

# Improving performance in the upstream oil and gas industry

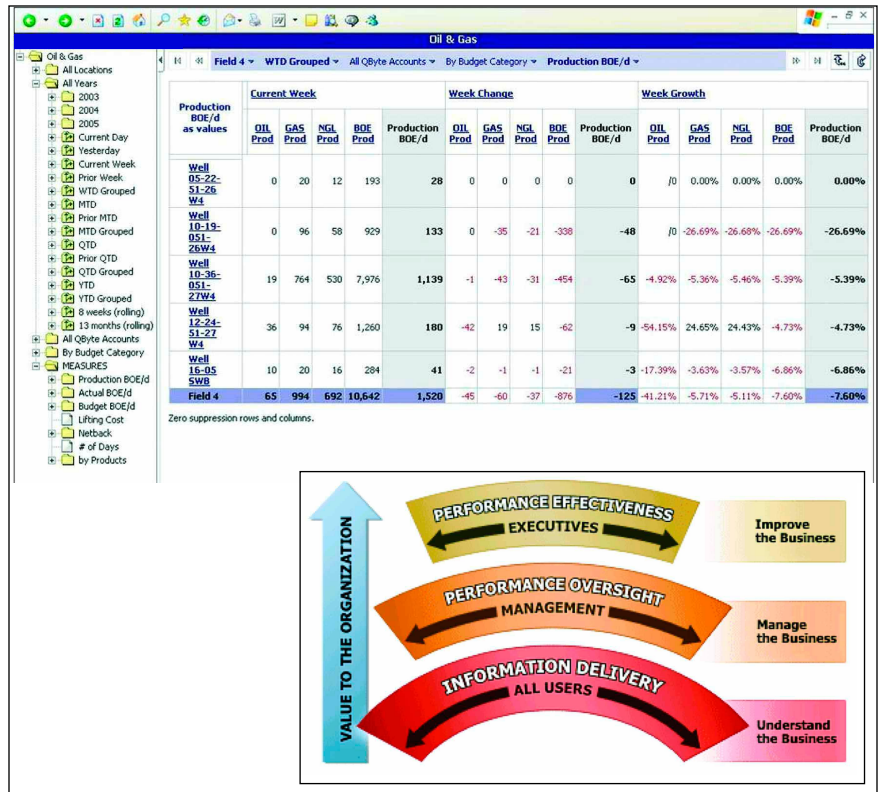
## Manage assets, accelerate discovery

### Overview

*With mature fields, smaller finds, and more stringent environmental regulations, it's no surprise that upstream oil and gas companies are taking a closer look at managing their performance. A common adage says "what you measure, you can manage." By logical extension, what you manage, you can improve.*

*Measuring performance has always been an imperative, both within your company and externally, to keep analysts and investors informed. This basic step, however, can be challenging when financial and operational business rules and measures are not consistent across your company. In this case, taking it to the next step—performance management—is doubly challenging. But performance management is what lets a company contain costs, manage assets, and streamline processes. It's what lets companies excel.*

**IBM Cognos® 8 Planning and IBM Cognos 8 Business Intelligence (BI) put the tools in your hands to meet these challenges and outperform in your market.**



### Technical Specifications

IBM Cognos performance management lets people in finance, production, and reserves see a more complete picture of their business, to answer their fundamental business questions: How are we doing? Why? What should we be doing? Dashboards provide utilitarian graphical interfaces. Drilling down on key production indicators (KPIs) lets managers see a true picture of what's happening in their area.

IBM Cognos business intelligence and planning software gives you support in such areas as modeling distributions and dividends, developing hedging and financing strategies, and managing acquisitions and dispositions. These provide an accurate view of future income statements, balance sheets, and key performance indicators, which helps to ensure the financial and operational health of the company. In addition, IBM Cognos 8 Business Intelligence streamlines reporting and analysis.

## *Improving performance in the upstream oil and gas industry*

### **Features and Benefits**

#### *The data challenge*

The common core applications in oil and gas exploration and production—typically reserves, production, and accounting systems—serve their purpose extremely well. However, these systems are often geographically dispersed and do not talk to one another. For example, a well in a reserve system might be classified differently in accounting than it is in production. Conducting proper variance analysis on volumes and revenue for that particular well can therefore be difficult because it requires a consolidated view of data from each system. To consolidate, you need spreadsheets.

But you're in the business of managing performance, not spreadsheets. IBM Cognos business intelligence and planning software lets you avoid typically labor-intensive and error-prone spreadsheets by drawing data from your many systems and bringing it together into a single view of your entire operation. From there, you can measure and manage your performance by more tightly aligning your company's strategy with its execution so that everyone can work towards common goals.

#### *Budgeting and forecasting*

The upstream oil and gas industry's key budgeting and forecasting processes include gathering volume forecasts, identifying key drivers, and applying financial assumptions to build and consolidate a master budget and forecast.

To feed these processes, you need an accurate view of future income statements, balance sheets, and key performance indicators. You also need support in such areas as modeling distributions and dividends, developing hedging and financing strategies, and managing acquisitions and dispositions. Handling these processes successfully helps to ensure the financial and operational health of the company.

Most companies today manage budgeting and forecasting by consolidating files from various applications into a spreadsheet environment. Keeping up the latest version of the forecast means that operations, finance, and accounting must all communicate and validate data on an ongoing basis. This process can be unwieldy because managers must continuously audit the spreadsheets to validate business assumptions and ward off errors. Management's confidence in the numbers is compromised, as is its ability to make the right business decisions in a timely manner.

Increasingly, companies are looking to migrate from this environment to a planning software solution. IBM Cognos 8 Planning simplifies budgeting and forecasting by letting you:

- Automate workflow and aggregation by collecting volume and financial data from source systems
- Collaborate among finance, operations, and other stakeholders, reducing budgeting/forecasting workload and improving strategic analysis
- Model the effects of key business drivers, such as commodity prices, against various scenarios
- Quickly understand the implications of increased and decreased production volumes on cash flow, distributions, income statements, and the balance sheet

#### *Reporting and analysis*

When reserve, production, and accounting data is spread out among purpose-built applications and dispersed geographically, it is hard to get a meaningful view of a company's true performance.

To get a complete picture of acquisitions and dispositions, or operational and financial variances, you need to combine historical and projected volume with accounting data. You will reach a final "approved" report only after onerous manual processes and many rounds of informal communication.

Companies need to migrate from this environment to a business intelligence software solution. IBM Cognos 8 Business Intelligence streamlines reporting and analysis by letting you:

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- Unify data from reserves, production, and accounting systems into a “single version of the IBM Cognos 8 Workforce Performance truth” based on common assumptions (for example, a UWI has a single definition across operations and finance)
- Consolidate budget, forecast, and actuals data to give finance, operations, and other stakeholders a common platform for timely decision-making
- Automate the gathering, reconciliation, and delivery of data to make organizational resources more valuable
- Adhere to Sarbanes Oxley and other regulatory compliance initiatives
- Ensure day-to-day activity is aligned with strategic goals

### *Production management scenario*

A production manager checks a high level dashboard weekly to keep an eye on production from the district down to the well level. The dashboard shows some red lights in the central district. Drilling down on key production indicators (KPIs) to discover why, the manager sees that the district is down over 800 barrels a day, a drop of 7.6 percent from the previous week. Which areas, fields, and wells are causing this drop in production?

This view makes it clear that the production level of one particular well in Field 4 is down almost 27 percent.

This well is contributing heavily to the overall production drop of Field 4. The manager can also analyze this problem through the lens of financial accounts, budget information, another time period, and any other dimension relevant to the business.

### *IBM Cognos performance management in the upstream oil and gas industry*

Five of the top seven global oil and gas companies use IBM Cognos performance management software to gain visibility into their business, manage assets, and drive performance. A major global oil company saved an estimated \$140 million using IBM Cognos software to focus on customer profitability and retention.

### *Tying it all together: performance management*

IBM Cognos performance management lets you answer your fundamental business questions:

- How are we doing?
- Why?
- What should we be doing?

The questions are interconnected. Knowing what happened without finding out the root cause of why something happened is of little use to the business. Knowing why but being unable to make the necessary changes is also of limited value. Business intelligence and planning

and consolidation technologies help you answer all of these questions.

Many companies have embraced the vision of performance management. They understand the value of enabling and engaging everyone in an organization to manage the organization's performance. They are deploying technologies and solutions to make that vision real. CPM companies know that if they understand the business, they can manage the business, and by extension improve the business.

### **Feature Overview**

#### *IBM Cognos 8 Planning provides:*

- Tools to draw data from your many systems and bringing it together into a single view of your entire operation, instead of using hard-to-maintain spreadsheets.
- Automated workflow and aggregation from volume and financial data collected from source systems.
- Reduced budgeting/forecasting workload and improved strategic analysis through collaboration among finance, operations, and other stakeholders.
- The ability to model the effects of key business drivers against various scenarios
- Quick understanding of the implications of increased and decreased production volumes.

*IBM Cognos 8 BI provides:*

- Unified data from reserves, production, and accounting systems into a “single version of the IBM Cognos 8 Workforce Performance truth” based on common assumptions
- Consolidated budget, forecast, and actuals data to give finance, operations, and other stakeholders a common platform for timely decision-making
- Automated gathering, reconciliation, and delivery of data to make organizational resources more valuable
- Adherence to Sarbanes Oxley and other regulatory compliance initiatives
- Assurance that day-to-day activity is aligned with strategic goals

Together, they give you the ability to pull together scattered data more easily and with greater confidence, letting you focus on your business.

**About IBM Cognos BI and Performance Management:**

IBM Cognos business intelligence (BI) and performance management solutions deliver world-leading enterprise planning, consolidation and BI software, support and services to help companies plan, understand and manage financial and operational performance. IBM Cognos solutions bring together technology, analytical applications, best practices, and a broad network of partners to give customers an open, adaptive and complete performance solution. Over 23,000 customers in more than 135 countries around the world choose IBM Cognos solutions.

For further information or to reach a representative: [ibm.com/cognos](http://ibm.com/cognos)

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