

Sales & Operations Planning

Charles Novak, Prague, CZ 2011



Jaguar-APS Consulting

Our mission is to improve efficiencies and reduce operating costs within our clients organizations' demand and supply chains, and to enable them to deliver a higher level of customer service.

We achieve this by focusing on transforming any or all of these three key areas: **People, Process, Technology.**

Key service offerings include: **Training Programs, Opportunity Assessment, Business Transformation, Package Selection, and On-Demand.**

Our principals have worked with the following name brand clients / organizations to reduce costs, increase efficiency, and improve profitability.





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S&OP keeps these four characters in check

- ▶ There were four people named **Everybody**, **Somebody**, **Anybody** and **Nobody**.
- ▶ There was an important job to be done and **Everybody** was asked to do it. **Everybody** was sure **Somebody** would do it.
- ▶ **Anybody** could have done it, but **Nobody** did it.
- ▶ **Somebody** got angry about that, because it was **Everybody's** job.
- ▶ **Everybody** knew **Anybody** could do it but **Nobody** thought that **Somebody** would do it.
- ▶ It ended up that **Everybody** blamed **Somebody** when **Nobody** did what **Anybody** could have done.



Sales & Operations Planning

Approach to the Single Enterprise View

- ▶ Departmental specialization supports/resulted in many independent spreadsheet based plans based on different set of assumptions, perspectives and needs.
- ▶ These plans/spreadsheets are difficult to consolidate.

The answer to this problem is S&OP process that enables operational performance planning at both enterprise and departmental levels.

Sales & Operations Planning

Most of the organizations have no integrated planning framework.

This leads to:

- ▶ Difficulties reconciling functional views of the business.
- ▶ Limited understanding of the impact that one functional decision has on others.
- ▶ Delayed decision-making due to slow access to information.
- ▶ Unreliable forecasts to the financial and customer communities.
- ▶ Assumptions and insights that go unquestioned and are not updated and reviewed during budget creation.
- ▶ No single financial view that shows top management all information and assumptions about revenue, margins and inventory.

Sales & Operations Planning

Keep it Simple!

1. New product introduction planning
2. Consensus demand planning
3. Supply and manufacturing planning
4. Formal demand, supply and capacity reviews
5. Financial plan reconciliation
6. Formal executive S&OP meetings

Sales & Operations Planning

Objectives:

- ▶ Provide aggregate management control over the operational demand/supply planning process.
- ▶ Understand the financial consequences and hence tie back to business plan.
- ▶ Balance Supply and Demand, Volume and Mix.

Sales & Operations Planning

Effective Sales & Operations Planning is Business Imperative

- ▶ S&OP is a corporate imperative. It must become a core business discipline, yet most companies continue to struggle to make this a corporate core competence.
- ▶ The need to improve S&OP effectiveness will force 70% of corporations to upgrade S&OP processes and technologies by 2008.

Sales & Operations Planning

- ▶ “70% of the respondents to Aberdeen’s survey are actively engaged in enhancing their S&OP processes.... and Enterprises that deploy S&OP programs strategically consistently outperform, by an average of 20% in % gross margin, those companies whose approach to S&OP is more tactical and less integrated.”

Source: The Sales and Operations Planning Benchmark Report: Leveraging S&OP for Competitive Advantage – The Aberdeen Group

Sales & Operations Planning

- ▶ Best in Class Enterprises operate an S&OP program with a focus on profitability and the integrated value chain, closed-loop analysis, and continuous improvement, integrated decision-making, and technology platform and systematic risk management.

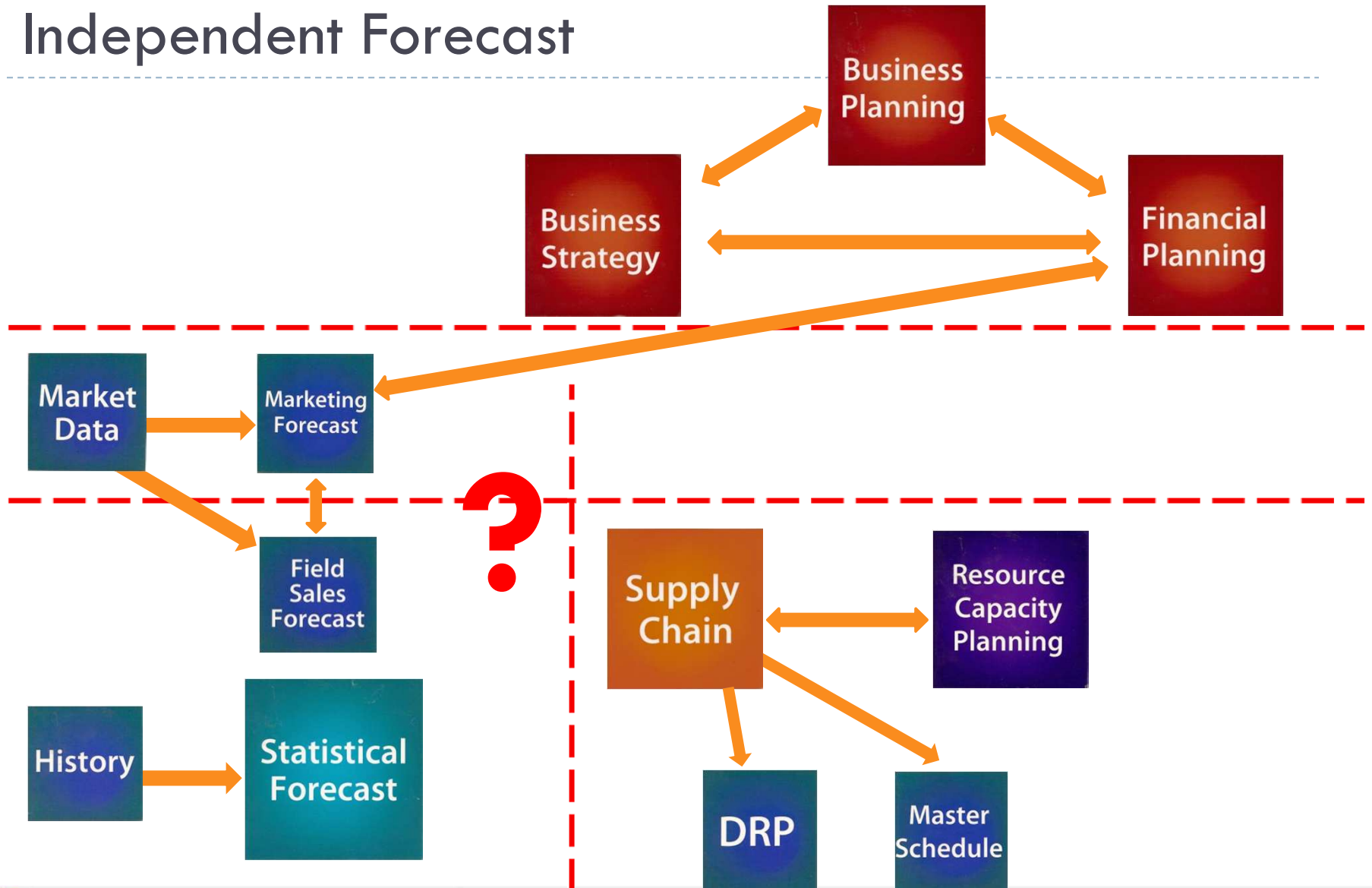
Source: The Sales and Operations Planning Benchmark Report: Leveraging S&OP for Competitive Advantage – The Aberdeen Group

Approaches to Forecasting Management

Independent

- Each functional department develops its own forecasts independently, for its own internal use, lacks coordination of financial and operational plans based on sales forecasts
- No organizational commitment
- No cross-functional accountability nor alignment of objectives.
- Ignores input from other perspectives
- Promotes each department altering the forecast to meet their needs.
- Does NOT require GAP closure process
- No S&OP
- Introduces the bias of the department creating forecast
- Only requires localized resources to implement

Independent Forecast

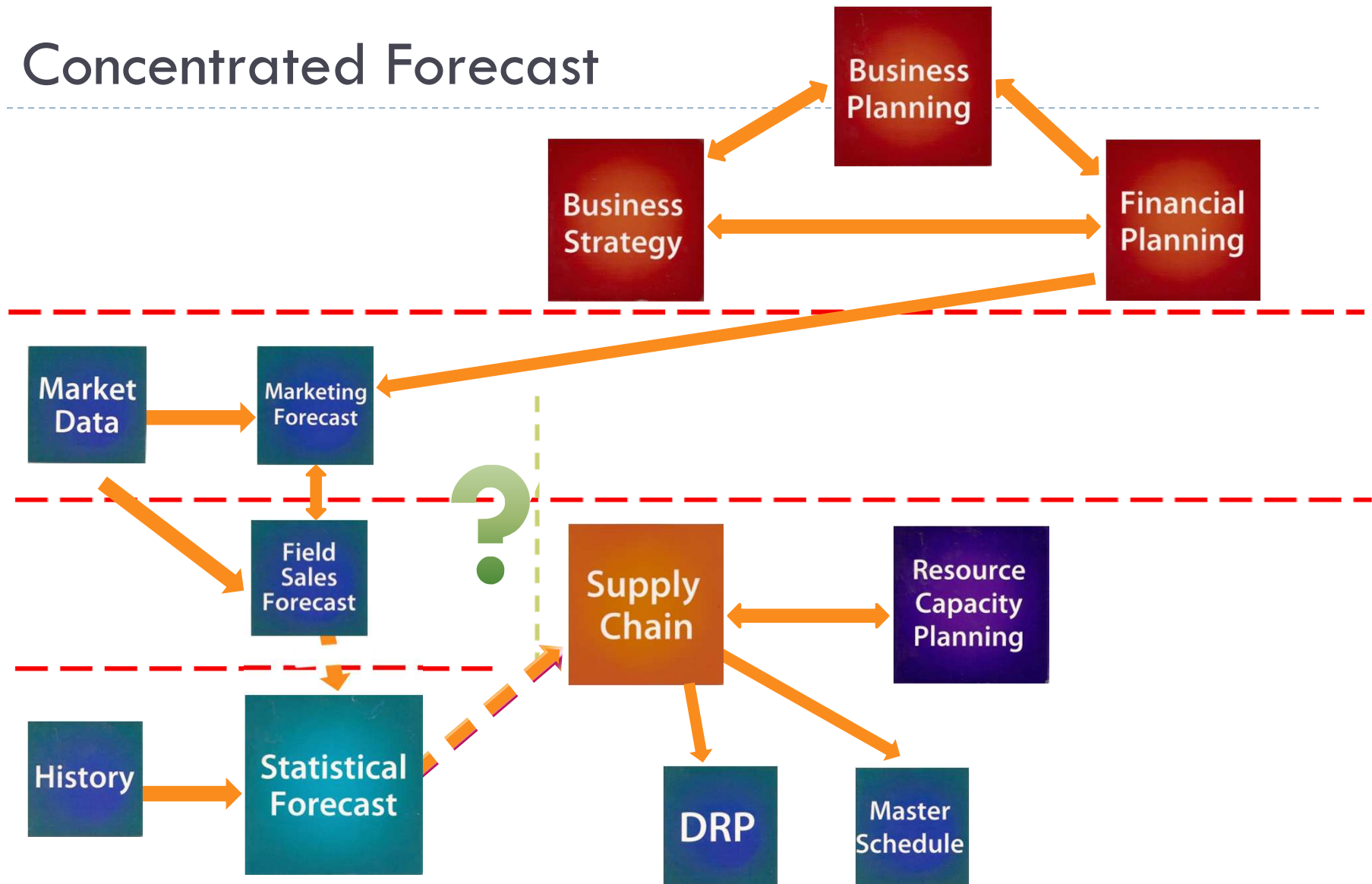


Approaches to Forecasting Management

Concentrated

- Forecast is developed by one department and referenced by all others.
- Very limited organizational commitment
- No cross-functional accountability. Possible integration of objectives tied into performance of the owner.
- Forces some coordination between departments
- Limited credibility promotes each department altering the forecast to meet their needs.
- Does NOT require GAP closure process
- No S&OP
- Introduces the bias of the department creating forecast
- Only requires localized resources to implement

Concentrated Forecast



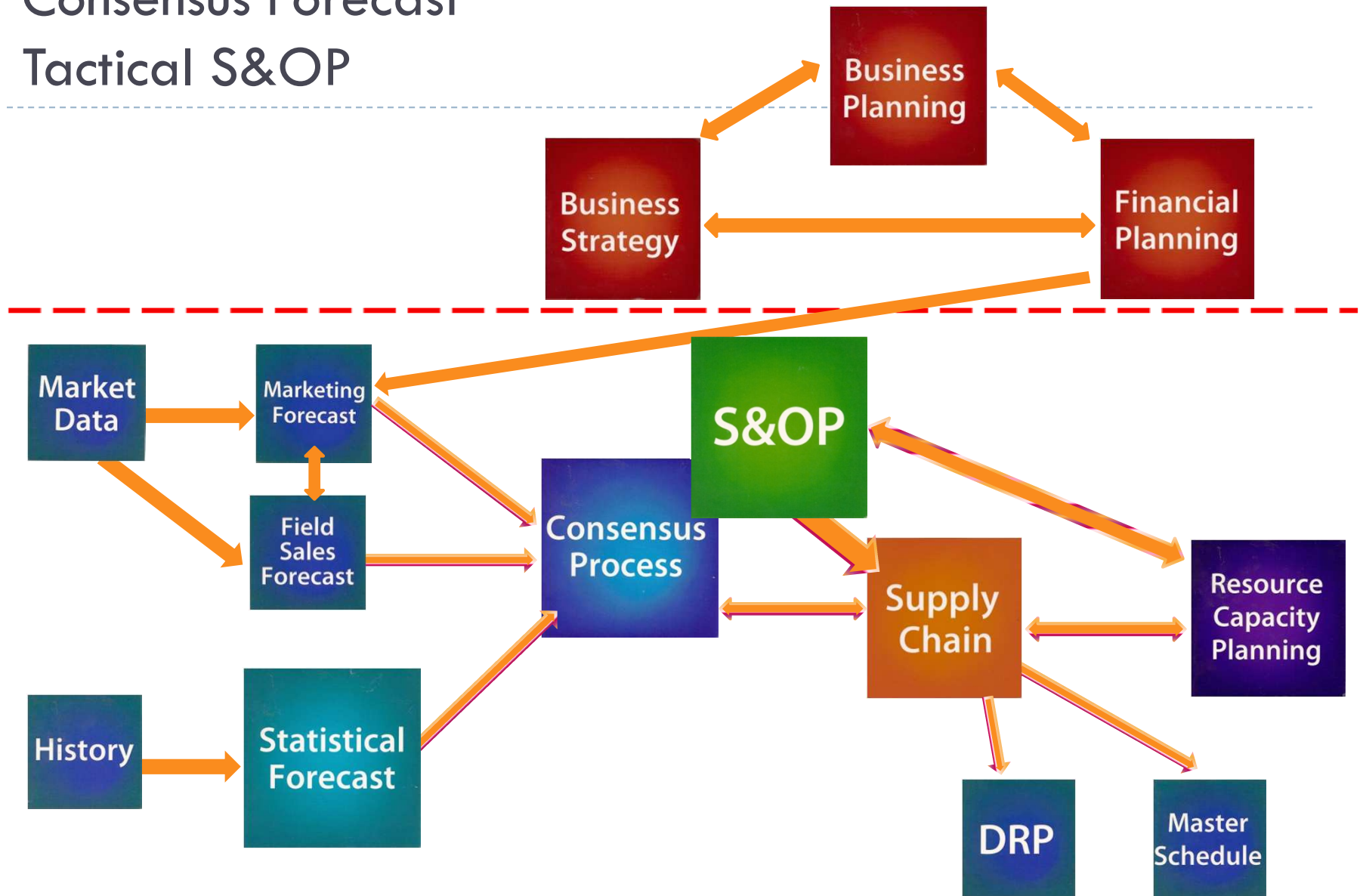
Approaches to Forecasting Management

Consensus (Tactical S&OP)

- Each functional area makes own independent forecast and then all come together to negotiate a final forecast and one department is in charge of forecast. Implies that other forecasts may be driven by Financial objectives.
- Requires organizational commitment and ownership to the process .
- Limited cross-functional accountability and integration of objectives tied into performance.
- Team develops consensus on 'Operational Forecast' with input from several areas , results in better coordination between functions
- Credible to Operations and is used only on a limited basis for other functional groups.
- Requires GAP closure process
- Tactical S&OP
- Reduction in bias and politics is limited due to partial collaboration
- Requires major effort to implement. Usually requires external consulting expertise.



Consensus Forecast Tactical S&OP



Approaches to Forecasting Management

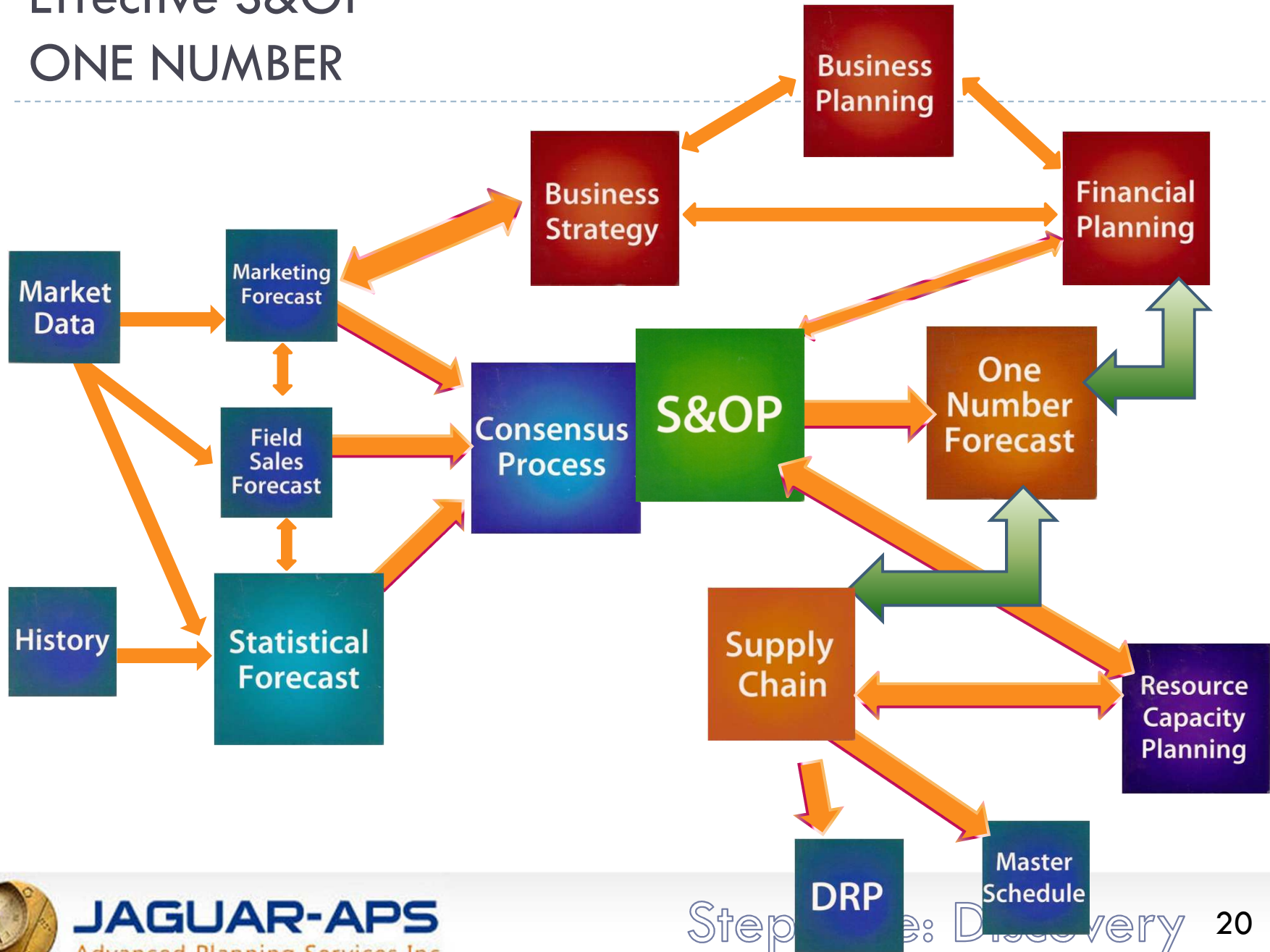
Effective S&OP Process Based on One Number Forecast

- Each functional area makes own independent forecast and then all come together to negotiate a final forecast which will be utilized by all cross functional groups in different units of measure and aggregation.
- Requires Strong organizational commitment and ownership to the process to control competing needs from different departments.
- Broader cross-functional accountability and integration of objectives tied into performance.
- Team develops 'One Number Forecast' with input from all areas . Requires team based structure or inter functional integration to work properly.
- Credible forecast to all functional groups.
- Requires GAP closure process
- S&OP driven, focus on both Tactical and Strategic planning horizons.
- Improved collaboration results in reduced bias and politics.
- Greatest challenge to implement - requires senior management to fully buy-in. Usually requires external consulting expertise.



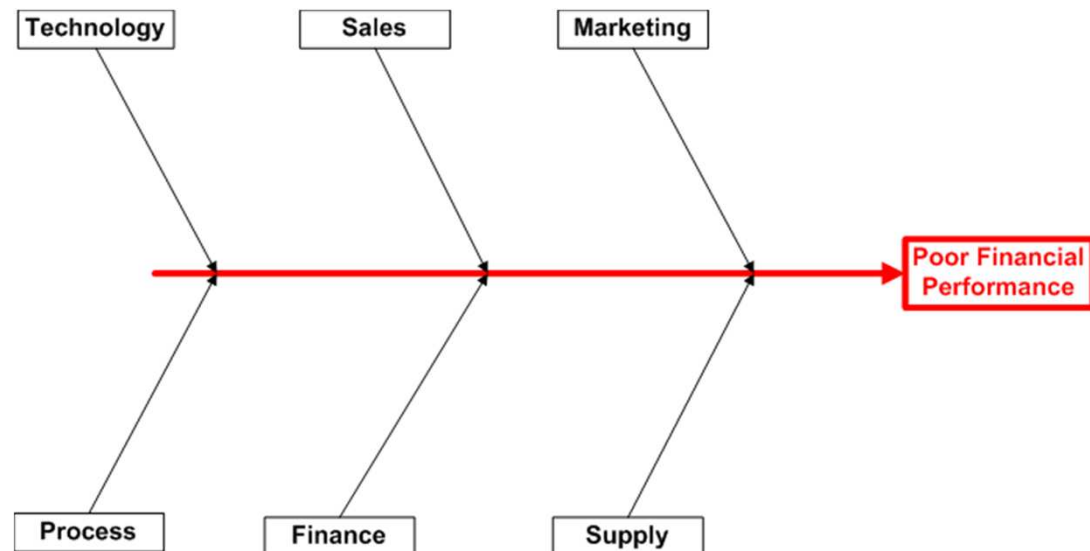
Effective S&OP

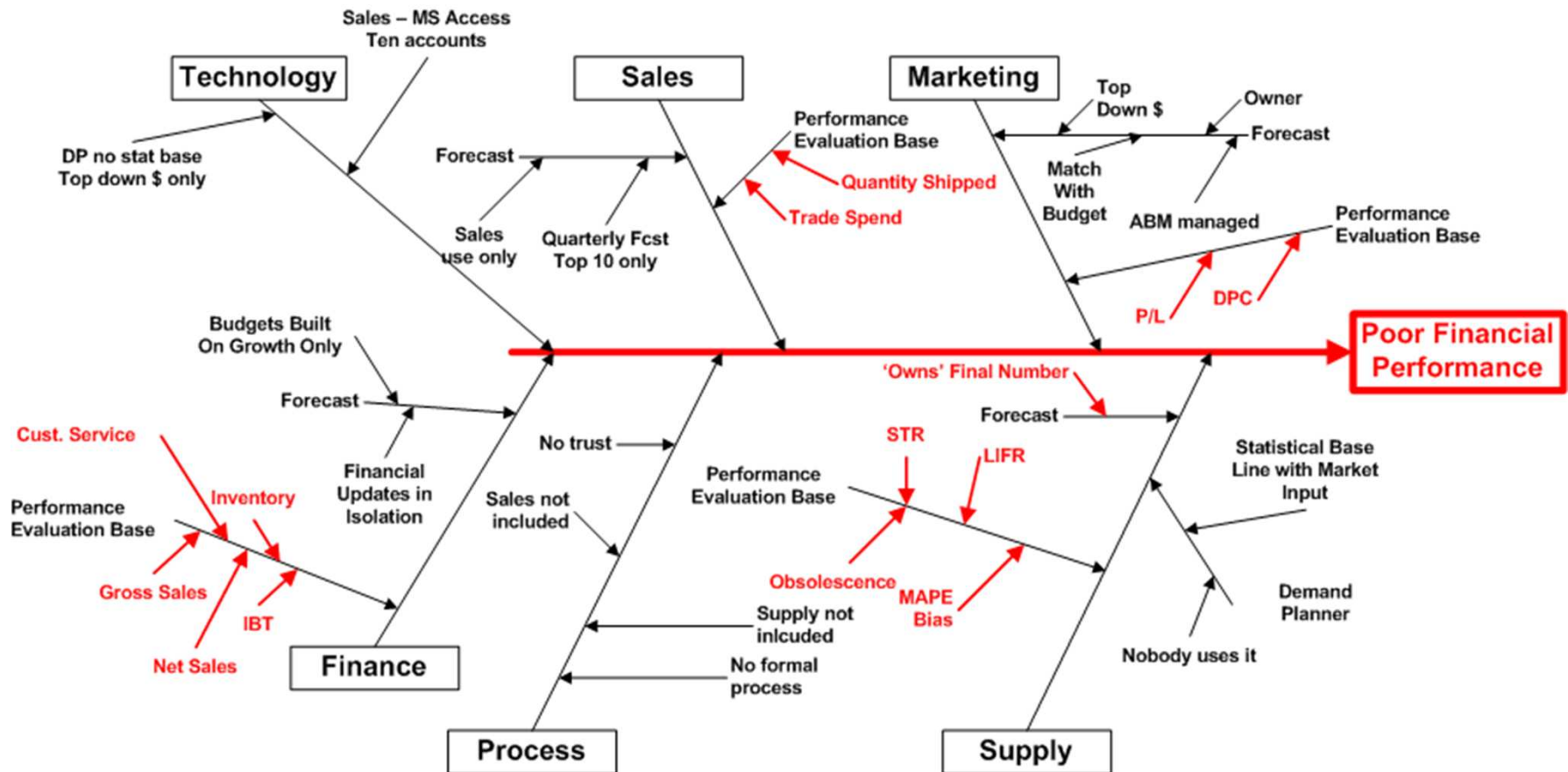
ONE NUMBER



FMCG Inc.

- ▶ FMCG Inc. Case Study – Team Activity
 - ▶ Analysis of company's current state
 - ▶ What did they do right? What wrong?
 - ▶ Identify areas of opportunity/Prioritize Needs





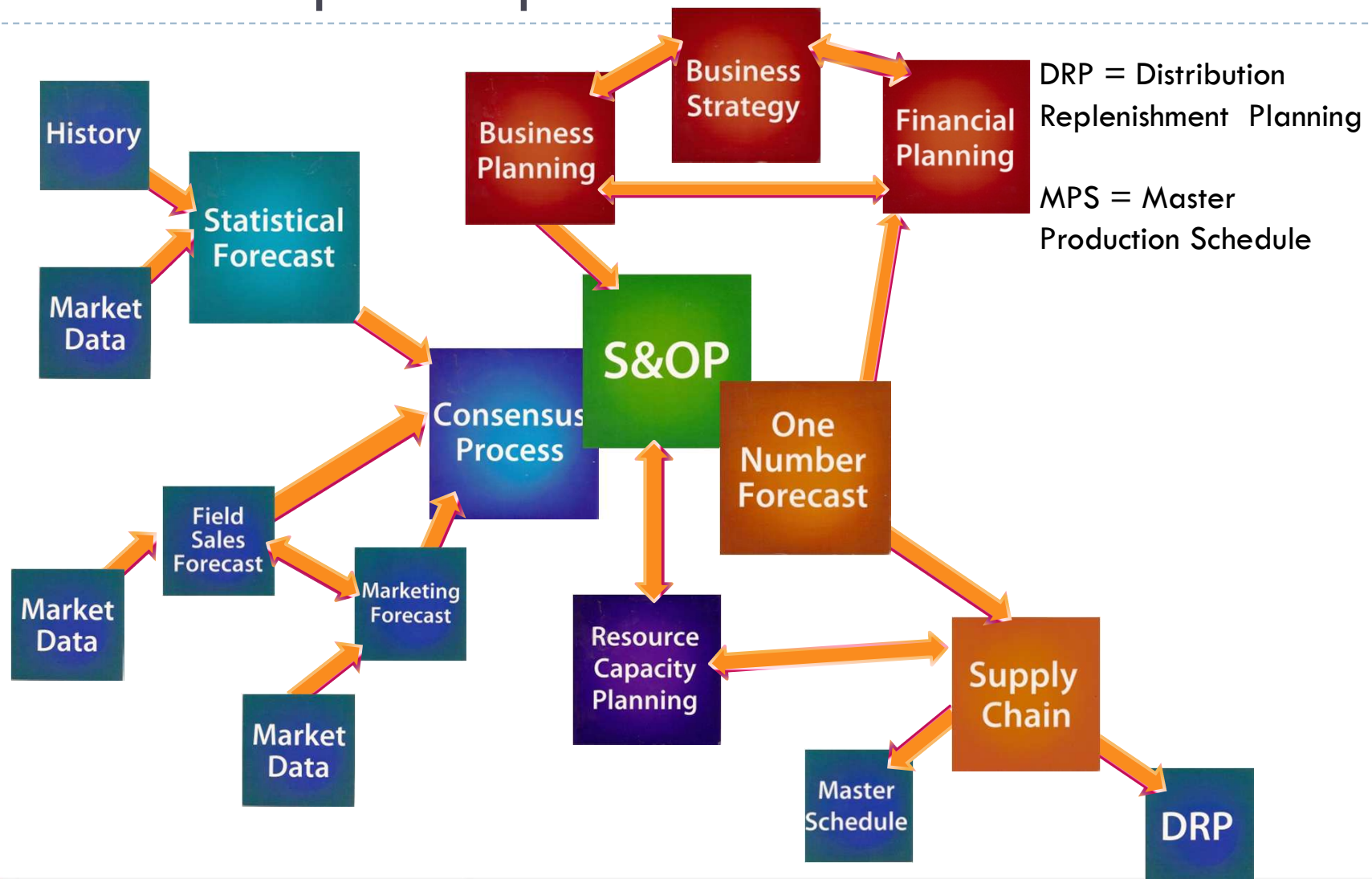
Approaches to Forecasting Management

▶ Group Activity

- ▶ FMCG Inc. – Map the Process
- ▶ Using the contents of the envelope, design the forecasting process that would best describe the company in your Case Study.
- ▶ Select your group's representative who will present your solution and explain what needs to change to make this company more effective.



Process Map Example



Forecast Approaches

	Independent	Concentrated	Consensus	One Number
Org. Commitment	N	L	M-H	H
Accountability	N	L	M	M-H
Degree of Collaboration	N	L	M	H
Forecast Credibility	L	L	M-H	H
Bias	H	H	M	L
Implementation Effort	L	L	M-H	H
Tools	<\$25K	<\$25K	>\$100K	>\$100K
GAP Process	N	N	Y	Y
S&OP	N	N	Y	Y
ROI	N	N/L	M	H

What a Senior Management Needs to Know



Silo / Island Management Approach

Sales

Manufacturing

Planning

Product Development

Finance

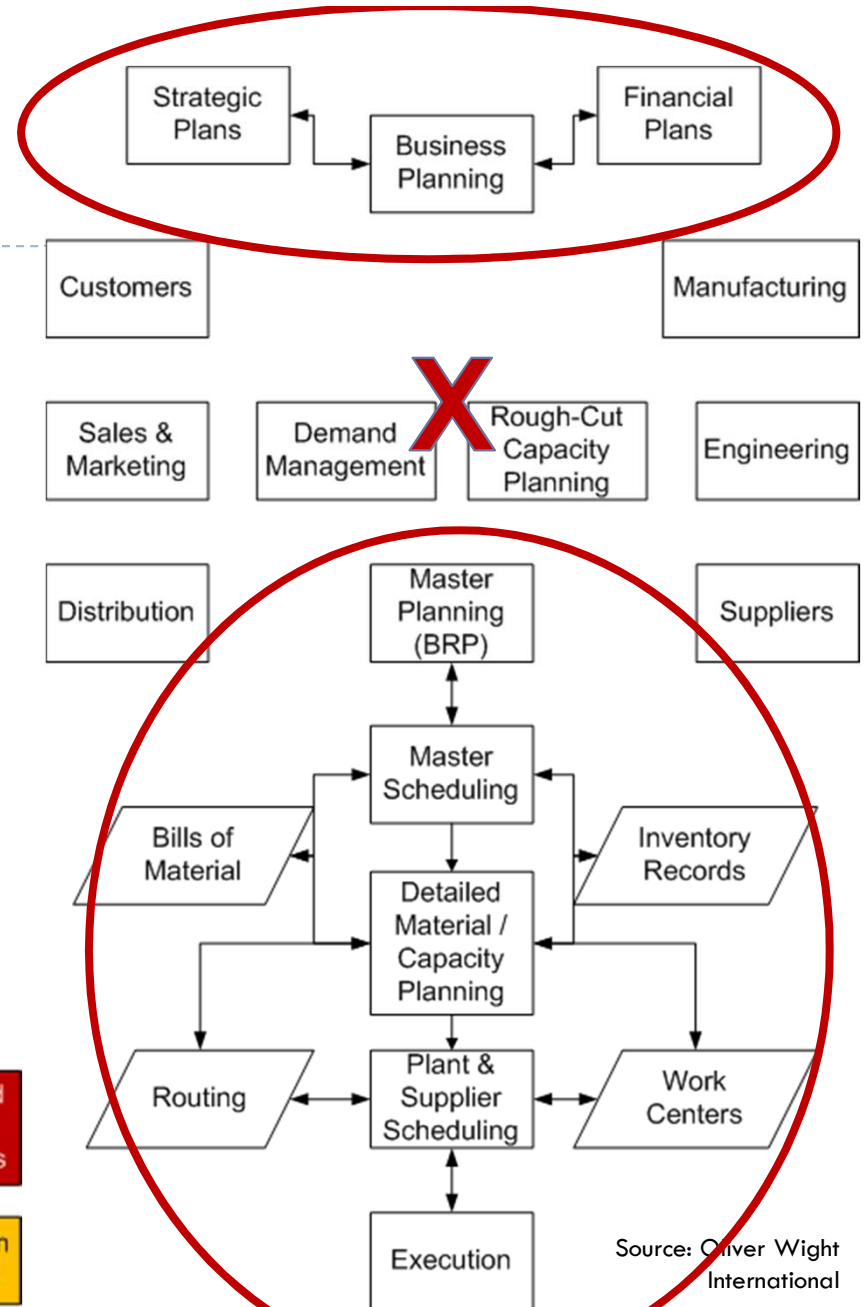
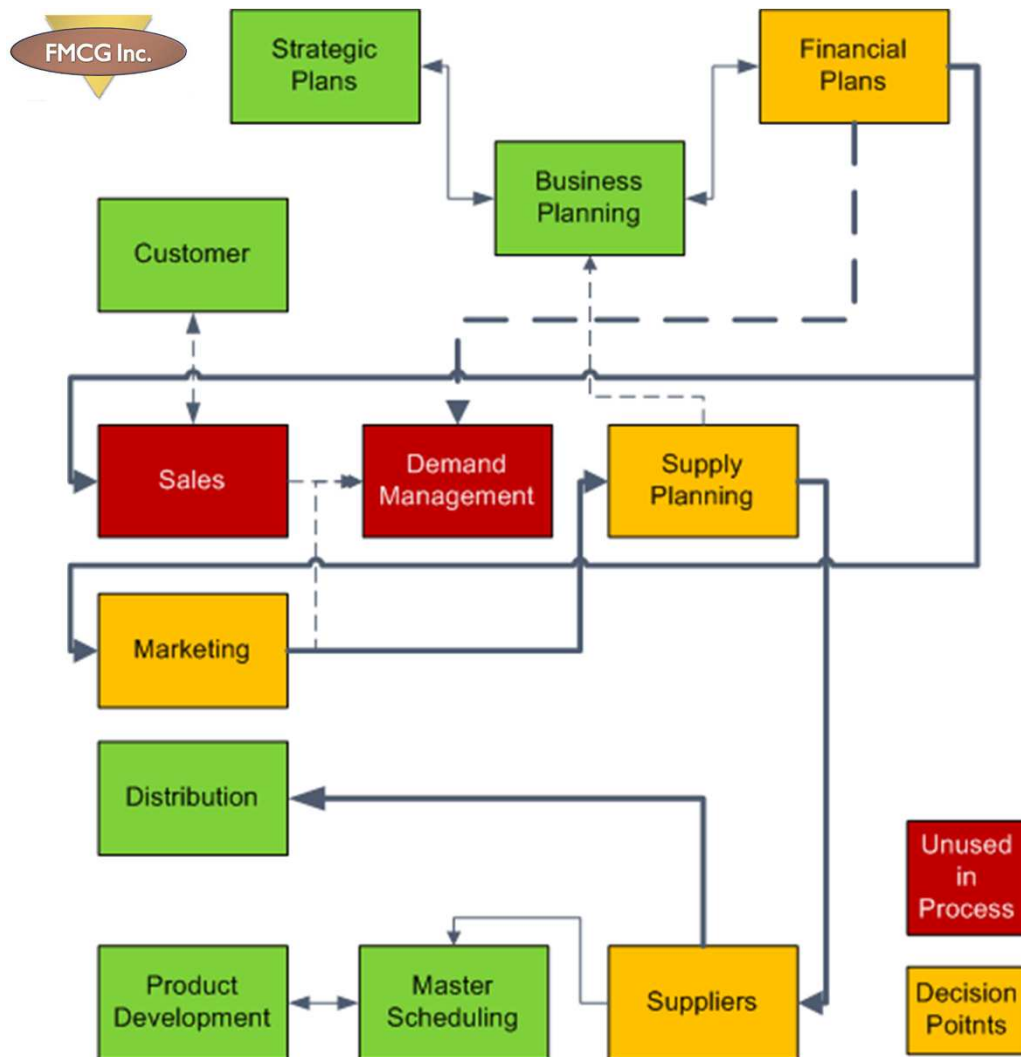
Source: Oliver Weight International



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Disconnected Planning



Step One: Discovery



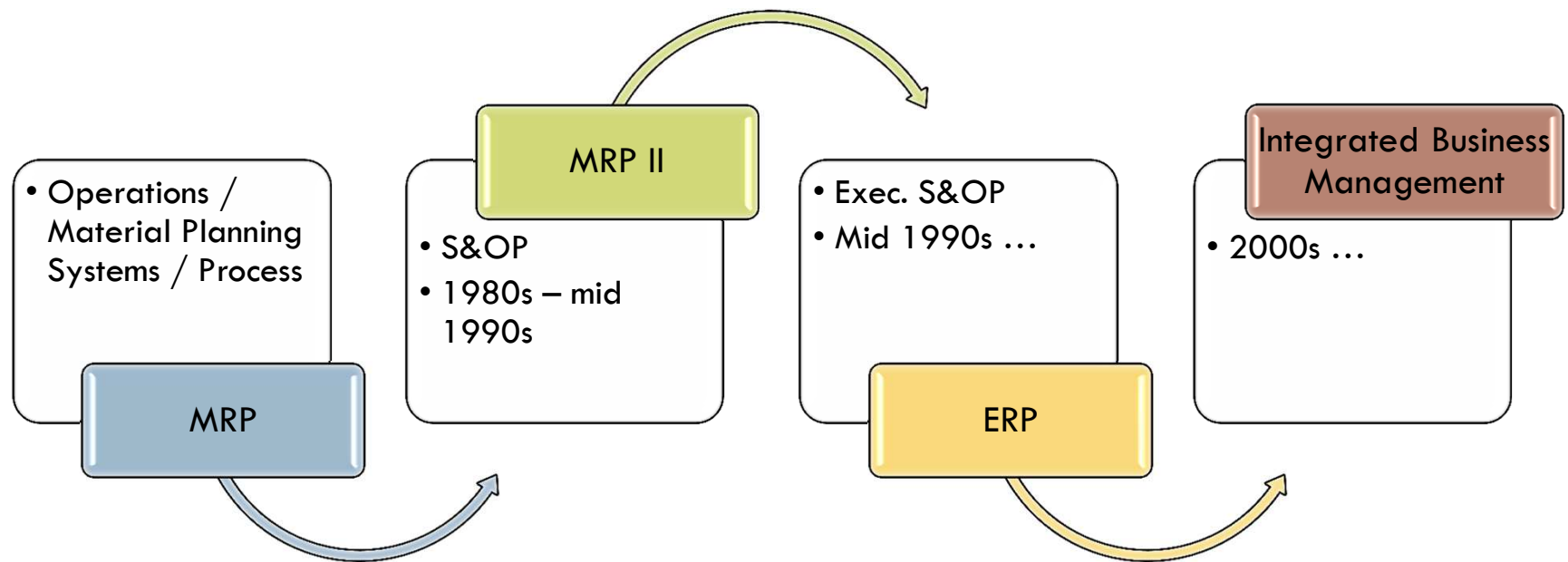
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Source: Oliver Wight International

Team Discussion

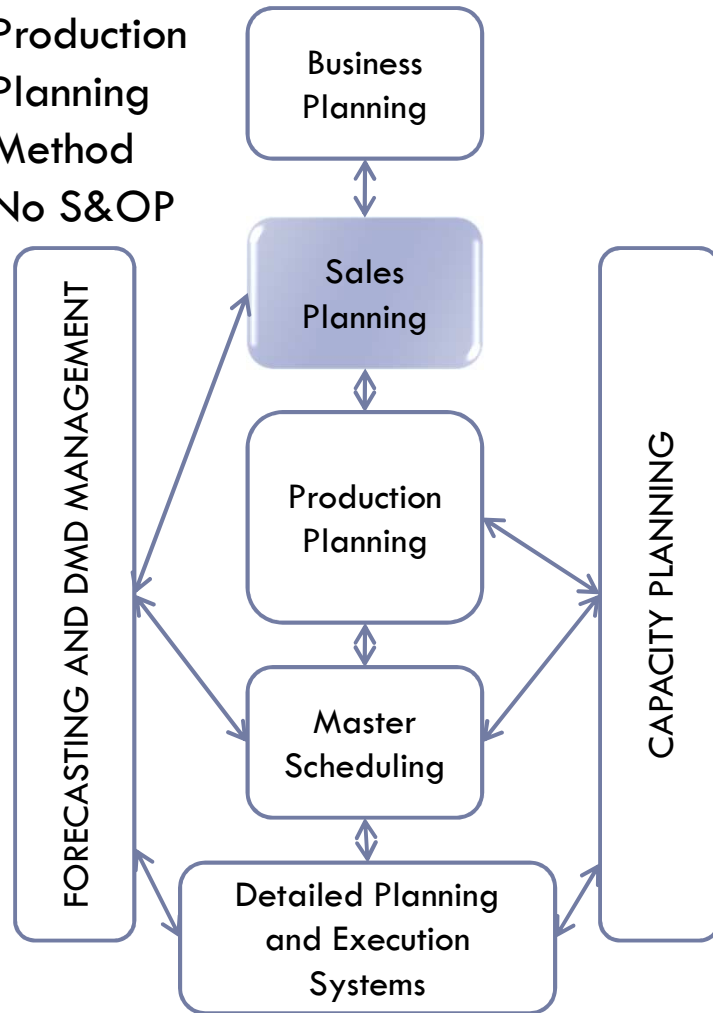
What a Senior Management needs to know

► Evolution of Integrated Business Management

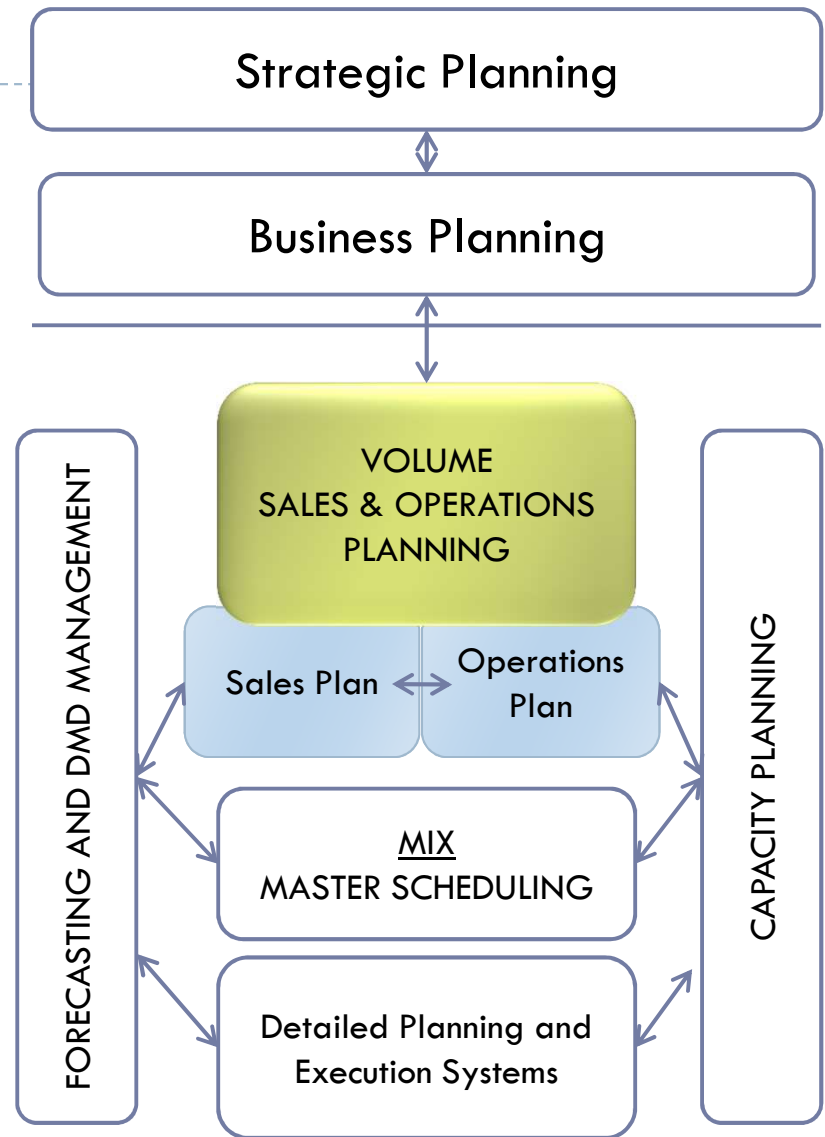


Evolution of Integrated Business Management

Production Planning Method
No S&OP

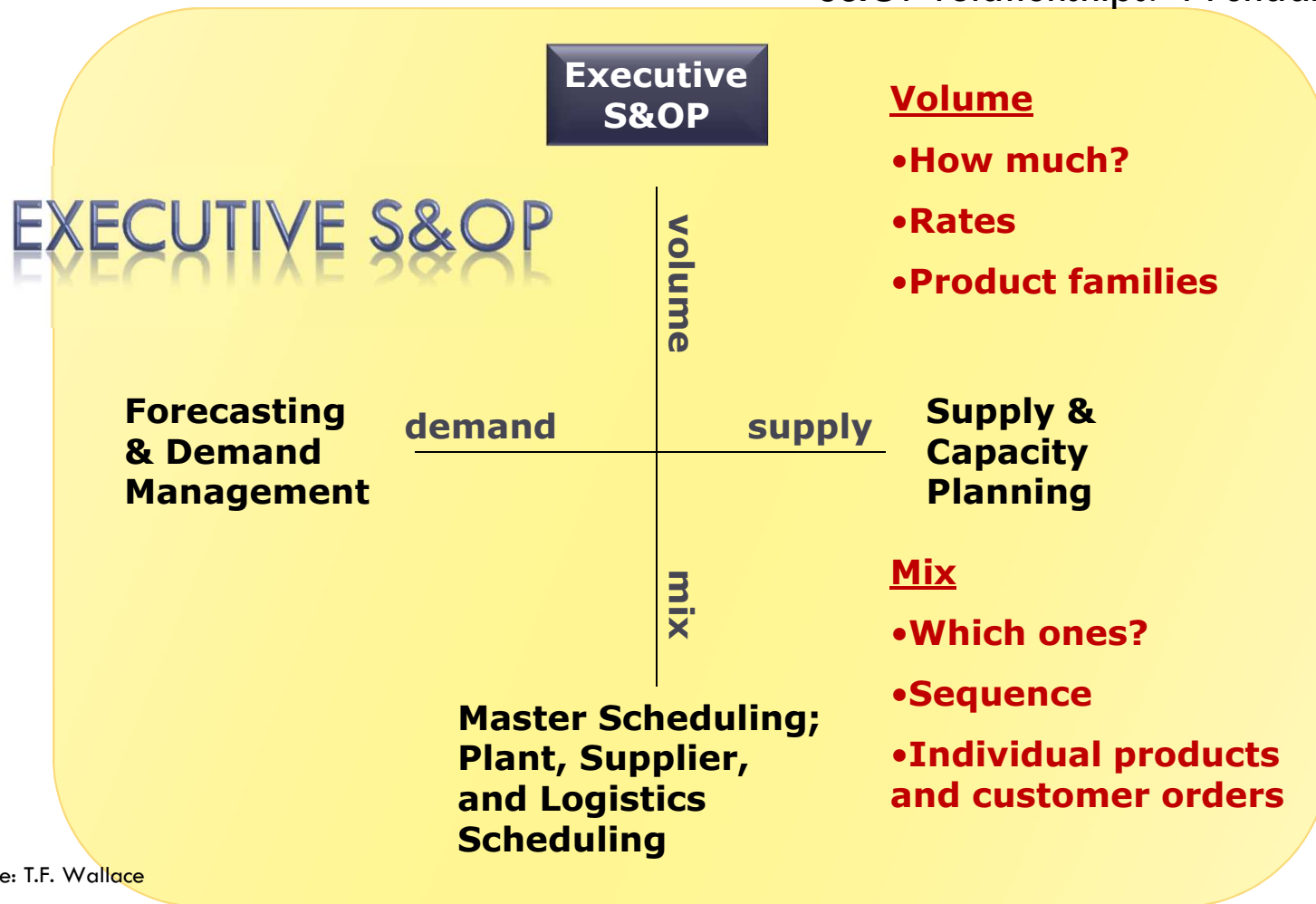


MRP II – S&OP in place, not fully connected to Business and Strat Planning



Evolution of Integrated Business Management

S&OP relationships: 4 Fundamentals



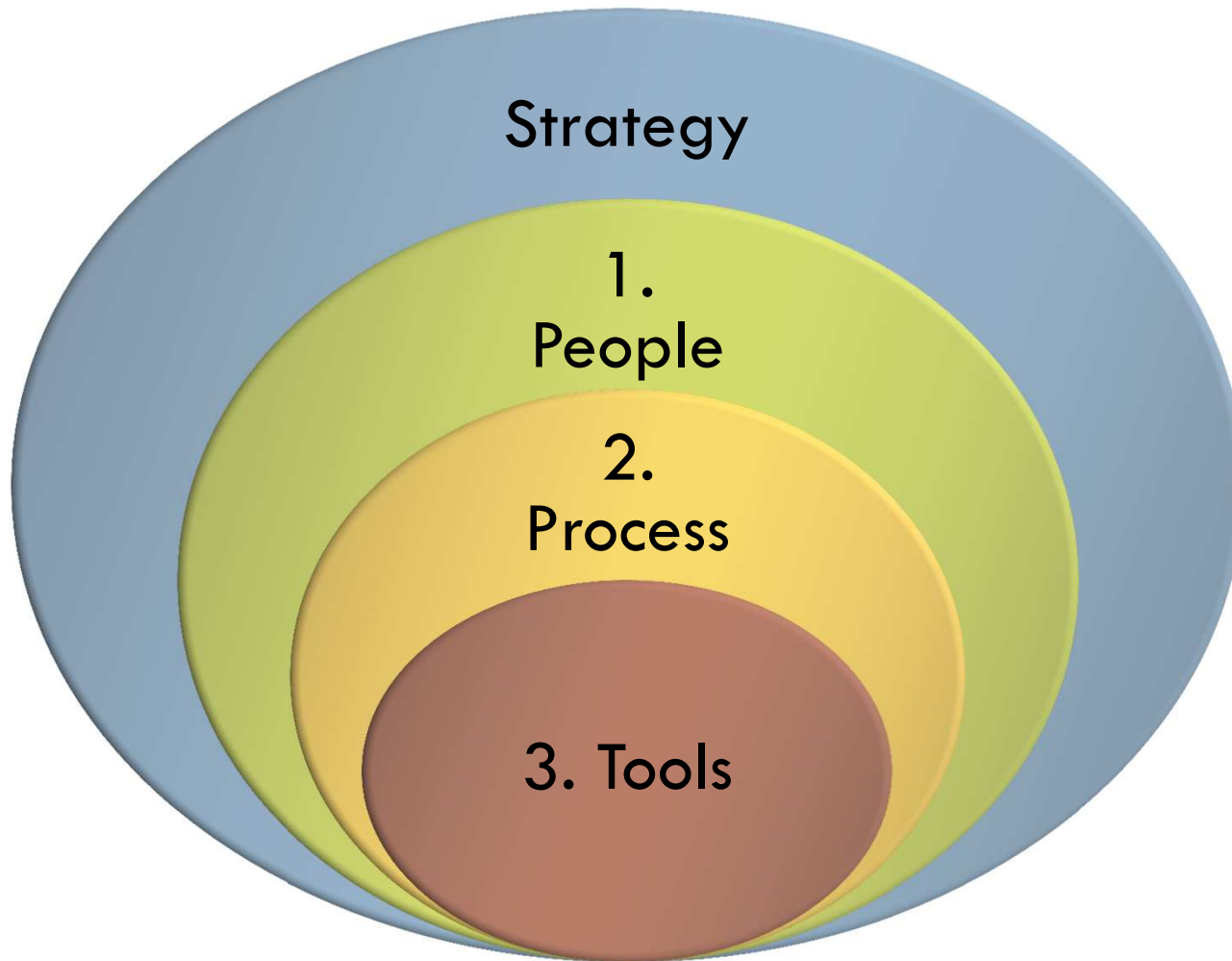
Source: T.F. Wallace



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What a Senior Management needs to know: Basic Elements of Excellence



Source: Oliver Wight International



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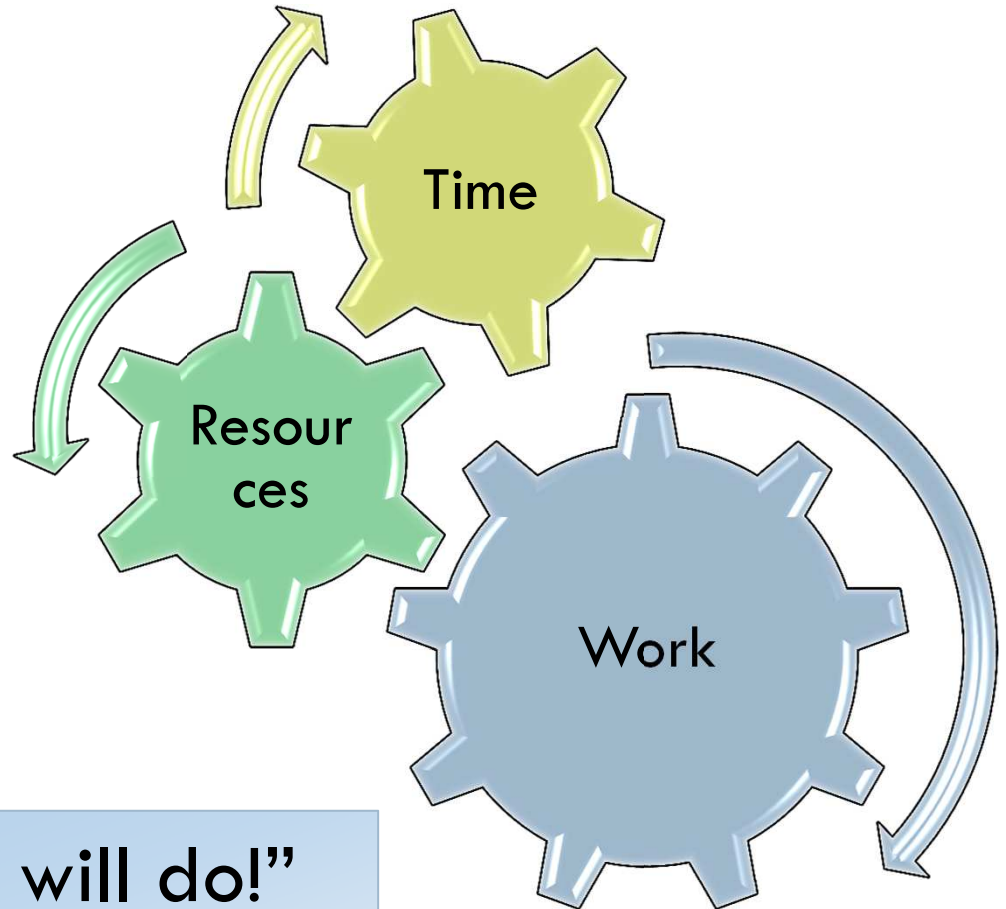
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Team Discussion

What a Senior Management needs to know

People, Process, Tools

- ▶ **Management's Objective**
 - ▶ Keep Work, Time, and Resources in Balance
 - ▶ A Change in One Requires a Change in At Least One of the Remaining Two Variables



“Do what you said you will do!”

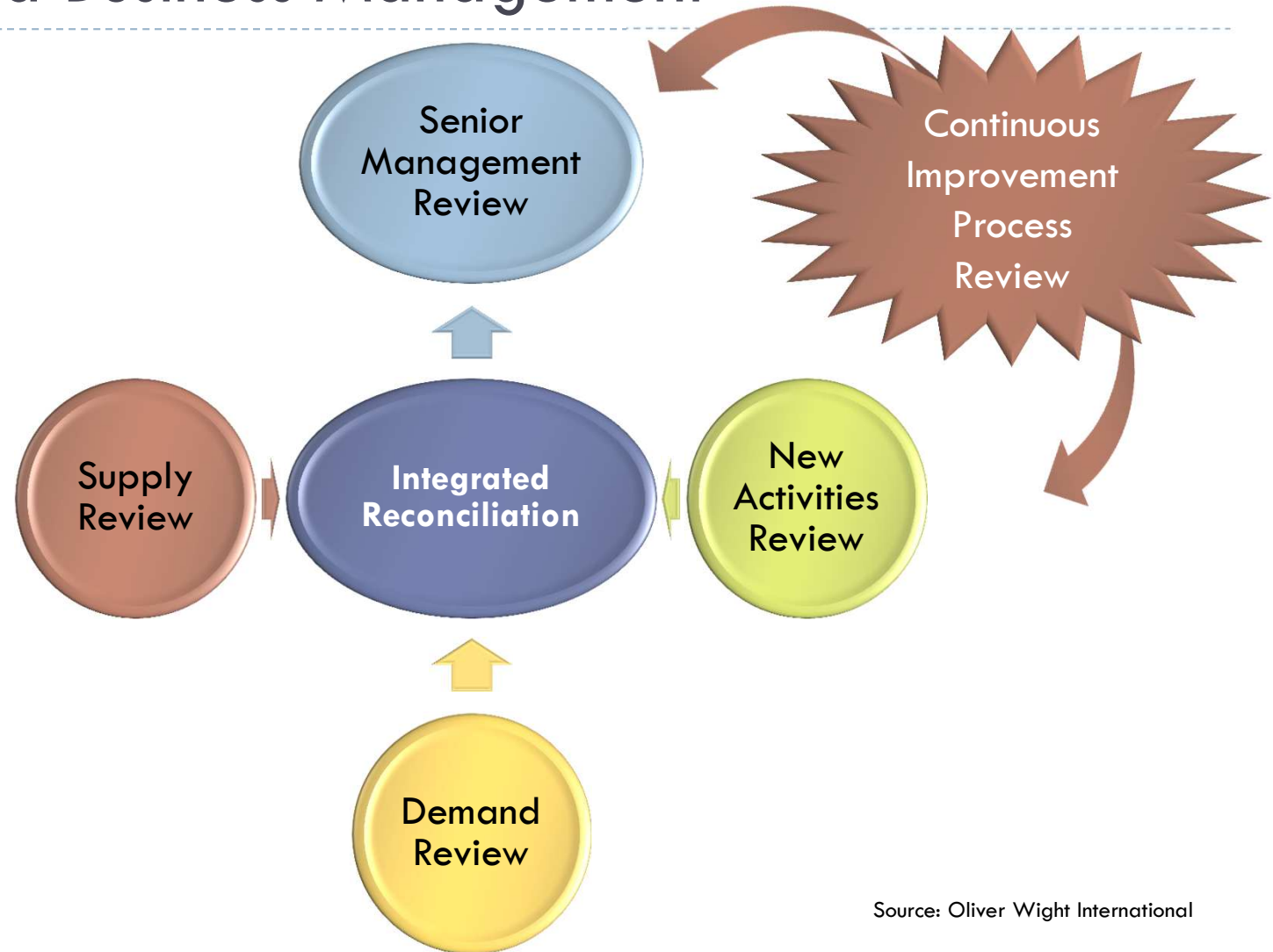
Source: Oliver Wight International



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Integrated Business Management

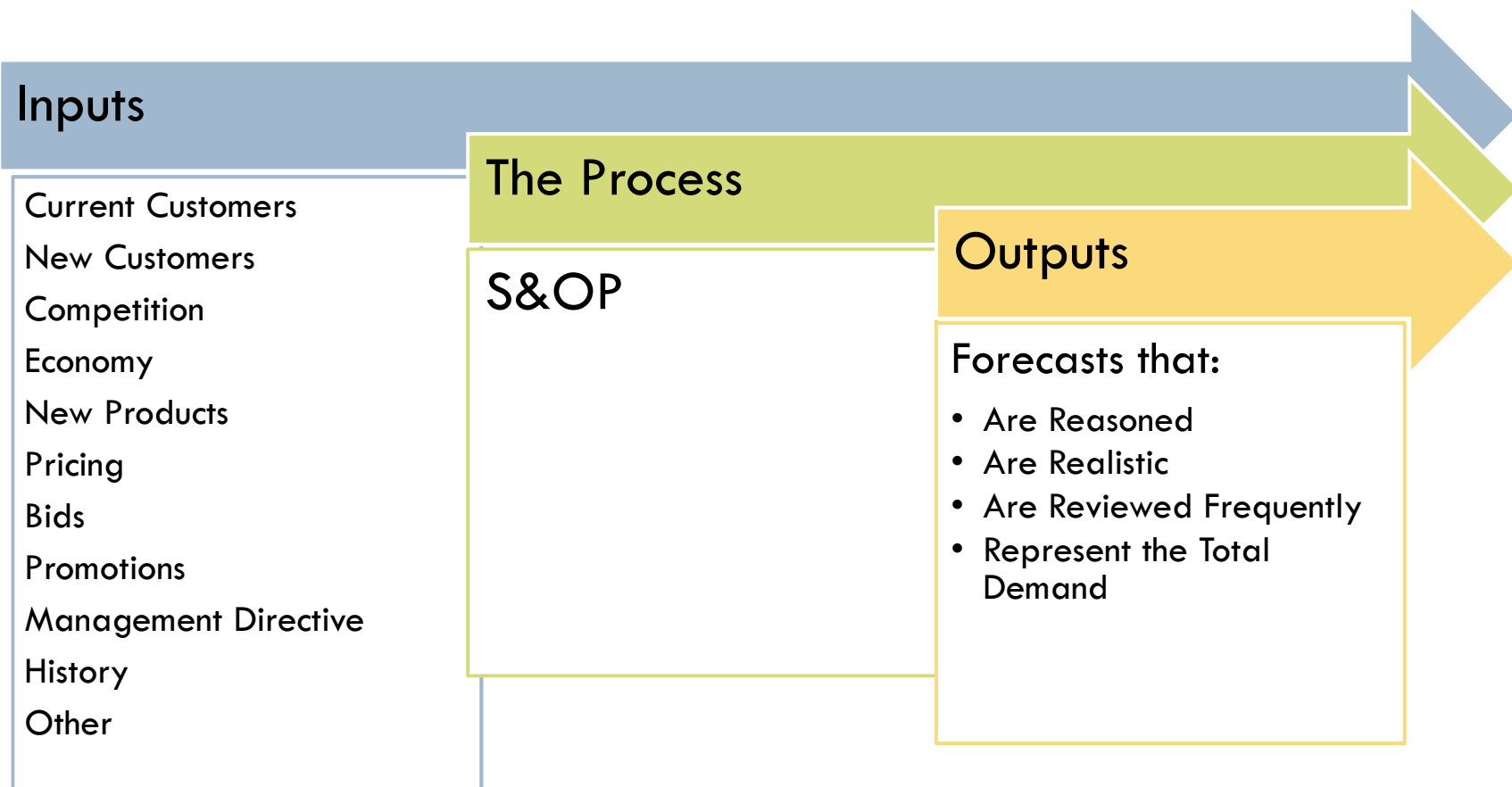


Source: Oliver Wight International



Team Discussion

What a Senior Management needs to know



Source: T. Wallace



Sales and Operations Planning

“People often ask me, ‘What do you do first in setting up an S&OP process?’ As simple as it is, it’s deciding who needs to be in the meeting ... it is almost as critical as all the technology.”



Dale Roberts
CATERPILLAR INC.

Corporate Culture and S&OP

- ▶ Key elements required to support S&OP effectively:
 - ▶ Trustworthiness
 - ▶ Openness
 - ▶ Collaboration
 - ▶ Personal Responsibility

Corporate Culture and S&OP

► Key Points

- **S&OP is a highly social process**, involving cooperative efforts among individuals, functions, and other companies in the whole supply chain. **Solid communication** among cross-functional teams, sharing of data, striving for consensus, and achieving common goals **is a must**.
- Game playing by functional units degrades the accuracy of the data S&OP requires to set plans and operations for the future.
- A company must instill a vision of what a smoothly running S&OP process will look like and foster the cultural values and norms necessary to achieve it.
- Failure to recognize the effect of cultural traits can have on the implementation and operation of S&OP can lead to suboptimal performance of this critical process.

Source: John Mello's article in Foresight Magazine
Winter 2010

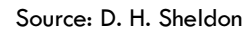
The General Manager's Role in S&OP

1. Enforces the meeting schedules
2. Chairs the Executive S&OP
3. Provides prioritization of actions
4. Keeps attendance high
5. Maintains a consistent agenda
6. Shows accountability at the meeting
7. Ensures follow-up actions are documented and distributed

The General Manager's Role in S&OP

- ▶ Development of common language between sales, marketing and manufacturing
 - ▶ S&OP is a Business Level process – data brought to the meetings must be summarized and issues discussed must be those that require meetings participants' input.
 - ▶ Product Grouping / Product Families
 - ▶ Reports Design / Unit of Measure
 - ▶ Data

- ▶ Development of common language between sales, marketing and manufacturing
 - ▶ Product families
 - ▶ Units of measure
 - ▶ Data

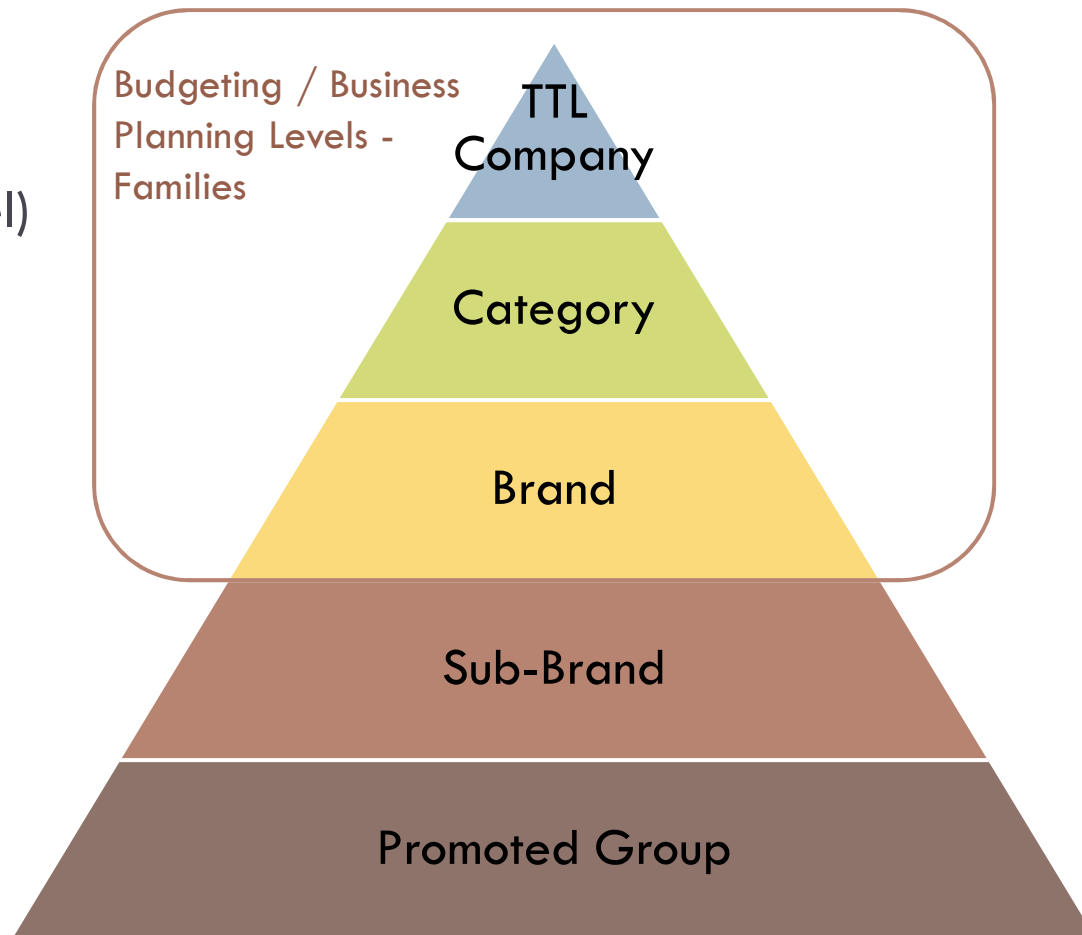


Definitions of Families

- ▶ Budgeting and Business Planning processes often have well defined product families. These can be used for most of the S&OP monthly cycle.
- ▶ These families typically should represent the way the business goes to the marketplace.
 - ▶ *i.e Customer / Consumer followed by sub families Small / Medium / Large*
- ▶ Make-To-Order companies sometimes set their families by Customer
 - ▶ *20% of customers representing 80% of the business equal individual families, remaining 80% of customers representing 20% of business equal single (all other) family*

Definitions of Families

- ▶ Marketing
- ▶ Sales
 - ▶ (at Customer Level)
- ▶ Finance
- ▶ Demand Planning
- ▶ Supply



Use Family and Sub-Family to support segmentation

The General Manager's Role in S&OP

Key roles and responsibilities / Who to Include on Implementation Team:

- ▶ S&OP Process Owner
 - ▶ Director of Operations
 - ▶ Demand Manager
 - ▶ Material Manager
 - ▶ Production Control Manager
 - ▶ Controller
 - ▶ Director of Sales Administration
- ▶ Demand Planning, Supply Planning / Operations, Finance, Marketing, Sales, Manufacturing, ...



Step Two: Understanding Benefits

Demand Management Process
S&OP Best Practices Overview
S&OP Meeting Structure

Theme of the workshop:

The only thing that is constant today, is the CHANGE

“Understanding and applying the dynamics of demand management is one of the very few uncharted areas available for businesses to develop new competitive weapons and increase profits.”



Dr. Larry Lapide, Research Director
MIT CENTER FOR TRANSPORTATION AND LOGISTICS

Some Terminology

- ▶ What we want or need to happen
 - ▶ budget, target, plan
- ▶ What we think will really happen
 - ▶ forecast
- ▶ What really happens
 - ▶ actual
- ▶ Difference between actual and budget/target/plan
 - ▶ variance
- ▶ Difference between actual and forecast
 - ▶ error



Demand Management Process

- ▶ Sales and Operations Planning process is a Demand Driven Process
- ▶ Primary step in the monthly cycle is to update the demand forecast or **Request for Product**.
- ▶ Demand Plan, Shipment Plan, Sales and Revenue Plan – all are the same as a result.
- ▶ Demand Management is a **Critical Part** of the successful S&OP implementation.
- ▶ Demand Management is Integrated Sales and Marketing Management.

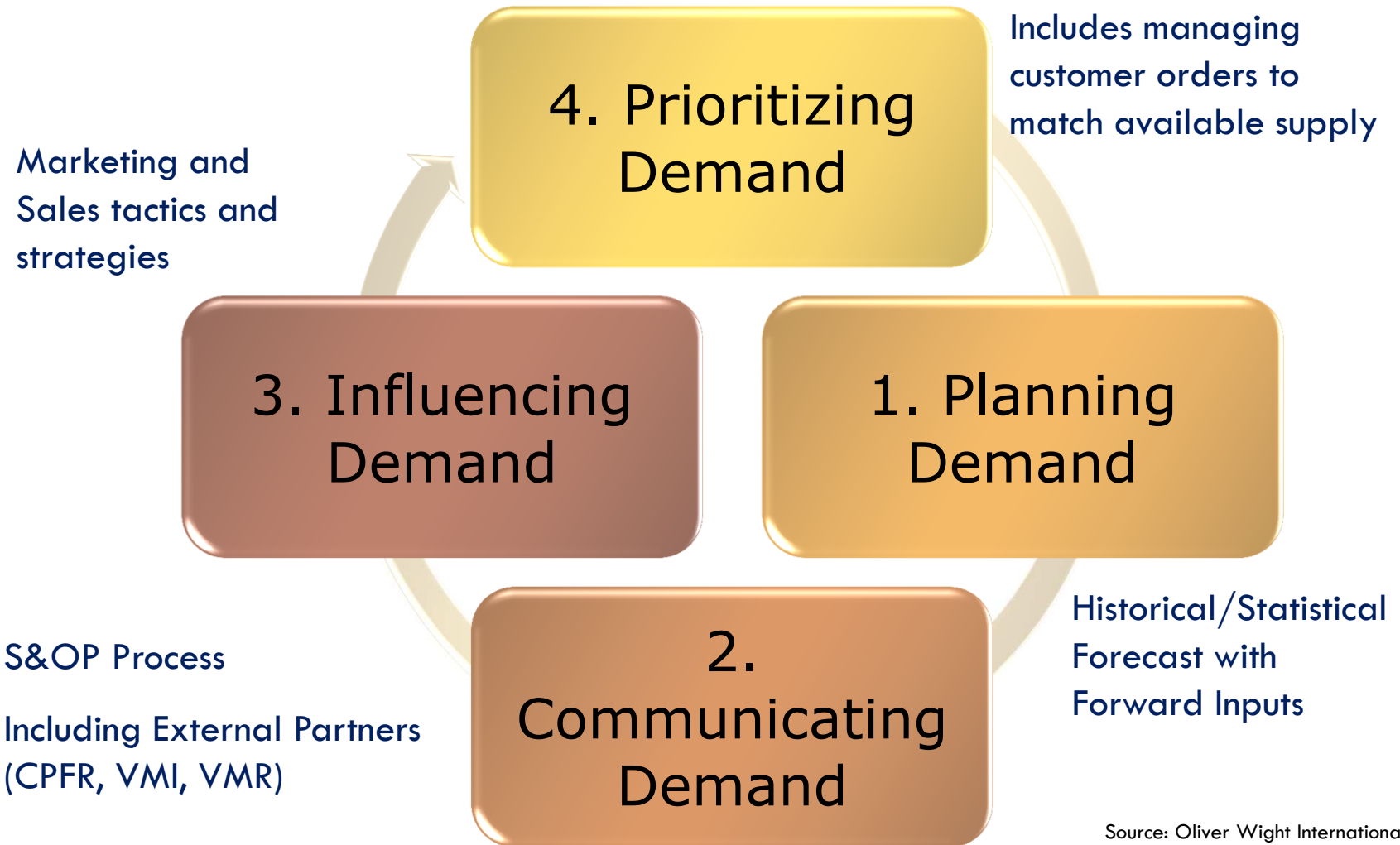
Source: Oliver Wight International

Definition of Demand

- ▶ The amount of a particular economic good or service that a consumer or group of consumers will want to purchase at a given price at a given time.
- ▶ Unconstrained Demand/True Demand
 - ▶ It is the number of orders received for any given period irrespective of whether those orders will be fulfilled or not.
- ▶ Constrained Demand
 - ▶ How much of the True Demand can be fulfilled (after incorporating any limitations on our ability to provide the product or service demanded.)
 - ▶ $\text{Constrained Demand} \leq \text{True Demand}$

Demand Management Process Model

The Broad-View



Source: Oliver Wight International



Demand Planning Process

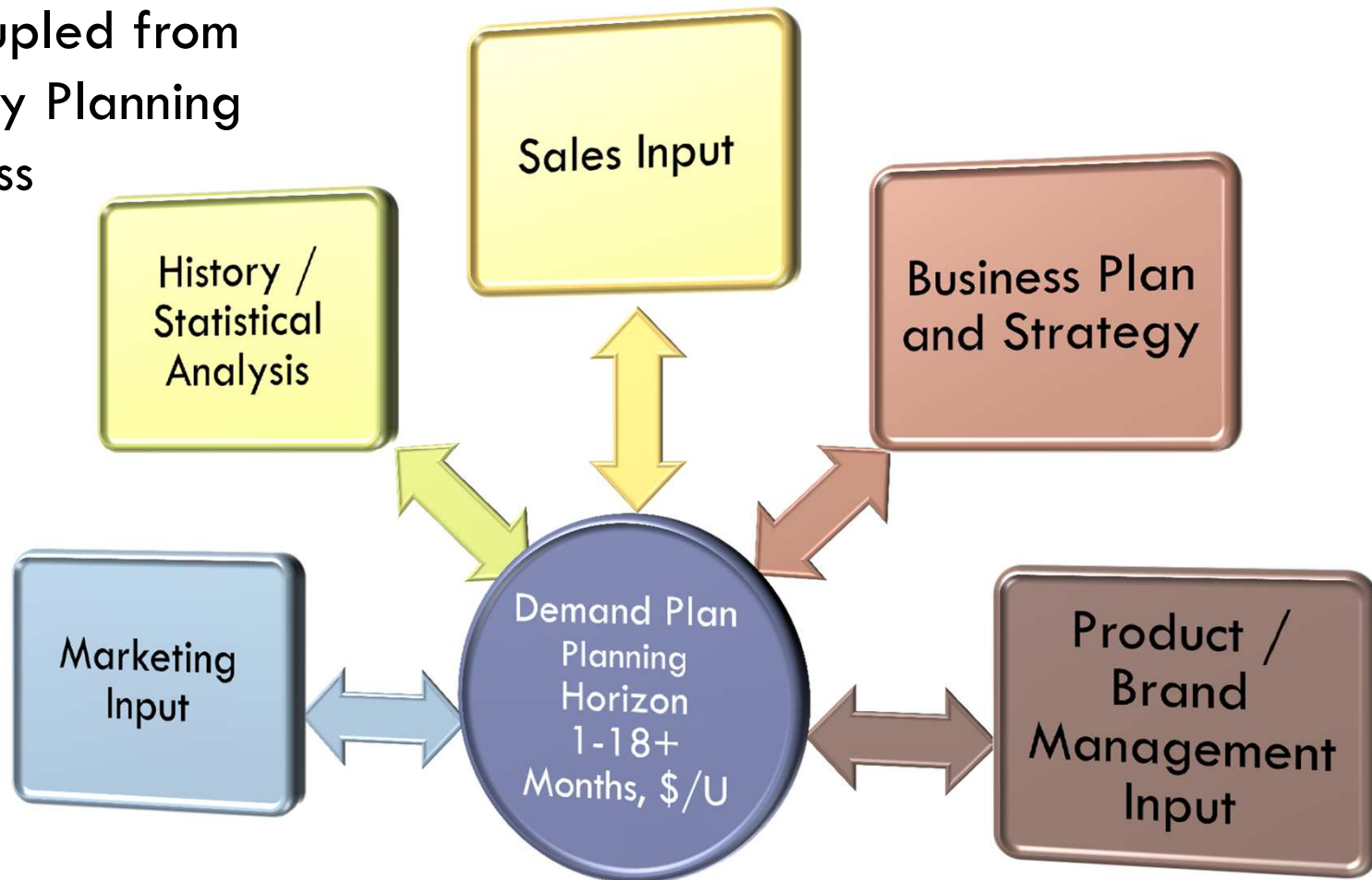
- ▶ Closed Loop – Sales and Marketing plans for each product family or grouping are developed.
- ▶ Performance to plan is measured by:
 - ▶ Product
 - ▶ Customer or Market
 - ▶ Sales and Marketing responsibility to understand their customers and markets, accountability, and corrective action
- ▶ Marketing and Sales are responsible for development of plans that include:
 - ▶ Action plans
 - ▶ Assumptions about the business
 - ▶ Quantification of the plan by product in units and dollars

Source: Oliver Wight International



Demand Planning Process

Decoupled from
Supply Planning
Process



Source: Oliver Wight International



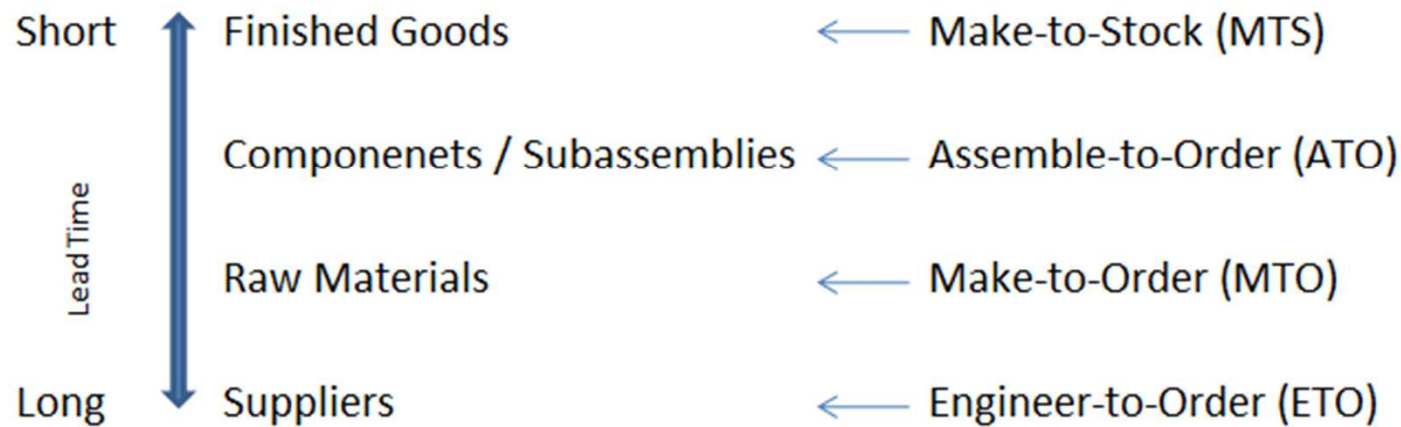
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Business Planning Behind S&OP

► Linking the Financial Plans with the S&OP Process

Decoupling Points



Demand Plan Outputs

- ▶ Profit potential
 - ▶ Capacity
 - ▶ Financing
 - ▶ Stakeholder confidence
- ▶ Forecast as a Risk management input



Adjusting Unconstrained Demand

Adjusted Supply Elements

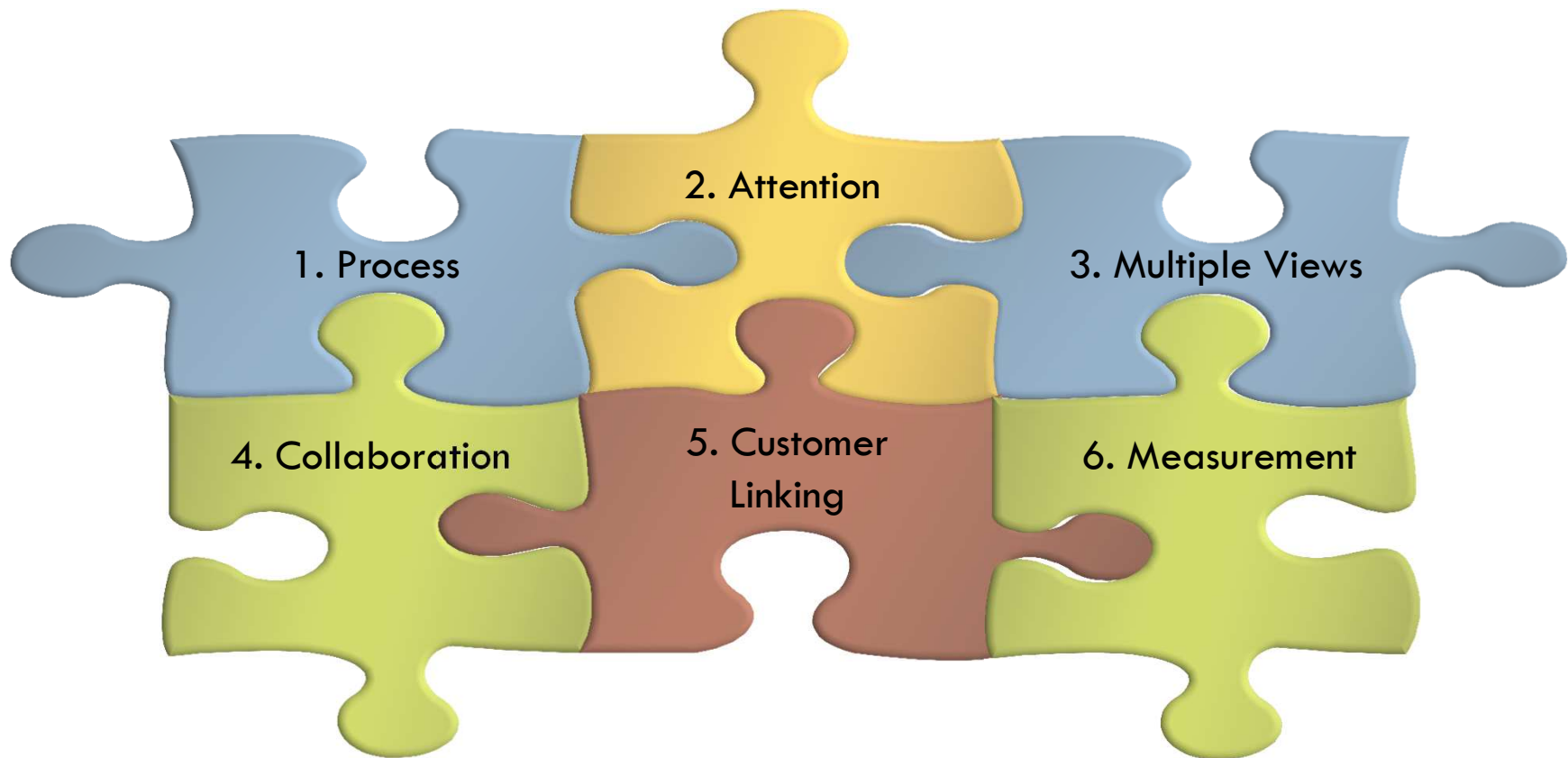
- ▶ Purchasing
- ▶ Manufacturing
- ▶ Inventory
- ▶ Transportation
- ▶ Warehousing
- ▶ etc.

Adjusted Demand Elements

- ▶ End User Marketing
- ▶ Trade Marketing
- ▶ Pricing
- ▶ Selling
- ▶ Competition
- ▶ etc.



Best Practices – Demand Planning



Source: Oliver Wight International

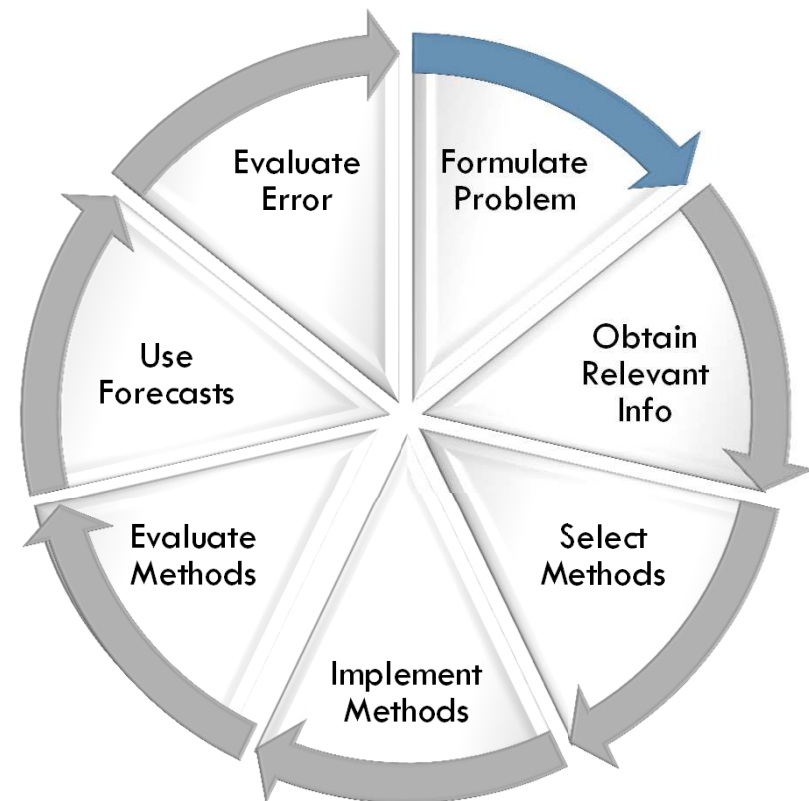


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Framework For Developing Forecasting Process

- ▶ Demand Planning is a REPLANNING process
- ▶ Replanning gives managers greater flexibility and control of the business.
- ▶ Control starts with Demand Planning



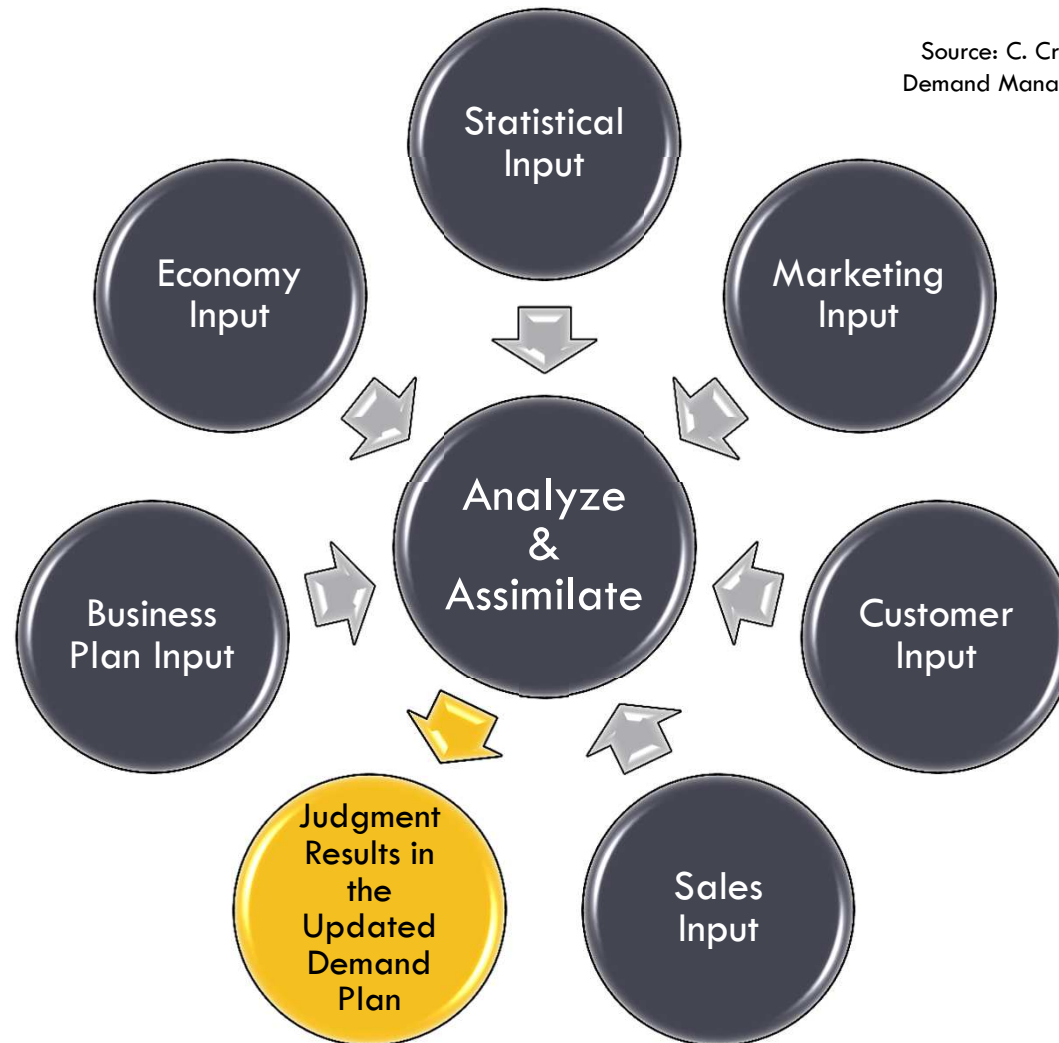
Three main aspects of forecasting

- ▶ Preparing forecasts
- ▶ Getting buy-in from end-users
- ▶ Making continuous efforts to improve forecasts



Role of the Demand Manager

Source: C. Crum, G.E. Palmatier,
Demand Management Best Practices



Relationship of Forecasting and Planning

► Forecast

- To predict a future condition or occurrence.

► Plan

- A scheme or method of acting, doing, proceeding, making, etc., developed in advance.

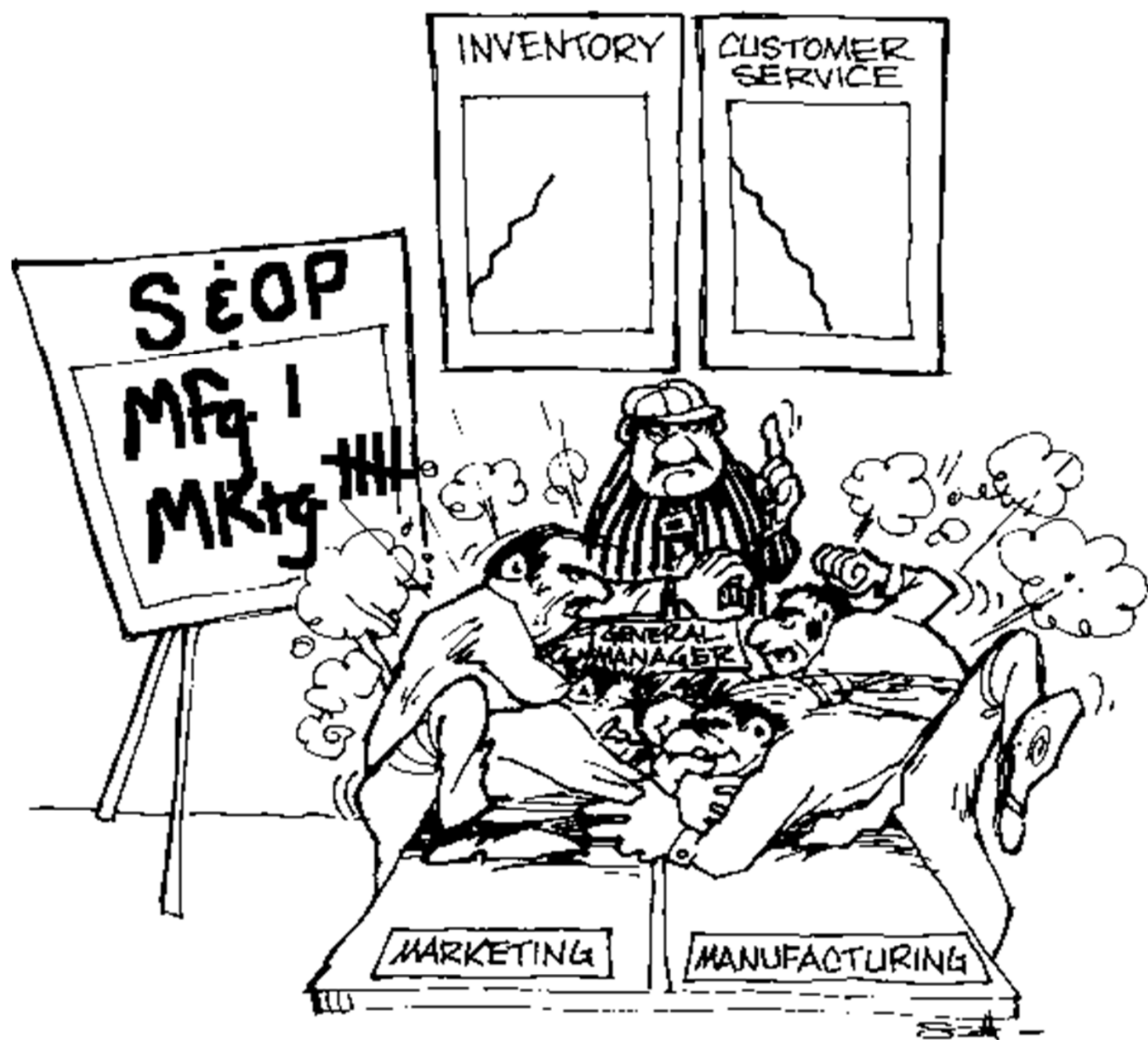
Forecast connotes a lack of control – something that cannot be predicted with a high degree of accuracy.

Plan denotes action arranged in advance, which means that someone is determining and controlling the actions taken.



- ▶ Based on the historical data and instructions on your departmental sheets, develop forecast for the sub-families of the RCT Family for the remaining 6 months of the year.
- ▶ Report your forecast and explain the underlying assumptions
- ▶ Team discussion
 - ▶ Which department created most accurate forecast? Why?
 - ▶ Which department is the winner? Why?
 - ▶ What is the impact on the business?





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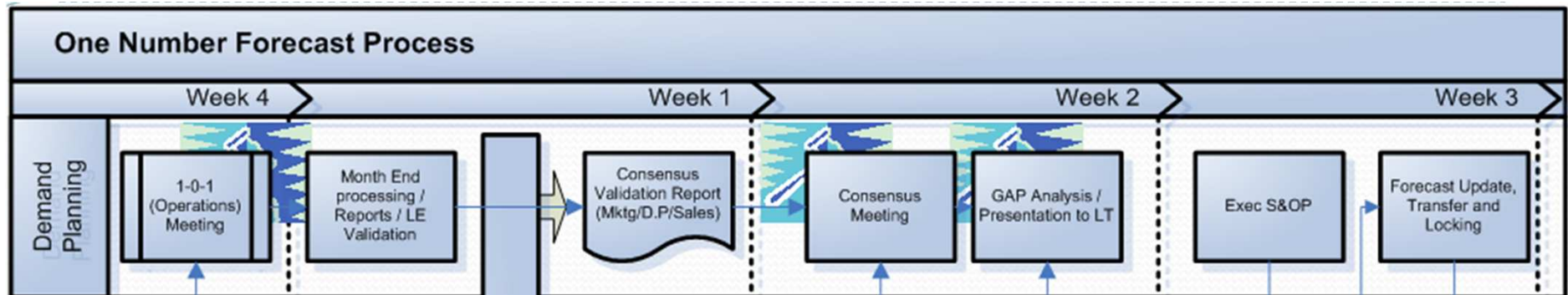
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S&OP is a Demand Driven Process

- ▶ FMCG Inc. Case Study – Team Activity
 - ▶ Forecasting self-audit
 - ▶ T. Wallace S&OP Self-Audit Workbook



Role of Demand Planning (Example)



- ▶ To find a completely 'unbiased' process champion is often not an option. In our example, Demand Planning exists as a separate group under the Market Operations department. This allows for relatively low bias.
- ▶ Demand Planning owns the Demand Meeting (unconstrained demand), Supply Meeting and GAP (vs. Financial commitment) meetings. The Finance and President jointly own the Executive S&OP meeting and its outcomes.



Key points on One-Number Forecast

- ▶ How was the forecast created?
 - ▶ The One-Number Forecast needs to be a compilation of insight, data, trends, and confirming facts.
 - ▶ The ideal demand plan synchronizes category trends, shipment trends, trends derived from POS or syndicated data.
 - ▶ The goal of the One-Number consensus process should be the creation of a reality based One-Number Forecast – not a consensus ‘planned’ forecast.
 - ▶ Does the One-Number Forecast have a well defined set of underlying assumptions?
 - ▶ Does the One-Number Forecast have a feeling of reality built into it?
 - ▶ Are ‘aspirational’ volume activities well documented?
 - ▶ Does the forecast have sales insight derived from talking with the customer or consumer?
 - ▶ Is the One-Number Forecast well communicated so that supply believes in the plan, and does not hedge the plan on its own?



Key points on One-Number Forecast

- ▶ The One-Number Forecast **MUST** be based on a reality. It also should be **UNCONSTRAINED** so the management understands what the business can sell given unlimited supply. This aids in capacity and resourcing decisions.
- ▶ A separate formal process is used to determine the executibility of the forecast. (operations meeting)
- ▶ The supply planners assess their ability to deliver the proposed demand. The forecast is eventually constrained, but not until the gapping process has been completed. The gapping process, for example, helps to protect future revenue by pointing today's lost opportunities.
- ▶ The striving for a One-Number Forecast has an important place in S&OP, but it shouldn't be the only focus of the entire process. The One-Number Forecast should be assumption based, realistic, executable and forward reaching as well.



The role of process champion

- ▶ Ideally, the leader of the process should NOT be responsible for the success of areas that participate in the process. In reality, it is seldomly possible to find a completely unbiased process champion.
- ▶ The process requires unbiased measurement, evaluation, and action, credibility and authority of the leader.
- ▶ The ideal leader should be a process facilitator and manager. That is why it is important to seek a leader who has a direct involvement in determining the strategic direction of the organization.



DO WHAT YOU SAID YOU WILL DO.

The Alignment of People, Process, Tools
and Strategies

Indicators of Process Risk

- ▶ Lack of organizational commitment
- ▶ Lack of senior management support
- ▶ Too many forecasts
- ▶ No GAP management
- ▶ Lack of credibility
- ▶ Departmental biases taking over
- ▶ Politics,



But we are not FMCG

S&OP Best Practices Overview

“Something that people have a tendency to forget is you can learn a lot from other industries. Don’t spend your time trying to benchmark yourself against your competitor because you’ll only be as good as him. Go outside your industry and try to figure out what you can learn.”



Christian Verstraete
HEWLETT PACKARD

S&OP Best Practices Overview

- ▶ Better understanding of the customer and market opportunities
- ▶ Improved understanding of the company's current capabilities
- ▶ This understanding and visibility enables improved, more timely tactical and strategic choices and changes. The real benefits of sales and operations planning come in gains in market position and market share as well as increased profitability and improvements in the company's capabilities.



Objectives Of S&OP Process

- ▶ Align demand, supply and budget (primary objective)
- ▶ Understand the financial consequences – GAP management
- ▶ Integrate operational plan with the strategic plan
- ▶ Integrate the product mix with total volume of products
- ▶ Respond to changing markets quickly and pro-actively
- ▶ Improve competitive advantage for the business
- ▶ Risk management for the business

Source: Oliver Wight

Top Level Benefits from the S&OP Process

- ▶ Top management efficiency
- ▶ Planning disciplines
- ▶ Payback on investment
- ▶ Company objectives on track
- ▶ Higher customer service
- ▶ Lower finished goods inventories
- ▶ Reduced obsolescence
- ▶ Shorter customer order backlogs, hence shorter lead times
- ▶ More stable production rates, hence higher productivity
- ▶ Shorter supplier lead times
- ▶ Reduced premium freight costs

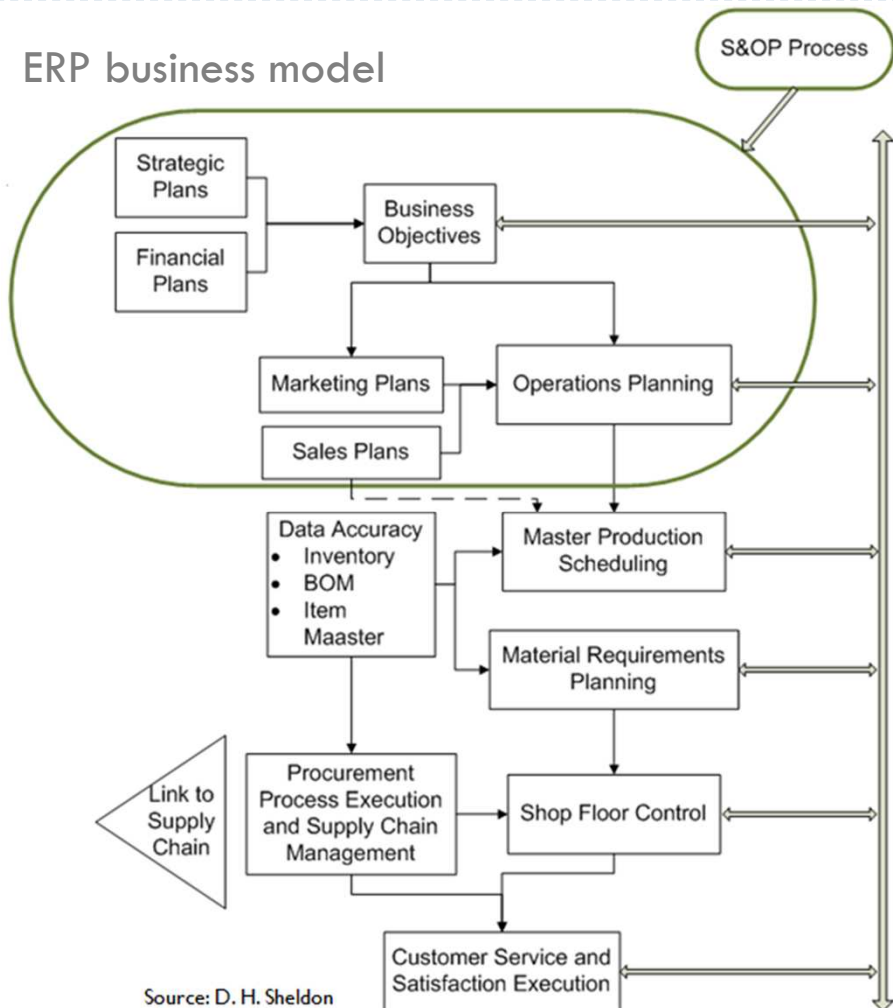
Executive S&OP

- ▶ Balances demand and supply at the family or volume level.
- ▶ Basis for establishing and setting strategy, policy, budgets, risk, and performance measures.
- ▶ Fully integrates with financial planning and projections.
- ▶ Forum for executive debate about alternative choices, creating a culture that allows the 'ugly truth' to be put on the table while there's time to do something about it.



Business Planning Behind S&OP

- ▶ ERP business model begins with top-management vision
- ▶ The business plan is made out of minimum of three components:



Business Planning Behind S&OP

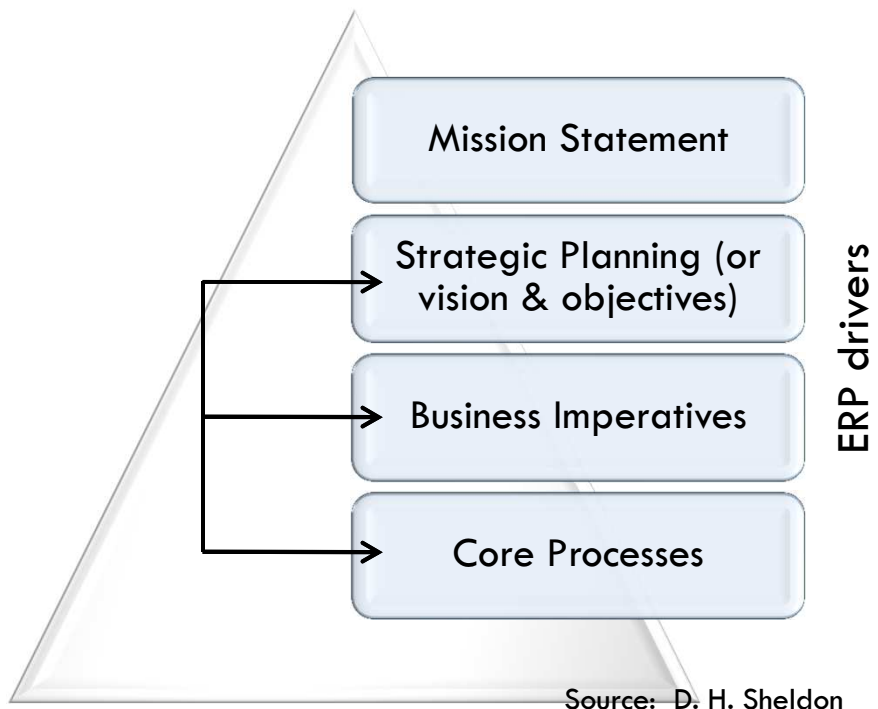


- ▶ Business planning portion of ERP business model
- ▶ Hierarchy of actions where only some are part of S&OP
- ▶ The S&OP process within ERP will provide the maintenance and predictability through accountability



Business Planning Behind S&OP

- ▶ The S&OP process is a forum to review the alignment of vision with the process with the process
- ▶ Strategic plans should be reviewed on a yearly basis
- ▶ Business Imperatives are 'must do objectives'
- ▶ Linkage between strategic and tactical objectives and the core processes is accomplished through predictable systems – namely S&OP



Source: D. H. Sheldon



Business Planning Behind S&OP

► Building the Business Plan

- Balanced scorecard approach – managers look for opportunity and scrutinize for general focus areas:

1. Financial
2. Internal Business Process
3. Learning and Growth
4. Customer
5. Supply Chain Management
6. Technology

Source: D. H. Sheldon

Business Planning Behind S&OP

► Building the Business Plan

1. Financial Objectives Planning

- Financial information essential to measure equity/stakeholder value and customer need fulfillment.
- Plans are updated on a monthly basis to capture the latest knowledge
 - Typically there are two sets of plans:
 - Original budget
 - Updated latest estimate – monthly
 - S&OP process is linked into monthly updates of latest estimate
 - Sales dollars by product family
 - Cost per facility / division
 - Cost per product family
 - Inventory per product family
 - Gross margin by product family
 - EBT / EBIT – Earnings Before Taxes / Earnings Before Interest and Tax

Source: D. H. Sheldon

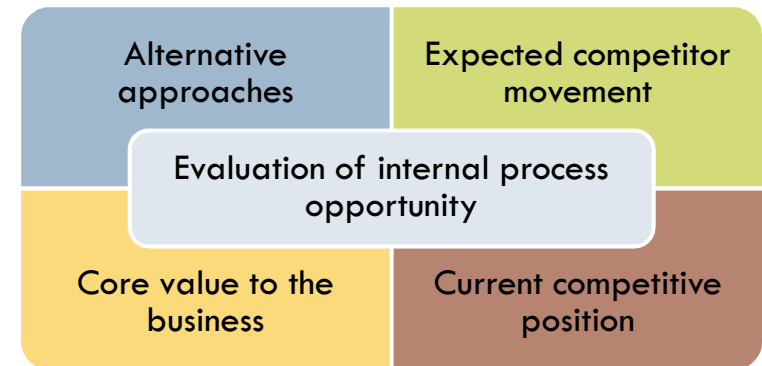


Business Planning Behind S&OP

► Building the Business Plan

2. Internal Business Process

- Objectives linked closely to Core Process / Core Competency
 - i.e. 'To reduce process variation in the specialties welding area to first-time-quality of 99%.'
 - Difference between the Strategic Vision and Business Imperative is in the specificity, scope, and confidence.
 - Rule to be followed:
 - 'Every objective named as a business imperative will be completed as planned in the next 12 months.'



S&OP brings regular updates to potential issues that need to be handled to stay on target.

Source: D. H. Sheldon



Business Planning Behind S&OP

► Building the Business Plan

3. Learning and Growth

- Typically completely overlooked
- One of the most important growth opportunities
- People, Process, Tolls
- Best in class continuously invest in education of their people at all functional levels
- The best companies attract and retain the best people



Bring the best talent to the process and tools, spend regularly on continuous education and enjoy benefits their knowledge will generate.

Source: D. H. Sheldon

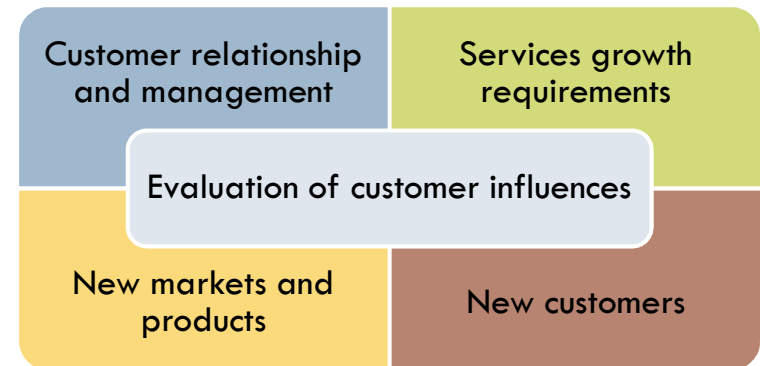


Business Planning Behind S&OP

► Building the Business Plan

4. Customer Influences on Business Imperative Choices

- **CUSTOMERS!** Hard to please. Hard to predict their behavior. The whole supply chain upstream from the supplier of THE customer is affected by decisions and choices made at this level.
- THE Key component of prioritization of any resources company controls!
- **Consumers** are equally hard to predict with same impact on the supply chain upstream.



Properly run S&OP enables
solid discussion around
existing and to-be customers
and market / consumer
response / needs.

Source: D. H. Sheldon

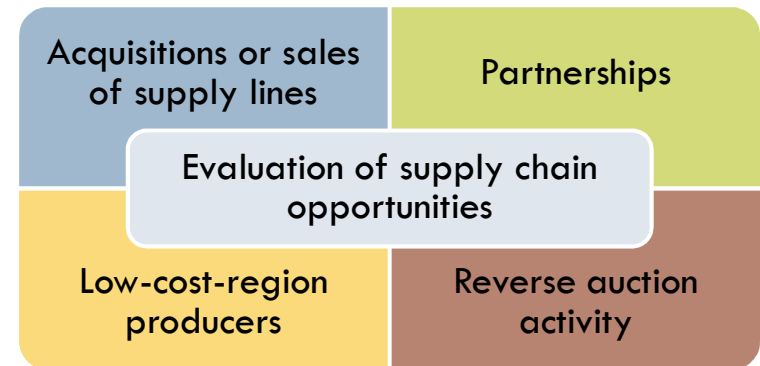


Business Planning Behind S&OP

► Building the Business Plan

5. Supply Chain Influences on Business Imperative Choices

- Today's global supply chains have faced overnight nightmares – price of oil, transportation routes, monetary values, other.
- Global supplying manufactures often 'discriminating' their own smaller regional divisions.
- Treat critical-component / product suppliers as your lifeline, not just the supply line.



S&OP enables good, well documented plans to be updated regularly. This in turn drives credibility of supply plans and fosters stronger partnerships with the key suppliers. S&OP as a risk management tool proved to be invaluable.

Source: D. H. Sheldon

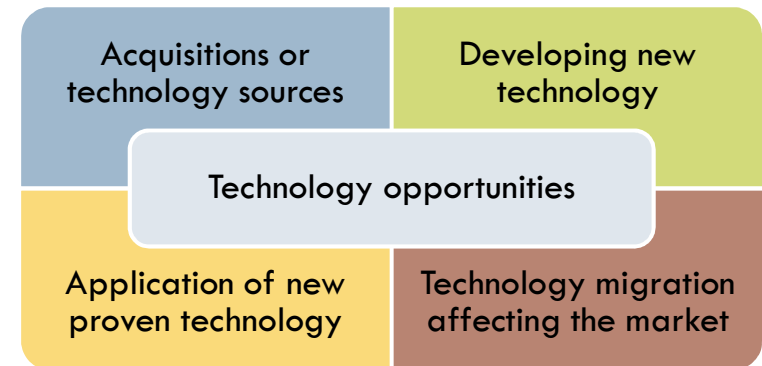


Business Planning Behind S&OP

► Building the Business Plan

6. Technology Affecting Business Imperative Decisions

- Technology IS part of a competitive advantage.
 - ☐ Laptops
 - ☐ Intra / Inter net
 - ☐ Data warehousing and mining
 - ☐ CPFR
 - ☐ EDI
 - ☐ ERP
- Decisions, decisions, decisions ...
- Impact of global sourcing of the software.



Source: D. H. Sheldon



Business Planning Behind S&OP

- ▶ How Many Business Imperatives Are Required?
 - ▶ Follow the simple rule – Business Imperatives **MUST** be completed within next 12 months
 - ▶ Imperatives become obvious when linked to the S&OP process
 - ▶ Rolling forecast/demand plan becomes the base for assessment of risks associated with the original imperatives

Source: D. H. Sheldon

Business Planning Behind S&OP

- ▶ **Linking the Financial Plans with the S&OP Process**
 - ▶ Well defined product families within the ERP process
 - ▶ Optimum detail at the top-management level
 - ▶ Product family means different things in different businesses
 - ▶ The requirement is to find the combination of the **OPTIMUM LEVEL OF DETAIL WITH THE HIGHEST LEVEL OF ANTICIPATED ACCURACY**
 - ▶ Incorporate inventory strategy (MTS, MTO, ATO)
 - ▶ There may be two product families for the same family of products – one for MTS and one for MTO
 - ▶ The S&OP must link to the MPS/DRP process
 - ▶ Discussion about the financials starts here – it is critical to match Financial Planning with Demand Planning and Supply Planning Exactly – same product families and sub-families

Source: D. H. Sheldon



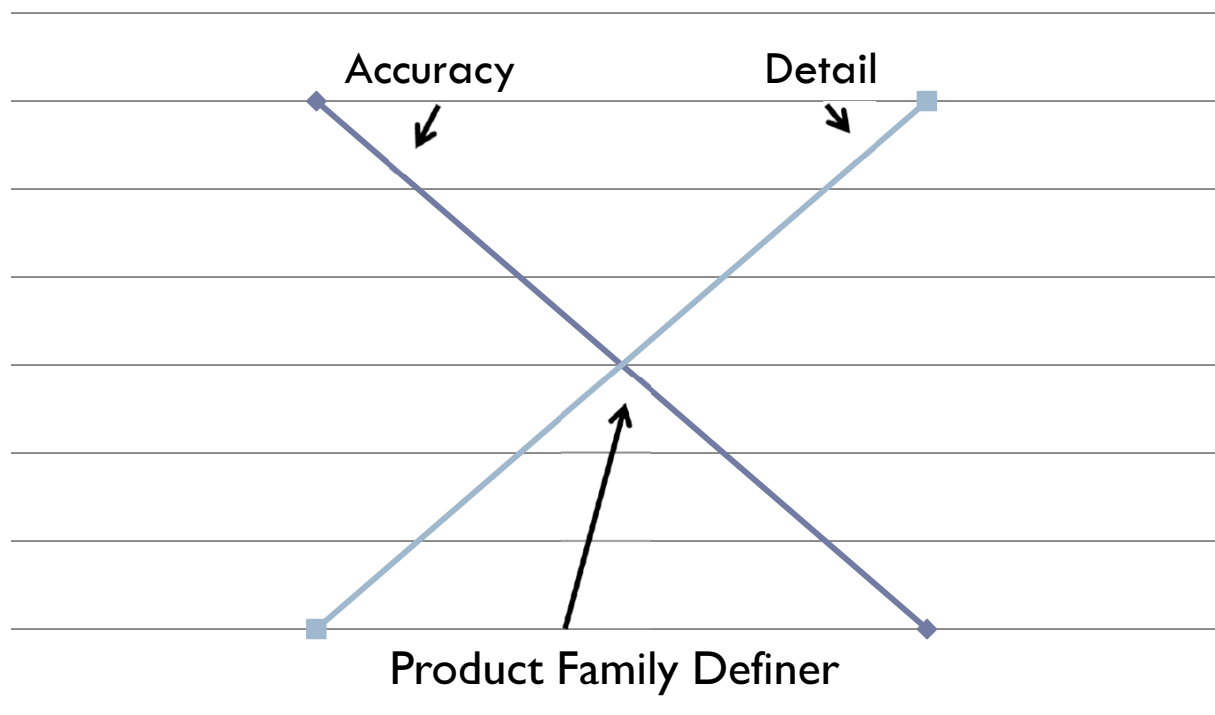
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Step Two: Understanding Benefits 85

Business Planning Behind S&OP

▶ Linking the Financial Plans with the S&OP Process

Accuracy vs. Detail Comparison



Source: D. H. Sheldon



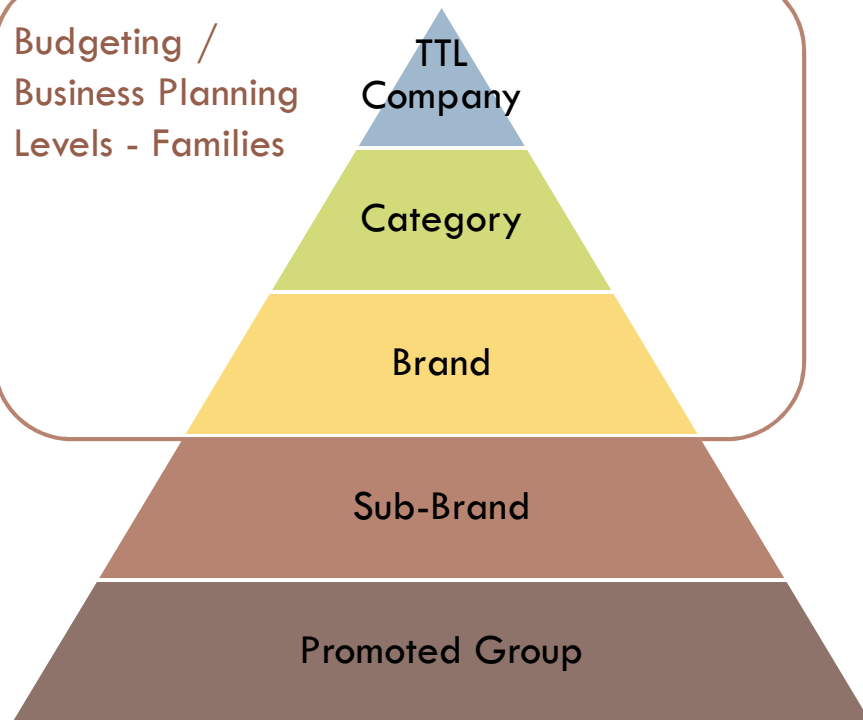
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Step Two: Understanding Benefits 86

Definitions of Families

Marketing
Sales (at Customer Level)
Finance
Demand Planning

Budgeting /
Business Planning
Levels - Families



Use Family and Sub-Family to support segmentation

Forecasting

TTL Company / Category / Brand		
Class A SKUs	Class B SKUs	Class C SKUs

Company / Category / Brand				
Seasonal SKUs	Non-Seasonal Low CV	Erratic	Promotional	New

Operations / Supply Chain

Company / Category / Brand / Plant				
Plant 1 Category 1	Product Line / Work Center	Brand / Flavor / Size	Promotional New	Customer



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Step Two: Understanding Benefits 87

S&OP Measurements for Business Planning

- ▶ Profitability is a direct result of business planning
- ▶ The threshold of acceptability for S&OP is 95% accuracy for financial planning process, measured by family defined in a same way for demand and operations planning
- ▶ Any deviation from plan is considered a variance

Business plan metric formula for profit centers:

$$\% \text{ _of _accuracy} = \frac{\text{actual_profit_results}}{\text{planned_profit_results}}$$

If actual profit is higher than the plan, the measure is automatically 100%. No performance above 100% is allowable.

Business plan metric formula for cost centers:

$$\% \text{ _of _accuracy} = \frac{\text{actual_cost_results}}{\text{planned_cost_results}}$$

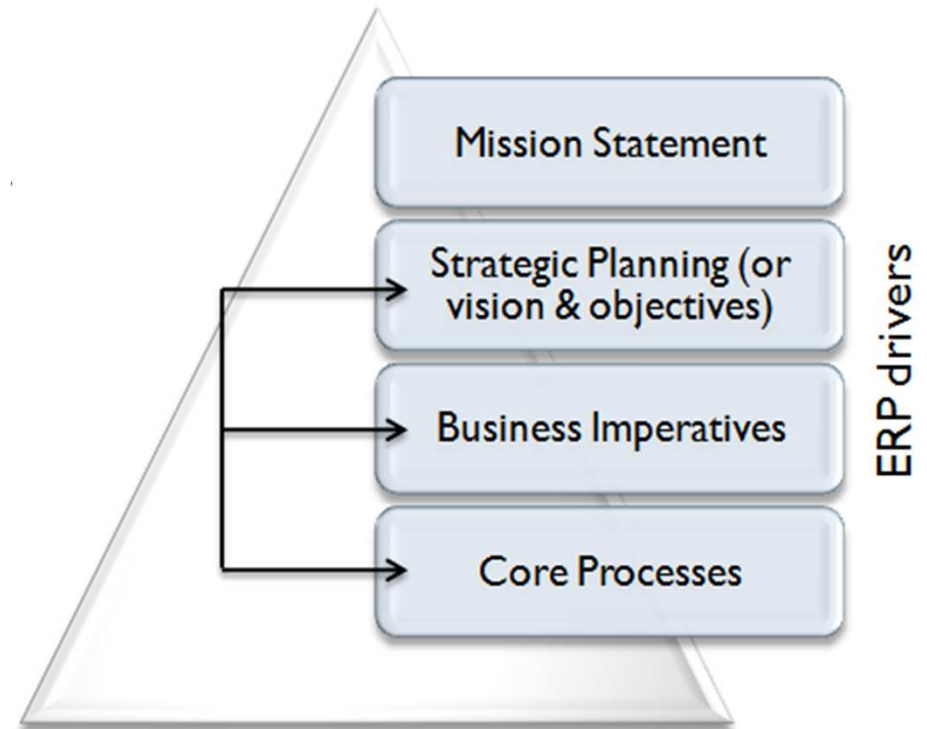
If actual costs are lower than the plan, the measure is automatically 100%. No performance above 100% is allowable.

If an organization beats its plan for 3 out of 4 months, it should be PENALIZED for it in the metrics.



Summary of Business Planning in Preparation for the S&OP Process

- ▶ Once the vision is established, S&OP becomes a tool to enable its completion
- ▶ The metrics and management system:
 - ▶ Strategic Planning Process
 - ▶ Business Imperatives
 - ▶ Financial Planning Process (budgeting)
 - ▶ Financial Plan Accuracy Metric



Source: D. H. Sheldon



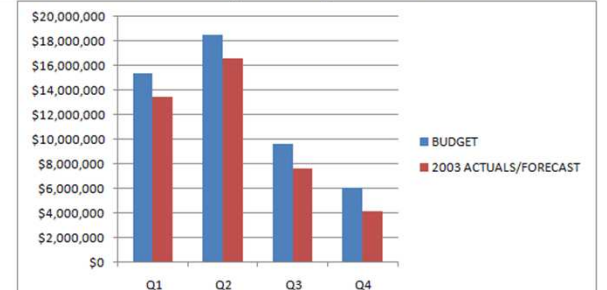
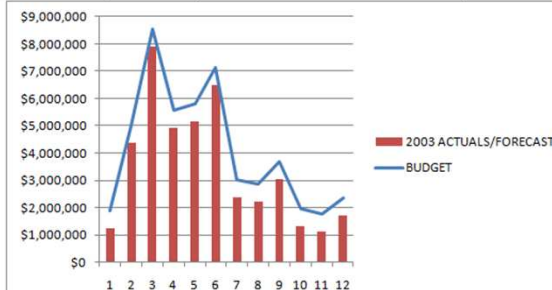
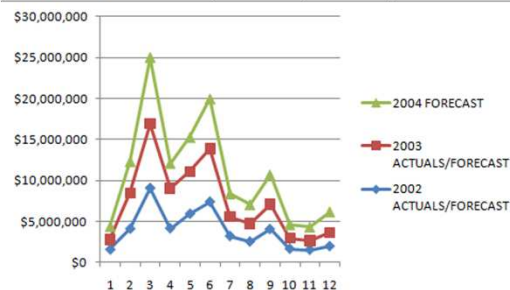
Creating the Demand Plan

▶ Linking it to Budgets and Financial Updates

CATEGORY UR
FAMILY RCT

COMMENTS:

RCT	TTL Year	Q1	1	2	3	Q2	4	5	6	Q3	7	8	9	Q4	10	11	12
2002																	
BUDGET	\$49,761,079	\$15,379,145	\$1,777,046	\$4,322,290	\$9,279,808	\$18,124,583	\$4,368,678	\$6,141,363	\$7,614,541	\$10,442,383	\$3,420,111	\$2,747,153	\$4,275,118	\$5,814,967	\$1,875,280	\$1,752,806	\$2,186,880
2001 ACTUALS	\$46,505,681	\$14,961,063	\$2,122,096	\$4,017,238	\$8,821,729	\$15,360,705	\$3,669,252	\$5,541,499	\$6,149,954	\$9,754,164	\$3,229,009	\$3,133,602	\$3,391,553	\$6,429,749	\$1,579,655	\$1,881,597	\$2,968,497
2002 ACTUALS/FORECAST	\$46,772,726	\$14,632,057	\$1,528,017	\$4,073,261	\$9,030,779	\$17,377,495	\$4,119,649	\$5,892,334	\$7,365,512	\$9,695,295	\$3,171,082	\$2,498,124	\$4,026,089	\$5,067,879	\$1,626,251	\$1,503,777	\$1,937,851
OS vs. LE %	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
OS vs. PY OS %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003																	
BUDGET	\$49,579,090	\$15,413,652	\$1,871,806	\$5,017,081	\$8,524,766	\$18,504,320	\$5,567,179	\$5,810,792	\$7,126,350	\$9,589,128	\$3,028,102	\$2,876,184	\$3,684,843	\$6,071,990	\$1,958,949	\$1,763,861	\$2,349,181
2002 ACTUALS	\$46,772,726	\$14,632,057	\$1,528,017	\$4,073,261	\$9,030,779	\$17,377,495	\$4,119,649	\$5,892,334	\$7,365,512	\$9,695,295	\$3,171,082	\$2,498,124	\$4,026,089	\$5,067,879	\$1,626,251	\$1,503,777	\$1,937,851
2003 ACTUALS/FORECAST	\$41,859,734	\$13,483,813	\$1,228,526	\$4,373,801	\$7,881,486	\$16,574,481	\$4,923,899	\$5,167,512	\$6,483,070	\$7,659,289	\$2,384,822	\$2,232,904	\$3,041,563	\$4,142,151	\$1,315,669	\$1,120,581	\$1,705,901
OPPs Risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S&OP with OPPs Risk	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OS vs. LE %	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
OS vs. PY OS %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004																	
BUDGET	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2003 ACTUALS/FORECAST	\$41,859,734	\$13,483,813	\$1,228,526	\$4,373,801	\$7,881,486	\$16,574,481	\$4,923,899	\$5,167,512	\$6,483,070	\$7,659,289	\$2,384,822	\$2,232,904	\$3,041,563	\$4,142,151	\$1,315,669	\$1,120,581	\$1,705,901
2004 FORECAST	\$41,485,216	\$13,560,418	\$1,631,455	\$3,856,544	\$8,072,419	\$13,303,601	\$3,030,168	\$4,190,304	\$6,083,129	\$8,725,603	\$2,817,597	\$2,302,469	\$3,605,537	\$5,895,594	\$1,688,984	\$1,682,893	\$2,523,717
OPPs Risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S&OP with OPPs Risk	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OS vs. LE %	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
OS vs. PY OS %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	-1



Operations Planning for S&OP

► Inventory strategy

- Operations planning starts with a Demand Plan
- To support Demand Plan the Inventory Strategy has to be defined
 - Inventory strategy is the positioning of inventory in the overall manufacturing, supply chain, and customer service processes.
 - Many companies have more than one inventory strategy; i.e. 80% MTO/ETO and 20% MTS
 - Risk Management
 - Forecast and Planned Orders for products with shorter lead time requirements for customer than the total cumulative lead time of supply chain and manufacturing process, some of the process must be planned.

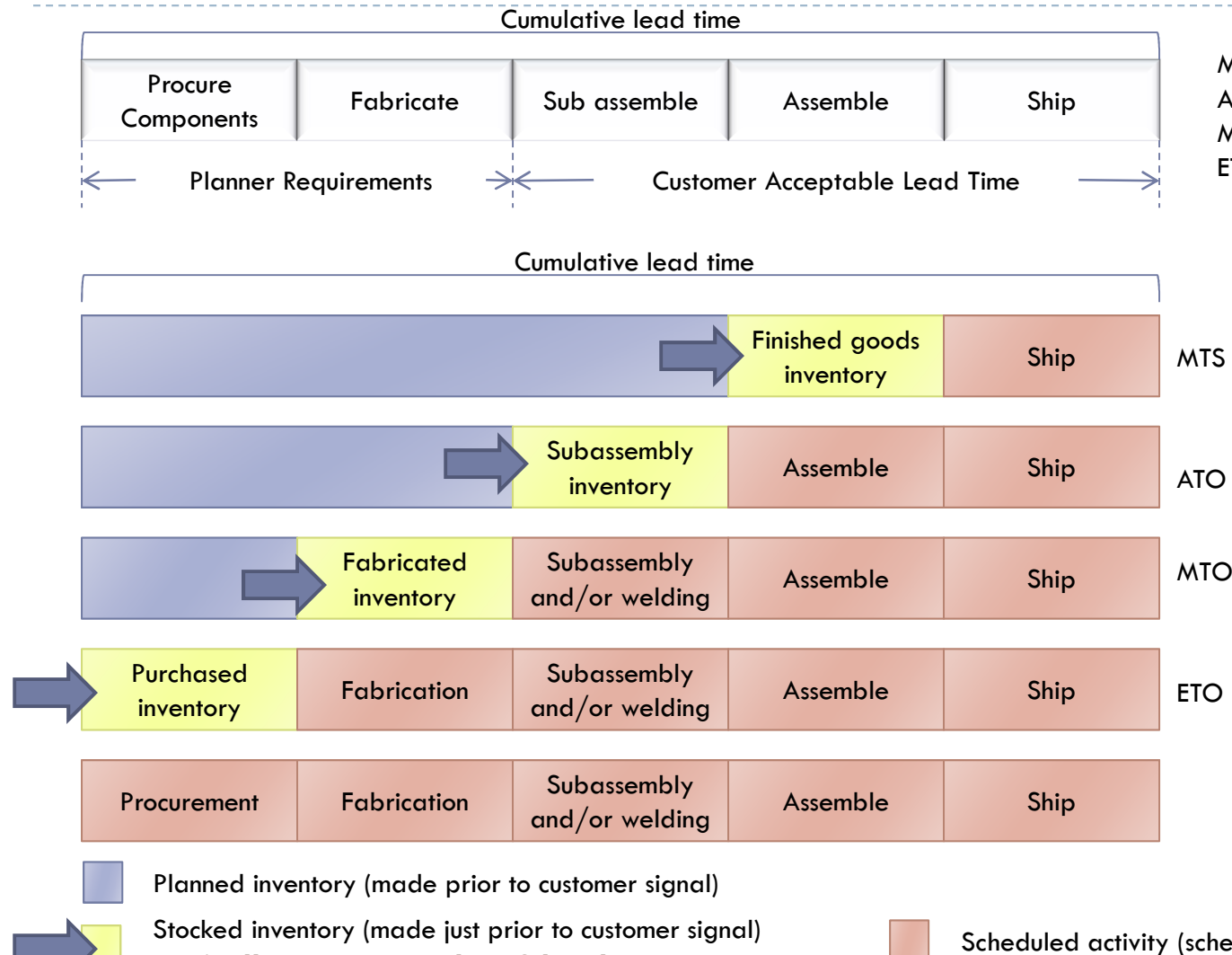
Source: D. H. Sheldon



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Operations Planning and Forecast



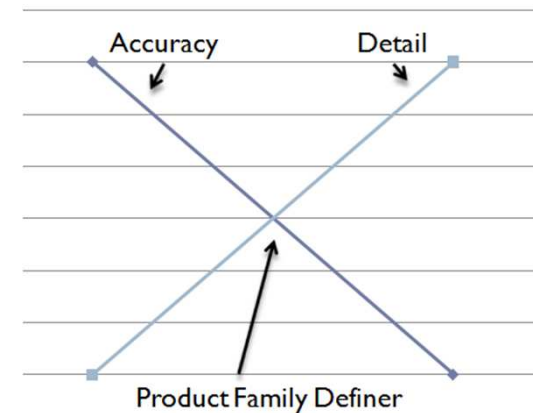
The planning world revolves around these strategies. The management is more in control of the risk taken.



Definition of Product Families

- ▶ S&OP depends on proper definition of product families
 - ▶ Automotive Components Inc makes radiators for OE (original equipment) manufacturer, aftermarket distribution, and directly to custom car builder.
 - ▶ S&OP families using Inventory Strategy:
 - ▶ MTS for OE (forecasted and planned)
 - ▶ MTO for aftermarket which carries inventory
 - ▶ ETO for low volume custom orders

Accuracy vs. Detail Comparison



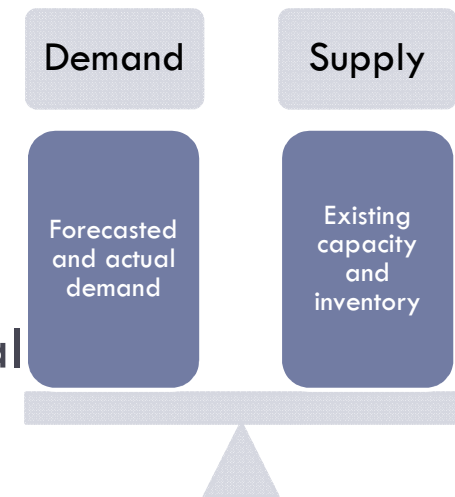
S&OP uses same product families and sub-families for all top-management planning processes: Business, Demand and Operations Planning.

Source: D. H. Sheldon



Elements of Operations Planning for S&OP

1. Rough-cut capacity planning
 - ▶ Capital equipment
 - ▶ Factory locations
 - ▶ Factory capacity
2. Supply chain capacity – Internal /External
3. Detailed resource planning
 - ▶ People
 - ▶ Skills
 - ▶ Machinery capacity – Short term
 - ▶ Plant capacity – Long term
4. Objectives planning in support of the business plan
5. Measurements



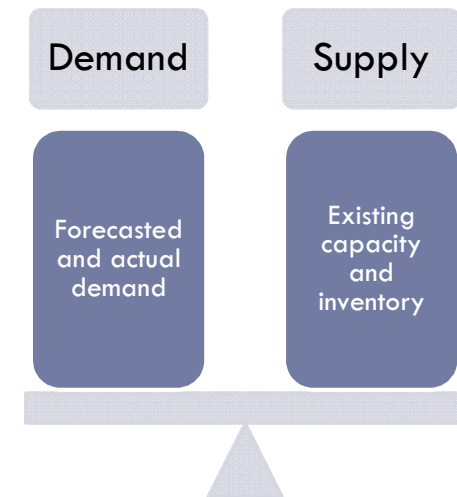
Source: D. H. Sheldon



Elements of Operations Planning for S&OP

1. Rough-cut capacity planning

- ▶ Starts with strategic plan
- ▶ Overlaps with rolling 12-18 months of demand plan
- ▶ Questions RCC answers:
 - Is there enough plant capacity to address needs of the strategic plan?
 - Is there enough machine capacity and people to support the plant needs?
 - Are the plants in right location to meet customer demands as forecasted by strategic plan?



Strategic element of RCC planning is the assurance that the business is set with plants and equipment for the three - to five year plans.

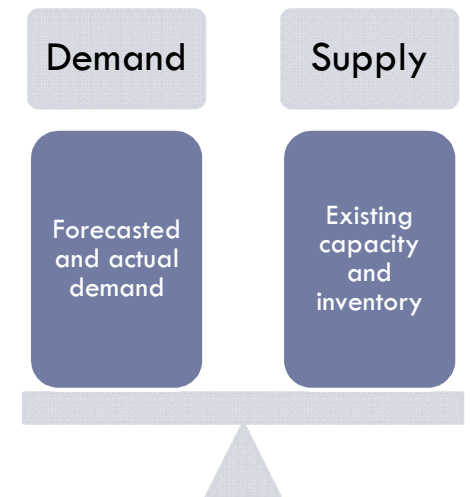
Source: D. H. Sheldon



Operations Planning for S&OP

2. Supply Chain Capacity – Internal and External

- ▶ Global internal supplying locations
- ▶ Multiple third party supplying partners
- ▶ Questions SCC answers:
 - ☐ Is there enough plant capacity to address needs of the current demand plan?
 - ☐ Is there enough machine capacity and people to support the plant needs?
 - ☐ Are there any constraints in product availability that need management's attention ?



SCC planning is the assurance that the business is set with plants and equipment for the short to mid-term plans.

Rough-cut capacity planning is often used in this step with focus on next 18 months.



Operations Planning for S&OP

- ▶ Main responsibility:

- ▶ Capacity
- ▶ Quality
- ▶ Low cost
- ▶ Flexibility
- ▶ Responsiveness

S&OP Process is the culmination of the full forces of operations presented in commitment that covers cost, inventory, and customer service.

Source: D. H. Sheldon

Operations Planning for S&OP

- ▶ Measurement
 - ▶ Product family performance
 - Not the overall units produced
 - ▶ Average accuracy per product family*

Operations Planning Metric

S&OP Commitment			
	in Units	Actual in Units	Performance
(000) Units			
Product Family A	90	92	98%
Product Family B	50	49	98%
Product Family C	78	78	100%
Product Family D	8	8.5	94%
Product Family E	155	157	99%
Total Performance			98%

Works with ABSOLUTE deviation from plan in each product family.

*do not apply any weighting when setting the process; first understand all root causes of issues, then apply additional weights to highlight priorities

Source: D. H. Sheldon



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Development of S&OP Policy

- ▶ Formal Sales and Operations Planning Policy is necessary for the successful implementation and operation of the process.
 - ▶ The policy lists all key monthly meetings
 - ▶ Lists all key attendees
 - ▶ Lists all expected actions



Microsoft Office
Word Document

Source: D. H. Sheldon

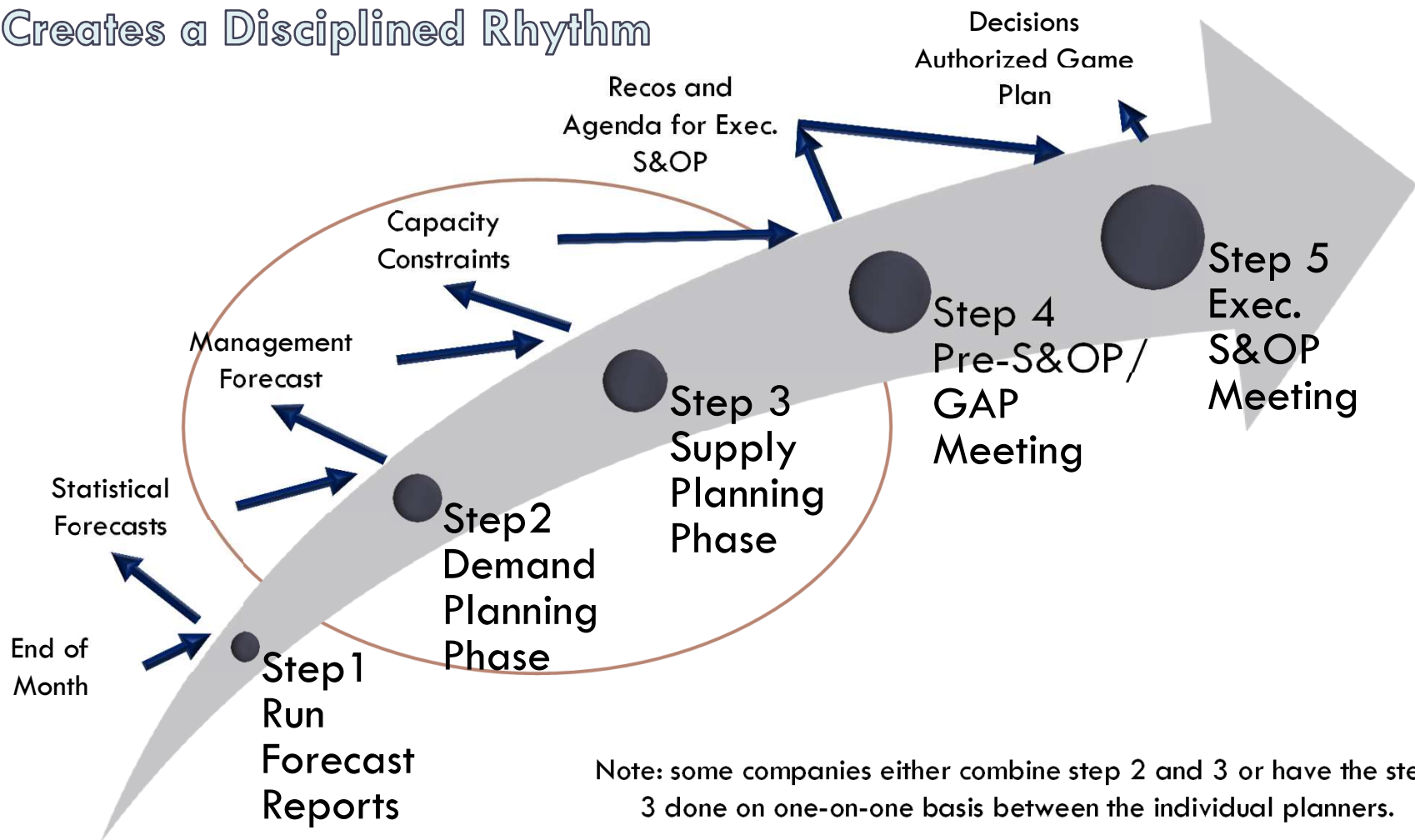


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Step Two: Understanding Benefits 99

S&OP Meeting Structure

Creates a Disciplined Rhythm



Benefits To Be Realized In Short Term

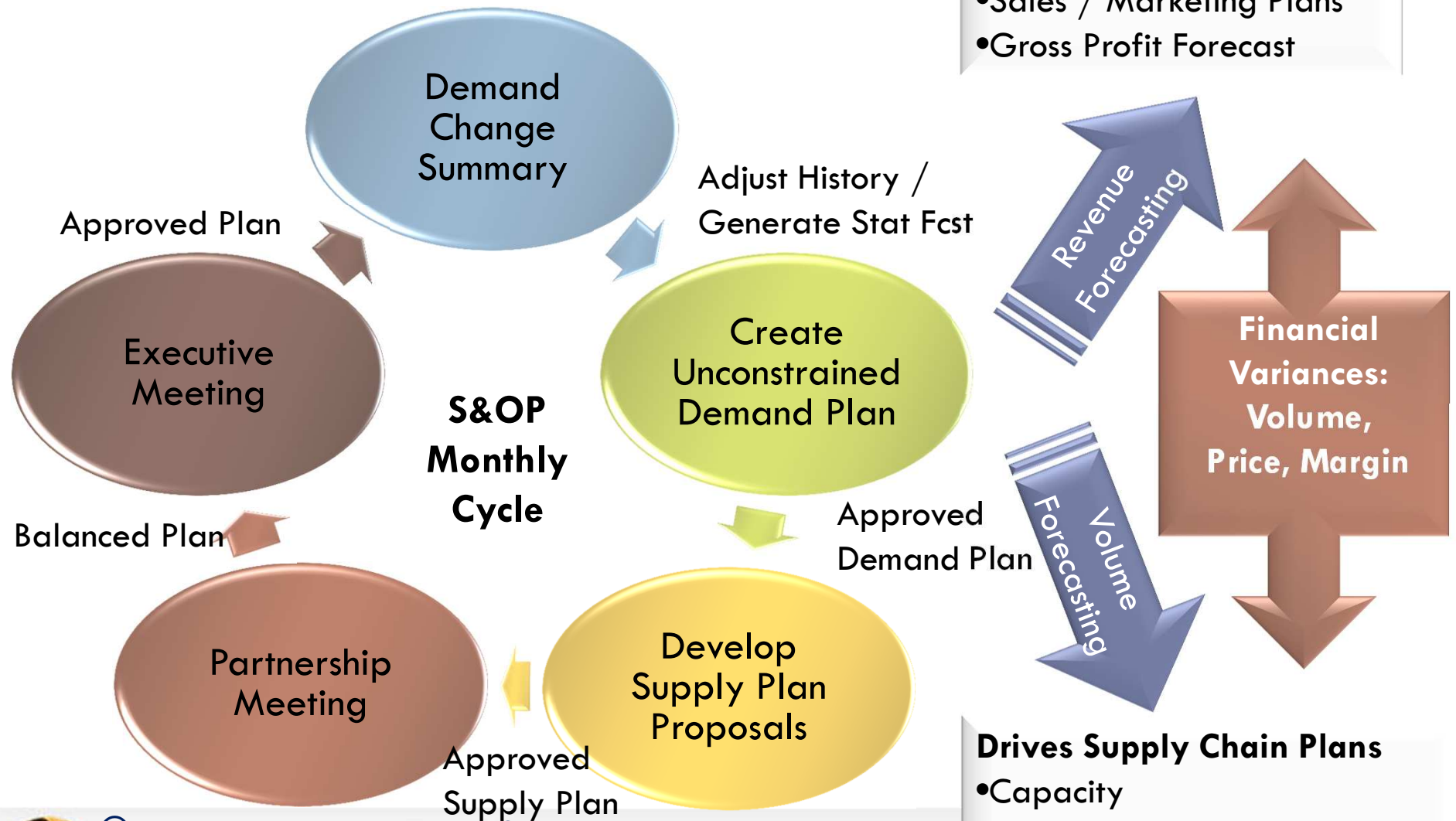
- ▶ Improved Customer Service
 - ▶ Lower Out of Stocks Caused by Forecast Performance
 - ▶ Minimize Lost Sales
- ▶ Gain Cross-Functional Credibility
- ▶ Improved Morale
- ▶ Increased Cooperation
- ▶ Increased Credibility of Forecast at Plant Level – VMR
- ▶



S&OP Drives the Business Plan

Drives Business Plan

- Outlooks / Budgets
- Sales / Marketing Plans
- Gross Profit Forecast



Drives Supply Chain Plans

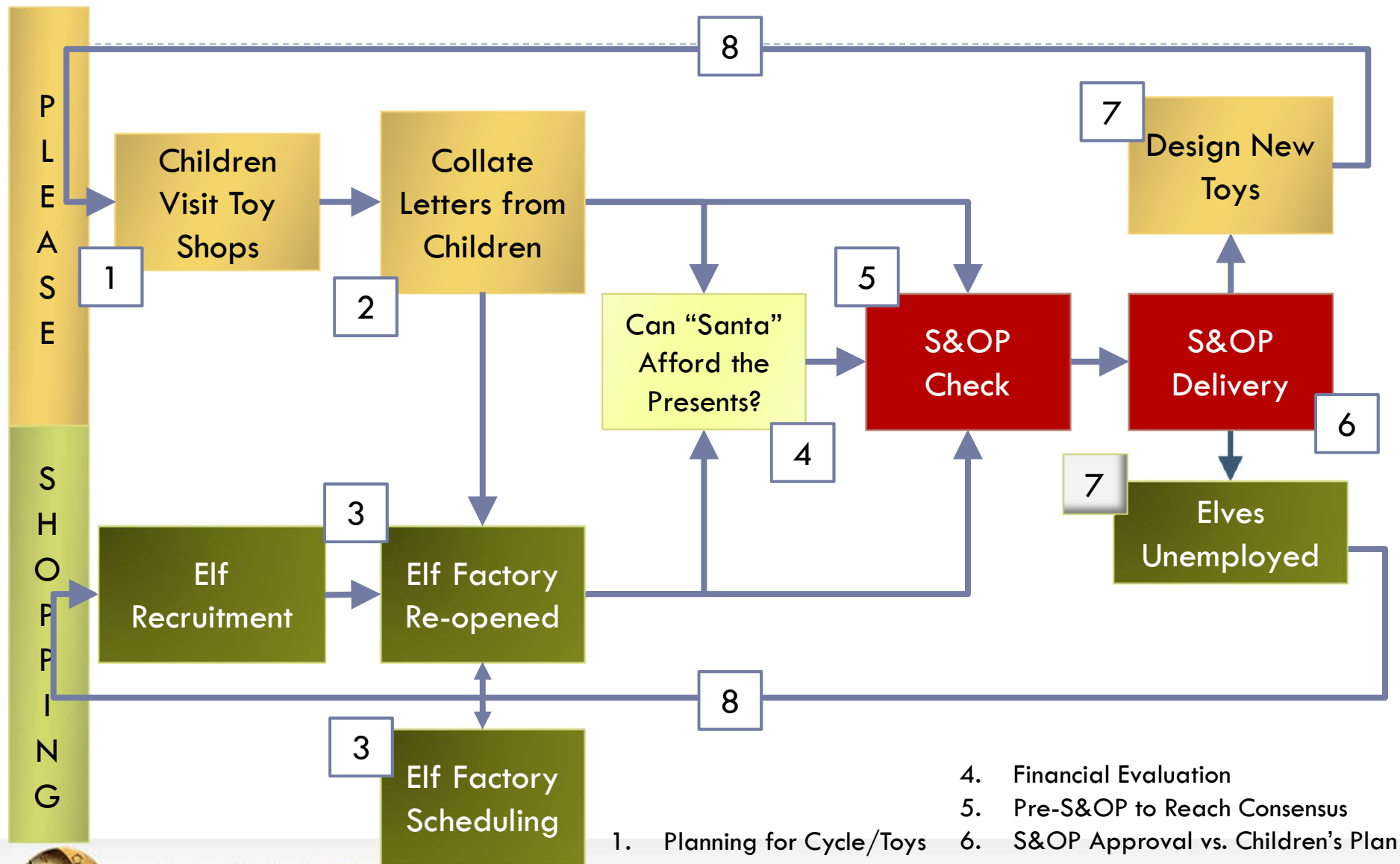
- Capacity
- Inventory
- Raw Material Forecast



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Step Two: Underst

Sales & Operations Planning Cycle in Action

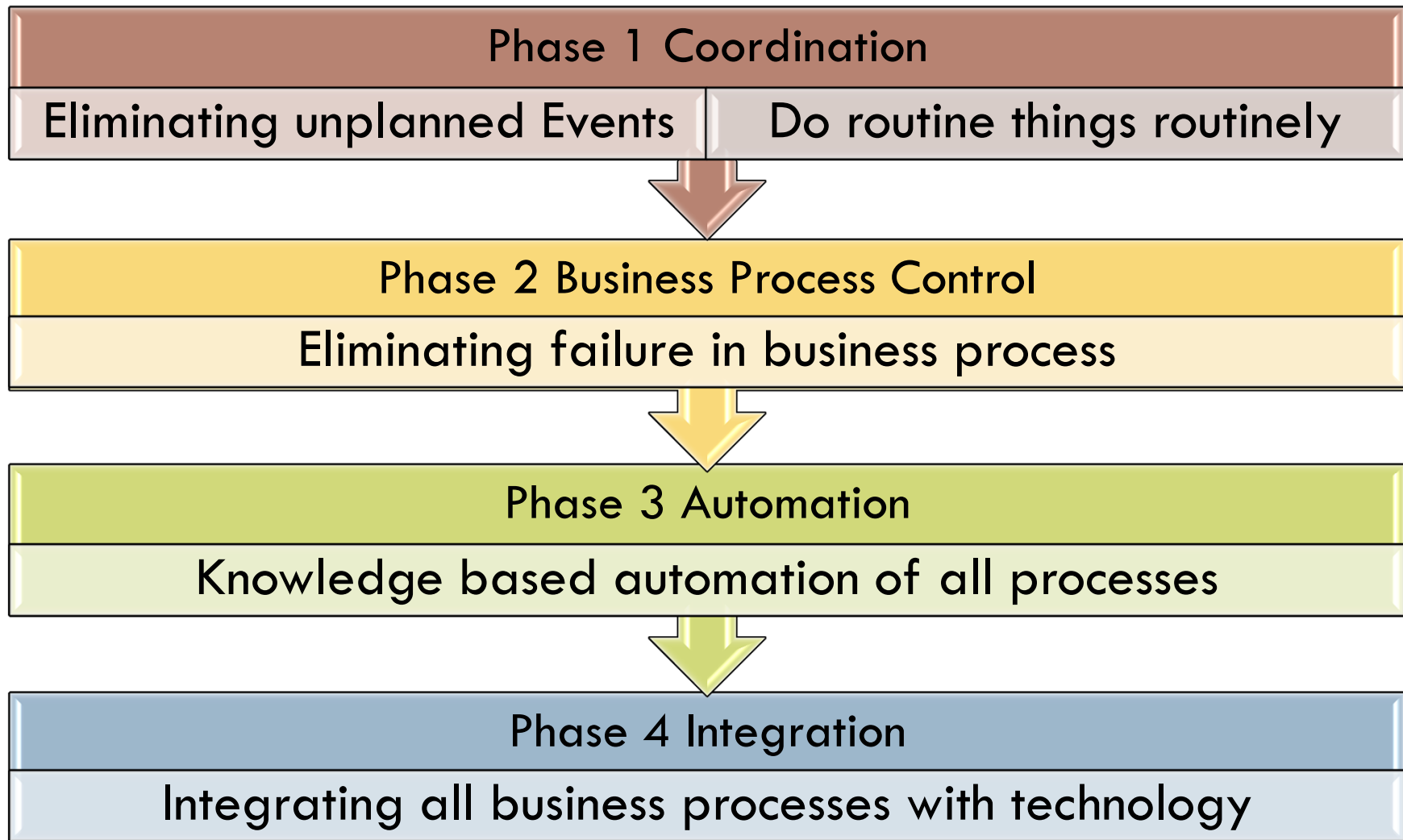


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1. Planning for Cycle/Toys
2. Demand Planning
3. Supply Planning
4. Financial Evaluation
5. Pre-S&OP to Reach Consensus
6. S&OP Approval vs. Children's Plan
7. Committing Resources
8. ...and the Cycle Starts Again

Step Two: Understanding Benefits

Integrating the Business - Maturity



DO WHAT YOU SAID YOU WILL DO.

Step Three: Experiencing S&OP

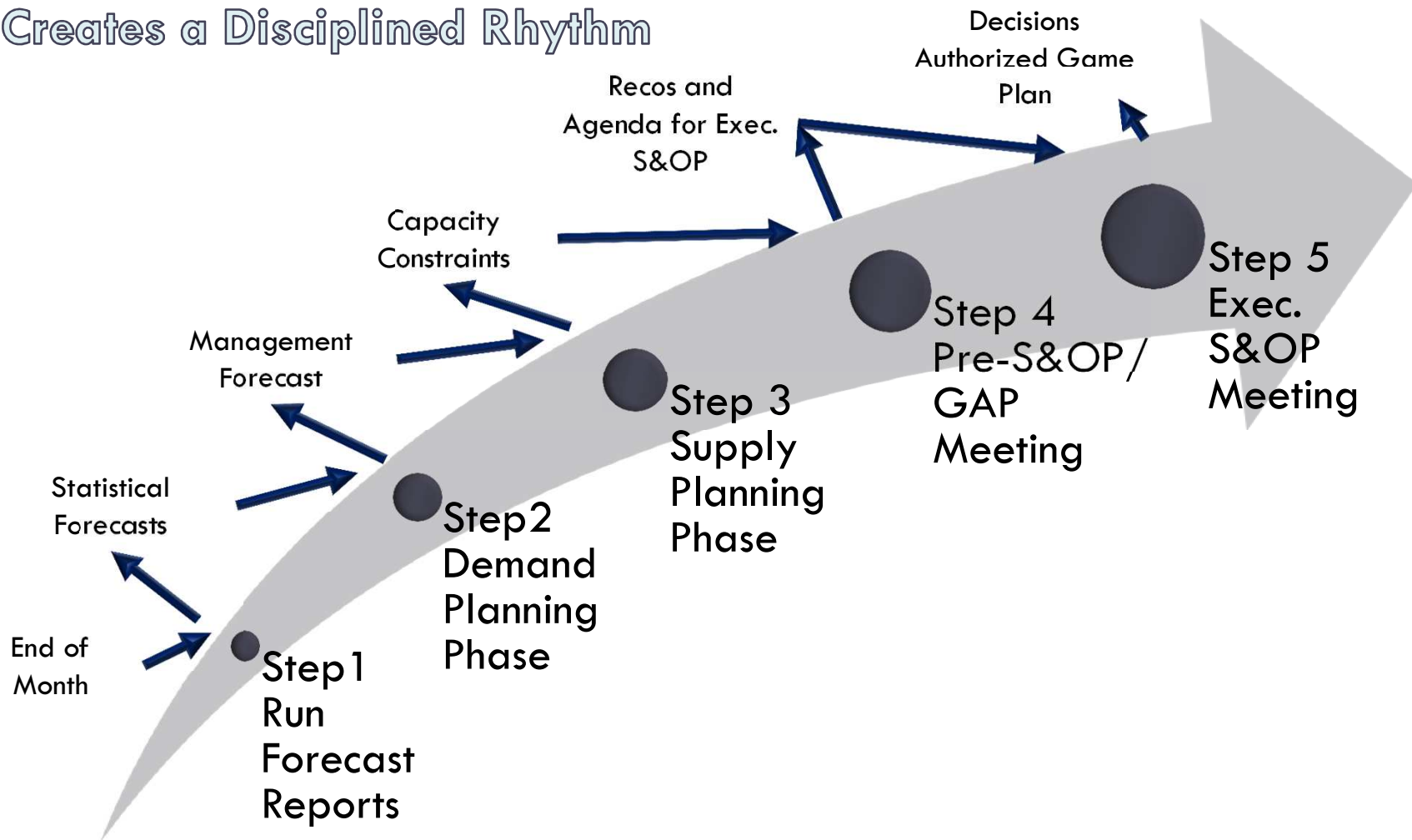
Inputs and Outputs of S&OP Process

S&OP Meetings

Benefits Identification/Realization

S&OP Meeting Structure

Creates a Disciplined Rhythm



Month End - Regenerate Base Forecast

- ▶ Month End Actuals – Review Exceptions, Cleanse History, Validate Assumptions, Review Variance Between Expected and Actual Results and Adjust Forecast
- ▶ New Statistical Forecast Generation
- ▶ Run Forecast Error Reports and Explain/Learn from Reasons for this Error
- ▶ Generate First Pass Demand Review Reports and Validate Family / Category / Company Rollups
- ▶ Adjust Forecasts and Publish Demand Review Reports

Demand Review Meeting

▶ Participants:

- ▶ Marketing Managers
- ▶ Sales Managers
- ▶ Operations Managers
- ▶ Demand Planning Analysts
- ▶ S&OP Process Owner
- ▶ Finance Manager (optional)

▶ Goals:

- ▶ Confirm Demand Plan for the Family
 - ▶ Volume, Value
- ▶ Review Changes to Plan and Implications
- ▶ Agree on Revised Assumptions and Vulnerabilities
 - ▶ In absence of formal Supply Review Meeting, incorporate supply constraints to the Demand Plan



Change Δ Level Δ Trend Δ
Seasonality vs. Last Month



Demand Review Meeting

- ▶ **Agenda:** Change Δ Level Δ Trend Δ Seasonality vs. Last Month
 - ▶ Review previous month's performance (Brand/Product Family)
 - ▶ Metrics
 - ▶ Open action items
 - ▶ Review forecast for next rolling 18 months and make changes, where required.
 - ▶ Validate assumptions
 - ▶ New Product performance
 - ▶ Promotional volume and phasing
 - ▶ Discuss any supply issues
 - ▶ Recap new action items



Supply Review Meeting



▶ Participants:

- ▶ Operations / Supply Chain Managers
- ▶ Product Development/Engineering Managers
- ▶ Demand Managers
- ▶ Finance Managers (optional)
- ▶ S&OP Process Owner

▶ Goals:

- ▶ Review detailed plan at sub-family level to support demand plan and assess constraints
- ▶ Agree on revised demonstrated capacities
- ▶ Agree on actions to relieve constraints and actions to be taken

Source: DH Sheldon, GE Palmatier



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Step Three: Experiencing S&OP 110

Supply Review Meeting



- ▶ **Agenda:**
 - ▶ Review previous month's performance
 - ▶ Metrics
 - ▶ Review changes to Demand Plan
 - ▶ Discuss impact on resources
 - ▶ Potential solutions to constraints
 - ▶ Update on any Supply-oriented activities

Change Δ Level Δ Trend Δ Seasonality vs. Last Month



Supply Review Meeting

Total Division last 3 months:

Row Labels	-3	-2	-1
New Fcst/Act	229,763	321,090	291,984
Prev Forecast	187,667	191,267	153,306
Fcst Variance	42,096	129,823	138,678
Cum Fcst Variance	42,096	171,919	310,597
Plan/Act	240,658	240,658	240,658
Prev Plan	226,720	223,493	264,081
Plan Variance	13,938	17,165	-23,423
Cum Plan Variance	13,938	31,103	7,680
Inventory	417,240	417,240	417,240
Target	532,240	506,317	536,632
Inv Variance	-115,000	-89,077	-119,392
Cum Inv Variance	-115,000	-204,077	-323,469

BLN last 3 months

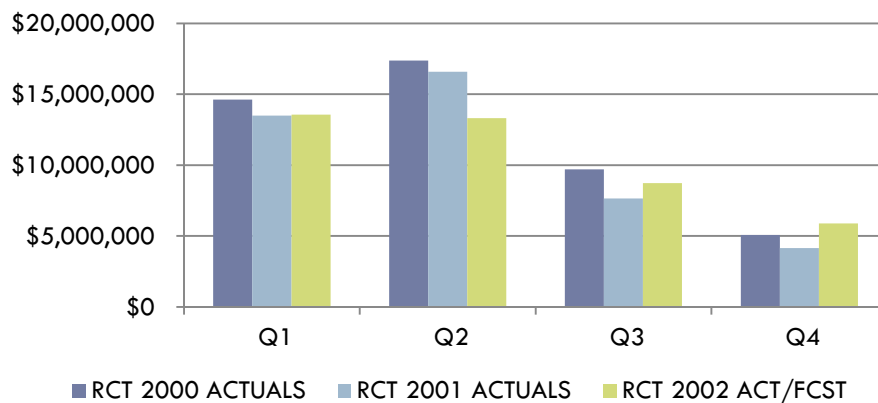
Row Labels	-3	-2	-1
New Fcst/Act	53,260	75,405	58,332
Prev Forecast	40,333	39,448	28,430
Fcst Variance	12,927	35,957	29,902
Cum Fcst Variance	12,927	48,884	78,786
Plan/Act	37,886	37,886	37,886
Prev Plan	28,443	29,328	40,346
Plan Variance	9,443	8,558	-2,460
Cum Plan Variance	9,443	18,001	15,541
Inventory	68,776	68,776	68,776
Target	108,211	85,961	76,059
Inv Variance	-39,435	-17,185	-7,283
Cum Inv Variance	-39,435	-56,620	-63,903

RCT last 3 months

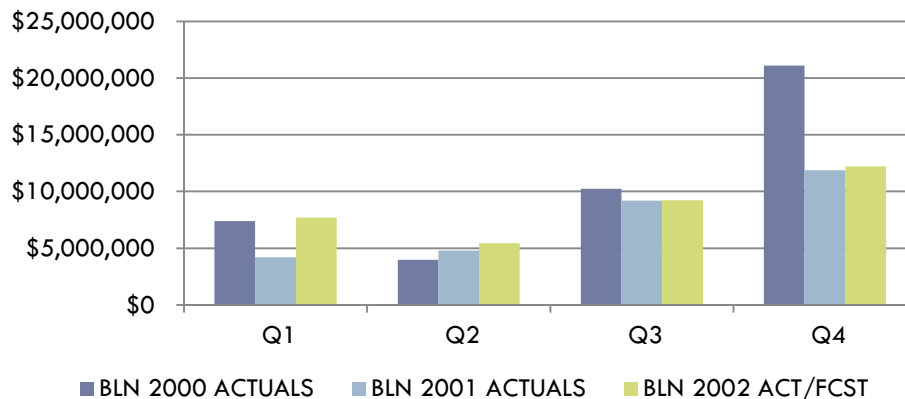
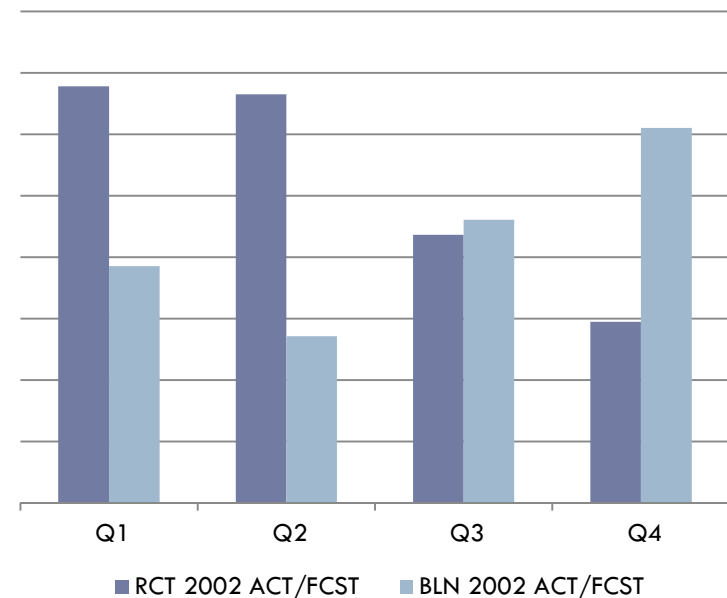
Row Labels	-3	-2	-1
New Fcst/Act	3,164	2,673	2,832
Prev Forecast	2,292	1,873	2,532
Fcst Variance	872	800	300
Cum Fcst Variance	872	1,672	1,972
Plan/Act	13,696	13,696	13,696
Prev Plan	13,941	14,360	13,701
Plan Variance	-245	-664	-5
Cum Plan Variance	-245	-909	-914
Inventory	16,233	16,233	16,233
Target	6,697	8,740	22,400
Inv Variance	9,536	7,493	-6,167
Cum Inv Variance	9,536	17,029	10,862



Supply Review Meeting



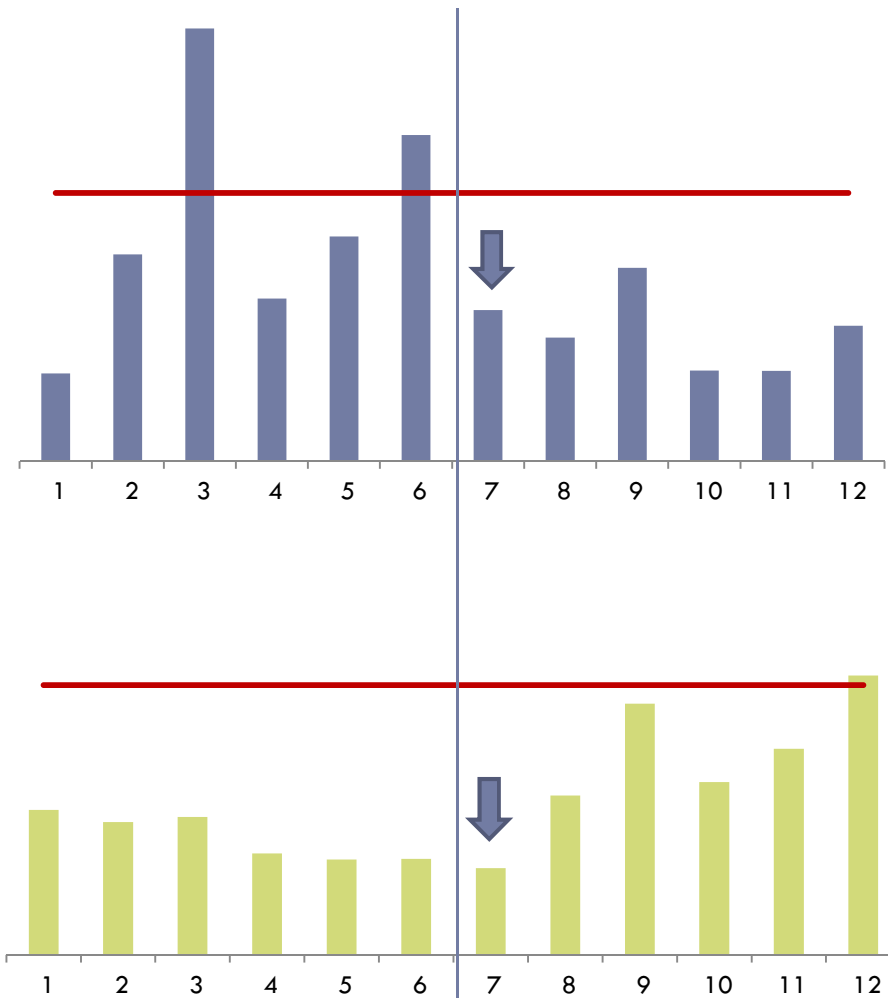
RCT and BLN are sharing production lines and store locations



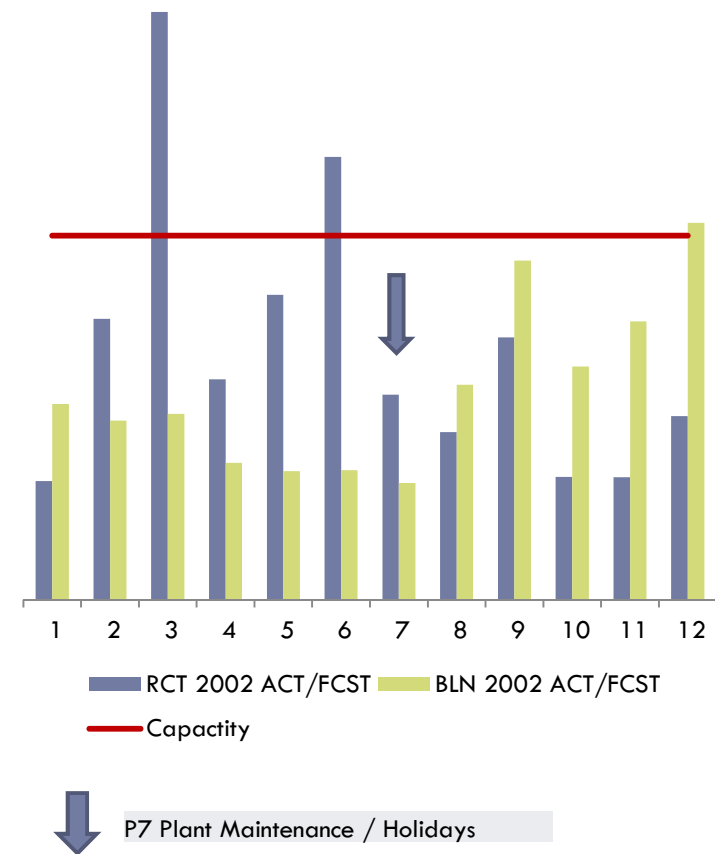
RCT forecast for remainder of the year is overstated, BLN has strong season coming, with potential to offset loss on RCT.



Supply Review Meeting



Shared lines available capacity, could run between P8 and P11 additional volume up to 50% of incremental BLN production could be scheduled between 8-10.



CATEGORY	(All)
FAMILY	(All)
SUB-FAMILY	(All)

CATEGORY (AII), FAMILY (AII), SUB-FAMILY (AII)									
Sub-Family	TTL Year	YTD	YTG	YTD %	YTG %	Qtr 1	Qtr 2	Qtr 3	Qtr 4
2000 ACT	185,151	81,699	103,451	44%	56%	43,625	38,075	50,216	53,235
2001 ACT	198,176	95,690	102,485	48%	52%	51,478	44,212	45,918	56,567
2002 BUDGET	224,750	111,432	113,318	50%	50%	59,788	51,644	50,383	62,435
2002 ACT/FCST	217,485	96,633	120,852	44%	56%	50,639	45,994	52,399	68,453
>>> FCST ADJ	217,485	96,633	120,852	44%	56%	50,639	45,994	52,399	68,453
2003 FCST	229,999	111,331	118,668	48%	52%	57,587	53,744	56,613	62,055
2001/2000	7%	17%	-1%	9%	-7%	18%	16%	-9%	6%
2002 BP/2001	13%	16%	11%	3%	-3%	16%	17%	11%	10%
2002 AF/2001	10%	1%	18%	-8%	7%	-2%	4%	14%	21%
2003/2002 AF	6%	15%	-2%	9%	-7%	14%	17%	8%	-9%

- ▶ Finance Director
- ▶ Marketing Director
- ▶ Sales Director
- ▶ Operations Director
- ▶ Demand Planning Manager
- ▶ S&OP Process Owner

- ▶ Identify gaps between Current Demand Plan, Financial Plan and Last Demand Plan at Total Company, Category, Family levels
- ▶ List approved and potential activities to close gap
- ▶ Identify impact of latest plan to margin gain or erosion

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Step Three: Experiencing S&OP¹¹⁵

CATEGORY	(All)
FAMILY	(All)
SUB-FAMILY	(All)

CATEGORY (AII), FAMILY (AII), SUB-FAMILY (AII)									
Sub-Family	TTL Year	YTD	YTG	YTD	YTG	Qtr 1	Qtr 2	Qtr 3	Qtr 4
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2002 AF/2001	10%	1%	18%	-8%	7%	-2%	4%	14%	21%
2003/2002 AF	6%	15%	-2%	9%	-7%	14%	17%	8%	-9%

- ▶ Review previous month's performance

- ▶ Metrics
- ▶ Open action items
- ▶ Review latest Demand Review forecast and compare against Financial Plan
- ▶ Identify any gaps and potential activities to close gap
- ▶ Understand impact of gap to the profit
- ▶ Recap new action items

Step Three: Experiencing S&OP¹¹⁶

Executive S&OP Meeting



▶ Participants:

- ▶ Finance VP
- ▶ Marketing VP
- ▶ Sales VP
- ▶ Operations VP
- ▶ Demand Planning Director
- ▶ S&OP Process Owner

▶ Goals:

- ▶ Review Performance Indicators
- ▶ Align on Demand Plan and activities to close gaps
- ▶ Prioritize resources to support the Demand Plan
- ▶ Updated Financial Plan and future strategies

Source: DH Sheldon, Oliver Wight International

Executive S&OP Meeting



- ▶ Agenda:
 - ▶ Review performance metrics
 - ▶ Review Plan
 - ▶ What changed and drivers of change
 - ▶ Risks/opportunities to meeting Financial plan
 - ▶ Discuss gap closing activities that need approval
 - ▶ Impact of Plan/gap closing activities on resources
 - ▶ Long term review
 - ▶ Validate strategic plan

Change Δ Level Δ Trend Δ Seasonality vs. Last Month

Benefits Realization/Identification

- ▶ Incorporate strategies to daily operations
- ▶ Supply Chain alignment to Market demands
- ▶ Increased ability to respond to change
- ▶ Improved Customer Service
- ▶ On time New Product Introductions
- ▶ Better utilization of assets
- ▶ Improved cash flow

Source: Oliver Wight International

Expected Outcomes of Sales & Operations Planning: 12 Month ROI

- ▶ Forecast error reduction.....20-25%
- ▶ Inventory reduction.....3-5%
- ▶ Inventory turns increase.....5-10%
- ▶ Service level increase.....5-10%
- ▶ Top Line revenue growth.....2-5%
- ▶ SKU rationalization.....10-20%
- ▶ Gross Margin improvement.....up to 20%



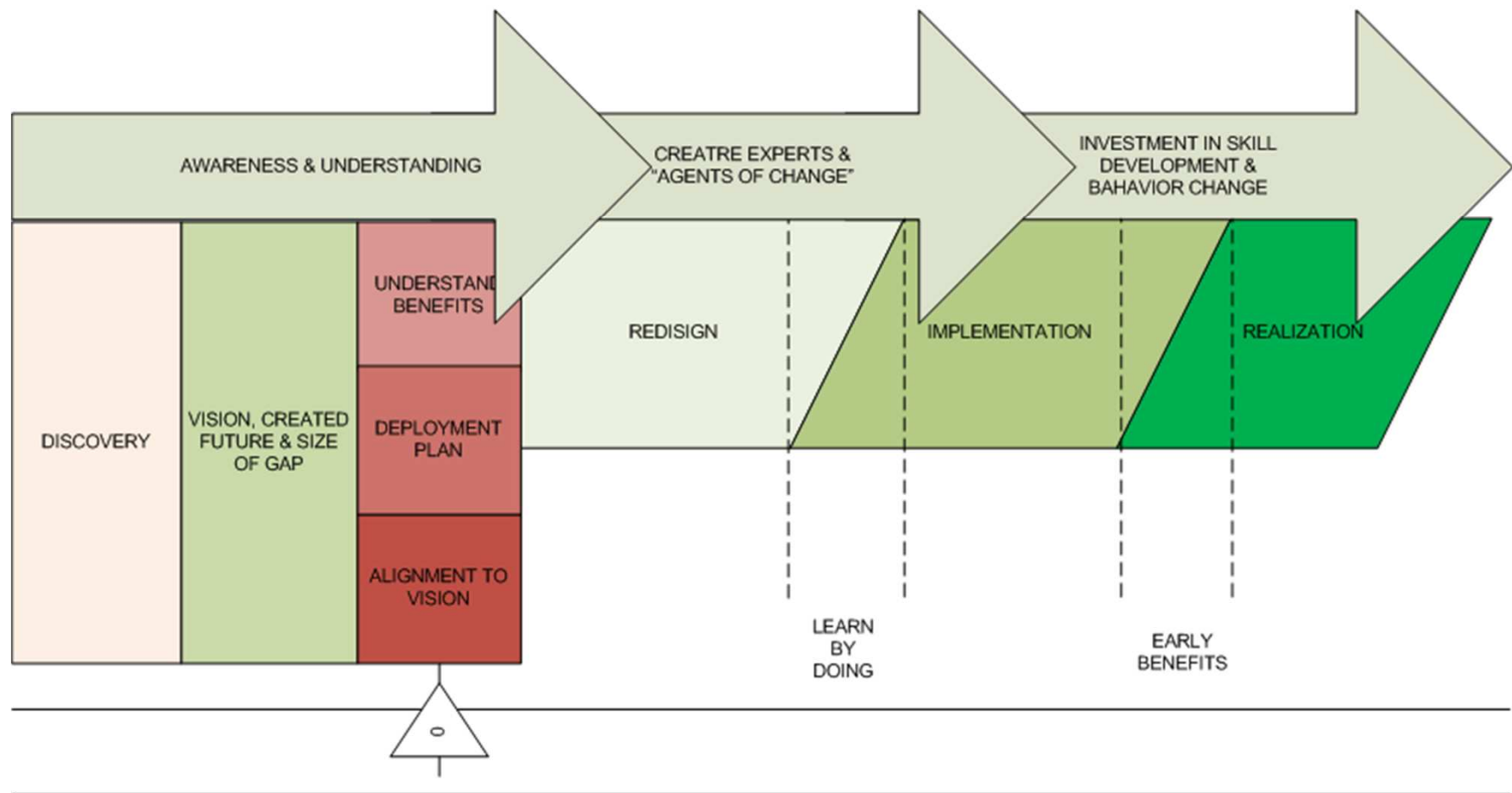
DO WHAT YOU SAID YOU WILL DO.

Step 4: S&OP Implementation Steps Overview

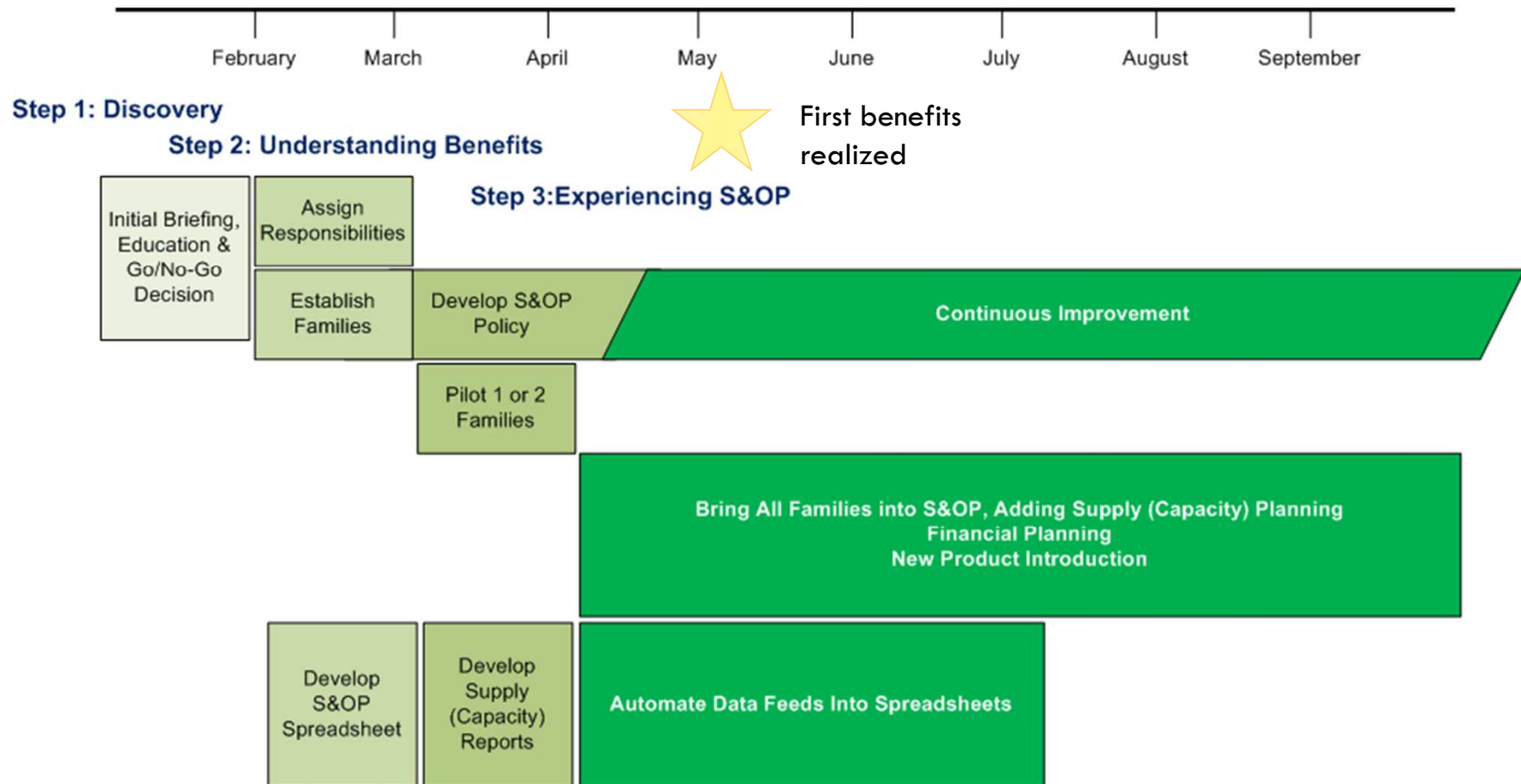
Create Experts and Agents of Change
Investment in Skill Development and Behaviour Change
Tips for Continuous Improvement
Post Implementation Audits

S&OP Implementation Path

Proven Path Implementation Methodology (Oliver Wight International)



S&OP Implementation Path



Source: T. Wallace



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Step Four: S&OP Implementation 123

S&OP Implementation:

- ▶ S&OP logic is simple – implementation is not
 - ▶ Change Management throughout the organization
- ▶ Monthly cycle – takes approx. 8+ months to implement
BASIC S&OP
- ▶ Benefits will start to show usually at or before mid point of implementation



Basic Steps in S&OP Implementation

1. Educate top management and acquire a champion for the implementation
2. Determine S&OP team members (names and positions)
3. Set dates for the next 12 S&OP meetings and process steps
4. Identify planning groups (families), planning horizon, and resources available
5. Design and test S&OP data acquiring
6. Develop S&OP level performance measures and implement the reporting procedure
7. Develop and issue S&OP meeting agenda and conduct first meeting

Source: T. Wallace



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Step Four: S&OP Implementation 125

1. Educate top management and acquire a champion for the implementation

- ▶ S&OP is a top-down process > **top management education FIRST**
- ▶ Objectives of education session:
 - ▶ Provide an in-depth understanding of the formal S&OP process
 - ▶ Generate commitment toward the S&OP process
 - ▶ Give details regarding actions required to begin the S&OP journey
- ▶ Involve interactive activities
- ▶ The leadership team **MUST** nominate one of their members as a champion of S&OP implementation

It is critical that leadership accept that the S&OP meeting will replace any existing business-level meetings held routinely.



2. Determine S&OP Team Members

- ▶ Strong commitment & active participation of leadership team
 - ▶ Decisions made in S&OP affect financial business plans for current and next year
 - ▶ One number forecast requires the leadership approval
 - ▶ Everyone in the organization knows the S&OP is used to manage the business
- ▶ S&OP process owner
 - ▶ Leads the implementation project
 - ▶ Leads and owns the process post implementation
- ▶ S&OP is a business process – **empower** your people



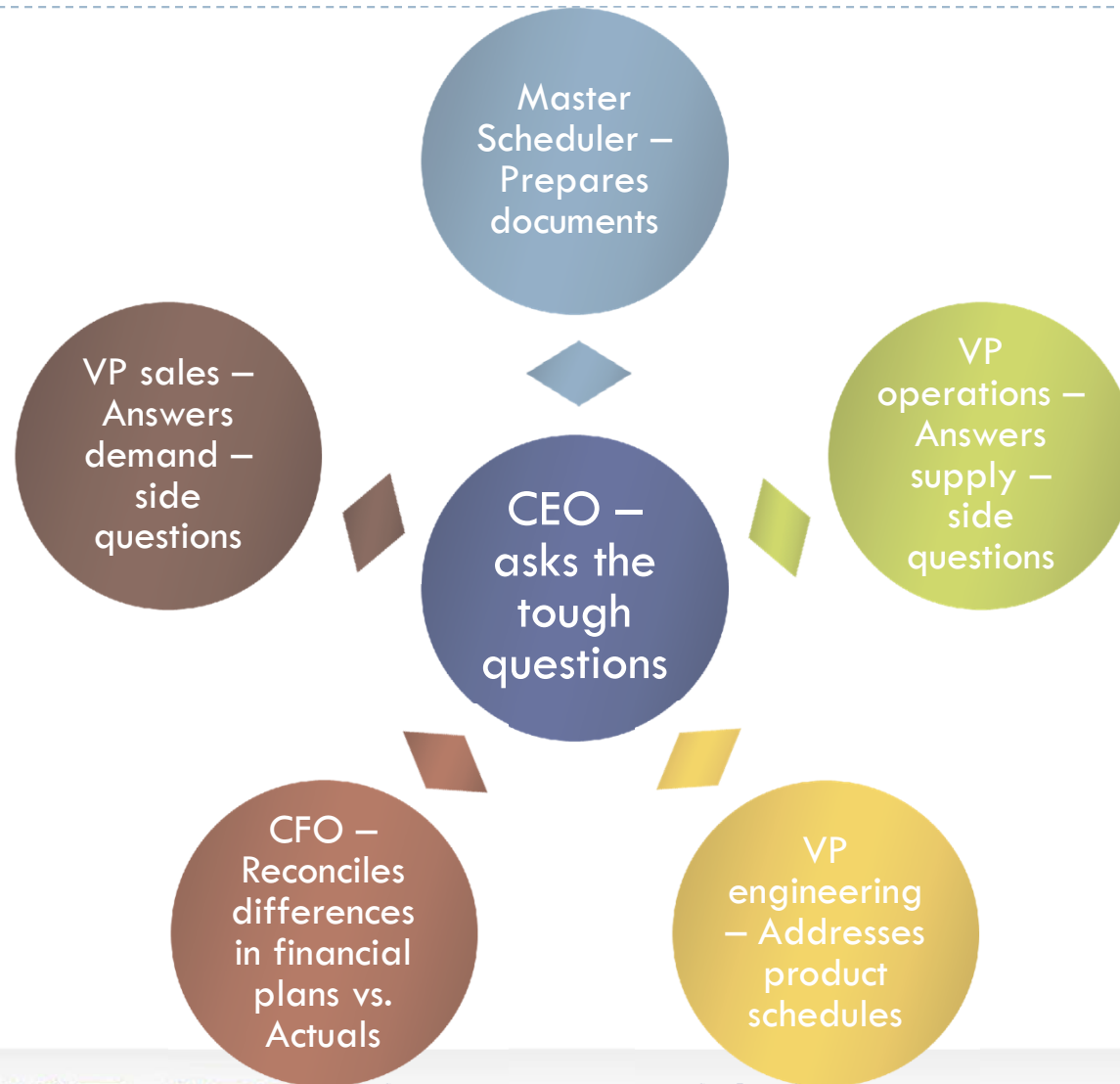
S&OP Process Owner - Champion

- ▶ Fill from within the company
- ▶ Senior role, Executive Champion, typically Full Time
- ▶ Qualifications:
 - ▶ People skills
 - ▶ Pro-active
 - ▶ Well organized
 - ▶ Facilitation skills to run meetings at all org. levels
 - ▶ Solid knowledge of the business – people, products, processes, customers
- ▶ Initial activity:
 1. Prepare rough draft for the schedule
 2. Circulate the draft to all involved people
 3. Get their feedback and make changes
 4. Publish the schedule
 5. Track progress against the schedule
 6. Report on the project's status at each Pre-SOP and Executive S&OP meeting

Source: T. Wallace



2. Determine S&OP Team Members



Source : DH Sheldon



3. Schedule S&OP Meeting and Process Steps

- ▶ At least 12 months out into the future
 - ▶ Visibility and accountability
 - ▶ Publish an S&OP / Organization wide calendar with all S&OP meetings clearly identified
 - ▶ Due dates for key process steps in working days (to adjust for holidays and weekends)
 - ▶ One of the initial S&OP Process KPIs



2010 UNIVERSAL CALENDAR

Canadian statutory holidays and company holidays are highlighted in Green. Paydays are marked in Red.

wk		M	T	W	T	F	S	S		M	T	W	T	F	S	S	wk	
1	JAN 4 WEEKS	4	5	6	7	8	9	10		JUL	12	13	14	15	16	17	18	27
2		11	12	13	14	15	16	17		19	20	21	22	23	24	25	28	
3		18	19	20	21	22	23	24		26	27	28	29	30	31		29	
4		25	26	27	28	29	30	31								1	30	
5	FEB 4 WEEKS	1	2	3	4	5	6	7		AUG	2	3	4	5	6	7	8	31
6		8	9	10	11	12	13	14		9	10	11	12	13	14	15	32	
7		15	16	17	18	19	20	21		16	17	18	19	20	21	22	33	
8																		
9	APR 4 WEEKS	14	5	6	7	8	9	10	11	OCT	4	5	6	7	8	9	10	40
10		15	12	13	14	15	16	17	18	4 WEEKS	11	12	13	14	15	16	17	41
11		16	19	20	21	22	23	24	25		18	19	20	21	22	23	24	42
12		17	26	27	28	29	30				25	26	27	28	29	30	31	43
13							1	2										
13	MAY 4 WEEKS	18	3	4	5	6	7	8	9	NOV	1	2	3	4	5	6	7	44
14		19	10	11	12	13	14	15	16	4 WEEKS	8	9	10	11	12	13	14	45
15		20	17	18	19	20	21	22	23		15	16	17	18	19	20	21	46
16		21	24	25	26	27	28	29	30		22	23	24	25	26	27	28	47
17	JUN 5 WEEKS	22	31							DEC	29	30						48
18		23		1	2	3	4	5	6	5 WEEKS			1	2	3	4	5	48
19		24	7	8	9	10	11	12	13		6	7	8	9	10	11	12	49
20		25	14	15	16	17	18	19	20		13	14	15	16	17	18	19	50
21		26	21	22	23	24	25	26	27		20	21	22	23	24	25	26	51
22		27	28	29	30						27	28	29	30	31			
23					1	2	3	4								1	2	52

Holiday	Demand Review
Month End	Pre-SOP /GAP Meeting
Field Sales Forecast Due	Executive S&OP
Club Channel Demand Review	



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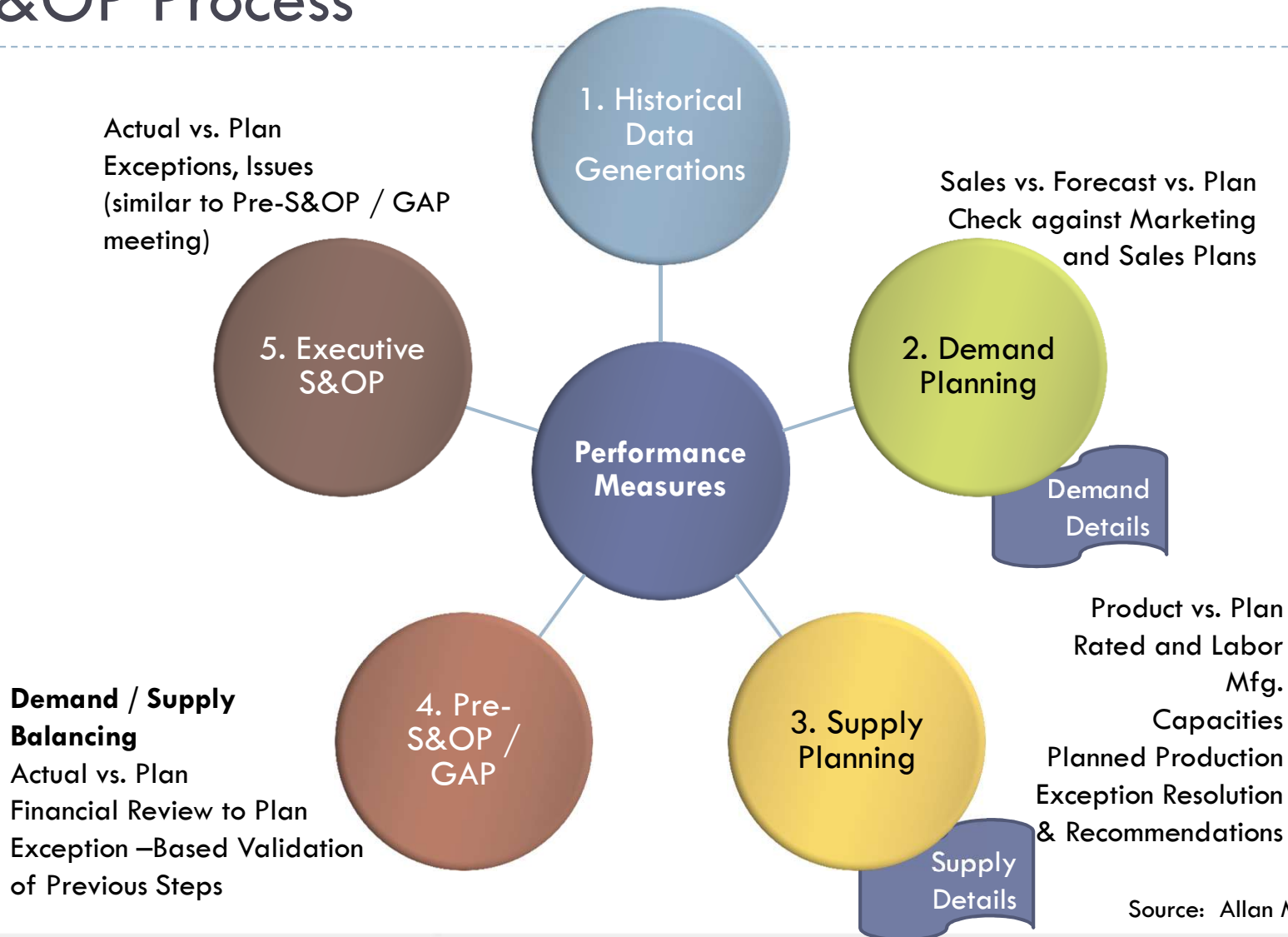
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4. Determine Product Families, Total Plan for Families, Planning Horizon, Resources

- ▶ S&OP focuses on total volume for product families
 - ▶ The approved Demand Plan is then disaggregated to SKU level and transferred to supply planning (MPS/MRP)
- ▶ Product Families
 - ▶ Demand – similarities in market segments and customer groups,
 - ▶ Supply – resources consumed (i.e. machines, work centers, ...)
- ▶ S&OP Planning Horizon
 - ▶ Minimum 12 months out, ideal 18 months
- ▶ Output of S&OP is a Production Plan – realistic / achievable. Use Rough-Cut-Capacity Planning to check on CRITICAL resources



S&OP Process



Source: Allan Milliken



HIERARCHY OF SUPPLY CHAIN METRICS

Demand Visibility

Forecast Accuracy

Performance Trade-offs

On Time Delivery, SC Cost

Supply Chain
Performance
Management

Inventory, Revenue, Margin

Turns/DOS, S&OP, Capacity, Headcount

Inv. Aging, Logistics Spend, Matl % of Revenue, Cycle
Count Accy, Mfg. Cycle Time

Operational
Effectiveness

Inv. Projection Accy, Weekly Freight Spend, Purchase
Price, Var., Negotiated Savings, DC Efficiency



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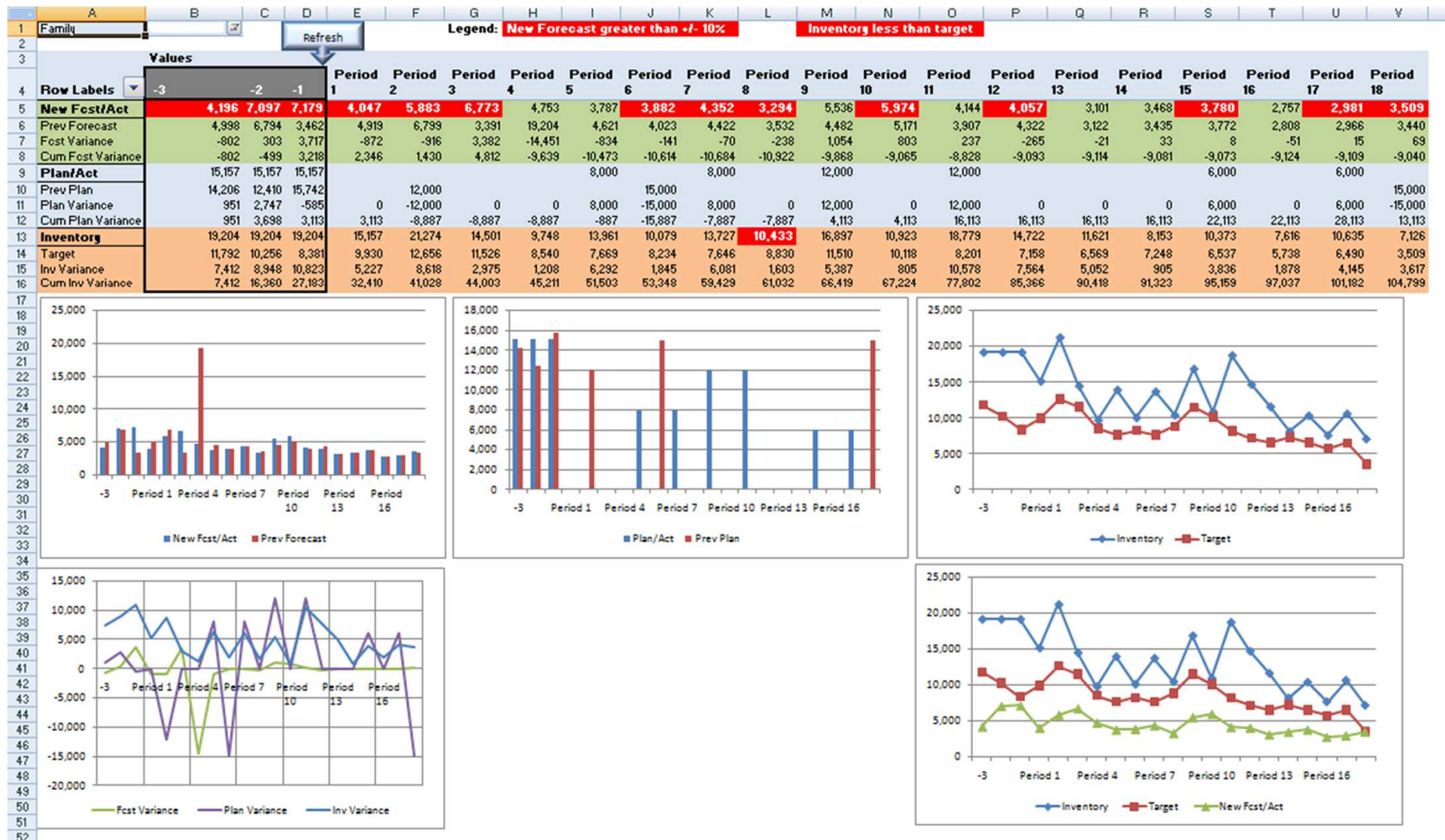
Step Four: S&OP Implementation

5. Design and Test S&OP Software

- ▶ ERP tools have data not integrated in S&OP
- ▶ MS Excel / MS Access are typical tools deployed
- ▶ Pilot one or two product families before adding others



Sample S&OP Spreadsheet



6. Develop S&OP Level Performance Measures and then Implement

- ▶ S&OP Scorecard – Multiple Perspectives:
 - ▶ Financial
 - ▶ Customer
 - ▶ Internal
 - ▶ Innovative
 - ▶ Key Performance Indicators (KPIs) need to be aligned throughout the organization
 - ▶ Each KPI must have a Target, Tolerance Range, and Owner



6. Develop S&OP Level Performance Measures and then Implement

Period Ending: June 30, 2002		KPI Scorecard						
Business Unit : FMCG Inc.		Previous Month	Target	Upper Limit	Lower Limit	Reporting Month	Trend	Owner
							Rolling 12 Months	
Demand	Total Demand (M units)	1000				1100	123000	J. Doe
	Demand vs. S&OP	-100				-120	-4500	A. Smith
	Forecast Error (Lag 2)	-10%	+/-5%	6%	-6%	-11%	-4%	A. Smith
Production	Total Production (M units)	2500						E. Green
	Production vs. S&OP	300						B. White
	S&OP capacity utilization	93%	96%	98%	95%	90%	93%	E. Green
Inventory	TTL Finished Goods (M Units)	45000	38000	40000	36000	46000	38000	R. Done
	Inventory vs. S&OP	5000				7500	4000	R. Done
	DSO	96	80	85	94	97	92	R. Done
	DSO vs. S&OP	12				5	8	R. Done
	STR	2.1	3.1	3.1	2.8	1.9	2.2	R. Done
	STR vs. S&OP	-1				-0.6	-1	R. Done
Logistics	On-Time Shipping	93%	98%	100%	97%	97.50%	96.80%	J. Doe
	Customer Service Level	92%	98.50%	100%	96%	98%	98.20%	A. Smith
	Total Fixed Distribution Cost	12300	11100	12000	11100	12000	11900	R. Done

Source: Allan Milliken



Balanced Scorecard

- Attitude Survey
- Ideas per Employee
- Flexibility
- Training per Employee
- New Products - % of Revenue
- Cost of Quality

Innovation
and
Learning

Customer
Perspective

- Market Share
- Customer Service
- Customer Satisfaction

Financial
Perspective

Internal
Performance

- Return on Capital Employed
- Cash Flow
- Projected Profitability

- Data Accuracy
- Schedule Adherence
- Forecast Accuracy
- Supplier Performance
- Velocity

Source: Oliver Wight International



Balanced Scorecard for Sales and Operations Planning Measurement

Sales and Operations Planning	-3	-2	-1
Was everyone prepared?			
Were the right people present?			
Was the information at the right level of detail?			
Were the needed decisions made?			
Did we make efficient use of time?			
Can we improve the S&OP process?			

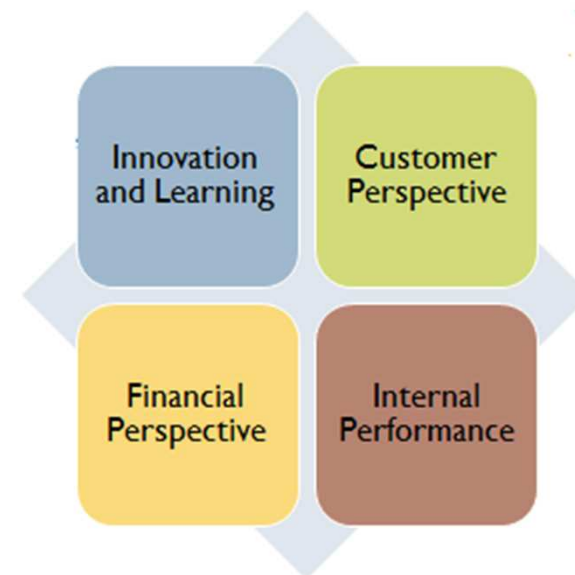
Financials	-3	-2	-1
EBIT (\$)			
Sales revenue to plan (\$)			
Margin % to plan			
Operating Expenses to budget (\$)			
Cost drivers			

Supply	-3	-2	-1
Manufacturing revenue to plan			
Inventory value (\$) and turns			
Supplier quality performance			
Initial test yields (\$)			
Cycle times (days)			
Inventory record accuracy (%)			
Production plan vs. Actual (%)			
Master schedule performance (%)			
Master schedule stability (weekly)			

Products	-3	-2	-1
New product introduction on-time performance (%)			
Cycle time to first customer prototype			
Cycle time to safety approval			
Average cycle time			
Project development costs			
Development resource load to capacity ratio			

Demand	-3	-2	-1
Forecast vs. Actual by subfamily (units and %)			
Forecast vs. Actual by top 30 sku mix			
Inventory performance by customer group			
On-time customer service performance (%)			
Bookings activity			
past due customer orders			

Markets	-3	-2	-1
Total market forecast accuracy			
Market #1 market share			
Market #2 market share			
Competitive portfolio positioning			



Source: Oliver Wight International



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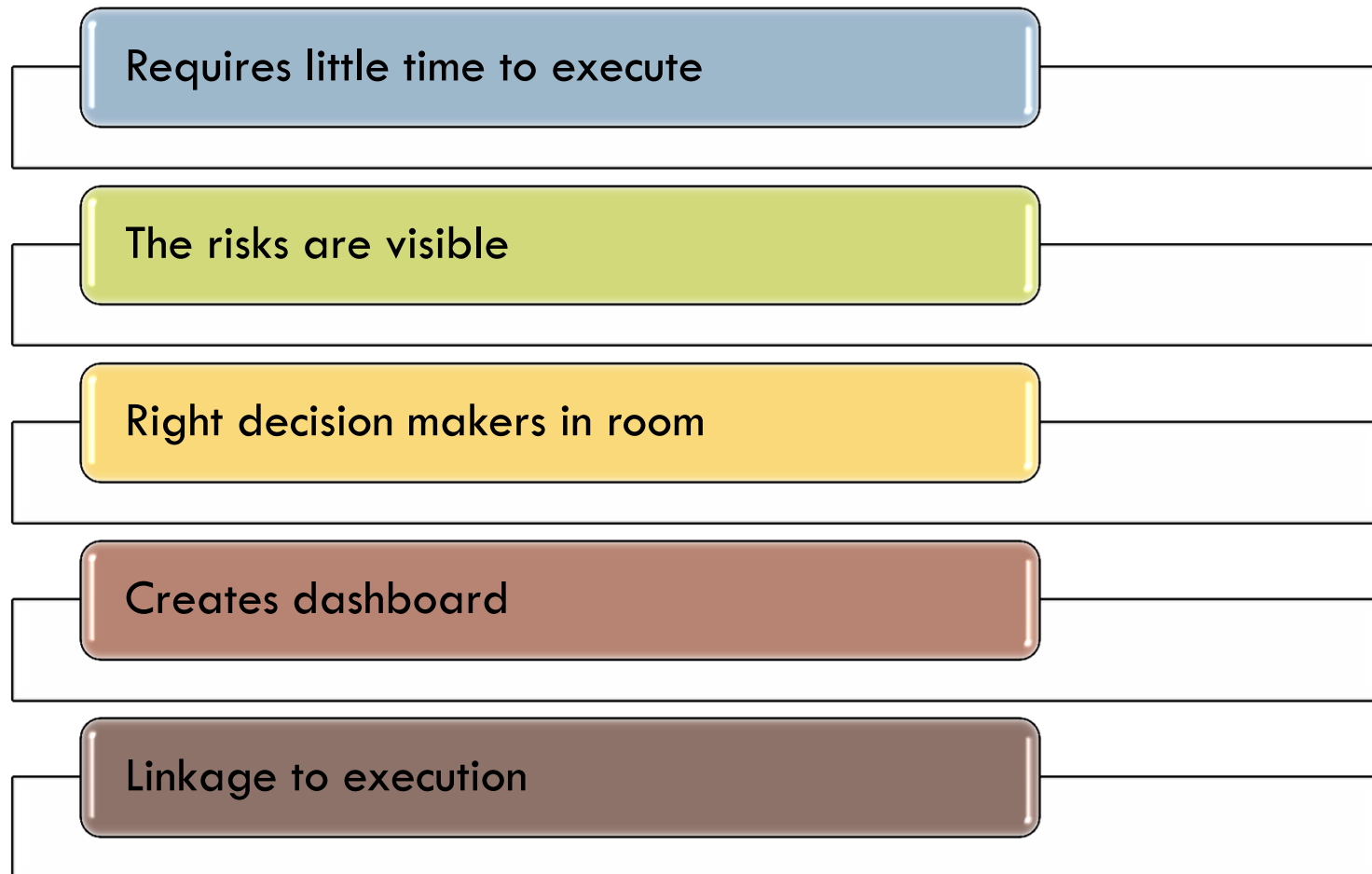
7. Develop and Issue S&OP Meeting Agenda and Conduct First Meeting

- ▶ Executive S&OP Meeting is ***Actions and Decisions***
- ▶ Objectives:
 - ▶ Make financial decisions for issues raised during earlier process steps
 - ▶ Accept or change proposals
 - ▶ Chose from alternatives provided
 - ▶ Compare the financial numbers from the S&OP with the current Business Plan and reconcile the two
 - ▶ Review current performance and take actions required
 - ▶ Review New Product issues, Special Projects, and other Business-Level issues – actions
 - ▶ Approve the final “Game Plan” for the business



Top managers' "likes" list:

Top Level Benefits from the S&OP Process



Source: D. H. Sheldon



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Step Four: S&OP Implementation

Expected Outcomes of Sales & Operations Planning: 12 Month ROI

- ▶ Forecast error reduction.....18-25 %
- ▶ Inventory reduction.....3-5 %
- ▶ Inventory turns increase.....5-10 %
- ▶ Service level increase.....5-10 %
- ▶ Top Line revenue growth.....2-5 %
- ▶ SKU rationalization.....10-20 %
- ▶ Gross Margin improvement.....up to 20 %



S&OP Benefits Beyond First 12 Months

- ▶ Increased demand plan accuracy ranging from 18 to 25 %
- ▶ Increased sales revenues ranging from 10 to 25 %
- ▶ Increased on-time delivery ranging from 10 to 15 %
- ▶ Reduced inventory ranging from 18 to 46 %
- ▶ Reduced safety stock ranging from 11 to 45 %
- ▶ Increased productivity ranging from 30 to 45 %
- ▶ Increased bottom-line performance



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S&OP Implementation – Recently Completed Project

- ▶ **Phase 1: Initial Assessment and Training**
 - ▶ Conducted In-House Best Practice Forecasting and Sales & Operations Planning training fully customized to Client's needs and utilizing their data and findings from an assessment conducted on site before the training session.
- ▶ **Phase 2: Software Selection**
 - ▶ Researched and recommended Forecasting Software based on client's needs and data types
 - ▶ Forecast warehouse shipments
 - ▶ Store Point Of Sales data as leading indicator
 - ▶ Moving holidays and rapid growth of the company
 - ▶ Train Forecasting staff on new tools

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S&OP Implementation – Recently Completed Project

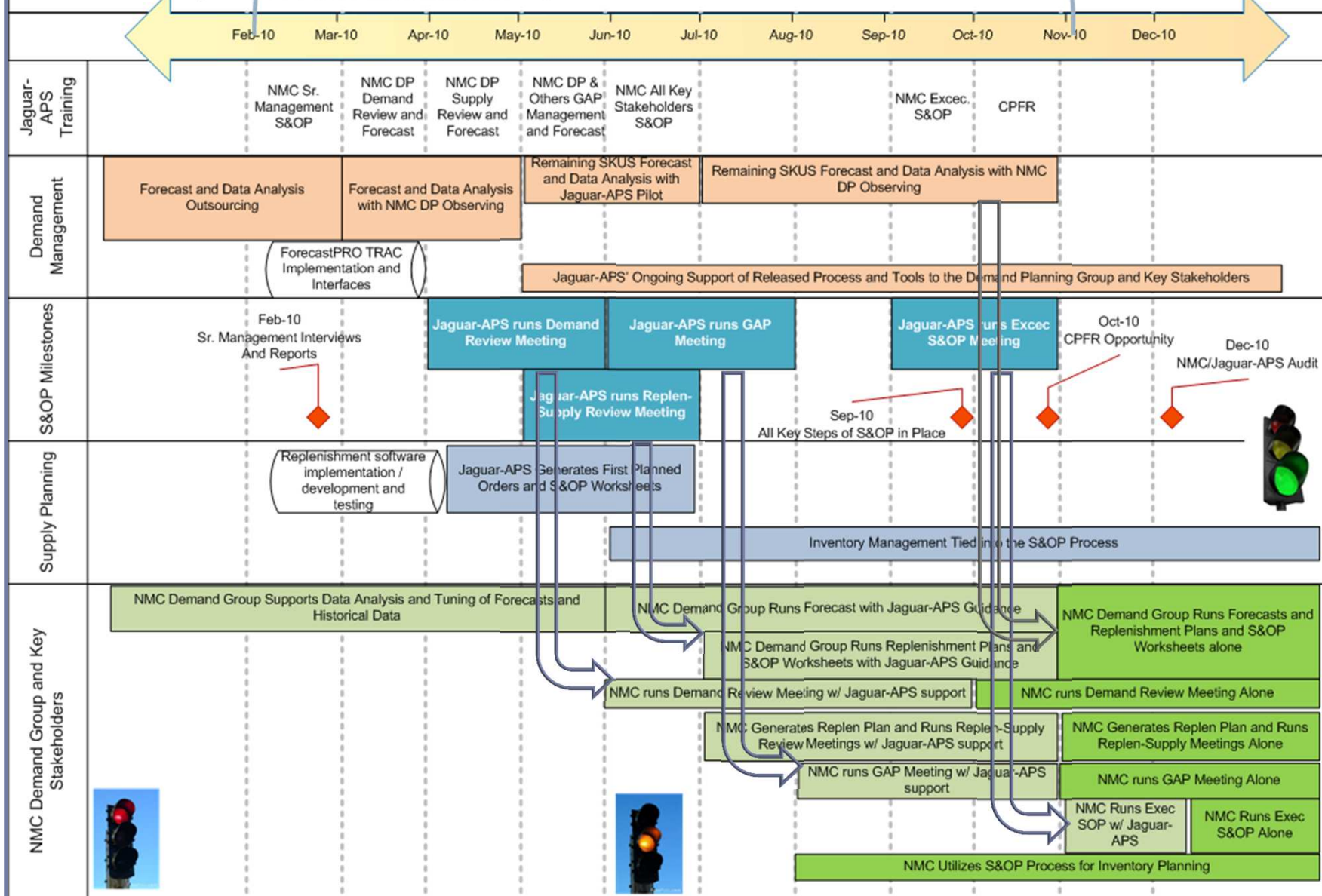
► Phase 3: Process and Tools Implementation

- The project team developed To-Be design for an integrated Business / Demand Management (Sales & Operations Planning) Process for the Client's Organization.
- Jaguar-APS led the implementation of Sales & Operations Planning process.
- Jaguar-APS provided guidance in implementation of Forecasting and DRP systems sourced for Client in Phase 2.
- Jaguar-APS provided transfer of knowledge to Client's staff to support seamless transfer of responsibilities.
- Jaguar-APS conducted a joint audit with Client at the end of project.

Knowledge Transfer



NMC Demand Management and S&OP Implementation



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Tips for Continuous Improvement

Linking upstream supply chain

Linking customers via CPFR

Working with other regions

Linking upstream supply chain

- ▶ **VMI – Vendor Managed Inventory**
 - ▶ The buyer of a product provides certain information to a supplier of that product and the supplier takes full responsibility for maintaining an agreed inventory of the material, usually at the buyer's consumption location (usually a store or DC). A third party logistics provider can also be involved to make sure that the buyer has the required level of inventory by adjusting the demand and supply gaps.
- ▶ **VMR – Vendor Managed Replenishment**
 - ▶ Similar to VMI – typically used within same organization's global supplying network, can be used with 3PL as well – buyer submits FORECAST to the supplier and supplier plans from it to meet the required delivery times and volumes.



CPFR: 9-Step Process Between Manufacturer and Customer

Collaborative

PLANNING

1. Develop collaboration agreement
2. Create joint business plan



FORECASTING

3. Create demand forecast

4. Identify exceptions

5. Resolve/collaborate on exception items

6. Create order forecast

7. Identify exceptions

8. Resolve/collaborate on exception items

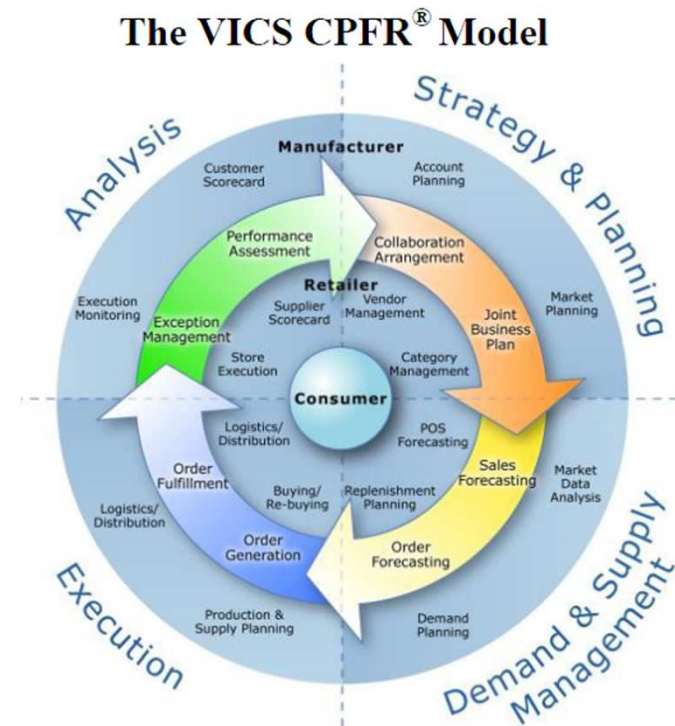
REPLENISHMENT

9. Generate order



Four Activity Recommendations by VICS for CPFR Implementation

- ▶ Strategy and planning
- ▶ Demand and supply management
- ▶ Execution
- ▶ Analysis



- ▶ Note: (VICS stands for Voluntary Inter-industry Commerce Sta



<http://www.vics.org>



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Why CPFR?

- ▶ Better forecasts
- ▶ Less inventory
- ▶ Better customer service
- ▶ Lower production costs
- ▶ More sales and profit
- ▶ More visibility, which ensures that products, material and components will be available when needed
- ▶ Bullwhip effect – less demand variability



Lessons Learned from a Successful Implementation of the CPFR Process

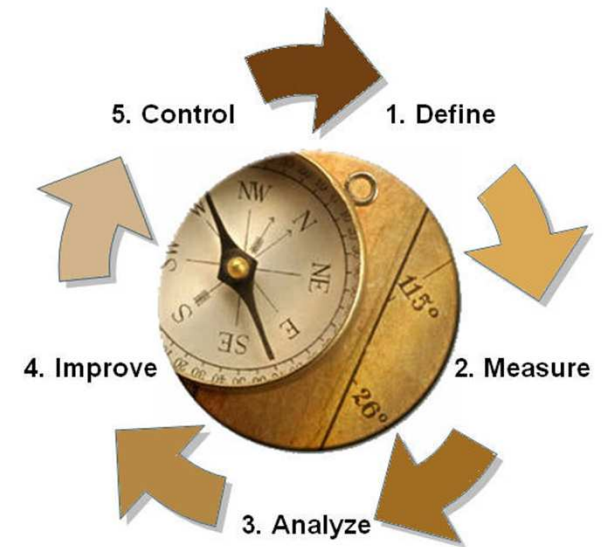
- ▶ Trust
- ▶ Crawl, walk and run
- ▶ Company has a collaborative process within the organization
- ▶ Minimum expectations
- ▶ Focus on customer's demand/needs



Demand chain management

- ▶ Management of upstream and downstream relationships between suppliers and customers to deliver the best value to the customer at the least cost to the demand chain as a whole.
- ▶ The term demand chain management is used to denote the concept commonly referred to as supply chain management, however with special regard to the customer pull.
- ▶ The organization's supply chain processes are managed to deliver best value according to the demand of the customers.





Communications

Best Practices



Speak the language of your audience.

▶ Things to avoid

- ▶ TECHNICAL JARGON
- ▶ Lots of acronyms (unless you know all audience members will know their meaning)
- ▶ “But the model says...”
- ▶ “We know you like to see it this way but...”
- ▶ “I know you can’t see this, but...”
- ▶ “My forecast is...”
- ▶ Dense tables with lots of numbers (may sometimes be OK in an appendix)
- ▶ Other examples?

▶ Things to do

- ▶ Use plain English
- ▶ Explain acronyms the first time they appear
- ▶ Make graphs – things are easier to see for most people
- ▶ “The team’s forecast...”
- ▶ Other examples?



Make sure meeting is a good use of everyone's time.

- ▶ Clearly defined purpose
 - ▶ Share information
 - ▶ Need resolution
 - ▶ Other?
- ▶ Schedule enough time to present material and have meaningful discussion
 - ▶ Make sure discussion is on topic
- ▶ Be prepared – all participants
 - ▶ Issue pre-read when possible
 - ▶ Use meeting time for resolution, decision-making, etc, while all stakeholders are present
- ▶ End with specific action steps and accountabilities

Future Forecast

- ▶ Changes from previous forecast and reasons why
 - ▶ No need to revisit/report every product division or sales territory/customer
 - ▶ Just report what has been changed from the last forecast – what new information do we have now that we did not have before?
- ▶ Forecast horizon that matters to them

LEVEL, TREND, SEASONALITY, CHANGE



Risk Analysis

Plan/Sales	Current Year	Year Ago Actual	% Change vs. YA
Annual Plan	\$ 25,400,000	\$ 24,190,476	5%
Sales YTD thru July	\$ 15,235,679	\$ 14,893,137	2%
Need to meet - YTG	\$ 10,164,321	\$ 9,297,339	9%

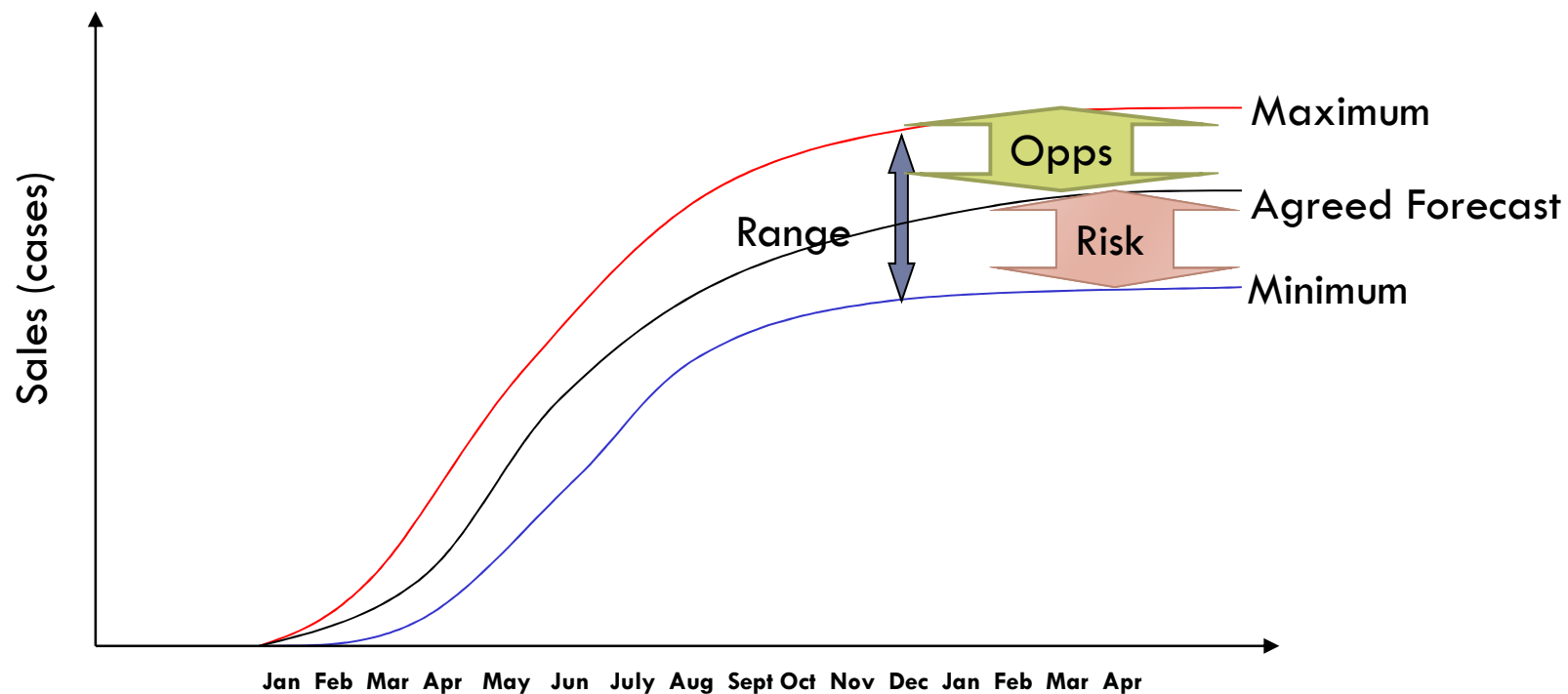
- ▶ How likely are we to “make plan?”
- ▶ Reality Check:
YTD – YTG (= “year-to-date” vs. “year-to-go”)
- ▶ How likely are we to be up over 9% for the rest of the year when we are only 2% up VYA through the first 7 months?!
- ▶ In order for us to make plan, we can...

Option	Action	Cost	Likely Revenue / Profit Impact	Likely Revenue / Profit Impact2
A	3 weeks of TV	\$ 1,000,000	\$ 125,000	-\$ 20,000
B	One \$1 coupon, ad @ WM	\$ 570,000	\$ 500,000	-\$ 100,000
C	Ads at Kroger, Safeway, Targe	\$ 250,000	\$1,000,000	-\$ 225,000



New Products: Even More Risks & Opportunities

- For new products, potential error is higher than most products, so people need to know more than the forecast number itself.
- The forecast information should be accompanied by the believed *Risks and Opportunities*.



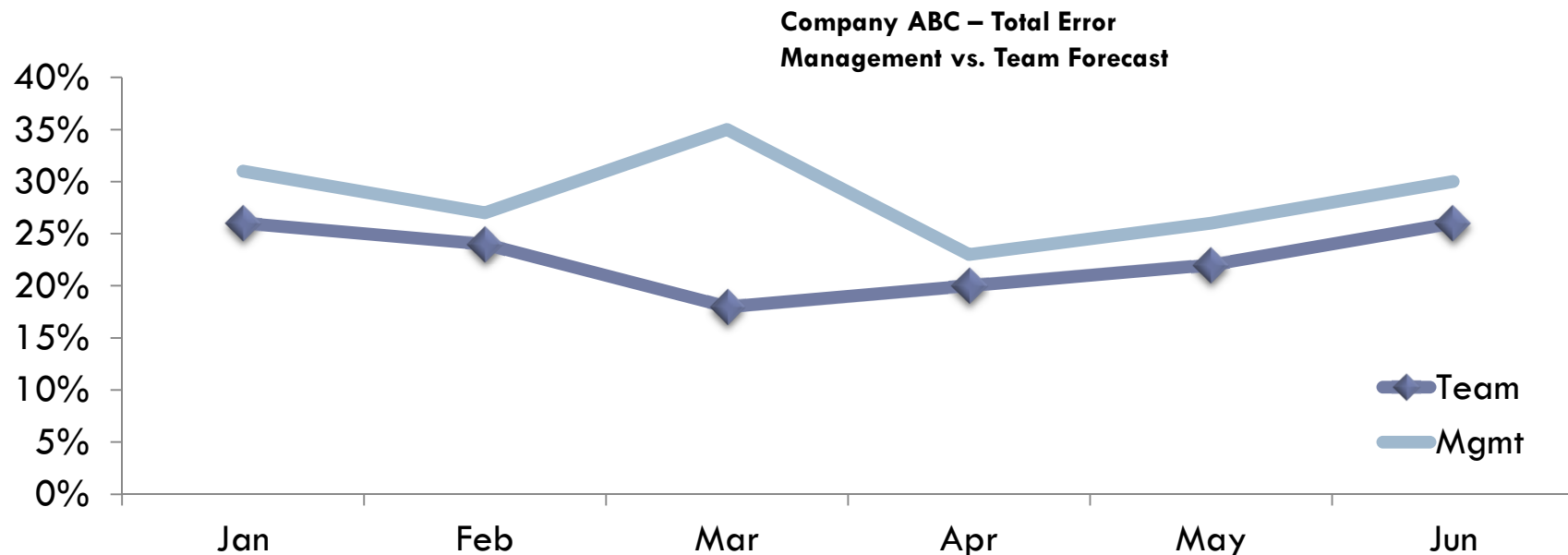
Be aware of natural bias of each function.

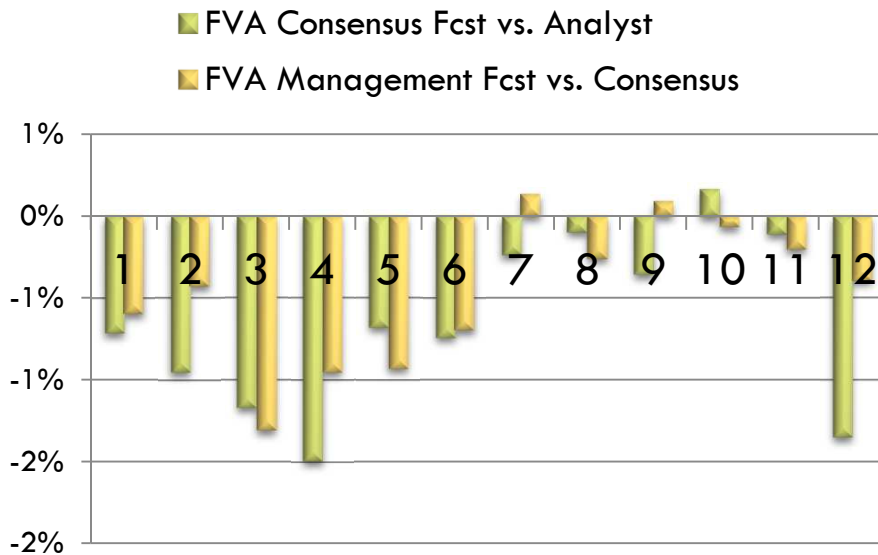
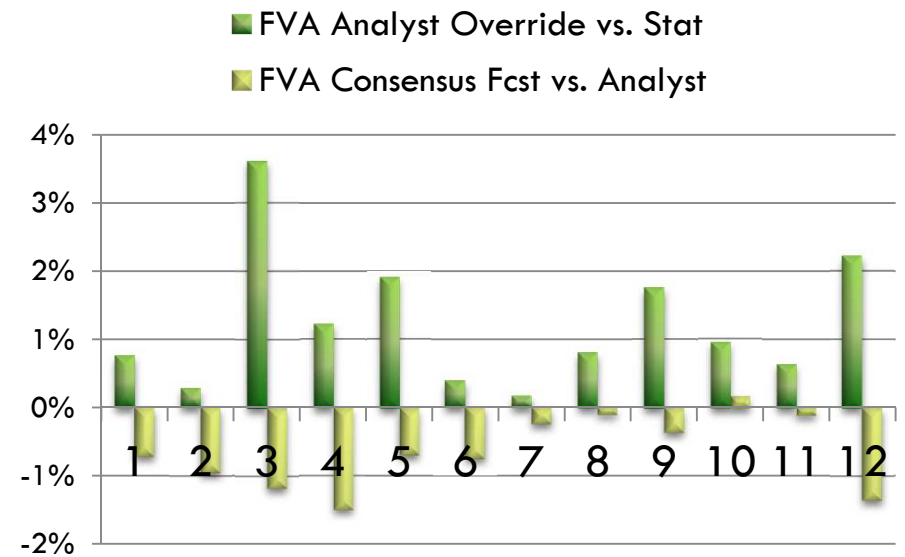
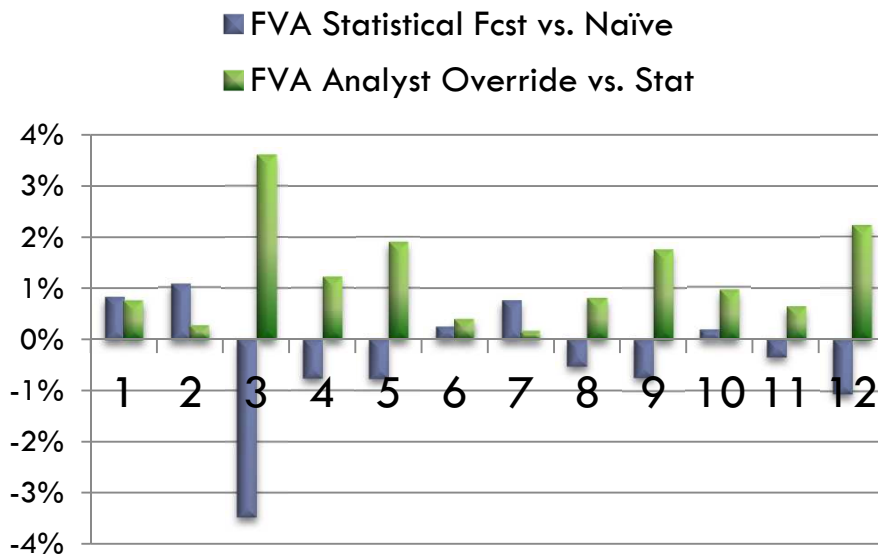
Type	Function	Action	Beacuase...
DEMAND	Marketing	may call high	want idea to go forward
	Sales	may call high	
			want to ensure product is available for their customer
		may call low	then can exceed quota if based on forecast
SUPPLY	Operations	may call high	do not want to be out of stock
			do not want to have too much inventory to 'compensate' for Marketing / Sales optimism
		may call low	
Assess cost of “missing” demand vs. “missing” supply			



Keep good records!

- ▶ Track any changes made to team forecast because of upper management disagreement
- ▶ Compare accuracy over time
- ▶ If management changes are resulting in higher error, use comparison to make the case for going with the team forecast!
 - ▶ I know – easier said than done!

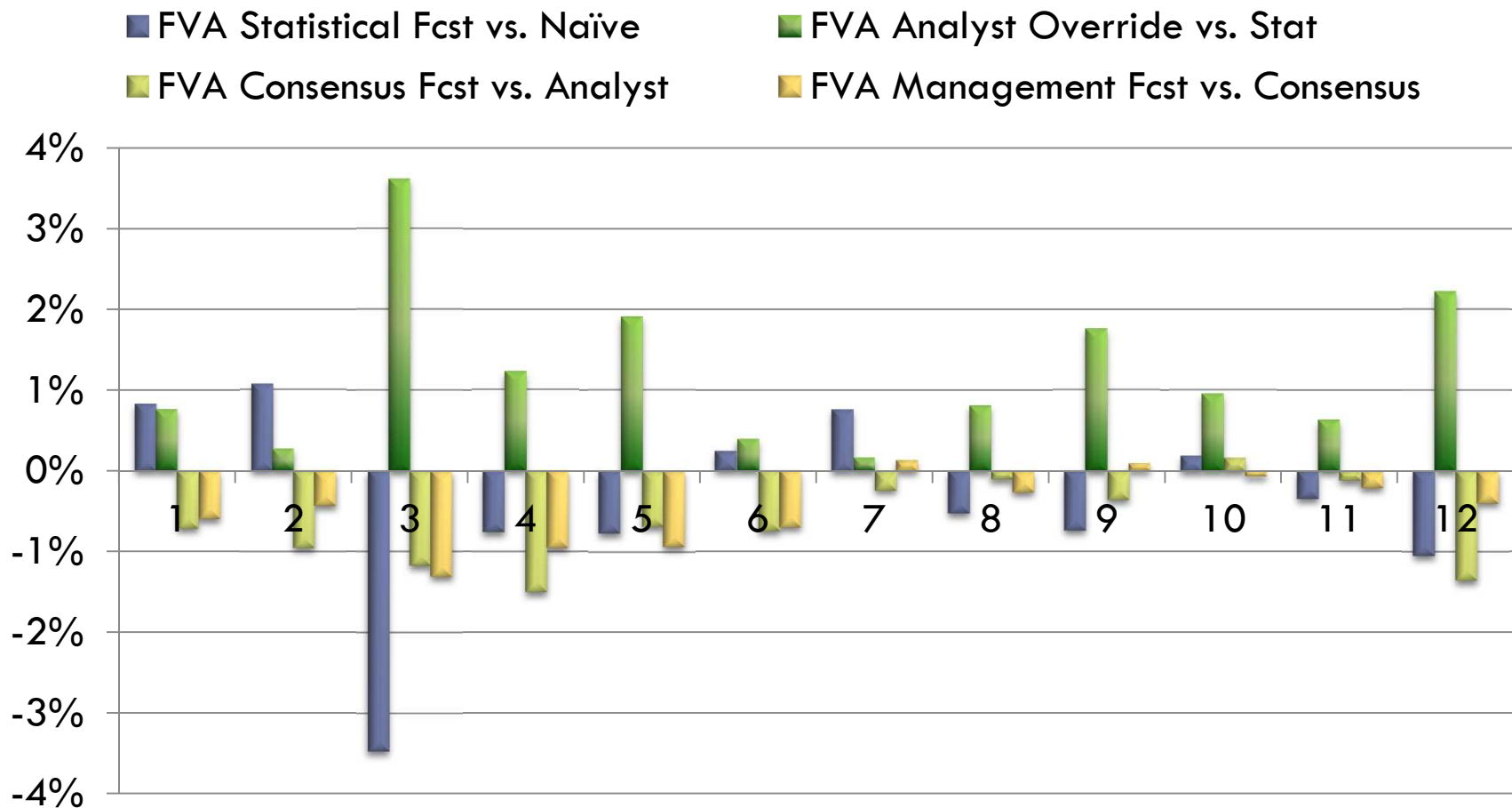




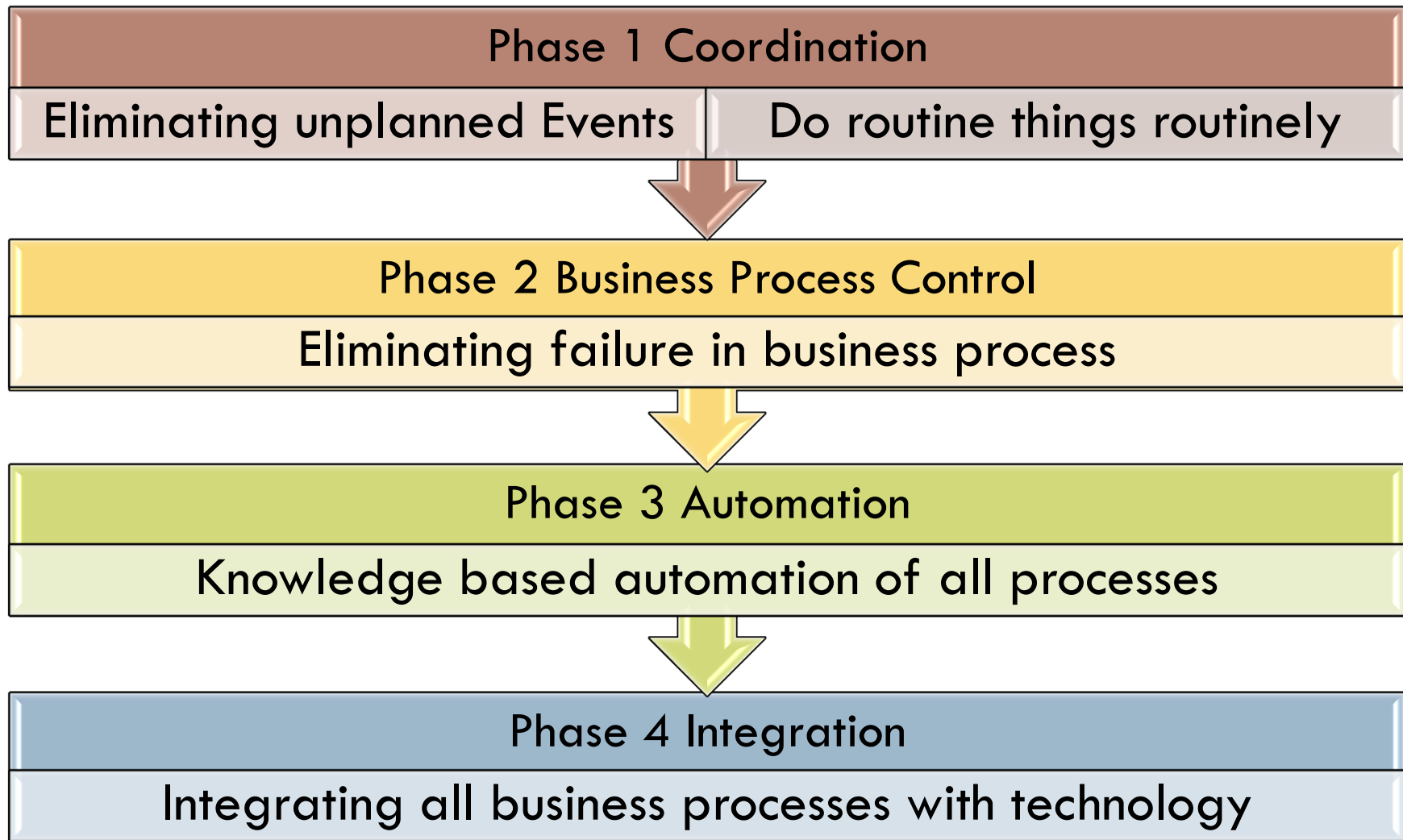
Forecast Value Add Analysis



Forecast Value Add Analysis



Integrating the Business - Maturity



S&OP Maturity Model

PEOPLE, PROCESS, TECHNOLOGY, PERFORMANCE MANAGEMENT

- ▶ Tactical – the company does only the basics of S&OP, such as demand and supply balancing.
- ▶ Advanced – the company has progressed in knowledge and skill of S&OP beyond the basics, for example, to formal planning and review meetings.
- ▶ Strategic – the company uses S&OP to align operational planning with corporate strategic objectives.
- ▶ Innovative – the company runs S&OP using a variety of performance management techniques.

Recommendations for users

People

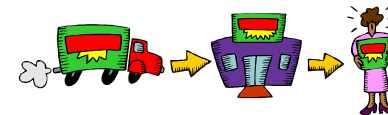
- ▶ Broaden deployment to include executive management, finance, manufacturing, demand planning, supply planning, marketing, product engineering and design and IT functions.
- ▶ Use a cross-functional team for plan development and reporting.
- ▶ Have all departments use S&OP as the plan of record – including FINANCE.
- ▶ Engage the CEO or CFO as a sponsor.



Recommendations for users

Process

- ▶ Use S&OP to align operations with corporate strategic objectives.
- ▶ Have regular formal demand and supply review meetings and look at actual-vs.-forecast targets.
- ▶ Plans should cover 18 months and include multiple lines of business or brands and multiple factories or regional operational facilities across product lines.



Recommendations for users

The S&OP process itself should include these steps:

1. New product (or service) introduction planning
2. Consensus demand planning
3. Supply and manufacturing planning
4. Formal demand, supply and capacity reviews
5. Financial plan reconciliation
6. Formal executive S&OP meetings that
 - ▶ Review demand and supply trade-offs
 - ▶ Track progress of strategic initiatives and projects
 - ▶ Included balanced scorecards or performance reviews
 - ▶ Assign action items and set follow-up assessments

Recommendations for users

Technology

- ▶ Actively evaluate vendor-provided dedicated solutions
- ▶ Look for software that has what-if scenario planning, real-time dashboards, collaborative demand planning, automated financial planning reconciliation and profit-based solving
- ▶ Consider supporting technologies like EAI and BI platforms

Performance management

- ▶ Match S&OP metrics with corporate goals
- ▶ Integrate S&OP with Balanced Scorecard



12 Most Common Threats to S&OP

1. There is a disconnect between S&OP and corporate strategy
2. Senior management indecision
3. The One-Number forecast is not reality based
4. We meet every month... more or less
5. The process focuses on the balance of the year
6. The S&OP leader also owns supply or demand planning
7. Leaders are 'obsessed' with last month's sales
8. S&OP ignores product life cycle management
9. S&OP ignores or excludes extrinsic business trends
10. Failure to measure and monitor progress
11. No understanding about proper meeting procedures
12. Office 'politics' undermines progress



Sales & Operations Planning

Charles Novak

Johnson & Johnson GCC

Forecasting Summit, September 2007



www.jaguar-aps.com

The Top 10 Myths and Realities of S&OP

JDA and Oliver Wight, 2011

Who owns the S&OP process?

▶ Myth:

- ▶ S&OP process should be owned or sponsored by Demand Planning or Supply Chain function.

▶ Reality:

- ▶ S&OP is an executive process employed to plan and manage the business.
- ▶ Executives identify gaps between the latest agreed to forecast and financial projections and assign actions and accountabilities for their closure.



EXECUTIVE
MANAGEMENT
PROCESS



EXECUTIVE
OWNERSHIP AND
LEADERSHIP



And the next problem S&OP needs to solve today is

...

▶ Myth:

- ▶ S&OP is tactical, real-time process enabling quick identification and response to problems.
- ▶ Supply chain planning tools (i.e. daily replenishment and forecasting are used to deal with these problems)

▶ Reality:

- ▶ Real-Time issues = aka FIRE-FIGHTING
- ▶ Advanced S&OP (IBP) = aggregate monthly planning process aligning plans and strategies over min of 24-month rolling planning horizon.

There's too much strategy and not enough execution.

- ▶ **Myth:**

- ▶ S&OP deals with product families and fixed hierarchy, not enough detail!

- ▶ **Reality:**

- ▶ An error at the aggregate level cannot be fixed at the detail level.
- ▶ Both aggregate and detailed plans are required.
- ▶ Best practice is to determine and limit detailed planning to the time horizon in which it provides value. (i.e. lead times for procurement, production and replenishment)

Just look backwards.

- ▶ **Myth:**

- ▶ S&OP is a review of historical data
- ▶ No ability to run 'what-if' and simulations for suggested changes.

- ▶ **Reality:**

- ▶ Focus is on the future the rolling 24-plus month planning horizon supported by historical data analysis – this supports 'what-if' analytics.
- ▶ S&OP is a fact-and-assumption-driven process, not a numbers-driven process.

It's all in the numbers.

- ▶ **Myth:**

- ▶ S&OP is limited to quantitative views of supply, demand and financial plans.
- ▶ Just look at the numbers to support decisions.

- ▶ **Reality:**

- ▶ Qualitative aspects of S&OP – facts and assumptions – are more important than the quantitative parts.
- ▶ Evaluation of Risks and Opportunities is a standard element of executive decision making in S&OP

S&OP is just another time-consuming meeting with little action.

- ▶ **Myth:**

- ▶ Just another meeting – nothing comes out of it.
- ▶ Decisions made get rarely executed.

- ▶ **Reality:**

- ▶ Some S&OP became more of a reporting meeting than an executive process for managing the business:
 - ▶ Process not executive owned (Myth #1)
 - ▶ Information not presented in a way executives think

Who is worrying about demand?

- ▶ **Myth:**

- ▶ S&OP relies on fixed demand plan or statistical forecast
- ▶ Does not emphasize how we may need to shape demand to meet business objectives

- ▶ **Reality:**

- ▶ Demand-shaping strategies and scenarios are part of the whole monthly IBP / S&OP cycle
- ▶ Best practices in S&OP promote stronger financial modeling beyond near term to determine optimal economic responses changes in customer needs.

It is too complex to involve trading partners

- ▶ **Myth:**

- ▶ S&OP processes are too complex and difficult to manage – especially when trying to systematically incorporate external trading partners.

- ▶ **Reality:**

- ▶ Trading partner input is becoming critical in S&OP
- ▶ With new tools/technology that provide demand stream visibility and forecast sharing among upstream and downstream trading partners.

Finance always has the last word.

- ▶ **Myth:**

- ▶ We spend too much time to create perfectly balanced supply and demand plan that finance team then overrides anyway.

- ▶ **Reality**

- ▶ S&OP is not anymore simply balancing Demand and Supply
 - ▶ The new process incorporates financial analysis into each key step of the S&OP so the future financial projections can be fully integrated with the new product, demand and supply plans.

Let's run S&OP processes on auto-pilot

▶ Myth:

- ▶ S&OP can be solved with implementation of a tool. Just configure the software and you are done.

▶ Reality

- ▶ Successful IBP/S&OP process has combination of people, processes and tools working together.
- ▶ Corporate objectives, financial goals and operational plans need to be aligned to provide maximum top- and bottom-line improvements.



S&OP Key Research Findings

- ▶ S&OP viewed as an important business planning tool
- ▶ Gap between strategy, S&OP and execution
- ▶ Performance gaps have grown
- ▶ Proper KPIs
- ▶ Data accuracy and timeliness

August 2009 study of 182 companies in USA





Seven Deadly Sins:

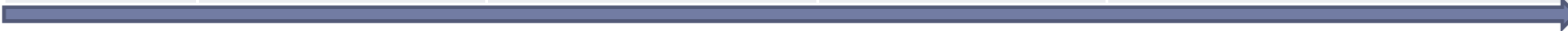
1. Clarity of goal
2. Alignment to strategy
3. Reward systems
4. What is a good decision?
5. Governance
6. The role of the forecast
7. Connection of planning to execution

60% Change Management
30% Process
10% Technology

Source: Gartner

S&OP Maturity Model

Stage	I Reacting	II Anticipating	III Collaborating	IV Orchestrating
Balance: S&OP				
Goal	Development of an operational plan	Demand and supply matching	Profitability	Demand sensing, and conscious trade offs for demand shaping to drive an optimized demand-response
Ownership	S = Sales OP = Factory capabilities	S = Sales and Marketing Plans OP = Planning and factory Capabilities	S = Go to Market Plans OP = Design of demand driven plan, make & deliver processes	S = Go to Market Strategies and Solutions OP = Translation of demand into plan, make, deliver, source and service strategies, with connection to execution
Metrics	Order fill rate, asset utilization, inventory levels	Order fill rate, forecast error, inventory turns, functional costs	Demand error, customer service, working capital, total costs	Demand risk, customer service, cash flow, market share and profit



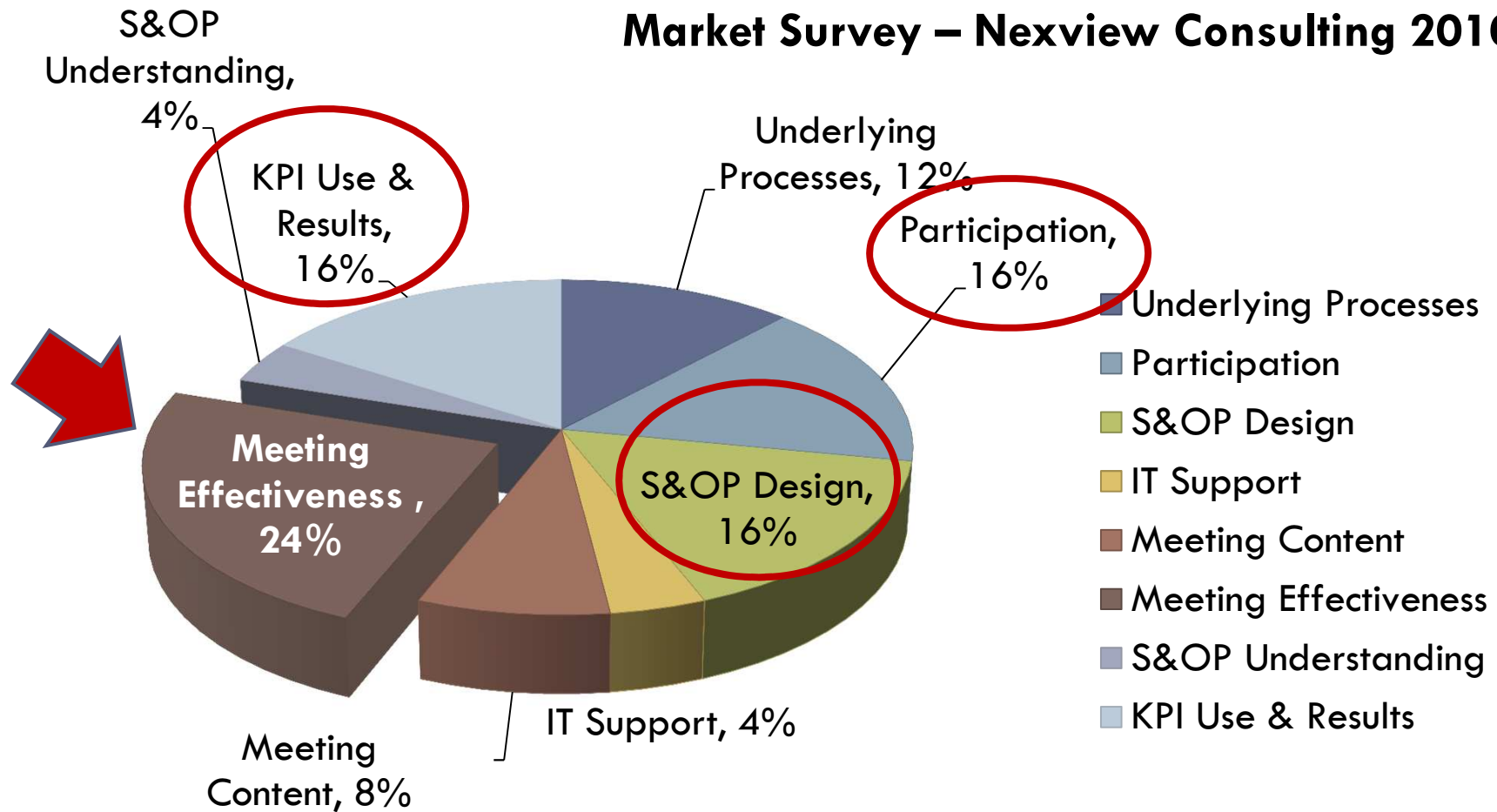
Increase in Organizational Balance



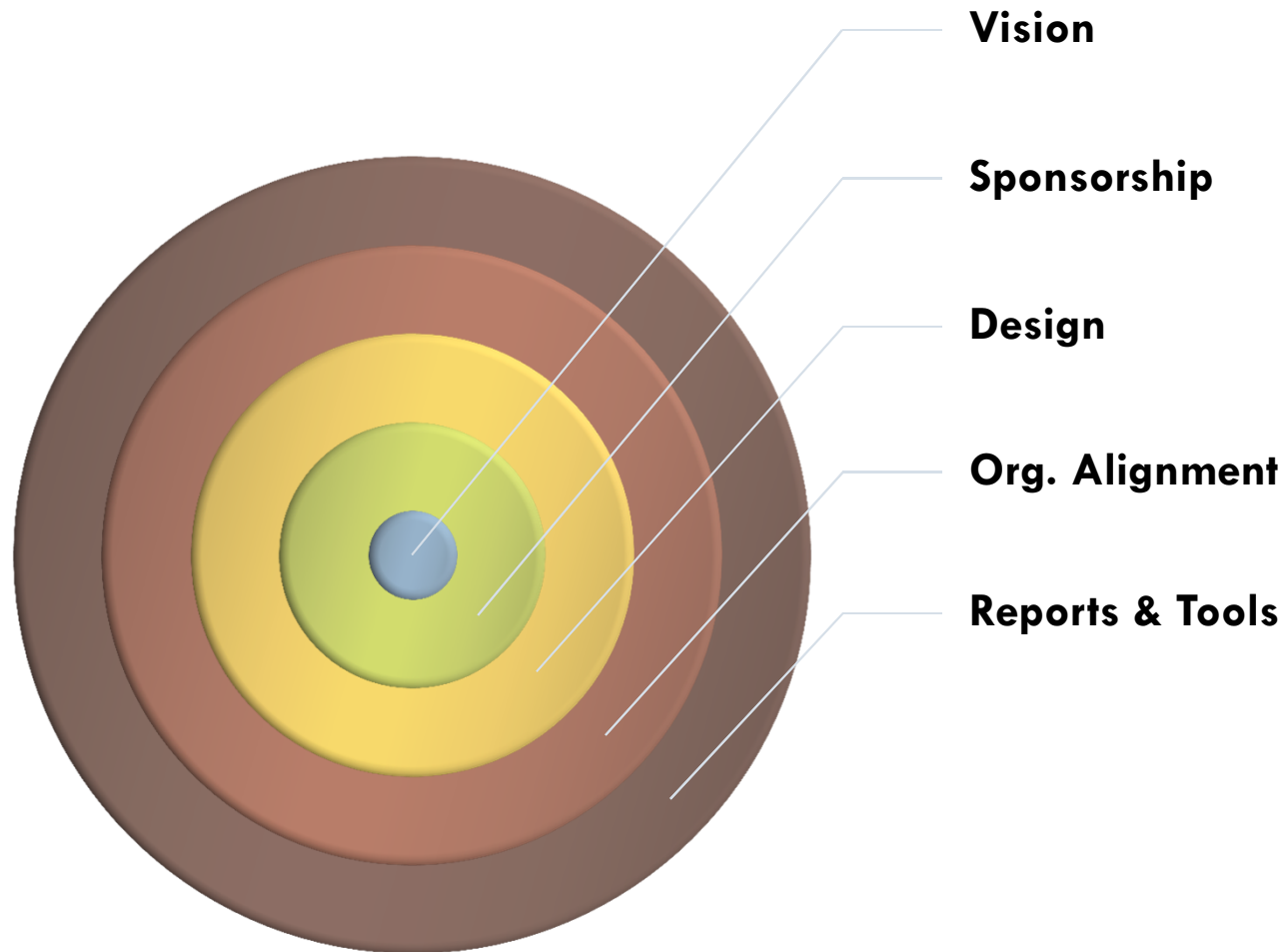
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S&OP Challenges

Market Survey – Nexview Consulting 2010



S&OP Components



Vision and Sponsorship for S&OP

Key Questions

How did you / should you define S&OP?

What was it to accomplish?

What was supposed to happen by when?

Who is the right sponsor in the organization?

What should this sponsor be doing for the process?

Next Steps

“Core Team” agrees on the particulars.

Sponsor approves.

Write it down (Vision, Communication Package).

Review it with stakeholders.

Communicate it again periodically.



Design and Align With Meetings the Org. Structure

Key Questions

Do we have an up-to-date S&OP policy?

Do we have the right meetings?

Are the right people in each of the meetings?

How is Exec. S&OP built into the Exec. Management System?

Is there consistency across divisions? Should they be consistent?

Next Steps

Adjust “Best Practice” to fit your business with the meetings in the S&OP flow.

Look for consistency across business units, don't force it if it does not make sense.

Clearly define and document roles and responsibilities.

Each meeting has an Owner, Facilitator and Leader.



Basic Tools and Inputs/Outputs of S&OP Cycle

FMCG Inc. Company - Sales & Operations Planning Policy

Sales & Operations Planning establishes the overall level of sales and manufacturing output, expressed in families and sub-families, to form the company game plan. Its primary purpose is to establish rates of activity that will achieve the company's objectives, including: meeting customer service and revenue goals, raising or lowering inventories and customer order backlogs, maintaining a stable work force, and enhancing the effectiveness of new product introductions.

1. THE EXECUTIVE SB&OP MEETING WILL BE HELD MONTHLY IN CONJUNCTION WITH THE SCHEDULED

OFFICER'S MEETING

President/CEO	Vice President Operations
Vice President Finance/CFO	Vice President of Product Development
Vice President Marketing	Vice President Sales
At least two members of GAP / Pre-SOP team	

Actions include: resolution of open issues from CAP/Pre-SOP implementation, modification of CAP/Pre-SOP plans, changes to the P appropriate.

2. THE GAP / PRE-SOP MEETING W

FISCAL MONTH'S CLOSE:
Attendees:
Controller
Customer Service Manager
Demand Manager
Forecast Analyst

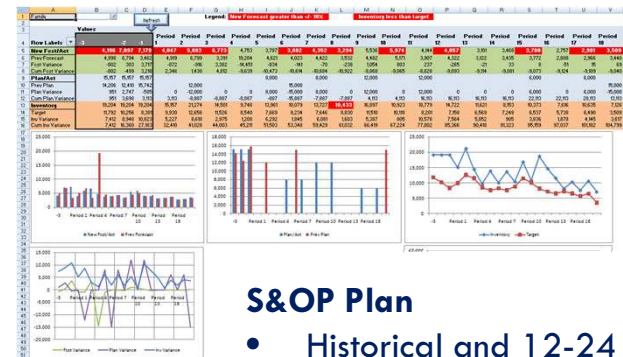
Actions include: development of recommendations for Executive long-term capacity constraints, service levels, market strategies, financial plans, current Budget and current Demand Plan identified for Executive S&OP.

Meeting Charter / Policy

- Defines meeting design
- Objectives
- Participants
- Typical agenda

Meeting Effectiveness

- Exception based
- S&OP best practices
- GAP management
- Preparedness
- Decisions
- KPI review
- Actions



S&OP Plan

- Historical and 12-24 month forward look
- Plan of record
- Volume and \$ versions

Date	18 June 2011	Time	
Facilitator		Scribe	
Subject	Pre-SOP Meeting		
Attendees			

Key Points Discussed		
No.	Topic	Highlights
1		
2		
3		
4		
5		
6		
7		
8		

Action Log

- Actions
- Accountabilities
- Dates
- Decisions

Action Plan	
No.	Action
1	
2	
3	
4	
5	

Balanced Scorecard for Sales and Operations Planning Measurement

Sales and Operations Planning

Was revenue target met?

Was gross profit margin achieved?

Was the information at the right level of detail?

Was the forecast reasonably accurate?

Did we make useful use of time?

Can we improve the S&OP process?

Target	Q1	Q2	Q3	Q4	YTD
Revenue to plan (\$)	100%	100%	100%	100%	100%
Gross profit to plan	100%	100%	100%	100%	100%
Forecasting Expenses to budget (\$)	100%	100%	100%	100%	100%

Supply

Manufacturing response to plan

Inventory value (\$) and turns

Supplier quality performance

Order lead periods (h)

Cycle times (days)

Inventory holding (inventory %)

Production plan vs. Actual (%)

Master schedule performance (%)

Master schedule stability (weeks)

Products

New product introduction on time

Cycle time to first customer order

Cycle time to full supply agreement

Order age/cycle time

Product development cost

Product development resources to cost

Target	Q1	Q2	Q3	Q4	YTD
New product introduction on time	100%	100%	100%	100%	100%
Cycle time to first customer order	100%	100%	100%	100%	100%
Cycle time to full supply agreement	100%	100%	100%	100%	100%
Order age/cycle time	100%	100%	100%	100%	100%
Product development cost	100%	100%	100%	100%	100%
Product development resources to cost	100%	100%	100%	100%	100%

Demand

Forecast on, Actual by customer, Actual by product

Forecast accuracy

Forecast variance

Reorder point

Lead time customer order

Materials

Market cost forecast

Market #1 market share

Market #2 market share

Competitive portfolio

KPI Scorecard

• Right KPIs meeting

KPI Scorecard

- Right KPIs in the right meeting at the right level reviewed by right people
- Baseline and targets

[illegible]

Exception Report

- Automatic detection of exceptions to plan
- Variance analysis measures
- Focuses discussion



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Pre-S&OP / GAP can be a challenging meeting

Challenges

- Lots of people
- Lots of business units
- Lots of data
- Lots of opportunity to get into details
- Lots of opportunity for a long meeting
- Lots of opportunity to lose people
- Potentially very expensive meeting

Consider Trying

- Deliver bad news before the meeting
- Get exceptions to the top of the agenda
- Invite only those who really need to be there
- Clearly defined meeting leader and owner
- Agenda



Technologies Supporting the S&OP Process

Key Questions

More time to build reports than to analyze them?

Product hierarchy required by type of meeting?

Single data repository with high integrity?

Systems assisted scenario modelling?

Automated KPI reports?

Exception reports?

Next Steps

Tool/database evaluation / development...

Short- longer-term options

Set the right expectations that match your IT capability

Integrate your roll-out with ability to automate generation of S&OP reports

