Introduction to SAP S/4HANA

Next Generation Business Suite

SAP UCC Magdeburg

Curriculum Information

Curriculum Version

- GBI 3.3 (July 2019)

- Software used
  - S/4HANA 1809

- Prerequisites
  - /

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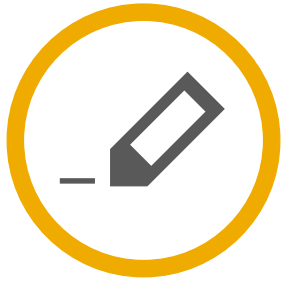
Module Information



Authors

- Babett Ruß

Target Audience

- Beginner to advanced

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Module Information

Learning Objectives

At the completion of this module, you will:

- Describe the SAP vision of the Intelligent Enterprise
- Be able explain the basic concepts of an Enterprise Resource Planning solution based on the SAP S/4HANA system.
- Explain how to use the SAP Fiori User Interface to interact with the S/4HANA system

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Agenda

- SAP – The Intelligent Enterprise
- Fast Facts about SAP S/4HANA
- What´s New?
- Transition to SAP S/4HANA
- Guess What

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SAP – The Intelligent Enterprise

- Market leader in enterprise application software
- One of the world largest independent software manufacturer
- 400,000 satisfied Customers in 190 countries
- SAP enables companies to
  - Streamline processes
  - Use live data
  - Predict customer trends
  - Connect entire businesses

Intelligence will reinvent industries and change business forever

Best-run technologies and solutions deployed end-to-end for your industry.

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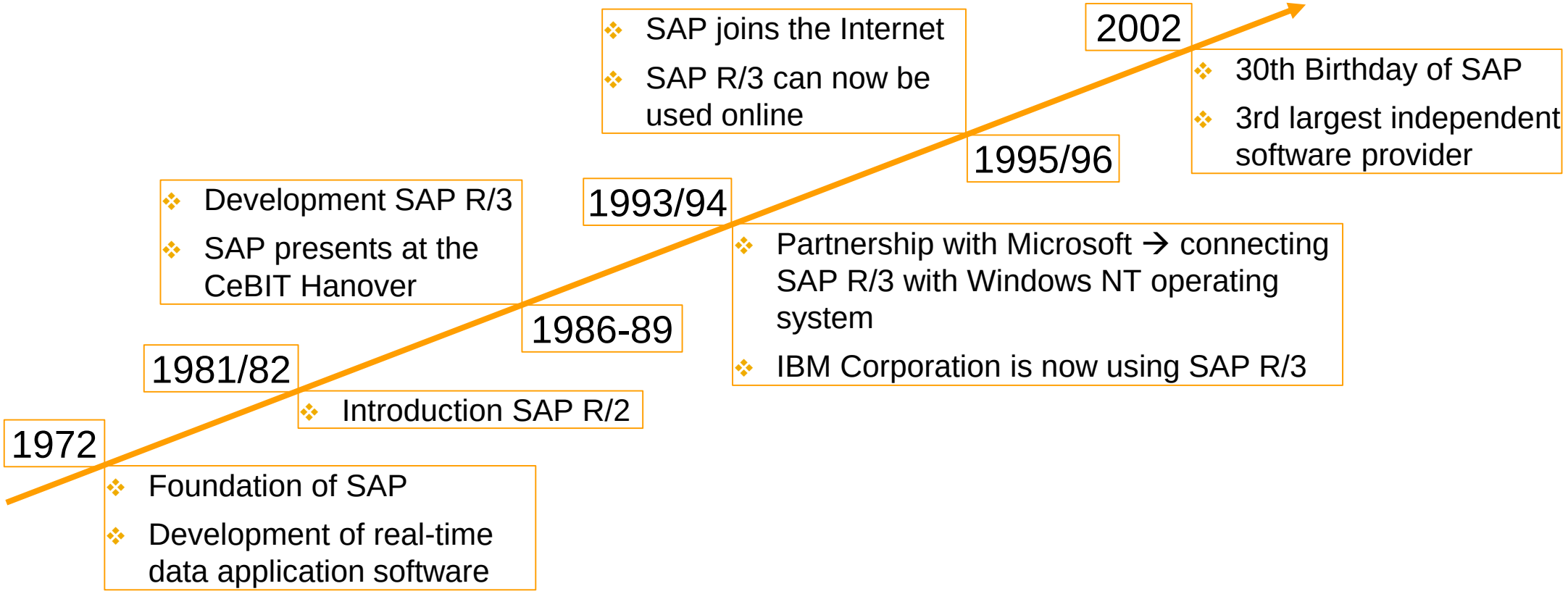
SAP – Run Simple

- A Short History



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SAP – Run Simple

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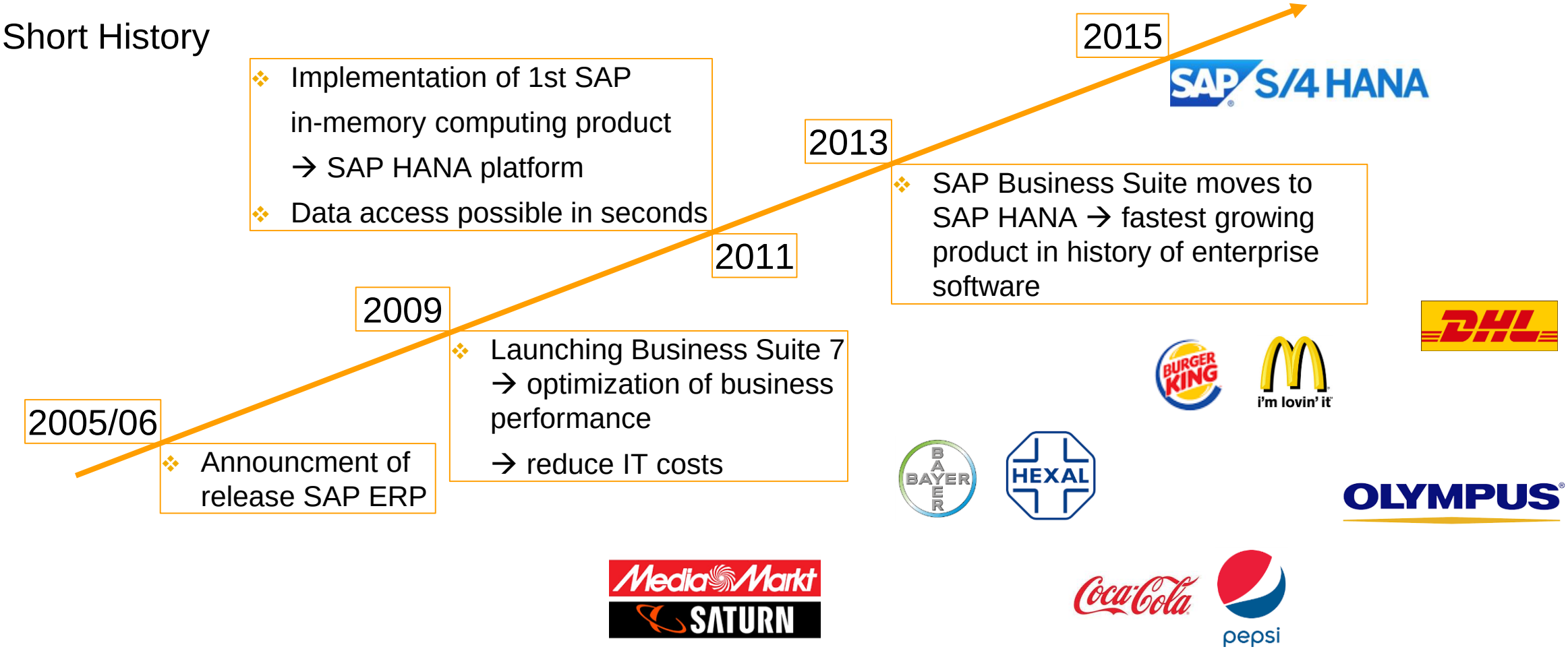

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What´s New?

- SAP S/4HANA …

… is the next generation Business Suite

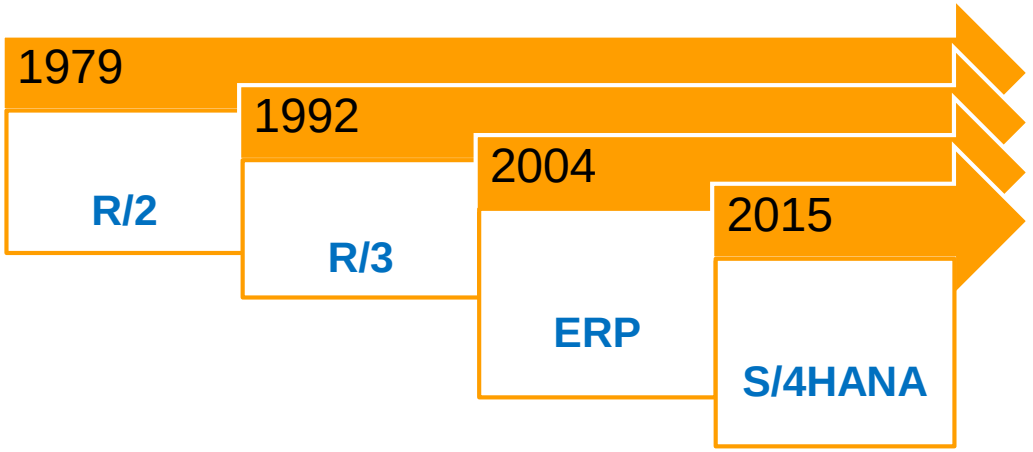
… is the biggest innovation since SAP R/3

… connects people, business networks and devices

… works in real time

… represents efficiency, simplicity and innovation

… master data is managed centrally, for example partners, customers and vendors



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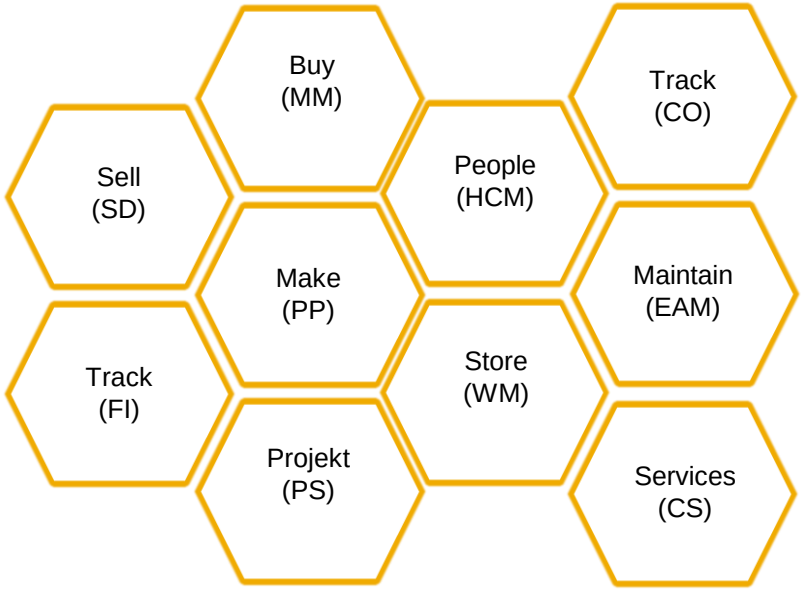
Fast Facts about SAP S/4HANA

Enterprise Resource Planning (SAP ERP)

- Enables a company to support and optimize its business processes
- Helps the organization run smoothly
- Real-time environment, Scalable and flexible
- Collections of logically related transactions within identifiable business functions



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Fast Facts about SAP S/4HANA

Data Types in ERP Systems

?	?	?
…	…	…

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Fast Facts about SAP S/4HANA

Data Types in ERP Systems

Organizational Data	Master Data	Transaction Data
Company Code	Person	Purchase Order
Plant	Material	Invoice
Storage Location	Customer	Quotation
Distribution Channel	Vendor	Sales Order
Purchasing Organization	Work Centre	Transportation Order
…	…	…

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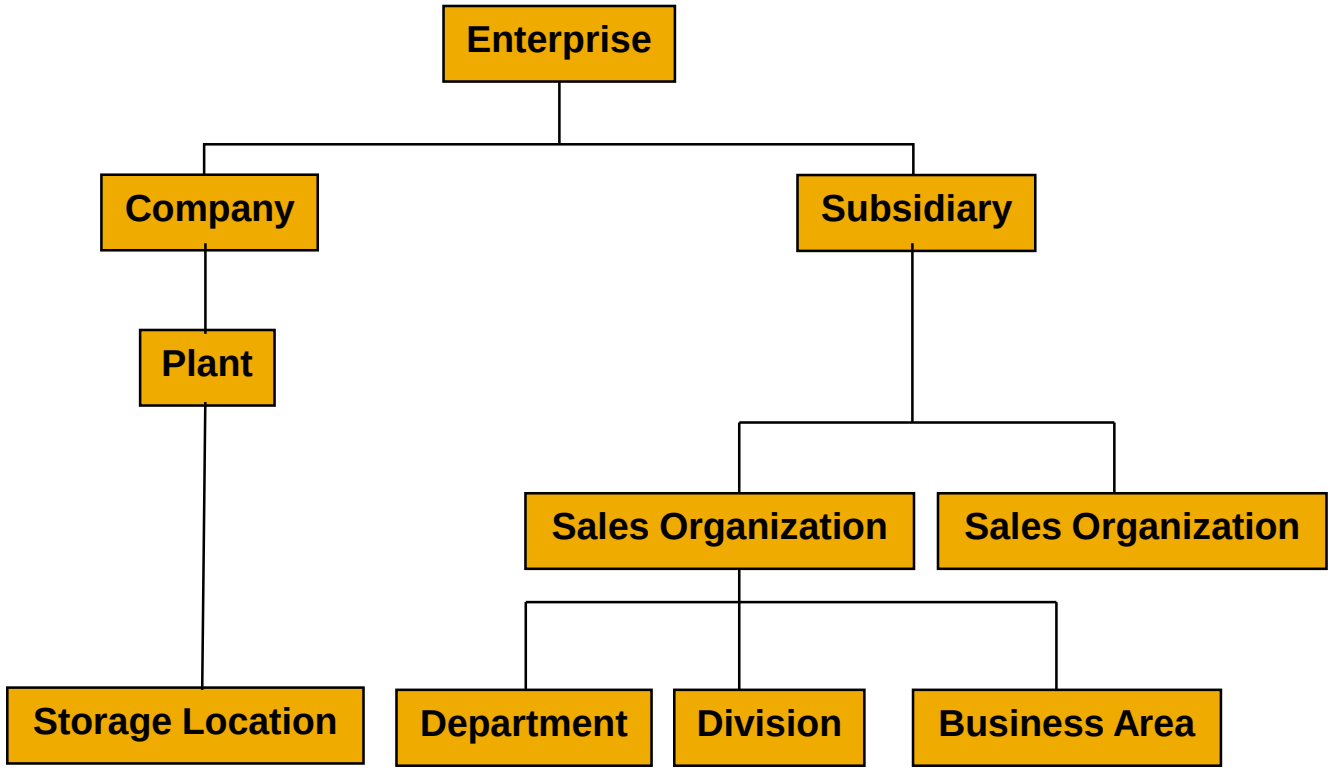
Fast Facts about SAP S/4HANA

Organizational Unit



SAP Terminology:

- Client
- Company Code
- Plant
- Sales Organization
- Division
- Storage Location

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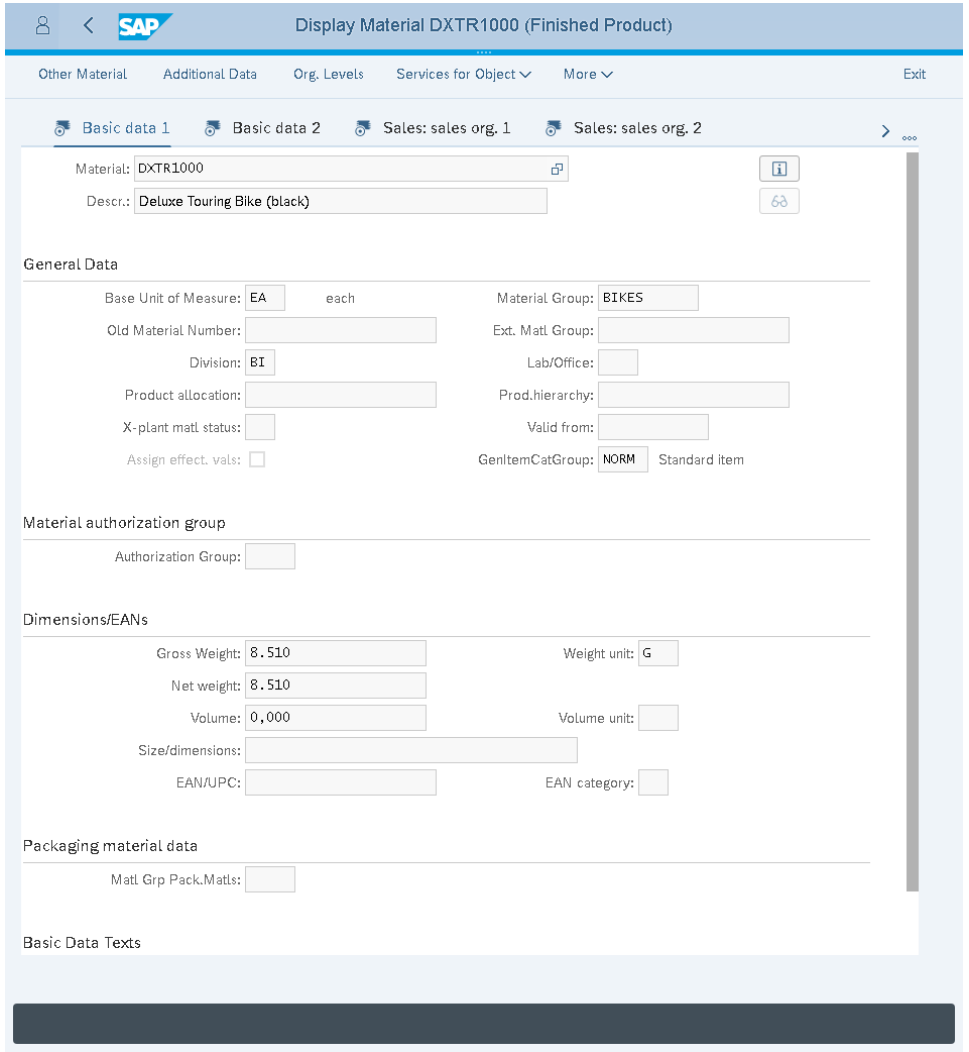
Fast Facts about SAP S/4HANA

Master Data

- Stored for a long time and seldom changed
- Represent logically grouped data like:
  - Customer Master
  - Material Master
  - Vendor Master
  - General Ledger accounts



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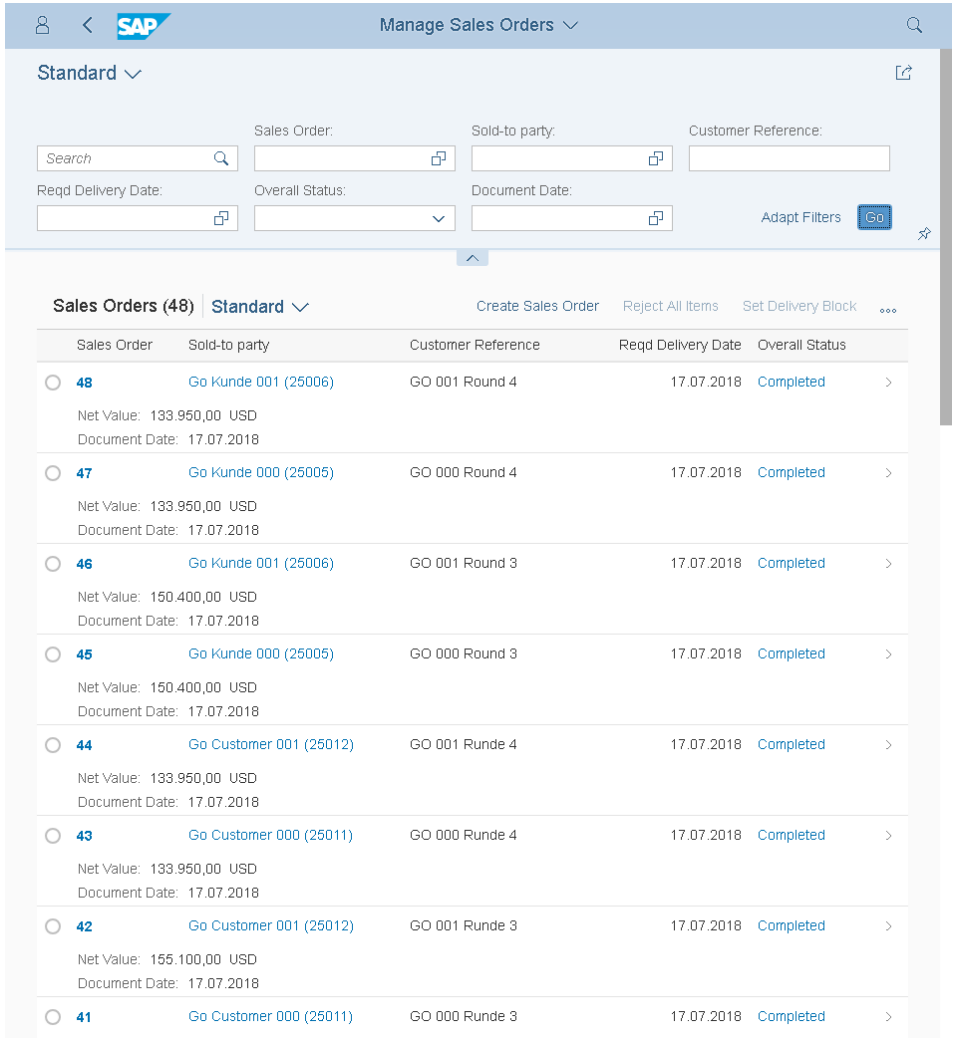
Fast Facts about SAP S/4HANA

Transaction Data

- Transaction data is the system record of business event.
- Depending on the business event, different master data and organizational data will be referenced
- For example, during a sales order business event, the following data is stored
  - Organizational level: client, company code, sales organization
  - Master data: customer, material, pricing (condition)
  - Situational data: date, time, person, amount



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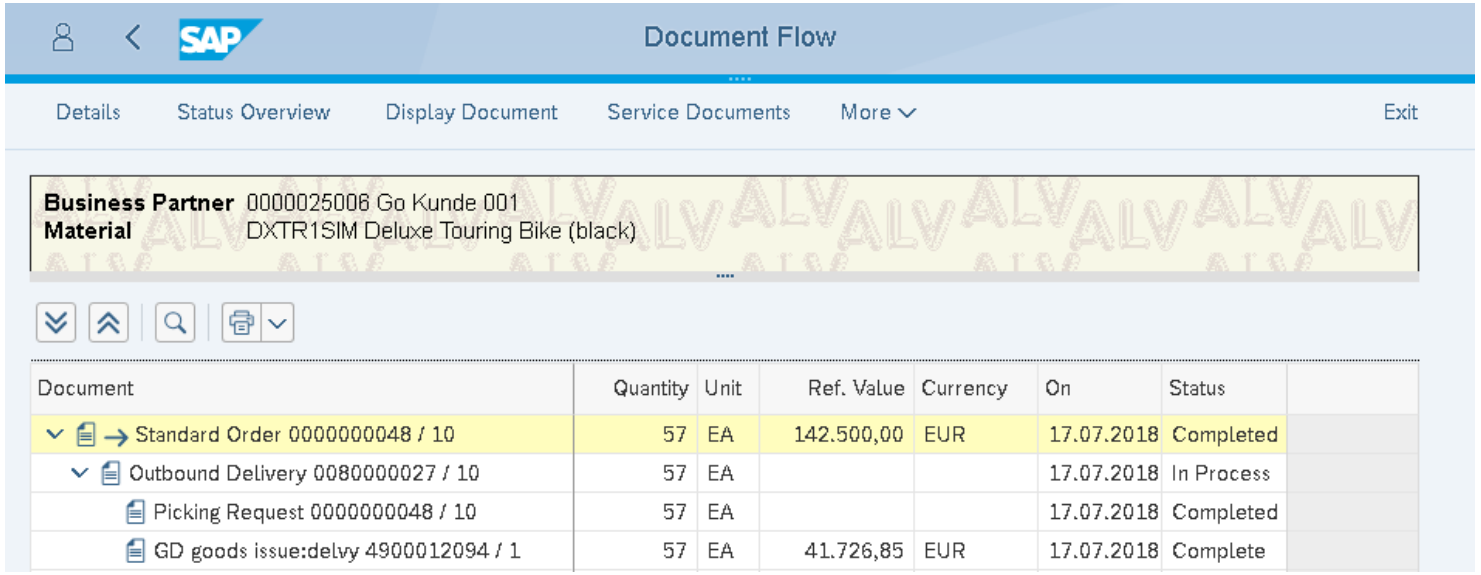
Fast Facts about SAP S/4HANA

Documents

- Transactions are data sets that are generated if a business transaction was executed.
- Is a record of the business transaction
- Includes all relevant predefined information from the master data and organizational entities
- Example:
  - Sales Document
  - Purchasing Document
  - Material Document
  - Accounting Document

Document Flow

- The document flow as well as the order status allow the setting of the status at any point in time
- SAP revises the status every time a change in a document takes place



Document	Quantity	Unit	Ref. Value	Currency	On	Status
Standard Order 0000000048 / 10	57	EA	142.500,00	EUR	17.07.2018	Completed
Outbound Delivery 0080000027 / 10	57	EA			17.07.2018	In Process
Picking Request 0000000048 / 10	57	EA			17.07.2018	Completed
GD goods issue:delvy 4900012094 / 1	57	EA	41.726,85	EUR	17.07.2018	Complete

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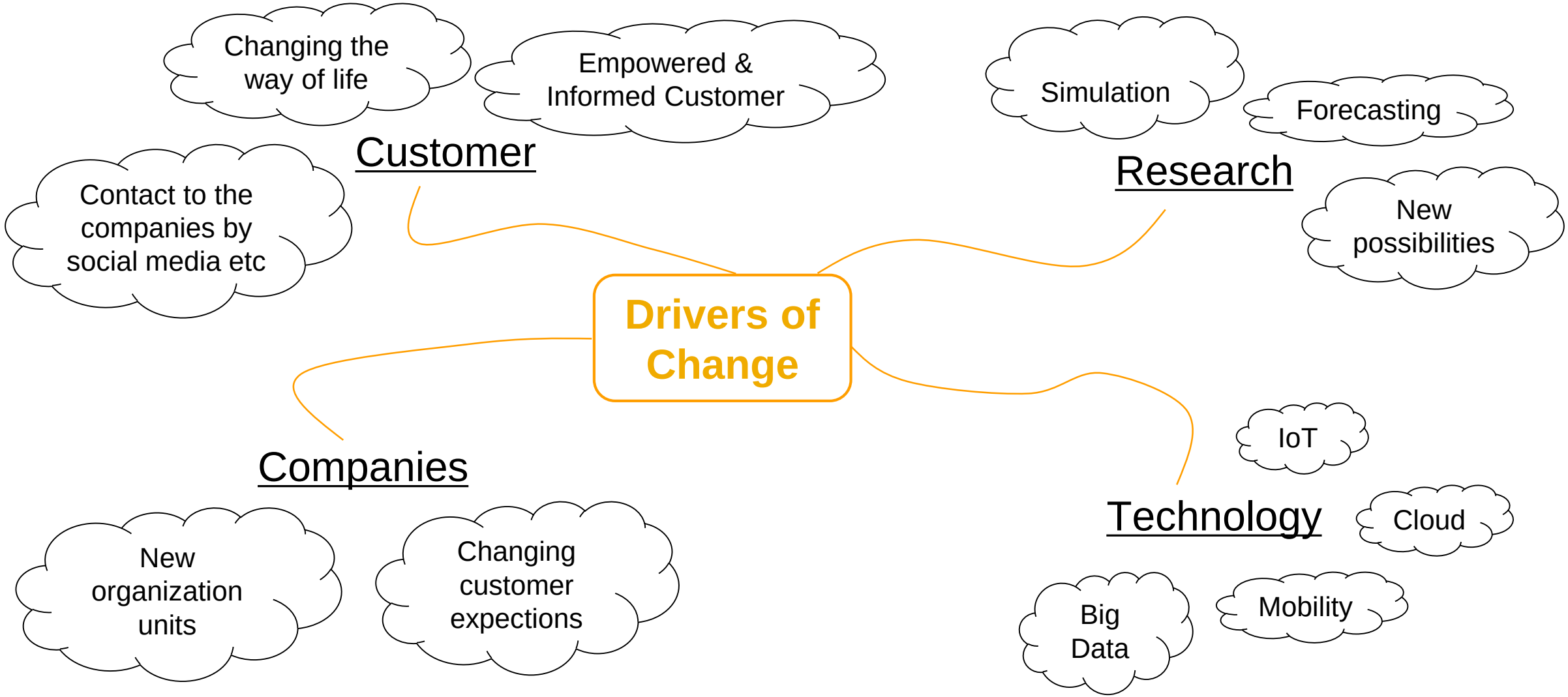
Fast Facts about SAP S/4HANA

Digital Transformation - Why?



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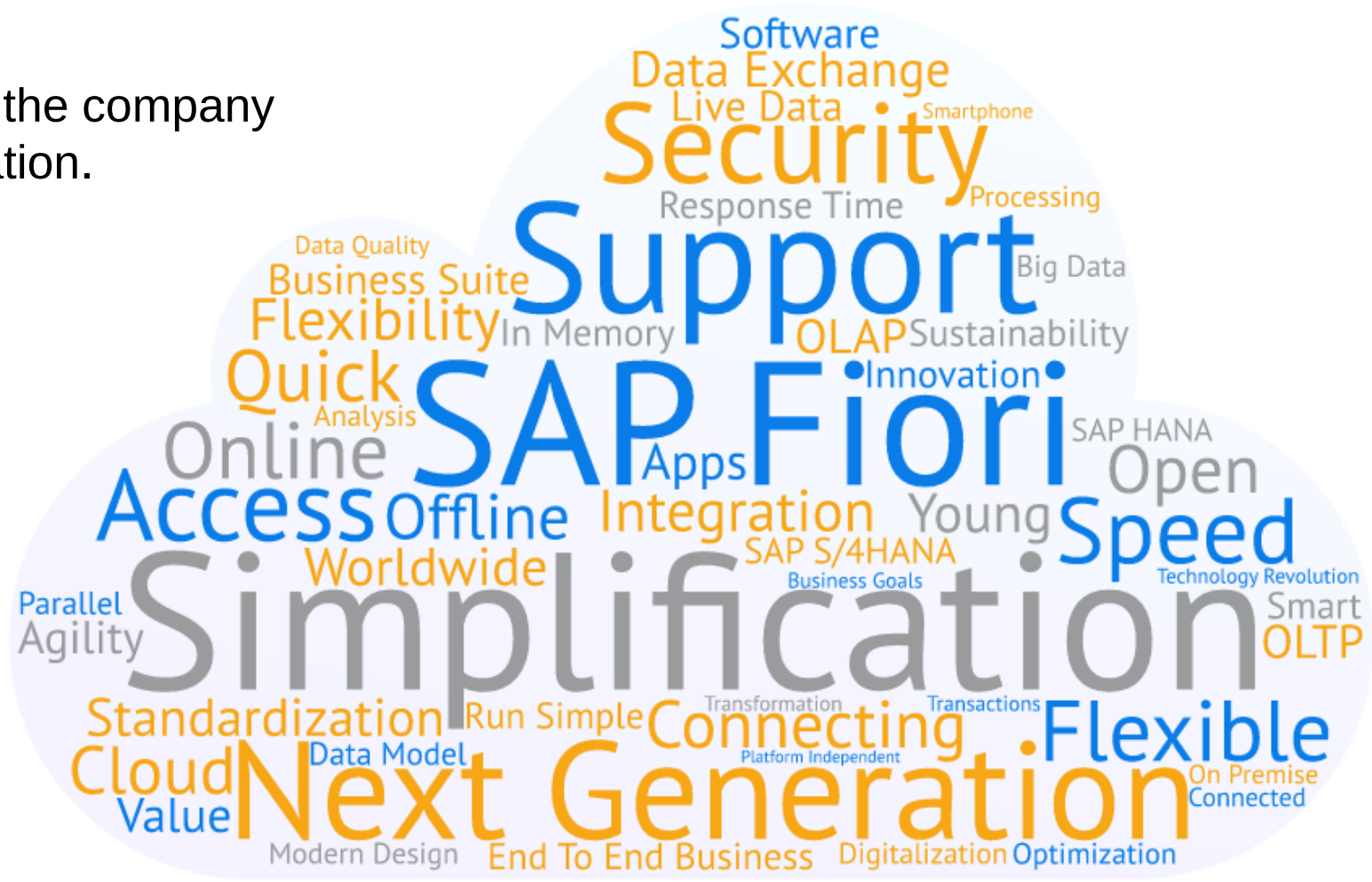
Fast Facts about SAP S/4HANA

- S/4HANA is the digital core of the company that enables digital transformation.



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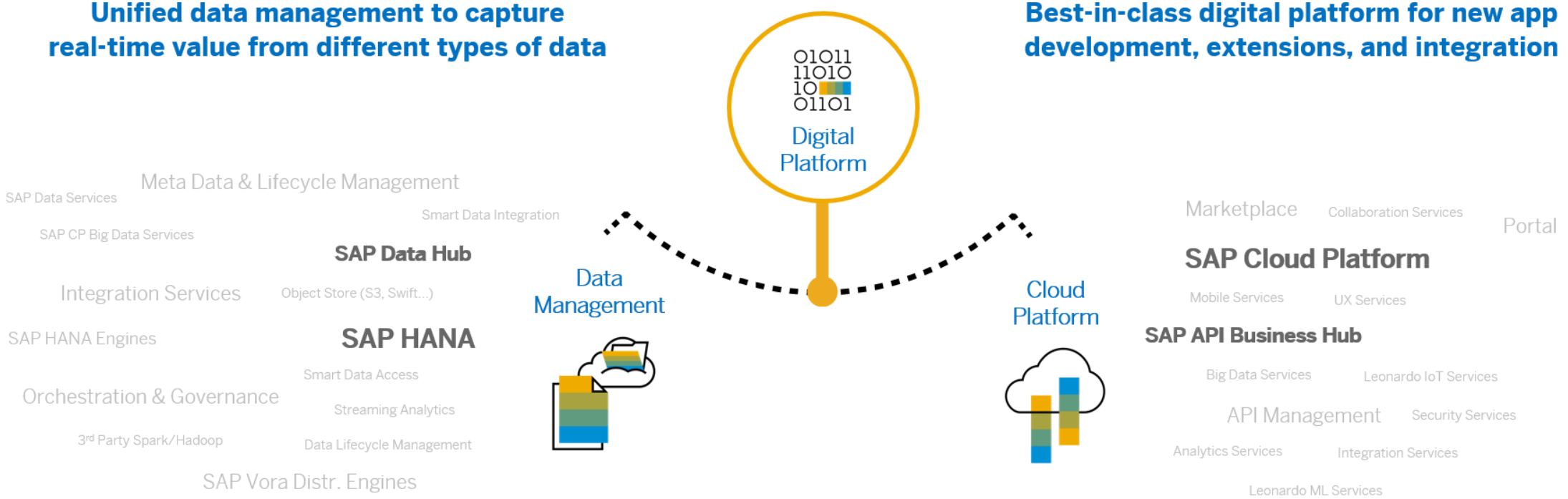
Digital Platform unlocks data-driven intelligence and innovation

Unified data management to capture real-time value from different types of data

Best-in-class digital platform for new app development, extensions, and integration



Next generation data management expands SAP HANA in-memory database to address structured and unstructured data use cases and external data

SAP HANA powers SAP Applications as the foundation of high performance data warehousing and analytics

Data Hub provides data orchestration and meta data management across heterogeneous data sources

Platform for extending the business processes of our Intelligent Suite and enabling new innovations

Delivering deep data and process integrations through APIs and microservices

Marketplace for ecosystem to build new innovations leveraging APIs and Business Services

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4th Generation Customer Experience Suite SAP C/4HANA

Trusted, personalized customer experience by giving customers transparency & control over their data

SAP C/4HANA

Unified Intelligent User Experience

Conversational, Contextual and Intelligent UX

SAP Marketing Cloud

Market with Intelligence in the Moment

SAP Commerce Cloud

Personalized Shopping Experience across Touchpoints

SAP Sales Cloud

Build Relationships and guide Customers throughout their journey

SAP Service Cloud

Make Customers happy

SAP Customer Data Cloud

Build Customer Trust and Loyalty

Microservices

SAP Cloud Platform Extension Factory

Cloud-native Microservice based universal Extension Framework.

Extensions

Internet of Things

Machine Learning

SAP® Cloud Platform

Integration

Blockchain

SAP S/4HANA®

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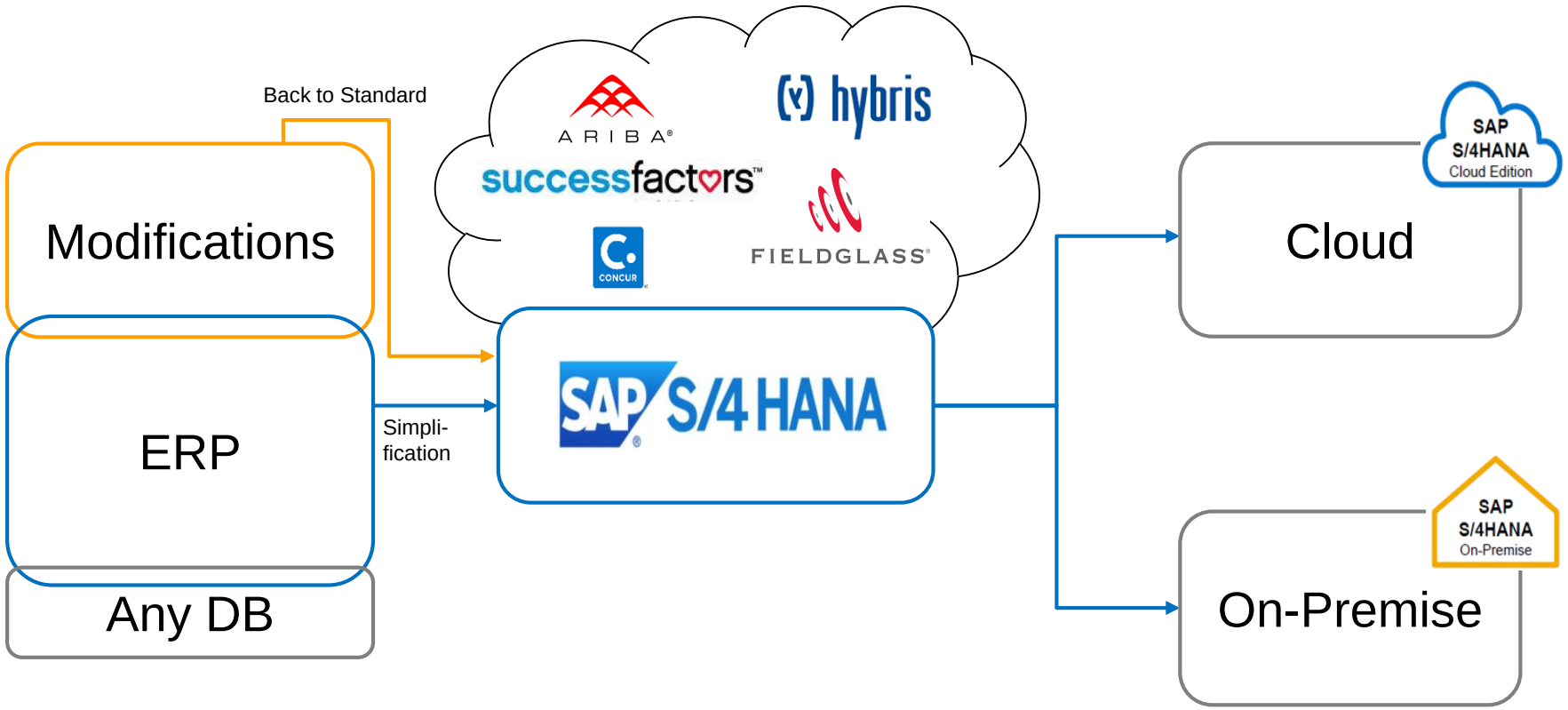
Fast Facts about SAP S/4HANA



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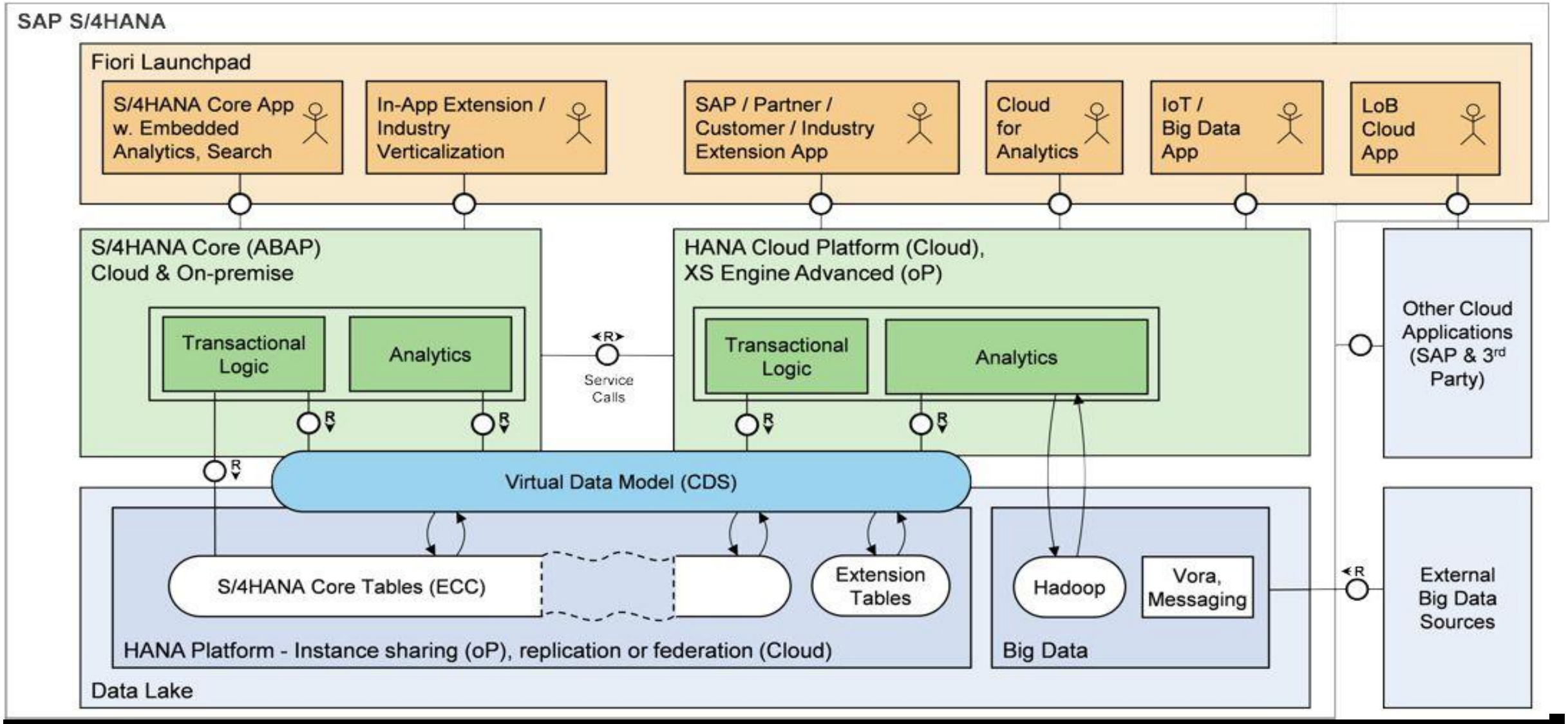
SAP S/4HANA Architecture



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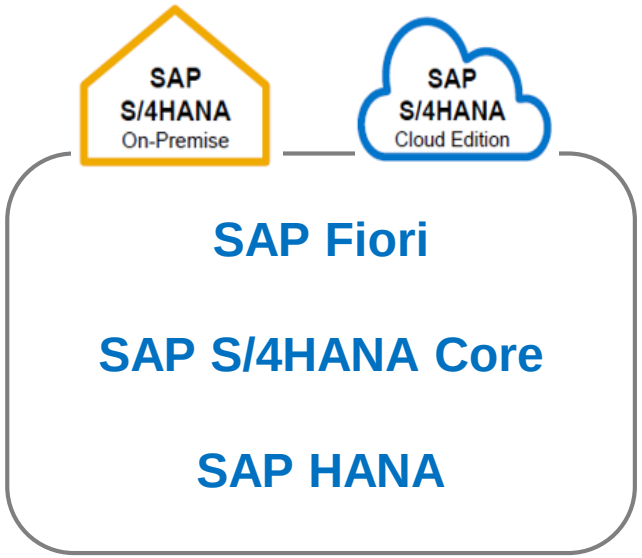
Fast Facts about SAP S/4HANA

On-Premise vs. Cloud

- SAP S/4HANA …

… Choose between Cloud and On-Premise

- Cloud and On-Premise can be used hybridly without losing the company´s integration
- Possible migration of SAP Business Suite customers



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Fast Facts about SAP S/4HANA

On-Premise vs. Cloud

Subscription Licensing

→ Deployment in the private cloud, maintained by SAP

- SAP provides system and controls maintenance
- Automatic participation in quarterly innovation upgrades
- In-App extensibility with limited ABAP
- Current release cycles
- SAP ERP embedded

Traditional licensing

→ Traditional licensing with customer control of deployment and maintenance

- Private control of deployment and maintenance
- Hardware at companies location
- Privately controlled data
- Fewer release cycles
- Individual requirements possible
- Traditional ABAP extensibility up to core modification

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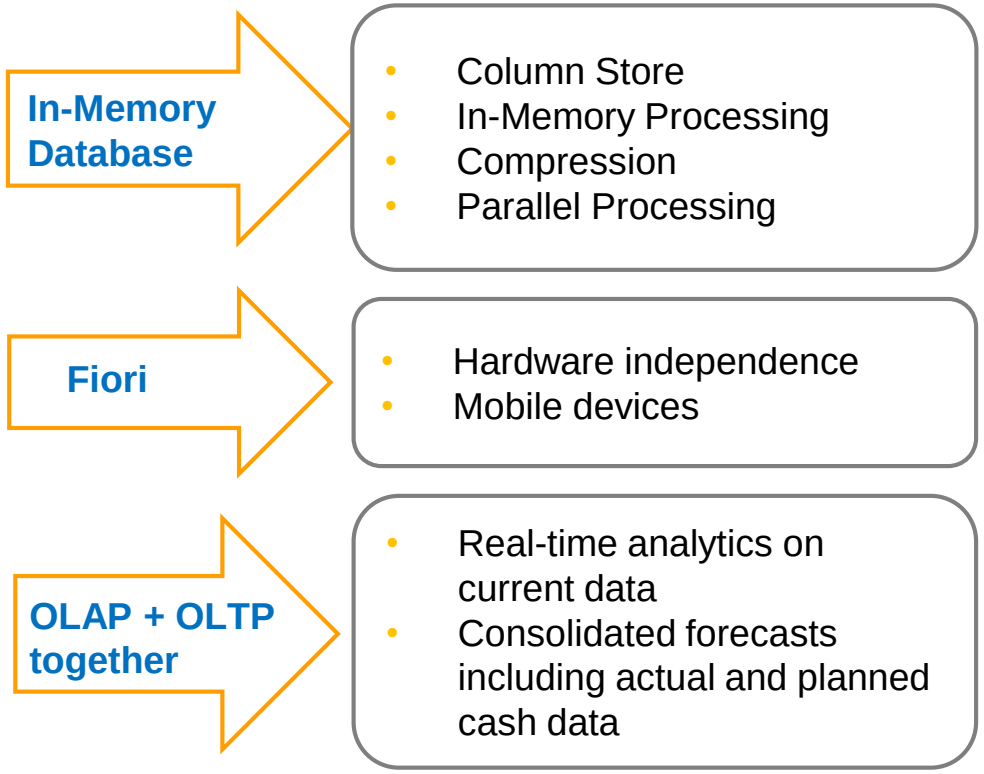
What´s New?

- SAP S/4HANA …

… works with in-memory

… has a new and modern design

… works with new technology



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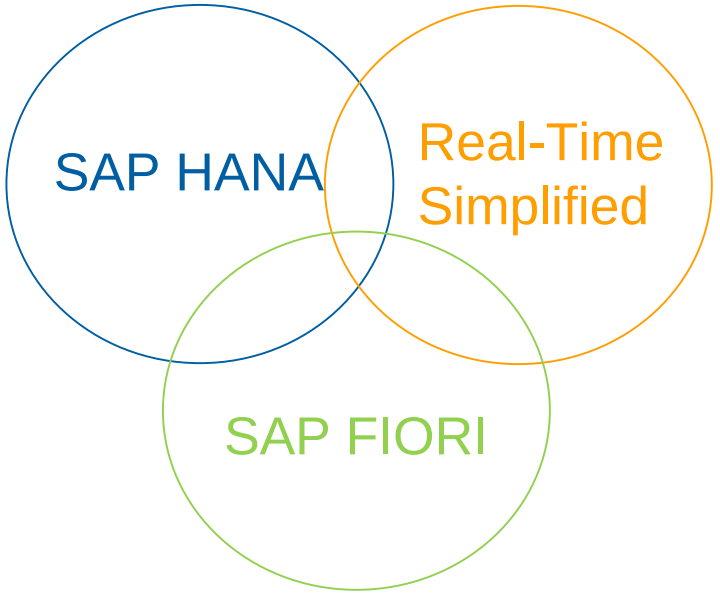
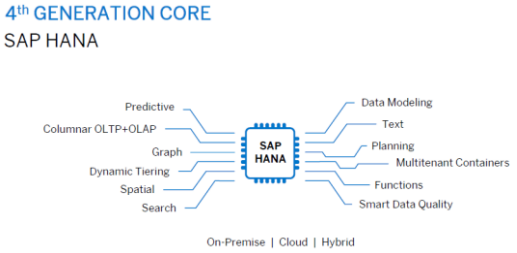
What´s New?
Innovation & Simplification



Compression



OLAP + OLTP together

Any Attribute as an Index

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What´s New?
SAP HANA

- SAP HANA is an In-Memory Database that allows you to process data very fast
- But SAP HANA can do way more with its different processing engines

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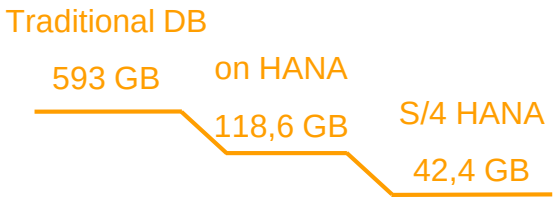
What´s New?
Real Time Simplification

- Example of data compression



A typical booking transaction addressed 15 tables.
→ Now it only impacts 4 tables.

BKPF	BSEG	BSEG	BSEG	BSIS
BSIS	BSIK	BSET	LFC1	GLT0
GLT0	GLT0	COBK	COEP	COSP

		Table sizes of customer system	
Table	Description	ERP Financials in Suite on HANA	Simple Finance on HANA
BKPF	Accounting documents	1.2 GB	1.2 GB
BSEG	Accounting document line items	4.5 GB	** 5.0 GB
BSID	Open items Accounts Receivable	0.1 GB	
BSIK	Open items Accounts Payable	0.0 GB	
BSIS	Open items General Ledger	* 23.2 GB	
BSAD	Cleared items Accounts Receivable	3.3 GB	
BSAK	Cleared items Accounts Payable	2.1 GB	
BSAS	Cleared items General Ledger	* 5.5 GB	
KNC1	Totals Accounts Receivable	0.1 GB	
LFC1	Totals Accounts Payable	0.0 GB	
GLT0	Totals General Ledger	0.0 GB	
	Total (of above tables)	40.0 GB	6.2 GB

Traditional Database Architecture	Principles of the S/4HANA Data Model
• Normalized data modeling third normal form • Avoid unwanted redundancies • Avoid inconsistencies and anomalies Disadvantages – Frequent use of redundant data to increase the performance of e.g. data aggregation – Higher effort to update redundant data	• Storage of data in denormalized form • Single source of data • No longer need for redundant data storage for tasks such as aggregation • Processing of aggregation and analytics on the fly • Check for inconsistencies and anomalies due to denormalization are no longer a critical task

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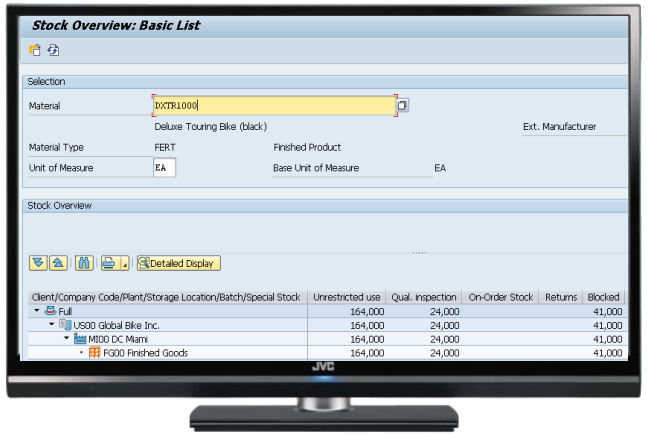
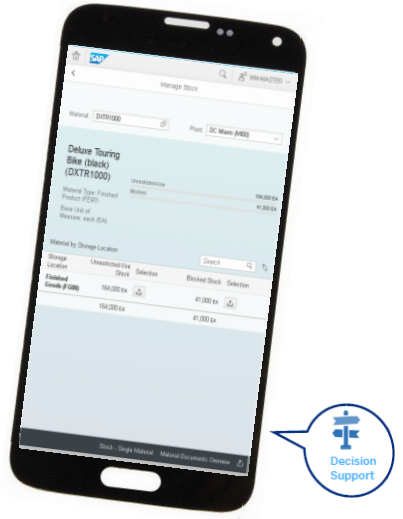
What´s New?
SAP FIORI

- SAP S/4HANA … provides SAP Fiori user experience and interface



SAP S/4 HANA

- Independent of hardware
- Real-time



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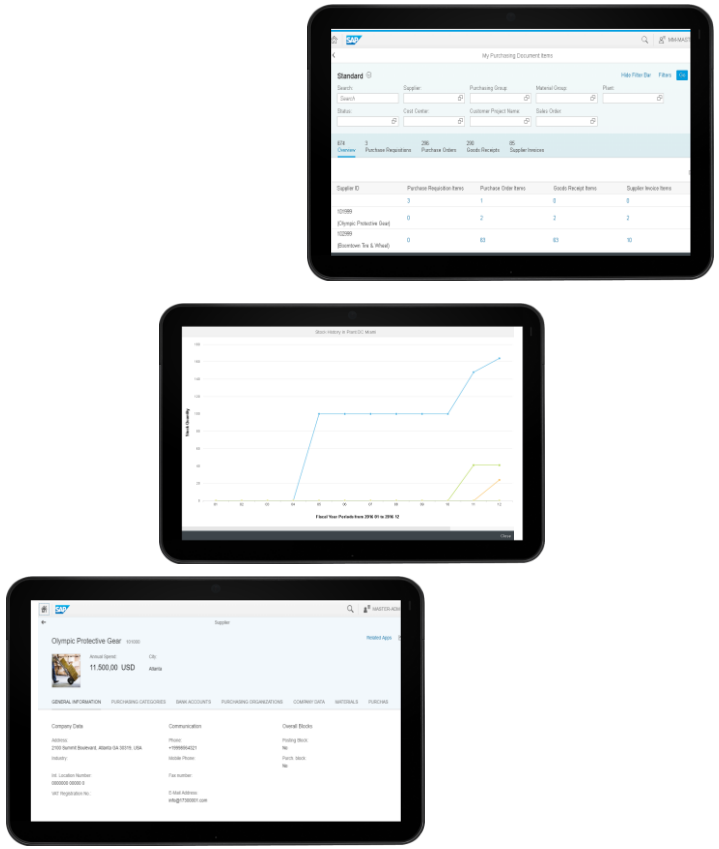
What´s New?
SAP FIORI

- SAP Fiori offers three application types:

- **Transactional Apps**:
- Access to tasks like create, change or display process with guided navigation

- **Analytical Apps:**
- Visual overview about business data

- **Factsheet:**
- View essential information about objects and contextual navigation between related objects



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Transition to SAP S/4HANA

New Implementation

ERP System
Non-SAP System

System Conversion

ERP System

SAP S/4HANA

Landscape Transformation

ERP System – Region A
ERP System – Region B
ERP System – Region C

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Guess What…

… Which of the following statements regarding SAP S/4HANA On-Premise are true?

- SAP provides system and controls maintenance
- Privately controlled data
- Automatic participation in quarterly innovation upgrades
- Hardware at companies location
- Fewer release cycles

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Guess What…

…On which of the following key concepts is SAP S/4HANA mainly based?

- Distributed data storage
- Simplified data model
- Extended upgrade cycles
- Guided configuration
- SAP Fiori-Enabled user interaction

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Guess What…

…On which of the following key concepts is SAP S/4HANA mainly based?

- ❑ Distributed data storage
- ❑ Simplified data model
- ❑ Extended upgrade cycles
- ❑ Guided configuration
- ❑ Completely SAP Fiori-Enabled user interaction

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Guess What…

… SAP Fiori offers in S/4HANA different application types. Which of the following statements are true?

- With SAP S/4HANA Factsheet you can view essential information about objects and contextual navigation between related objects
- Since SAP S/4HANA you are able to use WebGUI
- Transactional Apps provides an visual overview about business data
- Access to tasks like create, change or display process with guided navigation are given by Analytical Apps

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Guess What…

… Which of the following statements regarding SAP S/4HANA are true?

- SAP S/4HANA provides scalable, real-time, predictive and simulation capabilities
- SAP S/4HANA is only available as a cloud solution
- SAP S/4HANA is made for siloed, non-integrated business
- SAP S/4HANA enables instant, contextual information and a personal experience
- SAP S/4HANA is SAP´s new suite to help customer reimagine their business

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Guess What…

… Which of the following are top capabilities in the Real-Time Inventory Management use case from an IT perspective?

- No aggregate tables
- Reduced memory footprint
- Separation of data entities
- Highest possible data consistency
- Unlimited backups for inventory data

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Guess What…

… Which types of integration are currently available between SAP S/4HANA and other cloud solutions from SAP?

- Hybris
- Ariba
- SAP Business One
- Successfactors
- SAP S/4HANA integration to SAP Business ByDesign

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Guess What…

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Thank you!