Integrated Business Management at DuPont

Optimize Sales and Operations Planning with In-Memory Computing

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DuPont

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IBU Chemicals
SAP
Integrated Business Management at DuPont (DIBM)

- This is DuPont
- What is DIBM?
- Evolution of “S&OP” in DuPont
- Enabling DIBM
- Enabling Integration
Our Purpose

DuPont is a science company. We work collaboratively to find sustainable, innovative, market-driven solutions to solve some of the world’s biggest challenges, making lives better, safer, and healthier for people everywhere.
We are applying our science to find solutions to some really BIG challenges…

**FOOD**
- FEEDING THE WORLD

**ENERGY**
- REDUCING OUR DEPENDENCE ON FOSSIL FUELS

**PROTECTION**
- KEEPING PEOPLE & THE ENVIRONMENT SAFE
DuPont’s 12 Businesses

- Pioneer Hi-Bred
- Crop Protection
- Nutrition & Health

- Protection Technologies
- Building Innovations
- Sustainable Solutions

- Electronics & Communications

- Performance Polymers
- Packaging & Industrial Polymers

- Titanium Technologies
- Chemicals & Fluoroproducts

- Industrial Bio Sciences
DuPont Global Integrated Operations – At a glance

Diverse Operations
- Seeds
- Discrete Parts
- Food Additives
- Industrial Biotech
- Film production
- Polymer Production
- Fiber production
- Consumer goods
- Electronic materials
- Continuous chemical process
- Fine and custom chemicals
- Fluorine Chemicals

<table>
<thead>
<tr>
<th>DuPont Integrated Operations Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Supply Chains</td>
</tr>
<tr>
<td>Plant sites</td>
</tr>
<tr>
<td>Warehouses</td>
</tr>
<tr>
<td>Shipping</td>
</tr>
<tr>
<td>Employees (approx.)</td>
</tr>
<tr>
<td>Countries</td>
</tr>
<tr>
<td>Contract operations</td>
</tr>
</tbody>
</table>
Improve Customer Experience

From ...
- Inconsistent delivery performance
- Difficulty meeting promises
- Significant churn and effort

To ...
- Reliable Supply
- Competitive Lead Times
- Differentiated service levels

Reduce Inventory

From ...
- High inventory
- Misaligned policies
- Non productive inventory

To ...
- Advantaged working capital productivity
- Aligned E2E performance
- Capital available to re-invest

Reduce Cost to Serve

From ...
- High complexity
- Manual interventions
- Numerous work around
- Significant expediting

To ...
- Automated, streamlined, rules based processes
- Reduced manufacturing costs
- Reduced expediting costs
5-Step Managing Process

DuPont Integrated Business Management’s 5-Step model is a formal process led by a business team, on a monthly basis, which evaluates aggregate plans for time-phased projections for product, demand, supply, and the resulting financials for the next 24+ months.

It’s a decision-enabling process that makes visible the alignment of the DIBM functional plans in all geographies and whether they are in support of the business’ strategy.

The DIBM process enables the key objective of reaching consensus on a single operating plan that allocates critical resources to most effectively and profitably meet customers’ needs.

Guiding Principles

- Business management ownership
- Speak the truth
- Rolling monthly planning
- One set of operating numbers
- Simplification – focus on change

Keys to Success

- Accountability and discipline
- Commitment and regular participation from executive staff
- Common goals across all participants

Benefits

- Streamlined performance
- Business process simplification
- Product plan execution
- Focus on the customer
- Planning vs. Firefighting
- Revenue, market share, margin, customer service & cash-flow
DIBM: Integration and Visibility

- **Integrated Reconciliation**
  - Make visible the possible business outcomes and implication:
    - Decisions to make
    - Gaps & gap closers
  - Alignment with Strategy

- **Supply Management**
  - Make visible the options for meeting the demand scenarios; and the consequences of each

- **Demand Management**
  - Drives proactive management by making visible the demand scenarios (as influenced by external & internal forces)

- **Product Management**
  - What are the 2-year ins & outs to the product line?

**DIBM IS A VISIBILITY MACHINE**
DIBM Strategic Initiative – Evolution of Focus and Capability

2007 - 2008
DIBM S&OP Foundation (PHASE 1)
- Strategy deployment via S&OP discipline
- Weekly/monthly cadence

2009
Working Capital Mega Projects
- Acceleration – resources & development
- >$1.5B WC productivity delivered

2010
Work Streams: Cash, Cost & Customer (PHASE 2)
- Product, Demand & Supply Management
- Strong content, global and regional delivery

2011 - 2013
Enable Growth & Improve Returns: Integrate & Optimize (PHASE 3)
- Deeper projects: Product, Demand & Supply together, with key functions
- Connects Strategy, Execution and People Development
- Improve Fixed Asset Productivity, DTP, Cash
<table>
<thead>
<tr>
<th>Before DIBM</th>
<th>Characteristics</th>
<th>After DIBM</th>
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</thead>
<tbody>
<tr>
<td>3 – 12 Months</td>
<td>Horizon</td>
<td>24-Month rolling</td>
</tr>
<tr>
<td>Next few months only</td>
<td>Focus</td>
<td>4+ Months</td>
</tr>
<tr>
<td>Weekly/quarterly</td>
<td>Frequency</td>
<td>Monthly, with weekly refresh when appropriate</td>
</tr>
<tr>
<td>SKU &amp; detail (units only)</td>
<td>Language</td>
<td>Segment/markets, families, regions, units, $</td>
</tr>
<tr>
<td>Production plan output</td>
<td>Outcomes</td>
<td>GAP closing strategies scenarios w/ action plans</td>
</tr>
<tr>
<td>Middle management</td>
<td>Involvement</td>
<td>Business leadership &amp; middle management</td>
</tr>
<tr>
<td>Execution &amp; short term</td>
<td>Decisions</td>
<td>Tactical &amp; strategic</td>
</tr>
<tr>
<td>Meeting to review numbers</td>
<td>Process</td>
<td>Integrated business functions and plan with strategy</td>
</tr>
</tbody>
</table>
Scenario Planning: Needs *Qualitatively Different* Cases

Typical low-med-high variations on a single case (forecasts & D&RA)

24 months

**Scenarios Are Fundamentally Different Cases, Not Variations on a Single Case**

*More about* sensitizing the business to possibilities enabling them to be more responsive to changing business conditions

*Less about* prediction

24 months
Enabling Integration in the Future

Strategy / Planning / Tactics / Execution

Overall business strategy
Annual financial goals
Long-term planning

BPC

DIBM
Mid-term planning

S&OP

Short-term tactics

APO/SCM7

Detailed execution

Strategy & Long Term Planning

1. Product Review
2. Demand Review
3. Supply Review

Latest View and Recommendation
Decisions and Direction

4. Integrated Reconciliation

5. Management Business Review

Supply, Sourcing & Logistics
Sales & Marketing
Portfolio Development
Optimize Sales and Operations Planning with In-Memory Computing

SAP Sales and Operations Planning
Powered by SAP HANA
Where S&OP Fits Across Enterprise Planning

Value
- Make strategy actionable
- Integrate tactical planning & execution
- Drive visibility and agility

S&OP

Strategic Planning

Sales Planning

Operational Planning

Financial Planning

Sales Forecast

Constrained Qty Plan

Short Term Plans

Scenario Plans

Constrained Revenue Margin Projections

Opportunities, Promotions

Finance Plan

Scenario Plans

Constrained Rev & Margin Projections

Strategic

Tactical/Execution

• Make strategy actionable
• Integrate tactical planning & execution
• Drive visibility and agility
Solution Architecture

SAP Sales and Operations Planning
Powered by SAP HANA™

Data Services
Out-of-the-box Integration
Web UI
sftp | https

SAP HANA®

S&OP Model & Engine
Dimensions
Attributes
Key Figures
Calculations
Scenarios
Simulation
Process Workflow
Alerts

Cloud-based

User Interface

Planning Views
(Excel)

Analytics
(Web/Mobile)

Social Collaboration
(Web/Mobile/Excel)

Administration
(Web)

Sales/Marketing
Demand Planning
Finance
Supply Chain
Executive

ERP
CRM
BPC
APO
BW
Any Other System
Excel
How S&OP on SAP HANA Drives Process Maturity

1. Reacting
   - Out of the box integration with APO and ECC
   - Familiar Excel Interface
   - Real Time Alerts on entire model

2. Anticipating
   - Real Time Demand and Supply-Constrained Model
   - Unlimited Simulation
   - Maintain details to synch with tactical planning

3. Collaborating
   - Social Collaboration and Process Dashboard
   - Real Time Cost & Inventory Projections
   - Advanced scalable scenario comparison

4. Orchestrating
   - Real Time gross and net profit per supply constraints
   - Financial Planning Integration
   - Intercompany Collaboration

Stage 4 is sometimes referred to as “IBP”
Thank You
Any Questions?

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