SAP Integrated Business Planning (IBP) Introduction Series

Business Network Collaboration and Alerts for SAP IBP

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January, 2019
# SAP Integrated Business Planning (IBP) Introduction Series

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Agenda

- Why do we need a Control Tower?
- Business Network Collaboration with SAP IBP and Ariba SCC
- Handling Alerts and Cases effectively
- Q&A
Why do we need a Control Tower?
Control Tower - What is the challenge?

• How can I manage what I can not see?
• How do I project what my KPI levels will be by the end of the year?
• What are the fundamental drivers or causes of my performance?
• Where in my supply chain am I likely to face future problems?
SAP Supply Chain Control Tower

- Increase end-to-end Planning visibility across your extended network
- Improve supply chain performance by managing Key Performance Indicators
- Manage exceptions with automated alerts, root cause analysis and resolution
- Increase supply chain agility and reduce supply chain cost

SAP S/4HANA

- Production Planning
- Available to Promise
- MRP

Response & Supply

Sales & Operations Planning

Inventory

Demand

Plan

Supply Chain Control Tower

Supply Chain Collaboration

SAP Ariba
SAP Supply Chain Control Tower – Key Capabilities

• Global transparency over your Supply Chain

• Business Network Collaboration

• Sophisticated alert management

• Case management
Supply Chain Control Tower integrates performance data from multiple systems*

* Multiple Systems can be connected to IBP. This requires additional work in implementation projects. Effort depends on customer scenario.
Business Network Collaboration with SAP IBP and Ariba SCC
SAP IBP + SAP S/4 HANA and Ariba Supply Chain Collaboration (SCC)

“The Power of And”: Jointly position SAP IBP and Ariba SCC

- Reduce the latency of planning / re-planning
- Improve planning accuracy by collaborating with your suppliers and gaining visibility to supplier inventory and capacity
- Reduce cost and improve accuracy of procurement execution
Sharing planning information between SAP IBP and your network of suppliers +

Executing the planning results via the same platform allows to significantly improve your and your suppliers' capacity utilization and working capital!
Manage Data Sharing plans:
An agreement between business partners that governs what data is shared, with whom and how, for example

- What information is shared with external partners?
- Which partners taking part in the collaboration process?
- How is the information shared?
IBP – Business Network Collaboration – supplier commit with SAP Ariba

Process flow

- **Demand Planning**
  - Global Demand Plan
- **Demand Sensing**
  - Sensed Demand
- **Copy Initial Stock and Unconstrained Forecast**
  - Unconstrained Forecast
- **Generate Component Forecast**
  - Component Forecast
- **Review & Release Component Forecast**
  - Component Forecast
- **Check Alerts**
  - Supplier Committed Forecast
- **Analyze Supplier Committed Forecast**
  - Supplier Committed Forecast
- **Publish Supplier Commits**
  - Supplier Committed Forecast
- **Supply and Allocations Planning**
  - Supply Proposals, ProductAllocations

**SAP IBP Process Steps**

**SAP Ariba Process Steps**

**SAP IBP Process**

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Additional Custom Key Figures for Suppliers and Buyers

10 SAP Ariba custom quantity key figures for Suppliers
- Ariba Key Figure 01 Quantity
- Ariba Key Figure 02 Quantity
- ...

Data flow: IBP to Ariba SCC

SAP IBP: Consumer Data Sharing Plan

10 SAP Ariba custom quantity key figures for Buyers
- Ariba Key Figure 01 Quantity
- Ariba Key Figure 02 Quantity
- ...

Data flow: Ariba SCC to IBP

SAP IBP: Provider Data Sharing Plan
Message Monitoring

Inbound and outbound messages can be monitored with the **Message Dashboard** App

- **Key features:**
  - See general status of interfaces
  - Check message status over time
  - Navigate to the monitoring and error handling to analyze the log messages in detail
  - Create custom hints or message texts for certain log messages
  - Cancel or restart data messages
Analyze Shared Data Using the Excel add-in

Example of history key figures:

**Supplier Forecast (History)**

**Supplier Commit (History)**

<table>
<thead>
<tr>
<th>Supplier Description</th>
<th>Product Description</th>
<th>Shipment Description</th>
<th>Change in Technical Week</th>
<th>Change On</th>
<th>Key Figure</th>
<th>TW 16</th>
<th>TW 17</th>
<th>TW 18</th>
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<td>Component 1</td>
<td>Plant 01</td>
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<td></td>
<td>Supplier Forecast (History)</td>
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**Forecast_Cond—it Waterfall**

User: Ralph Heinrich | Planning Area: 22
Solution demo - BNC
Supply Chain Network Used in Demo

- DC101
- Plant 101
- DC102
- Plant 102
- Supplier 101
- Supplier 102
- Customer 101
- Customer 102
- Product 1, Product 2
- Resource 1, Resource 2
- Component 1, Component 2, Component 3

Business Partner: My Company

Business Partner: Customer 101

Business Partner: Customer 102

Business Partner: Supplier 101

Business Partner: Supplier 102
Benefits

• Gain Visibility beyond the four walls

• Reduce supply chain costs by easing Collaboration and avoiding costly fire-fighting

• Improve customer service through responsive Supply Chain Planning via the Network
Leverage sophisticated Alert and Case Management
Custom Alerts Overviews

- **Define Custom Alerts Overview** allows clustering of alerts.
- Alerts can be viewed by subscription, priority, category or by any attribute of the alert.
- Alert overviews can be added to dashboards.
Adding a Custom Alerts Overview to the dashboard

You can add Custom alert overview to the dashboard by two different ways:

1. Select the alert overviews you want to add to the dashboard and click on “Add to Dashboard”.

2. From the Dashboard, click on Add Analytics Objects and choose Alerts Overviews. Select the ones you want to add to your dashboard.
Viewing the actual alerts of a Custom Alerts Overview

In this version, the only way to see the actual alerts generated by the Custom Alert Overview is to add it to a dashboard and navigate from there to the Monitor custom alerts app.
Quickly Identify Issues With Customer Alerts Providing Context and Priority

Understand the situation, impact on customers and analyze end-to-end materials and flow in the context of the alert
Dynamic navigation IBP

Depending on the data points, the Navigate To button will display the appropriate system where to navigate to.

Depending on the data points, the appropriate system will open with the transaction and the screen fields will be pre-filled depending on the mapping that has been maintained.
IBP Custom Alerts are based on static rules. This works fine if the threshold for the exception condition is known and the data is generally consistent.

If the data is variable and changes to the pattern occur, the static rules may lead to too many or too few alerts which either keeps planners busy or leaves them clueless.

Parameters can be set to get "healthy" amount of alerts

Machine Learning adjusts with changing data patterns

Users can either use ML alert definitions on their own or put them on top of existing alerts
Use Case: Outlier Detection in Custom Alerts
Target Business Role: Supply Chain Planner

BUSINESS VALUE

- **Frees up planner’s capacity** as excessive number of alerts can be avoided.
- Planners can set up alerts without a need to know the exact thresholds in advance.
- **Changing data** will change the alert detection without a need for the planner to adjust the alert definition.
- Define very tailored and target-oriented alerts by combining Machine Learning based dynamic rule with static rules.

MACHINE LEARNING APPROACH

- Leverages out of the box available standard algorithms within the SAP HANA PAL Library: **K-means & DBSCAN**
- Machine Learning adjusts with changing data patterns.
- Alert rules can use a combination of ML-based determination and finite thresholds.

[DBSCAN](https://en.wikipedia.org/wiki/DBSCAN)

[K-Means](https://www.youtube.com/watch?v=_aWzGGNrcic)
In this example, we created an alert overview that shows two subscriptions of two different alert definitions.

One definition is using machine learning algorithm to find outliers. It finds 25 alerts.

The second alert definition is using standard rules without ML. It returns 128 alerts.
Machine learning – manual adjustment of algorithm parameters

- There is an option whether you want to expose the parameters to the user or you want the system to set them up with default values

- If you choose the manual option, the DBSCAN algorithm parameters are exposed and the user can overwrite the default values such as Attribute Clustering Method, Scan Radius, Distance method
Benefits

- Planners can set up alerts without a need to know the **exacts thresholds** in advance.

- The amount of alerts can be either reduced or increased to have **meaningful insights**

- **Changing data** will change the alert detection without a need for the planner to adjust the alert definition.
Case Management
to collect information and track the issue

- Create cases to collect information around a specific situation
- Attach comments
- Assign colleagues
- Add alerts to cases to quickly and efficiently resolve the issue
Example: Management by Exception combined with Case Management
Define Alerts and Manage Resolution

**Custom Alerts**

- Forecast Bias on product level above threshold
- Forecast Accuracy on product group level below target
- Planned Promotion Uplift is bigger than 50% of baseline demand
- ...

**Case Management**

- Specify what steps for correction are needed
- Specify person/people responsible
- Specify deadline to implement corrections

NA Sales Team Update
APJ Sales Team Update
Global Demand Planner Update
Case Solved

Additional licensing may apply
Summary – Why SAP Supply Chain Control Tower?

Deliver supply chain performance by monitoring, measuring, and responding to supply chain alerts and metrics in near real time

Business Benefits

- Increase on-time delivery performance to customer
- Decrease overall inventory levels while reducing risk
- Reduce supply chain cost
- Increase supply chain agility
Easy to Learn More about SAP IBP

- SAP Integrated Business Planning Overview [Video]
- SAP IBP on [www.sap.com/scm](http://www.sap.com/scm)
- SAP Integrated Business Planning Community
- SAP Integrated Business Planning Online Help and Documentation
- SAP Integrated Business Planning – Functionality and Implementation
- SAP IBP Roadmap via Chrome browser
- Integrated Business Planning – Leverage SAP Technology

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Q & A
Thank you.

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