

Digital Oil and Gas: Inspire and Shape the Digital Energy Revolution

Global energy demand is growing, but there are also changes threatening traditional paradigms

Decarbonization and advances in engineering and technological ingenuity are changing the energy mix. At the same time, population growth, worldwide urbanization, and rising demand from emerging economies are shaping new demand patterns. And a broad and diverse set of regulations is forcing the industry to continuously adapt to new rules.

Considering the pressures of urbanization, resource constraints, and the digital economy, the industry is looking for ways to serve a new lifestyle that prefers outcome-based energy consumption.

Digital capabilities are changing everything

Companies worldwide are already showing how digital capabilities are changing the game. For example, Vantage Drilling reduced its maintenance costs by overcoming inherent latency in satellite communications at offshore locations. Pacific Drilling performs transactions and analytics in the same environment, simplifying its IT landscape and greatly reducing costs.

With new cloud delivery models, oil and gas companies can now extend their culture of risk sharing through joint ventures with the digital world. They even participate in networks for contingent labor, procurement, and asset intelligence.

Digital innovation does not compromise security. A recent cybersecurity study reveals that 59% of businesses that use cloud services have improved their overall information security.

SAP envisions the digital energy network

A more-resilient digital energy network will connect all workers, suppliers, customers, and assets through reimagined business models, processes, and ways of working. Very soon, we will move away from the traditional, vertically integrated model constrained by physical, technological, and organizational boundaries.

Hydrocarbon logistics are being reimagined to:

- Predict failures and minimize disruptions
- Provide real-time visibility and predictive insight for transportation demands and execution
- Adapt to changing conditions with predictive modeling and system-generated planning and scheduling options

Oilfields are being connected to:

- Establish end-to-end production management to allocate the right resources to the right activities at the right time
- Use real-time analysis of geospatial and sensor data to identify underperforming assets and to determine root causes of issues
- Optimize and secure production through the use of proactive maintenance planning and integrated financial management

SAP has the platform to drive digital transformation in oil and gas

Energy leaders are investing in capabilities that support their strategy and enable them to participate in a digital energy network. This network will give all participants a platform for driving efficiency, accelerating energy innovation, and developing new business models.

Only SAP has the end-to-end digital solutions to interconnect all aspects of your industry's value chain to help your business become more agile and grow in this time of change and innovation. Oil and gas companies can operate in real time for fundamentally better performance. For example, they can have a single, real-time view of plant and business performance with in-the-moment analysis of asset performance.

SAP brings the simplification, innovation, and acceleration required to support the development of your digital business strategy. These capabilities can be used throughout our collaborative value and innovation framework to deliver a world-class digital experience.

Let us design your digital journey together!

Disruptive Innovation US\$1 million

Cost reduction in well drilling at Continental Resources due to technology advances in drilling and completion efficiencies

["Drilling Into Operational Metrics in the Energy Industry," Analytics Case Studies, Bloomberg, September 2013.](#)

Digital Transformation 25%

Simpler communications decreases maintenance costs at Vantage Energy by overcoming inherent latency in satellite communications at offshore locations

["Bridging the Offshore Data Gap," Warren Wilson, OVUM, October 2014.](#)

"We see a world energized by a safer, more reliable, and affordable digital energy network – one that spans all sources of supply and is transformed with new business models, processes, and ways of working that we have never imagined before."

Ken Evans, Global Vice President – Oil and Gas Business Solutions, SAP

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