



Intelligent Enterprise for Retail

Innovation on the Road to a New World of Retail

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Success strategies for new retail

Be customer-centric across the value chain



- **Category Management** with **SAP Assortment Planning** (co-innovation)
- **Sales Audit** with **SAP Consumer Sales Intelligence**

Serve the “Segment of One”



- Fashion manufacturing 4.0 allowing **personalized product** with **SAP S/4HANA Fashion**
- **Golden customer record** with **SAP Customer Data Platform**

Implement digital supply chains



- **Promotional Push** with **SAP Allocation Management** (co-innovation)
- **Cost-optimized ordering** with **SAP Replenishment Planning*** on SAP CAR (co-innovation)

Run smart stores



- **In-store fulfillment** with **SAP S/4HANA Retail**
- **RFID enabled scenarios** with **SAP S/4HANA Retail** for store merchandise management

Sell outcomes beyond products



- New business formats for **contactless store** with **SAP Cloud Platform microservices** (Valora showcase)

Highlights

beeline
group

axfood

coop

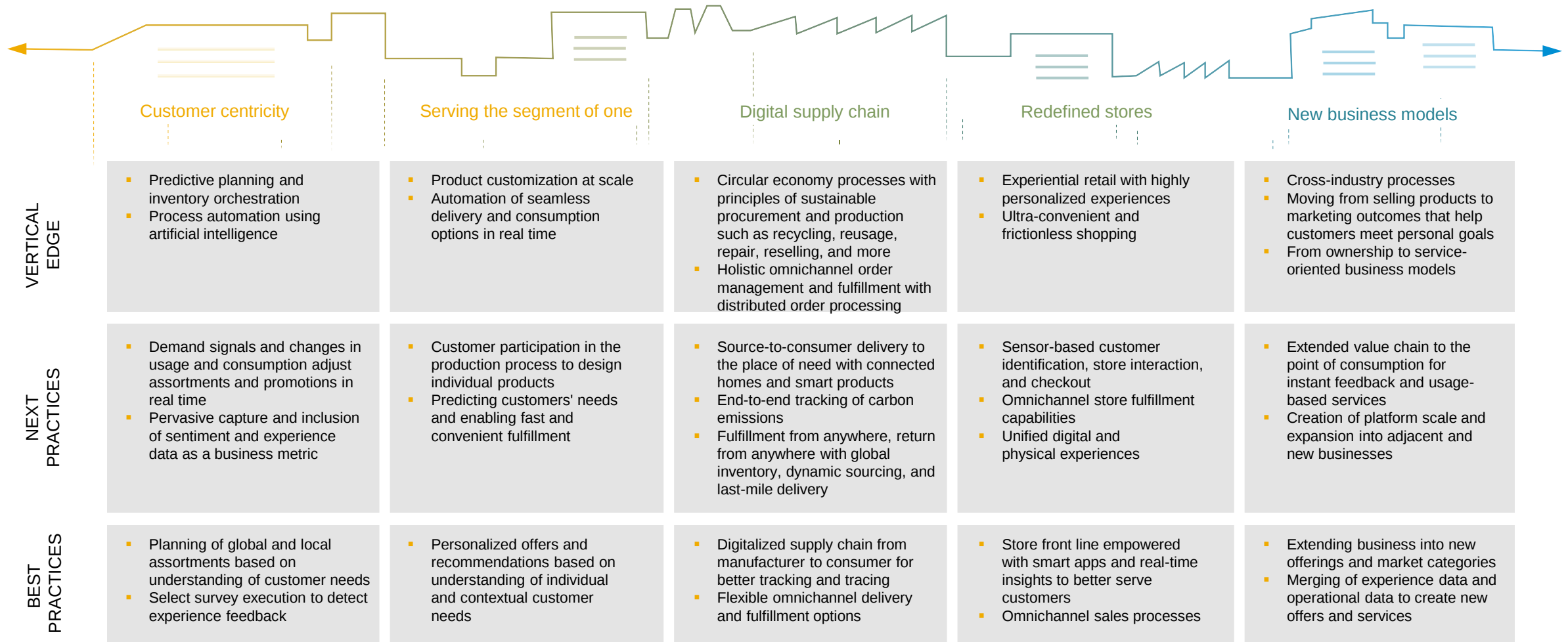
carhartt

valora

salling group

Transformation of the retail industry

From common practices to vertical edge



Road map to the **vertical edge** of retailers



Merchandise Management

- Focus on grocery with in-store production and fresh item procurement, order & delivery schedule
- Public cloud offering for Retail and Fashion in ONE S/4HANA Cloud
- Retail-as-a-function



Predictive Inventory Orchestration**

- Cloud services to extend predictive scenarios across a wide variety of use cases
- New planning and optimization solutions by SAP and partners with flexible deployment option



Omnichannel Planning and Fulfillment*

- Order orchestration and fulfillment process e2e
- Product availability and sourcing
- Order reconciliation, returns and reverse logistics



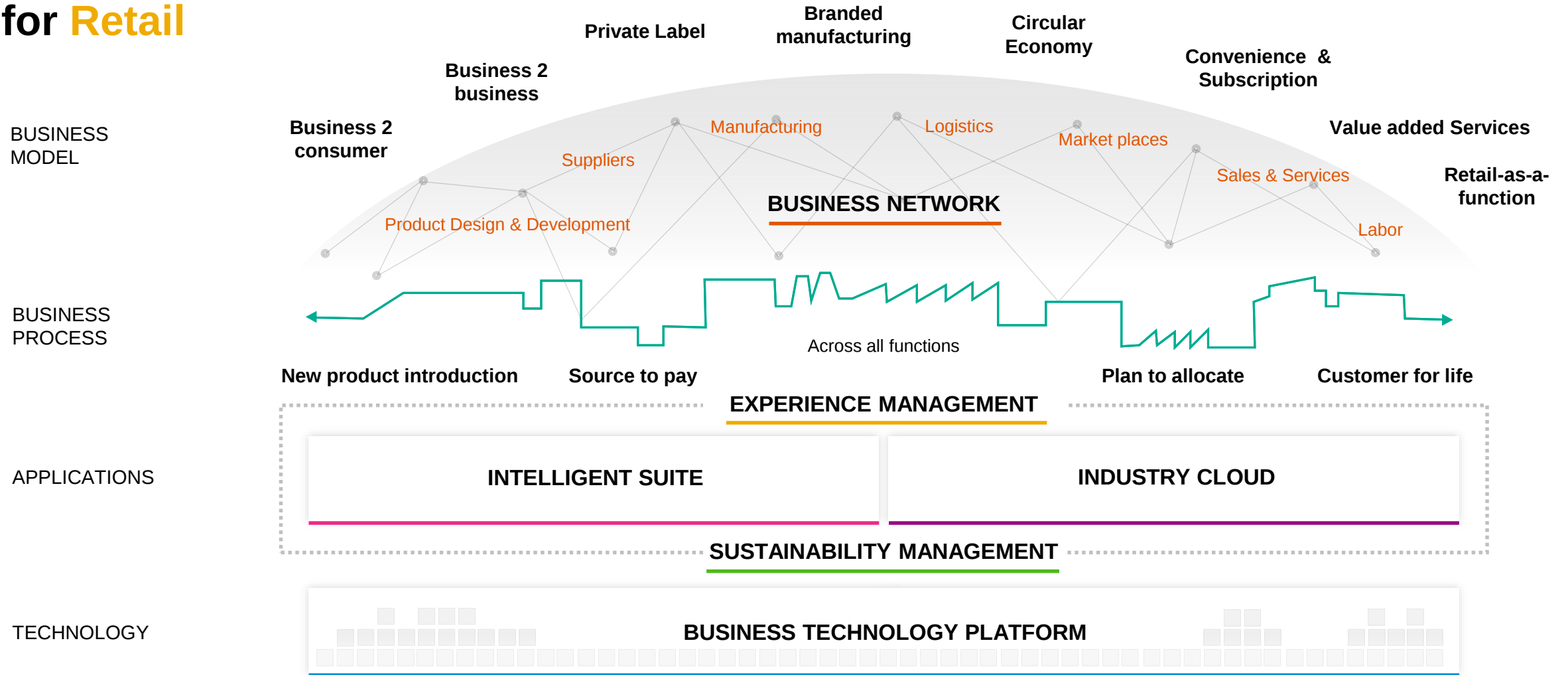
Intelligent Store**

- Cloud-based apps for store management
- Store fulfilment (BOPIS/BOFFS)
- Intelligent Store Productivity
- Pick, pack and ship
- Automation through RFID, location services, AR/VR et al.

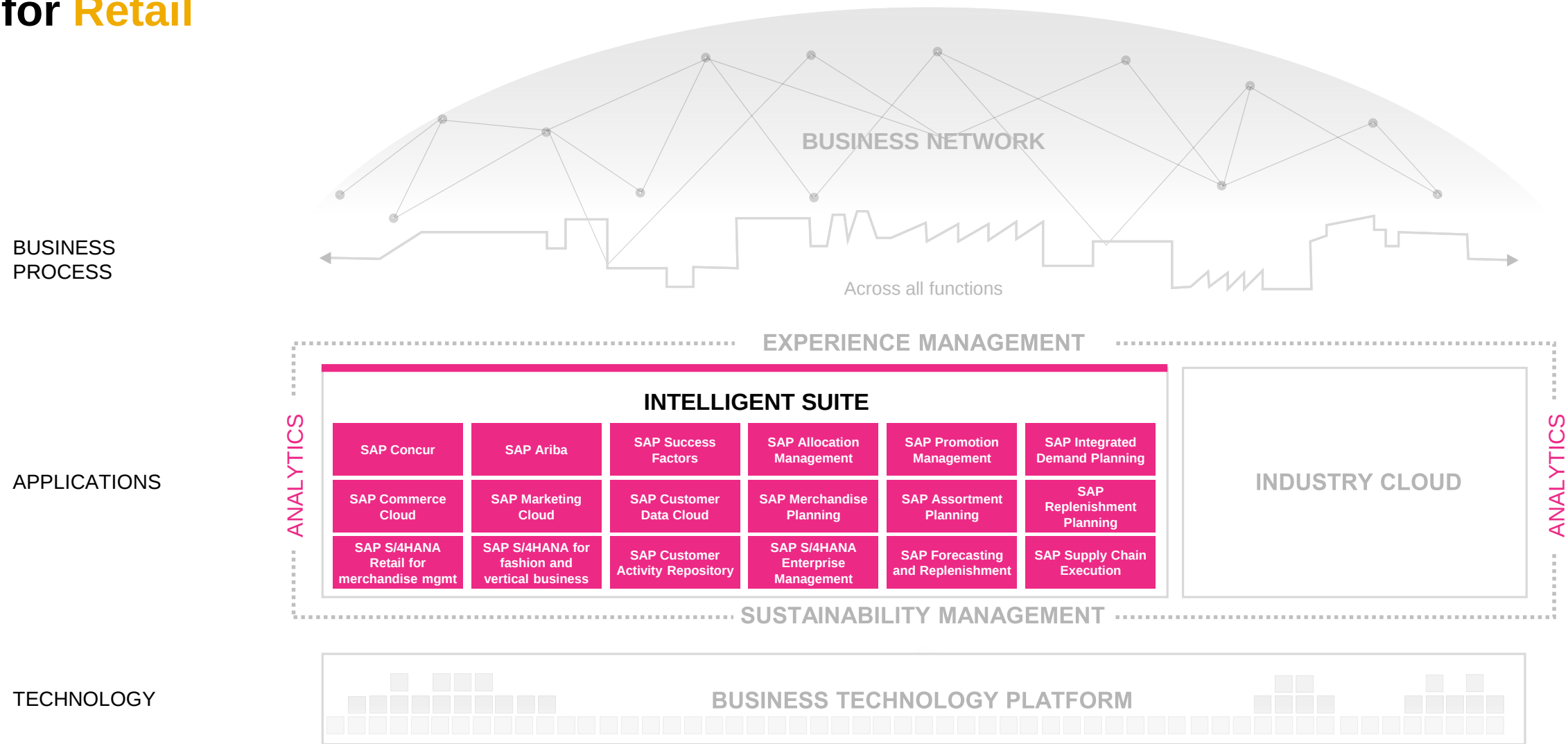
The key to **resilience**

... SAP defines companies that can adapt and innovate, integrate data and processes, use intelligent technologies, understand customer sentiment, and be agile enough to overcome challenges as **Intelligent Enterprises.**

Intelligent Enterprise for Retail



Intelligent Suite for Retail



S/4HANA Retail and Fashion On Premise Innovations 2020ff



Consumer Industries - Retail & Fashion

Road map Q1/2020 – Q4/2020

Industry	Q1 2020	Q2 2020	Q4 2020
Retail & Fashion	SAP S/4HANA 1909 FPS01 Retail for Merchandise Management ▪ <u>Process automation for in-store movements through radio-frequency identification (RFID) ¹⁾</u> ▪ <u>Improve effectiveness in user maintenance through a Fiori to assign store associates¹⁾</u> SAP S/4HANA 1909 FPS01 for Fashion and Vertical Businesses ▪ <u>Supply and Demand Cockpit¹⁾</u> ▪ <u>Monitor supply assignment demand¹⁾</u> ▪ <u>Enhanced Value added services (VAS)¹⁾</u> ▪ <u>Improve the direct-ship process with additional flexibility for direct-ship alignment¹⁾</u>	SAP MDG-RFM by Utopia EXT • functional enhancements	SAP S/4HANA 2020 Retail for Merchandise Management ▪ <u>Flexible integration through point-of-sale (POS) inbound communication with enterprise services</u> ▪ <u>Flexible integration through an enterprise service for sending product information</u> ▪ <u>Increase sales volume through support for click-and-collect scenarios</u> ▪ <u>Enable retail business-process capabilities through conversion of materials to retail articles</u> ▪ <u>Improve productivity of store managers by providing an overview of the store performance KPIs</u> ▪ <u>Integration scenario for new assortment module management</u> SAP S/4HANA 2020 for Fashion and Vertical Businesses ▪ <u>Supply protection in supply assignment</u> ▪ <u>Action capabilities in Monitor Supply Assignment Demand App</u> ▪ <u>Sales Order Mass Change Capability</u> ▪ <u>Manage Excess Requirements Scheduling App</u> ▪ <u>Mill Products integration for textile products</u> ▪ <u>Variant configuration for retail single articles</u> ▪ <u>Improve operational efficiency by taking orders using SAP Intelligent Robotic Process Automation (SAP Intelligent RPA)*</u>

Fiori App: In-Store picking for online order fulfilment

< 🏠 Process Picking Re... ⋮ 👤

Picking Requests (22)

🔍 🔄 🔼

☒ 666

3 Products

☒

Sabine Thomas

14.05.2020, 11:00

10 KG

Not Picked

☐ 667

3 Products

☐

Sabine Thomas

14.05.2020, 11:00

9.8 KG

Not Picked

☐ 668

2 Products

☐

Sabine Thomas

14.05.2020, 11:00

10 KG

Not Picked

☐ 669

2 Products

☐

Sabine Thomas

14.05.2020, 11:00

10 KG

Not Picked

Start Picking

< 🏠 Process Picking Re... ⋮ 👤

1 Picking Requests ✕

Products Picked: 0 Of 3

Products (3)

Meat and Fish



Turkey Strips
2050000413551

1 KG



White Fish
2050000413568

7 KG



Principle Lamb Keel
2050000413575

2 KG

Scan Print

< 🏠 Hand Over Orders ⋮ 👤

56153 Withdraw 🔗 ✕

Sabine Thomas

Fully Picked Products: Payment Status: **Not Paid**
Short Picked Products: Withdrawn: No
Unavailable Products:

⬆

Exceptions ⌵

Product Image	Product
	Natural Milk 2050000413742
Quantity Picked: 0 L (Shortage of 12 L)	
	Fresh Berries 2050000413599
Quantity Picked: 0 KG (Shortage of 3 KG)	
	Turkey Strips 2050000413551
Quantity Picked: 0 KG (Shortage of 4 KG)	

Reservation Hand Over Cancel Order

Consumer Industries - Retail Merchandise Management

Road map Q4/2021 – Q4/2024

Lab preview,
subject to change

Industry	Q4 2021	Q4 2022	Q4 2023	Q4 2024
Retail & Fashion	Core Merchandise Management ▪ New Assortment Management Enhancements: ▪ Manage assortment modules Fiori app ▪ Assign user to assortment modules Fiori app ▪ Enhancements of existing apps Enhanced omnichannel processes Retail as a Function Further improvements to allow interoperability of Retail and standard processes like ▪ Adding further production relevant fields to article master maintenance ▪ Quality management for Retail article ▪ Product version maintenance for Retail article	Core Merchandise Management ▪ Order and Delivery Schedule ▪ Scheduling groups and article assignments ▪ Creation of supply networks including source / scheduling group / target ▪ Management of templates based on rules and exceptions ▪ Generation of order and delivery plan ▪ Consumption in S/4HANA ▪ Fresh Item Procurement ▪ Processes for stock optimized distribution of fresh items ▪ New Assortment Management Enhancements like: ▪ Shelf layout integration into assortment modules	Core Merchandise Management ▪ New Assortment Management Enhancements: ▪ Wholesale assortments ▪ Further process automation ▪ Franchise Management Improved support for processes relevant for Franchise Management ▪ In-store Production Improved support for processes relevant for in-store production like ▪ Support of flexible attributes	Core Merchandise Management ▪ Catch Weight Management processes ▪ Master data management ▪ Support in different goods movements scenarios ▪ Support in in-store processes ▪ Support in POS inbound communication ▪ Franchise Management Two-Tier scenario for franchise management with S/4HANA Cloud integration ▪ In-store Production Improved support for processes relevant for in-store production like ▪ Simplified BOM maintenance ▪ Specific store processes

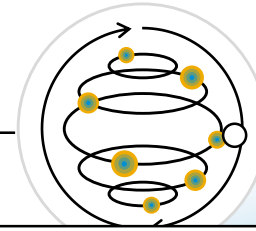
S/4HANA Retail and Fashion Public Cloud Innovations 2021f



SAP S/4HANA offers flexibility of

consumption

As a Service



SAP S/4HANA®

As a Product

ONE Data Model -- ONE Semantic -- ONE UserExperience

SAP S/4HANA Cloud
SaaS

SAP S/4HANA AnyPremise
on any infrastructure

Implementation

Upgrades

Scope

Extensibility

Deployment

Configuration

Operations

Security

Licensing

Greenfield or conversion of existing implementations

Degree of Standardization

SaaS (SAP Data Center or GCP, MS Azure or Alibaba Cloud)

Degree of Flexibility

SAP Cloud security and data center strategy as SPOC

Subscription-based

BYOL + infrastructure subscription



S/4HANA Cloud for Retail and Fashion – Roadmap and Planned Scope

Lab preview,
subject to change

2105 – Planned Q2/2021*

No release yet

2108 – Planned Q3/2021*

Retail Merchandise Management

- Master data management for merchandising
 - Article master management incl. mass maintenance
 - Site master management
 - Merchandise category management
- Pricing and Promotions
 - Retail Price Management
- Assortment Management
 - Assortment Management and Listing
- Forecasting, Allocation and Replenishment
 - Store Replenishment
 - Distribution center replenishment
 - Merchandise allocation execution
- Merchandise buying and distribution
 - Quantity optimizing
- Retail inventory management and valuation
 - Retail inventory management
 - Physical inventory
 - Sales price valuation
- Retail store management:
 - POS inbound and POS outbound
 - In-store merchandise and inventory management
- Data migration and data integration

S/4HANA Cloud Q4/2021 *

Retail Merchandise Management

Further Retail processes like

- Promotion management
- Merchandise distribution
- Collective Purchase Order mgmt
- Article hierarchy management

Fashion Retail processes

Supporting amongst others

- Season
- Value Added Services (to be further defined)

S/4HANA Cloud 2022++ (tbd)*

Retail Merchandise Management

- Further Retail processes
- Further out-of the box integrations
- Further self-service configuration
- Further extensibility options
- Further migration objects
- Support of two-tier scenarios
- Further simplifications + automation

Fashion Wholesale

Supporting amongst others

- Supply Assignment
- Alignment of Purchase Requisitions with Purchase Orders
- Pack Separately – Ship Together
- Multi Ship to Orders
- Excess Requirement Management
- Third Party and Purchase-to Order Diversion

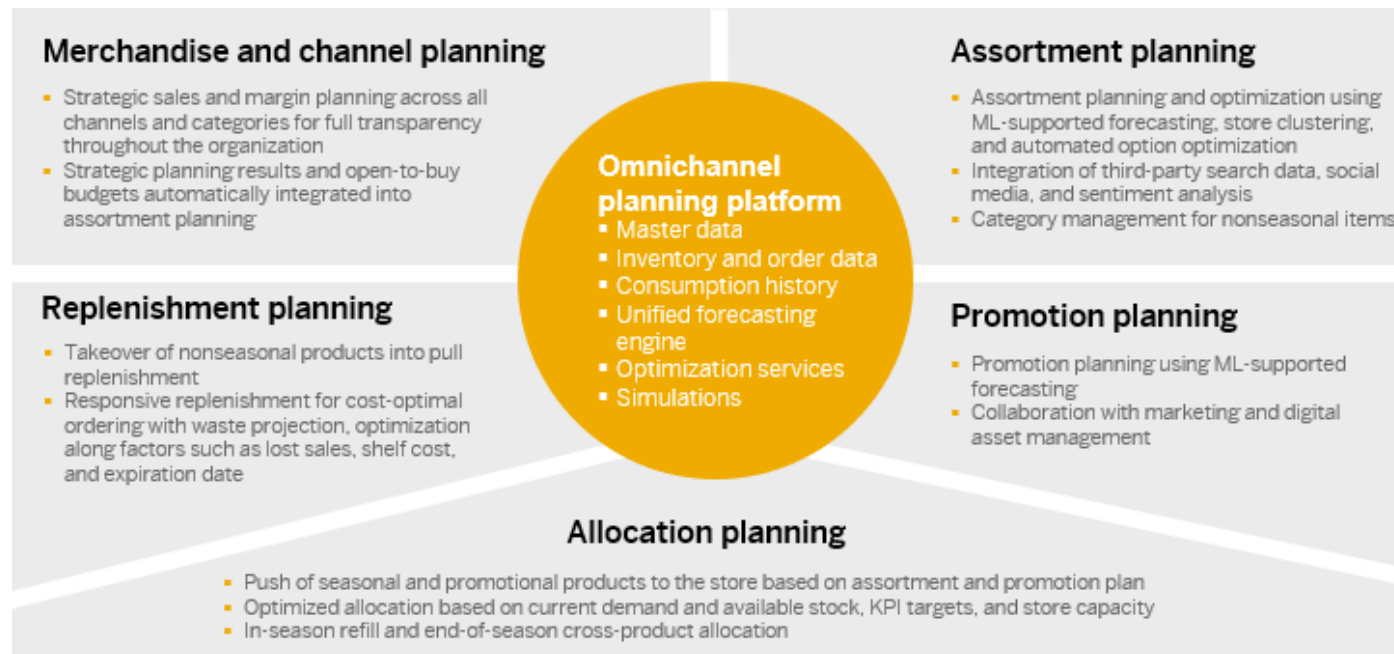
Basis for planned scope of cloud enablement and content delivery are E2E processes from the Model Companies Retail and Fashion

Customer Activity Repository & consuming applications Innovations 2020ff



Next-practice omnichannel planning and optimization

... be the first to serve tomorrow's demand using predictive insights and intelligence in an integrated planning suite on one common platform



VERTICAL EDGE: Predictive inventory orchestration

Anticipating and executing against dynamic trends and customer preferences requires new types of planning and optimization capabilities. Comprehensive sets of business services such as forecasting, clustering, and similarity services mixed with real-time transactional data and 3rd party information build the foundation for cross-channel insights and a new generation of cloud-based planning and optimization applications.

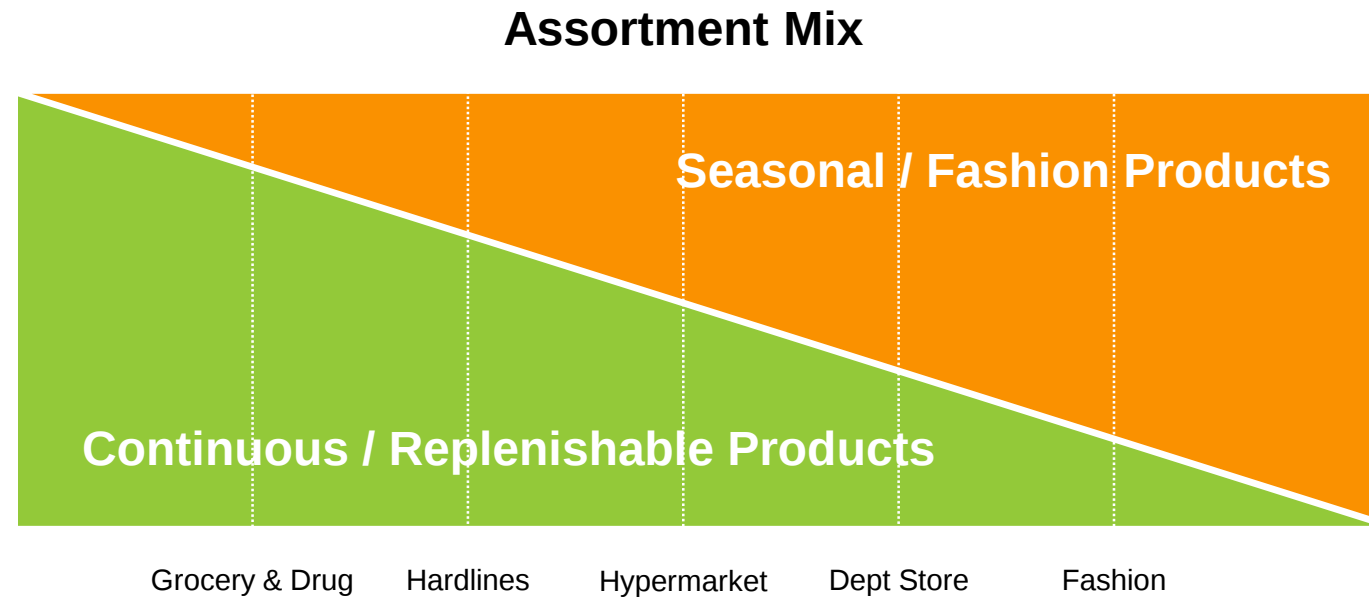
Q2/2020 - Q4/2021



Category Management with SAP Assortment Planning

Objective: One planning application for all categories

Roadmap
Subject to change



Category management in planning – components

Roadmap
Subject to change



Planned for Q2/2020

Extended Q4/2020



Cost-optimal ordering with SAP Store Replenishment

Main planned features of 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

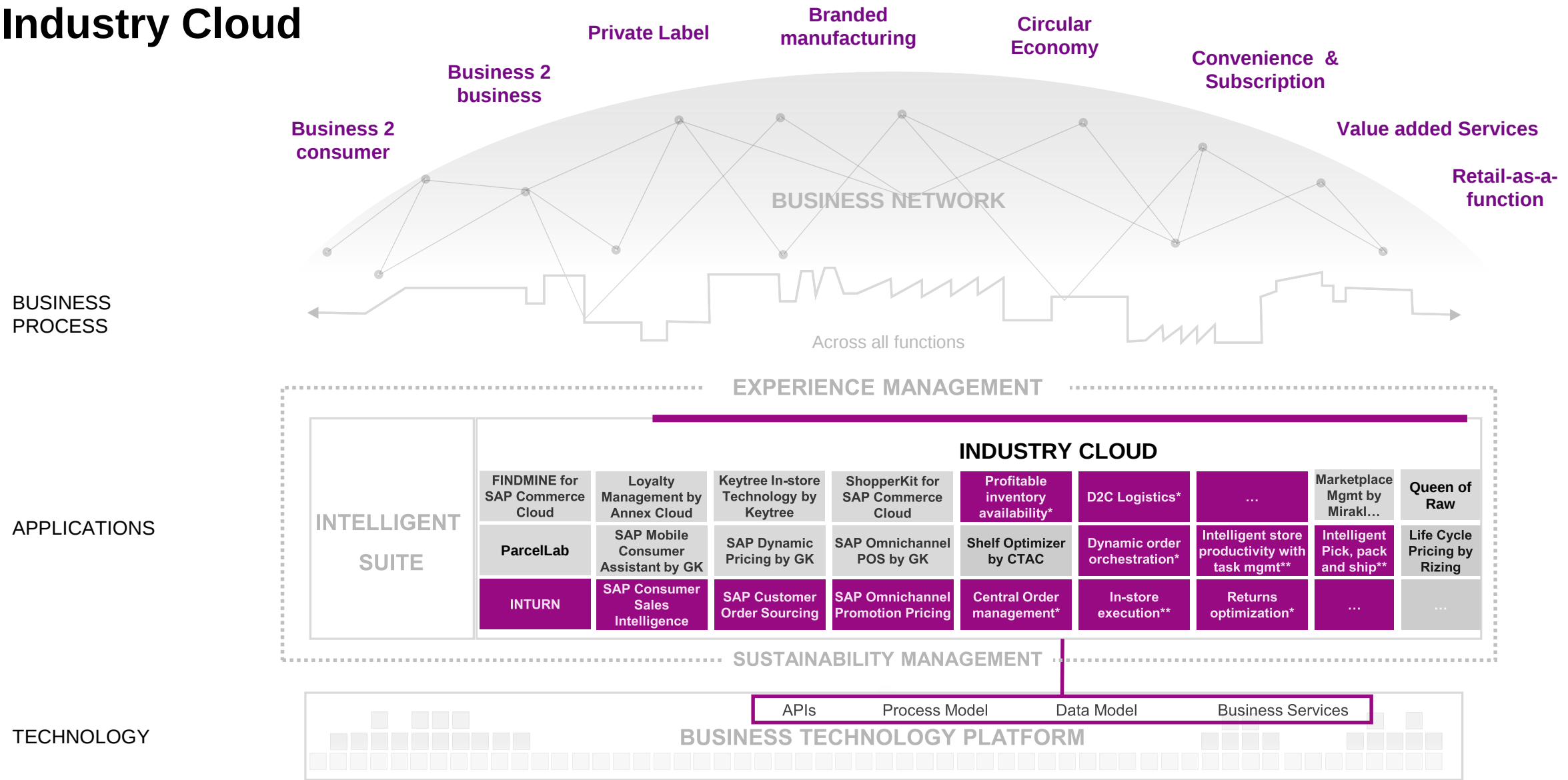
Industry Cloud Innovations 2021ff



Road map and vision to the **vertical edge** of retailers

... Intelligent enterprises strike the balance between optimizing their current business models and innovating at the **vertical edge to develop new revenue streams and growth potential using digital technologies**

Industry Cloud



Roadmap for SAP industry cloud solutions - Retail & Fashion

Lab preview,
subject to change

Industry	Q2 2021	Q3 2021ff	future perspective
Retail & Fashion	Returns Optimization - Omnichannel Return Optimization engine that outlines the best next steps for a returned item to maximize margin and sell-through, and seamless returns customer experience - App to guide consumers through the returns process - Present returns policies - List of available returnable items from order list - Location services to recommend best next store for return - App to support store employees in returns process - Determine the most profitable return route considering costs and of course state of the returned product - Based on return code, react with new product recommendation or information on available stock elsewhere - Use consumer information for better product information (size is off) - Awards to stick to return recommendation - QM processes for damaged goods and routing (waste, repair, re-sell?) - Analytics for better product descriptions, projected returns workload, demographics, cost distribution	Order Management System (OMS) Retail Omnichannel D2C Logistics Profitable inventory availability - Intelligent suppression of inventory to customers based on margin and execution considerations as well as allocation to best route of fulfilment once order is placed (Intelligent order allocation to profitability model) Dynamic order orchestration - Sourcing and allocation with flexible way to define rules and strategies e.g. by categories or other criteria - Routing to back ends with capabilities to split or consolidate orders Dynamic drop-ship accelerator - Marketplace inventory as part of omnichannel inventory for drop ships "Order Management" - Overarching framework for holistic order management and orchestrations including decisions on how to move on with COS, CSI, central order management (this will further detailed out once we are thru Discovery phase)	Q3/2022 In-store Picking (BOPIS/BOFFS) - Instore inventory tracking to determine exact location of the product using geolocation, RFID, image recognition - Provide guidance to where it is best to place the picked products (pick-up boxes, drive-in, dark stores et al.) - How long should an order be kept - Last mile aggregator – what is the optimal carrier for last mile fulfillment Q4/2022 Intelligent Store Productivity - Dynamic task management that enables store managers to react to sudden changes in tasks needed in store through intelligent prioritization based on ROI Q4/2022 Intelligent Store - Pick, Pack & Ship - Optimized picking by location scenario (backroom, in-store, dark store and automated warehouse), including optimized route, indoor navigation / geolocation and multi-order simultaneous picking - Customer communication, status updates - Label printing - Carrier contracting

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