



■ Business impact

“O&G companies should focus on centralization initiatives as this would result in reduced cost of operations through standardization of IT vision and removal of workforce redundancies.”*

■ Challenges

- **No “big picture” view.** With contractors and departments using different planning systems, there’s no way to get an overall view of operations.
- **Multiple, disjointed systems.** The incompatibilities inherent in divergent planning systems make sharing plans among departments and contractors practically impossible.
- **Inefficient, manual processes.** Manual plan development processes are widely variable and error-prone, and the resulting plans are inconsistent and unreliable.
- **Inability to monitor execution.** High contractor turnover and lack of documentation result in limited feedback on execution status at any given time.
- **Constant rework.** Lack of control over a clear master plan coupled with the inaccuracy of partial plans means frequent incompatibilities and necessary changes in execution.

* Source: Sekhar Venkat, Eileen Smith, Rick Nicholson, Jill Febowitz, “IT Spending Trends of Global Oil and Gas Companies: Wheels of Change Are in Motion,” IDC, October 2005.



**THE
POWER
TO KNOW®**

How can we develop integrated plans that will maximize production without compromising safety?

YOUR GOAL: Achieve sustainable production improvements and control costs

While the oil and gas (O&G) industry has consistently outperformed the market by a wide margin, there are signs that this is changing. Despite strong performance overall, O&G stocks are frequently undervalued. The whole industry is subject to increased price volatility caused by high demand for specialized resources and equipment and the impact of unforeseen events. Once content to let the industry be, analysts and investors are more closely monitoring performance and evaluating future growth claims against a company’s demonstrated ability to deliver on needed performance improvements.

In response, the upstream sector must look closely at basic planning strategies and how they’re implemented in order to secure efficient daily operations. It’s not just the end result that’s important; it’s how that result is obtained. Is it sustainable? Across operations? Redesigning processes is fine, but that won’t yield sustainable improvements if plans aren’t integrated and optimized across all operations. Unfortunately, disjointed planning processes and opaque discipline silos are rife in upstream operations, which rely heavily on high-turnover contractors and disconnected departments. Lack of standardization among systems and processes results in inconsistent and untrustworthy data. And when plans are developed and executed in isolation, conflicts and frequent rework are unavoidable, leading to high costs, failure and loss risks, and human and environmental damages.

OUR APPROACH

Shareholders and other stakeholders are pressuring upstream operations to improve efficiency and reduce risks, rendering traditional segmented planning processes that lack transparency obsolete. SAS approaches the problem by delivering software and services to help you:

- **Provide a unified, integrated planning view** by consolidating disparate data from multiple departments, disciplines and contractors into a single version of the truth.
- **Ensure plan consistency** with embedded data quality techniques and automated data transformation based on your established business rules, creating reliability and transparency and eliminating redundancy across all planning systems.
- **Develop and simulate alternative short- and long-term operational plans** in a collaborative environment, and then select the best based on performance criteria that include optimization and constraint rules.
- **Monitor plan performance** against KPIs with a dashboard that lets you see overall progress, check for consistency and flag potential conflicts for further examination.
- **Optimize your entire project portfolio** by establishing an optimization process that integrates with recursive daily activities to eliminate redundancies and inefficiencies among departments, disciplines, contractors and subcontractors.

SAS helps you transform planning and decision making into an open, well-documented process that can be replicated by a broad range of stakeholders. As a result, you can develop, integrate and share strategic plans among various constituents and monitor those plans for long-term viability and effectiveness.

THE SAS® DIFFERENCE: Minimized downtimes, maximized efficiency

The larger your operations get, the harder it becomes to deliver consistently high performance. SAS can help you formulate more robust plans under a broader range of scenarios and conditions to help you achieve performance improvements that are sustainable over the long haul. SAS software delivers:

- **A complete, end-to-end solution.** Only SAS provides the entire spectrum of data, analytic and optimization technologies within a single framework.
- **Flexibility.** SAS automatically integrates data from existing planning systems used by different departments and outside contractors into a single, reliable view of your entire operation. Because SAS works with what you already have, as well as what you may add in the future, you save money.
- **Scalability.** Only SAS can handle the volume—and multiple types—of data generated by diverse, complex planning systems. Plus, SAS software can grow along with you as your company expands and your production increases.

With more than 30 years' experience, SAS delivers award-winning software and best-practice services to transform masses of data about your operations, suppliers, risks, assets and profitability into strategic business intelligence—fuel for competitive advantage.

CASE STUDY: An upstream oil and gas company in the North Sea

Situation

Coordinating offshore work among multiple departments, disciplines and contractors was a struggle. Multiple planning systems, inconsistent processes and a lack of alignment among groups meant frequent errors, conflicts and missed opportunities. Plan assembly took too long, and schedules were constantly reworked. With costs and equipment failure risks on the rise, the company needed to find ways to automate processes and share knowledge more efficiently for a better bottom line.

Solution

SAS delivered an integrated planning and monitoring solution that included:

- Comprehensive, automated data integration capabilities.
- Advanced, predictive analytics and essential modeling, optimization and scheduling capabilities in an integrated, adaptable environment.
- Performance monitoring dashboards and scorecards that monitor overall plan performance and generate automatic alerts when plan objectives aren't met.

Results

- Information from all existing planning systems is standardized and consolidated into a single, unified plan that is viewable via a user-friendly portal.
- Plans and portfolio activities are optimized for improved efficiency.
- A planning dashboard lets managers monitor plan execution and performance against established KPIs, check for plan consistency and flag potential conflicts.

The vision

A unified planning view

What if all the information used by different departments, contractors and subcontractors could be consolidated into a single, unified view of information across your entire operation?

Information consistency

What if the information used to formulate your plans was reliable and consistent, so you could spend more time making fact-based decisions and less time debating data accuracy?

Integrated planning

What if you had access to accurate forecasts that reflected the realities of your daily operations so you could plan future resource requirements around maintenance schedules to maximize resource efficiency?

Performance monitoring

What if you could see at a glance how well plans were performing and receive automatic alerts when things went awry, so you could address issues before they became huge, costly problems?

Process optimization

What if you could formalize the planning process and build optimization models that contained the kind of expertise that used to reside solely in the brains of key people, who may otherwise retire and take their expertise with them?

SAS FACTS

- For the fourth consecutive year, SAS was recognized as one of the Intelligent Enterprise "Dozen," a list of the top 12 most influential IT solution providers.
- SAS has more than 140 customers in the oil and gas industry.
- SAS reinvests 24 percent of revenues into R&D every year.

Learn more about SAS® software and services for energy at:
www.sas.com/industry/energy



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