



KONGSBERG

Kongsberg Oil & Gas Technologies

Dedicated to efficient operations



Reservoir Analysis and Visualization
Subsea Technology Systems and Solutions
Real-Time Drilling Decision Support
Drilling Management Services
Flow Assurance
Dynamic Simulation
Marine Coordination

Our Mission

Our Mission is to develop innovative and reliable technologies and solutions to handle the pressing challenge of global oil and gas resource development today and in the future. Our systems are designed to ensure resources to be discovered, developed and delivered using the safest, most cost-effective and environmentally sustainably procedures.

Our Role

The growing challenge of oil and gas resource development demands the very best systems designed and constantly updated to raise efficiency within the world's demanding energy environment. We are here to help you manage this complex process, integrating the role of multiple vendors and service providers, to ensure the most effective and profitable energy resource development.

Our Philosophy

We pride ourselves on effective and close co-operation with our customers and partners. Our teams are specially trained to initiate and maintain a close and constant dialogue for the benefit of your business. Against a backdrop of rising and volatile energy prices, we strive to enable you to achieve more with less. The results will soon become evident on your bottom line.

Intelligent Improvement

Improve Your Operations with KONGSBERG

Kongsberg Oil & Gas Technologies is recognized across the oil and gas industry as a leading provider of high-performance information technology solutions to support decision making in drilling operations, production and reservoir management. When it comes to subsea activities, we have a strong pedigree in delivering world-class systems, products and EPC projects for subsea environments.

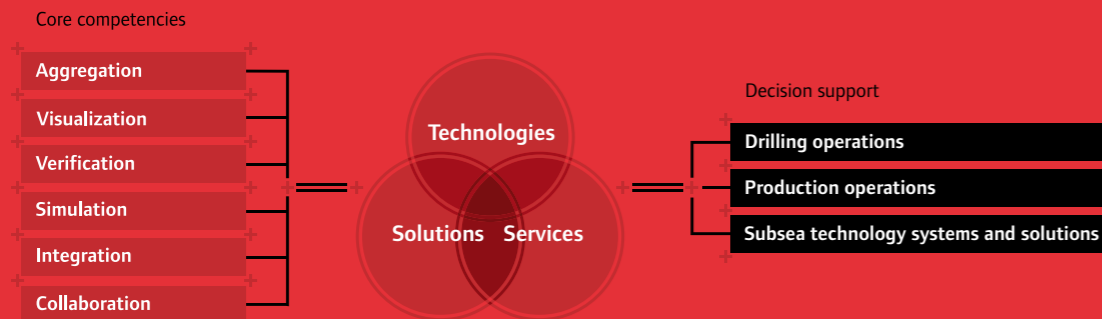
Our services and solutions range from robust and world class reservoir analysis, subsea technology systems and solutions, riser and flowline studies and engineering, through decision support solutions for real-time drilling and drilling management, simulation and optimization of production operations and coordination of oil and gas vessels – all of which are dedicated to ensuring that customers can make the most from their oilfield assets.

One of our key strengths is that, as part of KONGSBERG, we have the support of an international, knowledge-based supplier of world class technologies, systems and solutions to the oil and gas, offshore, merchant marine, defence and aerospace industries around the world.

Another key strength is that we supply state-of-the-art performance products for both oil and gas companies and oilfield service companies.

With over 25 years of industry experience, we have the capability to understand the complexities of today's quest for energy. With this experience, we are able to optimize systems and operations, through data management, simulation, integration and analysis tools, as well as engineering, consultancy and services – all leading to improved operational and financial performance.

Throughout the lifecycle of your prospect, we are with you all of the way to offer best in class decision support when it matters.



Our values

KONGSBERG'S values are our guiding principle, shaping the way we behave and work, and providing the basis for cooperation, both within and outside the company.

Determined

We are known for our drive and persistence. We always strive to meet our customers' expectations. We set ambitious goals for ourselves and we are driven towards them with a clear and constant focus.

What we start, we finish. We do not give in.

Innovative

Always performing better is a vital part of who we are. We constantly innovate and implement improvements in all parts of our business - from our products, through our processes, to our customers' experiences.

We relentlessly pursue improvements, new ideas and new solutions.

Collaborative

Collaboration is fundamental to our business. We exchange ideas among ourselves, with our suppliers and partners, and we cooperate closely with our customers. We work as teams, we share knowledge and we value team success - to the benefit of our customers and our own competitiveness.

We collaborate as individuals and as an organization.

Reliable

Our customers and partners can trust KONGSBERG to deliver, always. Dealing with KONGSBERG means dealing with reliable people, a reliable corporation and reliable products. KONGSBERG is a responsible organization characterized by integrity and concern for health, safety and the environment.

We are reliable people. We are responsible citizens.



Decision Support - a Shared Benefit

We optimize our customers' oil and gas operations as they address their financial, health, safety and environmental demands. To achieve this we have developed a range of software, engineering and consulting solutions that is the result of close collaboration with our customers, providing them with clear operational advantages as they seek to gain continuous performance improvements.

We operate as a trusted adviser to our customers and partners to bring about efficiency gains in both the engineering and operational phases of projects. The disciplines embraced by our customers include subsea operations, reservoir management, drilling, production and field logistics. Our support is always available to ensure that operations are conducted as safely, sustainably and efficiently as possible.

Our solutions are based on information management and constant technological advances, addressing the industry's increasingly challenging conditions and need for accurate information for improved and faster decision making.

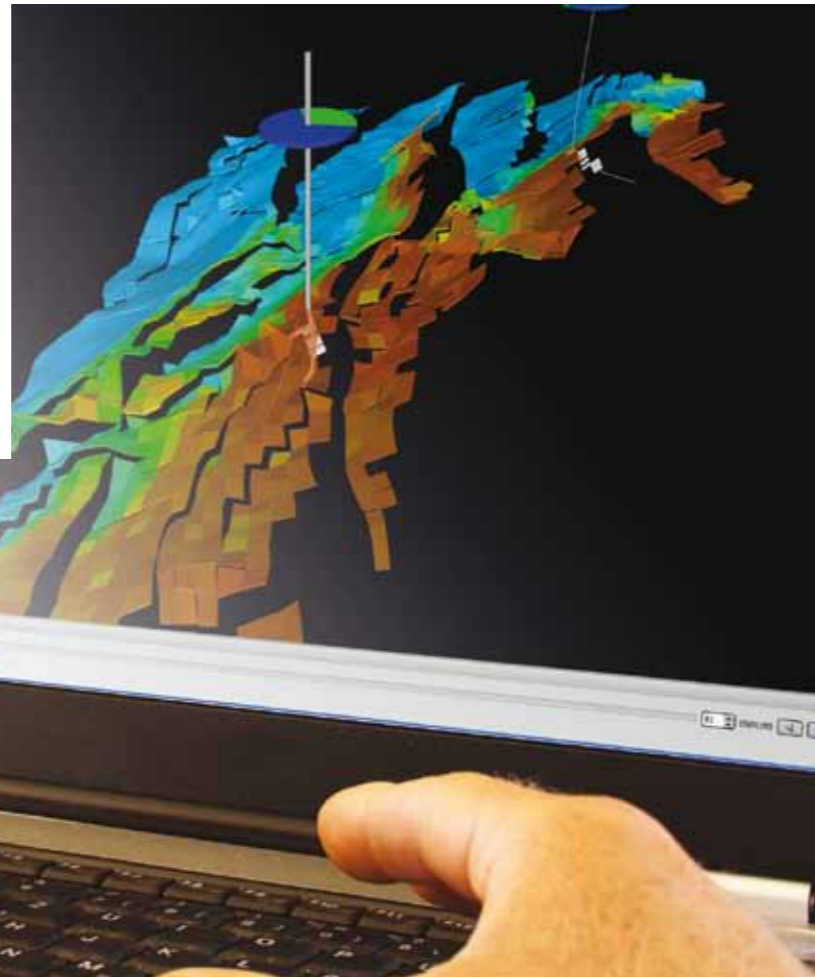
Your Benefits

The benefit to our customers lies in our value chain. KONGSBERG has a long history of working closely with our customers to optimize results for real-world environments. Our employees have extensive industry experience from a wide range of oil and gas disciplines from around the world. This provides us with the foundation to develop products and services based on in-depth research and product development, leading to exacting solutions, time after time.



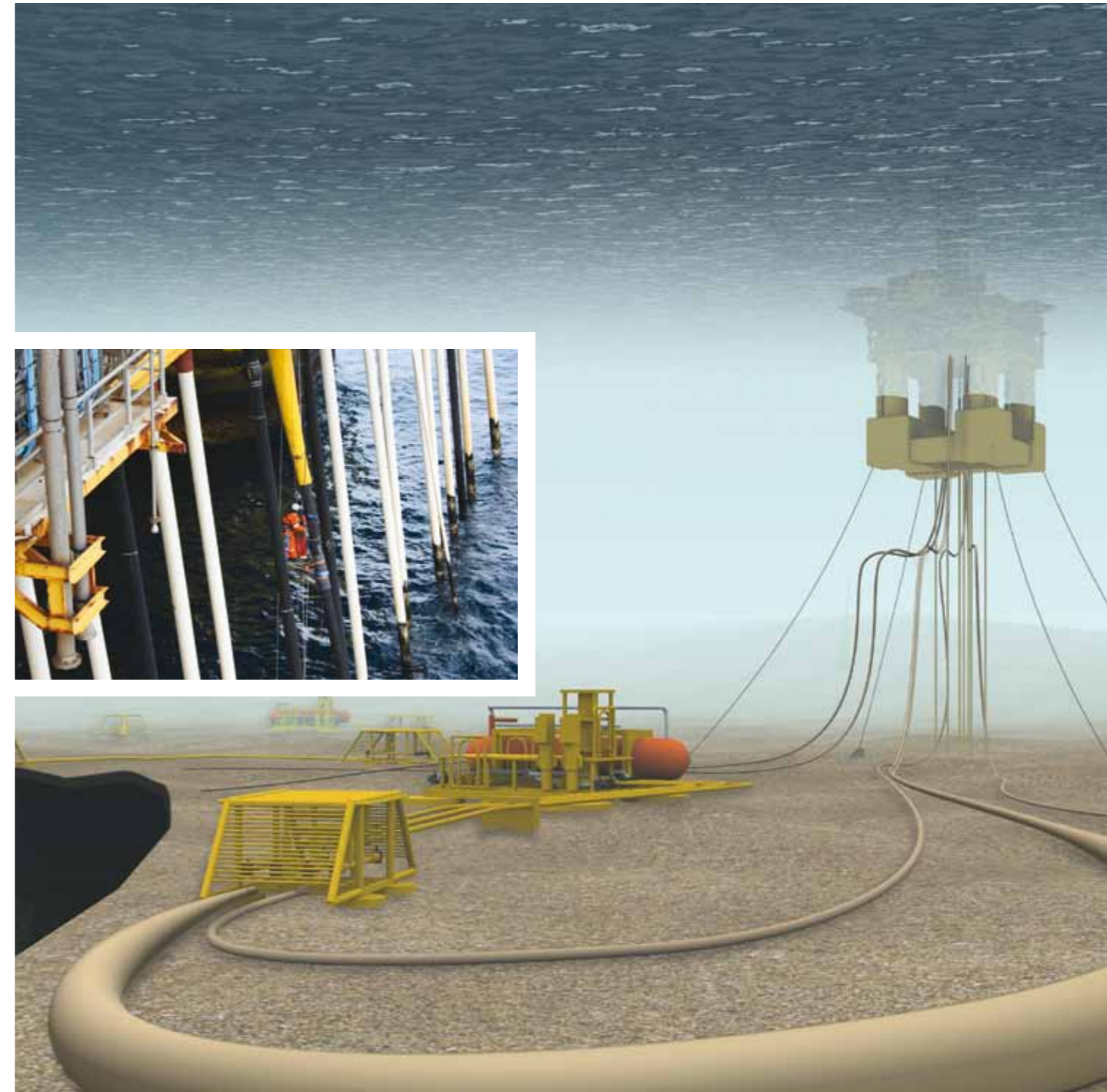
Reservoir Analysis and Visualization

Optimized production performance begins with a clear understanding and analysis of the reservoir. Geoscientists, petrophysicists and reservoir engineers all demand the tools that enable them to evaluate subsurface measurements. From cuttings and interpreted lithology, through reservoir characterization, to highly specialised LWD measurement and production data, the compilation of an integrated geological picture is essential to ensure a better understanding of the reservoir's dynamics and behaviour; improve reservoir depletion strategies, and identify optimum well placement. This enables informed decisions and assists in achieving maximum return on investment.



Subsea Technology Systems and Solutions

KONGSBERG is a leading provider of subsea technology systems and solutions to the world's foremost energy companies and field operators. We have a long and successful track record in subsea engineering, procurement and construction (EPC) projects and the wealth of experience within our organization built up over many years enables us to offer a full range of state-of-the-art solutions in the continuing development of riser and umbilical technologies.





Risers and Flowlines

With deep experience spanning many years, KONGSBERG is recognized as one of the world's leading engineering and consultancy service providers in riser and umbilical technologies, as well as flow lines and subsea production systems for exploration, production and commissioning. Our capabilities include a diverse range of riser engineering, design monitoring and analysis tools supporting operators in the optimal management of every aspect of field life. We have an extensive range of hardware solutions available for customers to choose and use with confidence – from flow line lifting tools to specialist tailor-made production hardware.

Riser Technologies

KONGSBERG offers a range of riser technologies and solutions, covering the phases from design and installation, through to operation and integrity. Our products and services include flow lines and umbilical systems, intervention and tooling as well as templates, manifolds and subsea processing.



Riser Integrity Management

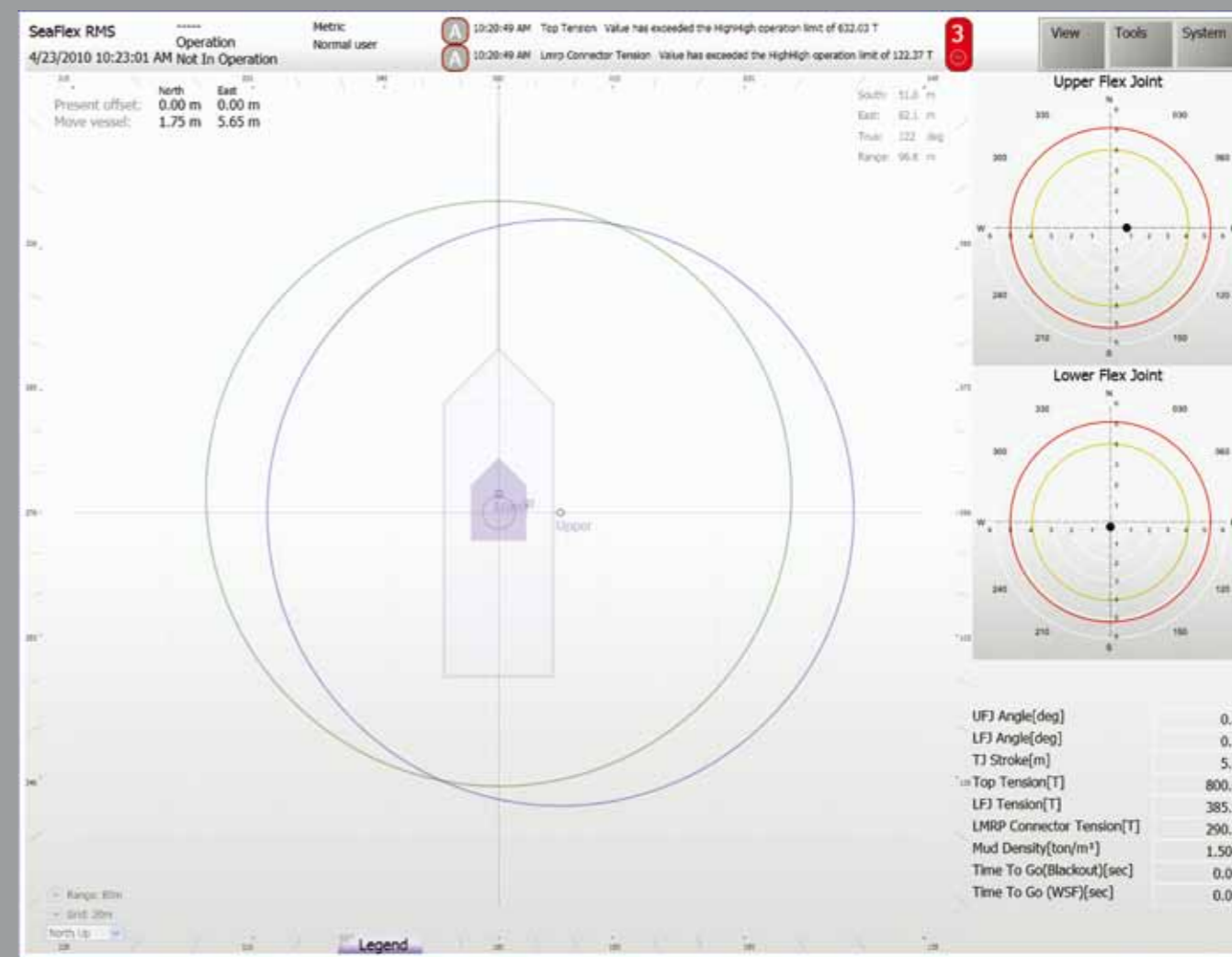
Continuous monitoring of riser systems is vital to maintain maximum efficiency and minimize the risks associated with daily operations.

A monitoring and advisory system for optimum handling of drilling and workover risers provides continuous tracking of riser activity and responses, to ensure more reliable, safer and efficient drilling and workover operations.

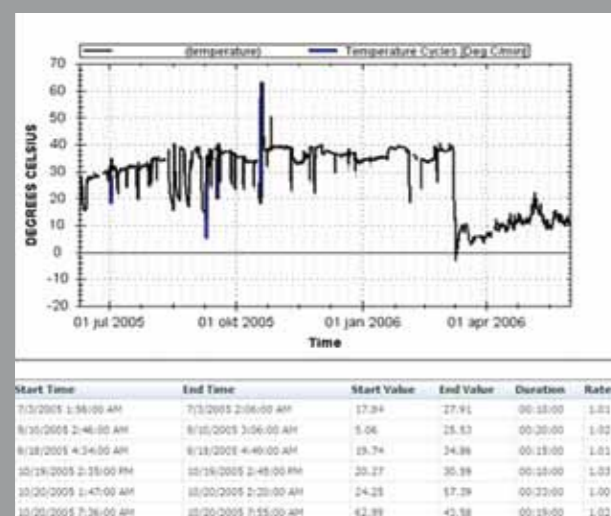
For the drilling crew, we provide a range of component monitoring capabilities including flex-joint angles, top tension and tension distribution along the riser, as well as telescopic joint stroke and connector loads.

In addition to system monitoring during the drilling and workover phase, accurate analysis of riser systems throughout the life cycle of the asset is imperative. Our software solutions allow operators to gather information on operation, inspection, maintenance and repair, including risk-based inspection, analyses and status assessments.

Riser Monitoring Systems (RMS)



RiserNET



Drilling Performance Improvements

Improving drilling performance is all about improved decision-making. To achieve this, access to data must be timely, simple and secure. KONGSBERG has the tools to allow access to the myriad of data, reports and other field information, making both real-time calculations and decision making far more effective.

By enabling data capture, viewing and analysis in a discrete form based on data aggregated from many sources, organizations are sure to have the right information available to make critical decisions.

The next step is to make the best use of the data. Our solutions enable new cross-operational learning opportunities, improved decision support and more efficient operational management.

Data analysis can come from a diverse range of drilling activities – from drilling dynamics, wellbore stability conditions such as mud-weight windows, hydraulics and hole-cleaning through ECD. In addition, the real-time and historical performance of rig and service providers can be tracked consistently and objectively.

With this level of supervision, wells can be drilled with maximum confidence in risk mitigation and HS&E assurance.



Drilling Management

Decades of hands-on experience has given us detailed practical knowledge – helping us to develop user-friendly, highly informative technology for improved drilling management. As pioneers on the Norwegian Continental Shelf, our consultants have worked in close collaboration with the energy majors across a range of milestone projects.

Today, our consulting team works with some of the largest companies in the oil and gas industry which continues to benefit from our rigorous approach and sound sector knowledge.

We encourage clients to identify commercial objectives as early as possible and, to enable close monitoring of improvement and change; we have developed a performance measurement approach enabling us to report continuously on project progress and clients' operational performance.

Organisation and process development supports management in building the framework necessary to achieve strategic goals. The process can be based on specific measures to raise operational efficiency, or the adoption of new techniques to meet an increasingly complex regulatory framework. Analysis of the technologies required and their efficiency integration comprise a vital component in our service.

We have broad experience of such projects and this has led to the development of new operational models for drilling and production organisations which maximise access to competence onshore, and reduce unnecessary personnel offshore.

The pressure to raise efficiency in oil and gas resource development is paramount. Maximising rig performance is a key factor both for oil companies and drilling contractors. We have developed unique software technology capable of integrating directly into drilling operations and measuring the resulting improvements in performance.





Real-Time Data Management

We work with our customers and partners to design, implement and support strategic, business-appropriate real-time data management.

We are a leading independent company in the Digital Oilfield; our clients develop a trusted partnership with us, using our extensive operational and technical expertise drawn from global operations and numerous industry alliances. We work in consultation with all stakeholders involved - drilling engineers, geoscientists, and IT teams - to ensure that your data management infrastructure is fit-for-purpose, both now and for the future.

Our real-time data solutions are built around a centralized data acquisition, aggregation and storage hub, providing a one-stop system for end-users to access, display and manage all real-time drilling and evaluation data.

Importantly, infrastructures for data availability can be created totally within our customers' network environments. This eliminates data security issues relating to the hosting of data outside the customer's controlled environment.



Diverse Operations

As oil companies seek resources in ever more harsh and diverse environments and drilling operations become more complex, the scarcity of human resources available to make use of information makes global collaboration necessary as skills may be spread around an organization and around the globe.

In order to make better-informed decisions, access to data must be timely, simple and secure. The challenge is to gain access to the myriad of data, reports and other field information for improved oil recovery capability. Effective technology integration is imperative for companies as they seek sound returns on future investments.

Our technology provides a clear and comprehensive view of current drilling activity, coupled with scroll-back historical data and cross-plotting for trend analysis, correlated with geological input. This enables real-time response and reaction to ensure optimum conditions are maintained for maximum performance.



Dynamic Simulation

The efficiency and effectiveness of production operations depends on the ability of operational staff to understand the process.

The best way to achieve the relevant competence is through simulation training that provides teaching and learning of the whole lifecycle. KONGSBERG offer dynamic simulation tools for training, analysis and simulation of the well-stream from oil well to topside. For many years, we have been the leader in providing dynamic simulators for process, instrumentation, and control engineering.

We provide a suite of proprietary tools including stand-alone transient multiphase simulations as well as integrated facility simulation systems and services. Cost reduction and improved efficiencies in all phases of field development have been consistently demonstrated.

Our strength lies in the successful delivery of over 300 dynamic simulation studies, 100 customized Operator Training Simulators and over 40 online Production Management Systems to major oil and gas operators worldwide.



Flow Assurance and Production Optimization

Well-designed workflows are about managing surveillance, dynamic simulation and the monitoring of procedures to raise operational efficiency. We achieve this by combining all components into an environment designed to bring about high performance production operations.

Key to this process is flow assurance - making sure oil and gas travels effectively from subsea source to topside. Over recent years major improvements have been made to ensure an uninterrupted flow of oil, gas and water. Through the use of our improved software simulation solutions, our customers have achieved consistent success. These state-of-the-art technologies can analyze and define the safest and most efficient flow management procedures, thereby bringing about a step-change in production performance.

Today's offshore field developments are now taking place further from land, in deeper water and harsher environments. Multiphase Flow Simulation is a critical element in the design of today's oil and gas production systems. Both longer and larger diameter flowlines are being used. In order to carry out both real-time and offline analysis, Multiphase Flow Simulations provide the ability to analyze optimal flowline diameter, limit slugging and pressure losses, and the effective modelling of thermal insulation techniques and chemical inhibitor use.



Marine Coordination

Maintaining and increasing safety and enhancing the logistics management of offshore vessel activity is a key requirement of a well-managed field operation.

Increased safety is achieved through 24/7 real-time monitoring of vessel movements in relation to safety requirements. Enhanced logistics management is realized through optimal utilisation of cargo vessels and automatic update of sailing plans with notification of stakeholders. Vessel movements are monitored through innovative real-time 3D visualization, taking into account variables such as weather conditions, installations, onshore bases, sailing plans and cargo manifests.

Easy planning of sailing schedules is achieved with automatic update and notification of changes, whilst dynamic reports enable full analysis of operations to optimize logistics operations.



We are There, Whenever You Need Us

The Kongsberg Oil & Gas Technologies customer services organization is committed to providing easy access to service and support, and to responding promptly to your needs. Activities are supervised from our headquarters in Norway, with centers at strategic locations around the globe – where you are and the action is. As part of our commitment to total customer satisfaction, we offer a wide variety of services to meet our customers' specific operational needs.



Global and local support
Service and support work is carried out under the supervision of your personal account manager, who will ensure that you receive high-quality service and support where and when you need it. Your account manager will ensure continuity and work closely with your staff to improve and optimize system availability and performance. Under the direction of your account manager, our well-qualified field service engineers will be able to help you quickly and effectively, wherever you are and regardless of the levels of support required.

www.kongsberg.com



Norway

Kongsberg Oil & Gas Technologies AS
Hamangskogen 60
N-1338 Sandvika
Norway
Phone: +47 67 80 48 00
kogt.sales@kongsberg.com

USA

Kongsberg Oil & Gas Technologies, Inc.
11000 Richmond Avenue, Suite 400
Houston, TX 77042
USA
Phone: +1 713 808 6800
kogt.sales@kongsberg.com