

Building a Digital Supply Chain and Manufacturing Platform with S/4HANA

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Legal disclaimer

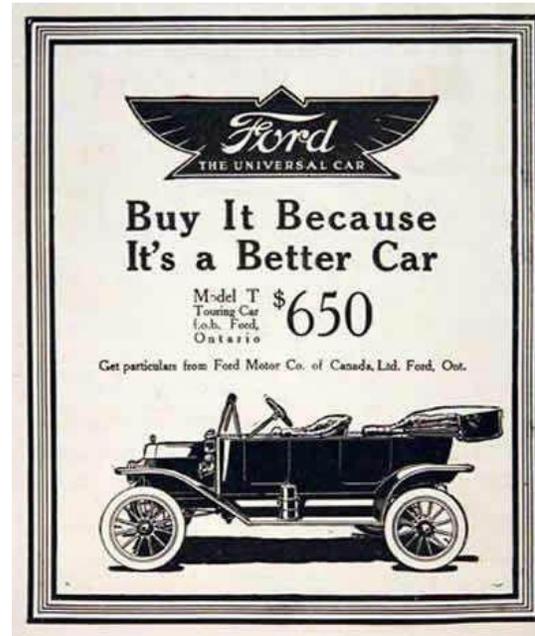
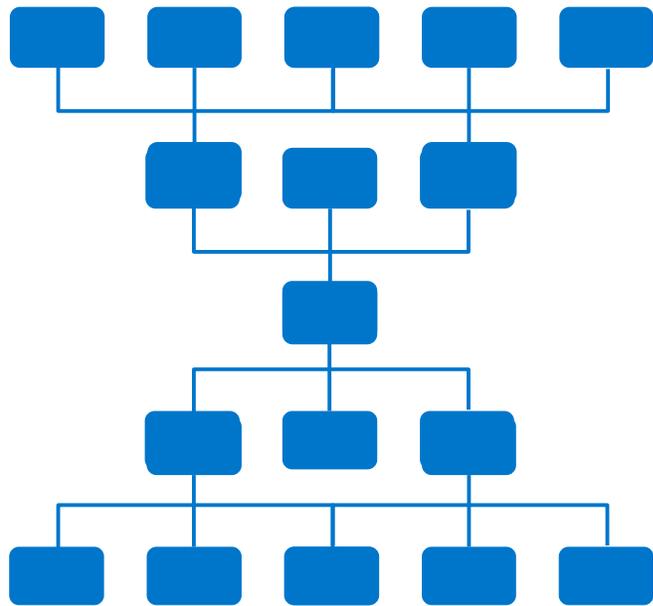
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Agenda

- Supply Chain Trends
- Demands on the Supply Chain
- S/4HANA for Digital Supply Chain
- S/4HANA Innovations for Extended Supply Chain
- Q&A

Supply Chain (Almost a Century Ago)



33

Countries in which Ford operated. From Brazilian forests to Northern Michigan mines

28

Hours for the iron ore to turn into finished automobile

700,000

Acres of timberland

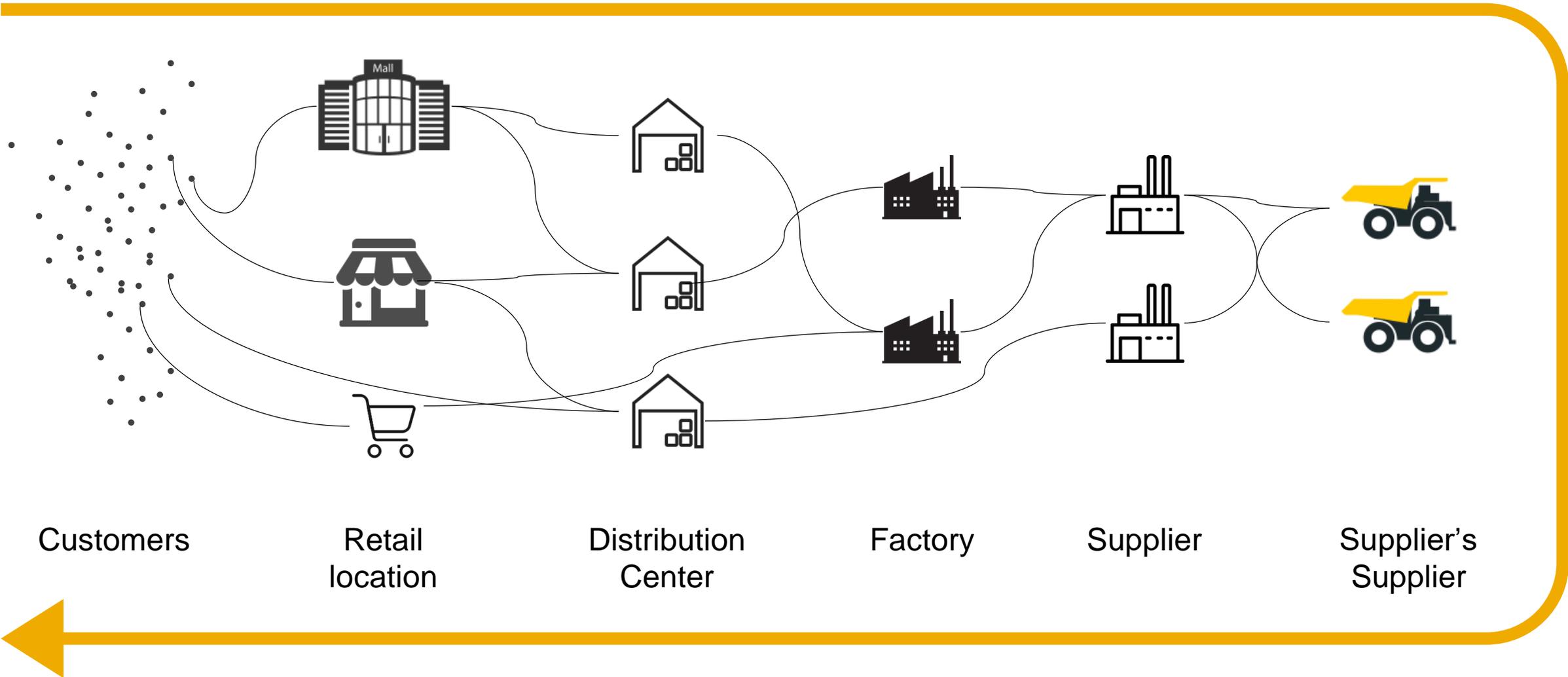
16

Coal mines controlled by Ford Motor Company

Source: The Henry Ford

Supply Chain

From First to Last Mile



Supply Chain Today - By the Numbers



1 Billion

Possible Configurations



630 Million

Estimated packages delivered by UPS during holiday season in 2015



34.4 Million

Items ordered on Prime Day in 2015



500,000 Miles

Supply chain journey of an iPhone

Z A R A

2 Weeks

From an idea to store shelf



2 Hours

Order-to-delivery time for groceries

Best Supply Chains are Industry Leaders

Or do Industry Leaders have the Best Supply Chains?

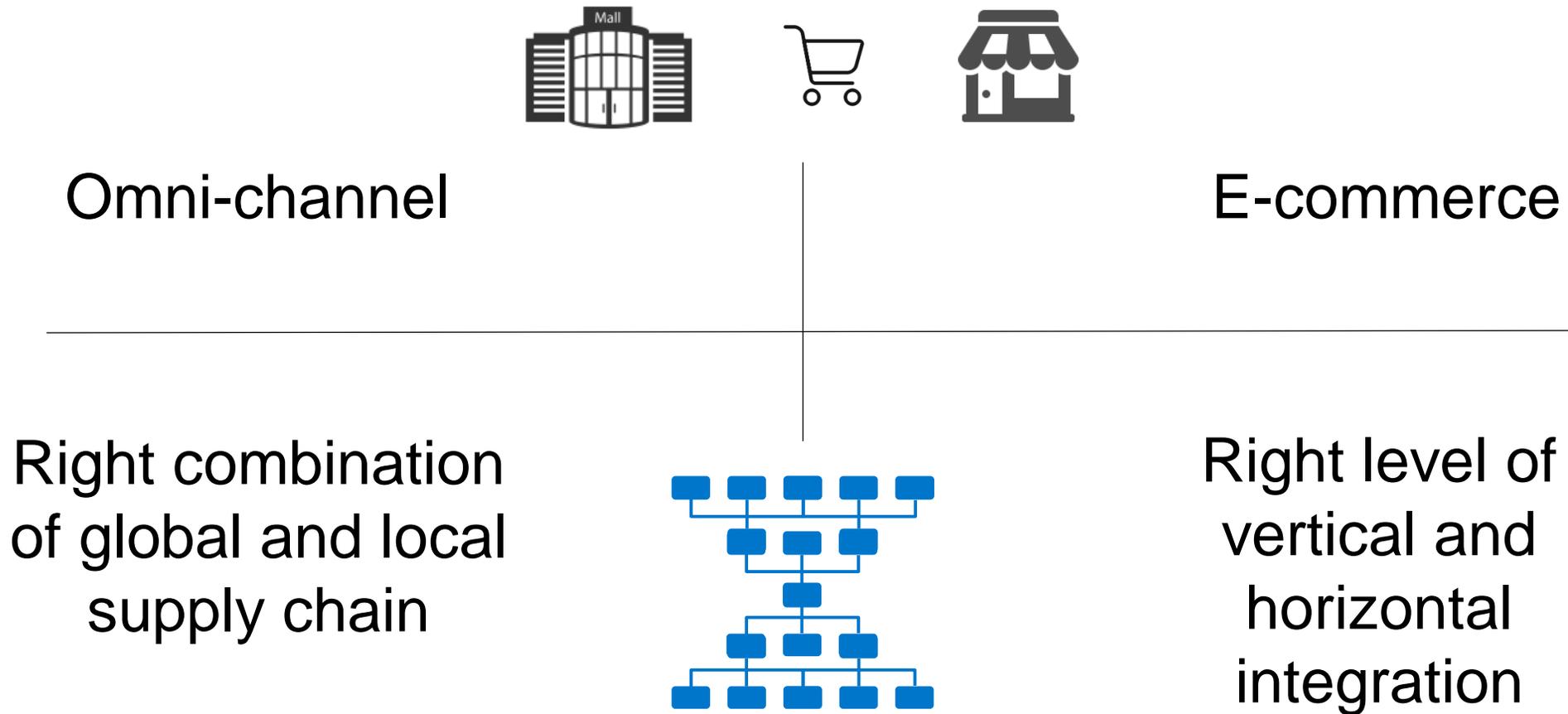
Table 1. The Gartner Supply Chain Top 25 for 2016

Rank	Company	Peer Opinion ¹ (185 voters) (25%)	Gartner Opinion ¹ (38 voters) (25%)	Three-Year Weighted ROA ² (20%)	Inventory Turns ³ (10%)	Three-Year Weighted Revenue Growth ⁴ (10%)	CSR Component Score ⁵ (10%)	Composite Score ⁶
1	Unilever	1841	632	10.8%	6.9	3.6%	10.00	5.84
2	McDonald's	1754	493	13.2%	156.0	-4.0%	3.00	5.54
3	Amazon	3356	582	0.5%	8.4	20.4%	0.00	5.34
4	Intel	1112	496	11.4%	4.3	1.1%	9.00	4.62
5	H&M	833	189	25.3%	3.5	16.3%	9.00	4.50
6	Inditex	1212	283	16.7%	3.9	11.2%	9.00	4.42
7	Cisco Systems	1158	510	8.2%	11.2	2.3%	5.00	4.21
8	Samsung Electronics	1313	303	8.6%	14.8	-2.4%	9.00	3.95
9	The Coca-Cola Co.	1459	253	8.3%	5.7	-2.9%	9.00	3.69
10	Nestlé	1251	257	8.9%	5.2	-1.1%	10.00	3.68

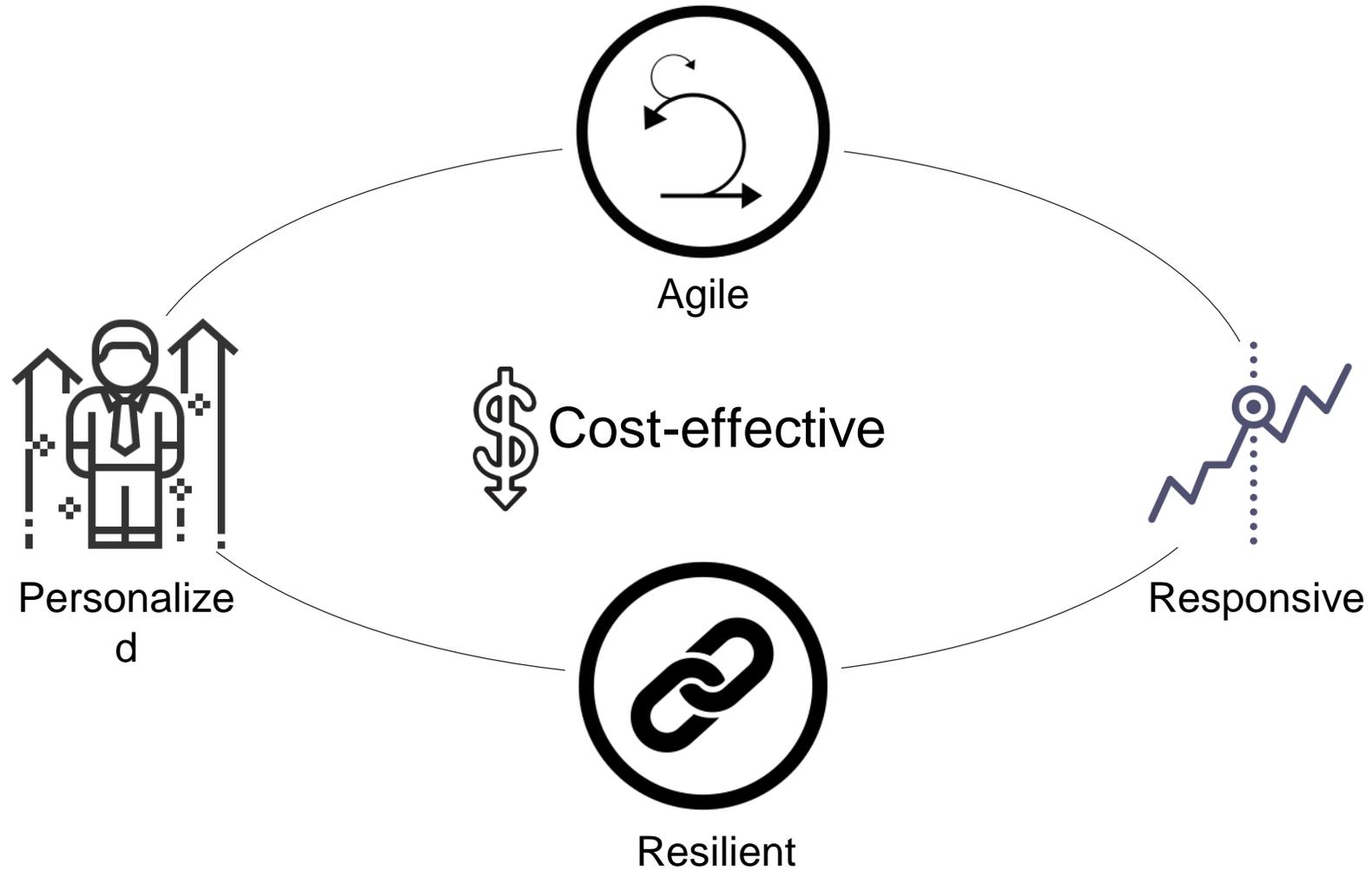
11	Nike	1393	205	14.7%	3.9	9.7%	4.00	3.58
12	Starbucks	1069	188	16.9%	6.8	13.8%	4.00	3.55
13	Colgate-Palmolive	880	323	15.1%	5.2	-3.5%	3.00	3.43
14	3M	784	163	15.0%	4.2	-0.9%	9.00	3.30
15	PepsiCo	931	347	8.5%	8.6	-2.3%	4.00	3.23
16	Walmart	1512	232	7.9%	7.7	0.6%	3.00	3.06
17	HP	390	266	4.6%	12.1	-5.2%	10.00	2.87
18	Schneider Electric	392	259	4.3%	5.1	4.9%	10.00	2.80
19	L'Oréal	888	159	11.4%	3.0	7.0%	4.00	2.70
20	BASF	492	199	6.5%	5.0	-2.0%	10.00	2.70
21	Johnson & Johnson	950	165	11.6%	2.6	-0.4%	4.00	2.65
22	BMW	778	128	3.8%	6.0	8.8%	10.00	2.61
23	GlaxoSmithKline	361	98	12.6%	1.9	-1.9%	9.00	2.51
24	Kimberly-Clark	634	240	9.0%	6.3	-2.5%	3.00	2.48
25	Lenovo Group	508	217	3.6%	13.3	17.0%	4.00	2.43

Source: Gartner (Best Supply Chains – 2016)

Industry and Business Trends Affecting Supply Chains



Demands on Supply Chain



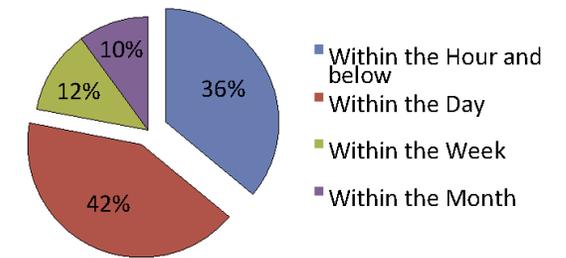
“Speed” Underlies Many Aspects of a Competitive Supply Chain

Competitive Factors Driving “Need for Speed”

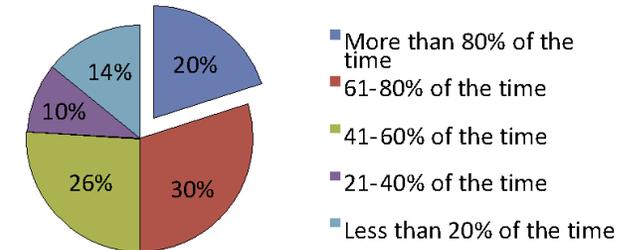
- More frequent product Introductions and shorter product lifecycles
- Frequent adjustments/corrections to forecast (demand sensing)
- Frequent re-planning; shorter frozen periods
- Same day shipments / frequent deployments (B2B & B2C)
- Omni-channel fulfillment; More frequent pick/pack/ship waves per day
- More frequent changeovers, smaller lot sizes
- Proactive preventative maintenance

Aberdeen Survey

Agility Factor Required to Make Decisions



Availability of Information Within Day



Source: Aberdeen Group, January 2011

Status Quo in Systems and Technology

Obstacle to Supply Chain Transformation and Excellence

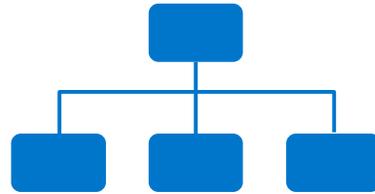
Slow Decision Making



“Large global organizations have created so much complexity that businesses often struggle to bring good ideas to the marketplace profitably.”

(McKinsey, 2014)

Slow Execution



Large organizations can spend between 40% and 80% of their time on non-value-added activities

(BCG, Complexity Report)

Technology Limitations



73% percent of executives said the complexity of data is the largest IT challenge

(Forrester, 2013 report)

10.2% or \$237B*

of profits lost by top 200 global companies due to hidden costs of complexity

*Global Simplicity Index, 2013

SAP S/4HANA - Digital Core for Supply Chain Transformation and Excellence

Decision making

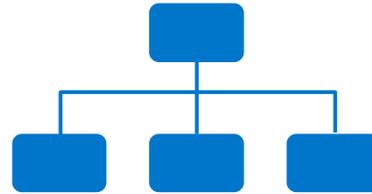


SAP S/4 HANA

- Live business insight
- Role-based experience
- All devices

Immediate business impact

Business processes

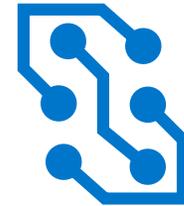


SAP S/4 HANA

- Real-time processes
- Digitally connected enterprise
- Best business practices

New profit models

Technology



SAP S/4 HANA

- Simplified data model
- Choice of deployment
- Open innovation platform

Much lower TCO

SAP S/4HANA

Digitized core business processes

SAP S/4 HANA SUITE

SAP and Partner Solutions that are deployed alongside S/4 HANA, with standard integrations. These include on-premise and cloud solutions.



SAP S/4 HANA PRODUCTS

Separately priced S4 branded components optimized for HANA that will be deliverable embedded within the S4 landscape (Some of these products may also be available outside of S4)

SAP S/4 HANA Enterprise Management

Simplified processes built natively on HANA with streamlined data structures and enhanced user experience, delivered as part of S4 user-based license;



Key Capabilities

- Real-time mission-critical business processes across your entire enterprise, One single source of live information
- Personalized user experience with instant insight on any device



Benefits

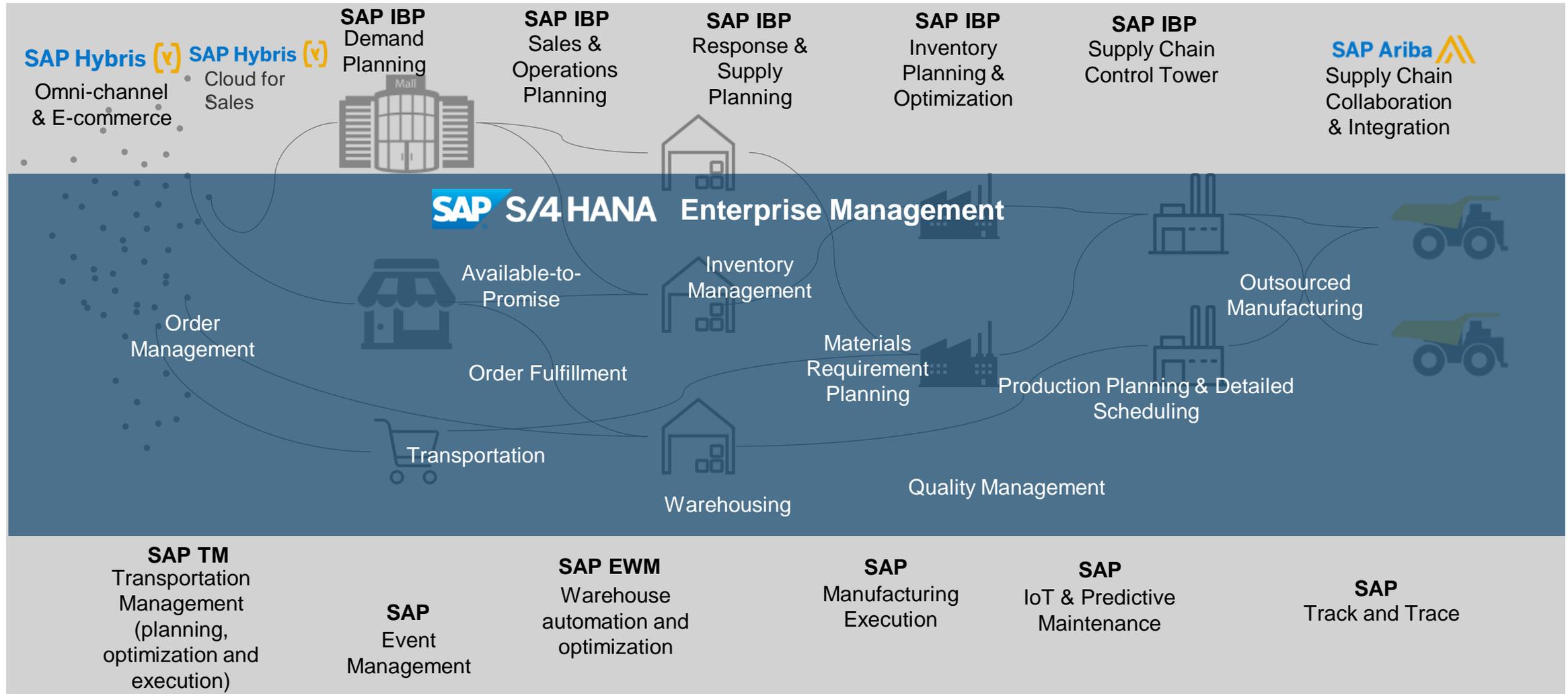
- Faster business outcomes with reduced operational cost thanks to a simpler IT
- Increased competitiveness with integrated, fast, and flexible business processes
- Higher employee productivity with focus on value-added tasks

SAP S/4HANA Overview (1610)

Planned - subject to change

	<p>SAP S/4HANA FINANCE</p> <p></p> <ul style="list-style-type: none"> Integrated business planning 	<p>SAP S/4HANA HUMAN RESOURCES</p> <p>SAP SuccessFactors  SAP Fieldglass </p> <ul style="list-style-type: none"> Core human resources and payroll Talent management Time and attendance management Human capital analytics 	<p>SAP S/4HANA SOURCING & PROCUREMENT</p> <p>SAP Ariba  SAP Fieldglass </p> <ul style="list-style-type: none"> Supplier Collaboration Business Network 	<p>SAP S/4HANA MANUFACTURING</p> <ul style="list-style-type: none"> Manufacturing Integration and Intelligence Manufacturing Execution System Quality Issue Management Visual Enterprise 	<p>SAP S/4HANA SUPPLY CHAIN</p> <ul style="list-style-type: none"> Supply Chain Control Tower Integrated Business Planning Customer & Supplier Collaboration Extended Warehouse Management Transportation Management Advanced Planning & Optimization
Suite					
Products	<ul style="list-style-type: none"> Accounting and financial close Treasury and financial risk management Receivables management 			<ul style="list-style-type: none"> Production planning & scheduling 	<ul style="list-style-type: none"> Production Planning & Scheduling Extended Warehouse Management Advanced ATP with allocations and back order processing
Digital Core	<ul style="list-style-type: none"> Accounting and Closing Operations Accounting Cost management & profitability analysis 	<ul style="list-style-type: none"> Time and Attendance Management 	<ul style="list-style-type: none"> Supplier information and master data Operational procurement Invoice and payables management Operational sourcing and contract management 	<ul style="list-style-type: none"> MRP Production Planning Quality management and compliance 	<ul style="list-style-type: none"> Inventory and basic warehouse management Material valuation Basic ATP
	<p>SAP S/4HANA Enterprise Management</p>				
	<ul style="list-style-type: none"> Order and contract management 	<ul style="list-style-type: none"> Service management Service master data management Service parts management Service agreement management 		<ul style="list-style-type: none"> Maintenance Management 	<ul style="list-style-type: none"> Product development and project control Product Data Management Variant Configuration Document Management
Products	<ul style="list-style-type: none"> Sales planning and performance management 		<ul style="list-style-type: none"> Billing and revenue innovation management 	<ul style="list-style-type: none"> Asset Operations and Maintenance Environment, Health, and Safety 	<ul style="list-style-type: none"> Commercial Project Management Portfolio & Project Management Enterprise Product Engineering & Formulation
Suite	<p>SAP S/4HANA SALES</p> <p>SAP Hybris  Cloud for Sales</p>	<p>SAP S/4HANA SERVICE</p> <p>SAP Hybris  Cloud for Service</p>	<p>SAP S/4HANA MARKETING AND COMMERCE</p> <p>SAP Hybris  Cloud for Marketing</p>	<p>SAP S/4HANA ASSET MANAGEMENT</p> <ul style="list-style-type: none"> Asset Network <ul style="list-style-type: none"> SAP Master Data Governance SAP Predictive Maintenance and Service SAP Asset Intelligence Network ... 	<p>SAP S/4HANA RESEARCH AND DEVELOPMENT</p> <ul style="list-style-type: none"> Engineering Collaboration Authoring Tool Integration Visual Interaction Services
	<p>← INDUSTRIES →</p>				

SAP S/4HANA Suite for Supply Chain Transformation



Highlights of Key Business Innovations in S/4 HANA

Re-architecting for
in-memory platform

Responsive user
experience design

Unifying functionality in
core



Inventory
Management



Material Requirements
Planning



Material
Valuation



Sales Representative
(Order Management & Billing)



Procurement Clerk
(Procurement)



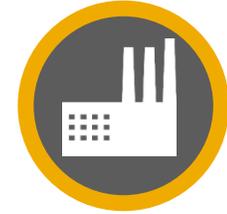
Material Planner
(Material Requirements Planning)



Available-to-Promise &
Backorder Processing



Capacity
Planning



Industry Solutions
to Core

SAP S/4HANA for Operations and Logistics – Key Innovations Available now, and planned for 1610 release where marked



Inventory Management

Simplified data model resulting in increased through-put, flexible analytics at the most granular level.

Warehousing

Easy to adopt flexible warehousing for advanced business needs.



Material Requirements Planning

10x Faster MRP run, and new working model for MRP controllers based on Fiori UI for exception management and decision support.



Material Valuation

Principle of One, scalable material valuation capabilities, utilizing Material Ledger, that way customers can use multi-currencies, valuation methods per different accounting laws like GAAP.



Available To Promise & Backorder processing

Advanced ATP capabilities in S/4 HANA. New innovative functionality for Re-scheduling orders based on customer and demand priorities and advanced real time rules based order promising

Planned 1610



Capacity Planning

Advanced PP/DS functionality inside S/4 HANA. Simplified and automated integration with seamless master data & UI harmonization. Including constrained planning and detailed scheduling and new planning UI

Planned 161d



Order Management & Billing

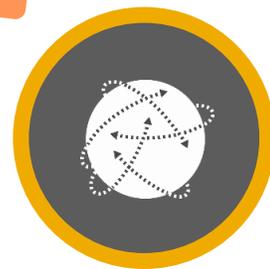
Enable monitoring of end-to-end order-to-cash process & take actions for any exceptions with new Fiori UI



Project Mgmt

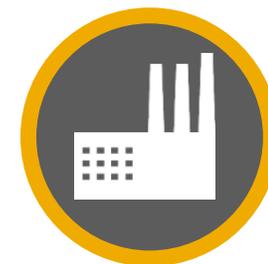
Portfolio and Project Mgt, and Commercial project Mgt in S/4 HANA, with improved Analytics, UI's and integration for faster adoption and business value

Planned 1610



Procurement

Increased efficiency in the Procure-to-Pay processes, new Analytical Apps & Spend KPI's, Ariba Network Integration for PO Order and IV.



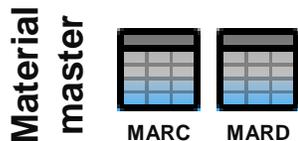
Industry Solutions in the core

Bring Industry Solutions, like the DIMP template (Discrete & Mill Industries) back into core so all industries can leverage the best practices such as lean functionality etc.

Simplification with S/4HANA: Inventory Management – Aggregates eliminated (1511 release)

New Suite

- Delete redundant aggregate tables (26 of them)
- Simplify to only 2 master tables
- Simply create aggregate views on the fly when needed
- Remove overhead of updating and locking and processing unnecessary tables



26
aggregate
tables

SAP S/4HANA

Design principles

- » Foster in-memory technology
- » Utilize columnar data layout

Target architecture

- » Eliminate redundancies and aggregates
- » Have a simple and high-performant reporting, both for quantities and values
- » Reduce memory footprint
- » Performance

Value Implications

- » Scalability
- » Real time Inventory (concurrent backflush)
- » Always Accurate Inventory / ATP

Planned innovations – Q1/2017

Increased Insight to Action / IM Inventory Management

Remaining Shelf Life App

App to detect expiring batches early and trigger appropriate follow-up actions in order to avoid losses due to scrapping.

Material	Material Name	Batch	Plant	Storage Location	Value	Days Ahead From Shelf Life	Shelf Life	Base Unit	Unr
10223882001820	AFTER EIGHT 12x300	4118890010	Hamburg (0010)	0058	32,762.78 EUR	111	04/24/2016	PC	67C
10223887348393	AFTER EIGHT 24x150	4118890748	Hamburg (0010)	0057	2,728.82 EUR	89	04/27/2016	PC	35C
10223887484900	AFTER EIGHT 12x100	4118890038	Hamburg (0010)	0058	58,594.02 EUR	87	05/13/2016	PC	73C
			Hamburg (0010)	0058	22,111.01 EUR	80	04/08/2016	PC	89C
			Hamburg (0010)	0057	35,627.04 EUR	64	04/09/2016	PC	75C
			Hamburg (0010)	0057	3,213.78 EUR	102	05/01/2016	PC	44C
			Hamburg (0010)	0059	3,234.45 EUR	99	04/30/2016	PC	32C
			Hamburg (0010)	0059	82,221.16 EUR	77	05/17/2016	PC	75C
			Hamburg (0010)	0059	87,282.75 EUR	48	05/22/2016	PC	86C
			Hamburg (0010)	0057	45,364.23 EUR	42	05/20/2016	PC	547
			Hamburg (0010)	0056	6,587.09 EUR	39	04/24/2016	PC	65C
			Hamburg (0010)	0057	373.99 EUR	67	04/24/2016	PC	65
			Hamburg (0010)	0058	21,112.22 EUR	75	04/11/2016	PC	567
			Hamburg (0010)	0057	6,570.76 EUR	76	04/18/2016	PC	657
			Hamburg (0010)	0057	22,992.11 EUR	87	05/02/2016	PC	85C
			Hamburg (0010)	0059	9,070.62 EUR	45	05/24/2016	PC	76C

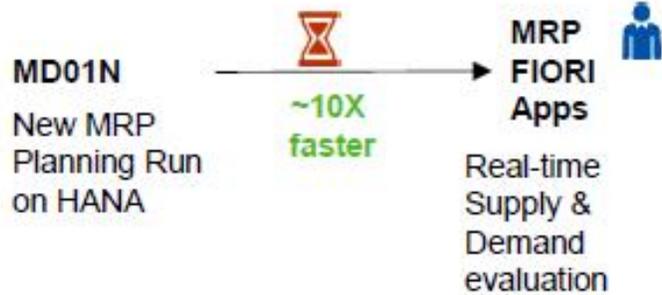
Slow Moving Materials App

App that helps to avoid unnecessarily bound capital by identifying slow moving materials.

Material	Material Name	Plant	Storage Location	Batch	Value	No Activity In Days	Base Unit	Last Goods Receipt	Last GoC
10384593393873	Material Easy Hand III (TG-2020)		Storage 1 (101A)	56766	12,442.89 EUR	78	EA	04/28/2015	
10384593393873			Storage 2 (251B)	56900	9,118.04 EUR	88	EA	04/29/2015	
10384593393873			Storage 3 (403C)	56879	43,877.17 EUR	101	EA	04/30/2015	

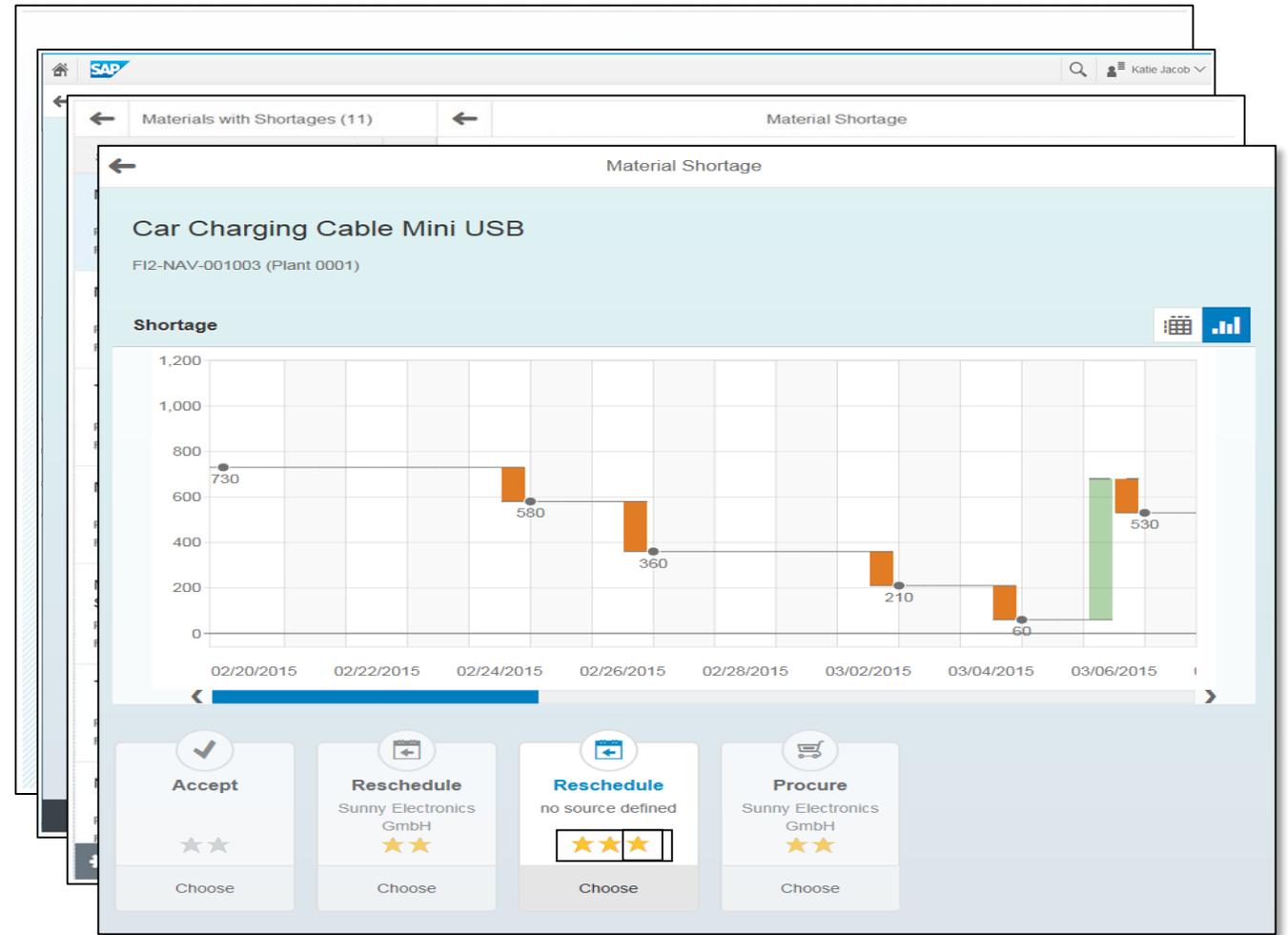
This is the current state of planning and may be changed by SAP at any time.

S/4 HANA MRP and MRP Cockpit



Benefits:

- More frequent MRP runs
- More timely and accurate material info
- Single, real-time view of material shortage information across sites
- Sales order, inventory and procurement views
- Simulate solution viability and effectiveness in real-time



Advanced ATP with SAP S/4HANA

Respond with Confidence



Advanced ATP

- Mass enabled fast Availability Check
- Use case-driven product allocation check
- Intelligent and fully automated selection of best confirmation considering alternative plants and substitutable materials
- Backorder processing with intuitive requirement classification and automatic exception handling
- Easy-to-use and device-independent ATP explanation and simulation app
- FIORI Apps for Release for Delivery, Advanced Interactive backorder processing, etc

Faster, Simpler
and More
Intelligent Order
Commitment



Basic ATP

- Simple Product Availability Check
- Basic Allocation Check
- Manual material determination
- Semi-manual plant substitution
- Material-/plant-based backorder processing for sales orders
- Simple transportation and shipment scheduling based on days (and hours)

Simple Available to
Promise

Planned Innovations – Q4/2016 (1610 & 1611)

Advanced ATP – Backorder Processing

Reduce TCO. One Run fits all. Former solution requested more subsequent runs.
Increase margin due to flexible order confirmation based on business priorities in ATP back-order processing.

Flexible and intuitive selection and ranking of sales order requirements.

High performance mass ATP-check.

Advanced ATP – Backorder Processing

- New FIORI-UIs to set-up BOP-runs.
- New concept for requirement classification:
 - Winner
 - Gainer
 - Redistributor
 - Filler
 - Looser
- New FIORI-app to display the BOP-result:
The result is displayed on different aggregation levels and allows an easy identification of (and fast drill down to) confirmation issues.

The screenshot displays the 'BOP Aggregations' interface. At the top, it shows 'NIGHTLY_BOP' with a completion rate of 85.7%. Below this, it lists the user as 'CLAUSJU', the start time as '2016.02.16 15:55:51', and the finish time as '2016.02.16 15:55:57'. A 'Time Horizon' field is set to 'Enter time horizon'. The 'Requirements' section shows 14 total requirements, with 14 confirmed (green checkmark), 0 locked (lock icon), 0 pending (down arrow), and 0 with issues (red exclamation mark). The 'Requirement Confirmation' section shows 0% for the current time horizon and 85.7% for the overall run. Below this are tabs for aggregation levels: 'BY MATERIAL-PLANT' (selected), 'BY STRATEGIES', 'BY CUSTOMER', 'BY MATERIAL GROUP', and 'CUSTOM AGGREGATION'. A search bar 'Enter a material or plant' is present. The main table lists materials and their confirmation status:

Material	Plant	Requirements	Status	Quantity Confirmation	Requirement Confirmation
CHOCOMIX	ATP1	7	7 confirmed, 0 locked, 0 pending, 0 issues	0% ↑ 72.7% 0% ↑ 72.7%	0% ↑ 71.4% 0% ↑ 57.1%
PIZZAFUNNY	ATP1	7	7 confirmed, 0 locked, 0 pending, 0 issues	0% ↑ 100% 0% ↑ 100%	0% ↑ 100% 0% ↑ 100%

This is the current state of planning and may be changed by SAP at any time.

Planned innovations – Q4/2016

Finite capacity scheduling- PP/DS in S/4

Increase production throughput and reduced production costs leveraging finite capacity planning embedded in S/4HANA

Reduced order cycle time

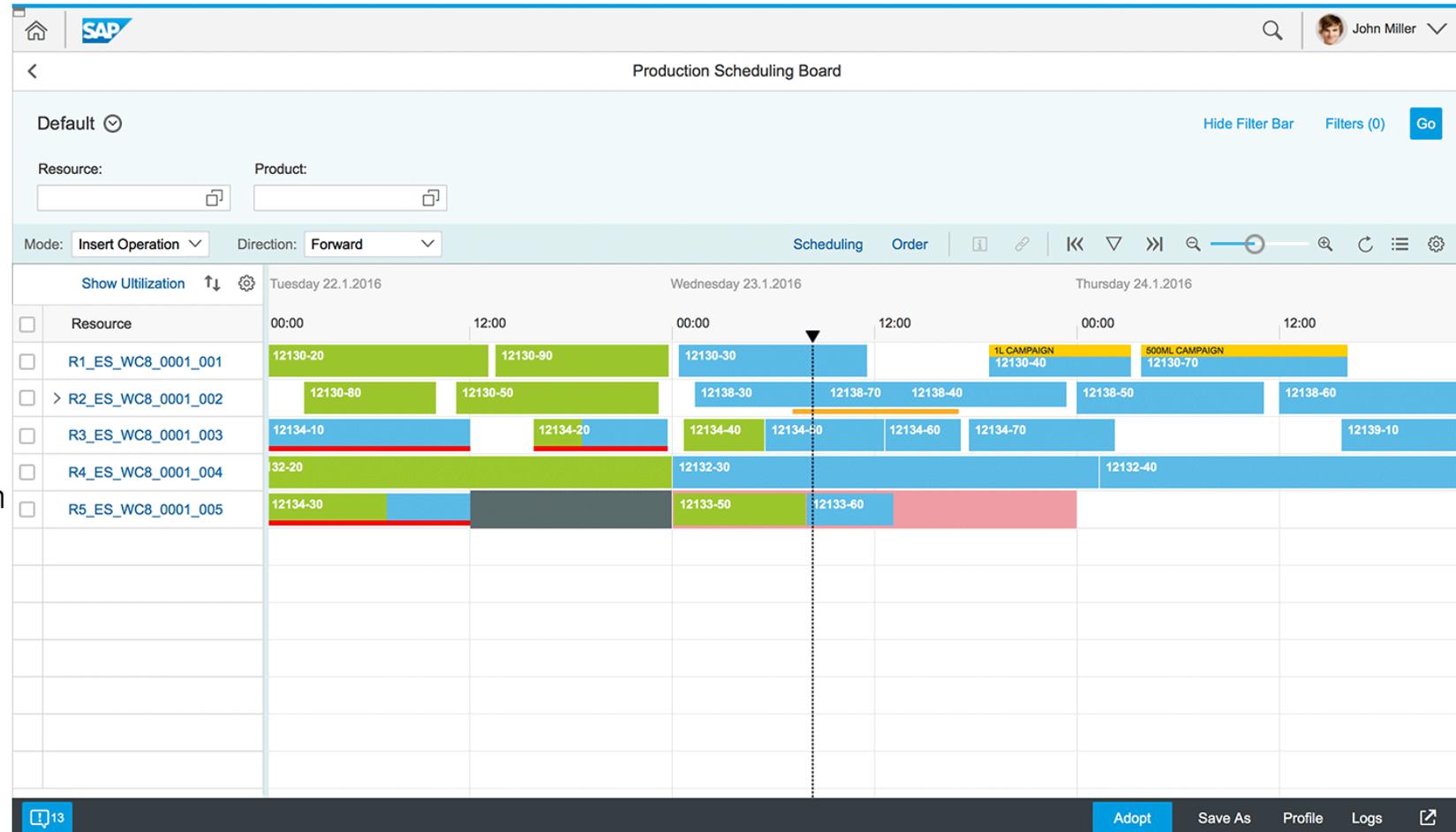
Reduce replanning effort

Minimize shortage situations

Harmonization of capacity load

Creating finite production plan according to the available capacity situation and schedule available resources and generating production plan to the precision of seconds. Gantt themed web based scheduling board to manually schedule capacities

SAP Fiori App for Production Scheduling Board



This is the current state of planning and may be changed by SAP at any time.

Planned innovations – Q4/2016

Truckload Consolidated Purchase Orders / PP-MRP

Reduce transportation costs utilizing truckload optimized purchasing

Reduce communication effort between supplier and customer

The Material Planner can quickly identify all materials to be ordered due today or within the next days. All materials from one vendor are ordered together in a way that the availability is balanced and that the used means of transportation are fully loaded.

SAP Fiori App: Create Optimal Orders for Shipment

Fiori Application to identify all materials due today or in the near future to avoid material shortages. Quantities are proposed for one selected vendor to balance the availability of these materials and to fully load the chosen means of transportation. After a possible manual correction, one purchase order is created handling all selected materials.

Status	Material	Preferred Vendor	Next Order (in Working Days)	Quantity in Logistical Unit (PAL)	Time till Next Replenishment	Stock Availability (Next 21 Days)
	Total		In 4 days	20	0	
	FIO-TOP-M1 Battery M1 12V	Trimax Electricals FIO-VEND02	In 4 days	14	0	
⚠	FIO-TOP-M10 Interrupter M10	Nova Electronics FIO-VEND01	2 days ago	0	0	
⚠	FIO-TOP-M2 Battery M2 9V	Super Instruments FIO-VEND03	2 days ago	0	0	
	FIO-TOP-M3 Screened Cable M3 1,5m	Trimax Electricals FIO-VEND02	In 4 days	2	0	
	FIO-TOP-M5 Circuit Breaker M5	Trimax Electricals FIO-VEND02		2	0	
	FIO-TOP-M6 Circuit Breaker M6	Trimax Electricals FIO-VEND02		2	0	

This is the current state of planning and may be changed by SAP at any time.

Warehouse Management with SAP S/4HANA

Supporting all levels of warehouse complexity



Advanced Warehouse Management

- Inventory Management Optimization (e.g. Slotting)
- Inbound Process Optimization (e.g. Deconsolidation)
- Outbound Process Optimization (e.g. Waves)
- Material Flow Control
- Yard Management (e.g. TU handling, DAS)
- Labor Management
- Value Added Services
- Kitting
- Cross Docking
- Warehouse Billing

Optimize warehouse operations



Basic Warehouse Management

- Inventory Management
- Inbound Processing
- Outbound Processing
- Internal Warehouse Movements
- Physical Inventory
- Reporting

Stock transparency and control



Warehouse Management with SAP S/4HANA

Supporting all levels of warehouse complexity – Component view



Advanced Warehouse Management

- **Decentral SAP EWM** integrated to SAP S/4HANA
 - High volume warehouses
 - Independent operations
 - E.g. for Material Flow System (MFS)
- **Embedded SAP EWM** in S/4HANA
 - Small & midsize warehouses
 - Production warehouses
 - New deployment option

PLANNED

Optimize warehouse operations



Basic Warehouse Management

- Today:** LE-WM used
- Part of S/4HANA compatibility scope (see SAP note [2269324](#))

New with 1610: Simplified SAP EWM component used

Stock transparency and control



Manufacturing in S/4HANA

Enhancements for Production Supervisor Role

Value Proposition

- Real time information about the current situation in the production supervisor's area of responsibility
- Early detection of deviations from the plan, enabling him to take immediate action

Capability

- Monitor production orders and production operations in the area of responsibility
- Select, sort, filter and save tailored variants for the SAP Fiori launchpad, evaluating the production situation in real time
- Drill down to details and adjust when needed
- Access related apps and transactions, for example in PP, SAP MRP and quality management

The top screenshot displays the 'Manage Shop Floor Orders' Fiori app. It features a search bar and a table of orders. The table has columns for Order, Material, Quantity, Status, Start, End, Current Progress, and Order Issues. The bottom screenshot shows the 'Shop Floor Order' details for 'Production Order 5071'. It includes fields for Order Type, Material, Status, Person Responsible, and Quantity. Below this are tabs for 'ISSUES', 'ORDER INFORMATION', 'COMPONENTS', and 'ORDER SCHEDULE'. The 'COMPONENTS' tab is active, showing a table with columns for Material, Quantity, Coverage, Available at Supply Area, Confirmed Quantity, and Next Supply.

Order	Material	Quantity	Status	Start	End	Current Progress	Order Issues
5198	FIO-NAV-001005 Mount XF03	120 pcs	● ● ●	Fri, Jan. 29 3:00 pm	Fri, Jan. 29 5:00 pm	Assemble 80 of 120 pcs	
5071	FIO-NAV-001009 Mount XF03	20 pcs	● ● ●	Yesterday 9:00 am	Yesterday 4:00 pm	Assemble 4 of 20 pcs	
4711	FIO-NAV-001002 Navigator XF03						
5087	FIO-NAV-001002 Navigator XF03						
4956	FIO-NAV-001005 Mount XF03						
4758	FIO-NAV-001005 Mount XF03						
5136	FIO-NAV-001009 Mount XF03						
4725	FIO-NAV-001009 Mount XF03						

Material	Status	Person Responsible	Quantity	Quantities Planned
FIO-NAV-001009 (Mount XF03)	● ● ●	Michael Adams	20 pcs	200EA

Material	Quantity	Coverage	Available at Supply Area	Confirmed Quantity	Next Supply
FIO-NAV-001002 Navigator XF03	Total: 200 pcs Open: 120 pcs	<div style="width: 60%; background-color: green;"></div>	80 pcs	Committed: 100 pcs Uncovered: 20 pcs	2016/03/30 100 pcs
FIO-NAV-001005 Mount XF03	Total: 200 pcs Open: 110 pcs	<div style="width: 55%; background-color: green;"></div>	200 pcs	Committed: 90 pcs Uncovered: 10 pcs	2016/03/30 80 pcs

This is the current state of planning and may be changed by SAP at any time.

SAP Connected Manufacturing

Overall Solution: Cloud / On-Premise / Shop Floor



S/4 HANA for R&D Engineering Systems Engineering - Authoring Tools Integration

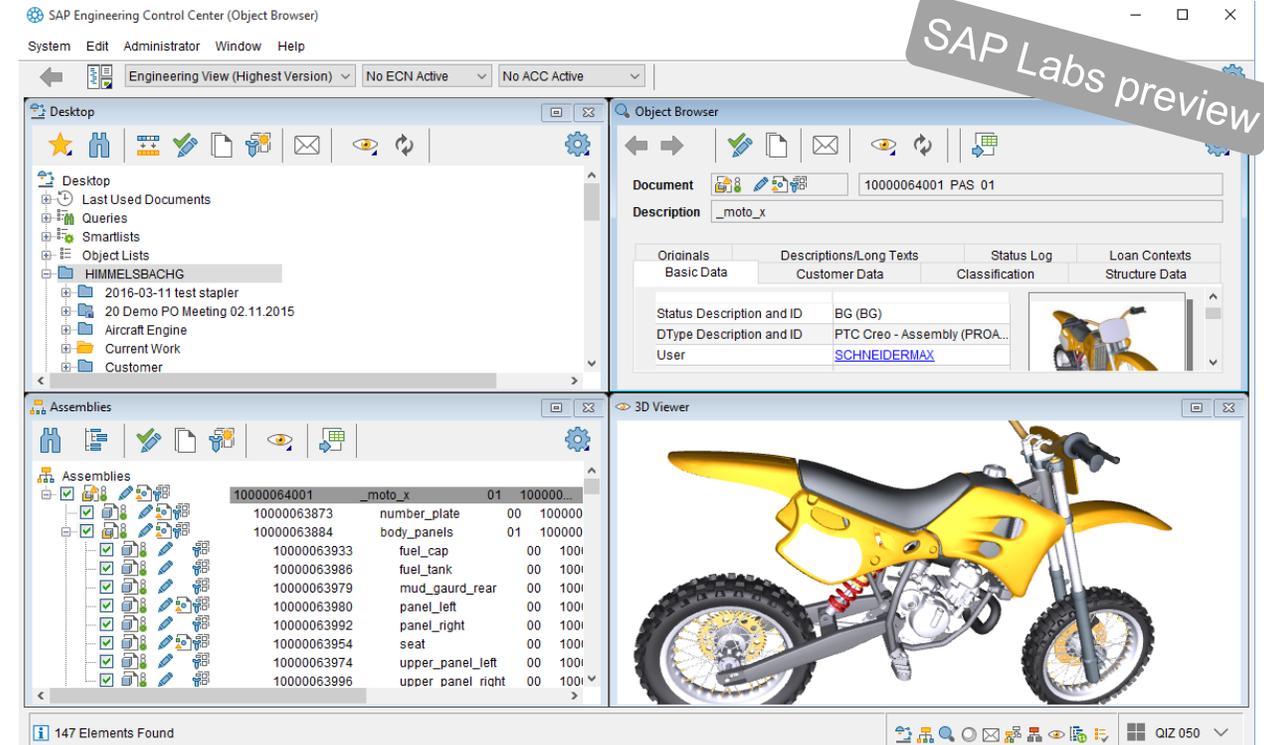
The SAP Engineering Control Center for SAP S/4HANA is the single platform the engineer needs to get a 360 degree product view, including mechanics, electronics, software, and simulation. Further interfaces to E-CAD tools are provided by our partners to cover the market leaders.

ECTR integration with S/4HANA supports:

- New collaboration capabilities
- Simplified configuration
- Integration into the Visual Enterprise Manufacturing Planner

Electronic CAD design tools with integration for ECTR:

- Altium
- Cadence
- EPLAN
- Mentor Graphics
- Zuken



S/4 HANA for R&D Engineering

Simplified Bill of Material and Change Management

The bill of material (BOM) is one of the key master data in engineering, manufacturing, asset management, and service. A state-of-the-art maintenance application with a superior user experience is essential for a large number of end-to-end business processes.

Simplified Bill of Material supports:

- Easy BOM search
- Ad-hoc creation of change numbers
- Timeline control to scroll through changes
- Overview of change documents per change on items
- Drafts
- Direct file attachment

The screenshot displays the SAP Engineering Cockpit interface. The main dashboard includes several key components:

- My Inbox:** A notification card showing 8 items 'Awaiting Approval', updated 2 days ago.
- Open Change Records:** A summary card showing 69 records, a +21.12% increase, and a bar chart for Product Lines 1 through 5.
- Change Records per Department:** A summary card showing 42 records, a +10.12% increase, and a stacked bar chart for departments MFG 01, MFG 02, PLM 01, and PLM 02.
- Change Record Processing in Time:** A summary card showing 5.3 days, a +21.12% increase, and a line chart showing processing time in days across different statuses (PLM 01, PLM 02, PLM 03).
- Change Requests:** A table listing 'New Change Requests' with columns for Creator, Request Date, and Priority.
- Change Records per Department (Detailed):** A summary card showing 42 records, a +10.12% increase, and a stacked bar chart for Cancelled CR and Closed CR across departments MFG 01, MFG 02, PLM 01, and PLM 02.

On the right side, there is a 'Days preview' overlay and a 'Header Details' section for a specific record (r 23451247).

S/4 HANA for R&D Engineering

Visual Manufacturing Planning and Handover

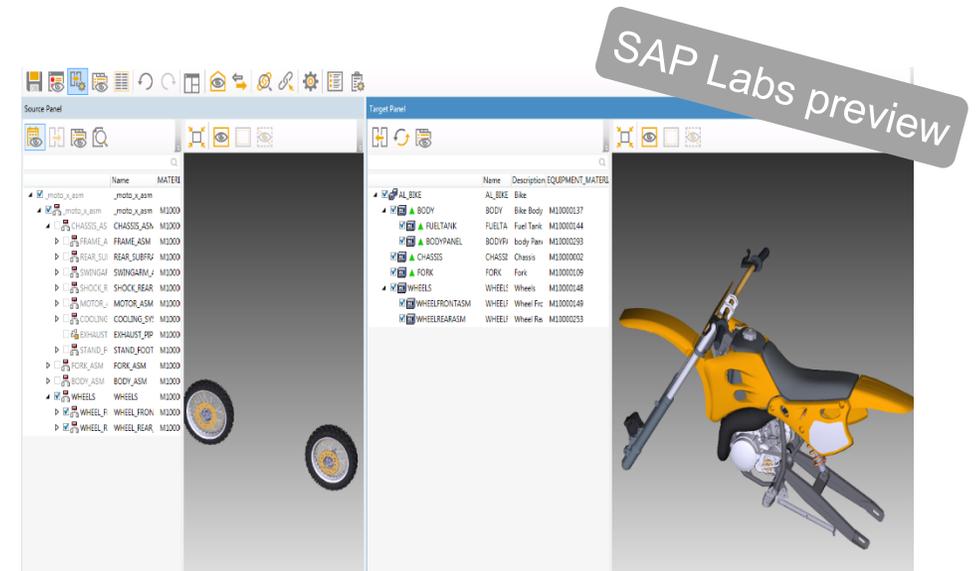
Bridging the gaps between engineering, manufacturing, and maintenance & service via a visual user interface: easy to learn and easy to use.

Visual Enterprise Manufacturing Planner supports:

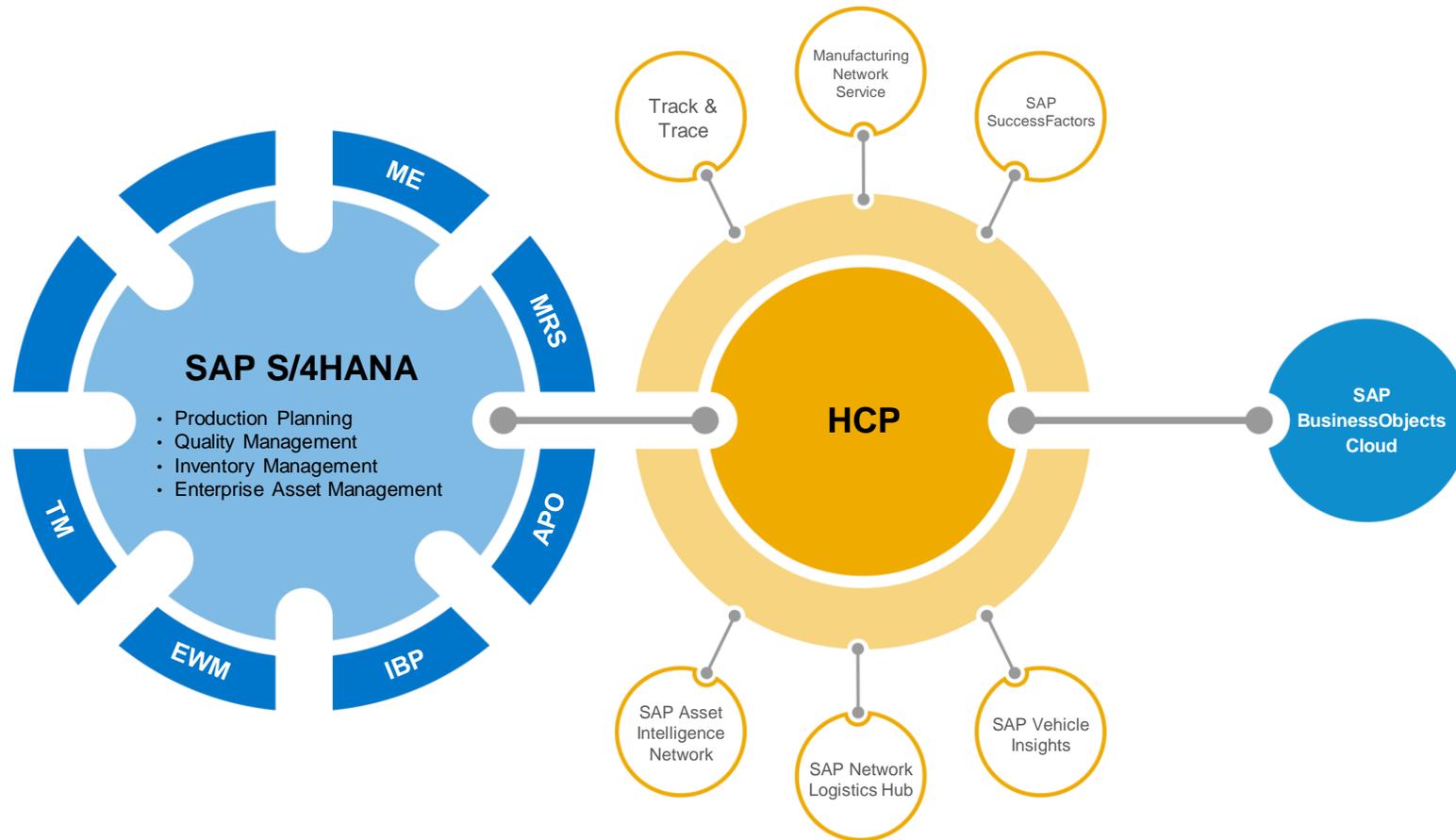
- Visual hand-over from engineering to manufacturing
- Configurable structures
- Increasing productivity in manufacturing planning

Visual Enterprise Asset Planner supports:

- Visual hand-over from engineering to maintenance & service
- Visual creation and maintenance of a visual asset structure and/or visual service parts BOM
- Increasing productivity in asset and service planning



The Post SAP S/4HANA Supply Chain Architecture



- **Core processes** run directly inside SAP S/4HANA
- **Extended innovations** are seamlessly integrated into the core running directly on top of the core or outside the core in a side by side model
- **Cloud applications** will be connected into the core with HANA Cloud Integration (HCI)
- **New applications and extensions** are developed using the SAP API Business Hub in HCP
- **End-to-end insights** across all these applications and solutions will leverage SAP BusinessObjects Cloud