Update on SAP’s portfolio strategy for Retail
Intelligent Suite and industry cloud solutions

Dani Khalaf, October 2021

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THE BEST RUN SAP

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Global megatrends and disruptions are reshaping the retail industry

Accelerating the need for sustainable business model innovation

Global megatrends

Acceleration in use of technology, digitalization

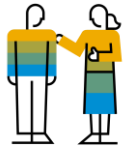
Green as the color of recovery

The COVID crisis

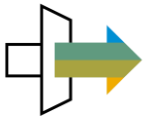
Resilience through portfolio restructuring

New forms of working

Industry trends



New levels of consumer value



Disruptive business models

Circular economy

Purpose-driven retail

Deliver solution that help shape the future

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Retailers need to innovate along 5 strategic priorities to **shape the future**

Strategic view

Value chain view

CEO

- Growth and market share
- Shareholders and market capitalization
- Sustainability and strategic longevity

CDO

CTO

CIO

Head of CX

- Conversion rate and cost per conversion
- New customers and cost of acquisition
- Sales growth

Head of merchandising

- New product revenue
- Process efficiency in retail operations and fulfillment
- Margin and sales

Head of purchasing

- Product quality, pricing, and margin
- Supplier performance

Head of supply chain

- Inventory turnover and accuracy
- Delivery and shipment times
- Logistical costs and wastage

Head of store operations

- Promo conversion rate
- Sales per square foot
- Employee efficiency and customer service quality
- Average basket size

Enterprise transformation

Omnichannel marketing | **Customer-centric merchandising** | **Procurement excellence** | **Digital supply chain** | **Omnichannel customer experience**

Customer centricity

Segment of one

Digital supply chain

Redefined stores

New business models

Core end-to-end processes

Idea to market

Source to pay

Plan to fulfill

Order to cash

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Segment of one

Digital supply chain

Redefined stores

New business models

Omnichannel marketing → **Customer-centric merchandising** → **Procurement excellence** → **Digital supply chain** → **Omnichannel customer experience**

Predictive planning and inventory orchestration

Product customization at scale

Circular economy processes

Omnichannel planning and fulfillment

Experiential retail

Outcome-based selling

Best practices

Next practices

Vertical edge

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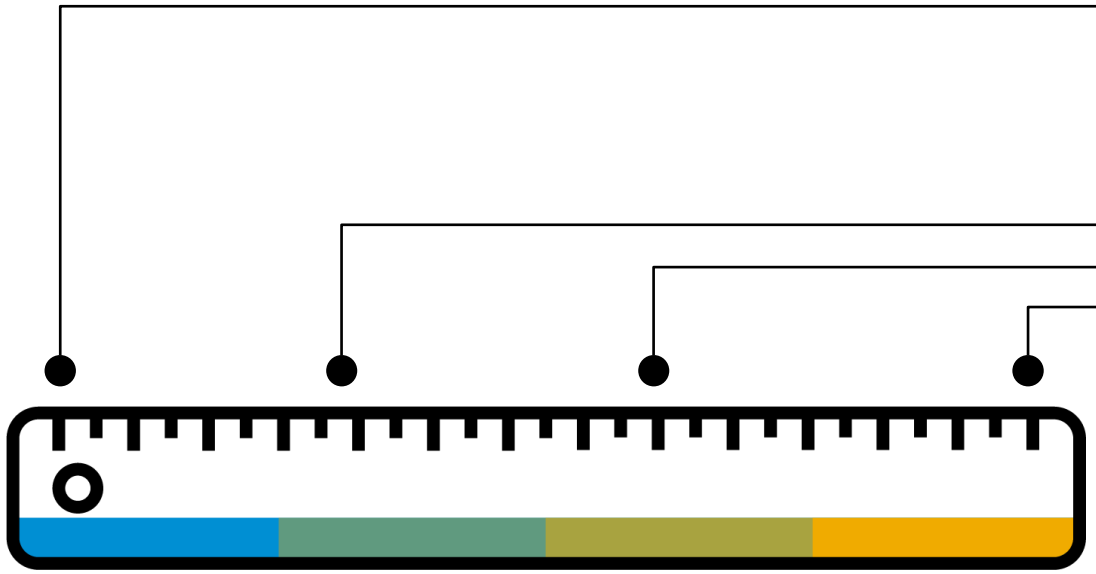
Every retailer has a unique starting point.



Digitally driven retail businesses that need to scale with speed

Early adopters of retail cloud solutions ready to go further

Edge innovators that need to focus on their core

Established companies facing complex, customized, on-premise systems

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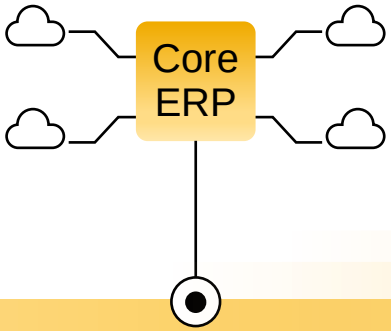
SAP S/4HANA Cloud – Our ERP Vision of the Future

TODAY



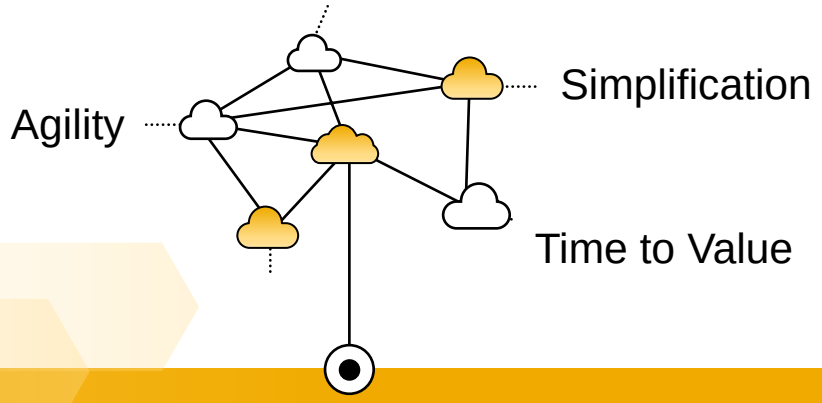
Hybrid Landscape

- Monolithic Core ERP
- Selected capabilities in the Cloud

Customer Challenges…

- Fragmented IT- landscapes
- Complexity of Business Transformation
- Integration & Extensibility
- Customer Specific Modifications
- Rapidly changing Business environment

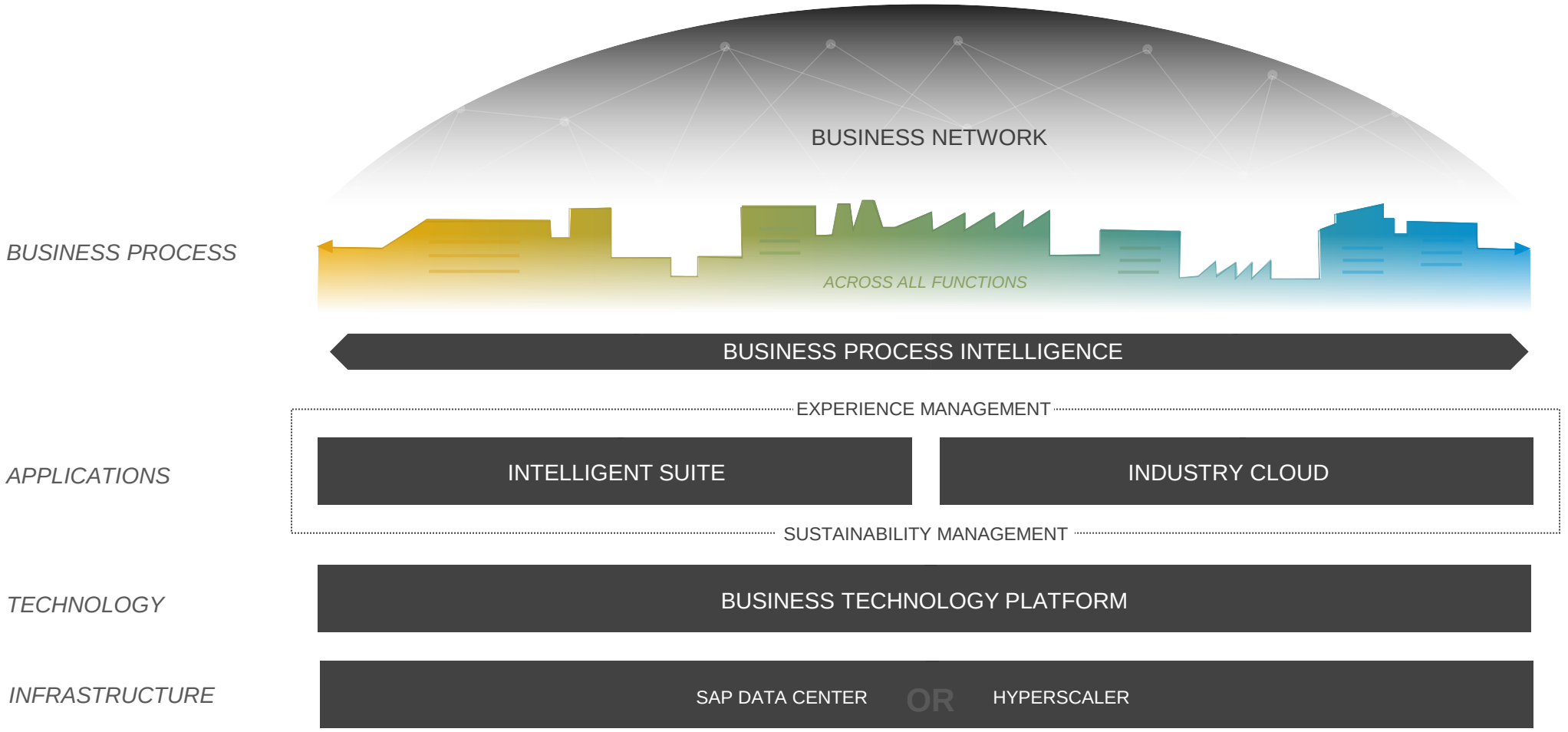
FUTURE



Modular ERP

- AI driven LoB Innovations
- Suite Qualities
- Commercial flexibility

To solve the business challenges of retailers our strategy is to deliver technologies that help– every business run as an Intelligent Enterprise



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Industry cloud solutions will continue to build on functionality found in the Intelligent Suite

Business Process Intelligence

EXPERIENCE MANAGEMENT

INTELLIGENT SUITE

ERP

- **SAP S/4HANA for fashion and vertical business cloud, private edition**
- **SAP S/4HANA for Retail merchandise management cloud, private edition**
- SAP ERP for fashion and vertical business cloud, private edition
- SAP ERP for Retail merchandise management cloud, private edition
- SAP S/4HANA cloud for retail, fashion and vertical business – planned for 08/2022

Retail specific applications

- **SAP Customer Activity Repository cloud, private edition**
- SAP Merchandise Planning for SAP Customer Activity Repository cloud, private edition
- SAP Assortment Planning for SAP Customer Activity Repository cloud, private edition
- SAP Allocation Management for SAP Customer Activity Repository cloud, private edition
- SAP Promotion Management for SAP Customer Activity Repository cloud, private edition
- SAP Replenishment Planning for SAP Customer Activity Repository cloud, private edition
- SAP Forecasting and Replenishment cloud, private edition
- SAP Omnichannel Promotion Pricing cloud, private edition
- SAP Customer Activity Repository cloud system extension, private edition
- SAP Customer Activity Repository Cloud, additional non-productive tier

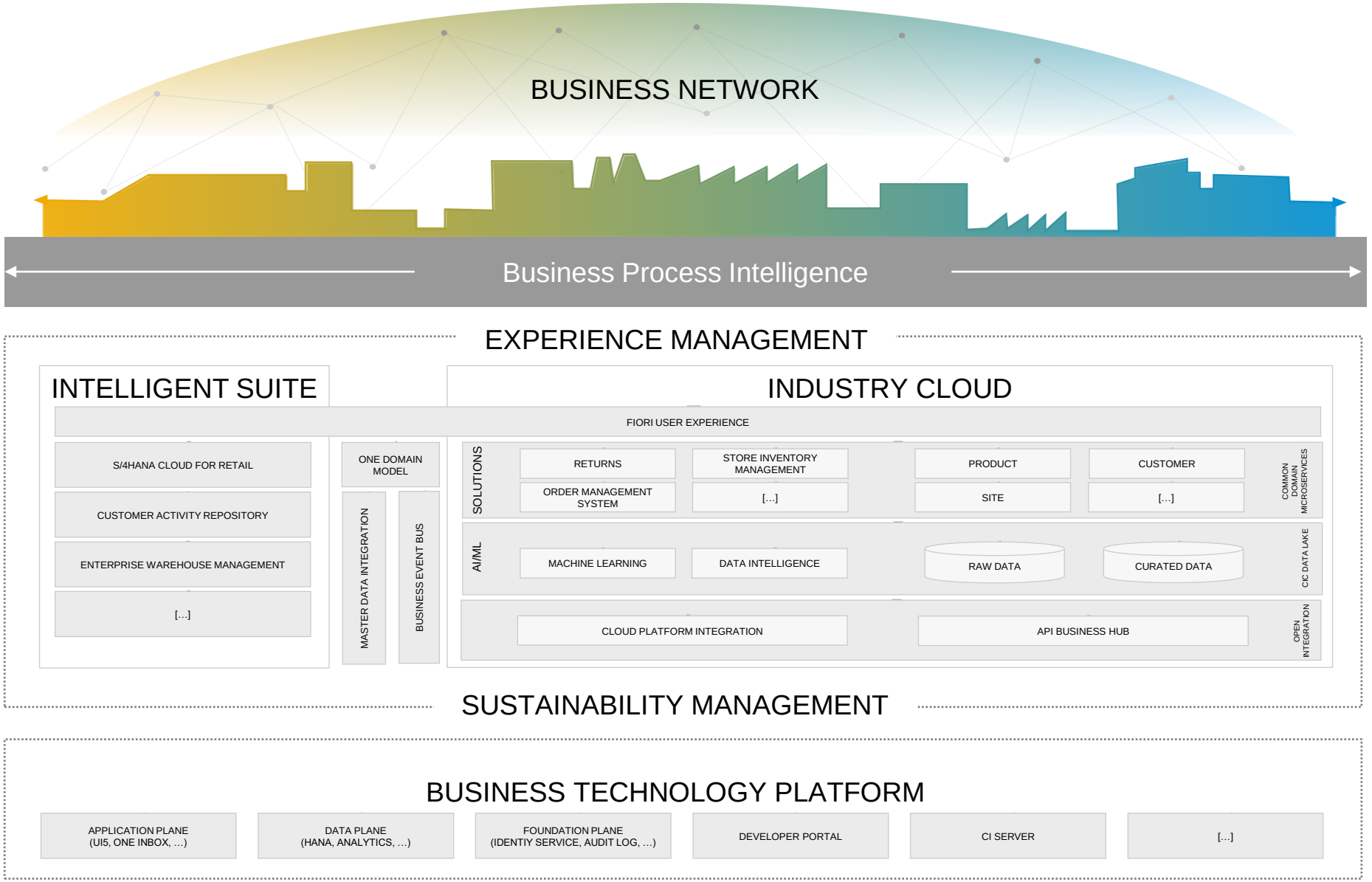
INDUSTRY CLOUD

Predictive Planning & Inventory Orchestration	Retail Store	Customer Order Management
SAP Order & Delivery Scheduling	SAP Retail Store Inventory Management	SAP Order Management foundation
Predictive Demand Planning	SAP Retail Store Order Fulfilment	SAP Order Mgmt for sourcing & availability
Predictive Replenishment & Allocation	SAP Retail Store Task Management	SAP Order Management for Drop Shipping
Assortment Planning	SAP Omnichannel Sales Transfer & Audit	SAP Intelligent Returns Management
Agile Merchandising	SAP Retail Store Task Execution	SAP Order Mgmt for OC promotion pricing
Predictive Services	Customer Service	…
…	RFID/Instore Food Production/Franchise …	…

SUSTAINABILITY MANAGEMENT

BUSINESS TECHNOLOGY PLATFORM

Our Industry Cloud solutions are based on our vision for a "North Star Architecture"



We will work with our customers on a stepwise transformation and modernization from on-premise to cloud

Intelligent Suite

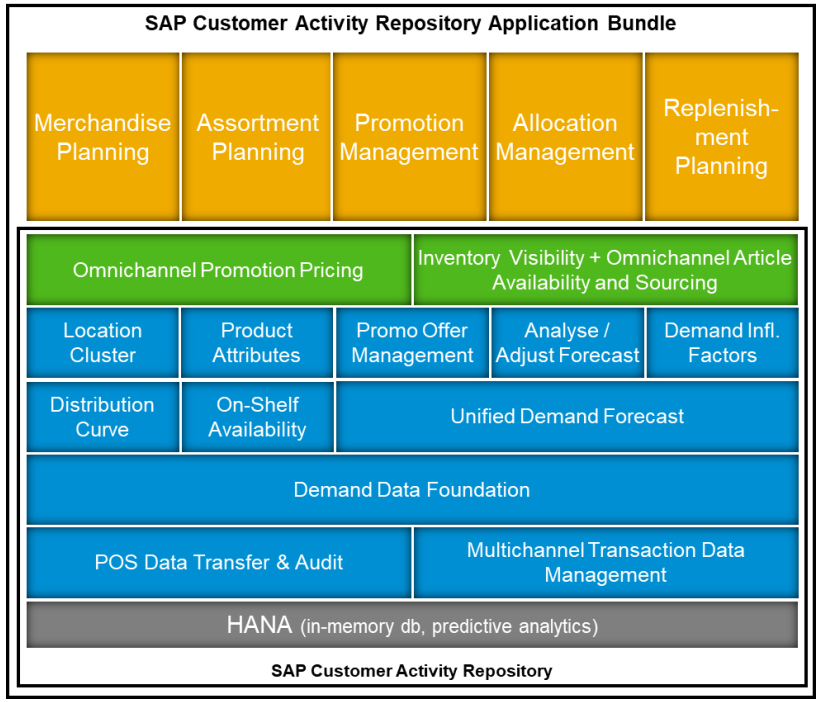
S/4H | … | CARAB

Industry Cloud

Predictive Planning & Inventory Optimization | Order Management | Intelligent Store

Stepwise transformation and modernization from on-premise to cloud

On-premise or private cloud – mature & available now – high customer adoption – continuous improvement



Native cloud – planned or in build phase – strategic investment

- Predictice Demand Planning
- Order & Delivery Scheduling
- Replenishment
- Omnichannel Sales Transfer and Audit
- Omnichannnel Order Management
- Digital Inventory

Further planning applications and predictive services on the roadmap

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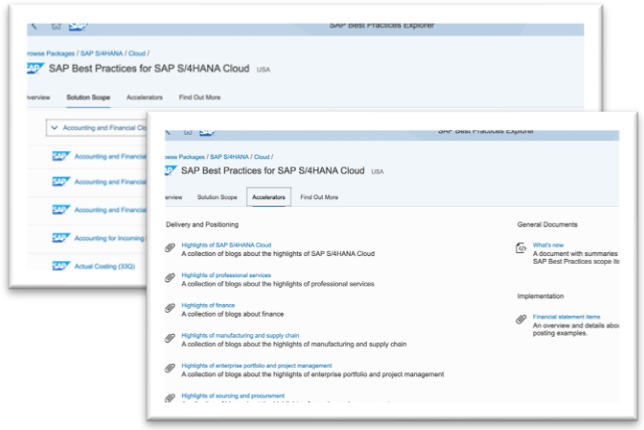
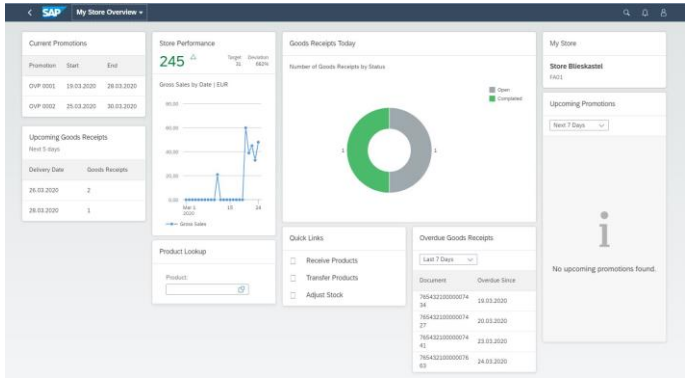
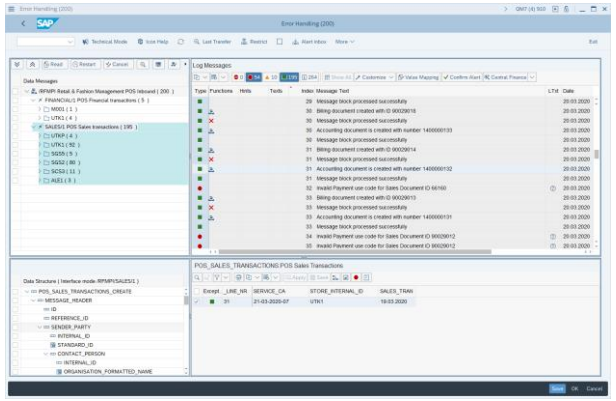
Intelligent Suite:
SAP S/4HANA Cloud for retail, fashion, and vertical business

The future of SAP S/4HANA Cloud for retail, fashion & vertical business

Vision: Retail as part of **S/4HANA Cloud** shall offer customers deployment flexibility for core retail and fashion merchandise management processes based on Retail best practices with fastest time-to value and lowest TCO







Retail Best Practices with pre-configuration on top of generic Best Practices are leveraging business process experience from many customer projects.

- Pre-configured and ready-to-run Best Practice Business Processes
- Pre-configured integrations
- Demo master data
- Managed Content Lifecycle

Innovations can immediately be used, e.g. Store Manager Overview cockpit or new user friendly Assortment Module Management

- Agile with rapid innovation cycles
- The latest capabilities & best practices
- Keep up with regulatory changes

Cloud qualities at the center ensure safe, consistent, scalable and simplified cloud operations

- Complete data security & protection
- Standard APIs and integration scenarios
- Self Service Configuration UIs
- Dynamic extensibility
- Reduced need of IT admin tasks
- On demand resources

- Rapid implementation projects and go-live
- Fastest Time to Value
- Pay as you go

- Fast Time to Innovation
-

- Lowest TCO
- Easy to configure, use, operate and extend
- No infrastructure investment

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SAP S/4HANA Cloud for retail, fashion & vertical business

2022 – 2024

Lab preview - subject to change

2022
(First Release 2208)

Retail Merchandise Management

Master Data Management for Merchandising
- Article Master Management* incl. Mass Maintenance
- Site Master Management*
- Merchandise Category Management*
- Retail Price Management*
- Assortment Management and Listing*
- Business Partner Management*
- Promotion management

Merchandise Procurement
- Direct procurement*
- Invoice verification*
- Return to supplier*

Demand and Supply Planning
- Store Replenishment (Rapid Replenishment)*
- Distribution Center Replenishment*
- Merchandise Allocation Execution*
- Stock transport order

Retail Inventory Management and Valuation
- Retail Inventory Management*
- Physical Inventory Distribution Center*
- Sales Price Valuation*

Warehouse Management
- Inbound processing Distribution Center*
- Outbound processing Distribution Center*
- Return from store*
- Intercompany stock transfers

Retail Store Management
- POS Inbound and POS Outbound*
- In-store Merchandise and Inventory* Management

Omnichannel Retailing
- Sale from Distribution Center
- Customer order management in store (basic)
- Customer consignment

Cross processes and capabilities
- Data migration and data integration*
- CAR integration
- Endorsed generic scope items for Retail

Fashion Retail Foundation
- Season
- Value Added Services

2023
(Releases 2302, 2308 and Continuous Improvements)

Retail Merchandise Management
- Merchandise distribution
- Collective Purchase Order Management
- Empties management and processing
- Article hierarchy management
- Customer order management in store (extended)
- Vendor consignment, Retail consignment
- Support of two-tier scenarios with master data integration
- Manage Third party Orders
- Sales Performance Management

Fashion Wholesale
- Supply Assignment
- Advanced management of sales orders
- Sales contract management
- Multi Ship-to-order
- Management Excess Requirements
- Third Party and Purchase-to Order Diversion
- Alignment of Purchase Requisitions with Purchase Orders
- Segmentation Management
- Subcontracting
- PIR Management and Material requirement planning
- Characteristic value conversion

2024
(Releases 2402, 2408 and Continuous Improvements)

Retail Merchandise Management
- Enhancements for out-of-the box integrations, self-service configuration, extensibility, automation and migration
- Layout listing
- Order and delivery schedule integration

Fashion Production
- Fashion Bill of Material
- Routing maintenance supporting generic article
- Prod. version maintenance supporting generic article
- Manage master production order
- Manage master planned order
- Make-to-order
- Segmentation in production processes

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* Already available as α version for external testing in SAP sandbox system upon request for customers / partners

Intelligent Suite:
S/4HANA Retail for Merchandise Management
SAP Customer Activity Repository

S/4HANA Retail for merchandise management on-premise

Lab preview - subject to change

Q1 2021	Q4 2021	Q1 2022	Q4 2022
SAP S/4HANA 2020 FPS01 Retail for Merchandise Management • Increase store operations through a Fiori app for mass stock adjustments **New Assortment Module Management:** • Manage assortment modules Fiori App • Assign products to distribution centers App • Assign products to assortment modules App • Monitor assortment postprocessing errors App **SAP S/4HANA 2020 FPS01 for Fashion and Vertical Businesses** • Supply / Demand Situation within SAP Analytics Cloud • Supporting of additional documents like subcontracting components in Supply Demand Overview App • Fashion Enhancements for Sales Order and Purchase Order OData API • Situation handling in Manage Excess Requirements App • Improvements for segmentation to provide a flexible segmentation maintenance, supporting variants of a configurable article • Production Processing enhancements • MTO/MTS Enhancements for Fashion and Vertical Business • ODATA API for Segmentation structure and strategy	**SAP S/4HANA 2021 Retail for Merchandise Management** • Increase store operations through a Fiori app for mass count stock **New Assortment Management** Enhancements: • Assign user to assort. modules Fiori App • Enhancements of existing apps **SAP S/4HANA 2021 for Fashion and Vertical Businesses** • Provisional Sales Contract • Progress Monitor for Sales Orders supporting special business processes • Purchase Order Consolidation • Integration with Product Lifecycle Costing (Pre-Order Costing) • Integration with Digital Manufacturing Cloud for Insights • Manage Master Production Order • Feature enhancements in Production Control Workbench • Enhancements for production processes (Discrete Manufacturing)	**SAP S/4HANA 2021 FPS01 Retail for Merchandise Management** • Assortment list with multiple languages • POS Outbound via services – Round-offs • Count mass stock – automatic posting of documents • New APIs for merchandise categories, etc. **SAP S/4HANA 2021 FPS01 for Fashion and Vertical Businesses** • Manage Purchase Order – Consolidation PO enhancements[1)] • Mass Changes for Fashion fields through Purchase Order Fiori App[1)] • Manage Master Production Order - enhancements[1)] • Demand and Supply Segmentation - additional flexibility[1)]	**SAP S/4HANA 2022 Retail for Merchandise Management** • App variant for consumer maintenance • Promotion integration with Omnichannel Promotion Pricing Service • Migration object for articles and assortments • Article mass maintenance via MDG **SAP S/4HANA 2022 for Fashion and Vertical Businesses** • Manage Master Planned Order • Capacity planning – PP/DS integration • Rule based Feasibility Analysis • Demand and Supply Segmentation - enhancements • Segmentation in Process Manufacturing • Supply selection rule flexibility in Supply Assignment

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Native Cloud
1) Planned for S/4HANA 2021 FPS01
* Joint roadmap items with other LOB

SAP Customer Activity Repository

Lab preview - subject to change

Q2 2021	Q4 2021	2022	Future
POS Data Transfer & Audit (incl. MSCA) • Enhancements to the POS data transfer and auditing process **Demand Data Foundation** • Master-data integration support for SAP Replenishment Planning **Unified Demand Forecast** • Improved HPR performance by calculating priors only when needed • Ability to consider variable season definitions • Maintain and assign threshold values per alert type • Alert management extension concept for customer-specific alerts • Prioritization of alerts with automated scoring • Control cockpit for forecast and control of demand-driven KPIs	**POS Data Transfer & Audit (incl. MSCA)** • Ability to set multiple tax segments for a single article • Integration with native storage extensions for warm data aging of the TLOGF table • Ability to use data life-cycle management tools for TLOG data aging • Integration via S/4HANA on Prem/Cloud SOAP services • Enhanced transaction traceability (WPUUMS, WPUBON, WPUTAB) • Support for Seasons category • Report to display list of stores **Demand Data Foundation** • Automatic product similarity detection and calculation of clusters into hierarchies **Unified Demand Forecast** • Forecasting of non-listed products for SAP Assortment Planning • Ability to use the results of similar product searches for calculating hierarchical priors (HPRs) • Stabilized demand model for promotion-focused products • Enhanced outlier detection and correction in demand modeling	**POS Data Transfer & Audit (incl. MSCA** • Provide new customizing entry to allowing the ability to remove leading zeros from article No. • Removal of FIORI scaffolding • Integration with Smart Store • Enhance tax integration allowing for segments 04 and 05 • Reduce dependency on HANA Activation Report **Unified Demand Forecast** • New Parallelization Framework (for UDF and SAP Replenishment Planning) • Consideration of user projections from SAP Promotion Management as forecast corrections • New Replenishment Type Filter for Modeling and Forecasting	**POS Data Transfer & Audit (incl. MSCA)** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Demand Data Foundation** • Location hierarchy improvements in demand data foundation **Unified Demand Forecast** • Forecasting a digital selling location

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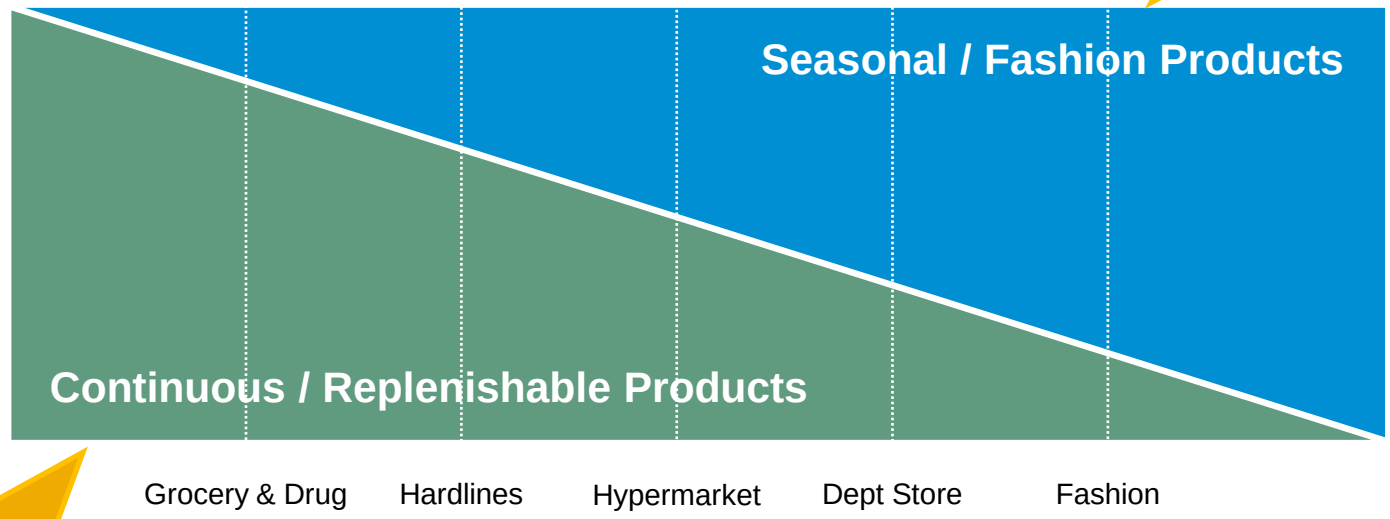
Plan All Merchandise Types with SAP Assortment Planning

Initial development focus for SAP Assortment Planning

PULL

- Long lifecycle products
- Stable categories
- Shorter lead times
- Replenished
- Promotions drive volume & traffic



PUSH

- Short lifecycle products
- Categories refreshed each season
- Longer lead times
- Single/limited buys
- Allocated
- Purchase budget (OTB)
- Clearance markdowns make room for next season

Current development focus for SAP Assortment Planning

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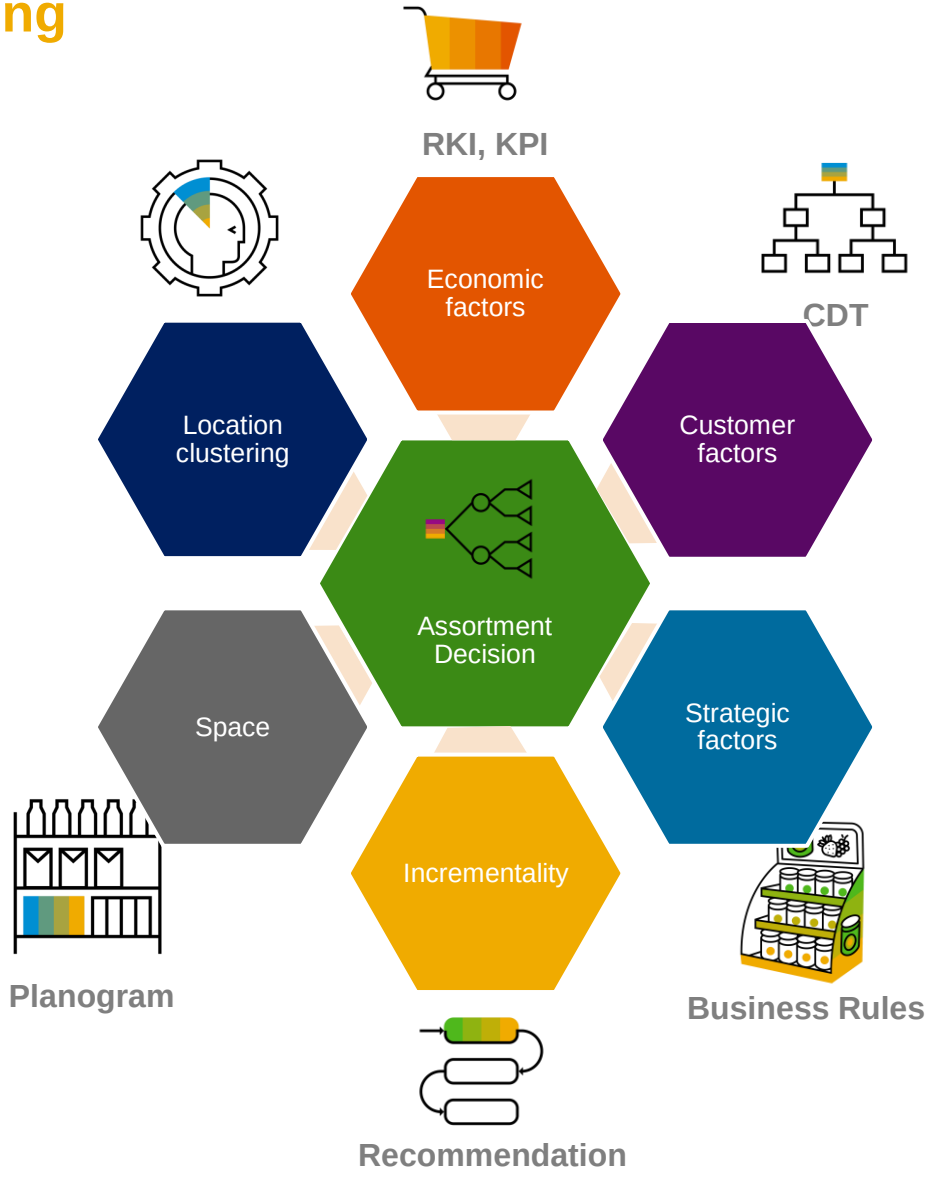
Intelligent Suite for Retail

Category management in SAP Assortment Planning

- Best-in-class user experience
- AI/ML
- Space-aware
- Weighted product rankings
- Recommendations & decision support
- Highly-automated
- Flexible
- Process-driven



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Intelligent Suite for Retail

Less waste with SAP Replenishment Planning

Cost-optimized ordering

- Determine order amount that leads to lowest expected total costs
- Consider forecast distribution and product specific situations
- Consider multiple KPI

Enhanced monitoring and control

- “Review order plan items” app to review and adjust order plan items, filter for exceptions and insights into traceability data
- Simulate replenishment using different parameters and schedules and obtain insights on associated KPI

Intra-day and real time replenishment

- Any planning data is considered down to the date/time basis
- Replenishment can be run multiple times per day to take most recent stock and sales figures into account
- Optional use of CAR real time inventory

Prediction and consideration of expected spoilage

- Predict expected spoilage due to shelf life restrictions
- For better accuracy the shelf life LIFO preference parameter allows to configure which percentage of customers would buy LIFO or FIFO
- Avoid wrong stock assumptions and generate more accurate orders

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SAP Customer Activity Repository - planning applications

Lab preview - subject to change

Q2 2021	Q4 2021	2022	Future
Assortment & Merchandise Planning • Advanced location clustering and cluster analysis • More efficient planning of new product introductions and planning by market **Promotion Management** • Integration with 3rd party vendor fund tools • Faster response time for creating and maintaining large offers **Replenishment Planning** • Replenishment calculation that considers minimum stock as a constraint • Additional exception indicating high spoilage for the order plan review • External order plan item review in the store, supported using an interface for retrieving and updating order plan items • Performance data collection for performance monitoring of critical processes • Automation framework for parallel processing, traceability, and monitoring of critical processes • Replenishment calculation that considers time-dependent minimum stock and maximum stock • Control cockpit for orders, stock, exception monitoring, and control of replenishment KPIs • Maintain & assign threshold values per alert type • Alert management extension concept for customer-specific alerts • Prioritization of alerts with automated scoring • Additional order plan item candidate information for order plan review • Replenishment calculation that considers source of supply plus related order unit changing over the planning horizon • Control cockpit for forecast and control of demand-driven KPIs	**Assortment & Merchandise Planning** • Ability to plan localized and space-aware assortments for long lifecycle products • Forecasting of non-listed products for SAP Assortment Planning **Promotion Management** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Replenishment Planning** • Aggregated order plans for use in Multi-Echelon Replenishment • Performance optimizations for replenishment calculations • Advanced process control for parallelization and packaging • Inbound procurement-schedule assignments • Consideration of time-dependent procurement-schedule assignments **Allocation Management** • Maintenance and ongoing enhancements, to be defined based on customer feedback	**Assortment & Merchandise Planning** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Replenishment Planning** • Multi-Echelon replenishment – integration with SAP Forecasting and Replenishment	**Assortment & Merchandise Planning** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Promotion Management** • Enable financials for offer in FIORI **Replenishment Planning** • Maintenance and ongoing enhancements, to be defined based on customer feedback

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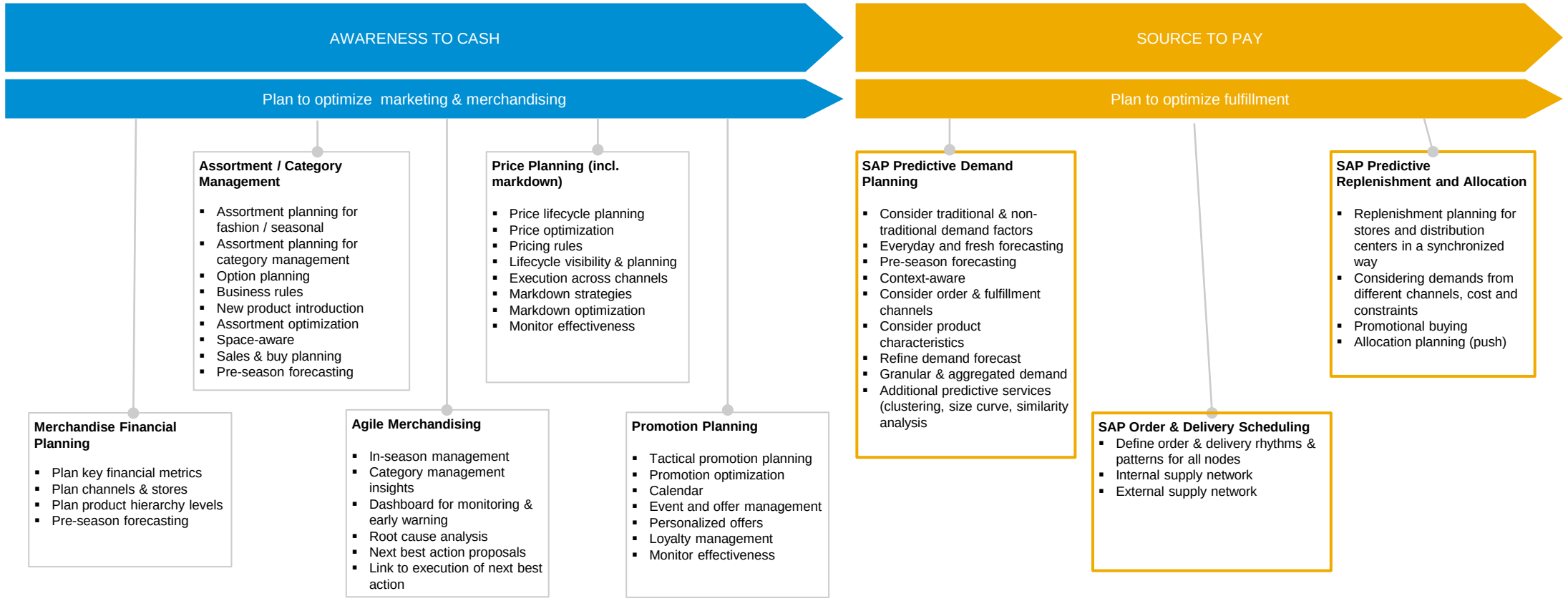
Industry Cloud: Predictive Planning & Inventory Orchestration

The Predictive Planning & Inventory Orchestration End-to-End Customer Journey

Predictive Planning & Inventory Orchestration



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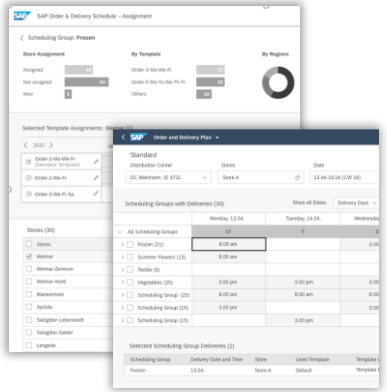
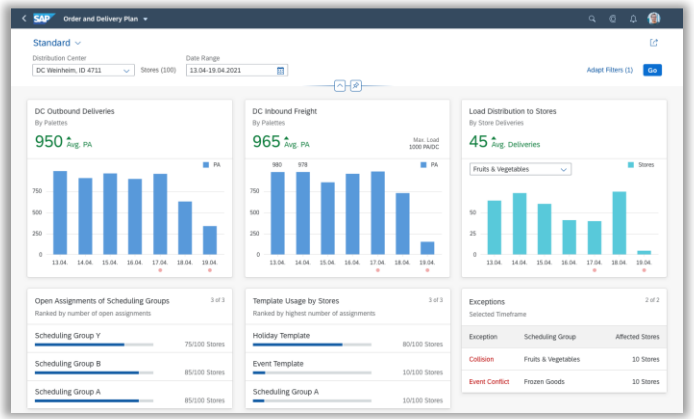
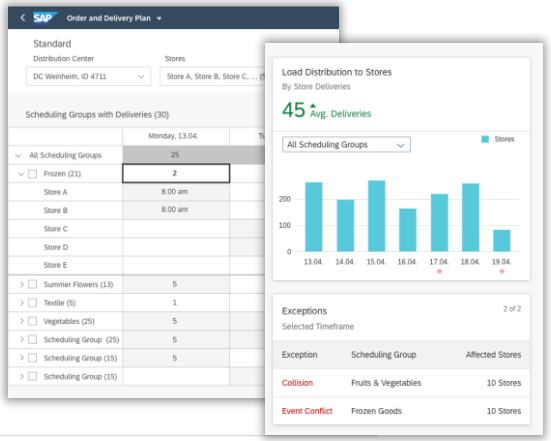
The future of Order and Delivery Scheduling

Vision: Improve fulfillment efficiency and on-time delivery performance by providing supply chain planners with a central tool to create order and delivery patterns for all product flows within the supply network of a retailer







The order and delivery plan provides optimal day/time patterns for procuring and delivering products across the entire supply network

- Automated creation of product groups based on flexible attributes and dynamic KPI's
- Automated assignment of sources of supply for internal and external merchandise flows

Efficient **Scheduling** improves delivery performance by considering holiday and event calendars

- Definition of reusable delivery patterns supporting intra-day scenarios
- Automated holiday and event detection with simulation capabilities to determine optimal plan

Integration of optimized order and delivery schedules into all relevant consuming systems

- Streamlined merchandise flows for ERP, replenishment and supply chain execution systems
- Monitoring and review of order and delivery plans as well as system-based optimization using embedded intelligence

Offers a native cloud solution allowing a holistic view of the supply network to optimize merchandise flows

Create Order and delivery schedules to prepare and respond quickly to changes and constraints in the supply network

Integrates seamlessly into all relevant consuming applications through Open APIs delivering schedules in real-time

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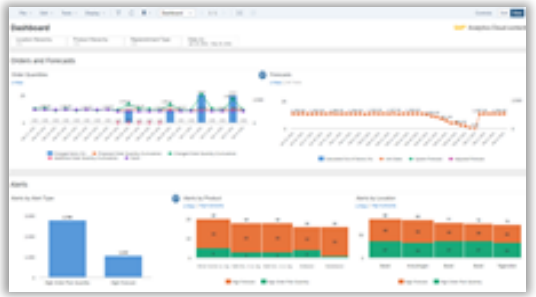
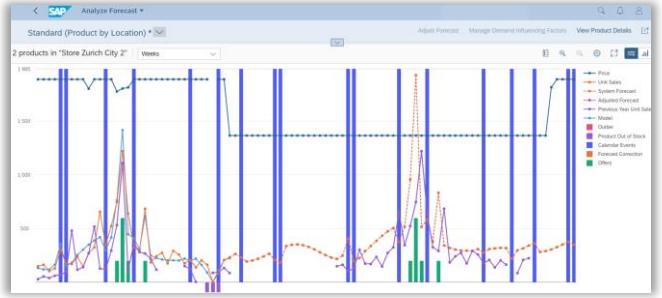
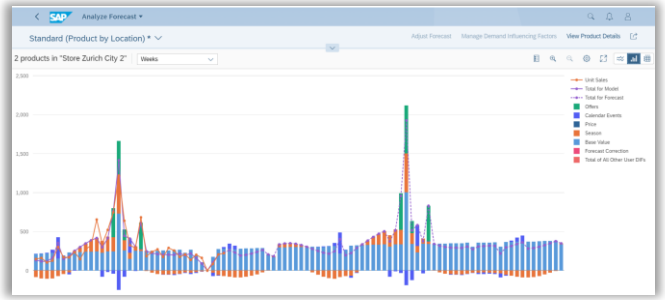
The future of Predictive Demand Planning in the Cloud

Vision: Cloud-native predictive service to provide ML based demand modeling and forecasting for applications driven by demand prediction. Supporting demand data in fulfillment locations that originate from different order channels and consider all relevant influencing factors from price over promotions to local events. Additional services such as similarity analysis shall extend the set of predictive cloud capabilities.







Benefits: Increase the precision and automation level of all applications that make use of a statistical forecast

True day forecast - Precise results based on daily input - intraday possible as well

Bayesian Prior concept - for new product introductions and other missing demand data

Self-learning (ML): the system learns with each day and adapts fast to new situations

Seasonality - With year over year variations

Trend and Weighting - Weighting (higher weight on most recent observations)

Promotion Uplift - Based on types and tactics of promotions

Price - True price elasticity

Recurring Holidays with ramp-ups and ramp-down periods incl. holidays on different weekdays

Model on aggregated data - to support weak signals on micro level like weather

Custom Influencers - like pandemics or external trends

User-centric applications:

- Monitor forecasting key figures or alerts and perform top-down analysis
- Analyze forecast in depth, adjust forecast, model enhancements with additional demand influencing factors

Solution architecture: Built with cloud native architecture on SAP Business Technology Platform. Seamlessly integrating into S/4HANA Retail.

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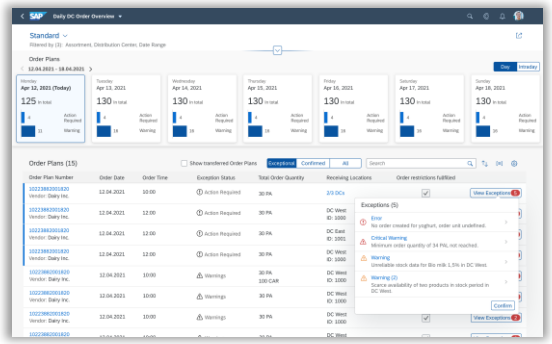
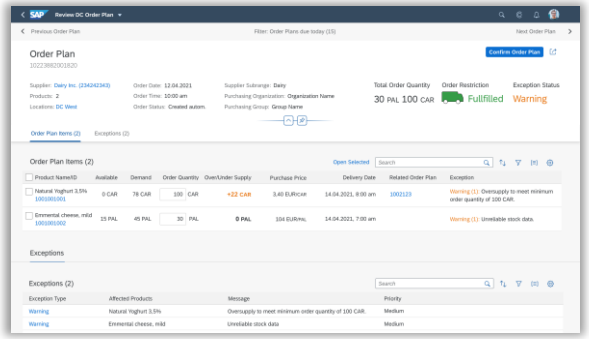
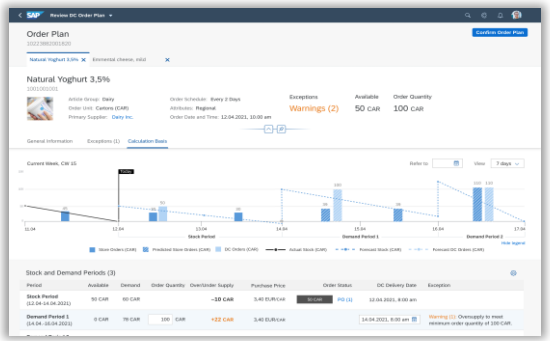
The future of Replenishment for DCs in the Cloud

Vision: Business application leveraging AI to efficiently and accurately manage distribution center inventories for an optimized multi level supply chain – supporting daily goods. It will use ML-based forecast and rolled-up cost-optimized store demands to precisely predict upcoming DC demands across multiple channels. It will optimize order quantities regarding logistical constraints, cost factors and vendor agreements.







Benefits: Optimized ordering streamlines the supply chain, increases service levels for stores and customers, and reduces cost and waste.

Multi-echelon and omni channel supply network By aggregating store order plans up to DC levels (regional, national) and adding demands from additional channels, such as web

Supplier and logistical constraints
Such as minimum order quantities or multiples, discount scales, contracts, etc.

Supplier information exchange

Cost-optimal ordering
Considering demand volatility, real and virtual costs and constraints

Excellent user experience
Through execution and KPI-driven interaction capabilities with detailed traceability in a highly automated environment

Easy configuration and responsibility definition

Solution architecture: Built with cloud native architecture on SAP Business Technology Platform and seamlessly integrating into S/4HANA Retail and SAP Replenishment Planning on Customer Activity Repository

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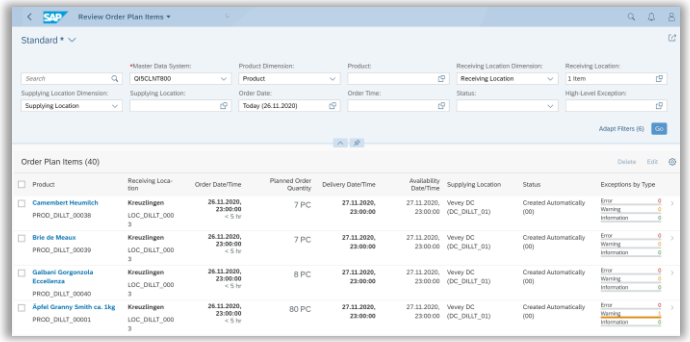
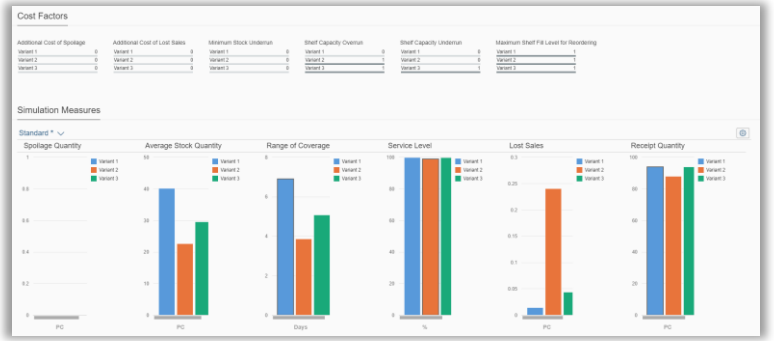
The future of Replenishment for Stores in the Cloud

Vision: Cloud business application that leverages ML forecasts, forecast probabilities, constraints and cost factors to determine order quantities leading to lowest expected costs by considering shelf life, lost sales, shelf capacity and presentation stocks holistically for a product.





Benefits: Increase service levels and turnover rates, while reducing waste, manual efforts and cost of spoilage & stock overages

Cost-optimal ordering
Use ML-based consumer forecasting, probability distributions and cost factors to determine order amounts leading to lowest expected total costs

Prediction and consideration of expected spoilage
Predict expected spoilage due to shelf restrictions. Configure to which percentage your customers would by LIFO or FIFO. Avoid wrong stock assumptions to generate more accurate orders

Intra-day and real-time replenishment
Any planning data is considered down to date and time basis; replenishment can be run multiple times to take most recent stock and sales into account

Enhanced monitoring and control
Manage your order plan review process through smart alerts and simulate the impact of parameter changes on revenue, out of stock and spoilage

Solution architecture: Built with cloud native architecture on SAP Business Technology Platform. Seamlessly integrating into S/4HANA Retail.

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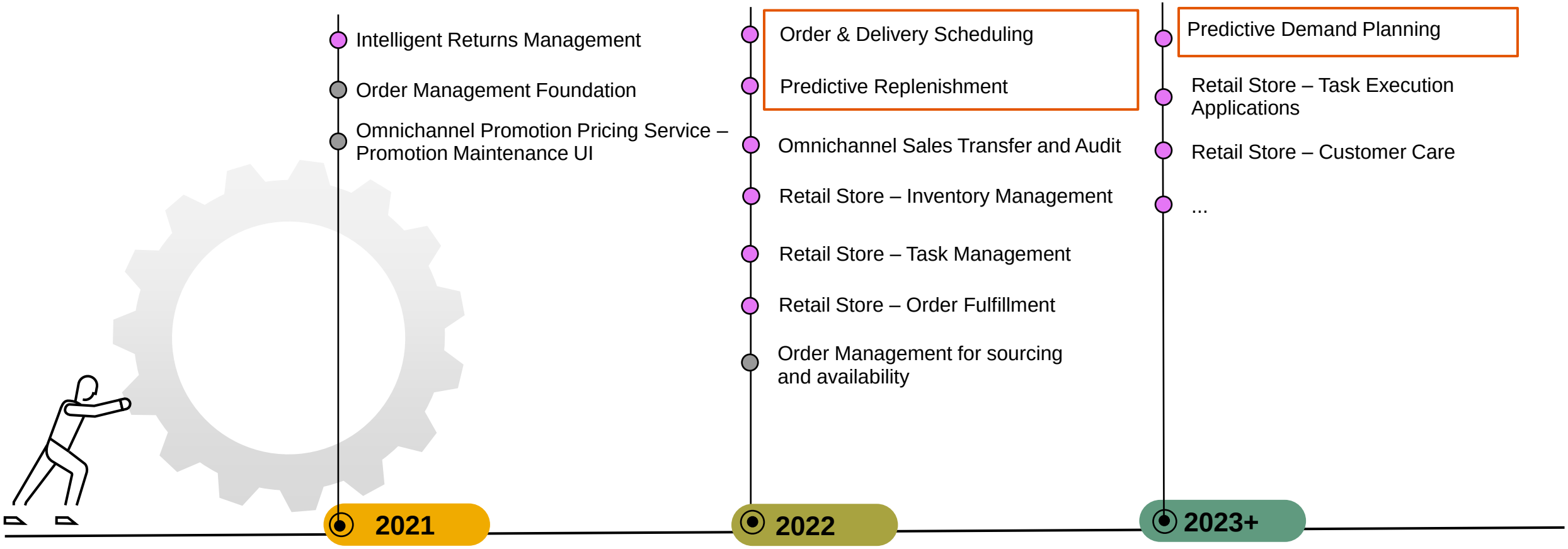
Roadmap for Industry Cloud innovation

LAB PREVIEW: SUBJECT TO CHANGE



Legend: *) - Planned first shipment of Minimum marketable product (MMP). Continuous innovation follows SAP internal planning, may be subject to changes

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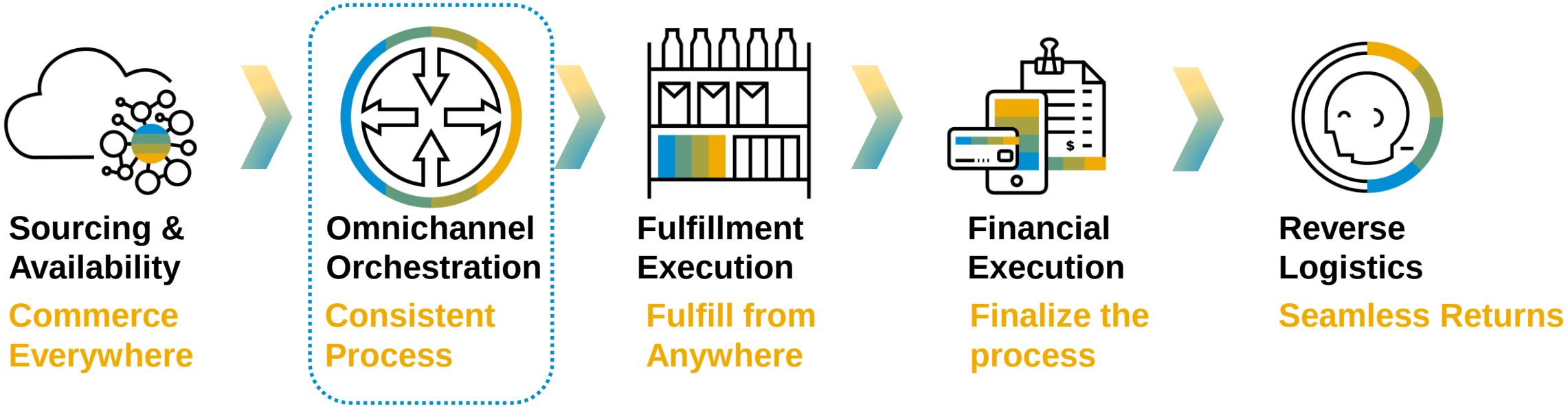
Industry Cloud: Customer Order Management

Omnichannel Journey with SAP Industry Cloud for Retail



Retailers are increasingly looking to extend and connect their distribution and delivery capabilities by leveraging all nodes across their network, including traditional distribution centers, stores, dark stores, and third-party drop shipping.

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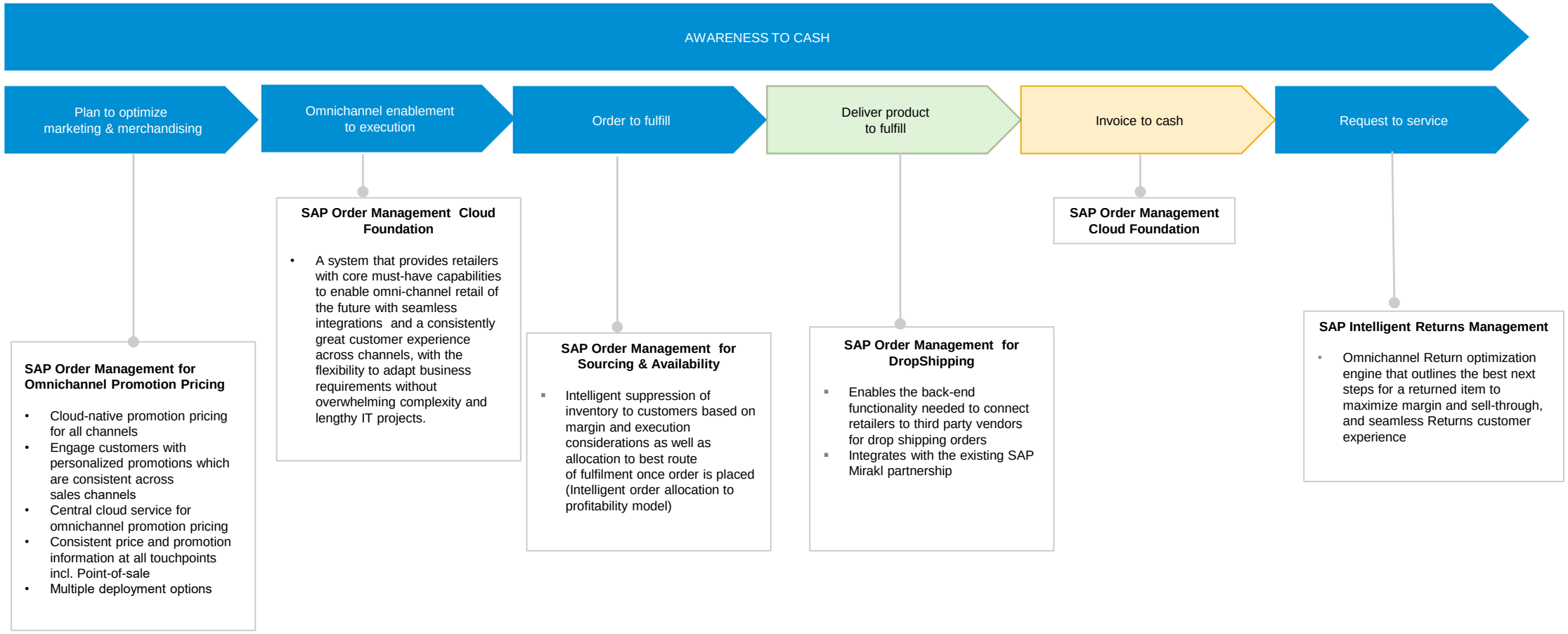
The Customer Order Management End-to-End Customer Journey



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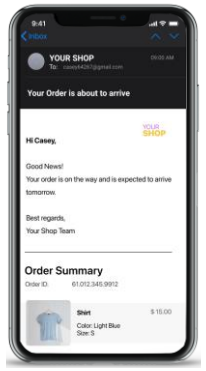
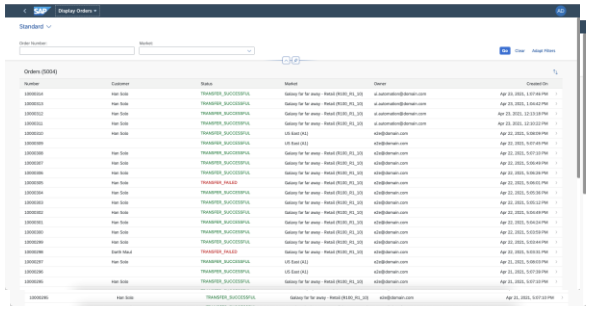
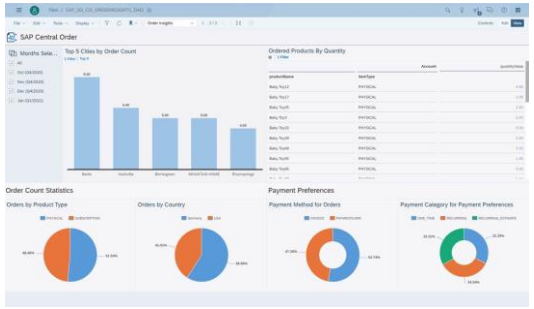
SAP Order Management Foundation

The SAP® Order Management Foundation provides omnichannel order orchestration, easily connecting your sales channels to each of your fulfillment systems and locations. Benefit from streamlined integration, simplified access and additional fulfillment models.







Satisfy Customers by keeping the customer promise and offering additional services

Provides one consistent order across your omnichannel enterprise, including fulfillment updates and events

Delight your customers with excellent services for subscriptions or online orders

Smooth Omnichannel Operations
Decoupled and integrated: One consistent order across your enterprise

Configure your individual process flows, define how to handle exception cases

Monitor KPIs, get alerts in case of errors, Self-Healing Systems help to resolve issues

Optimize Processes
Gain a unified view of the individual order and the order process.

Predictive analytics help to trace patterns which can be used to prevent issues

Margin and Efficiency are optimized through optimal inventory usage, and prevention of returns, among others

Unifies customer experiences across all channels and therefore creates one omnichannel experience

Provides foundation for a comprehensive solution to support omnichannel order processes.

Optimizes the entire end-to-end order journey with integration to Commerce, S/4 and Subsciption

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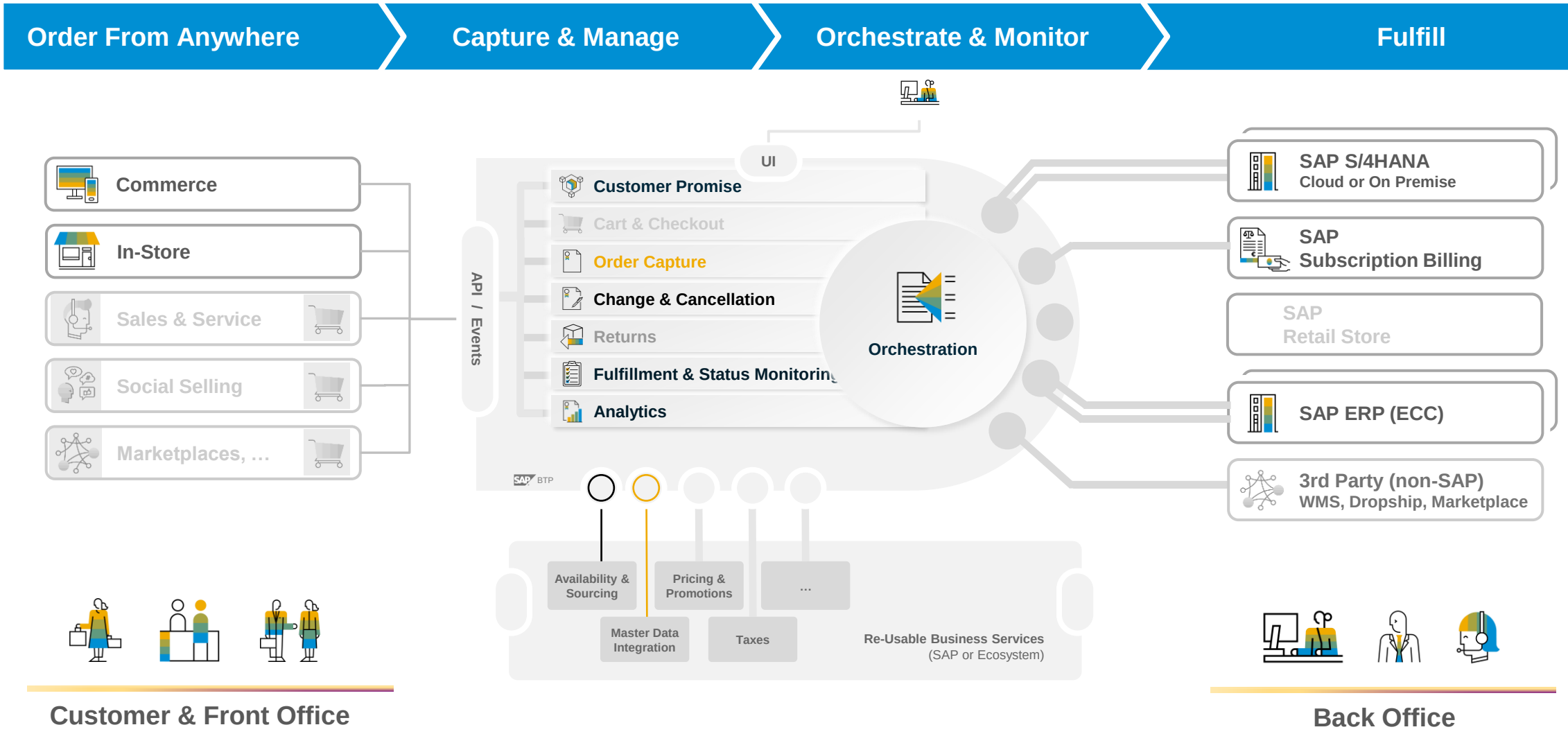
SAP Order Management Foundation

One Consistent Order Across Your Business



Demo

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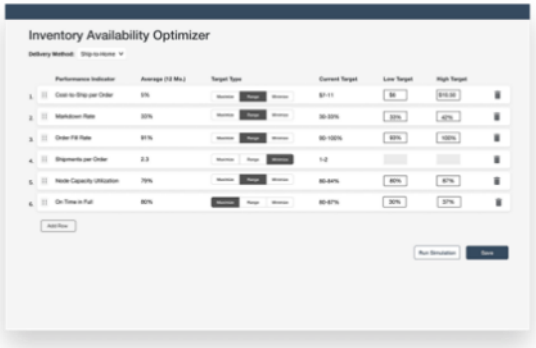
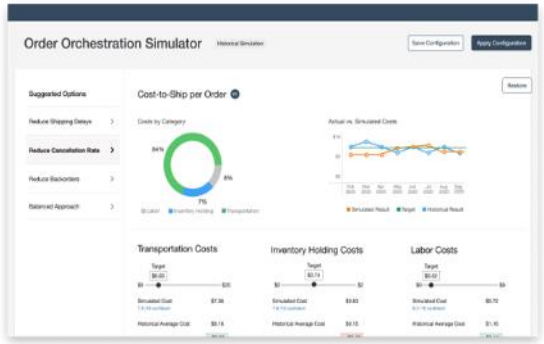
Take advantage of omnichannel opportunities

Dynamic inventory availability and order orchestration engine that optimizes your retail strategy from the moment a customer sees the item until the order has been handed off to the fulfillment node, store or fulfillment center, managing the trade-off between margin and customer expectations



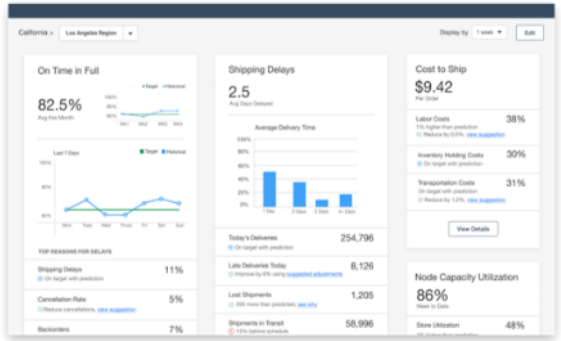
Profitable Availability Model optimizes merchandise availability for customers in line with your retail strategy

- Mitigates margin destructive orders before they are placed
- Drives best-in-class customer experience by ensuring customers see all available products



Dynamic Fulfillment Optimizer identifies the optimal fulfillment node(s) for all orders

- Rebalances orchestration in real-time
- Simulates changes on historical data to ensure tradeoffs are being managed



The Analytics Engine introduces visibility and recommendations into your order management process

- Tracks and optimizes KPIs at multiple levels of granularity
- Identifies operational gaps (e.g., vendor SLAs)

Begins optimization even before an order is placed

Optimizes your retail strategy instead of a web of rules

Efficiently integrates with **your existing architecture**

Utilizes **Artificial-Intelligence-driven decisions**

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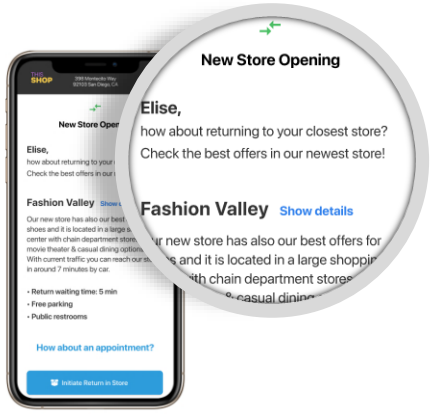
SAP Intelligent Returns Management

1 Customer Routing

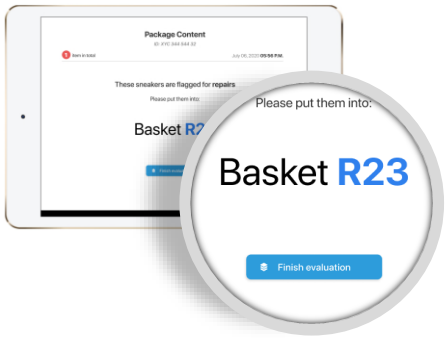
… intelligently recommends return options to customers, optimizing for customer experience and retailer costs



Form-factor-agnostic solution ensures an easy-to-implement seamless customer experience (i.e., APIs or white-label web app)

2 Returns Dispositioning

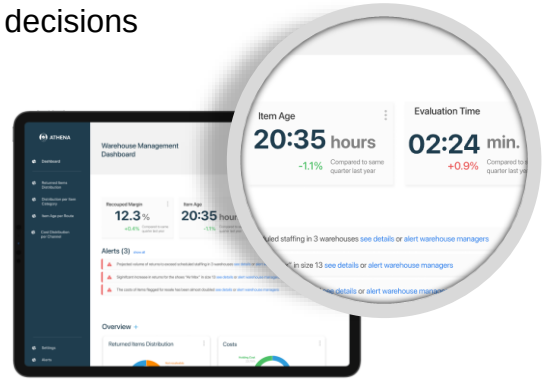
… intelligently recommends disposition decisions to warehouse associates to limit value leakage and improve consistency



Advanced-analytics dispositioning- engine helps associates make better decisions, faster

3 Analytics Engine

… introduces newfound visibility into your end-to-end returns processes to help leaders make data driven decisions



Predictive analytics helps inform warehouse staffing needs and identify emerging returns trends

Amazon: $700bn est. returns value by 2025

Example:

Retailer with 1500 stores & € 30bn revenue

Annual value of return

€ 6bn

Losses associated with returns

€ 1.5bn

Revenue leakage avoided because of "right" decision

€ 75m

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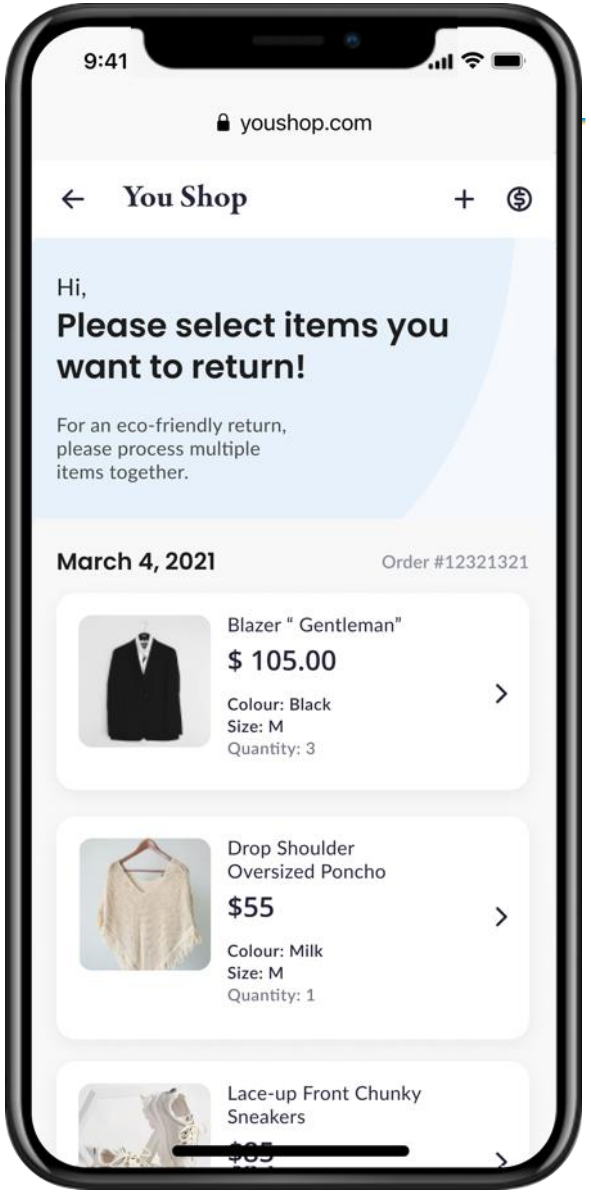
Frictionless Customer Return Journey

- Provide a seamless returns process your customers will love. Improve customer retention and overall Customer Lifetime-value (LVT)
- Retain revenue with incentives for exchanges instead of refunds.
- Reduce environmental and financial costs by promoting in-store returns.



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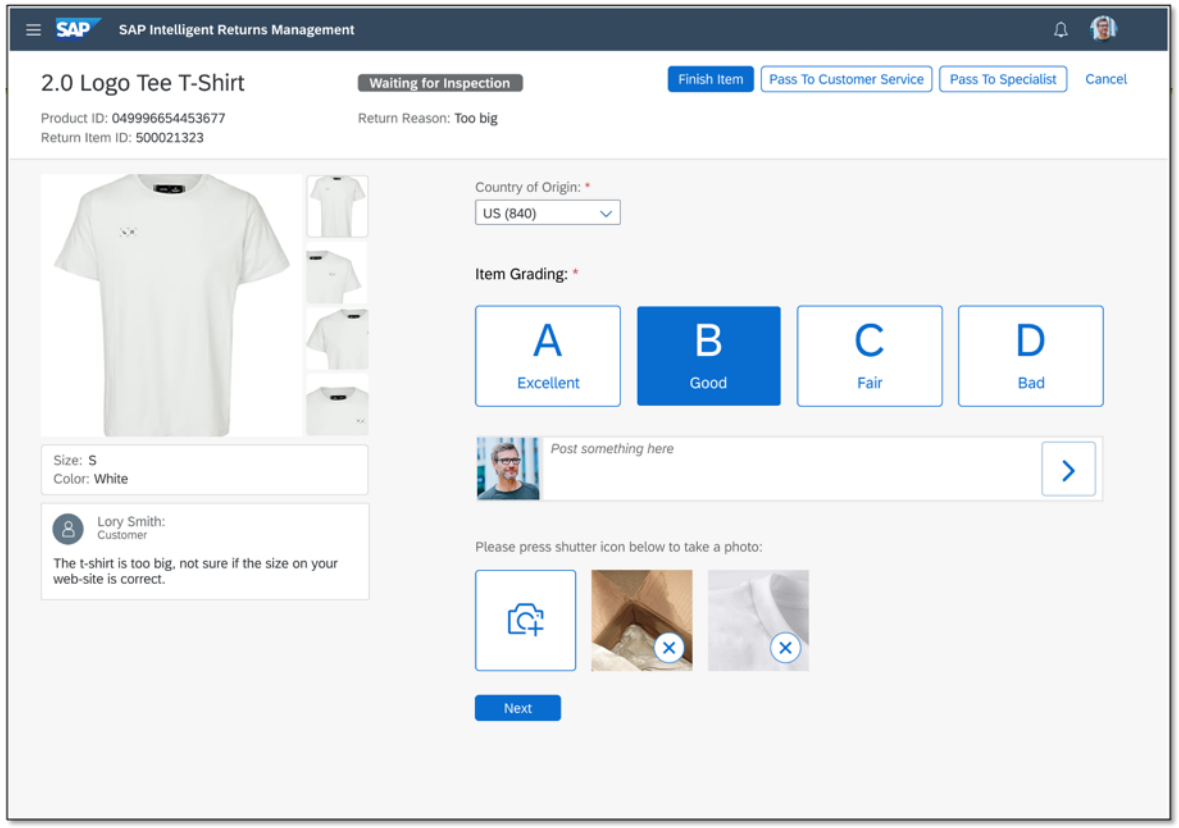
Optimized Return Decisioning

- Fast and easy guidance for associates to make the right decision
- Limit value leakage with optimal dispositioning
- Boost associate productivity and consistency



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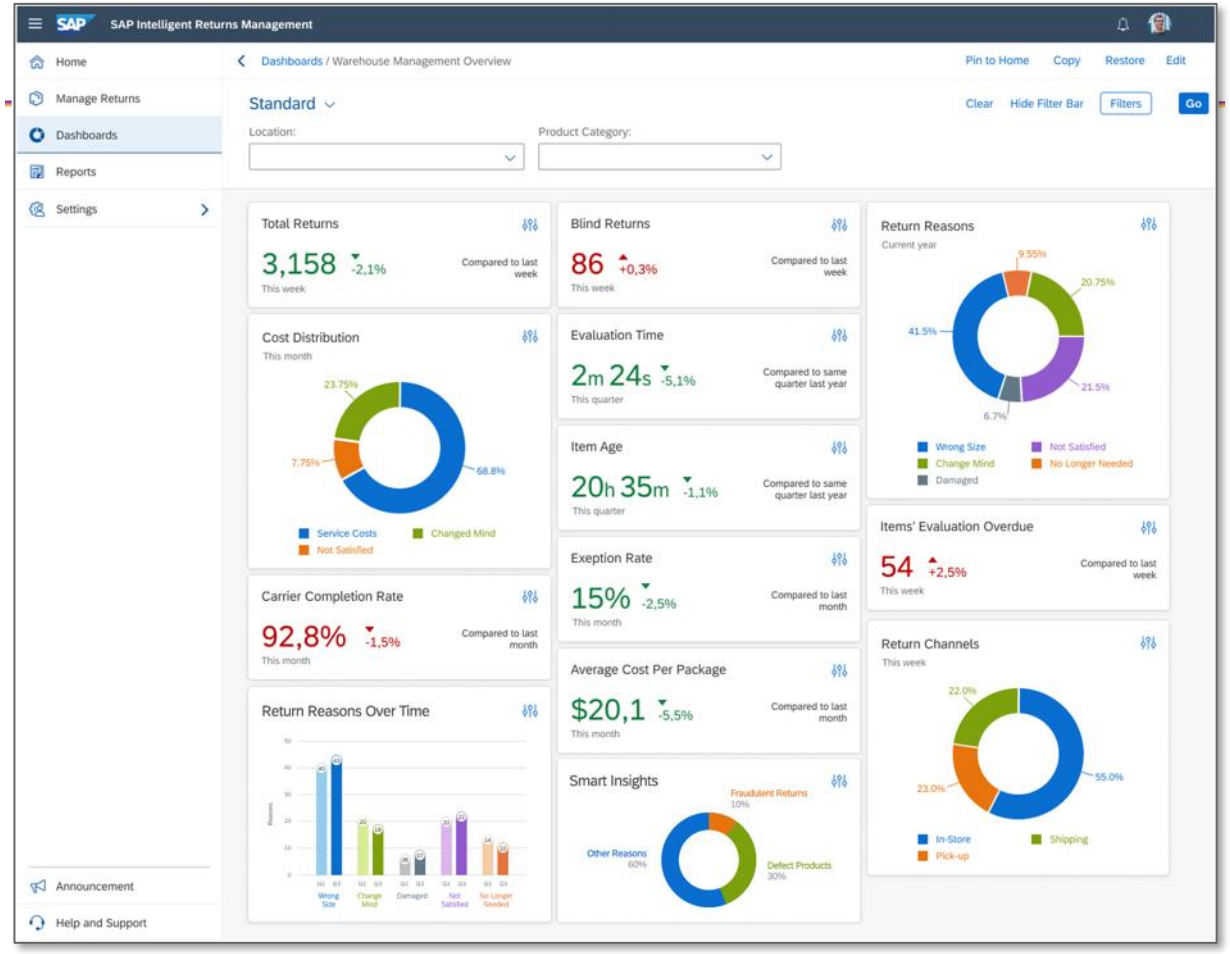
Better Returns Insights

- Enhanced visibility into returns with embedded insights and analytics
- Track and maximize key KPIs
- Identify opportunities to limit future returns
- Decrease returns fraud



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SAP Omnichannel Promotion Pricing Service (OPPS)

WHY?

Customer Challenges

Customers typically touch different sales channels on their buying journeys. **A key expectation is a great customer experience** and consistent promotional pricing information across the different channels they use (online, in store, app,…).

Companies that operate in an omnichannel environment recognize the key importance of providing a **consistent promotional pricing** across their different sales channels but often struggle to provide it. Key reasons are:

- **Multiple repositories** where prices are kept and persisted differently (typically one repository per channel)
- **Different price calculation** logics for different sales channels
- **Complex offers/ pricing** are not fully and consistently supported by all relevant sales channels

WHAT?

What is OPPS all about?

OPPS helps enterprises to address the challenges mentioned here and **to deliver a great buying experience with a consistent promotional pricing across their different sales channels.** It does so by using **ONE price calculation functionality** in the different sales channel applications based on the **SAME price and promotional data.**

OPPS is **a cloud based re-use-service. I**t is **a standalone service that works with any SAP or 3rd party** (cloud and on-premise) **products** that require a promotional price calculation. The service is pre-integrated with SAP Commerce Cloud, SAP Customer Activity Repository and the S/4HANA Sales Order.

BUSINESS VALUE

What value does the service bring?

Companies that provide a consistent customer buying experience with consistent price and promotion data across all sales channels experience:

- **Significantly higher customer satisfaction**

- **Increased brand and customer loyalty**

- **And generate significantly higher revenues at reduced customer acquisition cost.**

HOW?

Our approach, how the service works

SAP Omnichannel Promotion Pricing Service consists of **multiple standalone services (APIs)** that can be used with any solution, SAP or competitor, cloud or on-premise:

- A **promotion maintenance UI** to maintain promotions directly in OPPS.
- A **calculation service** to calculate effective sales prices. It can be used in different sales channel applications like Web, POS, S/4HANA Sales Order.
- A **data upload service** to upload regular sales prices and promotional rules. This data is the basis for the calculation of effective sales prices.
- A **business configuration service** maintain various parameters to influence the behavior of the Calculation service.

Whenever a sales channel needs promotional price for a product or a set of products, it will call the calculation service which will calculate the price and send it to the requesting sales channel. As all the channels get the promotional price from a single source, consistency is ensured.

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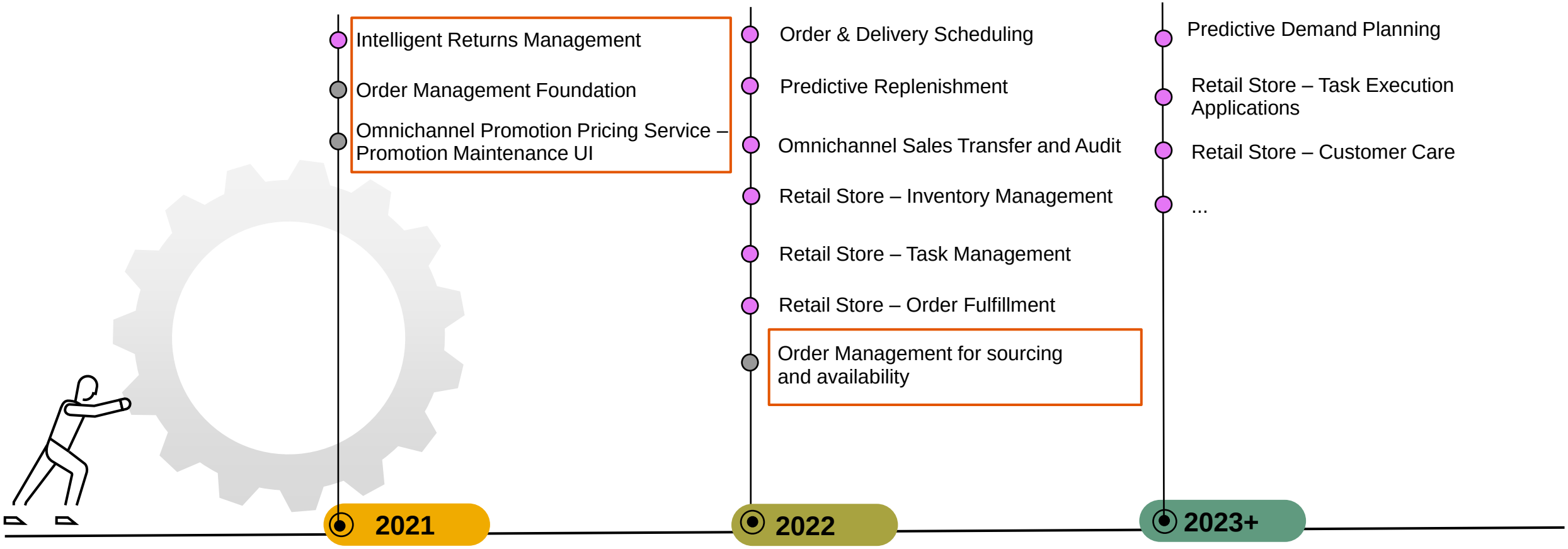
Roadmap for Industry Cloud innovation

LAB PREVIEW: SUBJECT TO CHANGE



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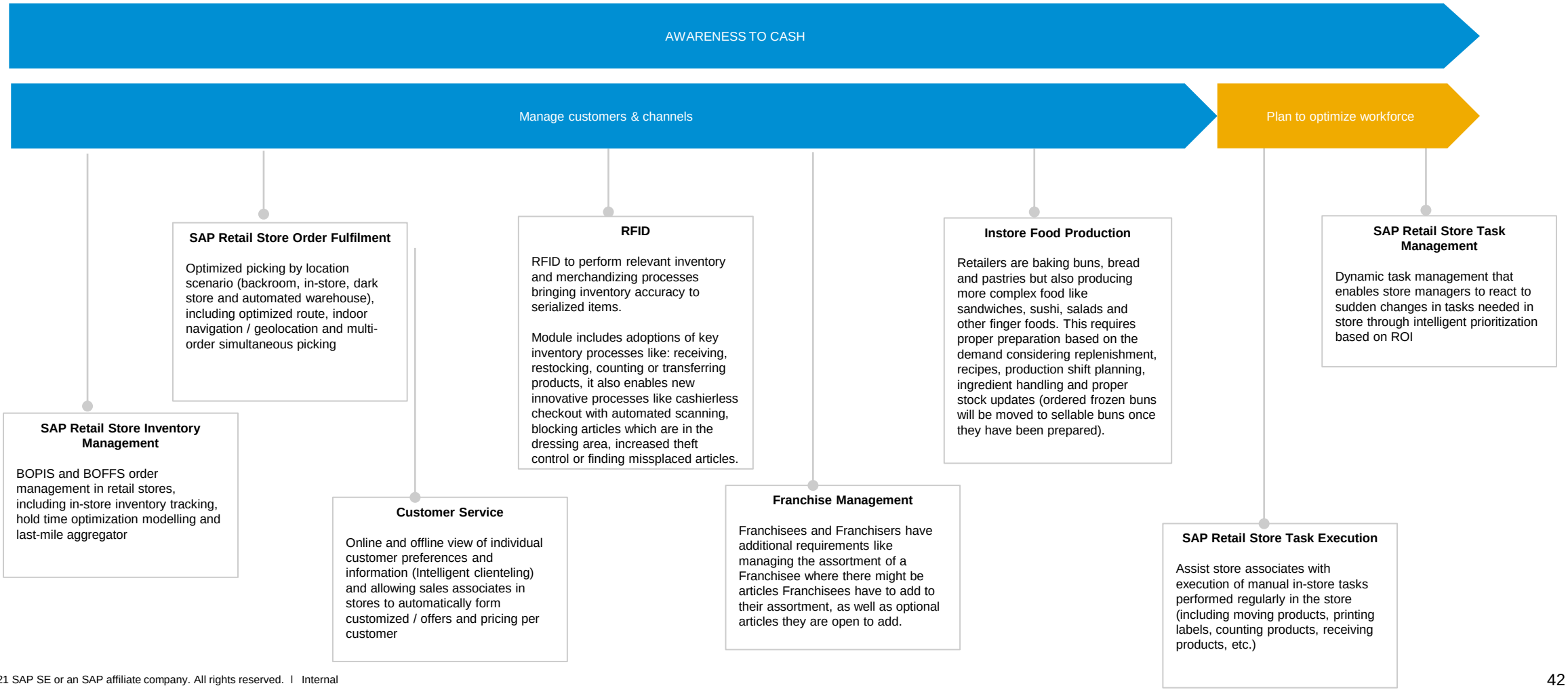
Industry Cloud: Retail Store

Retail Store End-to-End Customer Journey



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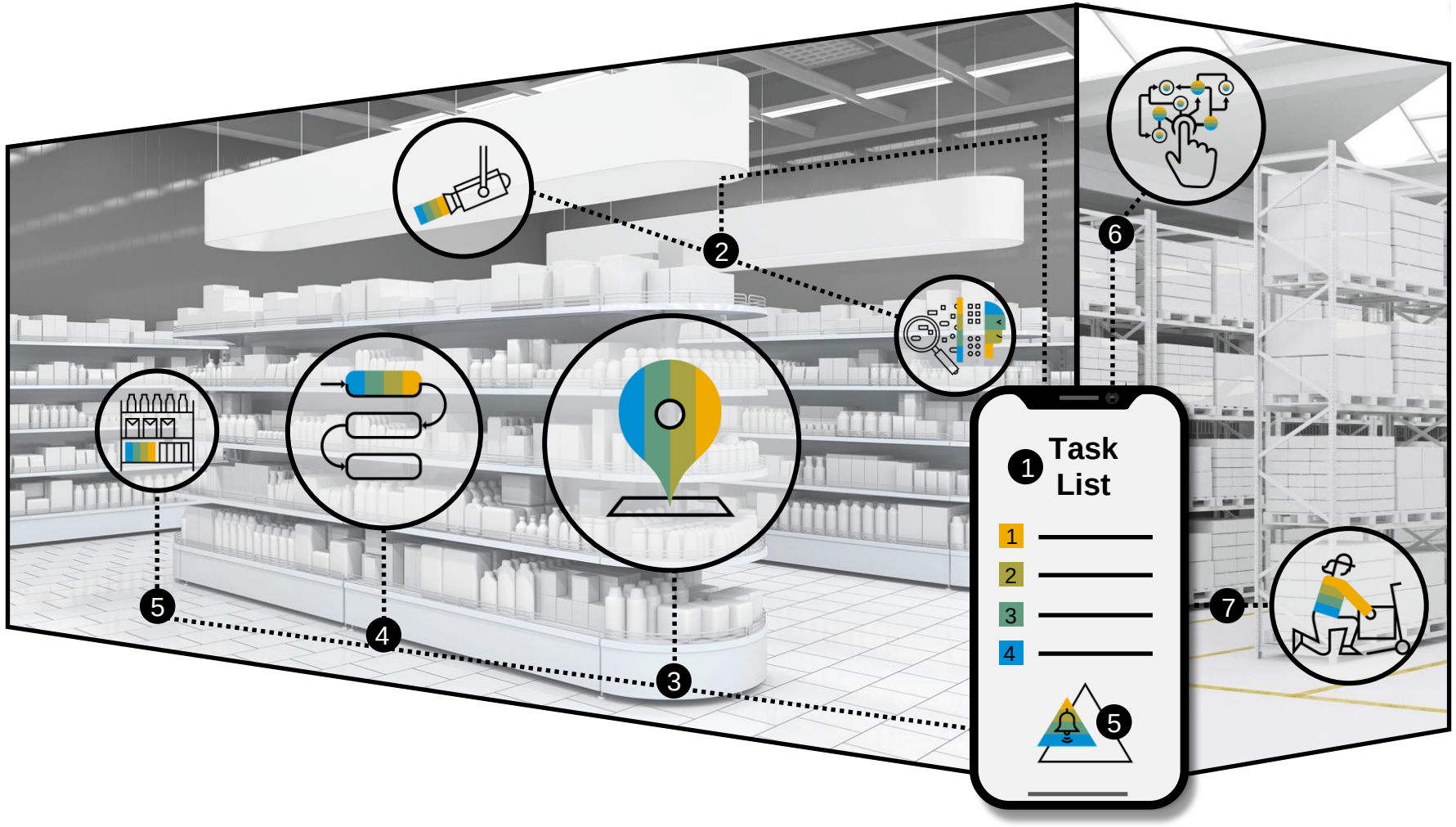
Our Vision for the store of the future

Productive and happy employees, intelligent processes and excellent customer experience.

1. View and process all tasks a user responsible for in a single, integrated task list
2. Leverage Machine Learning and IoT sensor data to dynamically create and update tasks and update inventory to ensure on shelf availability
3. Access all relevant information to provide best of class customer service
4. Increase efficiency by optimizing tasks based on product location and additional attributes
5. Receive notifications when something requires attention
6. Intelligent and automated processes increase customer satisfaction and automation
7. Enable intelligent and adaptive Buy Online Pickup from Store and Buy Online Fulfill From Store



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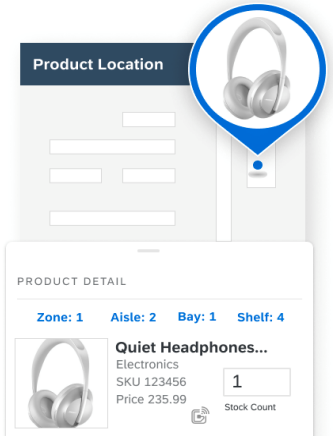
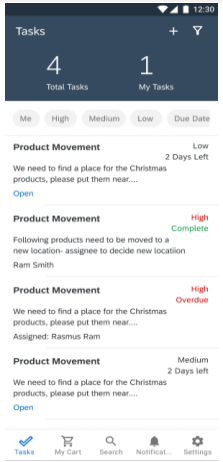
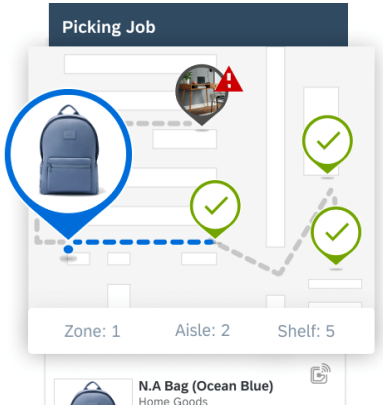
The future of Retail Store Inventory Management in the Cloud

Vision: Maximize store operation efficiency by providing store associates with granular product location, accurate stock quantity of the products, ability to track product movement in the store, and intelligent recommendations for store execution.







The store layout module provides accurate real-time representation of the on-hand stock count and its location in the store

- View products locations and accurate stock on hand
- Accurate tracking of product movements within the same store and storage locations

Centralized Task List one place to see all tasks that need to be done in a store, increasing task execution and overview of employees

- Get all tasks, from the headquarter or created in the store in one list
- Intelligent ranking of tasks pending their overall importance

Optimized sequencing based on product location for order picking, DC to store shipments, etc.

- Streamline store operations through intelligent sequencing of store tasks
- Reduce TCO by leveraging this content to drive inventory insights for existing retail applications

Offers a technology-agnostic solution that consumes data from multiple hardware and software sources

Provides foundation for a comprehensive solution to support omnichannel fulfillment and Smart store. The improved stock tracking will include all new available information in your best current view

Integrates seamlessly with your current IT landscape through Open APIs delivering updates in real-time

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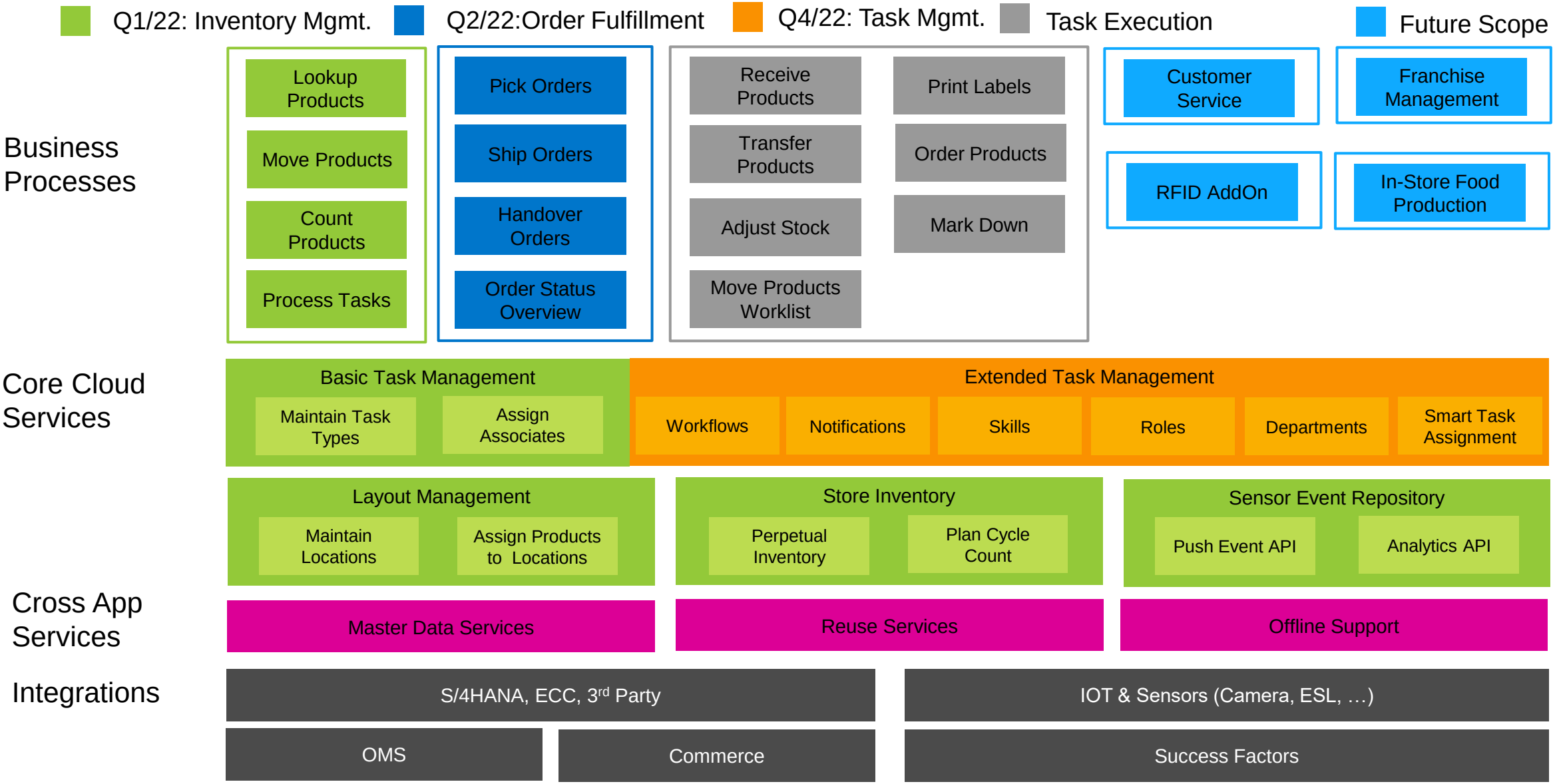
LAB PREVIEW OF PLANNED RELEASES
SUBJECT TO CHANGE

How the SAP Retail Store Becomes Reality



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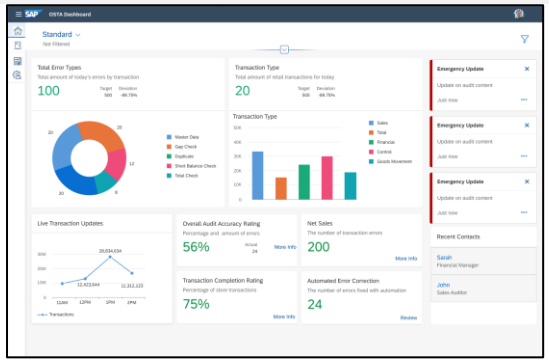
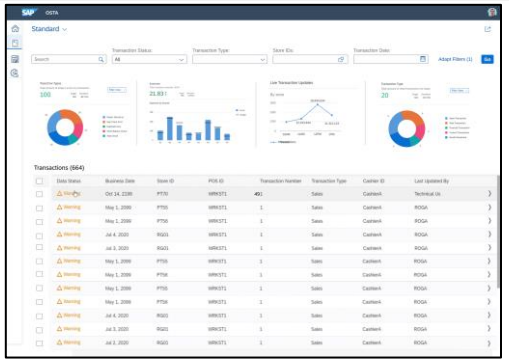
The future of Omnichannel Sales Transfer and Audit

Vision: Transform raw sales transactions into valuable validated data. Omnichannel Sales Transfer and Audit is a sales transaction validation engine solution that receives, audits and ensures the completeness of sales transactions to give you more confidence in sales data and accurate reporting



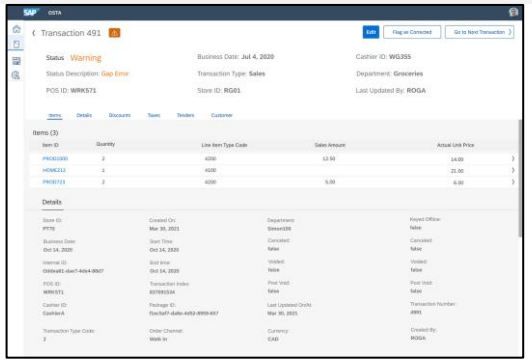
Automated checks can be configured and executed by your personal rule set.

- Reduction in errors and regulatory inconsistencies
- Improved productivity resulting in cost reductions



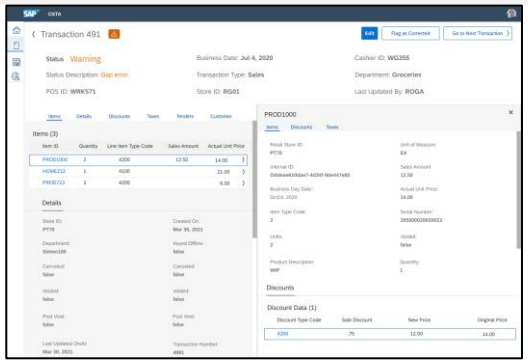
Rule-based error routing ensures that each error get forwarded and processed by the responsible person.

- Improved efficiencies and collaboration
- Simplified reconciliation processes



The **error push-notification** lets you know whenever there is an error which needs to be processed manually.

- Track and maximize key KPIs (e.g., error turnaround rate)
- Real-time insight highlighting store sales and inventory information



Error solving recommendations based on historical patterns.

- Reduction in time spending for error solving
- Mitigation of risks that sales transaction is changed wrong

Unlike other solutions, SAP Omnichannel Sales Transfer and Audit –

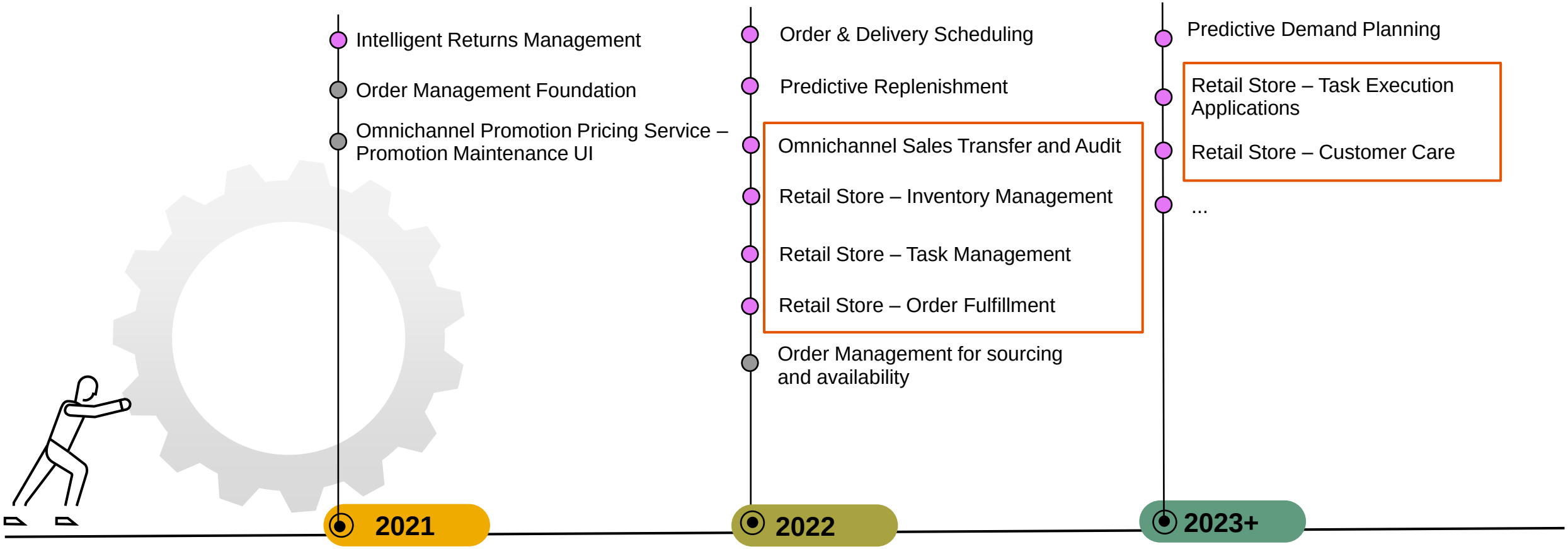
Optimizes the entire **end-to-end** sales auditing **journey**

Seamless integration into any internal or external ERP system for financial and inventory postings

Utilizes **AI-driven** recommendation and correction process

Let's co-innovate to restore confidence in store sales data through intelligent automation.

Roadmap for Industry Cloud innovation



Legend: *) - Planned first shipment of Minimum marketable product (MMP). Continuous innovation follows SAP internal planning, may be subject to changes

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Intelligent Suite:
S/4HANA Retail for Merchandise Management
SAP Customer Activity Repository

S/4HANA Retail for merchandise management on-premise

Lab preview - subject to change

Q1 2021	Q4 2021	Q1 2022	Q4 2022
SAP S/4HANA 2020 FPS01 Retail for Merchandise Management • Increase store operations through a Fiori app for mass stock adjustments **New Assortment Module Management:** • Manage assortment modules Fiori App • Assign products to distribution centers App • Assign products to assortment modules App • Monitor assortment postprocessing errors App **SAP S/4HANA 2020 FPS01 for Fashion and Vertical Businesses** • Supply / Demand Situation within SAP Analytics Cloud • Supporting of additional documents like subcontracting components in Supply Demand Overview App • Fashion Enhancements for Sales Order and Purchase Order OData API • Situation handling in Manage Excess Requirements App • Improvements for segmentation to provide a flexible segmentation maintenance, supporting variants of a configurable article • Production Processing enhancements • MTO/MTS Enhancements for Fashion and Vertical Business • ODATA API for Segmentation structure and strategy	**SAP S/4HANA 2021 Retail for Merchandise Management** • Increase store operations through a Fiori app for mass count stock **New Assortment Management** Enhancements: • Assign user to assort. modules Fiori App • Enhancements of existing apps **SAP S/4HANA 2021 for Fashion and Vertical Businesses** • Provisional Sales Contract • Progress Monitor for Sales Orders supporting special business processes • Purchase Order Consolidation • Integration with Product Lifecycle Costing (Pre-Order Costing) • Integration with Digital Manufacturing Cloud for Insights • Manage Master Production Order • Feature enhancements in Production Control Workbench • Enhancements for production processes (Discrete Manufacturing)	**SAP S/4HANA 2021 FPS01 Retail for Merchandise Management** • Assortment list with multiple languages • POS Outbound via services – Round-offs • Count mass stock – automatic posting of documents • New APIs for merchandise categories, etc. **SAP S/4HANA 2021 FPS01 for Fashion and Vertical Businesses** • Manage Purchase Order – Consolidation PO enhancements[1)] • Mass Changes for Fashion fields through Purchase Order Fiori App[1)] • Manage Master Production Order - enhancements[1)] • Demand and Supply Segmentation - additional flexibility[1)]	**SAP S/4HANA 2022 Retail for Merchandise Management** • App variant for consumer maintenance • Promotion integration with Omnichannel Promotion Pricing Service • Migration object for articles and assortments • Article mass maintenance via MDG **SAP S/4HANA 2022 for Fashion and Vertical Businesses** • Manage Master Planned Order • Capacity planning – PP/DS integration • Rule based Feasibility Analysis • Demand and Supply Segmentation - enhancements • Segmentation in Process Manufacturing • Supply selection rule flexibility in Supply Assignment

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Native Cloud
1) Planned for S/4HANA 2021 FPS01
* Joint roadmap items with other LOB

SAP Customer Activity Repository

Lab preview - subject to change

Q2 2021	Q4 2021	2022	Future
POS Data Transfer & Audit (incl. MSCA) • Enhancements to the POS data transfer and auditing process **Demand Data Foundation** • Master-data integration support for SAP Replenishment Planning **Unified Demand Forecast** • Improved HPR performance by calculating priors only when needed • Ability to consider variable season definitions • Maintain and assign threshold values per alert type • Alert management extension concept for customer-specific alerts • Prioritization of alerts with automated scoring • Control cockpit for forecast and control of demand-driven KPIs	**POS Data Transfer & Audit (incl. MSCA)** • Ability to set multiple tax segments for a single article • Integration with native storage extensions for warm data aging of the TLOGF table • Ability to use data life-cycle management tools for TLOG data aging • Integration via S/4HANA on Prem/Cloud SOAP services • Enhanced transaction traceability (WPUUMS, WPUBON, WPUTAB) • Support for Seasons category • Report to display list of stores **Demand Data Foundation** • Automatic product similarity detection and calculation of clusters into hierarchies **Unified Demand Forecast** • Forecasting of non-listed products for SAP Assortment Planning • Ability to use the results of similar product searches for calculating hierarchical priors (HPRs) • Stabilized demand model for promotion-focused products • Enhanced outlier detection and correction in demand modeling	**POS Data Transfer & Audit (incl. MSCA** • Provide new customizing entry to allowing the ability to remove leading zeros from article No. • Removal of FIORI scaffolding • Integration with Smart Store • Enhance tax integration allowing for segments 04 and 05 • Reduce dependency on HANA Activation Report **Unified Demand Forecast** • New Parallelization Framework (for UDF and SAP Replenishment Planning) • Consideration of user projections from SAP Promotion Management as forecast corrections • New Replenishment Type Filter for Modeling and Forecasting	**POS Data Transfer & Audit (incl. MSCA)** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Demand Data Foundation** • Location hierarchy improvements in demand data foundation **Unified Demand Forecast** • Forecasting a digital selling location

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SAP Customer Activity Repository - planning applications

Lab preview - subject to change

Q2 2021	Q4 2021	2022	Future
Assortment & Merchandise Planning • Advanced location clustering and cluster analysis • More efficient planning of new product introductions and planning by market **Promotion Management** • Integration with 3rd party vendor fund tools • Faster response time for creating and maintaining large offers **Replenishment Planning** • Replenishment calculation that considers minimum stock as a constraint • Additional exception indicating high spoilage for the order plan review • External order plan item review in the store, supported using an interface for retrieving and updating order plan items • Performance data collection for performance monitoring of critical processes • Automation framework for parallel processing, traceability, and monitoring of critical processes • Replenishment calculation that considers time-dependent minimum stock and maximum stock • Control cockpit for orders, stock, exception monitoring, and control of replenishment KPIs • Maintain & assign threshold values per alert type • Alert management extension concept for customer-specific alerts • Prioritization of alerts with automated scoring • Additional order plan item candidate information for order plan review • Replenishment calculation that considers source of supply plus related order unit changing over the planning horizon • Control cockpit for forecast and control of demand-driven KPIs	**Assortment & Merchandise Planning** • Ability to plan localized and space-aware assortments for long lifecycle products • Forecasting of non-listed products for SAP Assortment Planning **Promotion Management** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Replenishment Planning** • Aggregated order plans for use in Multi-Echelon Replenishment • Performance optimizations for replenishment calculations • Advanced process control for parallelization and packaging • Inbound procurement-schedule assignments • Consideration of time-dependent procurement-schedule assignments **Allocation Management** • Maintenance and ongoing enhancements, to be defined based on customer feedback	**Assortment & Merchandise Planning** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Replenishment Planning** • Multi-Echelon replenishment – integration with SAP Forecasting and Replenishment	**Assortment & Merchandise Planning** • Maintenance and ongoing enhancements, to be defined based on customer feedback **Promotion Management** • Enable financials for offer in FIORI **Replenishment Planning** • Maintenance and ongoing enhancements, to be defined based on customer feedback

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Questions

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