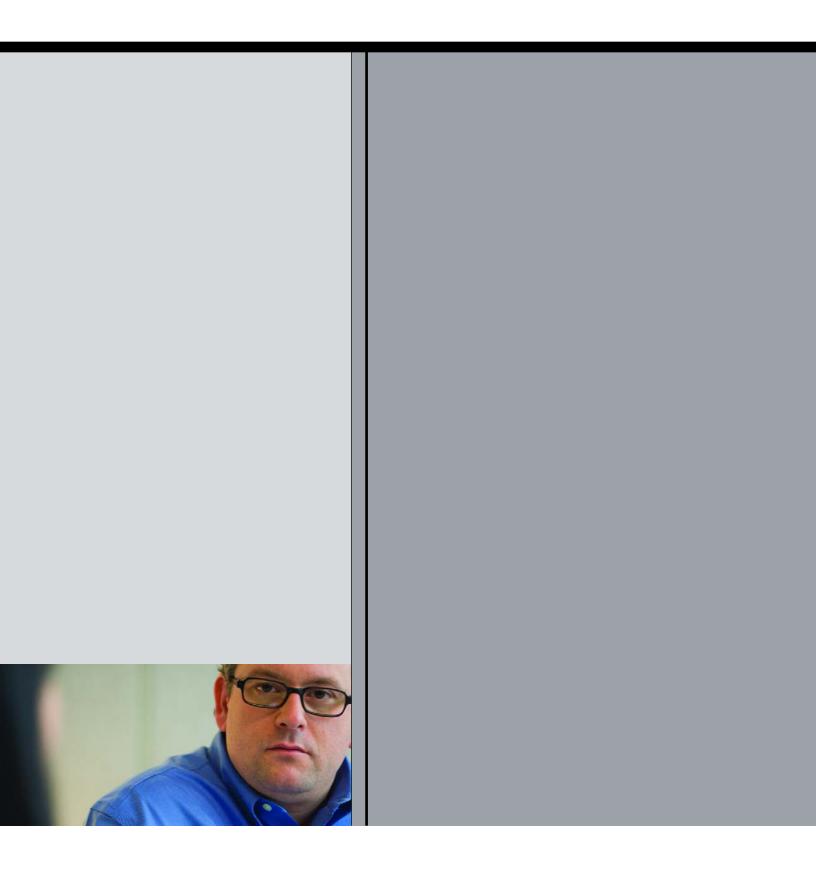
IBM COGNOS PERFORMANCE BLUEPRINT: S&OP EXECUTIVE REVIEW APPLICATION BRIEF



A WEB-BASED PERFORMANCE MANAGEMENT APPLICATION







OVERVIEW

In addition to the initial sales and operations planning (S&OP) that manufacturing companies undertake – typically an annual plan with rolling monthly or quarterly reviews – the most effective S&OP process involves periodic S&OP reviews by senior management. The purpose of the executive review is to evaluate performance against the existing plan, identify any business or market changes that might necessitate changes to the plan, and to make necessary adjustments.

The IBM Cognos S&OP Performance Blueprint facilitates the initial plan and any necessary monthly or quarterly adjustments. Complementing this Blueprint, the new IBM Cognos S&OP Executive Review Performance Blueprint is an executive management tool designed to facilitate the periodic review. Typically production and sales demand is reviewed weekly, and a formal S&OP executive review is conducted monthly.

The primary purposes of the adjustments are meeting customer demand, maintaining appropriate inventory levels, balancing production with a focus on schedule achievement, and achieving financial goals. The S&OP Executive Review Blueprint focuses on linking the S&OP plan to an executive review summary page with the ability to perform what-if analyses and immediately determine the effect of those changes on a set of integrated financial statements including the Income Statement, Balance Sheet, and Cash Flow.

This Application Brief describes a Web-based process for the S&OP executive review process using IBM Cognos 8 Planning and IBM Cognos 8 Business Intelligence. It provides an overview of the model design to be used as a guide for applying it in a customer environment.

The models and processes described in this document are designed for most manufacturing companies and can be configured to support alternative model requirements and to accommodate planning in any environment.

BLUEPRINT OBJECTIVES

The Sales and Operations Planning Executive Review Performance Blueprint is a performance management framework – including planning, metrics, and reporting.

Key capabilities include:

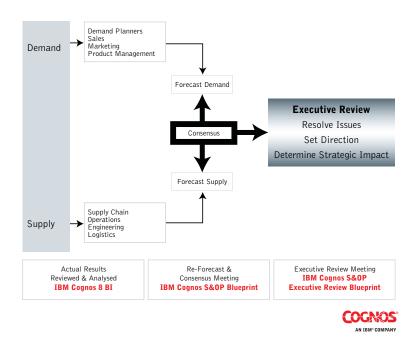
- A structured process for integrating and summarizing the detailed plan generated by the *IBM Cognos S&OP*Performance Blueprint
- Summarization of calculated metrics, exception alerts, linkages to scorecards, and reports to measure financial and customer service performance (plan vs. actual)
- What-if modeling allows managers to perform multidimensional and multi-scenario analysis to test the impact of changes in demand, supply chain capabilities, and constraints, and to see the associated financial impact of those changes capturing assumptions as well as annotations
- Strategic financial management ensuring organizational objectives for sales, profitability, balance sheet, and cash flow are met
- Integrated workflow to manage and consolidate plans
- A visual scorecard to display the status of the planning process, so that appropriate actions can be taken to complete it
- Alerts so that approved plans are communicated to stakeholders, ensuring they are aware of initiatives that will impact S&OP.

In addition to the benefits specific to the S&OP Executive Review Blueprint, the IBM Cognos 8 Planning tool provides significant benefits to an organization through these capabilities:

- Flexible model development to support a wide variety of planning models
- Web-based or Excel-based deployment of models for data collection and consolidation
- Easy version control
- Real-time workflow that drives collaboration
- Real-time consolidation
- Real-time reporting
- Real-time calculations in the browser for immediate results
- Audit and user textual annotations at the cell, worksheet, and model level to drive collaboration
- · Drop-down validation lists for ensuring data consistency
- Scalable architecture with proven deployments to thousands of users
- Linking functionality to provide divergent yet interrelated components of planning environment
- Off-line capabilities
- Custom date capabilities with no limit on the time dimension, allowing planning by the week, season, period, quarter or year
- Unique multi-directional calculation engine that allows input across any dimension at the detail level or the total level.

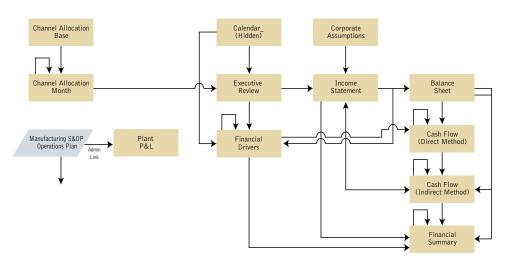
MODEL DESIGN OVERVIEW

The S&OP process occurs in stages. The S&OP Executive Review as shown in the box on the right is the focus for issue resolution and the resulting financial results.



The detailed model flow is shown below.

S&OP Executive Review Model



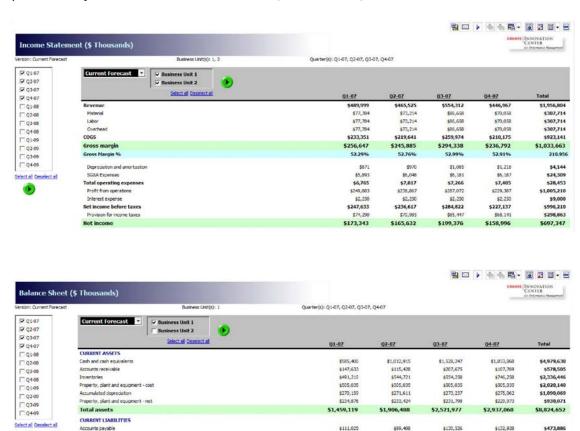
SALES & OPERATIONS PERFORMANCE PORTAL

The Manufacturing Executive Review Portal provides users multiple views into key metrics, charts, graphs and reports.

- 1 Key metrics are delivered in the top left.
- 2 Alerts regarding under-performance of metrics are proactively delivered to the user for action.
- 3 Additional links to supporting reports and financial statements are provided.
- @ Revenue Attainment, Revenue Growth, New Product Revenue, and Capacity Utilization graphs are provided in the right side of the portal. The graphs can be filtered by Business Unit, Channel, and Month.
- The Capacity Utilization red bars indicate an over-capacity forecast and provide drill down into the Business Unit, Channel, Months, and Product Family utilization details.



Key financial reports include the Income Statement, Balance Sheet, and Cash Flow.



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\$12,000

\$255,398

(\$990) \$600,349

\$300,000

\$1,459,119

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51,906,488

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\$2,521,977

\$31,673 \$41,160 \$624,461 \$12,000

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(\$19,164) \$1,078,455

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\$2,937,068

\$97,987 \$137,640 \$1,633,846

\$1,021,592

(\$55,686) \$3,357,265

\$1,200,000

\$8,824,652

\$48,000

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Accrued expenses Interest payable Income taxes payable Short-term debt

Long term debt Deferred taxes Total liabilities

Total liabilities and stockholders' equity

Capital stock



All of these reports can be filtered for Business Unit and time period.

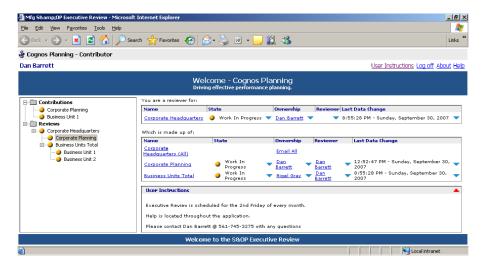
REAL-TIME WORKFLOW VISIBILITY

As operational and supply chain managers are updating the business unit level plans, executives need realtime visibility to the workflow status of that information.

In this *Blueprint*, there is a corporate planning role that makes decisions on allocations from plant level information to channels and business units. Business unit managers can see the consolidated results of the S&OP plans on their operations and the effect of those results and scenarios on the integrated financials of that business unit. Executives and reviewers in this process can see the workflow status of each business unit results, and can be co-owners of that information, allowing them to make edits, if required. All workflow status changes, data consolidations and aggregations occur in real time as the information is saved by the end user, making frequent planning iterations possible.

Before data is entered, the state of the plan is designated as **O** Not started. Once a plan is saved, the state becomes **Work in progress** and remains accessible for further editing. When an item is submitted, the plan is **Coked** and no more changes can be made. The Locked state indicates that the plan is ready for review. A reviewer can review the plan in any state, but can only reject a Locked plan item. When a locked plan is rejected, it returns to a state of Work in progress, making it editable once again for the departmental manager.

The following is an example of the workflow in which Corporate Headquarters is the reviewer of assumptions by Corporate Planning and the Business Unit owners.



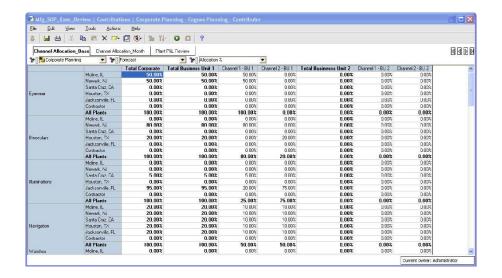
There are two distinct views in this model – the Corporate Planner and the Business Unit owner. The Corporate Planner makes the initial allocation of Product Revenue to Business Units and their respective Channels. The Business Unit contributor can adjust these forecasts based on individual judgment. The process is easily automated but, of course, it is anticipated that there is a constant line of communication to achieve corporate goals.

CORPORATE PLANNER VIEW

Channel Allocation_Base

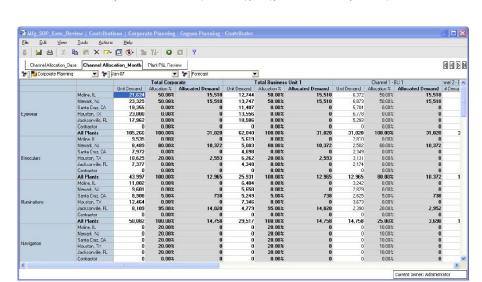
The Corporate Planning role is responsible for the allocation of Product to Business Units and Channels. Production volumes from each plant and product can be linked in from the S&OP Operations Planning Blueprint or another source. When this data is up to date, the Corporate Planner can begin the allocation process.

The first tab available to the Corporate Planner is Channel Allocation_Base. This tab is critical in the allocation of available product to the Business Units and Channels. The Planner must ensure that each product is fully allocated for "All Plants."



Channel Allocation_Month

The % allocated from the Channel Allocation_Base tab is linked to the Channel Allocation_Month tab to generate the "Allocated Demand" by Business Unit and Channel at a monthly level. In order for this tab to calculate correctly, the "Unit Demand" for total plants must be imported. The Allocated Demand is a formula:

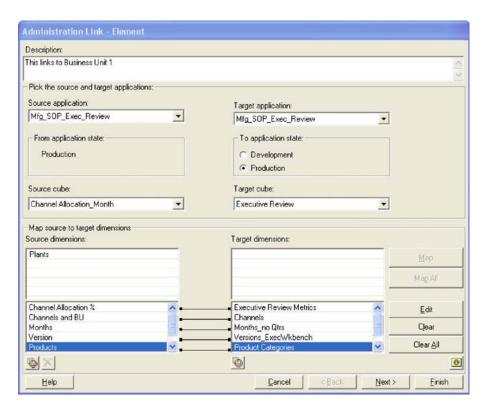


Allocated Demand = {Total Demand (Hidden)} * ({Allocation %} / 100)

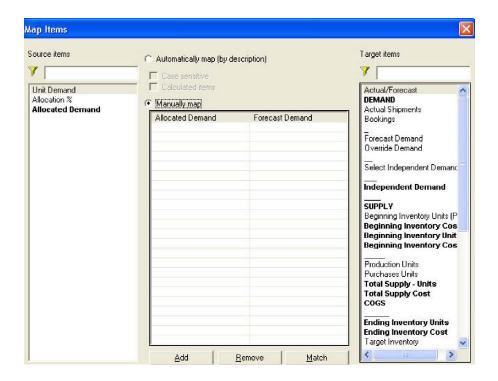
This tab allows the Corporate Planner to validate that all Products are 100% allocated.

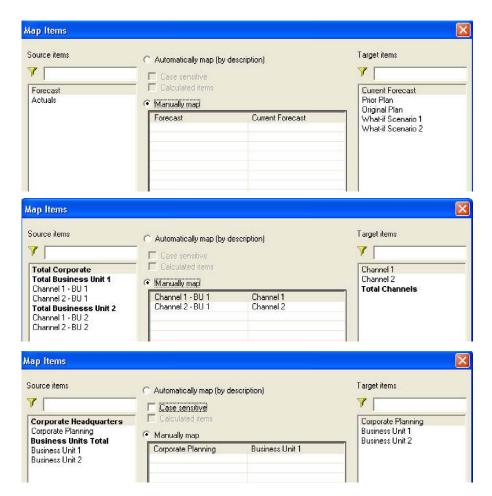
The Allocated Demand can then be linked to the Business Units via an Admin Link.

The link for this *Blueprint* can be found in the Admin Links folder. The name of this link is SOP Executive Review.cal and it contains two identical steps – one for each Business Unit. As can be seen below, the source is the Channel Allocation_Month tab and the target is the Executive Review tab. Both are in the Manufacturing SOP Executive_Workbench application.



Pictures of the individual items in this link are below. (This is for Business Unit 1 only)

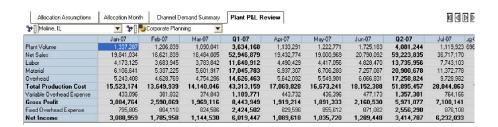




Products and Months match and are not shown. All of the Plants are selected. Remember to add another macro step for each Business Unit in the model.

PLANT P&L REVIEW

This data in this tab is linked from the S&OP Operations Planning Blueprint. It is "read-only" and gives the Corporate Planner a view into each plant's P&L. This same tab is available in the S&OP Operations Planning Blueprint. It can be imported via an Admin Link. This tab is optional as it does not link from or link to other tabs in this model.

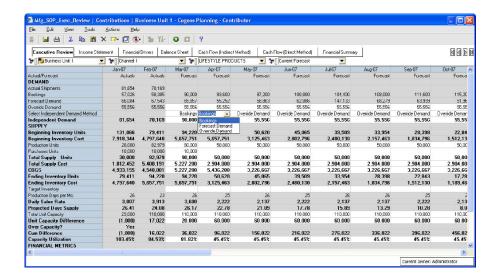


BUSINESS UNIT VIEW

The following represents the view available to the Business Unit contributor and the aggregated view for all Business Units. The sales volume data has been linked from the Corporate Planner and allocated to each channel within each Business Unit.

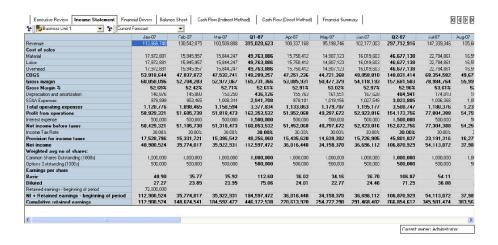
THE EXECUTIVE REVIEW TEMPLATE

Clicking on Business Unit 1 takes you to the S&OP Executive Review tab. This tab contains critical information that is used in reporting. As we can see, the user can decide on a Demand Method. He or she can either accept the Forecast Demand method, which is the default and was linked from the Corporate planner, or select from the Bookings or Override Demand Methods. If Override Demand is selected, the user must provide the values. The user also has the option to indicate the Production Units and Purchased Units available. This information may be imported from the S&OP Operations Planning application or another source. It is used to determine cost of goods sold (COGS) as well as the inventory levels. The user may also view Capacity and other financial metrics in this tab. This data is based on assumptions that are either input or imported for Unit Price and Cost.



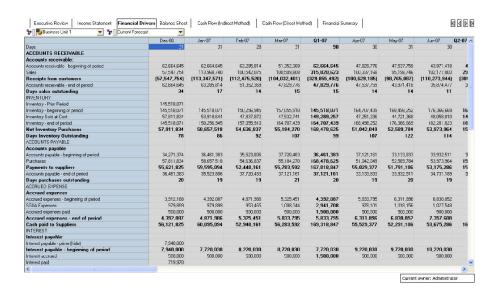
INCOME STATEMENT

This tab provides the Business Unit user with an immediate view to the Income Statement. Certain items such as Labor, Overhead, Depreciation, and other expenses may be linked from another source or input directly.



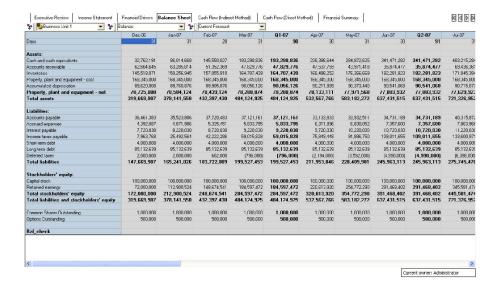
FINANCIAL DRIVERS

The next tab allows the user to input some key financial drivers. These will be used to determine Balance Sheet and Cash Flow outcomes. For example, by indicating Days Sales Outstanding, the user can directly impact his Accounts Receivable and Cash Flow.



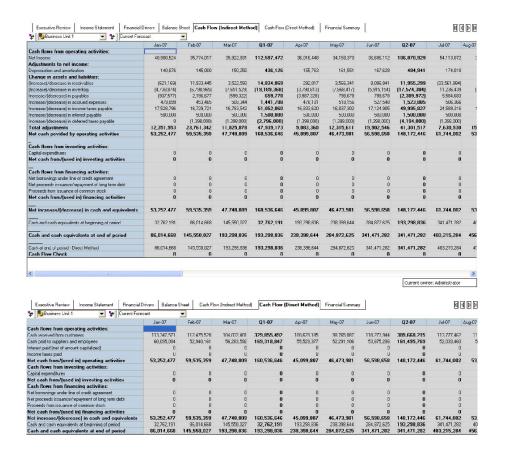
BALANCE SHEET

As can be seen, there is no input required for this tab. The data generated in the Balance Sheet is driven by the Income Statement and the Cash Flow data. The user can see immediately whether there is an out-ofbalance situation and correct accordingly. The user has the option of indicating the amount of current Outstanding Shares or Options, although this will not have an impact.



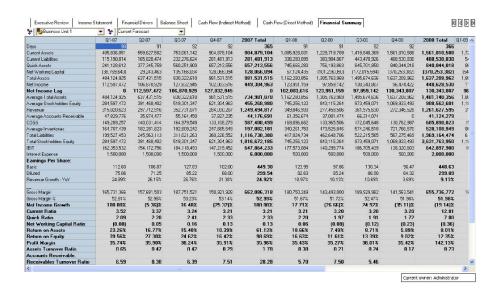
CASH FLOW STATEMENTS

The following tabs give the user two different views into the Cash Flow – direct and indirect. As can be seen, neither requires input. The Direct View gives the user a view of cash receipts and cash outlays while the Indirect View shows the cash impact to the Balance Sheet accounts.



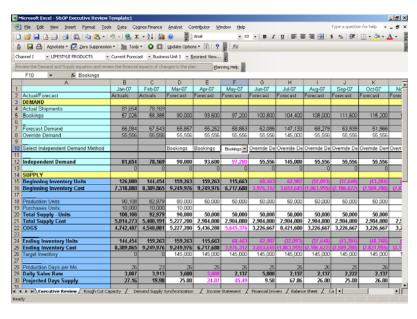
FINANCIAL SUMMARY

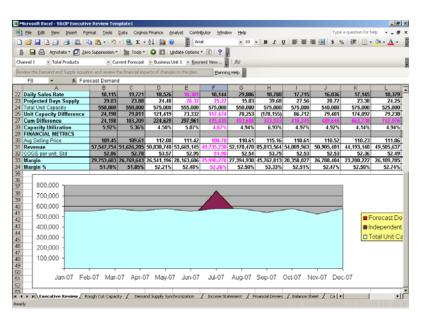
The final tab available is the Financial Summary. It is read only and contains information shown in previous tabs in a summary View.



EXCEL TEMPLATE - REPORTING

Following are sample views of the templates. While these are not included with this Blueprint, they can easily be designed using the IBM Cognos Contributor Excel Add-In. The views shown are multidimensional with dimensions for Business Unit, Channels, Product Families, and multiple forecast versions. Notice that these views allow us to have immediate visibility into high-level demand, supply, and financial metrics. We also have immediate visibility into charts that give us indications of over-capacity issues based on our scenarios and decision.

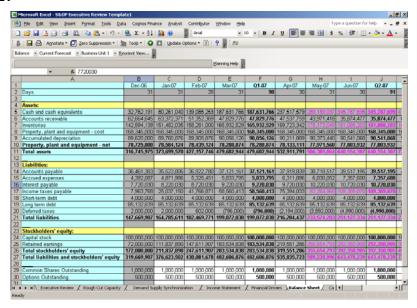




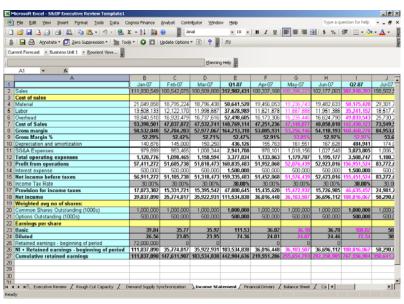
LINKAGE TO THE FINANCIAL IMPACTS OF THE PLAN: BALANCE SHEET, INCOME STATEMENT AND CASH FLOWS

Changes to the metrics for supply and demand equation on the Executive Review template can be immediately linked to an integrated set of financial statements giving the executive visibility into the financial impacts of their decision making on the organization.

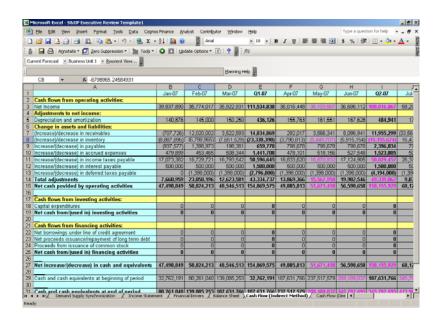
BALANCE SHEET



INCOME STATEMENT

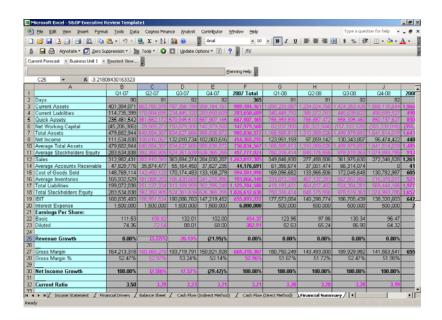


CASH FLOW



FINANCIAL METRICS SUMMARY

In addition, key financial metrics can be summarized for the executive to provide a snapshot of their decision making.



SUMMARY

The *IBM Cognos S&OP Executive Review Blueprint* enables the Executive Review meeting that finalizes the periodic sales and operations planning process. The *Blueprint* empowers decision makers to continually fine tune plans that achieve business goals. Insights into financial impacts can be used to drive planning. Better alignment between S&OP and financial goals delivers stronger business performance.

Effective S&OP enables a single statement of demand and a single agreed-upon supply plan. Each functional group works from common information, yet the information is presented in the way most meaningful to that group (units, dollars, hours, etc.). The result is improved coordination and communication, improved visibility across the entire supply chain, reduced costs, greater connectivity across all aspects of the supply chain, and improved customer service through better planning and more frequent review of performance and changes in business conditions.

To learn more about the *IBM Cognos S&OP Executive Review Performance Blueprint* or other *Blueprints*, please visit http://www.cognos.com/innovationcenter.

ABOUT COGNOS, AN IBM COMPANY

Cognos, an IBM company, is the world leader in business intelligence and performance management solutions. It provides world-class enterprise planning and BI software and services to help companies plan, understand and manage financial and operational performance. Cognos was acquired by IBM in February 2008. For more information, visit www.cognos.com.

ABOUT THE COGNOS INNOVATION CENTER

The Cognos Innovation Center for Performance Management was established in North America and Europe to advance the understanding of proven planning and performance management techniques, technologies, and practices. The Innovation Center is dedicated to transforming routine performance management practices into "next practices" that help cut costs, streamline processes, boost productivity, enable rapid response to opportunity, and increase management visibility. Staffed globally by experts in planning, technology, and performance and strategy management, the Innovation Center partners with more than 600 Cognos customers, academics, industry leaders, and others seeking to accelerate adoption, reduce risk, and maximize the impact of technology-enabled performance management practices. To join, visit www.cognos.com/innovationcenter.

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