



Tout sur SAP S/4HANA

Les outils et les services pour vous accompagner

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Programme.

Fév 2020 :	Pourquoi aller vers SAP S/4HANA ?
Mar 2020 :	De l'importance de la donnée
Avr 2020 :	Les outils et les services pour vous accompagner
Mai 2020 :	De l'importance des analytics
Juin 2020 :	Les apports pour la finance (1/2)
Juil 2020 :	Les apports pour les opérations (1/2)
Sept 2020 :	Les solutions partenaires pour accélérer et sécuriser vos projets
Sept 2020 :	Les apports pour la finance (2/2)
Oct 2020 :	Les apports pour les opérations (2/2)
Nov 2020 :	Les nouveautés de la version 2020
Nov 2020 :	Retour client (1/2)
Dec 2020 :	Retour client (2/2)



Planification

Overview

Integrated Business planning

pMRP

DDMRP

Order monitoring in S/4HANA

Scheduling



SAP S/4HANA : what is different to SAP ERP ?

PROCUREMENT	SALES	SUPPLY CHAIN	MANUFACTURING	R&D
Procurement Overview Central Procurement* Contract proposals* Prop. groups & cat. items* Image based buying** Int. Approval Workflow** 	Customer 360° Sales Force Support** Settlement Mgmt. International Trade One Single Invoice Predictive Q2Order & Delivery Performance* 	Real-time Inventory & TM Overview Embedded EWM Embedded TM Advanced ATP Pred. Stock in Transit* Pred. slow moving mat.** 	MRP live & MRP Cockpit Det. Scheduling PPDS DDMRP* Prod Engineering & Ops Predictive MRP** QM Defect code prop.** 	Portfolio & Proj. Mgmt. Software Mgmt. Product Compliance* Recipe Management* New VC Engine w. Simul.
FINANCE	SERVICE	ASSET MGMT.	CROSS	INDUSTRIES
U-GL & Prediction* BRIM, incl Order Mgmt.** Orch. Financial Close** Group Reporting* Compliance Framework Cash App* GR/IR Monitor* Abnormal Liquidity**	New Customer Mgmt., Embed. Service Core** Multi-Channel Interaction Center Quotation of Product Bundles* Service Ticket Automation** 	Maintenance Overview* Geographical Framework Report & Repair Malfunction Asset Mgmt. for resource scheduling 	Enterprise Contract Mgmt. GDPR Tools Responsibility Mgmt.* Co-Pilot/ Digital Assistant RPA scenarios** Additional ML scenarios* 	Key Industry function embedded inside (e.g. Automotive, Consumer, Retail*, Mill, Prof. Services: Commercial Project Mgmt....) Re-architecture & improved functions (e.g. Chemicals, A&D, Oil Gas, Utilities**...) <i>Details & restrictions...</i>

Predicted delivery delay



Machine Learning

Will the outbound delivery be delayed?

What to do to prevent the delay?

- Fulfilling a customer's demand to the requested delivery time is essential.
- Sales clerks want to identify critical order fulfillment issues, their root causes and proactively prevent such issues.



Order Entry

Order Clarification

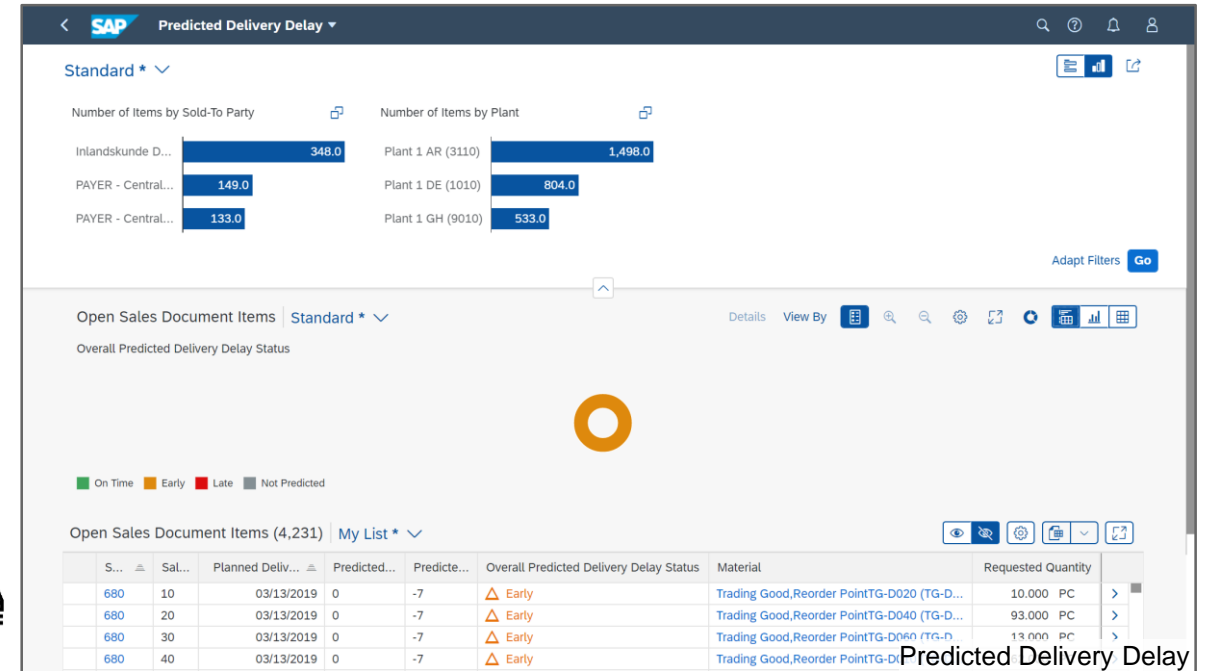
- Incompletions
- Credit block
- Delivery block
- Payment block
- Unconfirmed quantity

Pre-delivery activities

- Purchasing
- Manufacturing
- Ship from stock

Outbound delivery

Warehousing, Shipping, Goods Issue



Predicted Delivery Delay Fiori App allows **Sales Manager & Internal Sales Representative** to proactively

- Monitor how likely a sales order item is to be delayed with two KPIs: (1) predicted delay for creation of outbound delivery; (2) predicted delay for creation of goods issue
- Take appropriate actions to avoid the delay



Predicted Delivery Delay

Confirmed Items of Next Week *

Number of Items by Sold-To Party

Inlandskunde D...	247.0
TechTronic Inc. (...)	115.0
Computer Systeme...	102.0

Number of Items by Plant | K

Plant 1 DE (1010)	1.2
Plant 1 NO (4410)	1.0
Plant 1 RU (1610)	1.0

Adapt Filters (2)

Open Sales Document Items | Standard

Total Predicted Delivery Delay Status

■ Late ■ On Time ■ Early

Open Sales Document Items (133) | My List

Sales Document	Sa...	Planned Delivery ...	Predicted Delay of Delivery Creation	Total Pr...	Material	Requested Quantity	Cumul.Confirmed ...	Sold-To Party
2707	10	06/21/2018	61	Late	Trading Good,Reorder PointTG-D12 (TG-D12)	62.000 PC	62.000 PC	ALPHA Center (RU) (S161032...)
16103	10	06/22/2018	0	On Time	Trad.Good 12,Reorder Point,Reg.Trad. (TG12)	2,000.000 PC	2,000.000 PC	Inlandskunde DE 1 (10100001)
16208	10	08/06/2018	20	Late	Trading Good,Reorder PointTG-D040 (TG-D...	8.000 PC	8.000 PC	Computer Services (NO) (S44...
16502	10	06/05/2018	43	Late	Trad.Good 12,Reorder Point,Reg.Trad. (TG12)	1.000 PC	1.000 PC	Computer Systems (DE) (S10...
16807	10	06/13/2018	20	Late	Trad.Good 12,Reorder Point,Reg.Trad. (TG12)	10.000 PC	10.000 PC	Domestic Customer IN 1 (181...
18805	10	06/06/2018	23	Late	Trad.Good 11,PD,Reg.Trading (TG11)	12.000 PC	12.000 PC	Inlandskunde DE 1 (10100001)
19107	10	06/12/2018	42	Late	SD BOM Header ERLA (SDBOMERLAHD)	3.000 PC	3.000 PC	Supplier/Customer for Intrastr...

Key innovations do not reflect licensing

Predicted Sales Quotation to Order Conversion Rate



Machine Learning

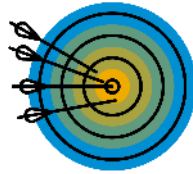
How close are my important sales opportunities?



Customer engagement



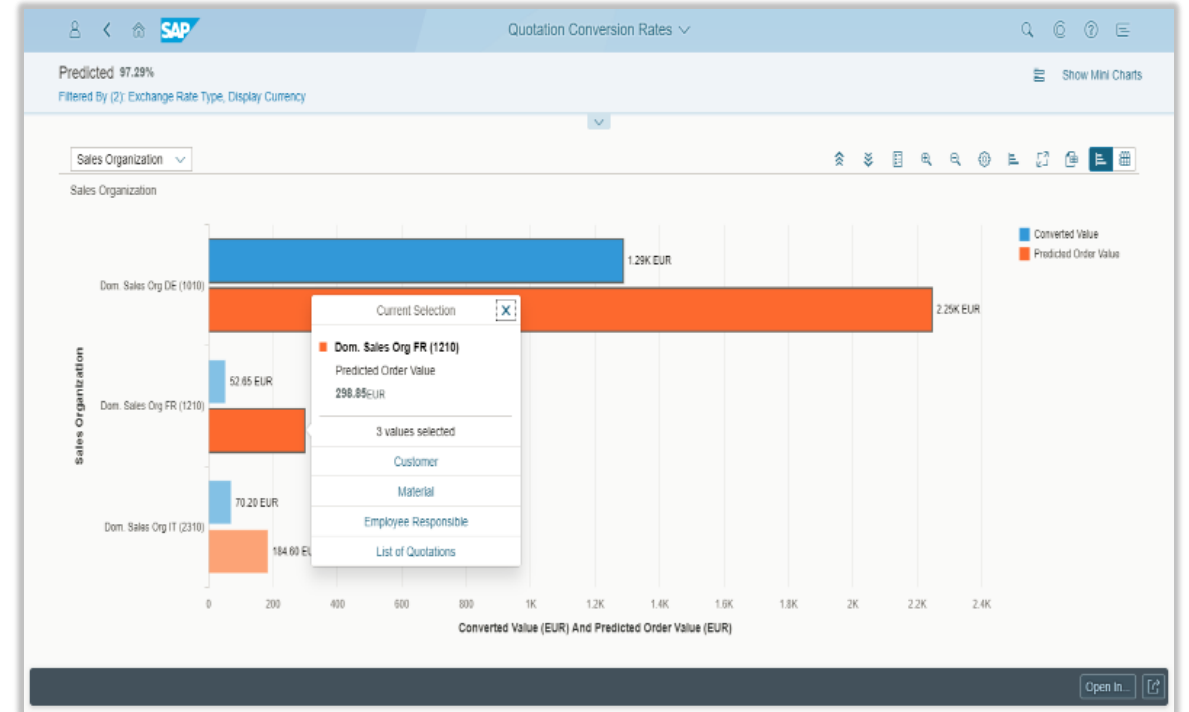
Sales Quotation



Targeted sales activities



Sales Order





Discrepancies between customer-expected price and actual price

SAP Manage Sales Documents with Customer-Expected Price

Standard * ▾

Search Sales Organization: Distribution Channel: Sold-To Party: Material: Customer Reference: Created On:

Adapt Filters (1)

Sales Documents (3) Show Contacts Accept Customer Price Decline Customer Price Reject Item

Sales Document	Item	Sold-To Party	Material	Cust.-Expected Price	Cust.-Expected Value	Cust. Price Unit	Net Price	Net Price Unit	Order Quantity
<input type="radio"/> 13082	10	Inlandskunde DE 1 (10100001)	Trad.Good 12,Reorder Point,Reg.Trad. (TG12)	10.00 EUR	0.00 EUR	1 PC	17.55 EUR	1 PC	1.000 PC >
Net Value: 17.55 EUR Condition Type: Cust.-Expected Price (PCE1)									
<input type="radio"/> 13083	10	Inlandskunde DE 1 (10100001)	Trad.Good 12,Reorder Point,Reg.Trad. (TG12)	10.00 EUR	0.00 EUR	1 PC	17.55 EUR	1 PC	1.000 PC >
Net Value: 17.55 EUR Condition Type: Cust.-Expected Price (PCE1)									
<input type="radio"/> 13087	10	Inlandskunde DE 2 (10100002)	Trad.Good 12,Reorder Point,Reg.Trad. (TG12)	1.00 EUR	0.00 EUR	1 PC	17.55 EUR	1 PC	1.000 PC >
Net Value: 17.55 EUR Condition Type: Cust.-Expected Price (PCE1)									

Key innovations do not reflect licensing

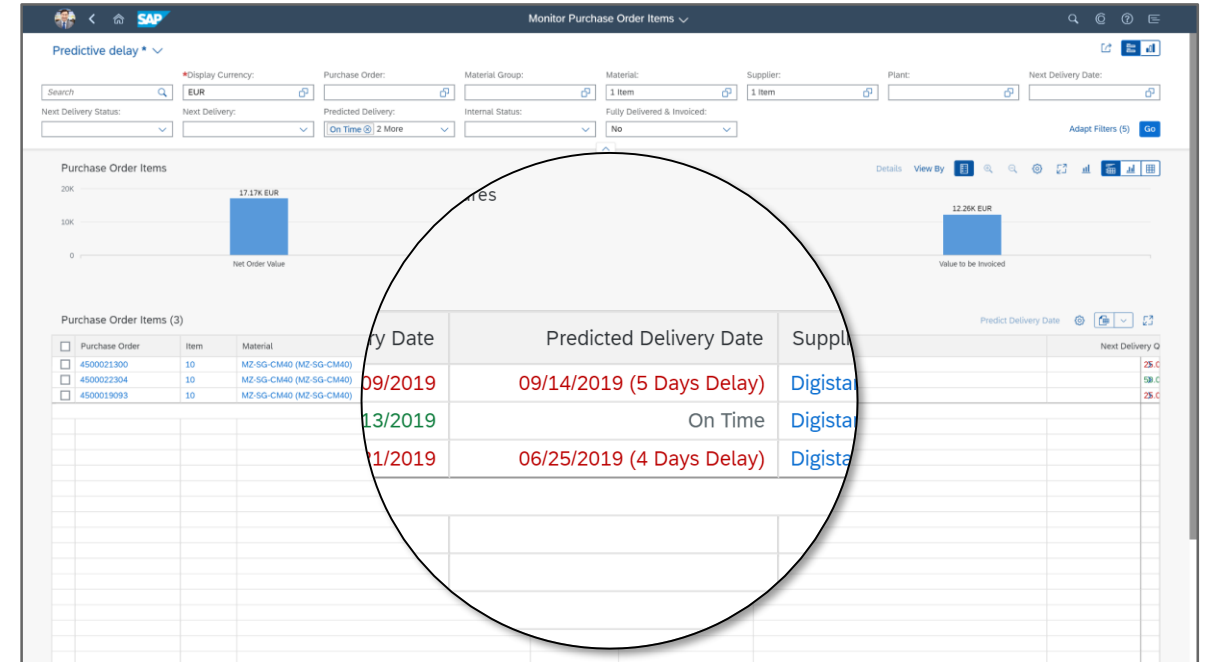
Supplier Delivery Prediction



Machine Learning

Will the supplier deliver the ordered item in time as requested?

- Support procurement professionals with accumulated historical data
- Predict if the ordered item is likely to arrive on time or not



Historical Transactions



Predict Likely Delivery Date



Monitor Purchase Orders

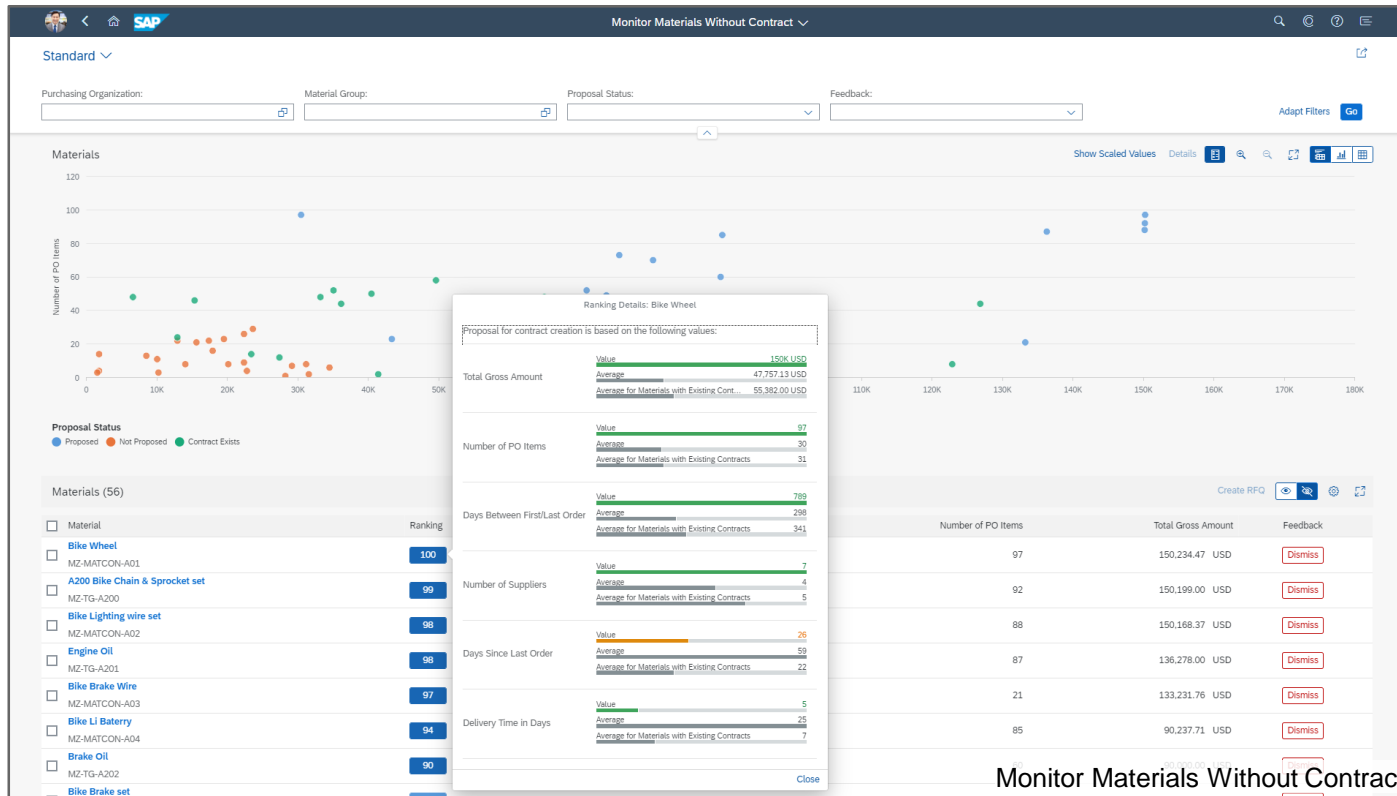
SAP proposal of options for materials without a purchase contract



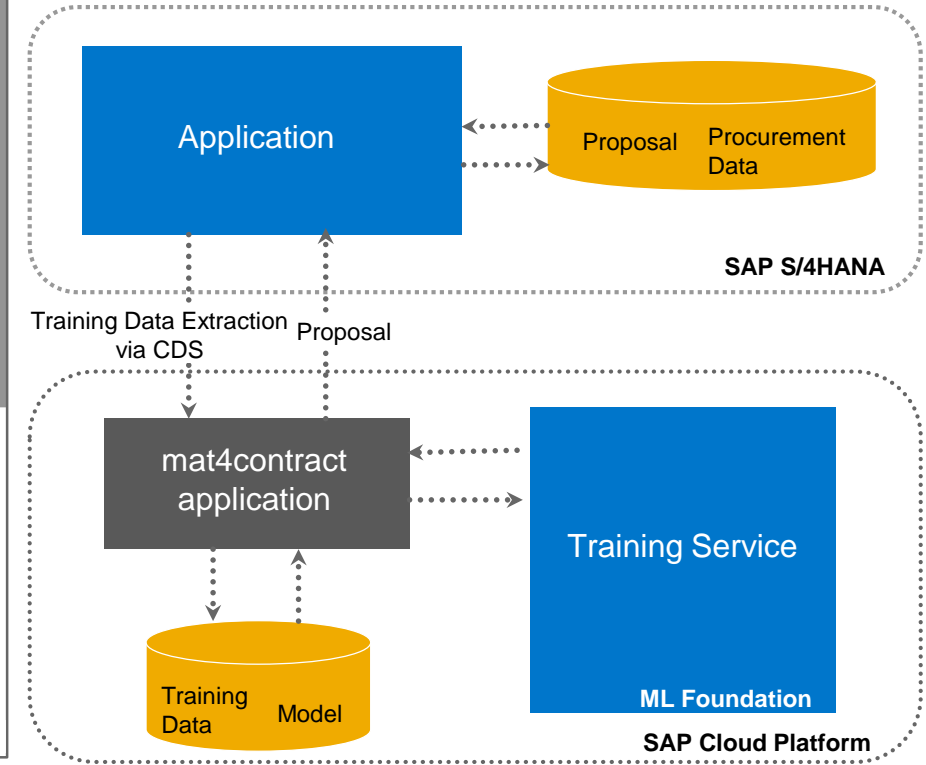
Machine Learning

How can I reduce non-managed spend?

Augmented Decision-making For Purchasing**



High-level architecture



ML-based Automatic Data Analysis**
e.g. materials without contracts

Human Decision

SAP Ariba Sourcing**

SAP Ariba Award**

Operational Contract

Contract Monitoring

SAP Propose Material Group for Free-Text Items

Augmented Decision-making For Purchasing**



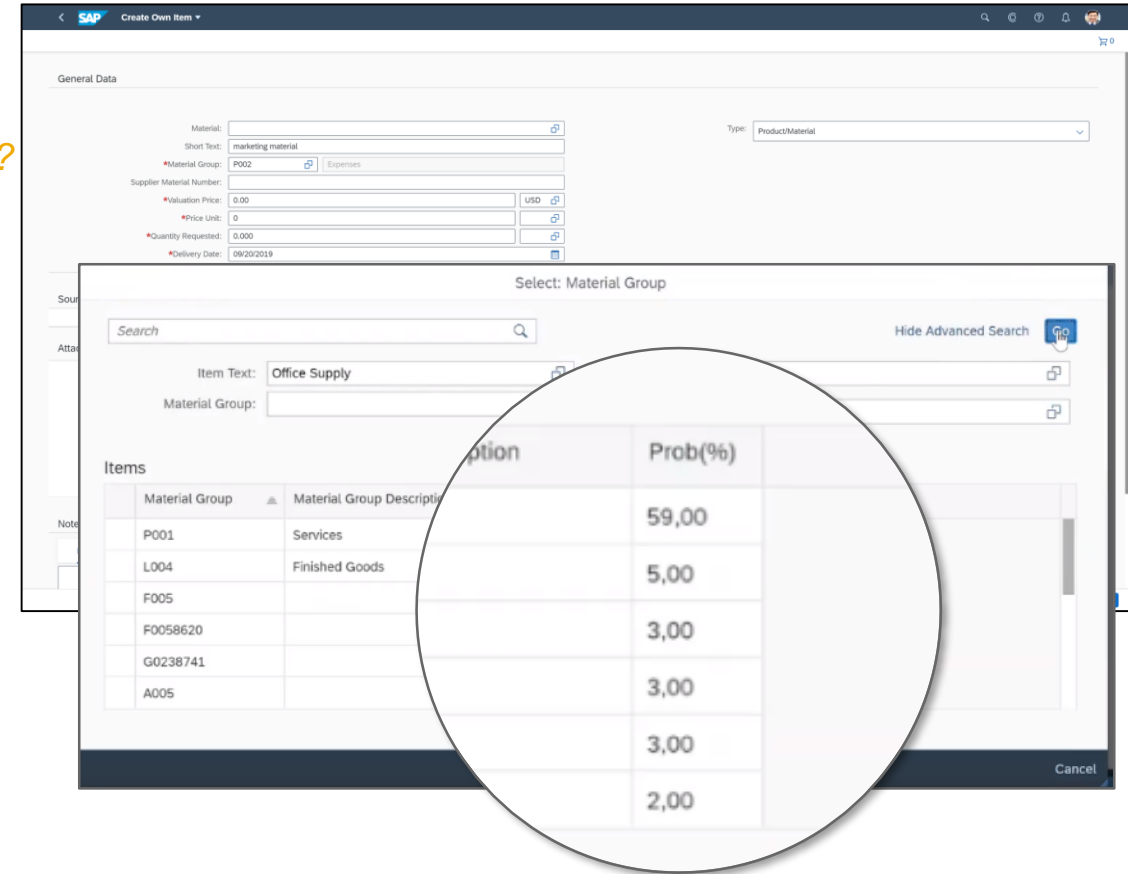
Machine Learning

Which material group do I need for this free-text item?

Can the system help to follow the corporate purchasing policy?

Augmented Decision-making For Purchasing**

- Choosing the correct material group is critical when creating a free-text item to be compliant with a corporate purchasing policy
- You often end up putting sticky notes next to the PC monitor for the most frequently used material groups



You can let the system propose a material group appropriate for the free-text item you are creating based on the historical data within your organization – no more sticky notes.



Purchase Requisition



Approval



Purchase Order

SAP Propose Creation of New Catalog Items

Augmented Decision-making For Purchasing**

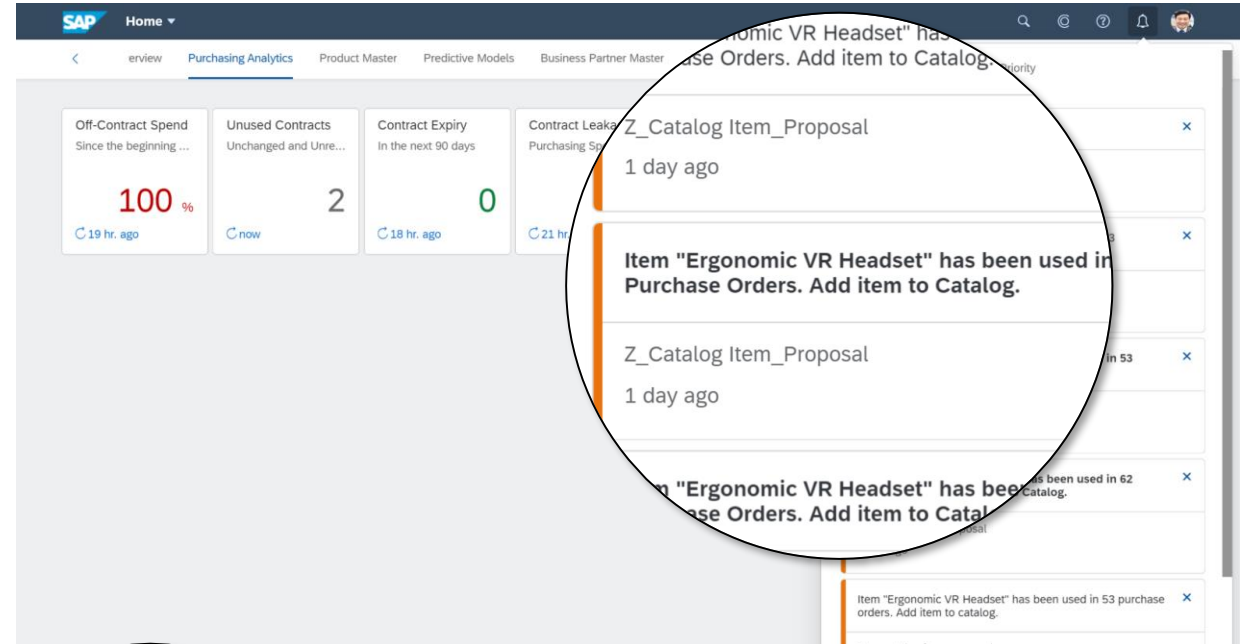


Machine Learning

Which items are frequently purchased as free-text items?

Which items should be considered for the corporate procurement catalogs?

- Free-text purchasing items from end users require buyers' manual intervention
- To maximize automation in the purchasing process, coverage of frequently purchasing items by corporate procurement catalogs is important consideration



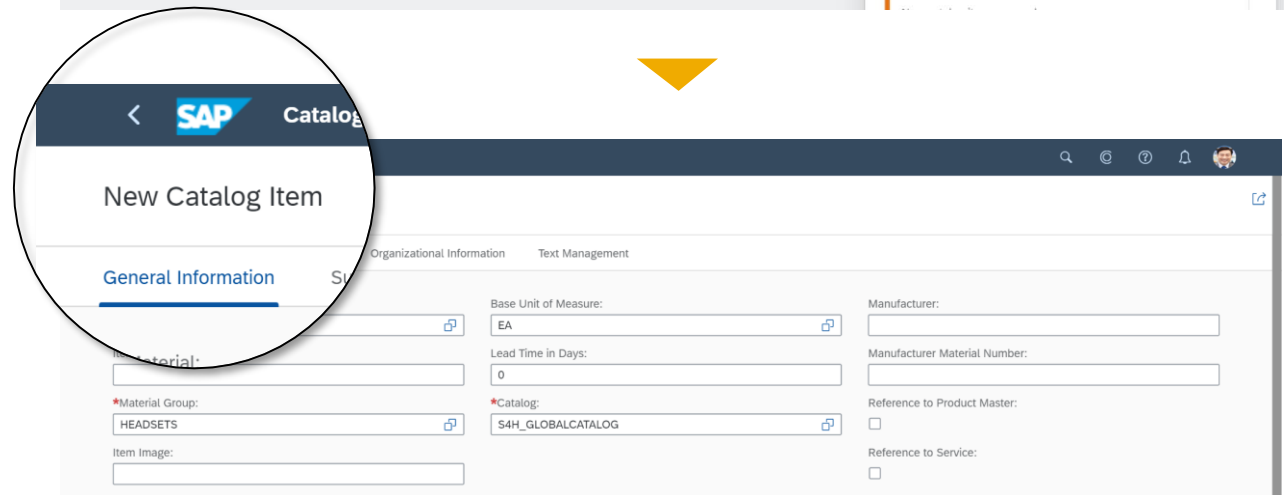
Historical Transactions



Proposal as Notification



Procurement Catalog Update

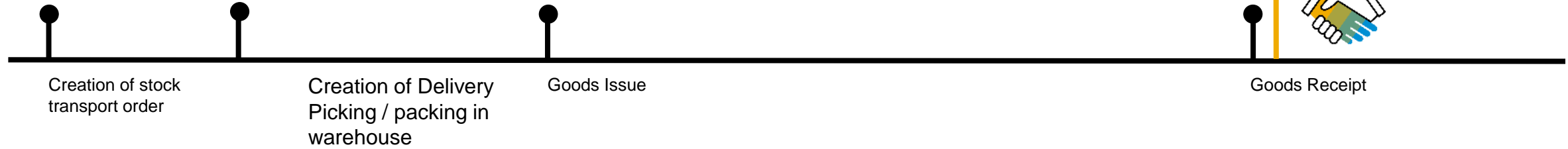


Stock in Transit: How does it work



Machine Learning

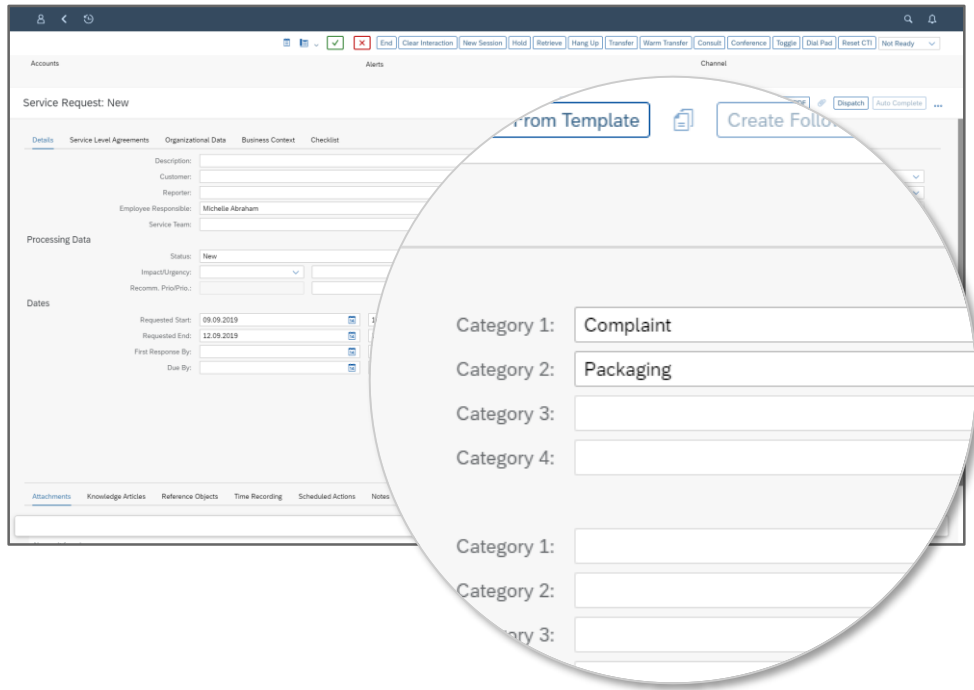
When will my Stock Transports be delivered?



Shipping Duration	Predicted Delivery Date	Delivery Status	Purchase Order	Purchase Order Item	Purchase Order Quantity	Material	Receiving Plant
4D	07/30/2017	Open	4100000001	10	10.000 PC	Trading Good (TG0001)	Plant 1 DE FIO (FIO2)
4D	07/29/2017	Completed	4100000002	10	10.000 PC	Trading Good (TG0001)	Plant 1 DE FIO (FIO2)
6D	07/30/2017	Open	4100000003	10	10.000 PC	Trading Good (TG0001)	Plant 1 DE FIO (FIO2)
4D	07/25/2017	Open	4100000004	10	10.000 PC	Trading Good (TG0001)	Plant 1 DE FIO (FIO2)
8D	07/30/2017	Completed	4100000005	10	10.000 PC	Trading Good (TG0001)	Plant 1 DE FIO (FIO2)

Machine Learning Scenario: SAP Service Ticket Intelligence**

For Automated Email and Service Request Category Mapping



What is it?

- Categorize incoming emails or service requests based on applying deep learning neural network techniques to historical datasets by converting text descriptions to category proposals

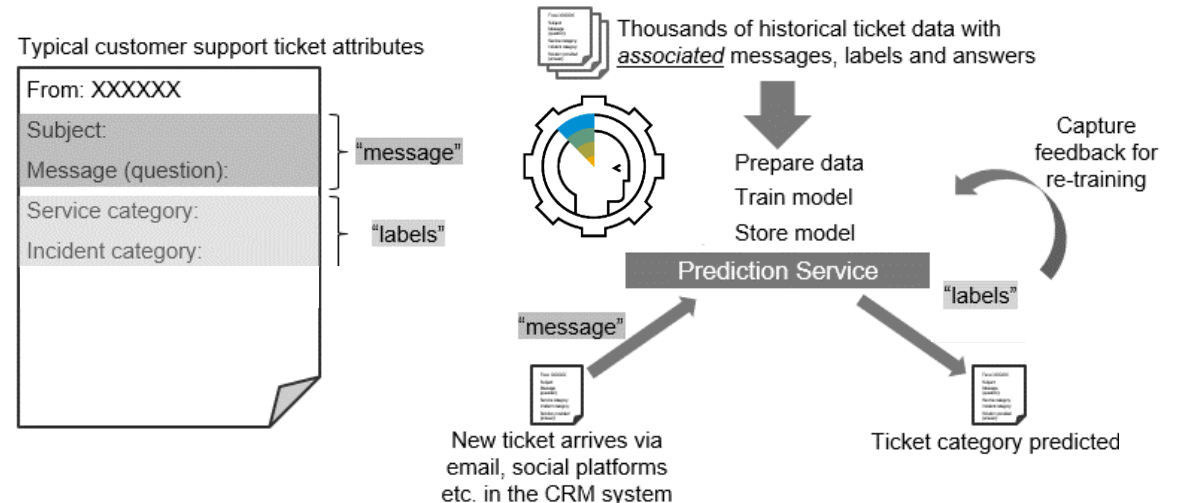
Business Problem

- Service agents spend a large amount of time to manually classify emails and service tickets
- No reference to best practices/accuracy based on historical data sets
- Poor automation

Key benefits

- Increase in agent productivity
- Better prioritization of incoming tickets
- Fast automatic classification, routing, template determination

How does it work?



- SAP Note 2506240 - CRM ERMS: Machine Learning approach for ERMS email content analysis
- SAP Note 2673363 - Automatic classification of service requests
- SAP Note 2646975 - CRM - Automated training data upload for an STI ML model

Image-Based Buying

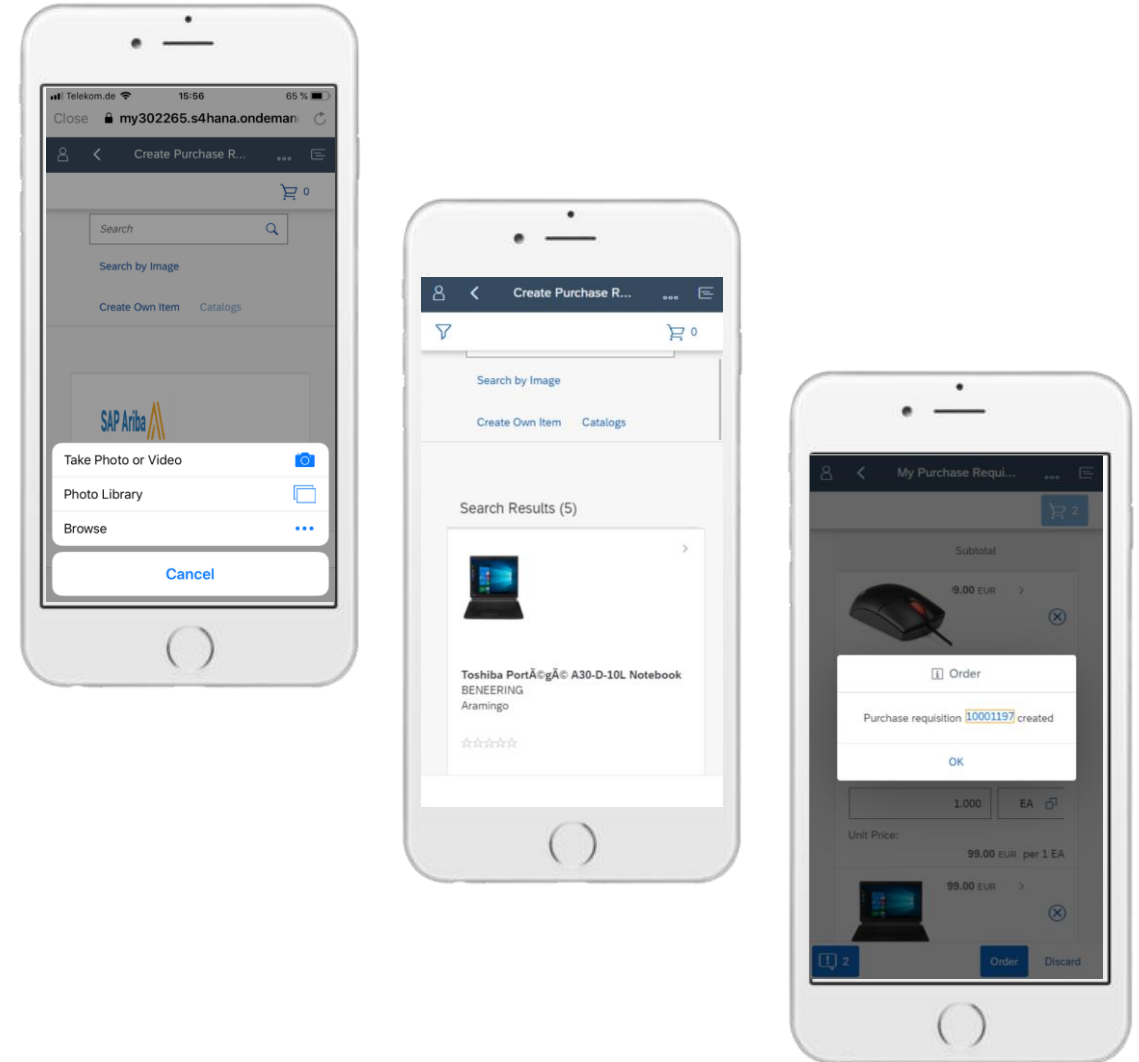
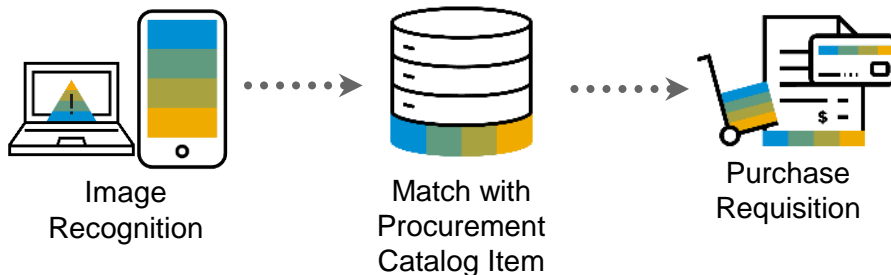


Machine Learning

I have "this" in front of me, and order it again from the corporate catalog. Can I get the machine to recognize it for me?

Augmented Decision-making For Purchasing**

- Ease the process of creating a purchase request by getting the machine to recognize the item by camera or photo
- Match the image with a picture of catalog item to order it



Intelligent Approval



Machine Learning

Which requests for approval should I spend time to carefully review?

Augmented Decision-making For Purchasing**

- Assist managers sift through requests for approvals
- Use historical data to automatically “tag” incoming requests for approval

Approved PRs with Same Material:	97.8%
Approved PRs with Same Creation Indicator:	98.4%
Approved PRs with Same Account Assignment Category:	98.4%
Approved PRs with Similar Net Value Range Per Item:	77.7%
Approved PRs with Similar Net Value Range for S:	77.7%



Purchase Requisition



Approval



Purchase Order

SALES ORDER WORKFLOW

Team Information Responsibility Definitions **Team Owners** Team Members Change Documents

Team Owners

Business Partner	Full Name
9980000048	John BpcExpert

Team Members

Business Partner	Full Name
9980000098	John InternalSalesRep
9980000162	John SalesManager

Change Documents

Change Documents (1) | Standard * ▾

Field	New Value	Old Value
Team Status	Ready to Use	Not Ready to Use

SAP Home ▾

My Home Sales Planning Sales Order Fulfillment Management Overview

Confirmed... 886.45K USD
 Delayed... 658.90M USD
 Unconfirmed De... 1.61M

now

Cannot load tile

Sales Planning

Manage Sales Plans

Sales Performance Plan/Actual

Sales Performance Plan/Actual

Quantity Based

Sales Order Fulfillment

Sales Order Fulfillment

Analyze Issues

Inlandskunde DE 1 1.59K
 1.13K
 Inlandskunde DE 31 259

Management Overview

Sales Management Overview

By Date By Type By Priority

- Credit Memo Request 60005043 - Net Value: 45,000.00 EUR
26 days ago
Release Reject Rework
- Release of Sales Quotation 20000203 - Net Value: 25.00 EUR
26 days ago
Release Reject Request Rework
- Release of Sales Quotation 20000202 - Net Value: 25.00 EUR
26 days ago
Release Reject Request Rework
- Credit Memo Request 60005036 - Net Value: 20,000.00 EUR
26 days ago
Release Reject Rework
- Release of Sales Quotation 20000199 - Net Value: 25.00 EUR
26 days ago
Release Reject Request Rework
- Release of Credit Memo Request 60004957 - Net Value: 1,060.00 EUR
33 days ago
Release Reject Request Rework

Key innovations do not reflect licensing

Planification

Overview

Integrated Business planning

pMRP

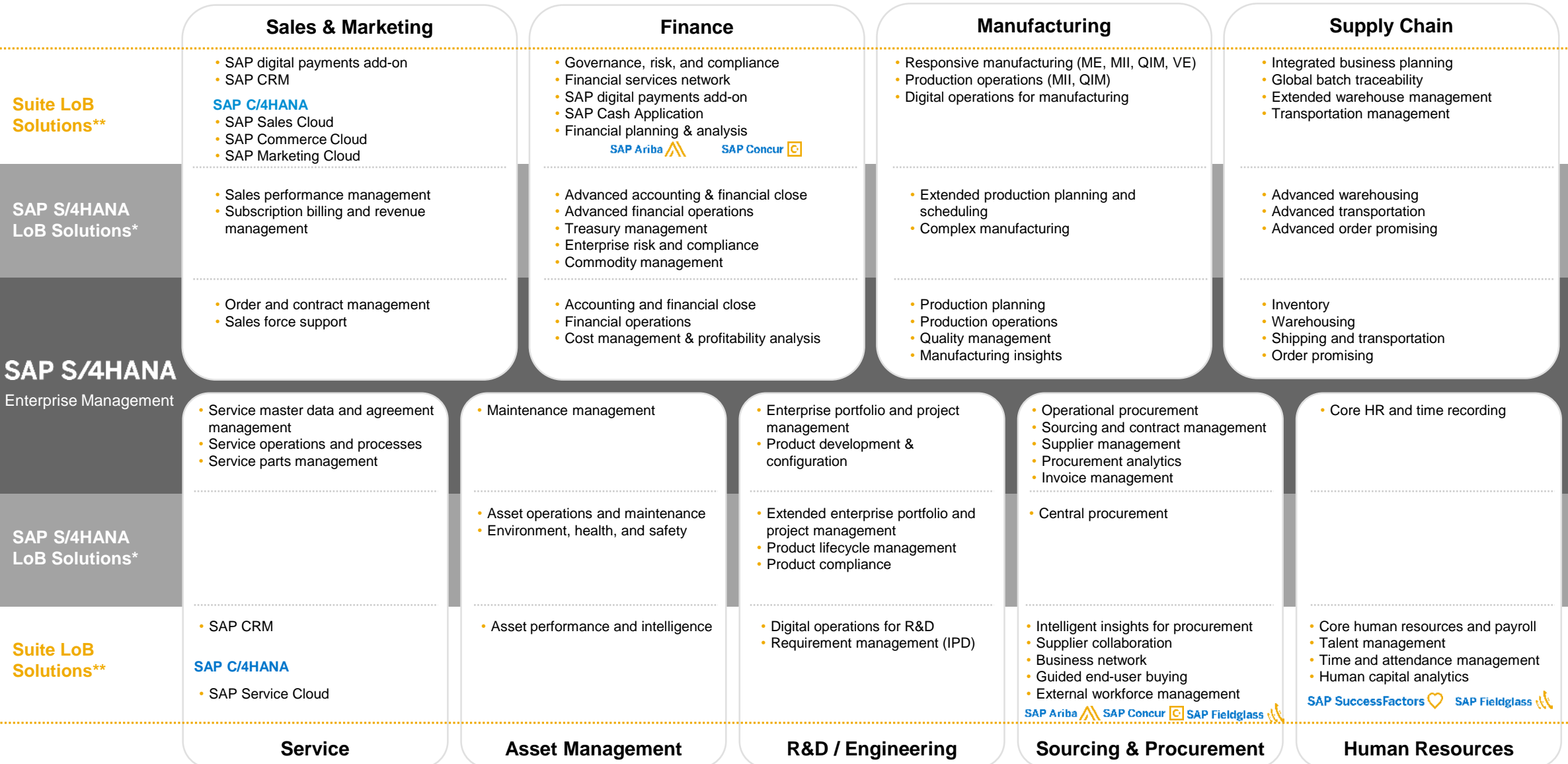
DDMRP

Order monitoring in S/4HANA

Scheduling



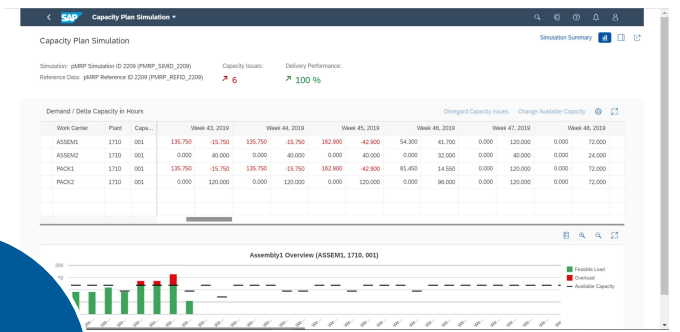
SAP S/4HANA 1909 - business area overview



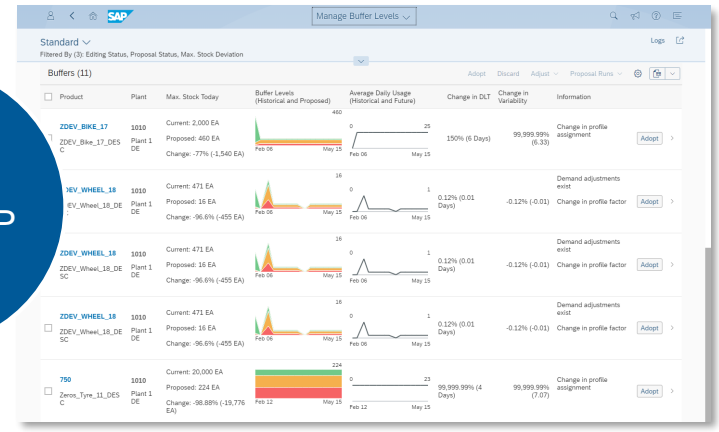
Planning Cycle



Forecasting and Sales and operation planning



Predictive Mrp

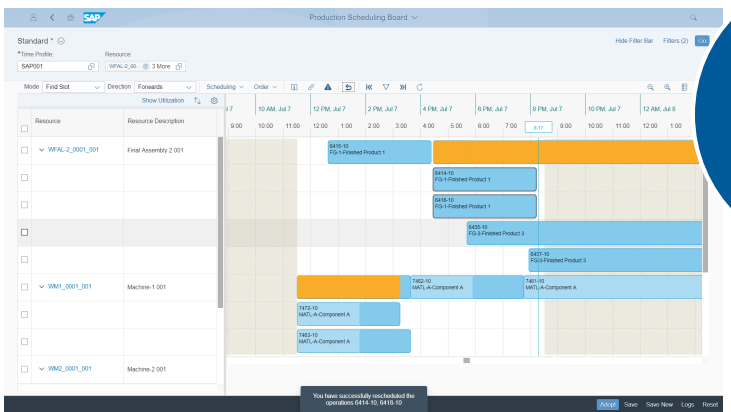


Demand Driven MRP

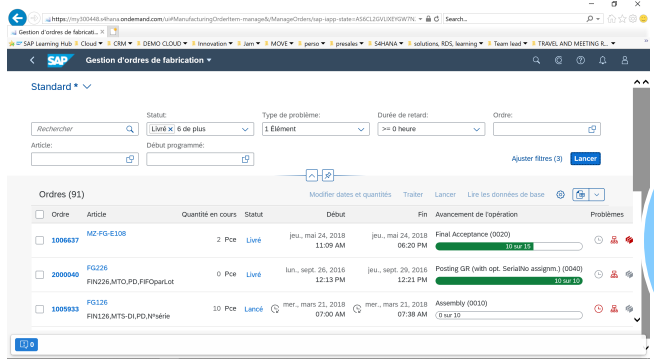
Mrp Live



Order Scheduling



Order monitoring



Supply Chain Planning processes and solutions: **what is changing**

	SAP ECC	SAP APO	SAP S/4 HANA	SAP Integrated Business Planning
Visibility				Supply Chain Control Tower
Sales & Operations Planning				Sales and Operations
Demand Planning		Demand Planning		Demand Planning Demand Sensing
Supply Planning		Supply Network Planning		Supply Planning
Inventory Optimization				Inventory Optimization
MRP	MRP		MRP Live DDMRP	DDMRP
Finite Scheduling		Production Planning Detailed Scheduling	Production Planning Detailed Scheduling	
Order Management	Available-To-Promise	Global Available-To-Promise	Advanced Available-To-Promise	Response Planning

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SAP Supply Chain Control Tower



Increase end-to-end visibility across your extended network



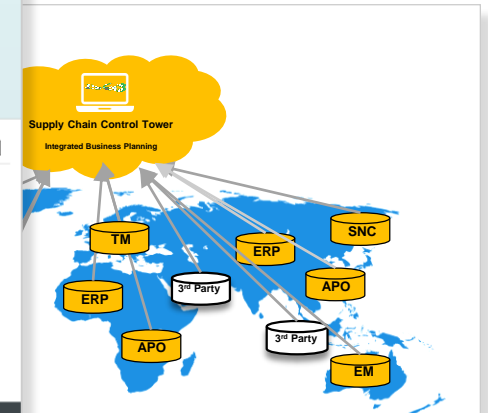
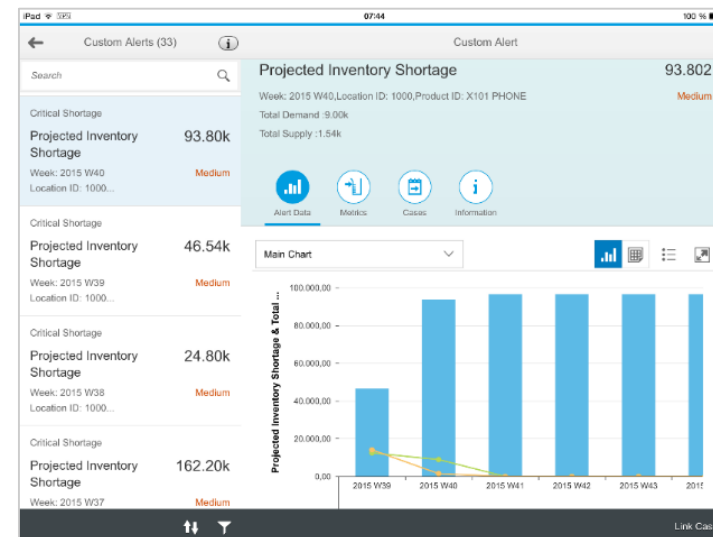
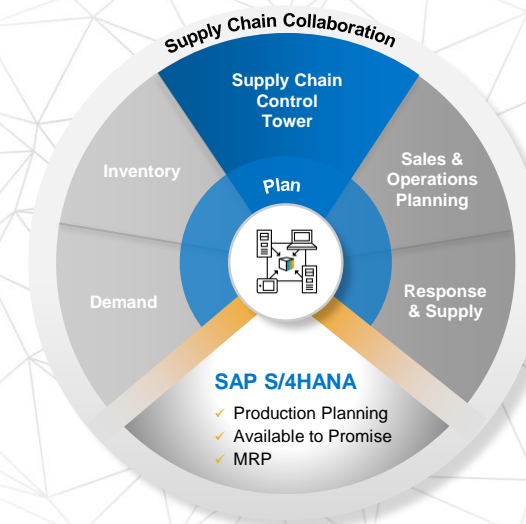
Improve supply chain performance by managing Key Performance Indicators



Manage exceptions with automated alerts, root cause analysis and resolution



Increase supply chain agility and reduce supply chain cost



SAP Integrated Business Planning for Sales and Operations



Create the optimal business plan to drive revenue growth and increase market share



Effectively balance demand and supply and attain financial targets



Increase speed and agility of planning and drive most profitable responses

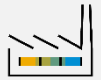


Enable cross-functional process orchestration and collaboration

Demo



SAP Integrated Business Planning for Response and Supply



Support of tactical (rough cut) supply planning, as well as operational supply planning



Scenario planning / what-if analysis of actual or hypothetical changes to demand and/or supply



Fast matching of supply and demand to respond to operational changes; pegging and gating-factor analysis



Constrained optimization and priority rules-driven algorithms



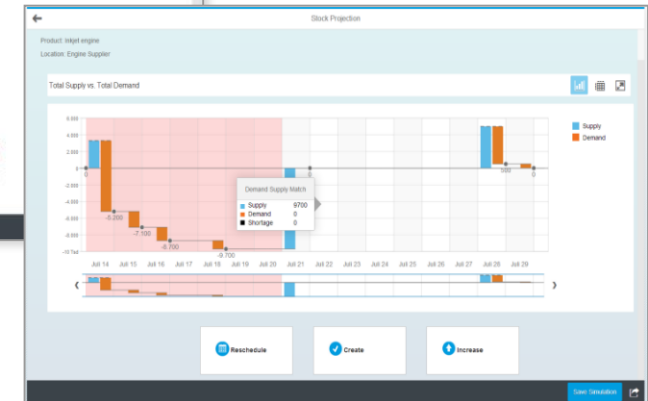
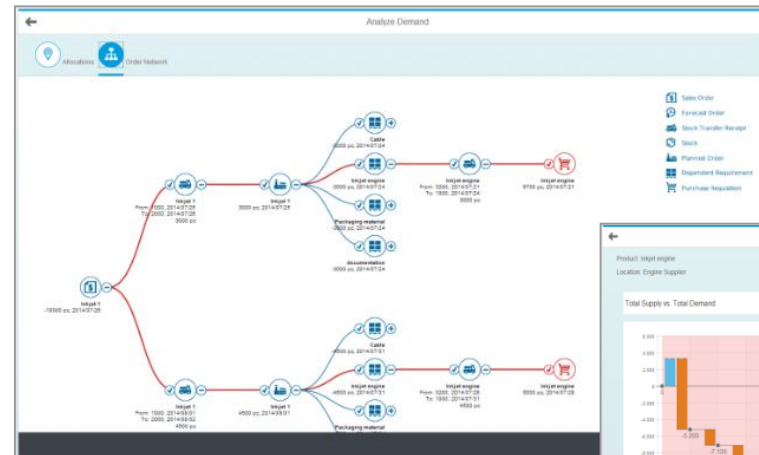
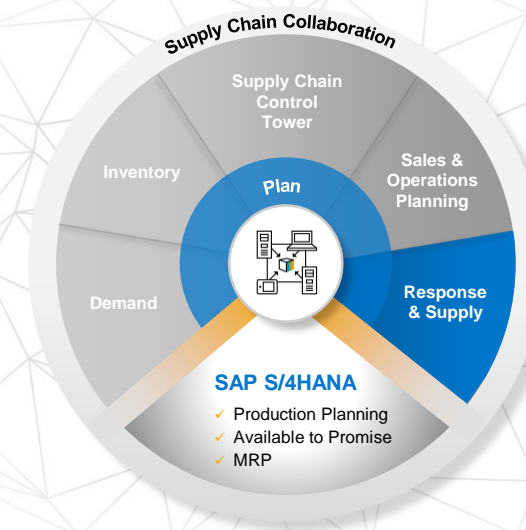
Unconstrained demand propagation and heuristics options



Generate and provide allocations to ATP, and reschedulesales orders



Production and distribution (deployment) use cases



SAP Integrated Business Planning for Demand



Develop more accurate mid-term statistical forecasts



React faster to short term demand changes with pattern recognition based algorithms



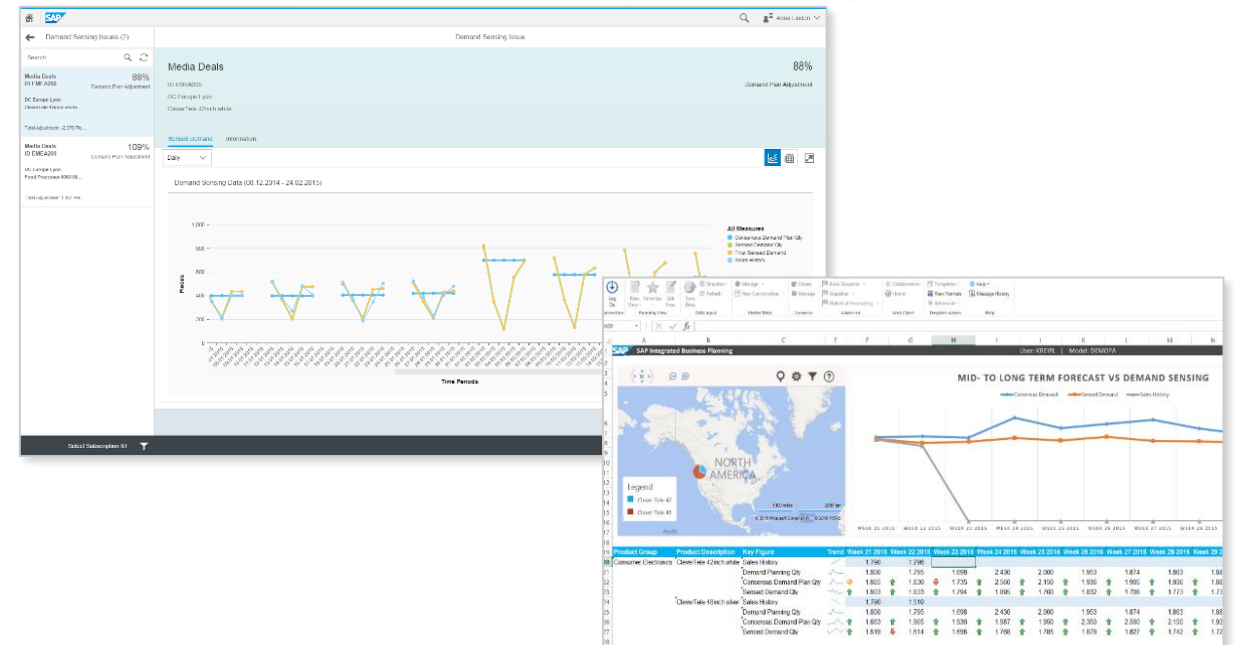
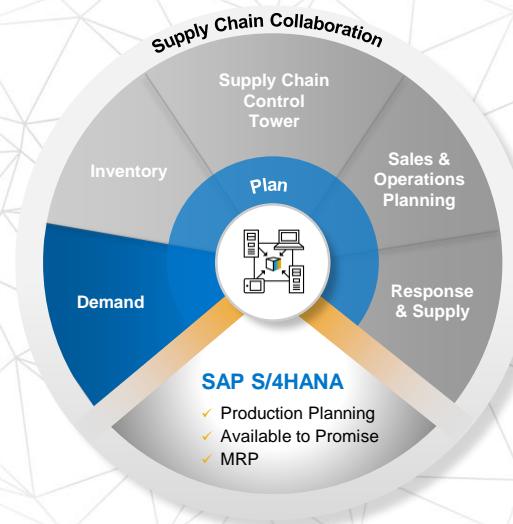
Drive more accurate deployment of product based on short term demand



Enable planning flexibility and accuracy through segmentation



Collaborate to ensure the most accurate forecast



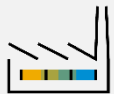
SAP Integrated Business Planning for Inventory



Improve customer service levels



Maximize the efficiency of inventory and working capital



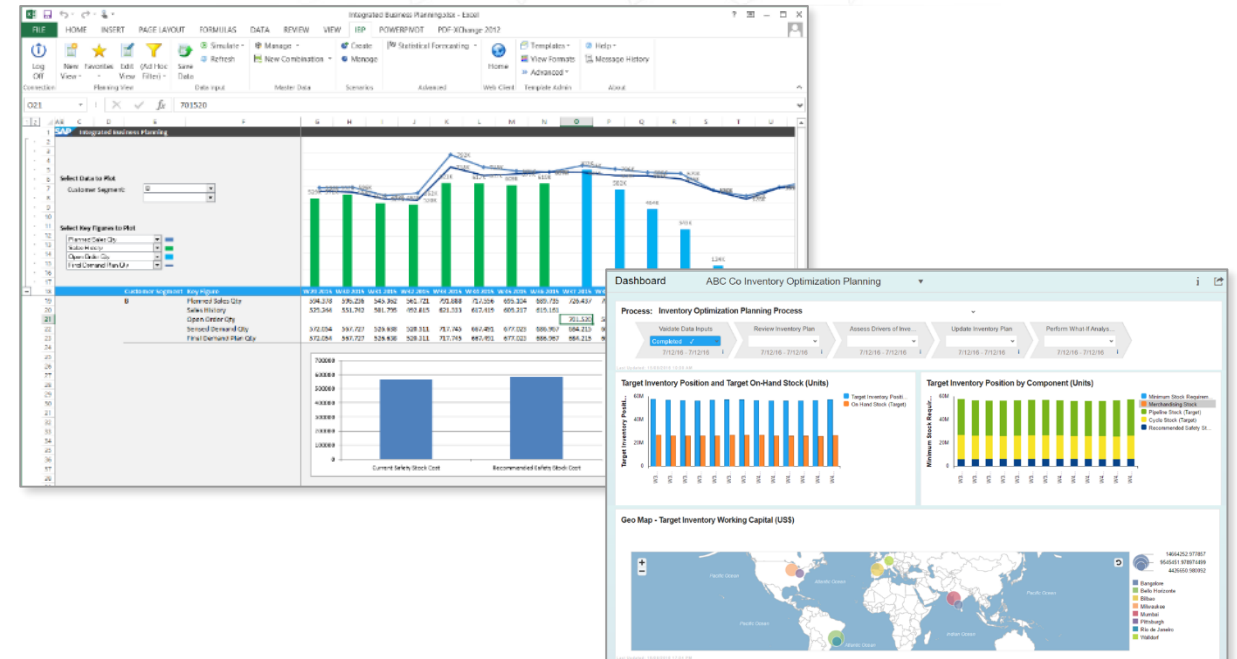
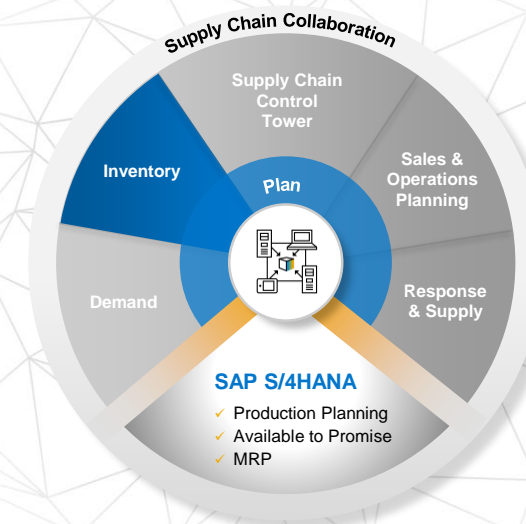
Reduce production and distribution costs



Standardize the inventory target-setting process at each tier within the supply chain to feed operational plans



Support for Demand Driven MRP strategic Inventory positioning and buffer sizing (steps 1 & 2)



Supply Chain Collaboration with SAP Ariba Solutions for Direct Materials



Collaboration with all suppliers in real time across plan-to-deliver processes increases visibility into supply



Better visibility enables improved fill rates and decreased buffer stock



Transition from push to pull model enables reduced lead times



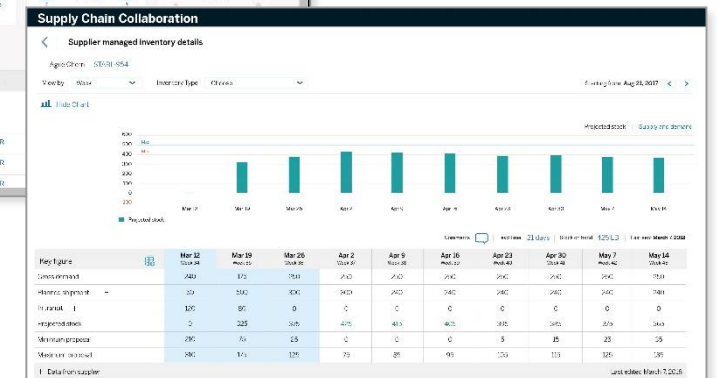
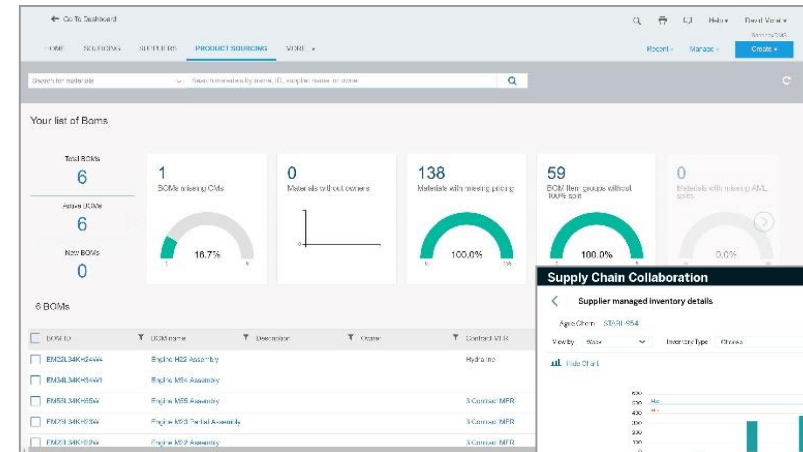
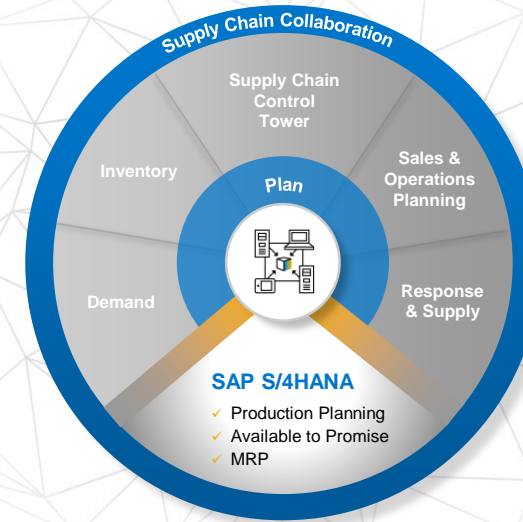
Standard automated processes drive productivity improvements



Faster and cheaper onboarding enables scaling and time to value



Bill of materials and product sourcing enable hard cost savings and reduced cost of goods sold



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Predictive MRP: Simulative MRP for mid-/ long term planning

Positioning

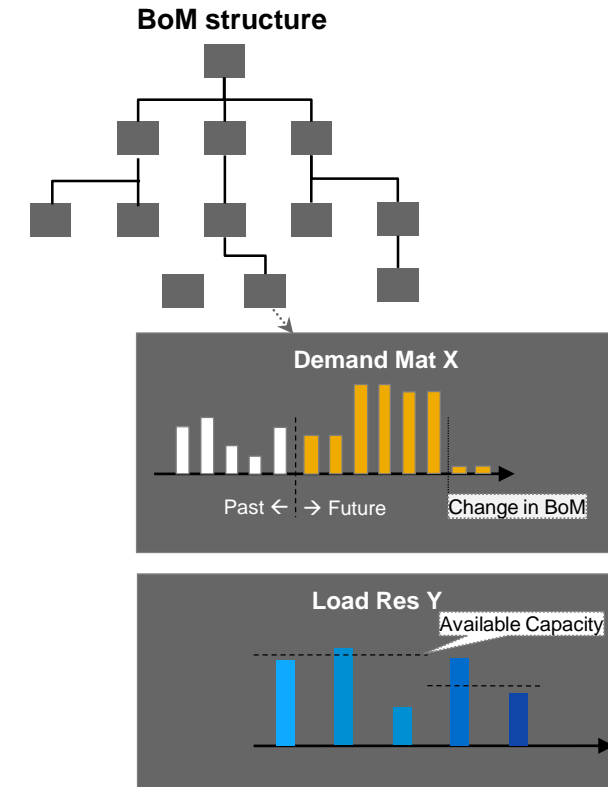
- Mid/long term demand scenario simulation for capacity, production, purchasing and internal material flow in production plants on detailed level
- Successor of classic ERP “Long-term-planning”, but not with identical functionality

Approach

- Simple and fast infinite MRP run for planning scenarios
- ... based on demand versions for finished goods (material variants)
- ... with simplified MRP logic (no lot sizing, always plan-driven)
- ... exploding complete Bill of Materials and ‘Bill of Operations’, considering simplified effectivity
- ... natively leveraging the full potential of SAP HANA

Result

- Component and capacity demand on all levels for all resources
- Full information about pegged requirements across all levels
- In an optimal format for HANA evaluations as basis for analytical apps
- ... and for interactive planning via capacity adjustment, sourcing decisions and demand leveling



Predictive MRP

new simulative and interactive long-term planning

Scope

Define business scope and its **top level demand**

Calculate

Propagate the demand across the multi-level (max) BOM individually, i.e. no lot sizing(!)

Result

Derived demands and (rough) capacity loads on all (sub) component levels, linked to the top demand

Evaluate

Which top level demands **drive overload?**
What are my **limits and constraints?**

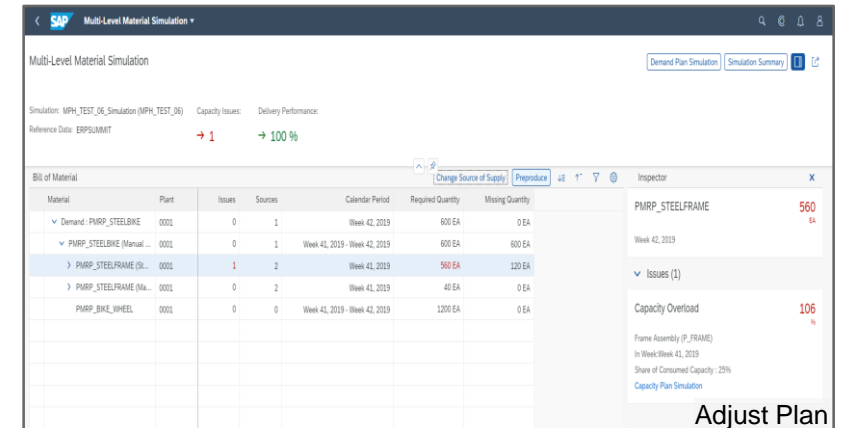
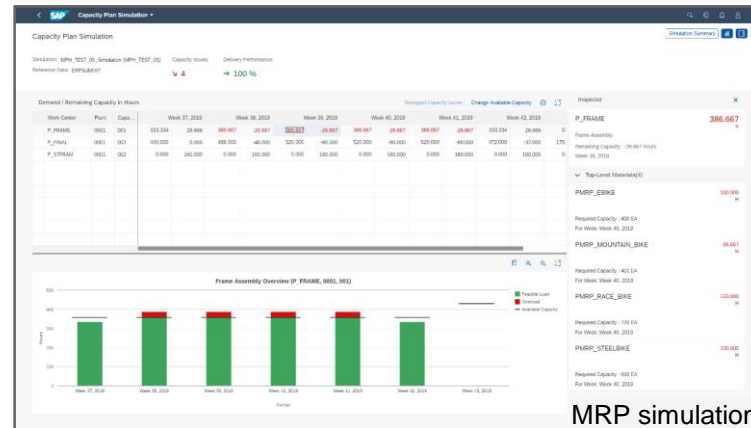
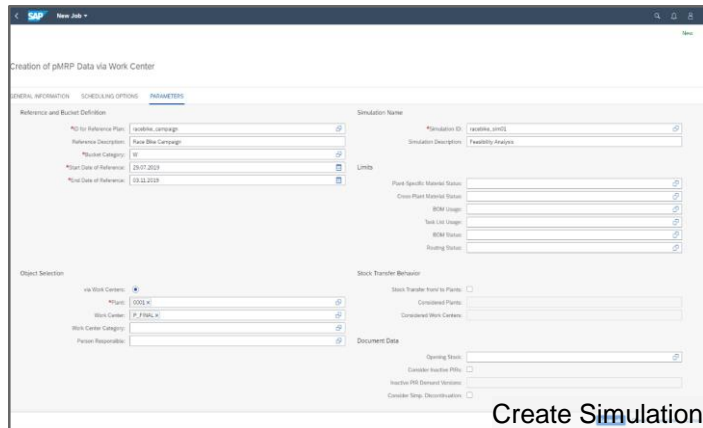
Simulate

How to **make it fit?**
Change top level demands, change component or work center availability
Check Multilevel impact

Apply

Adjust the actual business objects based on the findings:

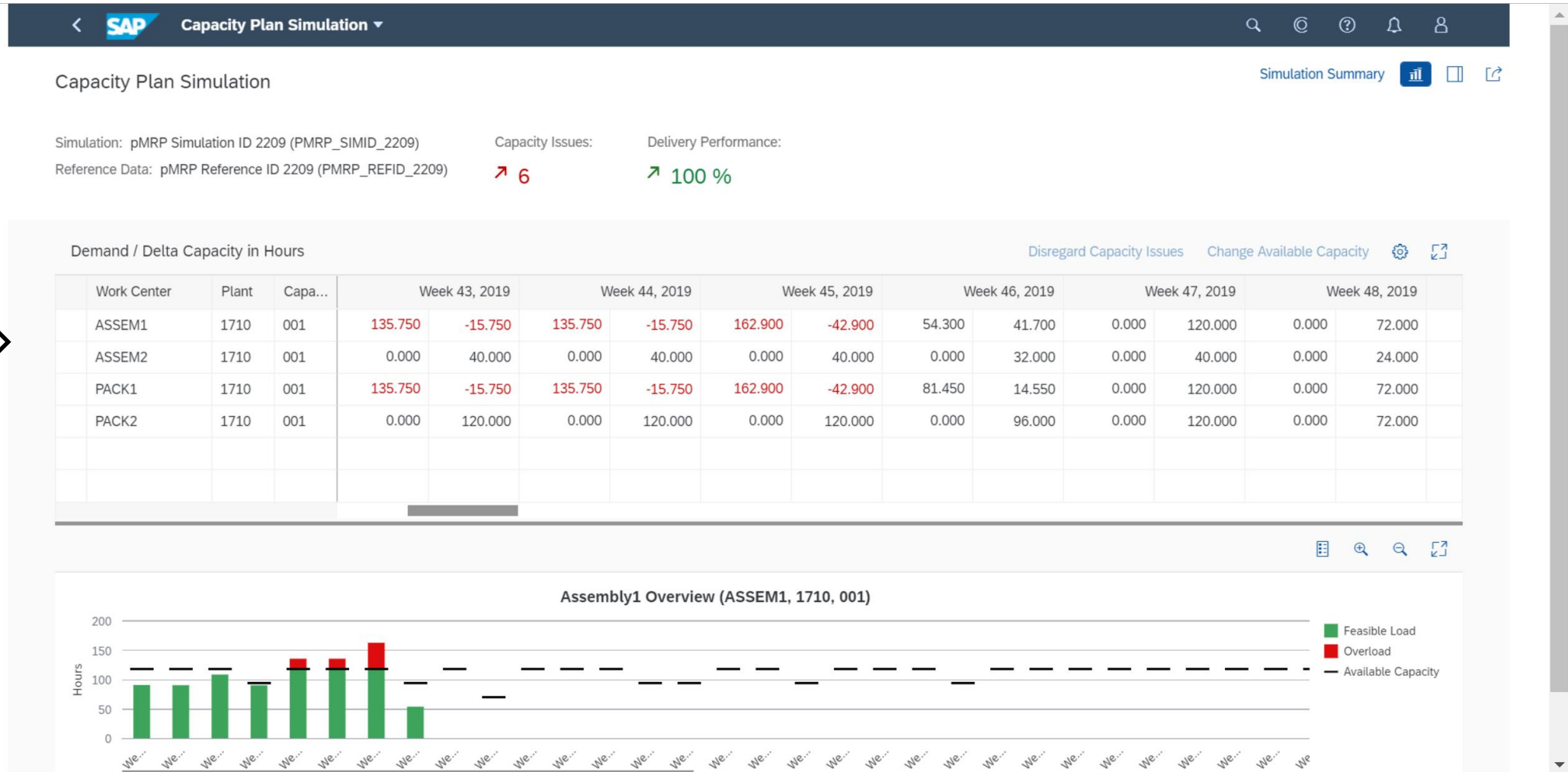
- Change capacity
- Preproduce
- Adjust Demand
- Change Source of Supply





Reduce inventory carrying costs by forecasting component demand with predictive material and resource planning

Demo



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The world has changed since MRP was introduced in the 1950s...

High supply chain complexity

Short product lifecycles

Short customer tolerance times

High product proliferation

High product customization

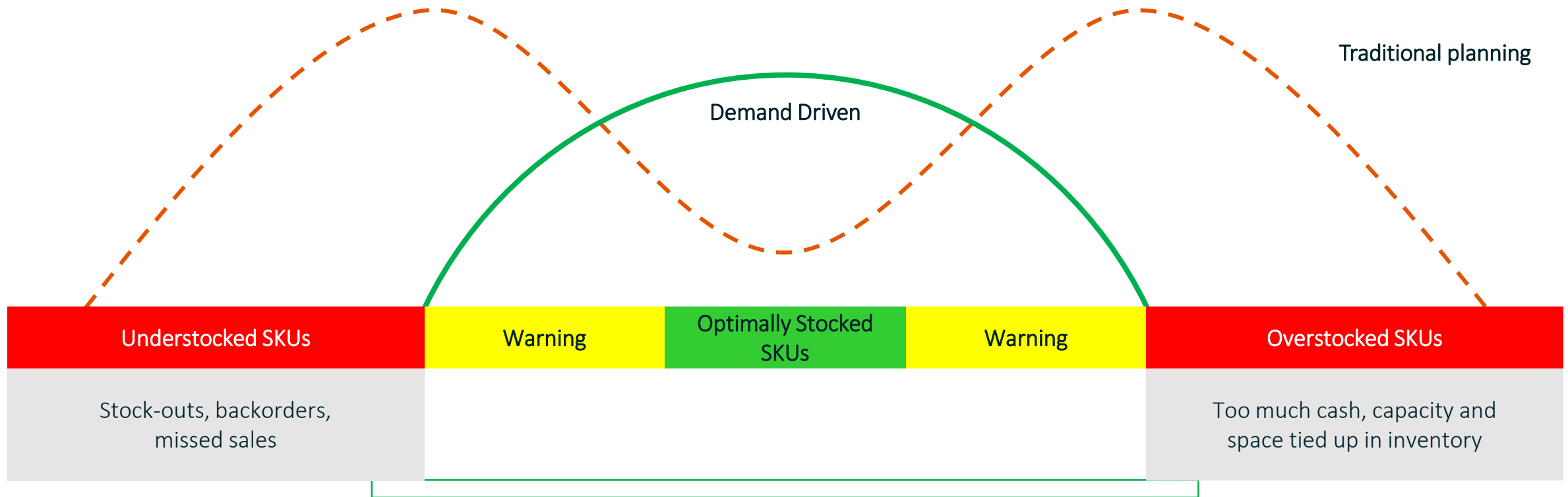
Many long lead time parts

Many more...

Demand Uncertainty / Slow & disruptive response

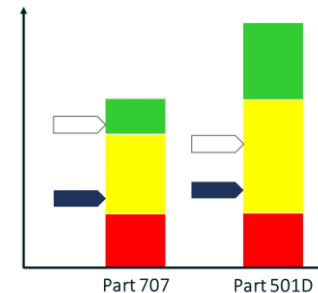
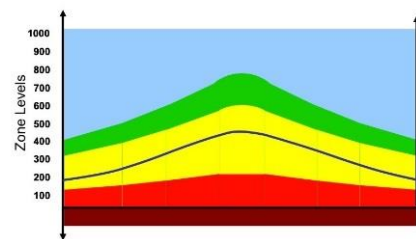
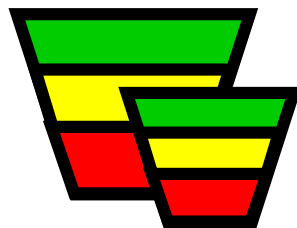
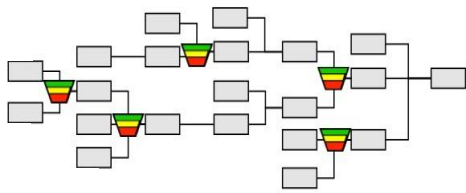
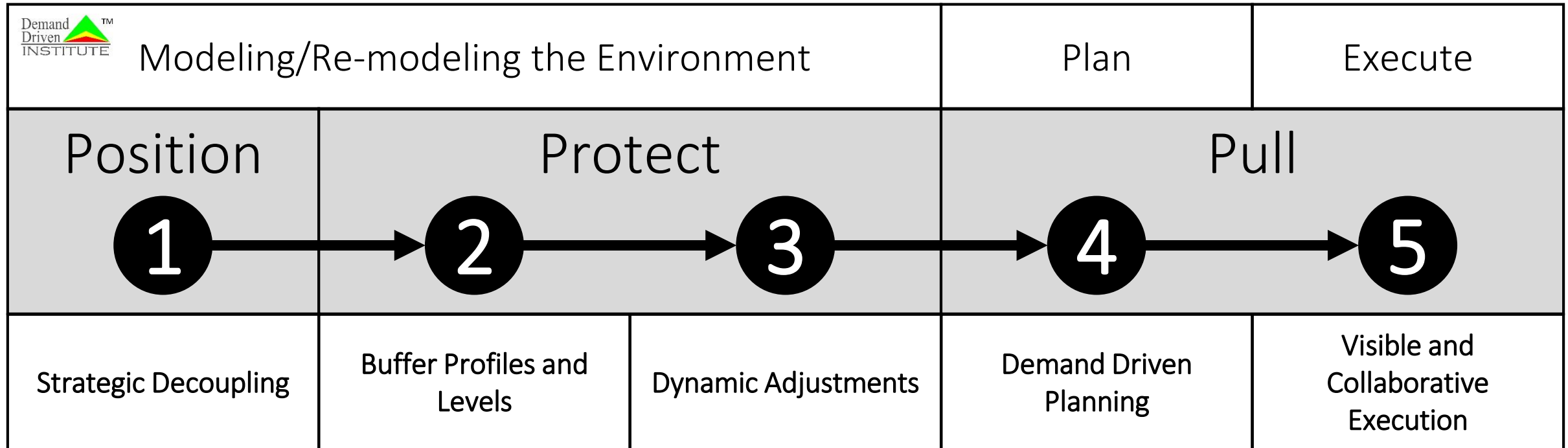
Inventory & Service Challenges

Classic (forecast-driven) planning can lead to bi-modal SKU distribution



Source: Demand Driven Institute

DDMRP consists of 5 components and forms the basis of the demand driven operating model



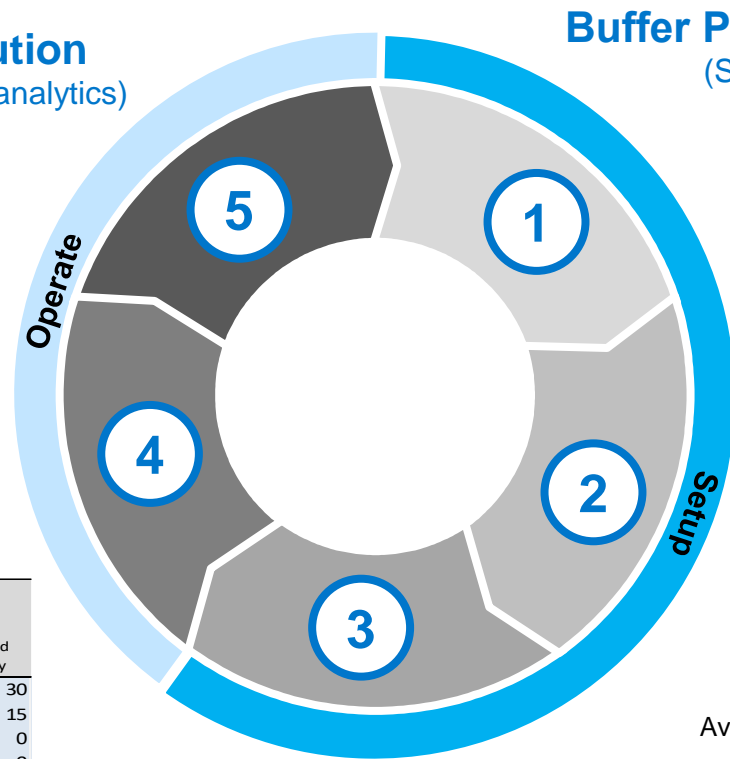
Order #	OH Buffer Status
MO 12379	
MO 12401	12% (RED)
MO 12465	27% (RED)
MO 12367	33% (YELLOW)
MO 12411	41% (YELLOW)

Source: Demand Driven Institute

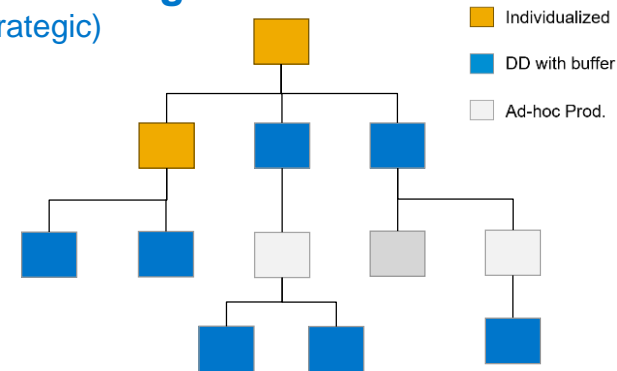
SAP Demand-Driven Replenishment

The (planned) End-to-End Process Flow in S/4HANA

Replenishment Execution
(creating actual data → basis for analytics)



Buffer Positioning ...
(Strategic)



Buffer Sizing ...
(Operational)

Average Daily Usage

Lead Time



Replenishment Planning

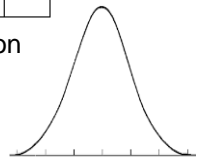
Material	Stock/ Stock Level	Stock+ Ordered	Proposed order qty
FIO-NAV-0815	3	13	30
FIO-PST-1501	6	16	15
FIO-MST-3006	55	135	0
FIO-PRD-0807	22	56	0
FIO-NAV-0101	23	23	127
FIO-NAV-0404	44	44	26
FIO-MST-0821	25	25	0
FIO-PRD-0822	88	88	0

**Dynamic
Buffer Size Adjustment ...**
(Operational)

... supported by Analytics

	A	B	C
X			
Y			
Z			

Classification



Lead Time



Average Daily Usage

Step 1 – Buffer Positioning

S/4HANA Analytics for Demand Driven Replenishment

The screenshot displays the SAP S/4HANA Analytics for Demand Driven Replenishment interface. The main title is "Product Classification for Demand-Driven Replenishment". The interface is divided into three tabs: "GENERAL INFORMATION", "SCHEDULING OPTIONS", and "PARAMETERS". The "PARAMETERS" tab is active, showing several sections:

- Product Selection Criteria:** Includes fields for Product, Product Group, *Plant (set to 1010), MRP Area, MRP Controller, and Number of Days (Past).
- Parameters:**
 - Thresholds for Value (ABC) Classification:** Includes "Usage Value in %:" (checked) and three rows: A (High): 70, B (Medium): 20, C (Low): 10.
 - Thresholds for BOM Usage (PQR) Classification:** Includes "BOM Usage:" (checked) and three rows: P (High): 5, Q (Medium): 3, R (Low): <.
 - Thresholds for Variability (XYZ) Classification:** Includes "Coefficient of Variation:" (checked) and three rows: X (Low): 0,25, Y (Medium): 0,50, Z (High): >.
 - Job Parameters:** Includes "Maintain Logs:" (checked) and "Parallel Processing:" (unchecked).

At the bottom of the interface, there are buttons for "Schedule", "Check", "Template", and "Cancel".

Classify Materials by ...

- Value
- BOM Usage
- Variability

... based on actual data and freely definable threshold values

Step 1 – Buffer Positioning

Worklist: Filter and review candidates, identify decoupling points

Bottleneck Protection

Components which are consumed at a bottleneck work center should be available

Select by bottleneck work centers

Derive buffer candidates (component products) via production version

Outbound Protection

Ensure to meet response time expected by the customer

Select sold products by sales organization

Check the calculated decoupled lead time

Inbound Protection

Stabilize the material flow within my company through protection against supply variability

Select by purchase organization & supplier

The screenshot shows the SAP Buffer Positioning interface. At the top, there are filter fields for Product, Product Group, Plant, MRP Area, MRP Type, and Procurement Type. Below these are Value Indicator, Lead Time Indicator, Variability Indicator, and BOM Usage Indicator. A blue box highlights the Value Indicator and Variability Indicator fields, with a '1' indicating the first step: 'Further narrow down the list by attributes like classification (and others)'. Below the filters is a table of products with columns for Product, Plant, MRP Area, MRP Type, Buffered, Classifications, Product Type, Lead Time, and Decoupled Lead Time. A yellow box highlights the MRP Type and Buffered columns, with a '2' indicating the second step: 'On demand, re-calculated certain key attributes'. A blue box highlights the Lead Time and Decoupled Lead Time columns, with a '3' indicating the third step: 'Take the action to buffer by assigning MRP Type = D1 (Demand-Driven) Or drill down into more details ...'. The table shows several products, including MRP_FIN_1_1 and MRP_RW_11, with their respective lead times and decoupled lead times.

Product	Plant	MRP Area	MRP Type	Buffered	Classifications	Product Type	Lead Time	Decoupled Lead Time
MRP_FIN_1_1 Fin_1_Desc	1010 Plant 1 DE	1010 Plant 1 DE	D1	✓	C - Low Not classified R - Low X - Low	Finished Product	8 Days	Not calculated >
MRP_FIN_1_1 Fin_1_Desc	1010 Plant 1 DE	MRPAREA001 MRPAREA001	PD		Unclassified	Finished Product	0 Days	Not calculated >
MRP_FIN_1_1 Fin_1_Desc	1010 Plant 1 DE	MRPAREA002 MRPAREA002	ND		Unclassified	Finished Product	0 Days	Not calculated >
MRP_FIN_2_2 Fin_1_Desc	1010 Plant 1 DE	1010 Plant 1 DE	PD		Unclassified	Finished Product	6 Days	Not calculated >
MRP_RW_11 MRP_RW_11_Desc	1010 Plant 1 DE	1010 Plant 1 DE	PD		C - Low Not classified R - Low Z - High	Raw materials	3 Days	Not calculated >
MRP_RW_12 MRP_RW_12_Desc	1010 Plant 1 DE	1010 Plant 1 DE	PD		C - Low Not classified R - Low Z - High	Raw materials	5 Days	Not calculated >

1 Further narrow down the list by attributes like classification (and others)

2 On demand, re-calculated certain key attributes

3 Take the action to buffer by assigning MRP Type = D1 (Demand-Driven)
Or drill down into more details ...

Step 1 – Buffer Positioning

Set the Decoupling Points

Buffer Analysis
Buffer

ZD_CUSHIONSET_DBR ZD_CUSHIONSET_Dark Brown_DESC , Plant 1 DE (1010)

Product Type: Semifinished Product Lead Time: 1 Day Decoupled Lead Time: Not calculated MRP Type: Forecast Consumption, No Planning Time Fence (PD) Buffer Profile: M-G-Y
Make - Long Lead Time – Medium Variability

Upstream - Downstream

Buffer related changes made to another product may have an impact on this product. Please refresh the browser.

Search
Change MRP Area
110%

BOM and BOM Usage
Variability Indicator

Graph Overview

2 Highlight network by different aspects (here: variability) to understand where to position a buffer

3 Review key attributes

Take the decision to buffer

2a Given example:

High variability for the finished goods, long lead times for the purchased parts →

Motivation to buffer material CUSHIONSET

Step 2 – Buffer Sizing

Define Buffer Profiles

Classification values determine the buffer calculation factors (via buffer profiles)

The screenshot shows the SAP Buffer Profile Details table. The table has columns for Procurement type, Variability Indicator, Lead Time Indicator, Minimum Order Quantity, Variability Factor, Lead Time Factor, and Buffer Profile Description. Blue dashed arrows point from the text above to the Variability Indicator, Lead Time Indicator, and Variability Factor columns.

Procure...	Variability Indicator	Lead Time Indicator	Minimum Ord...	Variability Fa...	Lead Time Fa...	Buffer Profile Description
<input type="checkbox"/> Buy	Low	Short	<input type="checkbox"/>	0.30	0.80	Buy - Short Lead Time - Low Variability
<input type="checkbox"/> Buy	Low	Short	<input checked="" type="checkbox"/>	0.30	0.80	Buy - Low Variability - Short Lead Time - With MOQ
<input type="checkbox"/> Buy	Low	Medium	<input type="checkbox"/>	0.30	0.50	Buy - Medium Lead Time - Low Variability
<input type="checkbox"/> Buy	Low	Medium	<input checked="" type="checkbox"/>	0.30	0.50	Buy - Medium Lead Time - Low Variability - With MOQ
<input type="checkbox"/> Buy	Low	Long	<input type="checkbox"/>	0.30	0.30	Buy - Long Lead Time - Low Variability
<input type="checkbox"/> Buy	Low	Long	<input checked="" type="checkbox"/>	0.30	0.35	Buy - Long Lead Time - Low Variability - With MOQ
<input type="checkbox"/> Buy	Medium	Short	<input type="checkbox"/>	0.50	0.80	Buy - Short Lead Time - Medium Variability
<input type="checkbox"/> Buy	Medium	Short	<input checked="" type="checkbox"/>	0.50	0.80	Buy - Short Lead Time - Medium Variability - With MOQ
<input type="checkbox"/> Buy	Medium	Medium	<input type="checkbox"/>	0.50	0.50	Buy - Medium Lead Time - Medium Variability
<input type="checkbox"/> Buy	Medium	Medium	<input checked="" type="checkbox"/>	0.50	0.50	Buy - Medium Lead Time - Medium Variability - With MOQ
<input type="checkbox"/> Buy	Medium	Long	<input type="checkbox"/>	0.50	0.30	Buy - Long Lead Time - Medium Variability
<input type="checkbox"/> Buy	Medium	Long	<input checked="" type="checkbox"/>	0.50	0.30	Buy - Long Lead Time - Medium Variability - With MOQ
<input type="checkbox"/> Buy	High	Short	<input type="checkbox"/>	0.80	0.80	Buy - Short Lead Time - High Variability
<input type="checkbox"/> Buy	High	Short	<input checked="" type="checkbox"/>	0.80	0.80	Buy - Short Lead Time - High Variability - With MOQ
<input type="checkbox"/> Buy	High	Medium	<input type="checkbox"/>	0.80	0.50	Buy - Medium Lead Time - High Variability
<input type="checkbox"/> Buy	High	Medium	<input checked="" type="checkbox"/>	0.80	0.50	Buy - Medium Lead Time - High Variability - With MOQ
<input type="checkbox"/> Buy	High	Long	<input type="checkbox"/>	0.80	0.30	Buy - Long Lead Time - High Variability
<input type="checkbox"/> Buy	High	Long	<input checked="" type="checkbox"/>	0.80	0.30	Buy - Long Lead Time - High Variability - With MOQ
<input type="checkbox"/> Make	Low	Short	<input type="checkbox"/>	0.30	0.80	Make - Short Lead Time - Low Variability
<input type="checkbox"/> Make	Low	Short	<input checked="" type="checkbox"/>	0.30	0.80	Make - Short Lead Time - Low Variability - With MOQ
<input type="checkbox"/> Make	Low	Medium	<input type="checkbox"/>	0.30	0.50	Make - Medium Lead Time - Low Variability
<input type="checkbox"/> Make	Low	Medium	<input checked="" type="checkbox"/>	0.30	0.50	Make - Medium Lead Time - Low Variability - With MOQ
<input type="checkbox"/> Make	Low	Long	<input type="checkbox"/>	0.30	0.30	Make - Long Lead Time - Low Variability

Step 2 – Buffer Sizing

Review and Adopt Buffer Level Proposals in a Worklist

Manage Buffer Levels

Standard

Filtered By (3): Editing Status, Proposal Status, Max. Stock Deviation

Buffers (11)

Adopt Discard Adjust Proposal Runs

Product	Plant	Max. Stock Today	Buffer Levels (Historical and Proposed)	Average Daily Usage (Historical and Future)	Change in DLT	Change in Variability	Information
ZDEV_BIKE_17	1010	Current: 2,000 EA Proposed: 460 EA Change: -77% (-1,540 EA)			150% (6 Days)	99,999.99% (6.33)	Change in profile assignment
ZDEV_WHEEL_18	1010	Current: 471 EA Proposed: 16 EA Change: -96.6% (-455 EA)			0.12% (0.01 Days)	-0.12% (-0.01)	Demand adjustments exist Change in profile factor
ZDEV_WHEEL_18	1010	Current: 471 EA Proposed: 16 EA Change: -96.6% (-455 EA)			0.12% (0.01 Days)	-0.12% (-0.01)	Demand adjustments exist Change in profile factor
ZDEV_WHEEL_18	1010	Current: 471 EA Proposed: 16 EA Change: -96.6% (-455 EA)			0.12% (0.01 Days)	-0.12% (-0.01)	Demand adjustments exist Change in profile factor
750	1010	Current: 20,000 EA Proposed: 224 EA Change: -98.88% (-19,776 EA)			99,999.99% (4 Days)	99,999.99% (7.07)	Change in profile assignment

Buffer ID

Proposed Change

Drivers for Change

Accept or discard system proposal

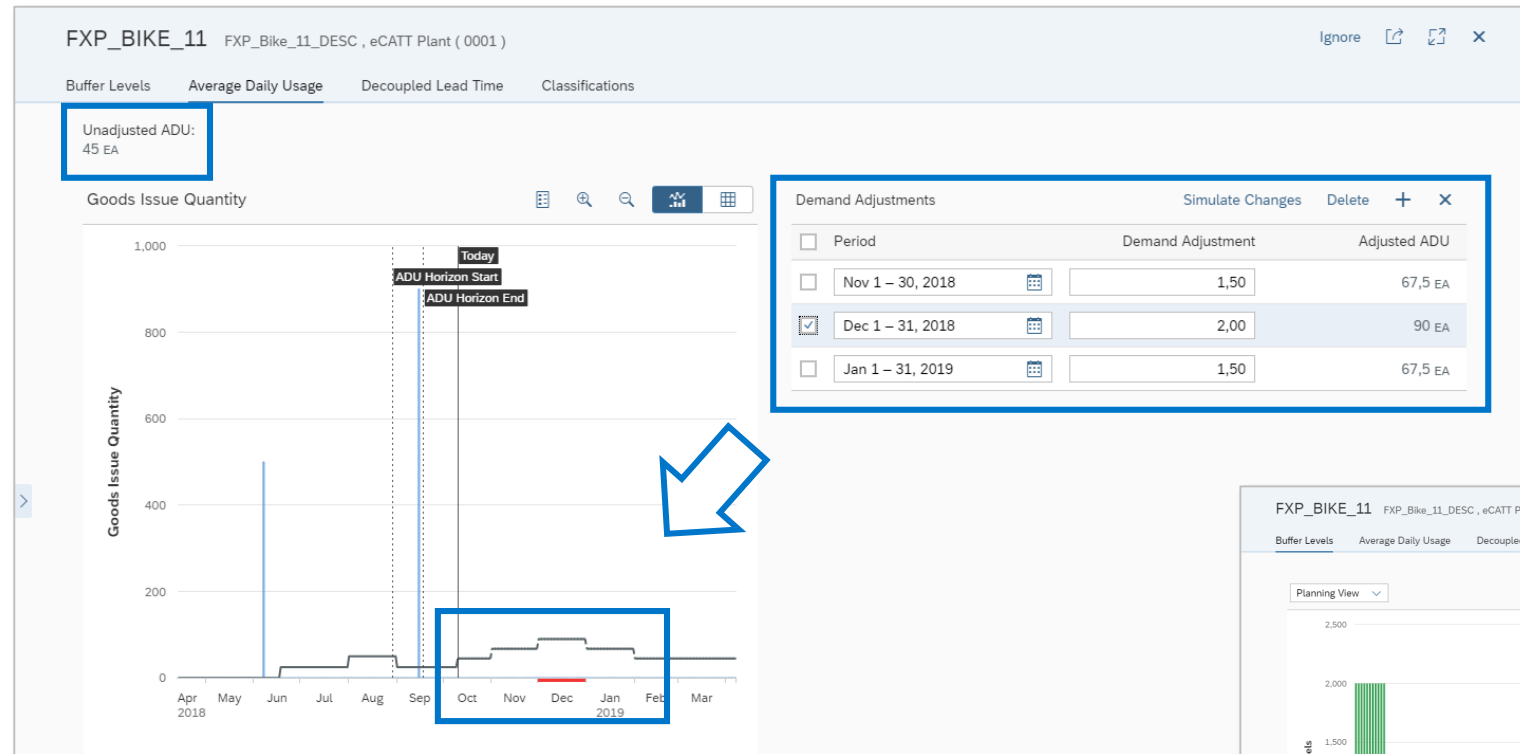
Possibility to suppress buffer recalculation to support "Dynamic Override"

... or navigate into details and decide there

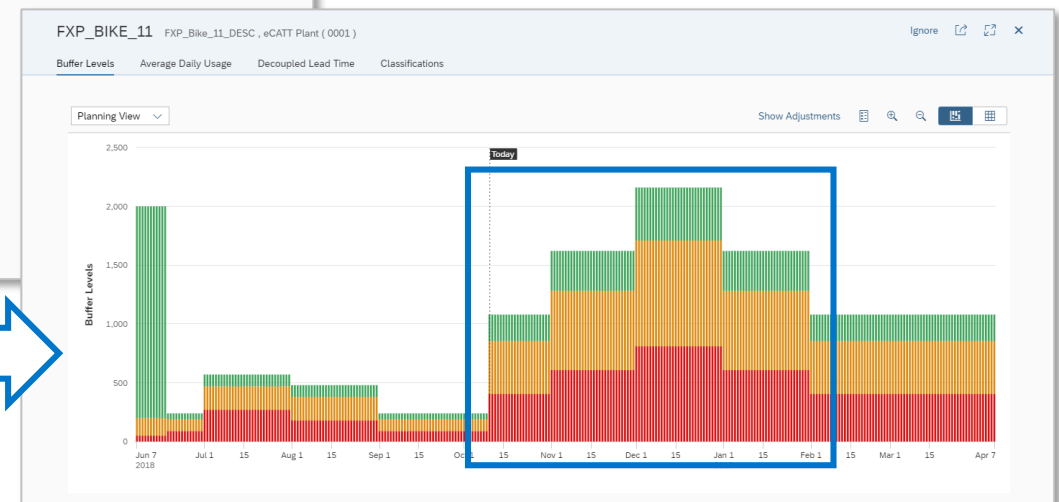
Step 3 – Dynamic Adjustments

... as a part of Buffer Sizing: Time-Dependency of Average Daily Usage

Possibility to maintain Demand Adjustment Factors ...

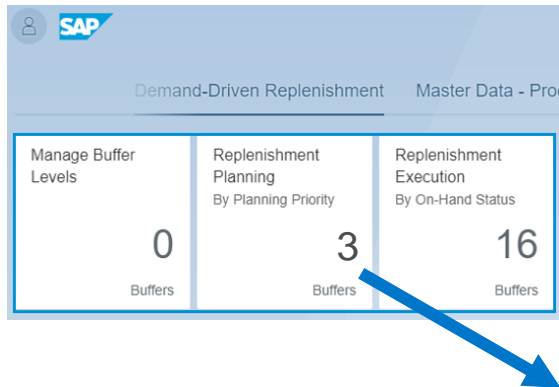


... with immediate reflection in the Buffer Levels chart above



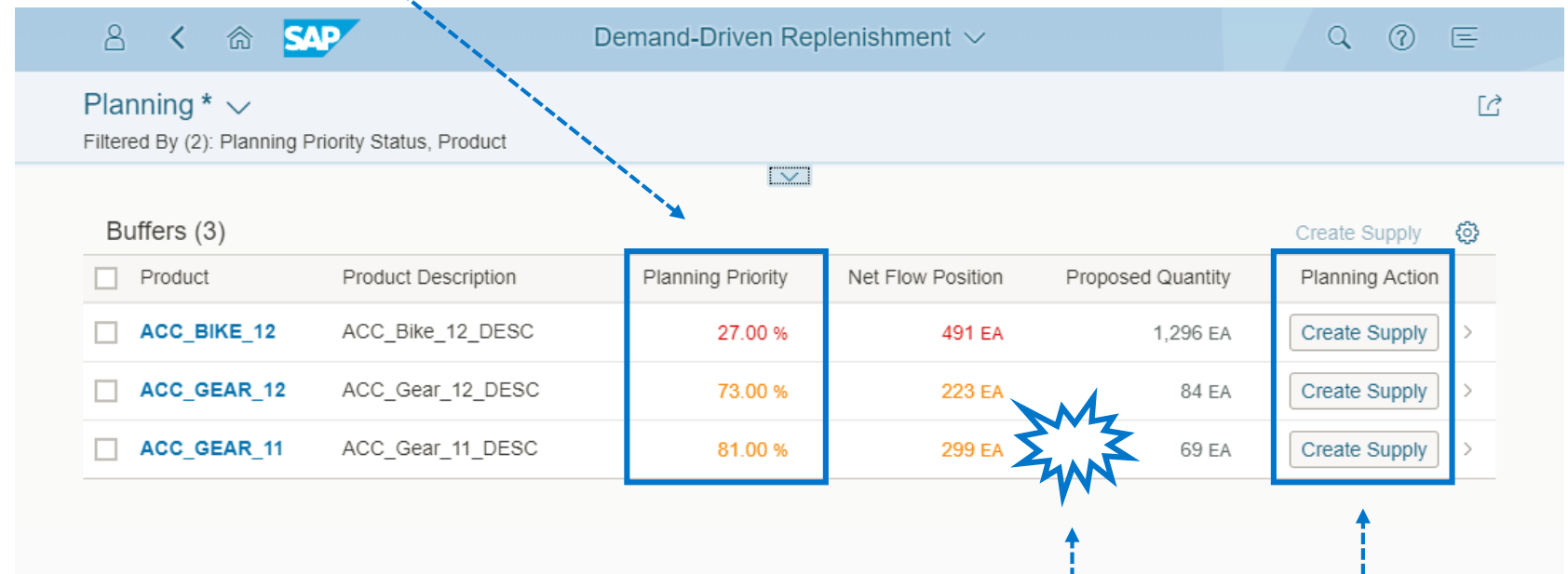
Step 4 – Replenishment Planning

Monitor the Planning Priority and Net Flow Position, Option to Create Supply



The image shows a navigation menu with three options: 'Manage Buffer Levels' with a value of 0, 'Replenishment Planning By Planning Priority' with a value of 3, and 'Replenishment Execution By On-Hand Status' with a value of 16. A blue arrow points from the '3' in the second option towards the main table in the adjacent image.

Buffers to be replenished, sorted by the Planning Priority, i.e. Net Flow Position / Max Stock



The table displays three buffers to be replenished, sorted by Planning Priority. The columns are Product, Product Description, Planning Priority, Net Flow Position, Proposed Quantity, and Planning Action. The 'Create Supply' button is highlighted for each row.

Product	Product Description	Planning Priority	Net Flow Position	Proposed Quantity	Planning Action
<input type="checkbox"/> ACC_BIKE_12	ACC_Bike_12_DESC	27.00 %	491 EA	1,296 EA	<input type="button" value="Create Supply"/>
<input type="checkbox"/> ACC_GEAR_12	ACC_Gear_12_DESC	73.00 %	223 EA	84 EA	<input type="button" value="Create Supply"/>
<input type="checkbox"/> ACC_GEAR_11	ACC_Gear_11_DESC	81.00 %	299 EA	69 EA	<input type="button" value="Create Supply"/>

... or navigate into object page for detailed planning by clicking on a line

Quick action to create supply here ...

Step 5 – Demand-Driven Execution

Monitor the On-Hand Buffer Status

Buffers with critical fill level, i.e. physical stock below a certain threshold, sorted by On-Hand Buffer Status = Physical Stock / Safety Stock

Product	Product Description	On-Hand Buffer Status	On-Hand Stock	Open Supply	Execution Action
ACC_BIKE_12	ACC_Bike_12_DESC	7.00 %	100 EA	391 EA	Expedite Supply
ACC_BIKE_21	ACC_Bike_21_DESC	7.00 %	100 EA	1,954 EA	Expedited On 1439/03/09, 15:41:20
ACC_BIKE_22	ACC_Bike_22_DESC	26.00 %	80 EA	1,264 EA	Expedited On 1439/02/25, 09:24:57
ACC_BIKE_11	ACC_Bike_11_DESC	35.00 %	100 EA	883 EA	Expedited On 1439/03/24, 12:05:50
ACC_GEAR_21	ACC_Gear_21_DESC	37.00 %	100 EA	1,439 EA	Expedite Supply
ACC_GEAR_11	ACC_Gear_11_DESC	93.00 %	100 EA	199 EA	Expedited On 1439/03/19, 10:22:26
ACC_GEAR_22	ACC_Gear_22_DESC	93.00 %	100 EA	211 EA	Expedite Supply

Quick action to expedite existing supply (orders) here ...

... or navigate into the object details for a comprehensive picture by clicking on a line

Step 5 – Demand-Driven Planning and Execution Alerts

Based on a comprehensive Buffer Context

Highlight issues in upstream flow of buffered material (synchronization)

Net Flow Position

On-Hand Buffer Status

Alerts

Current Net Flow Position: 394 EA
Current On-Hand Buffer Status: 16.00 %

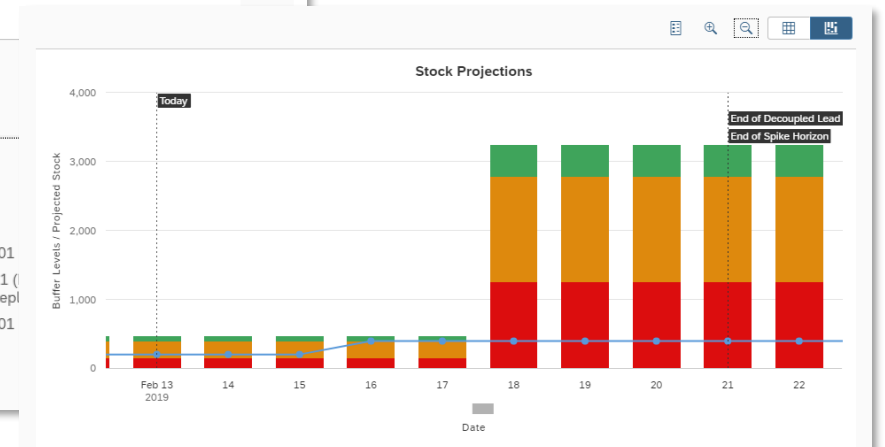
Date	Firmed	MRP Element	Actions	Additional Information	Spike	Quantity	Projected Stock
		Stock				200 EA	200 EA
02/16/2019	🔒	PldOrd 6035	Edit	Make-to-stock		194 EA	394 EA
02/21/2019				End of Decoupled Lead Time			
				End of Spike Horizon			

Product Information

Product Data
 Product Type: HALB (Semifinished Product)
 Product Group: L001 (Trading Materials)

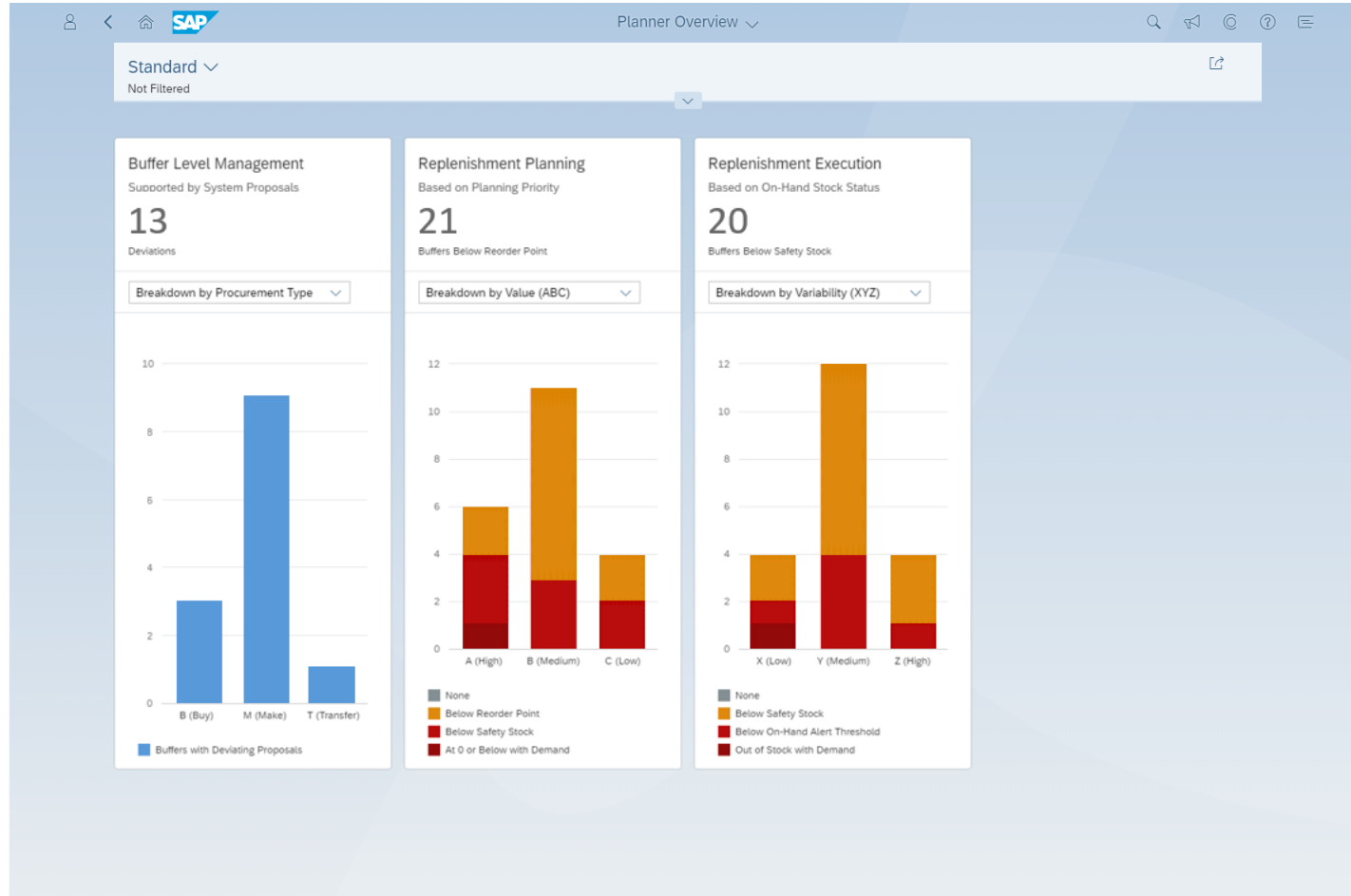
MRP Data
 MRP Group:
 MRP Controller: 001
 MRP Type: D1 (Repl)
 Low Level Code: 001

Stock Projection in table and graphics format



Steps 3+4+5 – Planner Overview Page

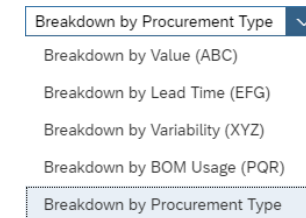
... supporting the Planner in Monitoring the End-to-End Process



The planner can see the key figures, which are also visible on the Fiori Launchpad tiles:

- Buffer proposals to be review
- Buffers to be planned
- Low on-hand buffer fill level to be managed

The key figures can be broken down by different dimensions:



By click on a stacked bar, the user navigates into the respective work list.

Planification

Overview

Integrated Business planning

pMRP

DDMRP

Order monitoring in S/4HANA

Scheduling



Mrp Result Analysis

Monitor Material Coverage

material cc

Search

Hide Filter Bar Restore Filters (3) Go

*Shortage Definition: MRP Standard Time till Shortage: Plant: 12... Material:

Materials (109)

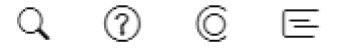
<input type="checkbox"/>	Material No.	Material Description	Vendor Name	Vendor Number	First Shortage On	Shortage Quantity	Stock Availability
<input type="checkbox"/>	MZ-RM-C900-04	Wheels-900			13.09.2019	10 PC	
<input type="checkbox"/>	MZ-RM-C900-01	Frame 900			13.09.2019	5 PC	
<input type="checkbox"/>	MZ-RM-C900-02	Handle Bars-900			13.09.2019	5 PC	
<input type="checkbox"/>	MZ-RM-C900-03	Seat - 900			13.09.2019	5 PC	
<input type="checkbox"/>	MZ-RM-C900-05	Forks-900			13.09.2019	5 PC	
<input type="checkbox"/>	MZ-RM-C900-06	Brakes-900			13.09.2019	5 PC	
<input type="checkbox"/>	MZ-RM-C900-07	Drive Train-900			13.09.2019	5 PC	
<input type="checkbox"/>	TG11	PRODUCT 11	Domestic FR Supplier 83 (Ariba Netw	12300083	01.10.2019	18 PC	
<input type="checkbox"/>	MH_ETIQUETTES	Label			04.10.2019	12 EA	
<input type="checkbox"/>	CC301	Component 301	Générale de distribution	CC01	11.10.2019	90 PC	
<input type="checkbox"/>	CC201	SEMI FINISHED PRODUCT 2 (batch mgt)			23.10.2019	100 PC	
<input checked="" type="checkbox"/>	CC300	Base Parfum 1	Générale de distribution	CC01	24.10.2019	120 PC	

Demo

Manage production order



Manage Orders ∨



Production Orders (1)

Production Order (1011221)

Search 🔍 🔄

Stock / Requirements
 4 Components
 Milestones
 Material
 Production Order

Extreme 50 **150**
PC
 FG126
 17.04.2019-18.04.2019
 PrdOrd 1011221

Components (15)

Ordered Requirements ⚙️

<input type="checkbox"/>	Component	Requirements Date	Quantity Overview	Open Quantity	Missing Quantity	Coverage Status (Working Days)
<input type="checkbox"/>	SG124 Handle	17.04.2019	<div style="width: 100%; height: 10px; background-color: red;"></div>	150 PC	150 PC	Uncovered
<input type="checkbox"/>	SG23 Wheel	17.04.2019	<div style="width: 100%; height: 10px; background-color: red;"></div>	150 PC	150 PC	40 days late
<input type="checkbox"/>	SG25 Brake Set	17.04.2019	<div style="width: 100%; height: 10px; background-color: red;"></div>	150 PC	150 PC	40 days late
<input type="checkbox"/>	RM18 Seat metal tube	17.04.2019	<div style="width: 80%; height: 10px; background-color: green;"></div> <div style="width: 20%; height: 10px; background-color: red;"></div>	150 PC	33 PC	50 days late

Production Cockpit



Manage Production Operations ▼



Standard ▼

Status: By Delivered Delivered ▼

Issue Type: ▼

Delay Duration: ▼

Adapt Filters (1) Go



Operations (2)

Edit Release Hold

<input type="checkbox"/>	Order	Material	Work Center	Operation/Progress	Status	Start	End	Issues
<input type="checkbox"/>	1011281	CFFERT1 000CF FERT 1	LF10-01 Assembly	CF FERT 1 Ope 10 (0010) <div style="background-color: green; color: white; padding: 2px;">1 of 1</div>	Confirmed	Fri, May 3 15:49	Fri, May 3 15:49	>
<input type="checkbox"/>	1011282	CFFERT1 000CF FERT 1	LF10-01 Assembly	CF FERT 1 Ope 10 (0010) <div style="background-color: green; color: white; padding: 2px;">1 of 1</div>	Confirmed	Fri, May 3 17:38	Fri, May 3 17:38	>

Standard * ▾

[Ajuster filtres \(3\)](#)
[Lancer](#)



Ordres (91)

[Modifier dates et quantités](#)
[Traiter](#)
[Lancer](#)
[Lire les données de base](#)

⚙️
📄
▾

<input type="checkbox"/>	Ordre	Article	Quantité en cours	Statut	Début	Fin	Avancement de l'opération	Problèmes
<input type="checkbox"/>	1006637	MZ-FG-E108	2 Pce	Livré	jeu., mai 24, 2018 11:09 AM	jeu., mai 24, 2018 06:20 PM	Final Acceptance (0020) <div style="width: 100%; background-color: green; height: 10px; margin-top: 5px;">10 sur 15</div>	🕒 🏷️ 🚨
<input type="checkbox"/>	2000040	FG226 FIN226,MTO,PD,FIFOparLot	0 Pce	Livré	lun., sept. 26, 2016 12:13 PM	jeu., sept. 29, 2016 12:21 PM	Posting GR (with opt. SerialNo assignm.) (0040) <div style="width: 100%; background-color: green; height: 10px; margin-top: 5px;">10 sur 10</div>	🕒 🏷️ 🚨
<input type="checkbox"/>	1005933	FG126 FIN126,MTS-DI,PD,N°série	10 Pce	Lancé	mer., mars 21, 2018 07:00 AM	mer., mars 21, 2018 07:38 AM	Assembly (0010) <div style="width: 0%; background-color: gray; height: 10px; margin-top: 5px;">0 sur 10</div>	🕒 🏷️ 🚨

Planification

Overview

Integrated Business planning

pMRP

DDMRP

Order monitoring in S/4HANA

Scheduling



S/4HANA Constraint based Production Planning & Scheduling

EXTENDED PRODUCTION PLANNING & SCHEDULING *

Finite capacity planning - PP/DS in S/4HANA:
One MRP

Production Scheduling Board

Heuristics and optimization

Combined order support

Monitor Capacity Utilization with new object page to analyze capacity details by resource and manage shifts and operations.

Create Optimal Orders for Suppliers:

- Use calculation logic of S/4HANA to optimize a **collective Purchase Order** for your schedule in seconds!
- Considers **supplier capacities** to harmonize own requirements against supplier constraints
- Use native HANA capabilities for **simulating** order combinations supported by **graphical visualizations**.

Capacity Utilization

Crusher: WAZ2SH_01_1716_001

Overview | Shift Table | List of Operations

28 Days | Utilization

Utilization %

Legend: Underload (0% - 79%), Normal utilization (80% - 99%), Full utilization (100%)

SHIFTS (S2)

Date	Start Time	End Time	Shift Definition	Shift Utilization %	Resource Utilization %	Downtime	Capacity
14-02-19	08:00 AM	06:00 PM	CRU 08:00 AM-06:00 P	100	100%		1
	08:00 AM	12:00 PM	MRA 08:00 AM-12:00 P	100	100%		1
	12:00 PM	06:00 PM	MAY 12:00 PM-06:00 P	100	100%		1
	08:00 PM	12:00 AM	BNV 08:00 PM-12:00 A	100	0%		1

Production Scheduling Board

Standard: *New Profile: Resource: WAZ2_SH_01_1716_001

View: Find Shift | Direction: Forward | Scheduling | Order | View Information | View Information | Reschedule | Deallocate | Fix | Undo Fixing | Switch Shift | Interrupt

Create Optimal Orders for Suppliers

Order Several Materials

Receiving Plant: Tools Germany P (P001)
Expected Delivery Date: 09.11.2016

Total Weight: 656,000 KG
Total Volume: 505,500 L
Total Order Value: 20,450,00 EUR

Material	Vendor	Next Order (In Working Days)	Quantity in Logistical Unit (PAL)	Conversion Factor	Quantity in Base Unit	Time till Next Replenishment	Stock Availability (Next 21 Days)
Total			37			0	
FIG-TOF-M3	Electronics & Co.	Today	0		0 EA	6	
FIG-TOF-M5	Electronics Retail & Co.		3	1 PAL = 100 EA	300 EA	6	
FIG-TOF-M11	Electronics Retail & Co.				800 EA	8	

Quantities have been proposed

Propose Quantities | Create Order | Hold Order | Clear Quantities

Monitor capacity utilisation



Monitor Capacity Utilization



Standard

Demo

Hide Filter Bar Restore Filters (2) Go

*Evaluation Profile:

*Evaluation Horizon:

SAP Standard Capacity Utiliz...

28 Days

Resources (3)

Legend Legend Sort Settings

<input type="checkbox"/>	Resource	Breakdown	Maximum	Minimum	Average	First Overload	First Underload	Utilization	
<input type="checkbox"/>	WCC01_1210_001 MACHINE 1		200 %	0 %	42 %	24.06.2019	13.06.2019		>
<input type="checkbox"/>	WLF10-01_LF10_001 LF10 machine		0 %	0 %	0 %		13.06.2019		>

Capacity Utilization

Capacity Utilization

MACHINE 1 WCC01_1210_001 Edit

OVERVIEW SHIFT TABLE LIST OF OPERATIONS

LIST OF OPERATIONS

List of Operations (4) Find Slot Forwards Search 14

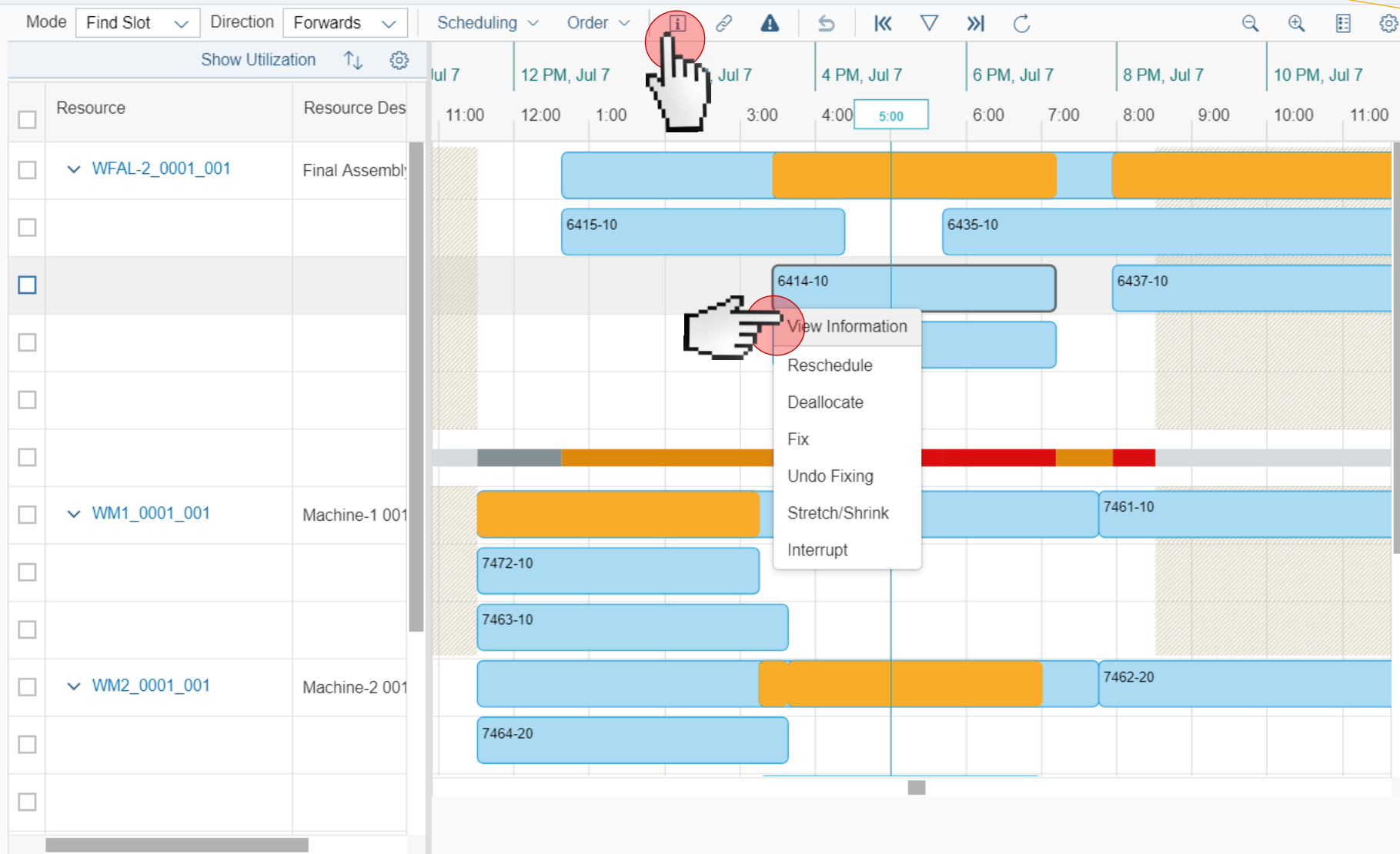
Order	Operation Number	Product	Start Date	End Date	Planning Status	Pegged Requirement	Operation Quantity	Operation Issues
14346	10	CC201 SEMI FINISHED PRODUCT 2 (batch mgt)	21.06.2019 03:20 pm	25.06.2019 04:00 pm			100.00	PC
14348	10	CC200 SEMI FINISHED PRODUCT 1	21.06.2019 03:20 pm	25.06.2019 04:00 pm			100.00	PC

Standard

Hide Filter Bar Filters (2) Go

*Time Profile: SAP001 Resource: WFAL-2_00... 3 More

Side Panel, opened via context menu or information button



Operation Information

Overview

Operation Number: 6414-10
Operation Start Date: 07.07.2017 03:26 PM
Operation End Date: 07.07.2017 07:11 PM
Status: -
Product: FG-1
Product Description: Finished Product 1
Quantity: 10.00 EA

Component Issues

Missing Component	Quantity	Late Receipt
PA-1		04h 32mins

Alternative Resources
Order
Setup
Pegged Requirement

Standard * ⌵

Hide Filter Bar Filters (2) Go

*Time Profile:

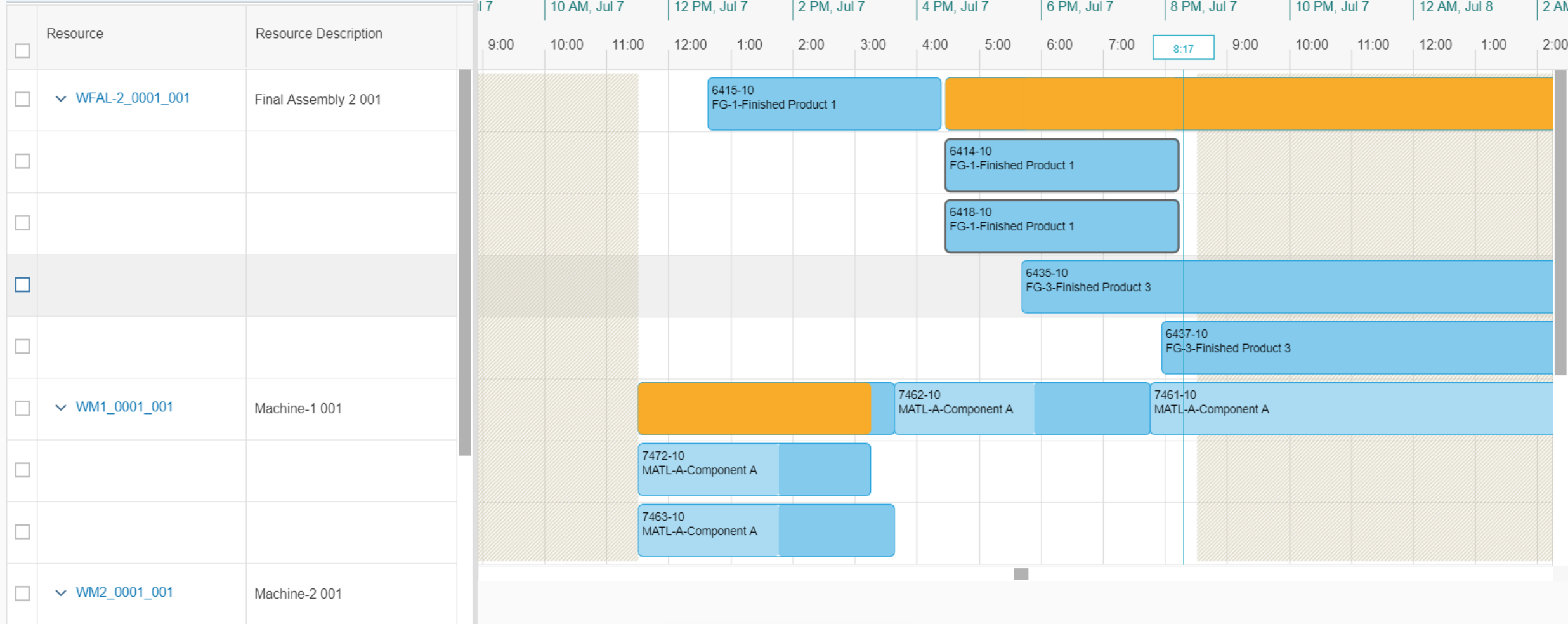
Resource:

SAP001

WFAL-2_00... 3 More

Mode Find Slot Direction Forwards Scheduling Order

Show Utilization



You have successfully rescheduled the operations 6414-10, 6418-10

Merci

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