Implementing SAP Integrated Business Planning with any ERP platform

July 30, 2020
Today’s Speakers

Himanshu Garg
Head APAC
MSCG

Himanshu has designed and deployed SCM solutions for customers in New Zealand, Australia, Asia and North America. He has hands-on experience configuring solutions using SAP IBP, SAP APO, and SAP S/4HANA / ECC.

Himanshu has over 16 years of supply chain planning experience in multiple Industry Verticals including Dairy, Food & Beverage, Hi-Tech, Automotive etc.

Sandeep Mondkar
Delivery Partner
MSCG

Sandeep has also deployed SAP SCM solutions in New Zealand, Australia, and Asia. Sandeep has in-depth SAP product knowledge, specifically in planning & scheduling, S/4HANA, IBP, and SAP APO.

Sandeep has over 20 years of supply chain experience in a variety of Industry Verticals including Pulp and Paper, Food & Beverage, etc.

Sameer Rao
Director Supply Chain Solutions
MSCG

Sameer has helped customers in US, Canada, Europe and APAC get the maximum value of their investments through diagnostics, roadmaps, business process reengineering and solution deployment (planning, IBP and SAP APO).

Sameer has over 23 years of supply chain experience in a variety of Industry verticals including F & B, CPG, Energy, High Tech, etc.
Key Customer Benefits realized with SAP IBP

Sales & operations planning
Greater speed, agility, and accuracy of planning; Improved balance between demand and supply as markets change

Demand planning
Use powerful statistical and pattern-based recognition algorithms; Collaborate internally to include business effects on demand plans

Response and supply planning
Plan for internal distribution, production and purchasing to meet demand and inventory targets with what-if scenario analysis

Inventory Optimization
Use less inventory to buffer more risk, with multi-stage optimization considering late deliveries as well as other uncertainties in the supply chain

Faster planning cycles
React faster to changes in the business through complete integration
Session Objectives

- Integration Options, Use Cases and Recommendations
  - Present MSCG’s innovative SAP IBP deployment & integration options in an ERP agnostic platform.
  - Discuss typical challenges faced and conquered by integrating SAP IBP with non-SAP ERP or SAP (ECC or S/4HANA) solutions.

- IBP Success Stories and related Best Practices
  - Why IBP is a great solution for Digital Supply chain
  - Present 3 case studies to show how a combination of process optimization, tight integration, phased implementation approach, etc is key to success
Agenda

01 INTRODUCTIONS
MSCG snapshot & IBP USP

02 IBP INTEGRATION
Integration options, SAP and non-SAP solutions, challenges, best practices

03 PROVEN BENEFITS WITH SAP IBP
MSCG Customer case studies, phased approach, MSCG Jump$tarts

04 KEY TAKEAWAYS
Key takeaways

05 Q&A
Q&A and Wrap-up
MSCG Snapshot

Premier enterprise consulting firm offering Innovative solutions in Supply Chain Strategy, Business Processes and Applications Integration

- Founded in 2008
- Offices in Australia, US, Canada, Mexico, India
- 60+ clients
- 160+ Supply Chain Consultants

**Services Offered**
- Supply Chain Strategy & Roadmap
- Assessments & Diagnostics
- Process Re-engineering & Optimization
- Implementations & Rollouts
- Application Maintenance (AMS)

**Key SAP Solution Areas**
- Supply Chain Planning
  - SAP SCM - IBP & APO
  - S/4HANA PPDS, AATP
- Supply Chain Execution
  - S/4 embedded & core EWM, TM, YL
- Supply Chain Analytics with SAP BI / BW

**Industry Expertise**
- CPG, Food & Beverage, Wholesale Dist.
- Oil & Gas, Chemicals, AFS
- Life Sciences, Pharma, Bio Med
- Manufacturing, High Tech
- Aerospace & Defense

**Why MSCG?**
- Seasoned and Hands-on Leadership
- High Quality & Cost-effective Solutions
- Value Maximization & Risk Mitigation
- Industry Experts, Thought Leaders
- Best Practices Approach
## Agenda

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<td>Integration options, SAP and non-SAP solutions, challenges, best practices</td>
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<td>PROVEN BENEFITS WITH SAP IBP</td>
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Key Ingredients for a Successful IBP Implementation

- Seamless Integration
- Clean Data
- Phased Implementation Roadmap
- Optimized Business Processes
- Industry specific requirements
- Accelerated Solutions
IBP Integration use cases

- **ERP Integration** – Provide real-time information for better decision making and better collaboration across various business process

- **Inventory systems, MES** – Integrate with operations to provide insights for planned vs actuals and adjust assumptions for future planning (what-if’s)

- **Financials** – Integrate with financials for visibility of logistics, shipping revenue and help with better decisions.

- **Other systems (BI, CRM)** - provides access to historical data and analytics
SAP IBP Integration Scenarios

Case 1: Food & Beverage
- Products: Premium chocolates, confections
- Integration scenario: IBP, JDE, SQL
- IBP Modules – Multiple
- Supply chain:
  - 19,000 SKUs
  - 30 mfg. plants
  - 30,000 customers
  - 130 DCs/co-packers

Case 2: CPG
- Products: Outdoor Grills, Smokers, and Accessories
- Integration scenario: IBP, Microsoft, SQL
- IBP modules: Multiple
- Supply chain:
  - 50,000 SKUs
  - 4 mfg. plants
  - 1,700 customers
  - 850 vendors

Case 3: Discrete Products
- Products: Pulp, paper, wood products
- Integration scenario: IBP, SAP, Ross, SQL
- IBP Modules: Multiple
- Supply chain:
  - 700+ (config. materials/VC)
  - 4 mfg. plants
  - 450 customers
  - 19 DCs/9 ports

SAP IBP has several integration options to integrate with a variety of ERP solutions and it can easily handle large supply chain networks and data volumes
SAP IBP Integration Architecture

Time Series

SAP CPI-DS:
SAP Cloud Platform Integration for data services,
formerly known as:
SAP HANA Cloud Platform, integration service for data services (HDI-DS)
# SAP IBP Integration Options

<table>
<thead>
<tr>
<th>#</th>
<th>Source System</th>
<th>Time Series (CPI-DS)</th>
<th>Order Series (SDI)</th>
<th>Master Data (To IBP)</th>
<th>Back Integration (TS)</th>
<th>Back Integration (OS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JDE, Microsoft, ROSS, Oracle, DW-DB (Non-SAP)</td>
<td>Web services – API-ODATA, REST, RFC, flat files</td>
<td>File adapter</td>
<td>CPI-DS (Pull and Push)/SDI (Pull)</td>
<td>Web services, flat files</td>
<td>SDI, web services, RFC, files.</td>
</tr>
<tr>
<td>2</td>
<td>SAP- ECC, S/4HANA (On prem/cloud), SAP APO</td>
<td>Templates- for manual, standard extractors, CDS views, DDL-queries, function modules (RFCs), Info-cubes, web services</td>
<td>ABAP adapter, file adapter</td>
<td>CPI-DS (Pull and Push)/SDI (Pull)</td>
<td>Web services, function modules, files</td>
<td>SDI, web services, function modules, files.</td>
</tr>
<tr>
<td>3</td>
<td>Other cloud software (e.g. Salesforce)</td>
<td>SAP HCI Salesforce Adapter, Web services – API-ODATA, REST, RFC, flat files</td>
<td>File adapter</td>
<td>CPI-DS (Pull and Push)/SDI (Pull)</td>
<td>Web services, Function Modules, Files</td>
<td>SDI, web services, function modules, files.</td>
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## IBP Integration Challenges & Recommendations

<table>
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<tr>
<th>Considerations</th>
<th>Challenges</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td><strong>Data integration, mapping &amp; transformation</strong></td>
<td>• Disparate data structures – On-prem systems (JDE, Microsoft AX vs IBP systems) and cloud systems (i.e. Salesforce)</td>
<td>• Get a head-start with MSCG pre-defined templates for data mapping / integration of SAP IBP with non-SAP ERP system</td>
</tr>
</tbody>
</table>
| | • Master data – duplicate data, complex customer hierarchy, inconsistent material numbering. | • Build ETL capabilities in SQL (e.g. old to new numbering) for non-SAP source systems to resolve performance issues.  
• Data design for the end state of the roadmap and not just the current legacy solution. This will minimize throw-away’s in future. |
| **Advanced planning capabilities & process integration** | • Process specific data updates (i.e. Optimization parameters  
• Aligning transactional data records to the correct time buckets in IBP (time profile)  
• Back integration for finance, logistics etc.  
• IBP to ERP or other systems integration | • Build ETL capabilities in SQL to calculate and update the time profiles or other back integration mapping etc.  
• Define process/template to update the optimization data requirements in SQL etc, instead on directly updating these parameters in IBP. |
### IBP Integration Challenges & Recommendations (contd.)

<table>
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<tr>
<th>Considerations</th>
<th>Challenges</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think about planners,</td>
<td>• Exception management for large data volume processing</td>
<td>• Build error notification email system in CPI to alert users (based on roles)</td>
</tr>
<tr>
<td>user community</td>
<td>• CPI performance optimization &amp; data orchestration due to multiple source</td>
<td>• Build validation queries in SQL to check dependencies &amp; generate log/email</td>
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<td></td>
<td>systems and inter-dependencies between data objects and business process</td>
<td>notification for errors.</td>
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<td></td>
<td></td>
<td>• Build simple transformations in CPI that are easy to understand and maintain</td>
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<td></td>
<td></td>
<td>by business users</td>
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<tr>
<td></td>
<td></td>
<td>• Use standard methods i.e. ABAP queries, DDL, API’s for integration</td>
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<tr>
<td>Other recommendations</td>
<td>• Execute a day in the life to simulate a production day, process with the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>actual volume and executing end to end process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Define and implement interdependencies between systems/processes</td>
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**Key Integration Takeaways**

- **SAP IBP can easily integrate with a diversified IT landscape with minimal throwaway cost**

- **Build ETL capabilities in SQL. Use pre-defined mapping content/MSCG templates**

- **Build simple transformations that are simple, easy to understand**

- **SAP IBP is best of the breed advanced planning product**

- **Automated & integrated supply chains run more efficiently. Good integration provide real-time insights and full visibility into your data.**
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Key Ingredients for a Successful IBP Implementation

- Seamless Integration
- Clean Data
- Optimized Business Processes
- Industry specific requirements
- Phased Implementation Roadmap
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- Accelerated Solutions
IBP Demand, Supply, S&OP at a Leading Chocolatier

**BUSINESS CHALLENGES**

- Different Instances of JDE ERP by BU
- Lack of Responsiveness & Synchronicity
- Disconnected Top Down V/s Bottom Up Plans
- Long Planning Cycles & Manual Processes
- Very seasonal with capacity constraints requiring prebuild

**SOLUTION**

- Built an SAP IBP platform integrated to JDE ERP with 2-way integration
- Developed roadmap with multiple phases & different sequences of Crawl Walk Run rollouts by BUs
- Orchestrated S&OP Processes with Integrated planning, analytics & visualization leveraging innovative MCG solutions

**COMPANY AND INDUSTRY**

Chocolatier (CPG)

**REVENUE**

US$ 1.5+ Billion

**PRODUCTS**

Premium Chocolates, Confections & Candies

**Key Benefits**

- Reduced Variability across the Supply Network
- Greater Visibility & Velocity resulting in improved DIFOT
- Better & quicker decision support
- On time and on budget Go Live at multiple BUs
- Reduced working capital
IBP Demand, Supply, S&OP at a CPG Conglomerate

**Company and Industry**
- Consumer Products

**Revenue**
- US$ 1+ Billion

**Products**
- Outdoor Grills, Smokers, and Accessories

**Business Challenges**
- Multiple ERP Solutions: SAP, MS Dynamics GP / C5
- Misaligned business processes and priorities by region
- Lacked a formal S&OP process & supporting organization
- Planning not detailed enough and no internal / external collaboration
- Very seasonal with capacity constraints requiring prebuild

**Solution**
- Built an SAP IBP platform integrated to 3 ERPs with minimal throwaways with future S/4HANA upgrade
- Built and delivered a roadmap to address business process, organizational, and technical gaps
- Comprehensive collaborative demand, supply and production planning solution with innovative solutions built (e.g. hedging)

**Key Benefits**
- Increased forecast accuracy & alignment with sales & finance
- Provided strategic alignment across regions
- Procurement plans two months ahead of schedule
- 6 Go Lives (and counting) on time and on budget
- Reduced IT spend by leveraging common solution

**Velocity**
- Visibility
- Variability
IBP Demand & Supply at Leading Pulp & Paper

**BUSINESS CHALLENGES**

- Highly intensive effort to assess impacts of demand changes
- Missing visibility on customer shortages arising out of supply chain constraints
- Multiple systems and no integration of processes
- Manual process for variance comparison between forecasts and budget
- Missing ability to show forward looking, telescopic sales and operations plan

**SOLUTION – 100% remotely deployed in 24 weeks**

- 20 Master data types and 100 attributes driven by configurable materials mapping
- Custom planning levels to model production wheel
- Transportation plan/ freight forecast, forecast consumption at sales grade level/ customer group
- 380+ key figures to model the optimized supply planning, demand planning at aggregated level and transportation/ freight forecast, actuals

**KEY BENEFITS**

- 50% reduction in planning cycle times
- What-if capabilities enable ‘trust but verify’ concept
- Ability to plan and run the business at aggregate levels
- Ability to generate a container, transport forecast
- Global inventory projection by grade (FG material) Review plan in multiple UOM

**COMPANY AND INDUSTRY**

- **Mill Products**
- **Revenue** US$2 BN
- **Products** Cellulose acetate, ethers, pulp, paper, wood products
MSCG recommends a Phased Deployment Approach

Consider Business Vision & Pain Points while developing the Roadmap

Ability to spread the investment over multiple phases

Accelerated business benefits realization & value maximization

Better user adoption due to distributed learning curve

Find the sweet spot between “global template” and “solutions in silos”

Phased rollout is better from a change management and risk mitigation perspective
## MSCG IBP Jump$tarts

<table>
<thead>
<tr>
<th>Considerations</th>
<th>IBP Lite</th>
<th>IBP Plus</th>
<th>IBP Pro</th>
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</thead>
<tbody>
<tr>
<td>SAP IBP Application Scope</td>
<td>Single business process</td>
<td>Templatized IBP solution</td>
<td>Fully integrated IBP solution</td>
</tr>
<tr>
<td>Go Live in ...</td>
<td>&lt;90 days</td>
<td>90+ days</td>
<td>120+ days (Scope Dependent)</td>
</tr>
<tr>
<td>Integration</td>
<td>Flat file</td>
<td>Flat file</td>
<td>Automated System driven integration</td>
</tr>
<tr>
<td>MSCG templates</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Customization</td>
<td>No</td>
<td>Minimal</td>
<td>Moderate / Extensive</td>
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Q&A and Wrap-up
Key Takeaways

Integration of SAP IBP & any ERP solution

1. Non-SAP ERP backbone is not a showstopper for benefitting from SAP IBP solution
2. SAP IBP is an excellent platform for your Digital Supply Chain transformation
3. Automated Integration of SAP IBP with ERP solution is one of the keys to success
4. MSCG templates for master & transaction data mapping reduce risks in integration
5. MSCG leads in the integration of SAP IBP with SAP as well as non-SAP platforms

Process & Program Recommendation

1. Implement in a phased manner with an eye on business priorities
2. Focus on 5Ps: People, Processes, Platform, Policies & Practices, Performance (KPIs)
3. Clean master data and transaction data is critical - MSCG has smart queries to facilitate this
4. MSCG incorporates cross-industry key innovations & best practices in all its engagements
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