

Insights on Oil & Gas: November 2008

PERSPECTIVE #
Jill Feblowitz Catherine Madden

IN THIS PERSPECTIVE

Welcome to the November 2008 edition of [Insights on Oil & Gas](#). We publish every month, examining recent events and offering opinions on key trends in the oil and gas industry. Please forward this newsletter to colleagues or others who might find it relevant. And, we welcome your feedback on our newsletter; please [email us](#) to provide any commentary.

While the current U.S. economic recession originated in the financial services industry, the crisis has spread globally and many countries and industries are struggling. Yet, only a few weeks ago, one of the largest oil and gas companies in the world reported the highest quarterly profit by a company ever in the U.S. Are oil and gas companies immune to the economic pressures facing other industries, or is a slowdown on the horizon? In this update, Energy Insights takes a look at the financial crisis and its impact on IT spending in the oil and gas industry. What do CIOs need to know in this economic environment? Are there any opportunities for oil and gas companies or IT vendors in the current economic climate?

Financial Crisis: Impact on IT Spending in the Oil and Gas Industry

It's November, and the price of oil continues to drop, precipitated by a drop in consumption and exacerbated by the U.S. financial crisis that appears to be turning into a global financial crisis. So what does the financial crisis mean to the oil and gas industry? What will the impact be on IT spending in the industry?

Despite the impact of the financial crisis on the global economy, the fundamentals of the oil and gas business have not changed, and neither have the business challenges for the industry. Oil and gas companies are focused on extracting hydrocarbons that support the myriad uses for oil. Meanwhile, one of the most critical business challenges remains discovering and producing economically accessible reserves.

The business strategies of oil and gas companies can differ vastly in the industry. Yet, a recent report by Energy Insights ([Upstream Oil and Gas: Committed to Technology to Bring Out the Oil](#), Document # EI214801) indicated that the business and IT initiatives that are being implemented, whether by a major or a national oil company, are geared toward the same goals. Ultimately, the initiatives reflect the understanding that the key to meeting industry challenges is dependent

on improving operational efficiency, controlling costs, and having a full picture of business operations.

Despite the financial crisis, most oil and gas companies' IT budgets for critical projects have remained unchanged. Information technology vendors are seeing no cut back in critical projects. Two of the super major oil companies interviewed by Energy Insights indicated that they were not cutting their IT spending due to the financial crisis. These firms indicated that their time frame is just too long for most capital expenditures and associated IT costs; these projects were booked and budgets were executed long before the financial crisis. These companies indicated that their strategy is to stay focused on achieving their long-term goals of accessing and extracting hydrocarbons.

There was no indication that oil and gas companies were adjusting IT budgets based on the geographic location of an E&P project. However, regional IT budgets may be under pressure if the budget is associated with a non-conventional E&P project. In Canada, many oil sands projects were budgeted on the price per barrel of oil remaining above \$90. Oil sands projects can benefit greatly from the effective use of advances in information technology. The huge decline in oil prices in the last four months has made some of these very capital-intensive projects less economically viable. For an oil sands project, Canadian Natural Resources announced a slowing on spending for the second phase of the Horizon oil sands project in 2009. Canadian Natural Resources reported that first phase costs were up forty-two percent from original estimates in 2004.

For some physical assets, vendors indicated that some end-users were trying to stretch the life of their physical assets (desktops, hardware) by an additional year to 4 years instead of 3 years, resulting in a slight deferral on spending. Also, IT spending for business needs such as security and EH&S activities is usually not deferrable, and IT budgets are not expected to change.

In addition, the impact of the financial crisis has had an impact on revenues due primarily to the decline in oil prices. Some IT vendors did report that payments were already being delayed for projects in Russia.

To date, all the information technology vendors that Energy Insights interviewed indicated that their strategy in the oil and gas sector was not changing due to the financial crisis. For IT vendors to the oil and gas industry, the fundamentals of the industry also underpinned their strategy, which is essentially the belief that the global demand for energy presents many market opportunities for companies. In fact, several IT vendors felt that it would be a critical mistake to back away from their investment in the energy industry. One company indicated that backing away from their current strategy in the energy sector could hurt future market share: a pull-back on their strategy could open the door for a competitor.

One impact of the financial crisis is a more stringent and standardized approach to the drilling process. Oil and gas companies indicated that pressure was increasing to ensure that investments for drilling met full return on investment (ROI) expectations. Technologies that are pivotal for E&P include seismic and electromagnetic surveying, both of which enable exploration of an area more quickly and with greater certainty. With the emphasis on future exploration increasingly focused on recovering more from existing reserves, information technology will increasingly play a key role in reducing costs associated with exploration and production, and in improving recovery of hydrocarbons. Information technology can serve the exploration process in many ways but, in particular, it helps to reduce the investment before any drilling begins.

Advanced surveying technologies drive the need for high-performance computing and the need for data storage and management. The proliferation of data from new surveying techniques puts significant demand upon data storage and management. Besides the increased demand for data storage, surveying techniques demand significant computing power to process the data. High performance computing allows for improved and speedy processing of survey data. This enables oil and gas companies to make better decisions on large capital investment projects.

Energy Insights believes that for oil and gas companies to compete in the current environment and remain relevant in the future, their strategy needs to focus on increasing hydrocarbon extraction, optimizing production, and controlling costs. To date, most super majors have invested heavily in digital oilfield strategies. However, the competitive landscape for oil and gas companies is under pressure with the rise of National Oil Companies. Investment in digital oilfield strategies by oil and gas companies is intended to maximize production and operational efficiency, and NOCs have begun to adopt this strategy as they tap their reserves. One common objective of the digital oilfield is the interlinking of all wells for monitoring at a central location to support better coordination among operations. The implementation of a digital oilfield and interlinking oilfields requires IT to play a major role with regard to networking and remote management. A compromised IT budget could limit the long-term goals of these firms.

Recommendations

Despite the current economic conditions, the long-term demand for oil in the global economy gives much incentive to continue pursuing current IT initiatives such as mobile devices and digital oil fields, since they are critical to a competitive position in the oil and gas industry.

CIOs should review IT budgets in preparation for a more stringent and standardized approach to the drilling process. Information technology can serve the exploration process in many ways but, in particular, it helps to reduce the investment before any drilling begins.

IN THE NEWS

Paradigm Opens New Training and Technical Briefing Facility

On October 21, Paradigm opened a new training facility in Aberdeen, Scotland. The new facility allows Paradigm to support their customers with local training classes that encompass all of their core competency areas, from Seismic Imaging through Well Planning and Drilling. The state-of-the-art hardware and system administration services at the facility can also be used by customers for their own training classes.

Paradigm has been providing training facilities for its clients for many years. The company has formal training centers located in Houston, Calgary, Woking, Kuala Lumpur, Lagos, Mumbai, Beijing, and now Aberdeen. The Houston Training Center was expanded in late 2007 from two rooms to four rooms, doubling its capacity for U.S. customers by holding up to fifty students. The Calgary, Kuala Lumpur and Beijing Training Centers were upgraded in 2008 with new, state-of-the-art hardware. Each of these facilities is able to hold up to twelve students. The Aberdeen Training Center is the first facility to make use of interactive white boards. Paradigm plans to update other Training Centers in 2009.

The Aberdeen training facility is suited for all of Paradigm's software products. The machines are capable of running everything from lightweight windows applications, such as the Java-based Opslink WITSMML receiver, to the processing- and memory-intensive Linux-based products such as GeoDepth for depth imaging and SeisEarth for multi-2D, multi-3D seismic interpretation.

Our View

Paradigm's new training facility allows the company to better support their customers with local training classes that encompass all of their core competency areas. The new training facility is not a radical change, but it demonstrates Paradigm's commitment to ongoing development to utilize the best available training aides. While the training environment is a good way to communicate the capabilities of its product line, it's also an opportunity for Paradigm to get customer feedback that can play a critical role in future product development.

The World of Compliance

ESS and Oracle recently announced an alliance to address compliance at Oracle's OpenWorld conference. The plan is to tightly integrate Oracle's Governance, Risk and Compliance Manager and Oracle Business Intelligence Enterprise Edition with ESS's applications software, providing detailed functionality in environment, health and safety (EH&S) as a part of Oracle's operational risk and controls offering. The companies demonstrated a prototype at the conference.

Our View

According to the Energy Insights report, [Attitudes and Trends: Sustainability and the Greening of Utilities in North America](#) (Document #EI215066, November 2008), over 90% of utility respondents believe that the future legislative landscape regarding climate change will lead to increased regulations for utilities with respect to environmentally sustainable or “green” business practices. For oil and gas, an even greater percentage – 94% – believed that there would be increased regulation for oil and gas. With sustainability becoming an integral part of reporting to regulators and shareholders, Energy Insights expects a tighter integration between EH&S applications and ERP systems – the locus of financial reporting. Oracle is acknowledging the importance of a comprehensive view of enterprise financial and operational reporting. It has a strong partner in ESS. SAP is also moving in this direction with its Compliance module developed by Technidata being tightly integrated with ERP. Ultimately, sustainability and “green” are much bigger than EH&S. Green covers initiatives such as recycling and energy efficiency, while sustainability covers energy and the environment, societal and economic objectives. Companies that want to establish a corporate culture of sustainability will look toward enterprise-wide solutions.

SPECIAL ANNOUNCEMENTS

Research Alert: Getting the Full Picture: Forecasting Markets in Oil and Gas

In December, Energy Insights will publish an exciting new report, *Getting the Full Picture: Forecasting Markets in Oil and Gas*. The report contains results of an oil and gas survey conducted with oil and gas companies from multiple global regions and in various lines of business, providing in-depth quantitative and qualitative analysis of the data covering business challenges, business initiatives, the role of IT in achieving corporate strategic objectives, as well as IT spending patterns. The top IT and business trends identified in this study reflect initiatives that major, international, and national companies are employing to handle challenges such as the exponential growth in real-time data, the global nature of operations, and digital oil field strategies. For vendors in this market, the report provides insight into how to enhance their IT products and services to better meet the business needs of oil and gas companies. If you would like to be personally alerted as soon as this new report is published, please email your request to David Reuter at dreuter@energy-insights.com. The data for the report is fully compiled so if you would like to speak to us about it, please contact David. [To download the full report description, click here.](#)

LEARN MORE

RELATED RESEARCH

To learn more, please refer to the following Energy Insights documents:

- *Impact of the Financial Crisis on Technology Spending in the Oil and Gas Industry* (this soon-to-be-published report will have Document # EI215394).
- *Sustainability Attitudes and Trends in Oil and Gas*, Nov. 2008, Doc # EI215162
- *Refinery of the Future: The Industry's Vision*, Nov. 2008, Doc # EI214910
- *Upstream Oil and Gas: Committed to Technology to Bring Out the Oil*, Oct. 2008, Doc # EI214801
- *Green IT and Sustainability: 2008 US Survey Results (IDC)*, Oct. 2008, Doc # 214775
- *Western Europe, Utilities Industry, IT Spending, Forecast 2007–2012*, Sept. 2008, Doc # EIOS03Q

Copyright Notice

Copyright 2008 Energy Insights, an IDC company. Reproduction without written permission is completely forbidden. External Publication of Energy Insights Information and Data: Any Energy Insights information that is to be used in advertising, press releases, or promotional materials requires prior written approval from the appropriate Energy Insights Vice President. A draft of the proposed document should accompany any such request. Energy Insights reserves the right to deny approval of external usage for any reason.