

The oil and gas sector is at a critical crossroads—aging infrastructure, workforce shifts, tougher regulatory requirements and operational inefficiencies are mounting. All while global energy demands grow and there’s pressure to meet sustainability goals. Artificial Intelligence and digitalization present a transformative opportunity for the oil & gas industry to enhance operational efficiency, optimize assets and improve safety.



“With the AI in Oil and Gas market forecasted to reach \$4.21B by 2028¹, now is the time to explore how AI can deliver real operational value”

1. Modernizing the Field

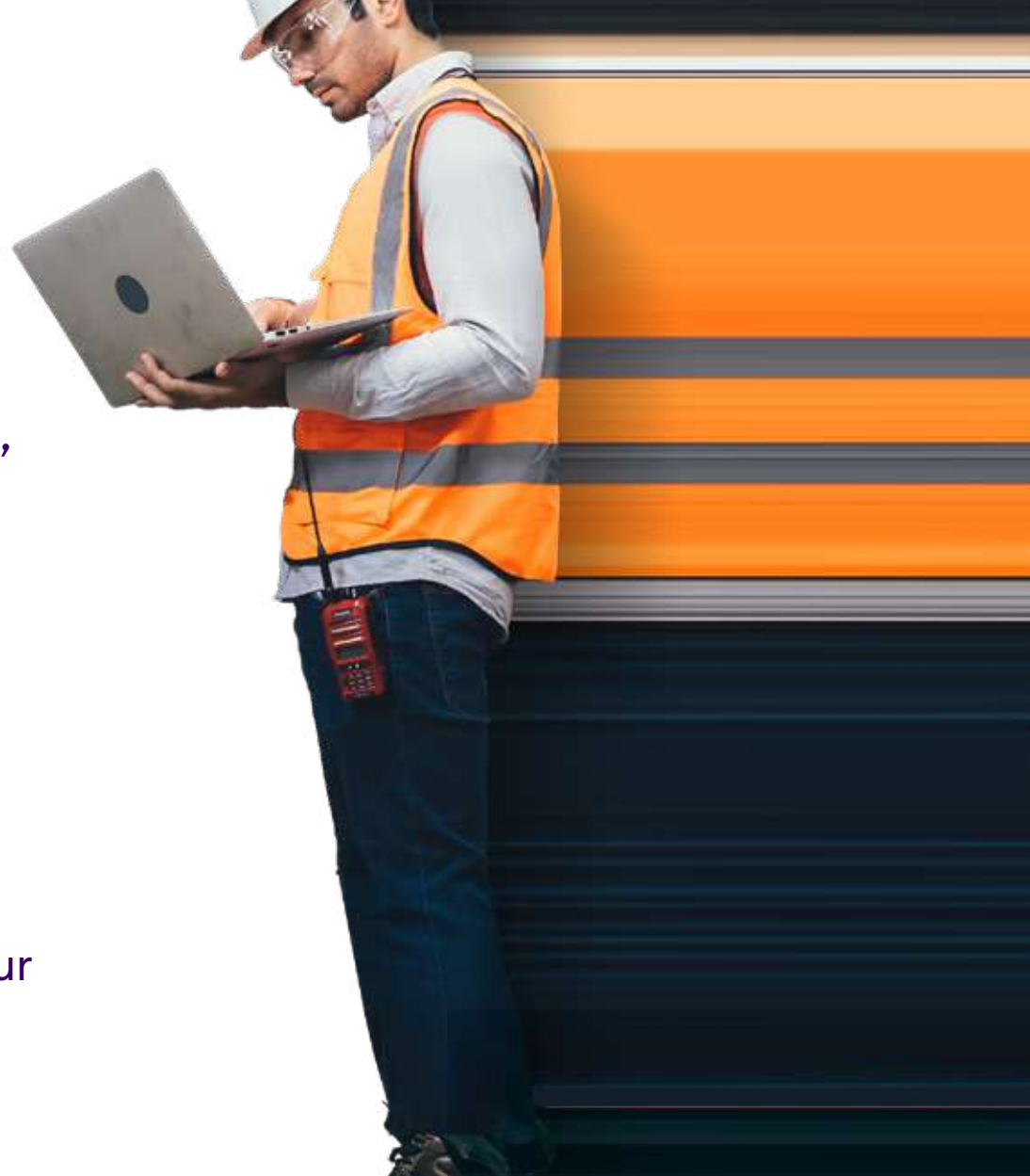
AI in Back-Office Operations

✗ The Problem

Legacy systems and administrative bottlenecks make it difficult for oil and gas companies to work efficiently – especially with an aging workforce and limited digital-native talent. Manual decision-making around parts procurement, maintenance scheduling, and work order creation often leads to delays and wasted labor hours.

✓ The Industrial AI Solution

- AI learns from historical work order data to **automate parts ordering**
- Recommends **optimal times to open work orders** based on asset behaviour
- Reduces screen time for engineers, boosting **hands-on “wrench time”**



The Outcome

Streamlined workflows, improved workforce productivity, and faster fault resolution.

2. Maximizing Asset Uptime

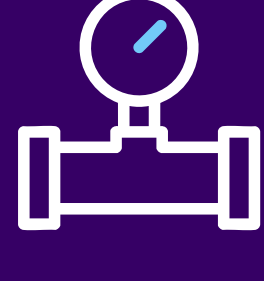
Predictive Asset Maintenance with AI & Digital Twins

✗ The Problem

Asset degradation and unplanned maintenance are costing companies tens of millions annually. In fact, the majority of refinery shutdowns stem from unplanned events. Many assets—63%—are already in the latter stages of their lifecycle².

✓ The Industrial AI Solution

- Applies machine learning to **analyze remote sensor data**
- Uses **digital twin models** to simulate real-time equipment performance
- Enables predictive maintenance and **“what-if” planning scenarios**



The Outcome

Fewer unplanned outages, optimized assets and extended service lifetime.



Explore why TotalEnergies chose IFS for its global asset management transformation.

[Find out more](#)

3. Automating Production

Smarter Production Scheduling through AI

✗ The Problem

Oil and gas production involves complex, interdependent operations—from drilling to rig installation—that are highly vulnerable to disruption from weather, logistics, and labor issues. Static schedules can’t respond fast enough, leading to cost overruns and delays.

✓ The Industrial AI Solution

- AI-powered cloud platforms **analyze production variables in real-time**
- Dynamically **adjust schedules** based on operational inputs
- Aligns people, resources, and assets to ensure **continuous production**



The Outcome

Agile planning, reduced risk, and maximized production efficiency—onshore and offshore.



Noble Corporation is transforming maintenance and operations with IFS.ai

Noble Corporation is enhancing its operational performance by investing in IFS Industrial AI capabilities, seamlessly embedded within the evergreen, composable IFS Cloud ERP platform.

[Read customer story](#)



Unlock the power of AI in oil & gas

AI is no longer a future-state technology—it’s a present-day advantage. In the oil and gas sector, it’s driving measurable results in asset uptime, operational efficiency, safety, and sustainability. Whether it’s optimizing scheduling, predicting asset failures, or boosting operational efficiency, **Industrial AI is helping Oil and Gas leaders move faster and smarter.**

IFS.ai enables full lifecycle optimization—from field maintenance to enterprise planning—empowering organizations to unlock real ROI from their digital investments.

Explore what AI can do for your operations.

[Find out more](#)

Sources

1. www.mordorintelligence.com/industry-reports/ai-market-in-oil-and-gas#:~:text=AI%20in%20Oil%20and%20Gas%20Market%20Analysis,spread%20out%20over%20the%20globe
2. www.arcweb.com/blog/data-quality-effective-digital-twins-oil-gas

About IFS

IFS is the world’s leading provider of industrial AI and enterprise software for hardcore businesses that make, service, and power planet. The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector. Learn more about how our enterprise software solutions can help your business today at ifs.com.