

8 STRATEGIC REASONS TO FOCUS ON DIGITAL OILFIELD AND AI TO REVITALIZE UPSTREAM OIL AND GAS INVESTMENT



In today's digital age, companies that persevered in their digital strategy have become leading global players, it's why big tech companies now rank among the most valuable in the world.

The oil and gas industry is no exception. Technology and innovation investments have proven pivotal for its growth and competitiveness even in the most challenging periods of the industry.

At SoftServe, we advocate for a strategic shift toward digital oilfield (DOF) and AI, as they promise the highest return on investment (ROI) in the shortest timeframe. In fact, digital oilfields have already demonstrated significant benefits, enhancing our ability to:



**IMPROVE
RESERVOIR
RECOVERY RATE**



**MINIMIZE
PRODUCTION
LOSS**



**REDUCE
BREAK-EVEN
COST**



**MINIMIZE
METHANE
EMISSIONS**

These advancements have translated into increased production, operational efficiency, and improved health, safety, and environmental (HSE) standards.

DOF technologies, including IoT, advanced automation, big data, advanced analytics, AI/ML, and cloud computing have played a crucial role in integrating data, facilitating:

Real-time Asset Surveillance:

Monitoring assets in real time for performance and efficiency.

Anomaly Detection and Systems Diagnostics:

Identifying anomalies and diagnosing system issues for proactive maintenance.

Preventative Maintenance:

Implementing maintenance strategies to prevent breakdowns and downtime.

Production Optimization and Predictive Modeling:

Optimizing production processes through predictive modeling for improved efficiency.

Data Visualization:

Representing data visually for easier interpretation and decision-making.

While AI is still in its early stages within the upstream industry, its potential impact cannot be understated. The Harvard Business Review's "Stop Tinkering with AI" analysis advocates for a comprehensive AI strategy, emphasizing that companies with a high AI maturity level tend to achieve greater success.

By integrating DOF and AI, the oil and gas industry can overcome existing and emerging challenges, leading to improved operational efficiency, increased production, and enhanced sustainability. As the world races toward a cleaner and greener future, a shift to the digital realm is what the upstream oil and gas industry needs to remain competitive and relevant.

EIGHT REASONS TO INVEST IN DOF AND AI:



1. LESS CAPEX REQUIREMENTS:

Software-defined solutions are less capital-intensive than traditional O&G technology development projects for exploration, drilling, and production.

2. NOT IMPACTED BY SUPPLY CHAIN:

Software solutions are not subject to supply chain dependencies, mitigating the impact of supply chain disruptions that have affected input costs.

3. SHORTER CYCLE PROJECTS

DOF and AI projects typically have shorter timelines than traditional projects, allowing for faster implementation and ROI realization.

4. LESS HUMAN RESOURCE INTENSIVE:

DOF and AI solutions require fewer human resources, addressing the industry's talent shortage and increasing labor costs.

5. HIGHER ROI:

AI-based production optimization systems can deliver consistent production increases, offering higher ROI compared to traditional CAPEX projects.

6. SIMPLE DELIVERY LOGISTIC:

DOF and AI development and maintenance do not require material and field equipment mobilization, making global deployment more manageable.

7. LEVERAGES CLOUD COMPUTING:

Access to sophisticated tools for data integration, orchestration, data lakes, ready-to-use AI/ML algorithms, visualization, and a variety of no-code, low-code tools dramatically reduced the time it takes to develop complex applications.

8. INCREASED VALUATION:

Companies with a central theme of digitalization and AI are the world's most valued (by market capitalization) companies. While speculation about an AI bubble may exist, the O&G industry must take note of this reality.

Learn more about the eight reasons to invest, plus explore the industry's macro dynamics and technology history in our report "Macro Dynamics in Upstream Oil and Gas." Gain insights into the evolving investment landscape and uncover the challenges and opportunities shaping the future of O&G.

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