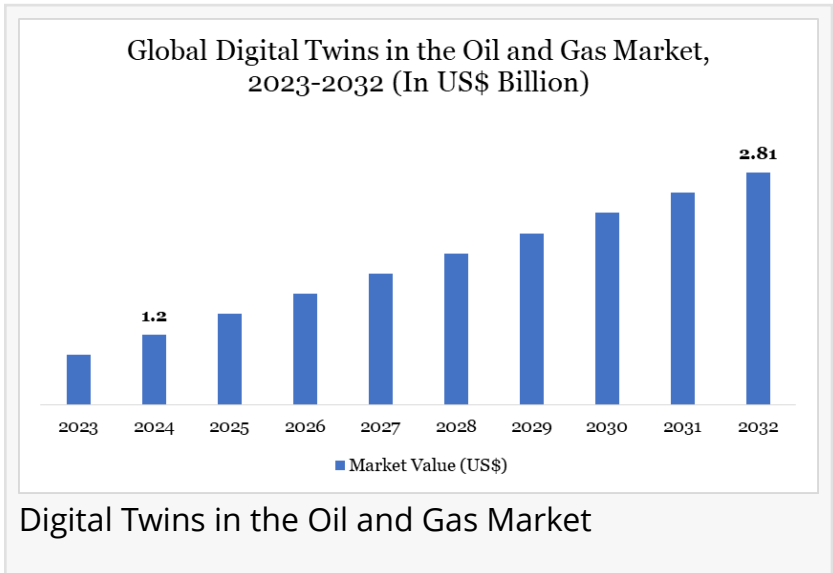


Digital Twin Market in Oil & Gas Industry Forecasts Strong Growth US\$ 2.81 Billion by 2032 | Says DataM Intelligence

Digital Twins in Oil & Gas Market to grow from US\$ 1.2B in 2024 to US\$ 2.81B by 2032, driven by rising demand for asset optimization.

AUSTIN, TX, UNITED STATES, July 17, 2025 /EINPresswire.com/ -- Digital Twins in the Oil and Gas Market Expected to Surge Driven by Operational Efficiency, Safety Improvements, and Digital Transformation



Market Overview

The Global Market for [Digital Twins in the Oil and Gas Industry Size](#) was valued at approximately US\$ 1.2 Billion in 2024 and is projected to rise to around US\$ 2.81 Billion by 2032, expanding at a compound annual growth rate (CAGR) of 11.20% between 2025 and 2032.



In 2024, the U.S. accounted for a significant share of the US\$ 1.2B global Digital Twins in the Oil & Gas Market, driven by demand for predictive maintenance and real-time asset monitoring.

”

*DataM Intelligence 4Market
Research LLP*

To Download Sample Report:

<https://www.datamintelligence.com/research-report/digital-twins-in-the-oil-and-gas-market>

Market Drivers and Opportunities

Increased Need for Asset Optimization: With fluctuating oil prices and high operating costs, companies are turning to digital twins to optimize asset utilization and enhance lifecycle management.

Focus on Predictive Maintenance and Safety: The growing emphasis on workplace safety and predictive analytics is propelling the demand for digital twin solutions, especially for hazardous and remote operations.

Digital Transformation Initiatives: Ongoing digitalization in the oil and gas industry, supported by AI, IoT, and cloud computing, is accelerating the deployment of digital twins to enhance decision-making and operational agility.

Geographical Market Share

North America leads the global market, driven by the presence of major oilfield services companies and technological innovators in the U.S. The region's strong focus on digital transformation and energy efficiency contributes to early adoption.

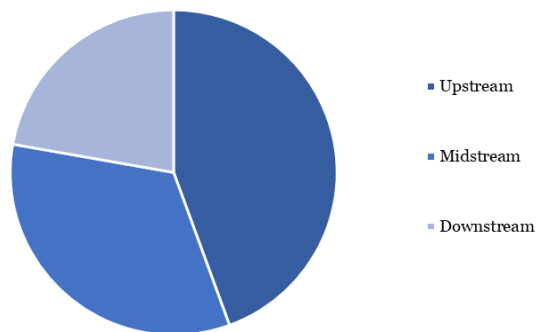
Asia-Pacific, particularly Japan, is emerging as a significant market owing to its smart infrastructure initiatives, robust technology ecosystem, and increasing investments in digital oilfield technologies. The Middle East and Europe also hold substantial shares, supported by offshore exploration projects and modernization efforts.

Key Market Players

Key players contributing to the growth of the digital twins market in oil and gas include:

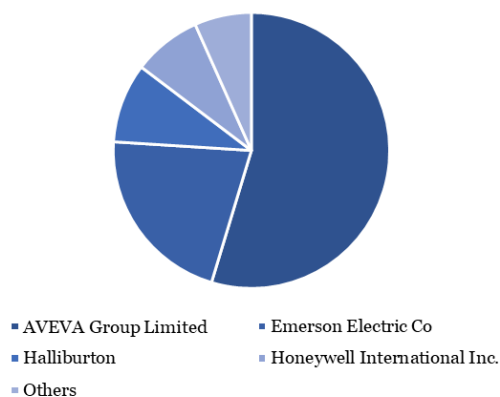
AVEVA Group Limited
Emerson Electric Co
Halliburton
Honeywell International Inc.
IBM
SLB
Microsoft Corporation
General Electric
Schneider Electric

Global Digital Twins in the Oil and Gas Market, By Operation (%), 2024



Digital Twins in the Oil and Gas Market By Operation

Key Players Market Share Analysis, 2024



Digital Twins in the Oil and Gas Market Share Analysis

Siemens Energy

Market Segmentation:

By Offering: Product digital twin, Process digital twin, System digital twin

By Type: Descriptive Twin, Informative Twin, Predictive Twin, Comprehensive Twin, Autonomous Twin

By Deployment Mode: Cloud, On-premises

By Operation: Upstream, Midstream, Downstream

By Application: Exploration & Production, Drilling Operations, Reservoir Management, Pipeline Management, Refining Operations, Asset Performance Management, Others

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Recent Developments – United States

May 2025 – A major U.S. energy firm deployed a next-generation digital twin platform across its offshore assets in the Gulf of Mexico, enabling real-time structural monitoring and failure prediction.

August 2024 – A Texas-based oilfield technology company partnered with a cloud service provider to launch a scalable digital twin framework, allowing remote diagnostics and AI-based simulations for drilling operations.

Recent Developments – Japan

March 2025 – A leading Japanese engineering company launched a digital twin-based predictive maintenance solution for LNG plants, integrating real-time analytics and machine learning.

September 2024 – A consortium of Japanese energy and tech firms initiated a pilot project utilizing digital twins to optimize operations at a coastal refinery, targeting emissions reduction and throughput improvement.

Conclusion

The Digital Twins in the Oil and Gas Market is witnessing robust growth driven by the industry's urgent need for efficiency, safety, and digital integration. As leading economies like the U.S. and Japan continue to pioneer advancements in digital twin applications, the global oil and gas sector

is set to undergo a significant transformation, redefining asset management and operational resilience.

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