



Navigating the Path to the Intelligent Enterprise

SAP's Portfolio and Roadmap for Retail

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Customer

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Strategic priorities for Retail



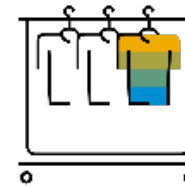
Customer
centricity



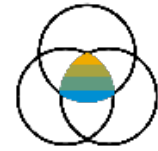
Serving the
“segment of one”



Digital
supply chain



Smart
Stores



Business model
innovation

avecbox

Mit noch wenigen
Stunden bis zur
Eröffnung

22:38:29

avecbox

avecbox

avecbox

avecbox

avecbox

avecbox

avecbox

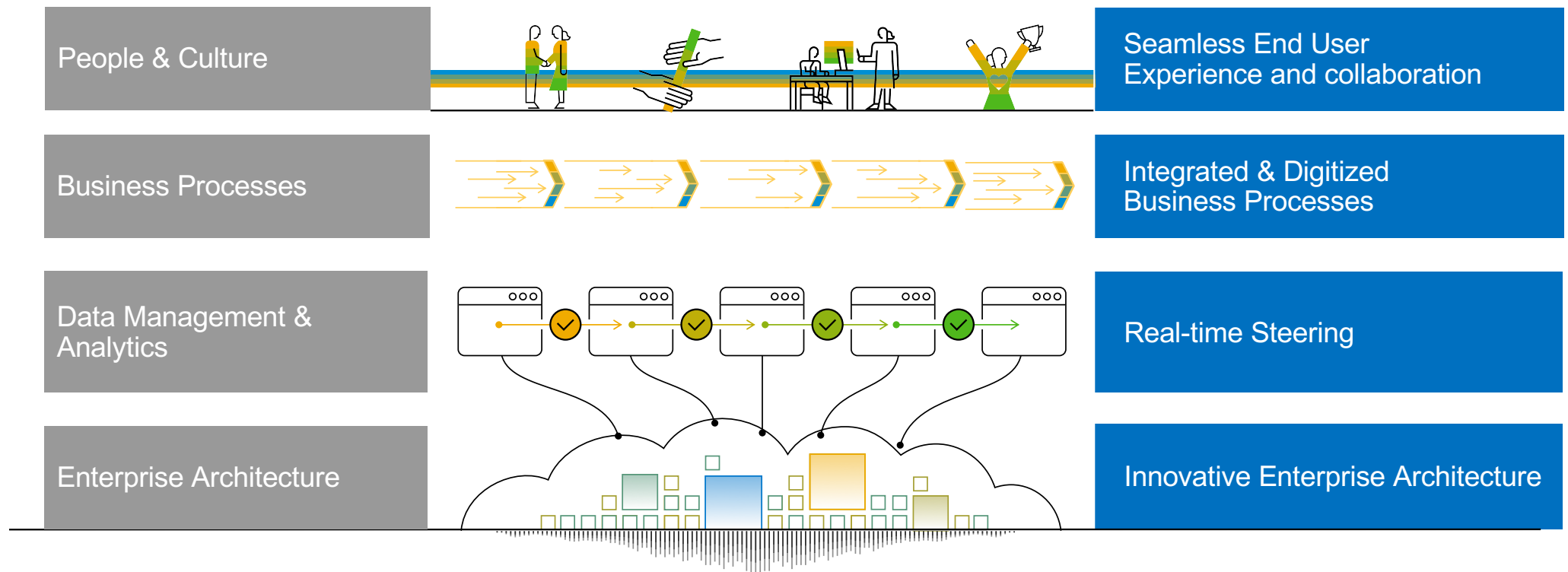
cbox

The Intelligent Enterprise

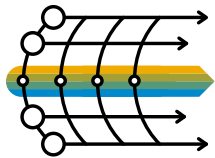
Introduction



Business Transformation – Opportunities

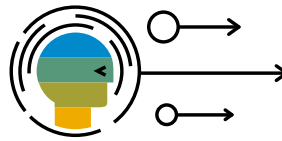


What fuels the Intelligent Enterprise for Retail?



Intelligent Suite Scenarios

Process-centric and cross-application scenarios, seamlessly integrated leveraging re-usable business services and data sharing services on the SAP Cloud Platform



Embedded Intelligence

Embedded AI methods and automation delivering breakthrough business value in all scenarios

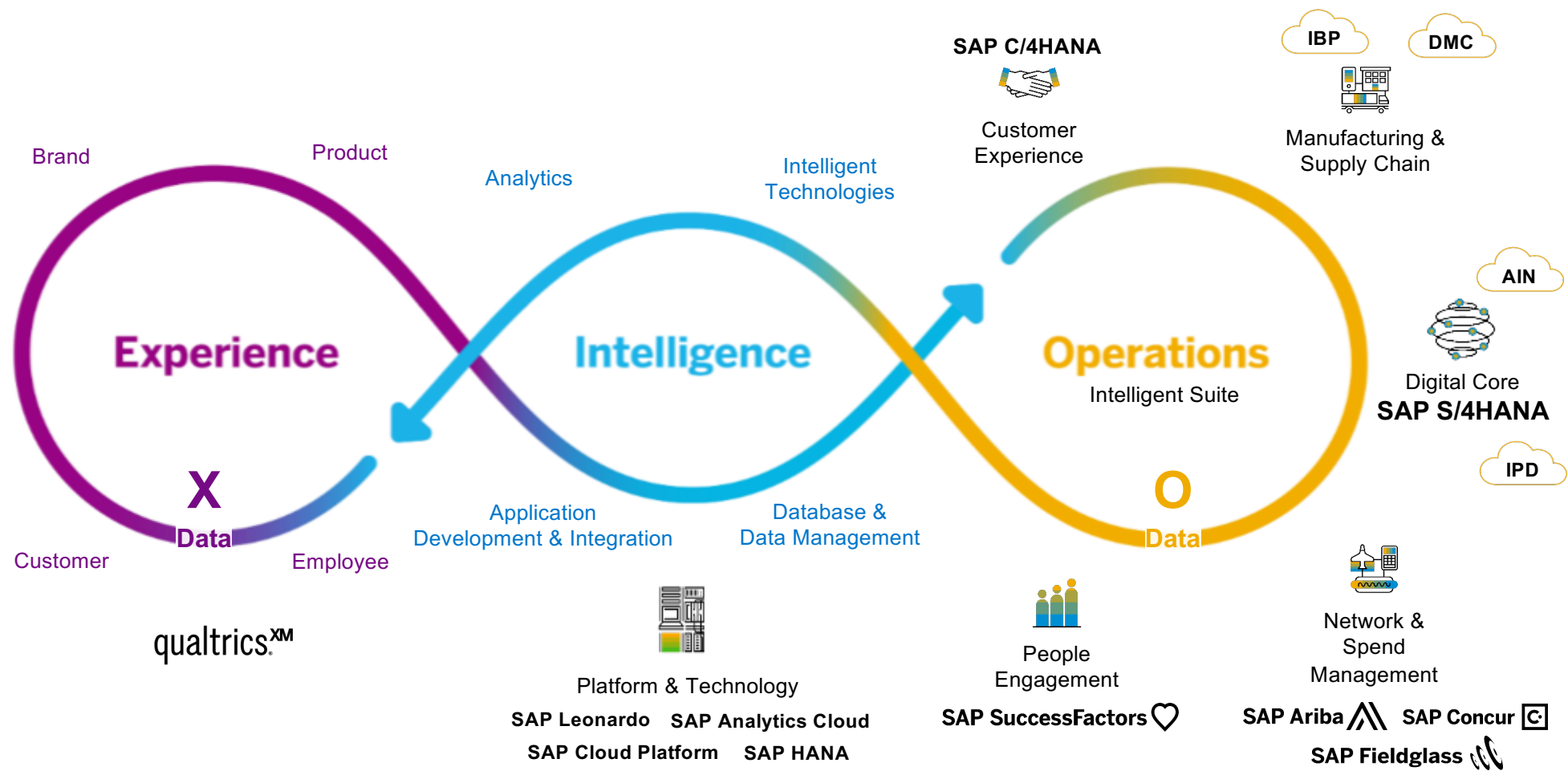


Cloud Computing

Innovation across all deployment options – hybrid, pure cloud, on-premise. Single-tenant next to multi-tenant

The Intelligent Suite will retain the modularity and flexibility of independent solutions while delivering a unified suite experience.

Be the experience company powered by the intelligent enterprise



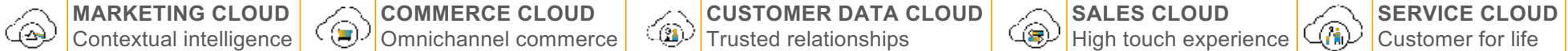
Reference Architecture Retail and Vertical Consumer Industries



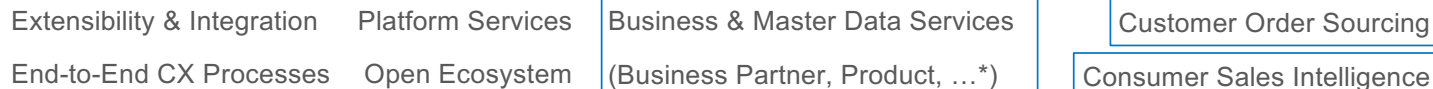
Experience – **SAP Experience Management** Customer, Employee, Product*, Brand* Experience

Analytics – **SAP BW/4HANA – SAP Analytics Cloud** SAC: Model Company Stories BW4: Industry services, e.g. Inventory Diagnostics

Customer Experience – **SAP C/4HANA**



Integration and Intelligence – **SAP Cloud Platform / C4HANA Foundation**



Partner add-ons

- Mobile Consumer Assistance by GK
- Dynamic Pricing by GK
- GK POS Cloud*
- Loyalty by Annex CLD
- Clienteling by Keytree
- Omnichannel POS by GK
- Agreement profitab. & negotiations by gicom
- MDG RFM by Utopia

Core – **SAP S/4HANA** Retail and vertical/**SAP CARAB** and Supply Chain Mgmt, **SAP IBP/ SAP Ariba**

SAP S/4HANA, Retail / Fashion & vertical
Finance, Sales, Commerce, Service, HR,
Sourcing, Procurement, R&D/Manufacturing,
Merch. Mgmt, Store, Supply Chain...

Master Data Governance	CRM
Product Lifecycle Costing	EWM / TM

SAP Customer Activity Repository & apps
Sales Audit, Unified Forecast, Omnichannel
Promotion pricing, Article Availability &
Sourcing

Merchandise	Assortment	Allocations
Promotions	Replenishment*	

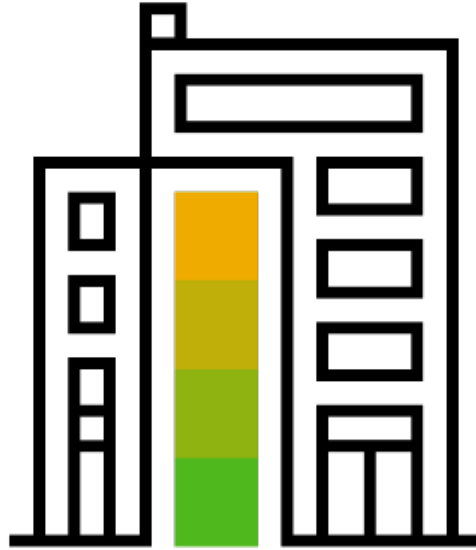
SAP Ariba

SAP Integrated Business Planning
S&OP, Demand, Supply, Response,
Inventory

SAP Supply Chain Management
(Forecasting &) Replenishment

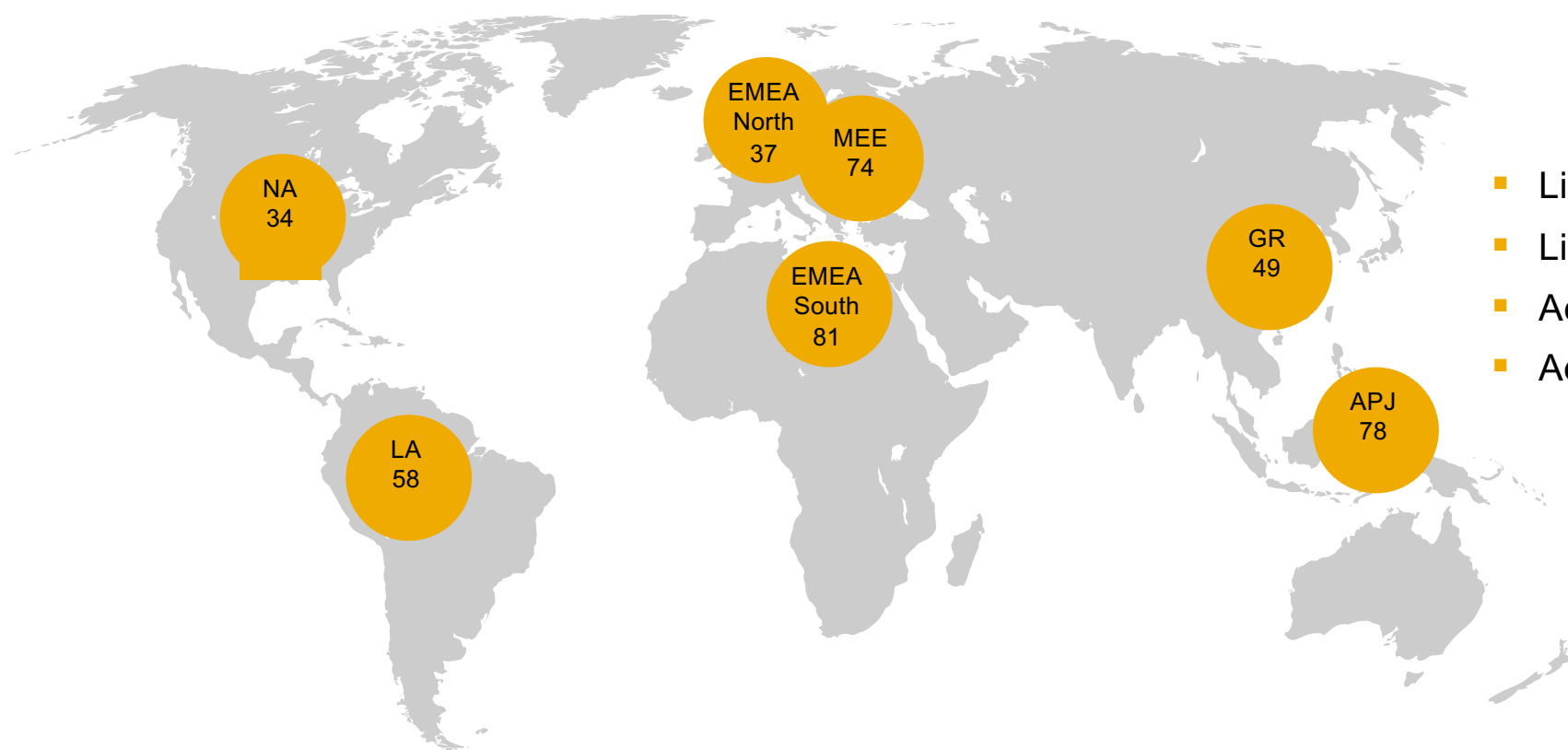
People Engagement – **SAP Fieldglass** /**SAP Success Factors** Spend Management – **SAP Concur** /**SAP Ariba**

Planned for Q4/2019



S/4HANA Retail

S/4HANA Retail and Fashion – State of the Nation

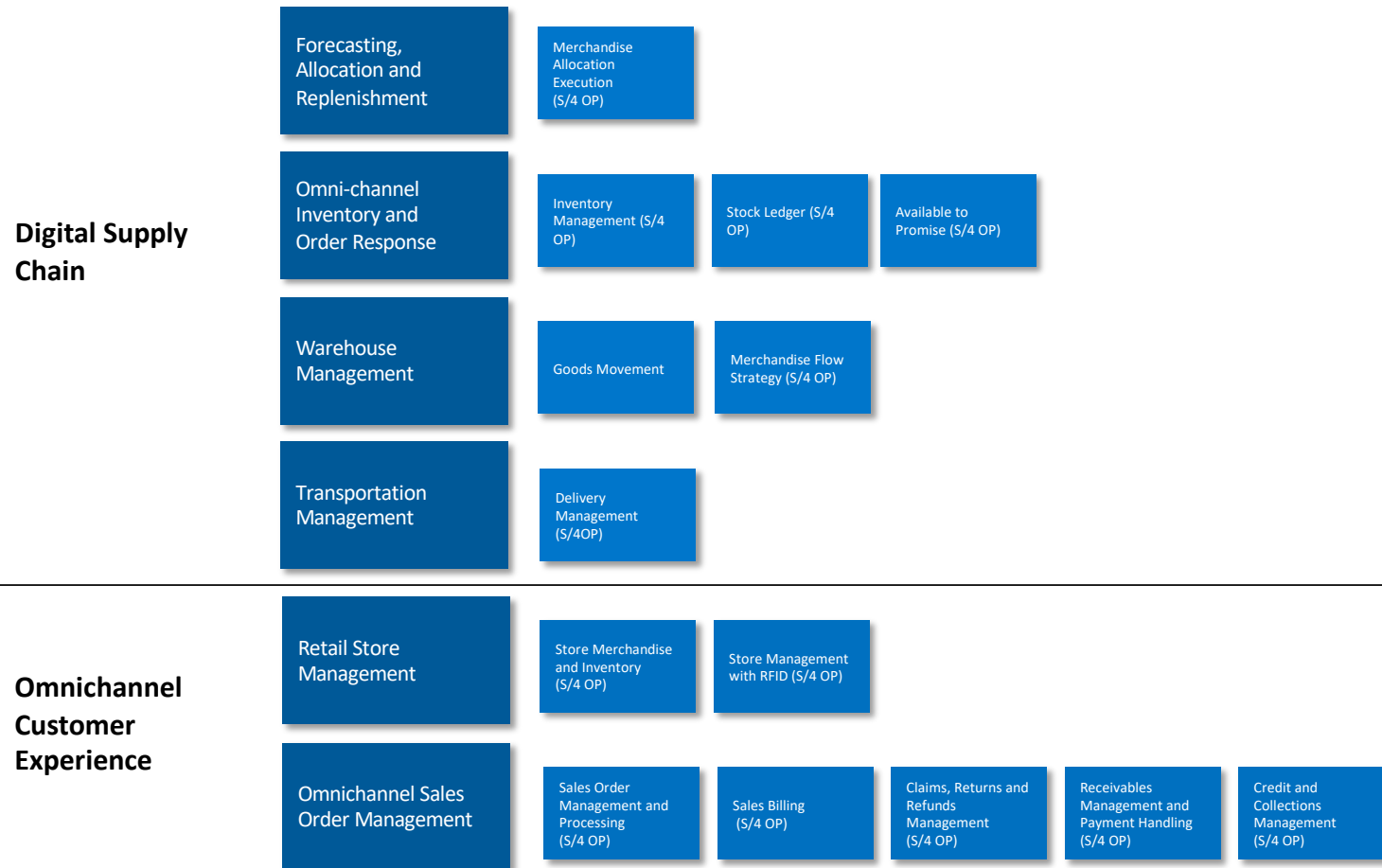


- Licenses sold: +400
- Live customers 70
- Active customers 60
- Adoption in 23 industries

Intelligent ERP S/4HANA Complete scope for retail



Intelligent ERP S/4HANA Complete scope for retail



S/4HANA Retail for merchandise management – the new ERP for our industry

Functional highlights from 1610 to 1809

- Displays, sales sets, mixed pallets with deposit articles in one bill of material
- Stock managed at level of logistics units of measure (pallets, cartons, ...)
- Bonus Buy in ERP sales orders for consistent omni-channel pricing
- Material ledger for Retail for unified stock valuation
- Integration to Dynamic Pricing by gk

• Responsive user experience

- Fiori apps for the store and head quarter employees:
 - In-store transactions
 - Apps for product maintenance and listing
 - Object pages for products, sites, promotions, allocation

• Intelligent ERP

- Machine learning supported master data enrichment in Global Data Synchronization (GDS)



S/4HANA Retail for merchandise management 1909



Functional Extensions



- **Point-of-sale outbound communication**

- New POS outbound service to replace older version for replication of master data to the POS systems
- Framework unification with DRF-OUT
- Unified monitoring with AIF (application interface framework)

- **In-store transfers based on RFID**

- Facilitate and automate in-store stock transfer from back storage to front store

- **Enterprise Search for sites, promotions, allocation**

- **PP-DS fields in article master**

- Allow maintenance of PP-DS relevant information in article master to support production processes better (examples are in-store production or private label -> vertical business)

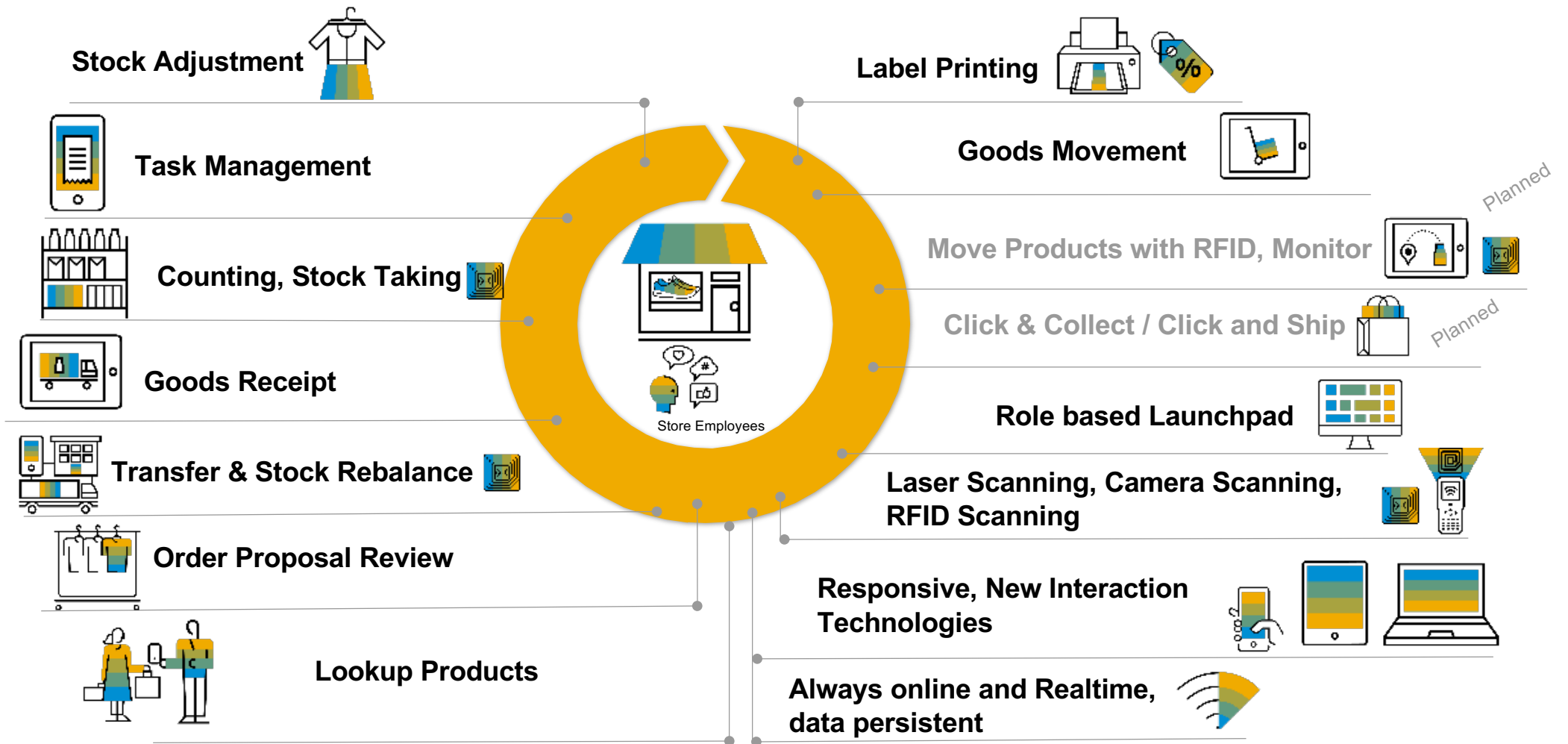
- **Outlook 2020/21**

- Further enablement of store processes with RFID
- Conversion report material -> article
- New app for click-and-collect
- New POS inbound service
- Better assignment of store associates to stores

Retail Store Management



Fiori In-Store Merchandising apps – Available Today & Planned





SAP S/4HANA Simplification List

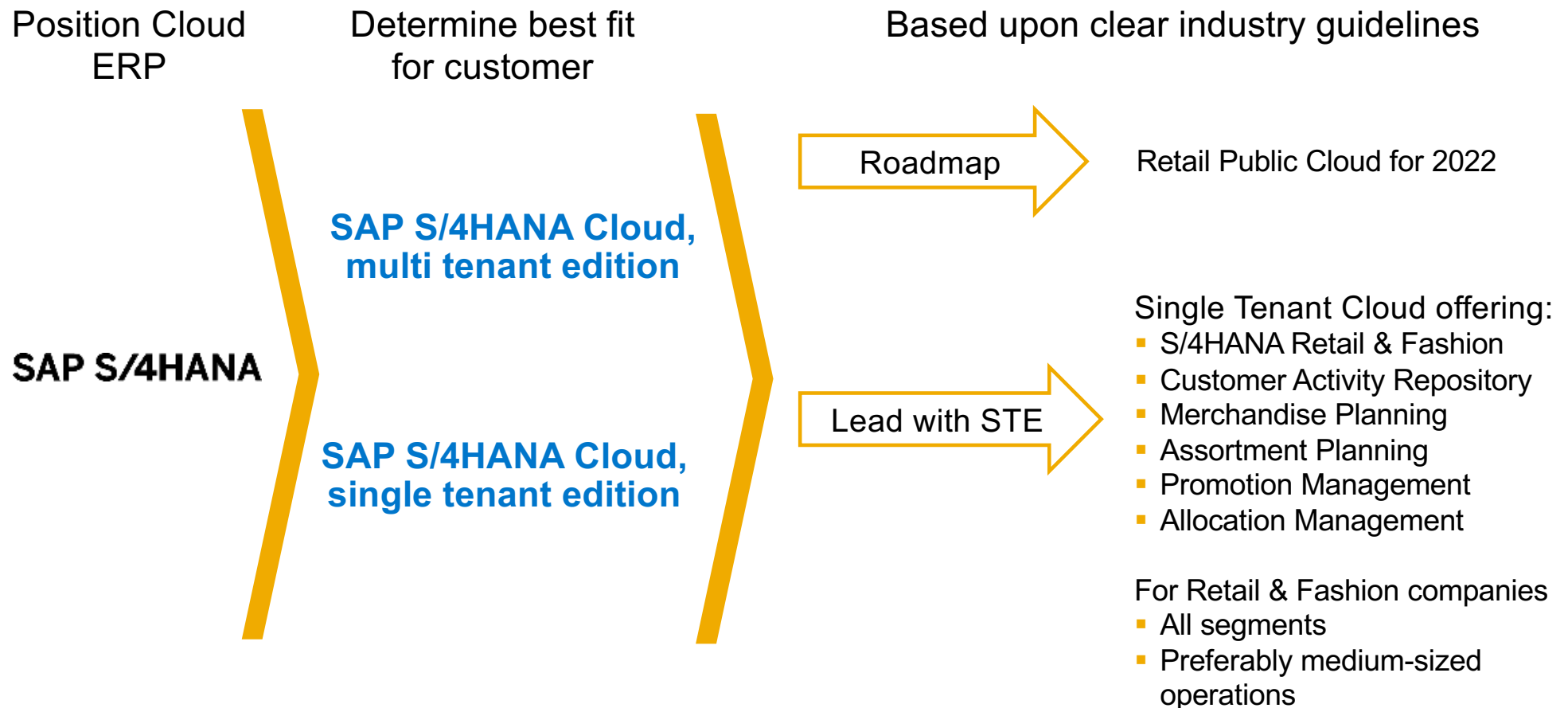
How to Access

■ The **Simplification List** is a collection of **Simplification Item**. Within a Simplification Item it is described what is the difference of a functionality between SAP Business Suite and SAP S/4HANA. A Simplification Item does have a simplification categories and provides information about potential impact for the customer. Based on the simplification item custom code check analysis can be executed. Related services offerings are available (or will be available over time).

- Note [2385984](#) - S4TWL - Simplification Items: SAP S/4HANA Retail for Merchandise Management, and SAP S/4HANA for Fashion and Vertical Business
- [SAP S/4HANA 1809 FPS01 Help](#) and others
 - select [Simplification List pdf](#)
- Note [2385984](#) - Simplification List for SAP S/4HANA as xls
- Simplification List via Transition DB
 - [external](#)
- Related information
 - [Transformation Navigator](#)
- Enablement material on S/4 on PartnerEdge Portal
- Value maps, roadmaps on sap.com/roadmaps

Cloud offering

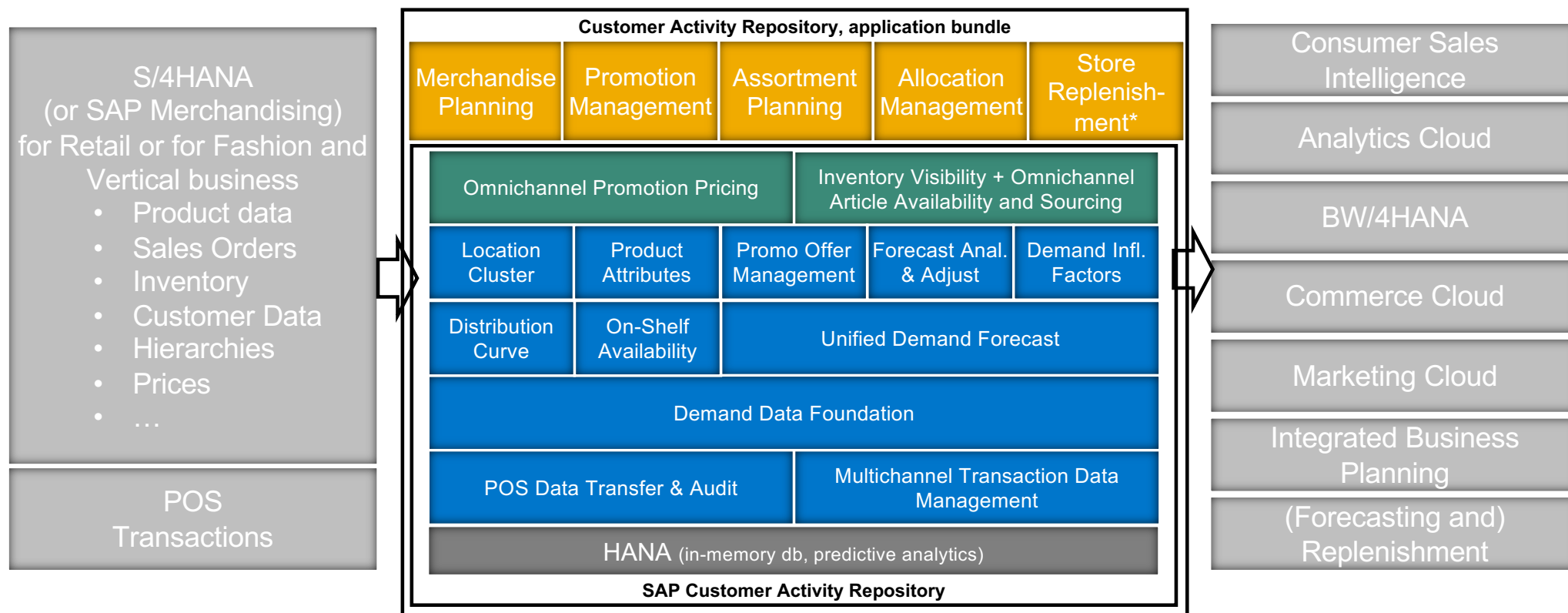
How do we go to market with Cloud ERP in 2020?



Customer Activity Repository, Application Bundle (CARAB)



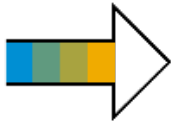
Customer Activity Repository - Application Bundle (CARAB)



Customer Activity Repository - Application Bundle (CARAB)

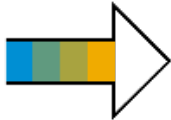
Sales, Forecast, Sales & Retail Supply Chain Planning and Integration

Perform business analysis and interactions



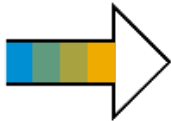
- Perform holistic business analytics
- Interact with sales and operations planning processes
- Collect sales transactions from different channels
- Integrate seamlessly with S/4HANA or ERP

Run planning scenarios E2E



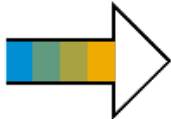
- Plan Merchandise from financials to store allocations
- Plan Promotions up to the store deliveries*
- Plan marketing campaigns and commerce

Manage prices, inventories & supply sources



- Manage omnichannel regular and promotional prices
- View and reserve article availability and plan sourcing

Collect all sales & forecast demands



- Collect sales transactions from all channels, POS Audit
- Model, forecast and adjust omnichannel demands
- Analyze sales e.g. for size distribution and on-shelf availability

Integration with

- S/4HANA
- Analytics Cloud
- Integrated Business Planning
- Marketing & Commerce...

- Merchandise Planning
- Assortment Planning
- Promotion Management
- Allocation Management
- Store Replenishment*

- Omnichannel Article Availability & Sourcing
- Omnichannel Promotion Pricing

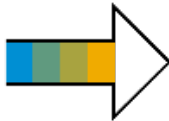
- Multichannel Sales Repository/POS DTA
- Unified Demand Forecast
- Size curve, on-shelf etc.

Customer Activity Repository, appl. bundle

Customer Activity Repository - Application Bundle (CARAB)

Sales, Forecast, Sales & Retail Supply Chain Planning and Integration

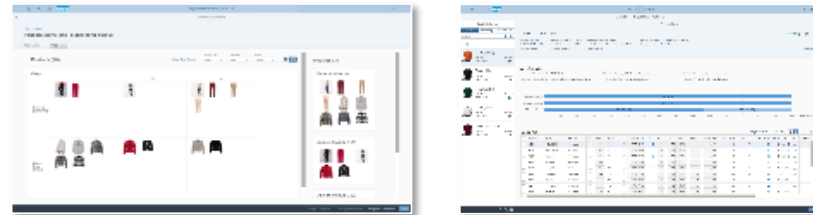
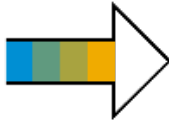
Perform business analysis and interactions



Integration with

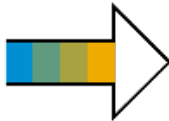
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Run planning scenarios E2E



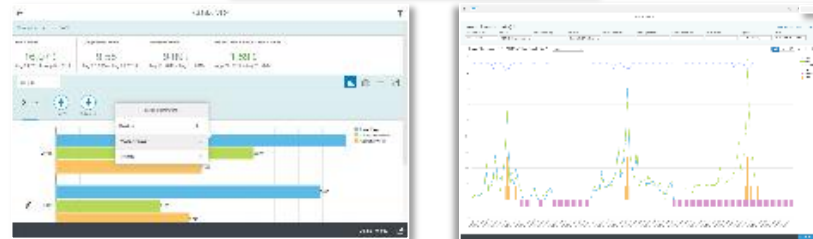
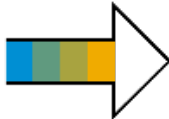
- Merchandise Planning
- Assortment Planning
- Promotion Management
- Allocation Management
- Store Replenishment*

Manage prices, inventories & supply sources



- Omnichannel Article Availability & Sourcing
- Omnichannel Promotion Pricing

Collect all sales & forecast demands

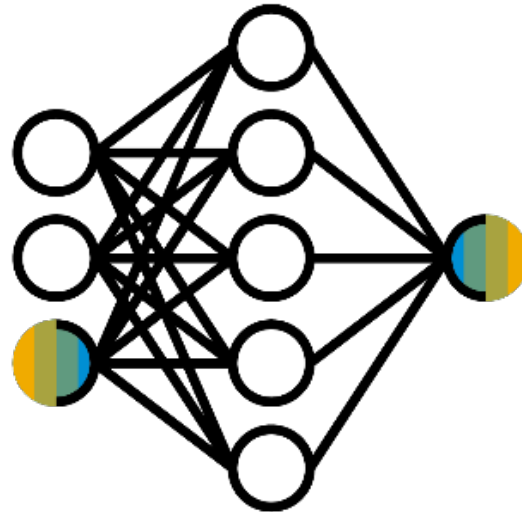


- Multichannel Sales Repository/POS DTA
- Unified Demand Forecast
- Size curve, on-shelf etc.

Customer Activity Repository, appl. bundle

Planned for Q4/2019

Extended Q2/2020



Enhancements

Unified Demand Forecast

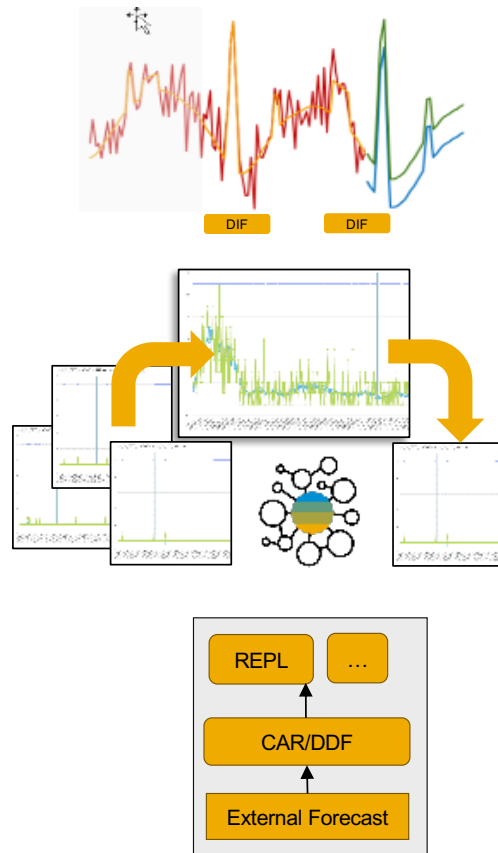
Recent and Planned UDF Enhancements

Modeled and forecasted daily error variance to **optimize safety amounts in F&R**

Model on **aggregated data** use to improve product- location-level forecast (example impact of weather)

Import and Usage of **External Forecasts** to include own forecast expertise for specific products

Management of **Demand Influencing factors** so forecast can consider impact in the future (example Open Air Festival)



2019/2020+

Public Holidays on different weekdays

Intraday out of stock

Promotion Cannibalization

Automatic determination of reference items

Listing Cannibalization

Planned for Q4/2019

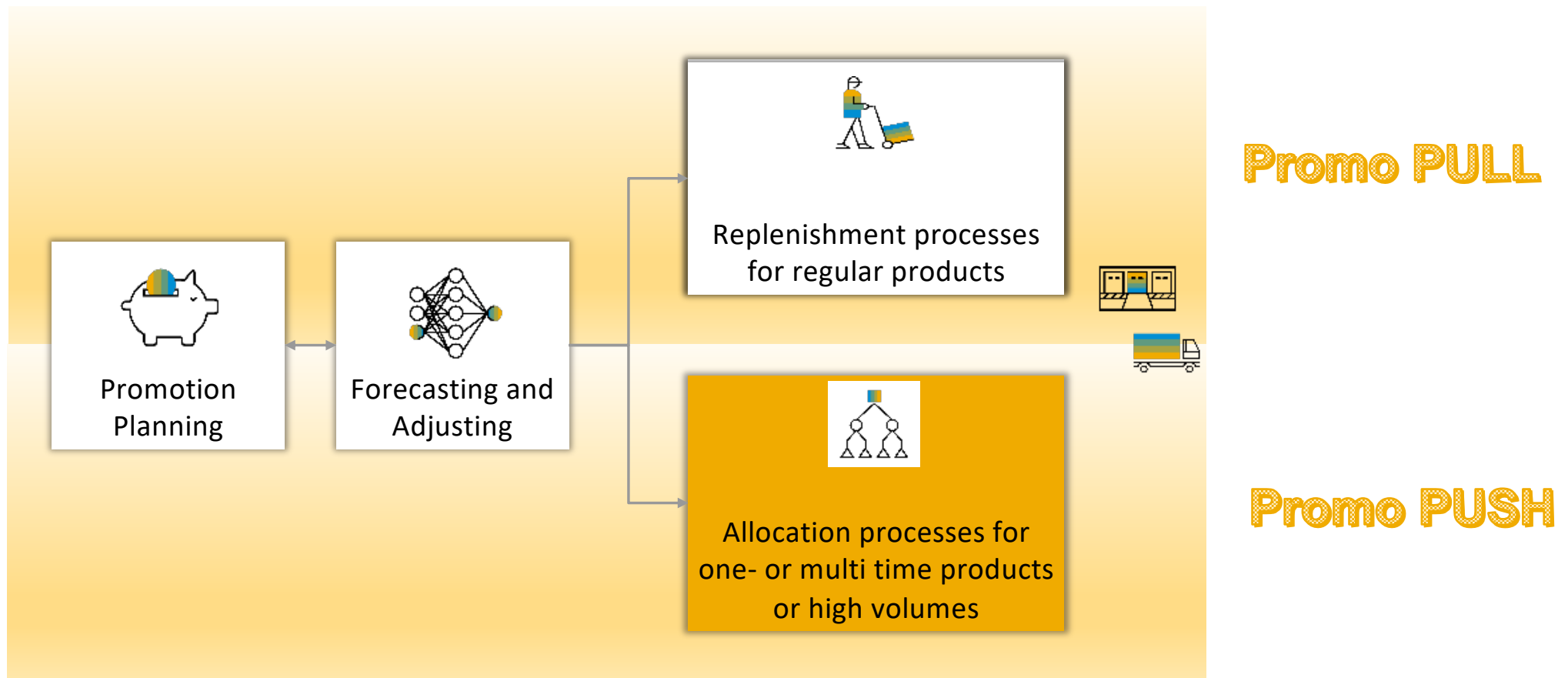
Extended Q2/2020



Promotional push

SAP Allocation Management

Retail promotion process with replenishment and allocations



Optimize store area capacity with Data Intelligence in HANA

Unified Demand Forecast

Real-time store inventory and open orders

Store delivery schedules

Match against availability

Predicted offer demands

Balance



Store area fill levels



Item	Unit	Unit of Measure	Current Stock	Maximum Stock	Status
1000000	1	kg	100	100	OK
1000001	1	kg	50	100	Low Stock
1000002	1	kg	100	100	OK
1000003	1	kg	50	100	Low Stock
1000004	1	kg	100	100	OK
1000005	1	kg	50	100	Low Stock
1000006	1	kg	100	100	OK
1000007	1	kg	50	100	Low Stock
1000008	1	kg	100	100	OK
1000009	1	kg	50	100	Low Stock
1000010	1	kg	100	100	OK

Range of coverage

DC availability

Roadmap Item Management with Assortment Planning

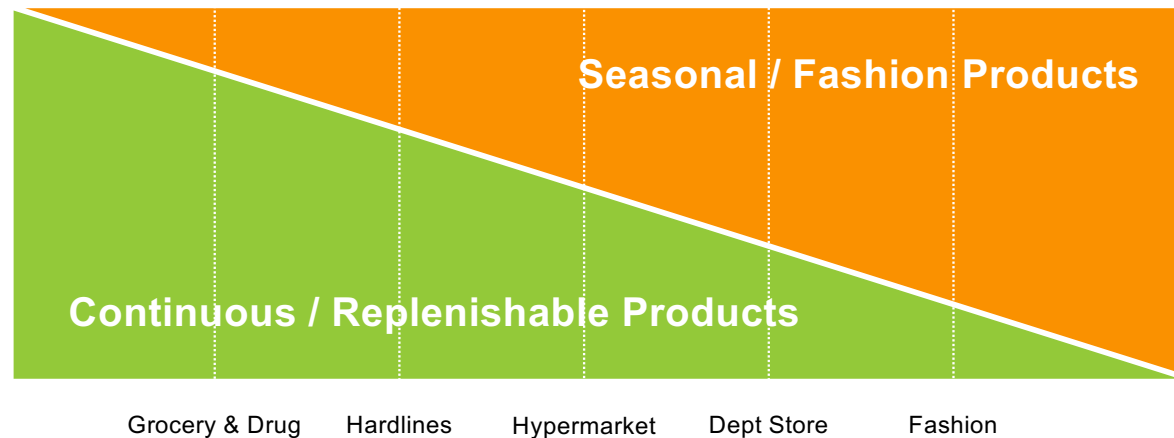
Category



Plan All Merchandise Types with SAP

Assortment Mix

- Long product lifecycle
- Products in a category are relatively stable with limited changes
- Short lead times & usually can be replenished on short notice
- PULL-based supply chain
- Promotions drive volume & traffic

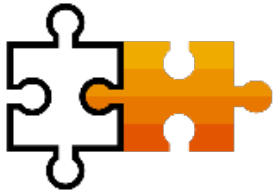


- Short product lifecycle
- Products in a category are mostly/completely replaced each season
- Long lead times are common & usually can't be replenished on short notice; often one-time buys
- PUSH-based supply chain
- May calculate & monitor open-to-buy
- End-of-season markdowns make room for next season's inventory

Highlights Assortment Planning for Grocery Retailers

Planned as SAP portfolio business case / co-innovation 2019+

Assortment Fit Analysis



- User friendly, tightly integrated solution that allows cluster-assortment fit analysis over time
- Performance analysis and indication of market trends to improve the cluster assortment to fulfill customer needs



Connected end-to-end

- Assortment planning needs to consider space constraints to decide number of articles that will fit the assortment



Customer Centricity

- Category managers would like to make assortment decisions based on how the customer category shopping patterns
- Viewing and analyzing an assortment/category with the focus on consumer needs



Advanced Automation

- Automate article assessment to show how important they are per assortment – to achieve optimal assortments while minimizing administration
- Category manager want certain business rules to be considered when optimizing the assortments

Embedded Data Intelligence



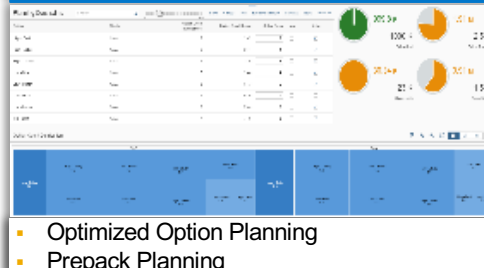
Embedded Intelligence in Retail

Unified Demand Forecast



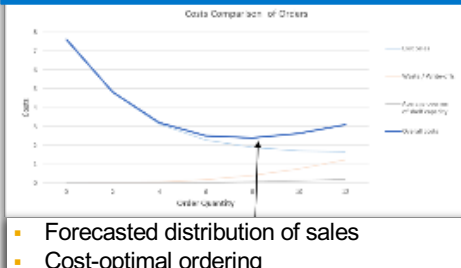
- Sophisticated retail/fashion forecast with multiple demand influencing factors and Bayesian statistics (ML)
- Modelling at aggregated level
- Forecast at product/color level
- Manual forecast correction
- User-defined demand influencing factors *
- Cannibalization **

Intelligent Assortment



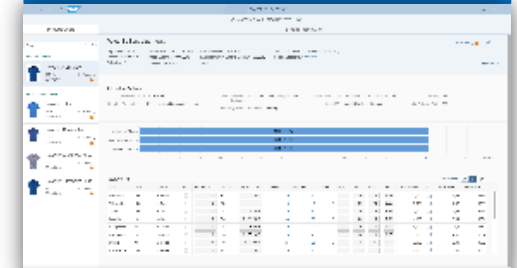
- Optimized Option Planning
- Prepack Planning

Intelligent Replenishment**



- Forecasted distribution of sales
- Cost-optimal ordering

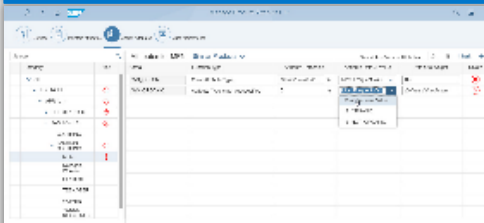
Intelligent Allocation



- Automatic rationing in case of undersupply
- Cross-product optimization of similar products or across DC in case of very limited availability
- Optimization of store area capacity**
- Optimization of logistical UoM ***

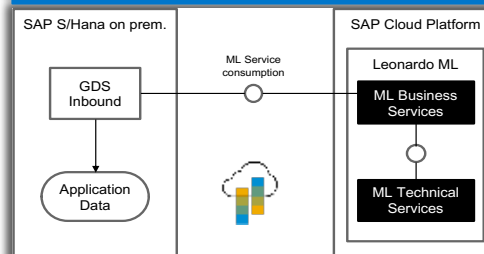


Product Similarity Scoring



- Optimization of constrained availability
- Optimization of store capacities***
- Optimization of logistical UoMs***

Master Data Accuracy in GDS



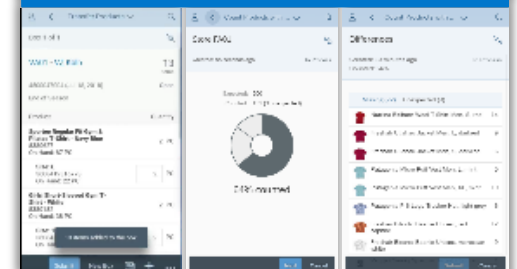
- Global Data Synchronization (GDS) data validation in inbound with ML
- POS data anomaly detection in POSDT&A**

Store Inventory Accuracy**



- Create intelligent counting lists for products with likely wrong store stock
- Improve replenishment/allocation and controlling processes with less effort

Smart Store



Retail Store Management with RFID/AR

- Transfer products
- Count products
- Instore transfers*
- Conversational AI**
- Tracing individual products**

Omnichannel
Marketing

Customer-centric
Merchandising

Procurement
Excellence

Digital Supply
Chain

Omnichannel
Customer
Experience



Sustainable Shopping & The Vision of Zero Waste

- Unified Demand Forecast to determine precise promotion quantities
- Machine Learning algorithm used to confirm forecast for automation of store replenishment processes

**Increased store
employee efficiency**
by automation

Reduction of write-offs
by intelligent merchandise
distribution

"Imagine that we currently have around 20 million individual decisions in our team through out Switzerland based on plans for promotional goods. We will be able to reduce these to less than 8 million decisions. This of course means an enormous gain in time for our employees in the stores! In addition, we can reduce residual quantities - and thus waste - and offer customers exactly the goods they actually require in the respective store."

Heiner Hanser, Head of Master Data Management and Marketing Processes, Coop



Omnichannel
Marketing

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Experience



Predict demand to deuce bakery waste

- SAP Leonardo Innovation using Machine Learning and Unified Demand Forecast to predict sub daily consumption
- User Interface to control food production processes in the store

> \$ 22m

Cost savings in the first
year of the project

Reduced

Labor hours, cost and excess
products

Improved

Freshness of goods and
customer experience

"When we came into this project, there is a lot I didn't know and so we reached out for some help and that happened to be SAP. We are going through a modernization project with SAP (...) You have to bring your model down into something simple and a simple concept was reducing waste, so the whole idea is how we do that better? So this is where we really tapped in to the expertise of SAP."

Jeff Lyons, SVP Fresh Food, Costco Wholesale



Omnichannel
Marketing

Customer-centric
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Experience



Building a robust product testing solution

- SAP Qualtrics help Under Armour centralize data management
- Real-time feedback to share with development, design and marketing teams

100%

Forecasted growth in run
category

100x

Increase in product testers

2,000+

Products evaluated annually

*"With our HOVR line, we've gained a foothold in a space we didn't have before. Now we can do that again."
Clay Dean, CIO, Under Armour*



Omnichannel
Marketing

Customer-centric
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Digital Supply
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Omnichannel
Customer
Experience

valora

Store of the Future: Avec Box

- Cashier-free 24/7 shopping experience for Convenience 'on the go'
- Innovative solution architecture based on SAP Cloud Platform micro services

Innovation with new
convenience store
concepts into the
future

React to market challenges like
the decline of offline media products
with business model innovation

"What we have built here simply works; customers understand right a way."
Roberto Fedele, CIO der Valora Gruppe



SAP Road Maps

SAP road maps and the SAP Transformation Navigator tool support the journey to SAP's future product portfolio and the Intelligent Enterprise. Explore our road maps, webinars, and transformation guides to learn more.



Road map documents

Learn about recent and planned innovations through our industry specific road maps that focus on business solutions and our product road maps that describe features and functions of specific technology.

[Find all road maps >](#)



Interactive road maps

Use an interactive platform to build content-rich digital road maps that provide an end-to-end story, connecting SAP's strategy with delivery. SAP Support User ID login required (Chrome is the preferred browser).

[Explore the tool >](#)



SAP Transformation Navigator

The SAP Transformation Navigator tool can help you chart a digital path to the Intelligent Enterprise by assessing your current IT landscape, business strategy, and industry trends.

[Build your road map >](#)

Thank you.