"4차 산업혁명"시대의
소비자경험 (Customer Experience) 최적화 전략

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PUBLIC

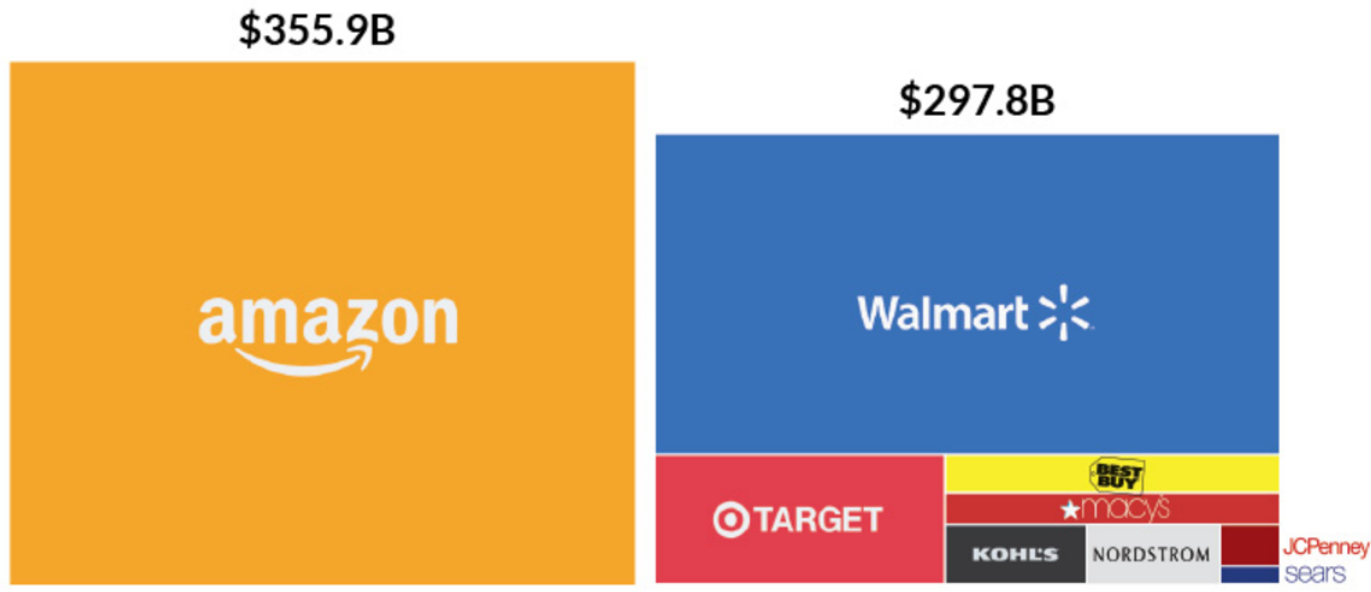**SAP** Run Simple

January 9, 2007

June 29, 2007

"The **Customer**, not Technology is **the most disruptive thing in** the market today."

Source: Gartner

Brick & Mortar Retailers vs. Amazon from 2006 to 2016

Market value as of December 30, 2016

$355.9B
amazon

$297.8B
Walmart
TARGET
BEST BUY
macy's
KOHL'S NORDSTROM
JCPenney
sears

Here is how the value of these companies has changed over the last 10 years:

COMPANY	MARKET VALUE 2006	MARKET VALUE 2016	% CHANGE
sears	$27.8B	$1.1B	96%
JCPenney	$18.1B	$2.6B	86%
NORDSTROM	$12.4B	$8.3B	33%
KOHL'S	$24.2B	$8.8B	64%
macy's	$24.2B	$11.0B	55%
BEST BUY	$28.4B	$13.2B	54%
TARGET	$51.3B	$40.6B	21%
Walmart	$214.0B	$212.4B	1%
amazon	$17.5B	$355.9B	1,934%

Source: Yahoo Finance (peak value in 2006), Google Finance (values for Dec 30, 2016)

Source: visualcapitalist.com

~~Digital trends...~~Customers transforming the retail industry

Digitally armed customers who expect new types of shopping experiences

86%

of buyers will pay more for a better customer experience[1]

Deliver it in real time and free or not at all

80%

of shoppers surveyed want same-day shipping[2]

New competitors and innovative business models that continually emerge
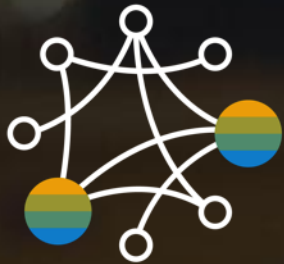
€8.7 billion

Amazon fresh grocery business[3]

Sources:
1. CEI Survey 2015.
2. Temando Survey: "State of Shipping in Commerce ," 2016.
3. Bloomberg.com. "Cowen and Co. Says Amazon's Grocery Bet Should Pay Off," https://www.bloomberg.com/news/videos/2017-03-06/cowen-and-co-says-amazon-s-grocery-bet-should-pay-off, 2016.

Digital trends enabling digital transformation

The Internet of Things (IoT)

Connecting the end-to-end consumer value chain for new levels of customer proximity and new retail offerings

Artificial intelligence and machine learning

Optimized business processes and more impactful personalized and contextual consumer experiences

Virtual and augmented reality

Adds real-time digital information to shopping environment to drive next-generation consumer experiences

Digital transformation in retail industry

Technology

New way of engaging with customers

Entirely new way of doing business

The formal effort to create new customer experiences, business models, and value.

Digital transformation **priorities** for customer experience optimization

Priority 1: Customer centricity

Putting the customers' point of view at the center of every decision

Priority 2: Service to the segment of one

Leverage customer insights to provide targeted personalized offerings

Priority 3: Digital consumer supply chain

Connect the real-time supply chain for greater efficiency and new levels of responsiveness

Priority 4: Smart retail technology

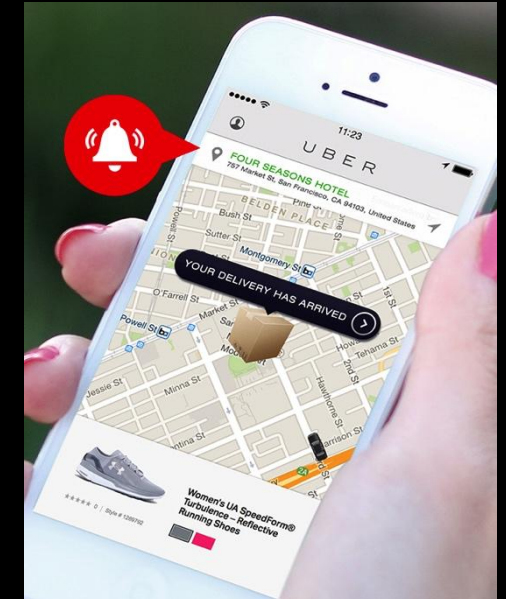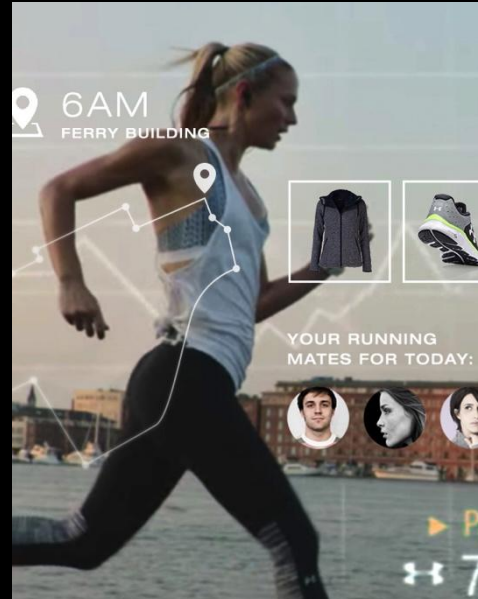Differentiate your shopping experiences and drive new revenue opportunities

Priority 5: Monetizing new customer offers

Leverage understanding of customer needs for new revenue-generating offers

Priority 1: Under Armour, Inc. - The art of the possible in customer centricity.
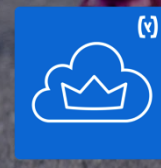Maximize athlete engagement and drive loyalty and growth.

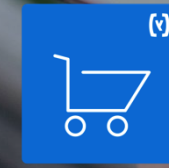Profile   Loyalty   Marketing   Microservices   SFA   Social Engagement   Commerce   CAR

Priority 2: Maui Jim Inc. - Personalizing customer experiences while expanding globally

- As Maui Jim's customers continued to evolve, the retailer was looking to offer personalized products online and expand rapidly in new markets, but was limited by its existing technology.

- Maui Jim chose SAP Hybris solutions as its digital commerce platform to serve end-customers better and allow the company to quickly scale its presence in national and global markets, as well as the B2B channel, all while staying true to and consistent with the Maui Jim brand.

6 months to initial go-live

Quicker new-product releases

Increased customer traffic and conversion rates

Higher customer satisfaction
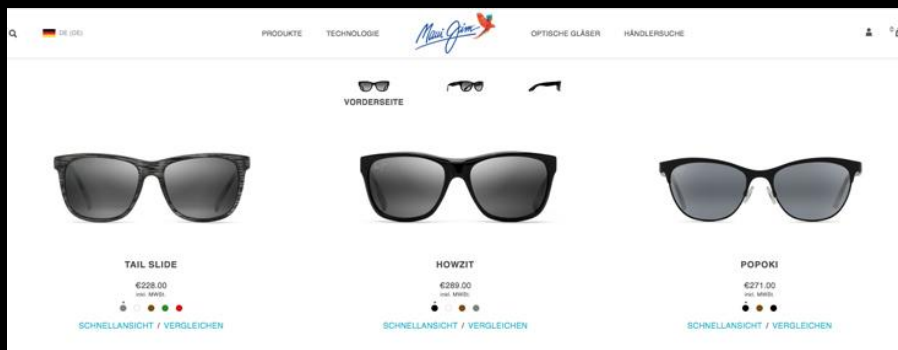
Priority 3: Kaufland: Enabling same-hour delivery with digital consumer supply chain
Be more agile in responding to customer needs.

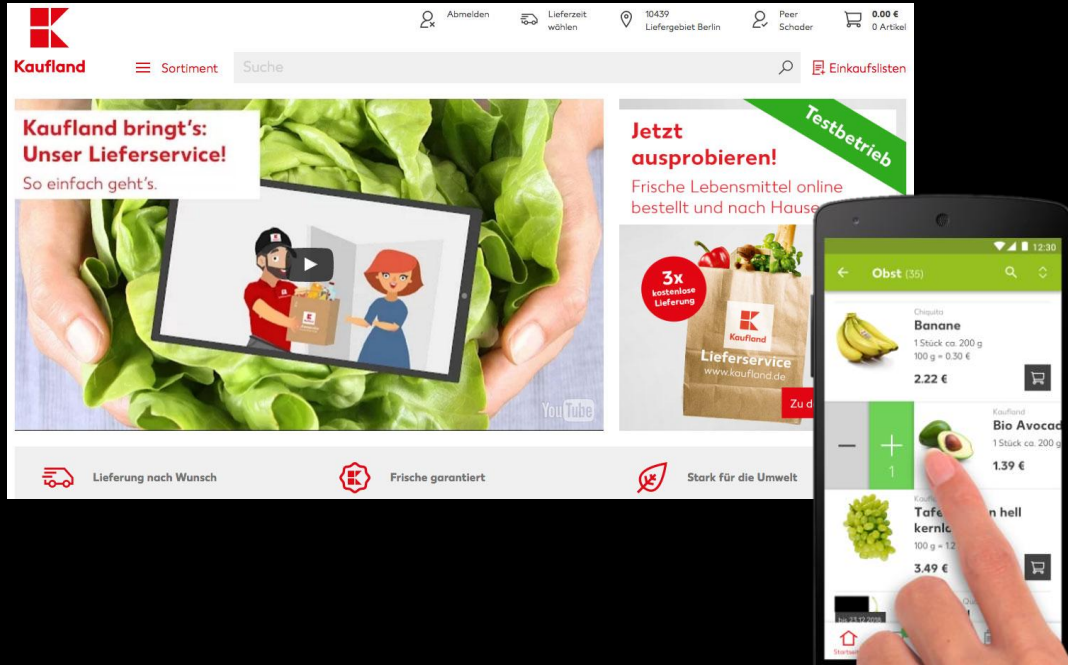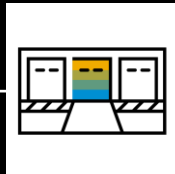| Ordering | Warehouse Logistics | Packing | Delivery | Confirmation | Invoice Mgmt |

Priority 4: Smart retail technology differentiates your shopping experiences and drive new revenue opportunities – Real-0-Gram
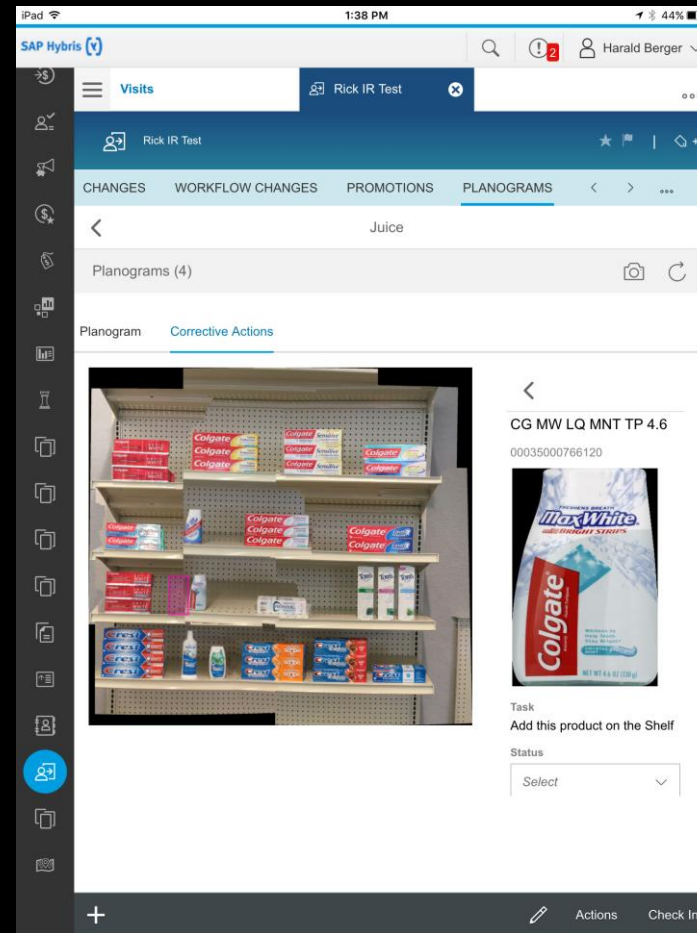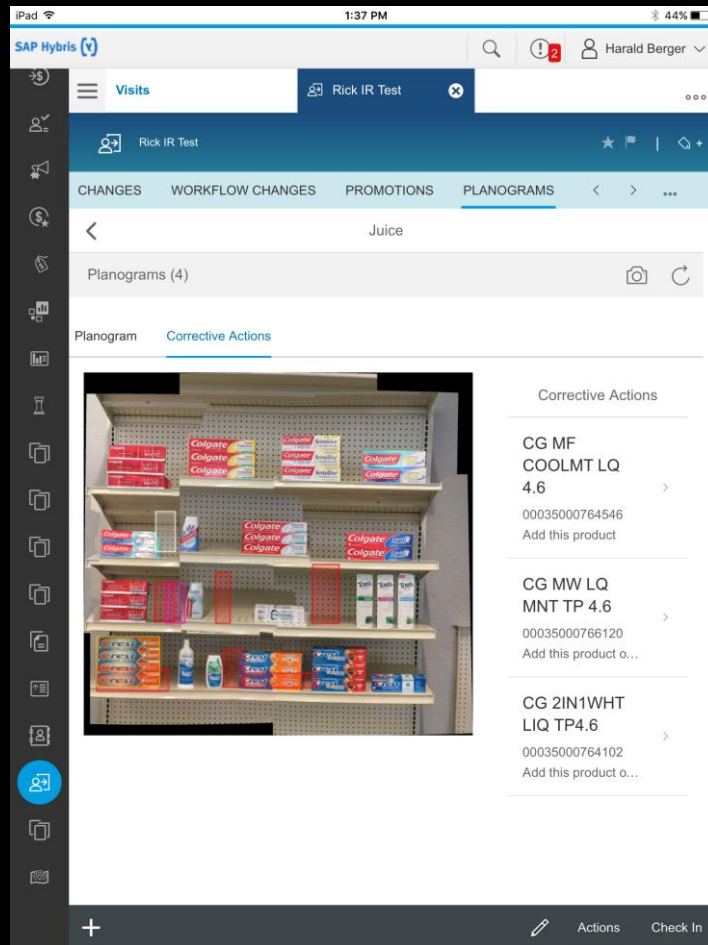
- Real-o-gram

- Corrective Actions
  - Each of the corrective actions are highlighted with a shadow box:
    - Red: Not of Shelf; Yellow: Shelf Placement; Pink: Missing Facing; Dark Orange: Mixed in Facing; Orange: Extra Facing
  - Tap on a corrective action to view all of the details about the issue.

- BENEFITS
  - Save time in store and increase on shelf availability. The result is an increase in coverage (more stores visited, more in-store priorities addressed).
  - Back office benefits include better data quality (from photos), collection of additional KPI's to monitor, foster clearer goals for field force and, increase service quality to customers

Priority 5: Vivanda's FlavorPrint provides personalized food experiences
Digitization of products and services business model drives new revenue opportunities .

128 year old spice business goes DIGITAL, building the **"the world's most sophisticated food experience platform,"** aims to forge connections between eaters and food suppliers. FlavorPrint, the company's analytic tool, combines information collected from an **online quiz customers take with big data analytics and artificial intelligence to personalize their food experience.**
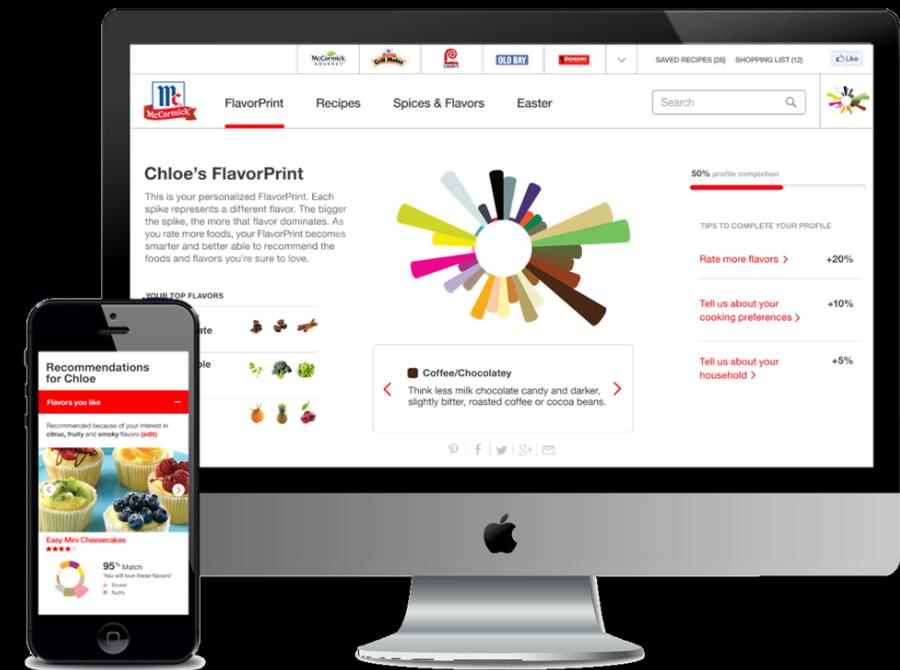
Our vision: Enable retail companies to transform business models, reengineer business processes, and reimagine work

Customer Experience — SAP Hybris

Workforce Engagement — SAP SuccessFactors, SAP Fieldglass

INDUSTRY

Digital Retail Core

MACHINE LEARNING

APIs

SAP S/4HANA

Business Transactions ∞ Intelligent Insights

BLOCKCHAIN

SECURITY

SAP Digital Boardroom

SAP Ariba, SAP Fieldglass, CONCUR

IoT & Supply Chain — SAP Leonardo

Business Network Collaboration

SAP HANA — SAP Cloud Platform

SAP Digital Platform enabling critical business capabilities for retail industry

They pursue **five key initiatives** that require **new business capabilities** along the value **chain**.

Retail companies are at the forefront of digital transformation and can serve their customers better by reimagining business models and business processes.

1. They recognize that the ongoing disruption to the classic retail model is driven by ever-changing consumer expectations and adoption of smart technologies.

2. They are ready to take charge of their destiny by building digital business capabilities and quickly identifying and acting on new growth opportunities.
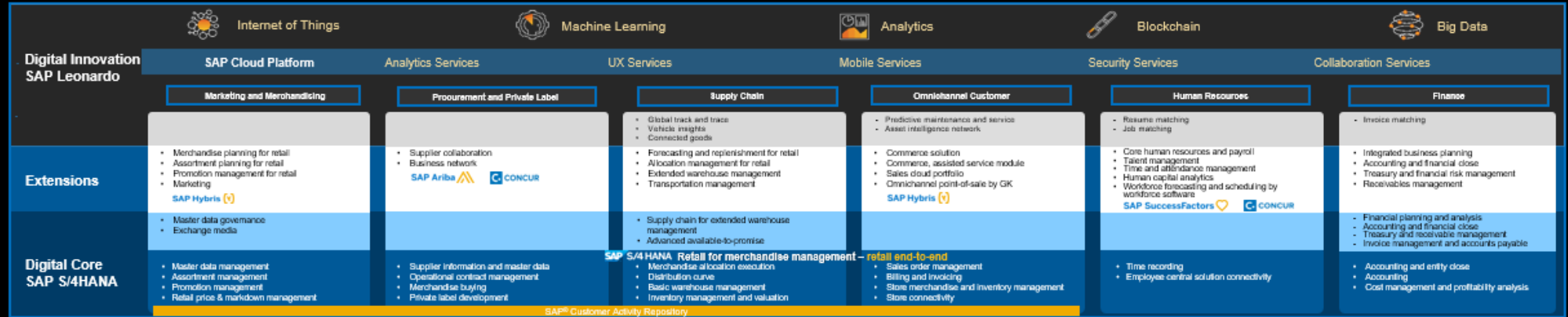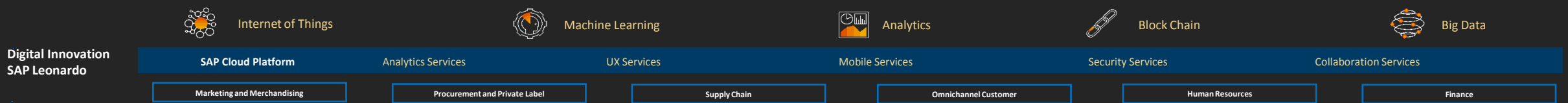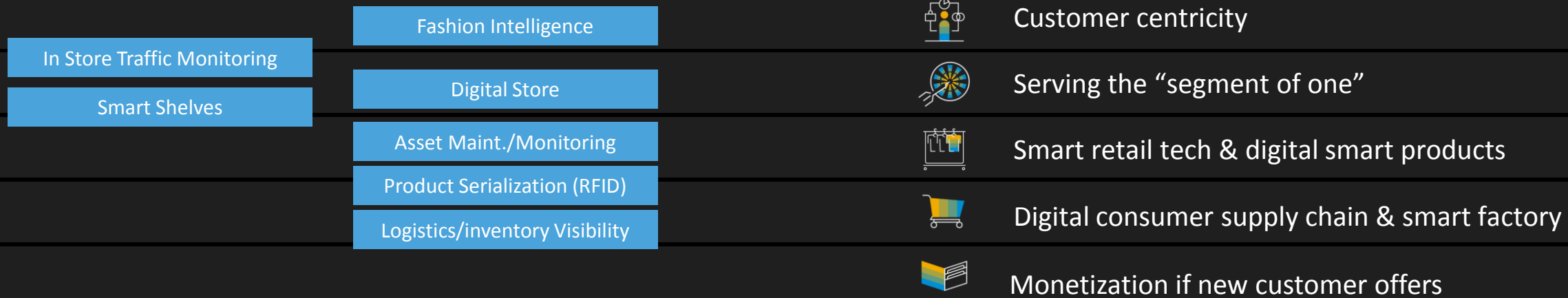
	Marketing and Merchandising	Procurement and Private Label	Supply Chain	Omnichannel Customer Experience	Human Resources	Finance
Customer centricity	• Identify unique customers across all channels • Use sophisticated algorithms to segment customers • Enable real-time customer loyalty and incentive programs across all channels • Render contextualized digital content for mobile and empowered sales teams and consumers	• Address immediate consumer needs with responsive procurement and manufacturing networks • Use consumer feedback and social insights when deciding on product design and manufacturing • Track and trace product orders down to the individual level	• Process orders and offer delivery options based on customer priorities • Establish highly agile and responsive supply chain networks • Track and trace products and batches for end-to-end supply-chain transparency	• Establish a consistent flow of digital information across devices and customer touch points • Personalize clienteling in stores • Give real-time access to stock availability and product information to store associates and customers	• Attract and retain top sales and marketing talent • Allow associates to interact effectively with customers before, during, and after purchases • Facilitate social collaboration among teams • Meet service levels and drive revenue with appropriate staffing levels	• Simulate and analyze scenarios to fully evaluate business choices and their financial implications • Gain a 360-degree view of customer financial data and profitability
Service to the segment of one	• Deliver a fully scalable, real-time, and 360-degree customer interaction repository • Contextualize and personalize marketing campaigns and offers in real time • Individualize merchandise and assortment planning	• Direct vertical integration of individual consumer wishes into the private label • Set up private label production to cater to a lot size of one • Create a flexible supplier network for instant order fulfillment across geographies	• Optimize asset utilization and accelerate setup times of single-unit pick, pack, and ship processes • Track and trace individual shipments • Fulfill orders instantly across geographies through a flexible transportation network	• Gain 360-degree insight into the customer life cycle • Individualize product and offer recommendations • Deliver seamless, omnichannel customer service and a consistent brand experience	• Education staff to provide personalized shopping experiences • Onboard and train employees quickly and seamlessly • Identify and forecast skills gaps and address them	• Analyze profitability by considering different views such as merchandise categories, customers, profit centers, and stores • Provide personalized payment options for seamless use across all sales channels
Digital consumer supply chain	• Integrate stores through digitalization • Apply social listening to forecast sale precisely • Provide e-commerce channels with real-time information on stock on hand	• Lower lead times through social listening • Drive smart supply chain tracking for accurate planning and in-time delivery • Personalize product creation	• Operate a consumer-triggered, digitally enabled supply chain • Support consumer-determined fulfillment strategies, including click and reserve, click and collect, click and ship, and drop shipping • Establish procurement for 3D printed products	• Allow in-store replenishment with smart shelves • Control store and floor inventory with sensors • Enable the store to digitally trigger fulfillment for models such as buy online, pickup in-store and buy online, and return in store • Blend digital and brick-and-mortar store processes	• Empower employees to make decisions in real time • Procure and optimize contingent labor and services and service delivery across regions	• Optimize working capital across multiple channels, and extend endless aisle portfolios • Mitigate financial risks associated with highly flexible supply chains
Smart retail technology	• Interact and market to customers precisely through real-time customer identification, localization, or segment recognition with smart devices • Optimize marketing and assortment strategies with store heat maps	• Increase service levels and reduce on-hand stock with digitally transparent supply networks • Record product use with smart products equipped with sensors	• Integrate robotics, sensors, and augmented reality solutions in warehouse processes • Personalize product and shipment tracking • Enable order distribution with drones	• Transform the store into a connected space • Provide smart fitting rooms • Facilitate a pickup-and-go experience in stores with a fully automated point of exit • Establish connectivity to customer lifestyles through smart devices such as wearables	• Enable mobile learning in easily consumable training packages • Provide easy-to-use mobile apps for schedule changes, request time off, and clock in and out • Provide guided support through smart devices • Fine-tune staffing levels with heat maps	• Use smart devices for user identification and individual credit check • Improve customer services in receivables management with machine learning
Monetization of new customer offers	• Charge vendors for targeted campaigns with real-time detection of customer segments • Gain customer insights for cross-offers such as travel, hospitality, and financial services • Create more reactive and consumer-driven offers that are personalized	• Sell with no physical stock with business networks and brokerage models • Engage suppliers digitally and use consumer insights to predict demand and adjust production • Innovate pay-per-use models for smart products	• Enable lot size of one production with immediacy driving upstream supply and customer delivery • Foster cross-company collaboration to cover complex fulfillment, transport, and storage needs • Enable logistics and inventory processes that support the sharing economy	• Sustain a digital connection to customers with real-time, precise interactions • Support subscription models, automated repurchase, and replenishment • Provide predictive services • Deliver digital value-added services	• Procure and optimize contingent labor and services and service delivery across regions	• Enable subscription-based business models • Involve customers and different partners in multisided business models • Set up the finance function as an enabler for business transformation and external growth
Typical business benefits*	• Return on marketing investment: +5–10 pp • Campaign effectiveness: 30%	• Cost of merchandise: -10%–15% • DPO on merchandise spend: -2–5 days • Procurement function cost: -15%–20%	• On-shelf availability : +20%–25% • Inventory turnover: +10%–12% • Total logistics cost: -10%–12%	• Conversion rates: +5–10 pp • Increased customer revenue and profitability • Improved customer loyalty	• Employee productivity: +10% • Revenue per associate: +15%	• Days to close annual books: -40–50 days • Budgeting and forecasting cost: -25%–50% • Audit cost: -20%–40%

	Internet of Things	Machine Learning	Analytics	Blockchain	Big Data
Digital Innovation SAP Leonardo	SAP Cloud Platform	Analytics Services	UX Services	Mobile Services	Security Services	Collaboration Services
	Marketing and Merchandising	Procurement and Private Label	Supply Chain	Omnichannel Customer	Human Resources	Finance
Extensions	• Merchandise planning for retail • Assortment planning for retail • Promotion management for retail • Marketing **SAP Hybris**	• Supplier collaboration • Business network **SAP Ariba** **CONCUR**	• Global track and trace • Vehicle insights • Connected goods • Forecasting and replenishment for retail • Allocation management for retail • Extended warehouse management • Transportation management	• Predictive maintenance and service • Asset intelligence network • Commerce solution • Commerce, assisted service module • Sales cloud portfolio • Omnichannel point-of-sale by GK **SAP Hybris**	• Resume matching • Job matching • Core human resources and payroll • Talent management • Time and attendance management • Human capital analytics • Workforce forecasting and scheduling by workforce software **SAP SuccessFactors** **CONCUR**	• Invoice matching • Integrated business planning • Accounting and financial close • Treasury and financial risk management • Receivables management
Digital Core SAP S/4HANA	• Master data governance • Exchange media • Master data management • Assortment management • Promotion management • Retail price & markdown management	• Supplier information and master data • Operational contract management • Merchandise buying • Private label development	• Supply chain for extended warehouse management • Advanced available-to-promise **SAP S/4 HANA Retail for merchandise management – retail end-to-end** • Merchandise allocation execution • Distribution curve • Basic warehouse management • Inventory management and valuation	• Sales order management • Billing and invoicing • Store merchandise and inventory management • Store connectivity	• Time recording • Employee central solution connectivity	• Accounting and entity close • Accounting • Cost management and profitability analysis

SAP Customer Activity Repository

SAP Leonardo enables IoT use cases for retail industry

Marketing & Merchandising	Procurement & Private Label	Supply Chain	Omnichannel Customer Experience	Human Resources	Finance

Fashion Intelligence

In Store Traffic Monitoring

Smart Shelves

Digital Store

Asset Maint./Monitoring

Product Serialization (RFID)

Logistics/inventory Visibility

Customer centricity

Serving the "segment of one"

Smart retail tech & digital smart products

Digital consumer supply chain & smart factory

Monetization if new customer offers

Internet of Things   **Machine Learning**   **Analytics**   **Block Chain**   **Big Data**

Digital Innovation SAP Leonardo

SAP Cloud Platform	Analytics Services	UX Services	Mobile Services	Security Services	Collaboration Services

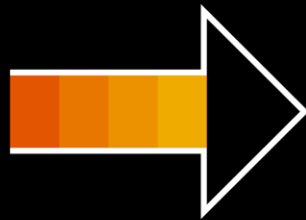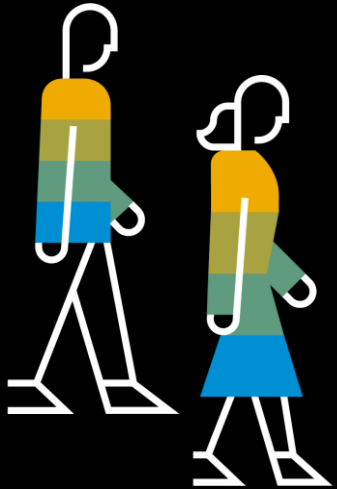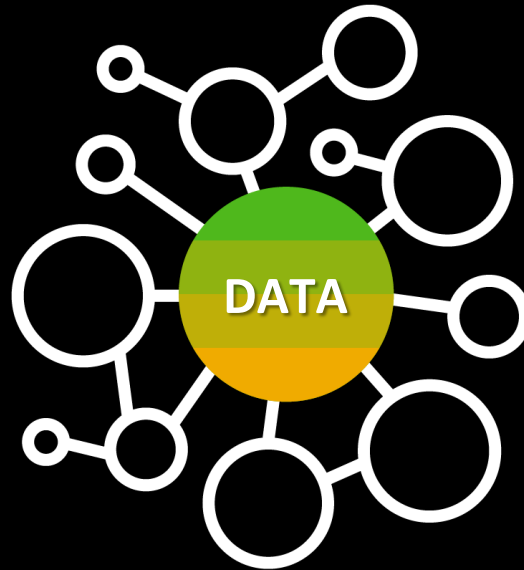| Marketing and Merchandising	Procurement and Private Label	Supply Chain	Omnichannel Customer	Human Resources	Finance

Driver for customer experience optimization = digital transformation

Better experience/life is value expectation of today's customers

**Life
Interactions**

Technology

DATA

**Better Life
Experience**

I know, you're probably thinking: I don't know how to build a dam, or get a million people involved in anything.

But let me tell you a secret: No one does when they begin. Ideas don't come out fully formed. They only become clear as you work on them. You just have to get started.

Mark Zuckerberg's Commencement address at Harvard (2017)

감사합니다

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