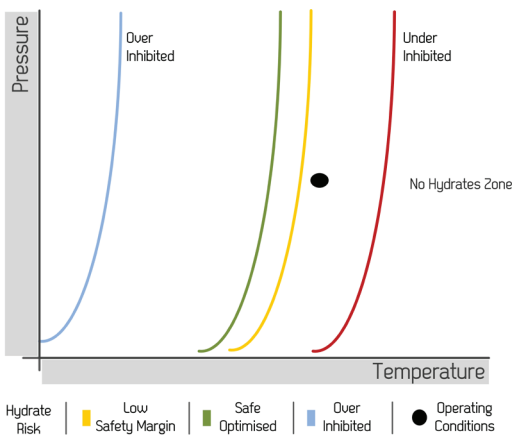
**External application, completely non-intrusive.**

**3D image profiling of wall loss caused by erosion / corrosion.**

**Lightweight, handheld, mobile unit.**

# Hydrate Inhibitor Monitoring

Manage and monitor hydrate inhibitor effectiveness on-site to optimise production decisions and reduce inhibitor costs.



## System Overview

Replace predicted values with actual real-time data, to ensure proactive mitigation against risk of hydrate production. With this data the end user can identify if they are working within a hydrate free zone or alternatively how probable hydrate formation is in comparison to earlier predicted analysis. Results will provide assurance and cost efficient use of hydrate inhibitor.

## Product Benefits

- Cost saving – optimized injection rates
- Increased hydrate prevention assurance
- Environmental impact – reducing chemical waste
- Minimize deferred production
- Informs on hydrate formation in comparison to earlier predicted analysis

Features

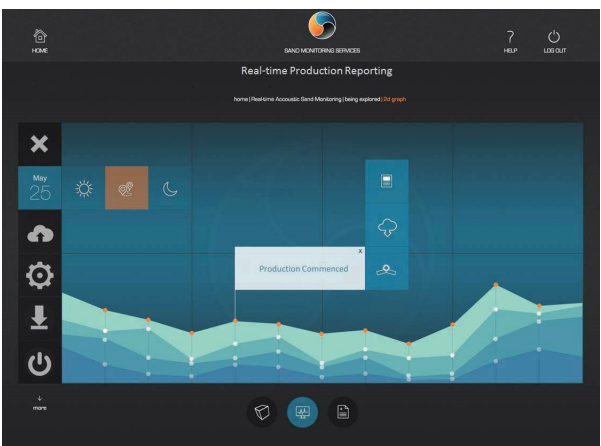
Analysis and predictions based on actual sampling.

Reduced assumptions, model based on on-site sampling.

Sample data utilized increasing modelling accuracy.

# SMART Data Visualisation

We have redefined how sensing data is utilised, combining state of the art hardware and data visualisation software to create a truly interactive and immersive experience.



## Product Benefits

- Fully interactive timeline reporting
- Intelligent alarming to spot anomalies
- Interface can be tailored to client requirements
- Can be remotely monitored, in real time from clients' office
- Inputs data from multiple sensors (acoustic, intrusive, UT etc.)

## System Overview

SMS multifunctional application has the capability of collecting data from any sensor. SMS integrate the data using multiple communication protocols and real-time alarming calculations.

Features

Web based system allows data to be viewed globally.

3D interface of sensor locations and data.

Output interfaced into client acquisition system.

Join us on LinkedIn to experience the benefits



**United Kingdom**

Unit 11 & 12 Energy Development Centre  
Aberdeen Science & Energy Park  
Claymore Drive  
Bridge of Don  
Aberdeen, Scotland  
AB23 8GD

T: +44 (0) 1224 853 525  
F: +44 (0) 1224 707 999  
E: [info@smsoilfield.com](mailto:info@smsoilfield.com)

**Malaysia**

Level 41, Vista Tower  
The Intermark  
348 Jalan Tun Razak  
Kuala Lumpur  
50400  
Malaysia

T: +60 (0) 32690 1325  
F: +60 (0) 32690 1301  
E: [info@smsoilfield.com](mailto:info@smsoilfield.com)

**[www.smsoilfield.com](http://www.smsoilfield.com)**