

# OIL & GAS MIDDLE EAST

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TECHNOLOGY FOCUS

# COPING WITH THE 'BIG' CHANGES IN THE SECTOR

With more than 2.5 quintillion bytes of data produced from internet users per day, Big Data can help organisations make better informed business and technical decisions

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In today's digitally driven enterprises, Big Data will be a huge benefit for the oil and gas industry, especially at a time of resource scarcity. Big data refers to the massive quantities of raw data generated by informational technology. In fact, according to technology company IBM, more than 2.5 quintillion bytes of data is produced from internet users in 24 hours alone.

Decoding these using analytics software can help organisations make better business and technical decisions. For instance, in the oil and gas sector, the remote assistance in pipelines, prediction and mitigation of risks based on trend studies, and allocation of resources upstream and downstream, help oilfield operators become efficient. If leveraged and understood properly, Big Data

holds the key to sustainability.

Luc Chantepy, regional sales vice president, AspenTech, explains that "Big data enables better, faster decisions. With the ability to make better design decisions, reliability improvement decisions, capital spending decisions as well as quantify future operational scenarios, oil and gas companies worldwide are interested in how Big Data will help their assets break down less. Longer lasting assets and lower maintenance costs are attractive, but the main motivation is that the net production output of the process increases dramatically when plant reliability is improved."

According to a Gartner 2016 survey, the investment focus is shifting from Big Data itself to building organisational capabilities to

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↑ It has become critical for energy firms to use data analytics for real-time insights.

Improve specific business areas and metrics.

In this era of unstable oil and gas prices, energy firms in the region are more bullish about using Big Data analytics to provide full business visibility and to plan their long-term sustainable production. The business benefits are not theoretical. A recent report revealed that 92% of the region's oil and gas projects are delayed and 70% are over budget.

Thus, it has become critical for energy firms to use data analytics for real-time insights that cut costs, enhance operations, and the supply chain. This is particularly true for digital oilfields, which can use Big Data analytics to allow for more mobile workforces as well as better prediction of trends such as new drilling locations, supply and demand, and predictive maintenance. Predicting events ahead of time allows firms to take proactive actions to avoid asset performance issues, increasing reliability and availability throughout the asset's lifecycle.

The world of Big Data is changing. Businesses need to find effective ways to utilise the massive amounts of data being generated. The Internet of Things (IoT) is fuelling the digital transformation in the marketplace. Big Data is becoming increasingly pervasive across all industries, including the oil and gas sector, and data-driven companies are positioned to be successful disruptors.

"With the rise of the Internet of Things Era," says Tayfun Topkoc, managing director, SAP UAE, "The Middle East's digital oilfields can harness innovations such as drones, robotics, and 3D-printing to enhance their business models and competitiveness. However, energy firms should not deploy Big Data analytics in isolation. Instead, it is vital for it to be a part of a wider digital transformation strategy, which also includes robust cyber security measures."

Mike Weston, vice president of Cisco Middle East, tells this magazine, "The ability to unlock hidden value within your data is vital to being competitive in today's world. What you need is effective data management, data preparation, and analytics." ●



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