



Integrated Value Flows

S1_IVF6ILV

03 March 2025

Agenda

- Introduction & course overview
- Self-conception
- Introduction to SAP S/4HANA
- Introduction logistics case study
- Sales Distribution (SD)

Course overview & general information



Self-conception



Thomas Sint

- Career:
 - Employed by Phoron Consulting GmbH
 - Senior Lecturer at IMC Krems
- SAP connection:
 - Unit Manager Digital Core Logistics
 - +8 years experience as SAP logistics consultant
 - Project manager SAP projects

Self-conception

Constantin Schaumann

- Career:
 - Technical Sales at Bosch
 - Trainee at Phoron
- SAP connection:
 - SAP end-user in automotive sales
 - SAP university course
 - Junior SD consultant



Self-conception

Please introduce yourself:

- Name
- SAP Username
- Where are you from?
- Mother tongue?
- Experience with ERP systems. Which ERP systems are you already familiar with?
- Experience with SAP.
- Career expectations. Can you envision working with SAP from today's perspective??



GENERAL INFORMATION

- Lecturer
 - Thomas Sint (Unit Manager Logistics – Phoron Consulting GmbH)
- Classes
 - Onsite / Virtual Class / E-Learning
- Assessment
 - 30%: Oral presentation – 05 March 2024
 - 70%: Written submission – 20 March 2024

Session	LE	Room	Lecturers
03.03.2025 09:00 - 12:30	4	G1.1.24	SINT Thomas
03.03.2025 14:00 - 17:30	4	G1.1.24	SINT Thomas
04.03.2025 18:00 - 19:45	2	EL	SINT Thomas
11.03.2025 09:00 - 12:30	4	G.3.02	SINT Thomas
11.03.2025 14:00 - 17:30	4	G.3.02	SINT Thomas
12.03.2025 09:00 - 13:15	4	G1.E.25	SINT Thomas
12.03.2025 14:00 - 17:30	4	G1.E.25	SINT Thomas

1. attempt

Intermediate exam Presentation single-exam oral - 30,00% • S1_IVF6: 12.03.2025 09:00 - 13:15 (G1.E.25)

Intermediate exam Submission (Deliverable) single-exam written - 70,00% 26.03.2025 23:59

Sessions

Session	In class/VC/EL	Topic
03.03.2025 09:00 - 12:30	In class	Introduction, course overview, self-conception, introduction to SAP S/4HANA, introduction logistics case study
03.03.2025 14:00 - 17:30	In class	Master – organizational – transaction data, Introduction sales SD
04.03.2025 18:00 - 19:45	E-learning – Tasks in MS Teams – no course	SCOR – SAP Activate – After Class
11.03.2025 09:00 - 12:30	In class	Introduction MM & MRP
11.03.2025 14:00 - 17:30	In class	Introduction MM & MRP
12.03.2025 09:00 - 12:30	In class	Intermediate Exam – Short individual presentation & time for Logistic Case Study
12.03.2025 14:00 - 17:30	In class	Introduction FI & CO
26.03.2024 23:59 -00:00	only submission/no course	Deadline submission documentation – only submission/no course

Course design



Before Class

theory part



In Class

practical
part



After Class

repetition -
practical
part

Information – Assessment

Intermediate exam: presentation – 12 March 2025

- **Presentation format:**

- Please give an **individual** presentation!
- Alone - no group work
- System based / Slides
- Present your final process with you own data's in the system
- Describe the process
- Show the process in the system

Intermediate exam Presentation	single-exam oral	- 30,00%	• S1_IVF6: 12.03.2025 09:00 - 13:15 (G1.E.25)
Intermediate exam Submission (Deliverable)	single-exam written	- 70,00%	26.03.2025 23:59

- **Presentation content:**

- **Final Result:** SD Challenge (Session 1) - 2 Min/person
- **Final Result:** PP Challenge (Session 2) - 2 Min/person
- **Final Result:** MM Challenge (Session 3) - 2 Min/person
- **Intermediate Status:** "CaseStudy" - 4 Min/person
- Discussion/ Feedback audience - 5 Min

Information – Assessment

Intermediate exam: submission – 26 March 2025

- **Submission format:**
 - Create one project documentation per person (Word or PDF)
 - The documentation should include all the steps and process details that you have posted in the SAP system
 - All organizational-, master-, and transaction data (in tabular form)
 - Screenshots and descriptions of the posted process
- Submission: 26.03.2025 23:59 MS Teams
- **Documentation content:**

– Final Result: SD Challenge (Session 1)	- Descriptions / Screenshots
– Final Result: PP Challenge (Session 2)	- Descriptions / Screenshots
– Final Result: MM Challenge (Session 3)	- Descriptions / Screenshots
– Final Result: "CaseStudy"	- Descriptions / Screenshots

Intermediate exam Presentation

single-exam oral

- 30,00%

• S1_IVF6: 12.03.2025 09:00 - 13:15
(G1.E.25)

Intermediate exam Submission (Deliverable) single-exam written - 70,00% 26.03.2025 23:59

Please use the
template from MS
Teams

Information – Assessment

Intermediate exam: submission – 20 March 2024

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Please use the
template from MS
Teams

Introduction to SAP S/4HANA



SAP SE



Headquarter in Walldorf (Baden-Württemberg)



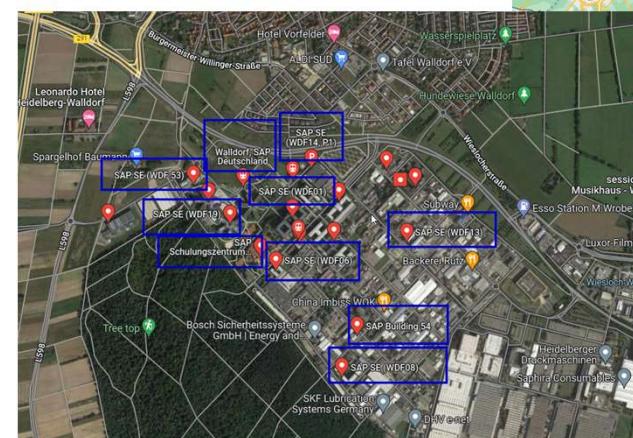
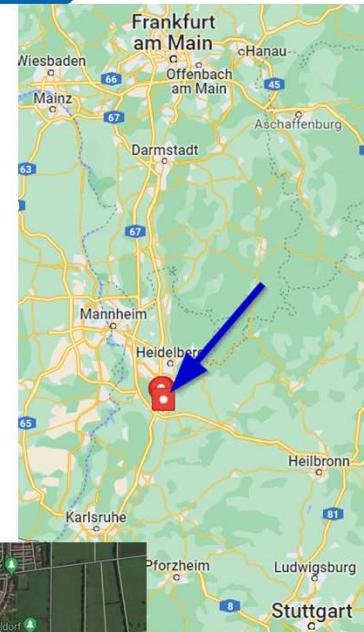
Publicly traded software company



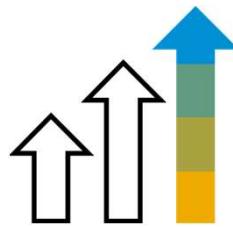
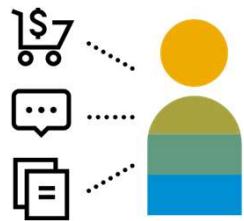
In terms of sales, SAP is the Europe's largest listed software company



The world's third largest publicly-listed software company



SAP – KEY FACTS



**SAP customers generate
87% of total global
trade (\$46 trillion)**

**99 of the 100 largest
companies in the
world are SAP
customers**

**97 of the world's
100 greenest
companies run
SAP**

**85 of the 100 largest
companies in the world
are customers of SAP
S/4HANA**

**About 80% of SAP
customers are SMEs**

SAP – KEY FACTS

>110,000

employees from 160+ countries.

22,000+

SAP partner companies globally.

€27.84_b

total revenue (non-IFRS) in FY2021.

245_{m+}

subscribers in our cloud user base.

100+

development locations worldwide.

#1

software company in Dow Jones Sustainability Index for 15 years.

ERP

Enterprise Resource Planning (ERP) encompasses all core processes that are necessary to run a company:

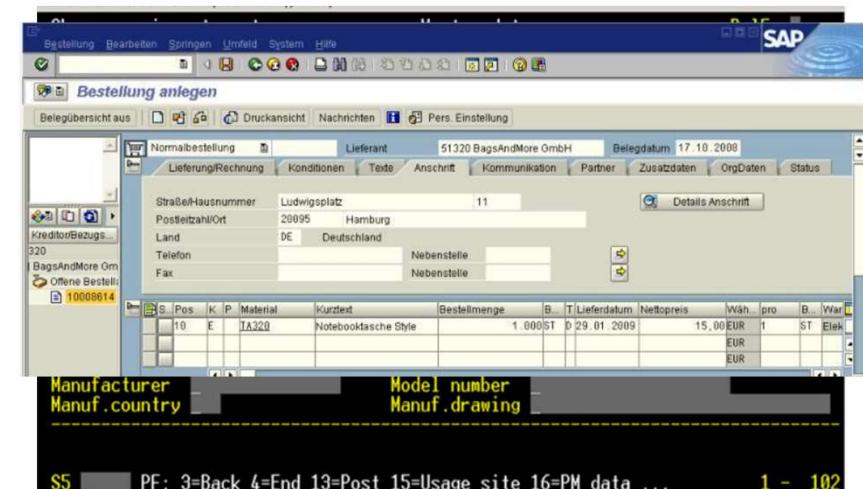
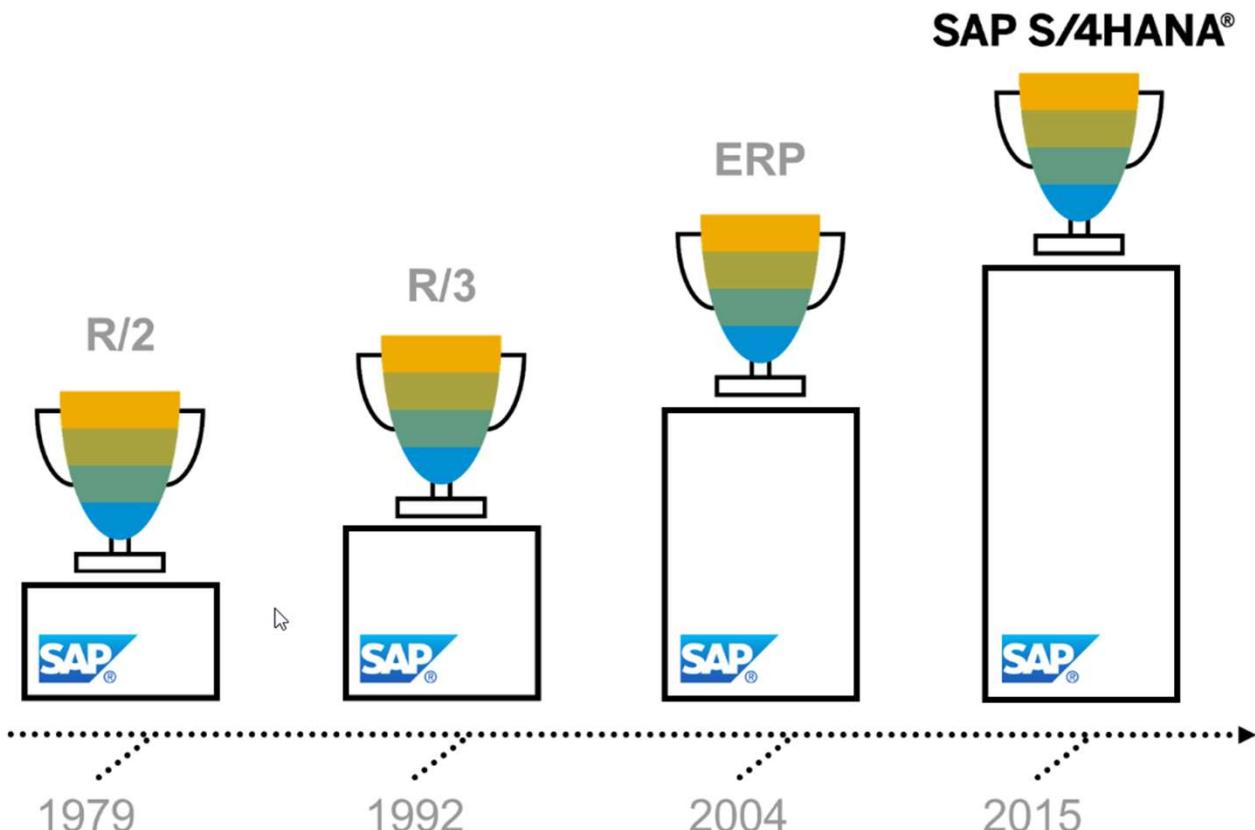
- **Finance,**
- **Human resources,**
- **Manufacturing,**
- **Logistics,**
- **Services,**
- **Procurement and others.**

Simple ERP software helps to manage all these processes in an integrated system. ERP is often referred to as the company's recording system.



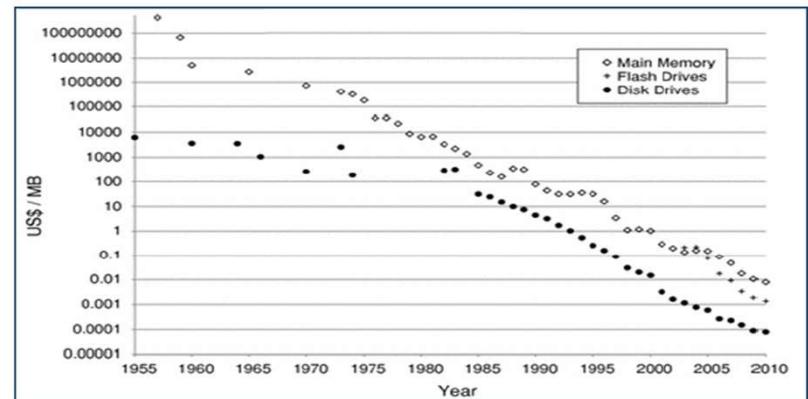
<https://www.youtube.com/watch?v=WIfYKgOtWIU>

SAP products

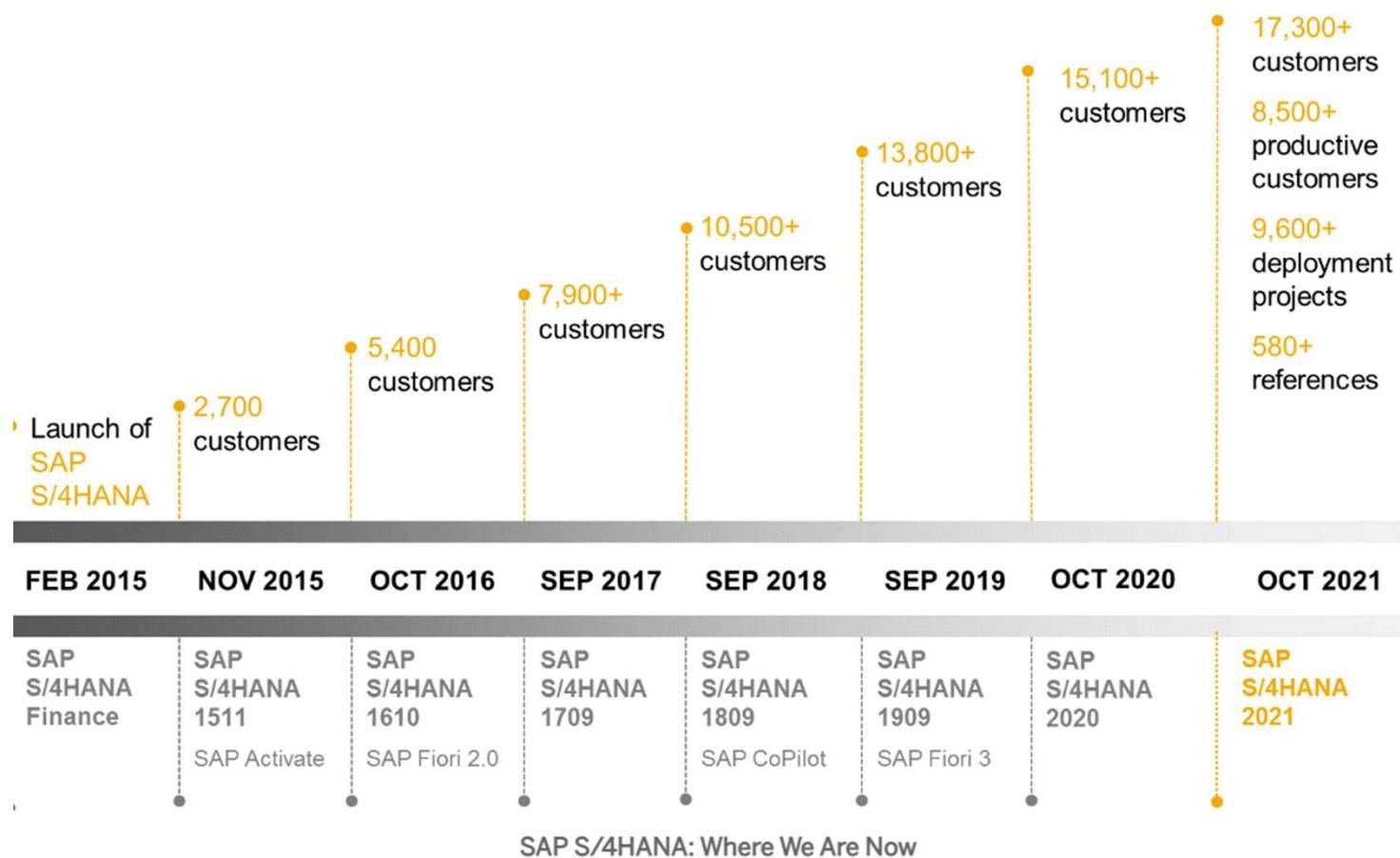


SAP HANA

- SAP HANA is a database system (High Performance Analytic Appliance)
- Data is stored in the memory (DRAM) of the database server to ensure faster data access
- Data is stored on a row- and column-based basis and an optimized data layout is used
- Parallel data processing and data compression techniques are used.
- In 1990 the cost of a one terabyte Hard disk space was about \$9,000,000, while one terabyte of memory (DRAM) was worth about \$106,000,000.
- In 2012, the price of a terabyte dropped Hard disk space to \$60 and the cost of a terabyte of memory dropped to \$4,900.



SAP S/4HANA

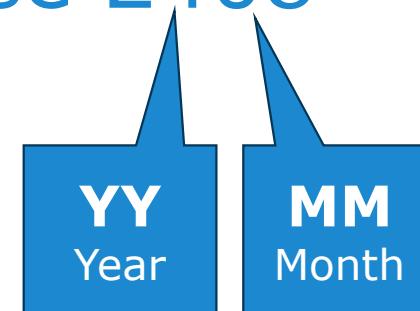


SAP Release



Release 2408

Release 2502



2408

2502

2508

2602

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



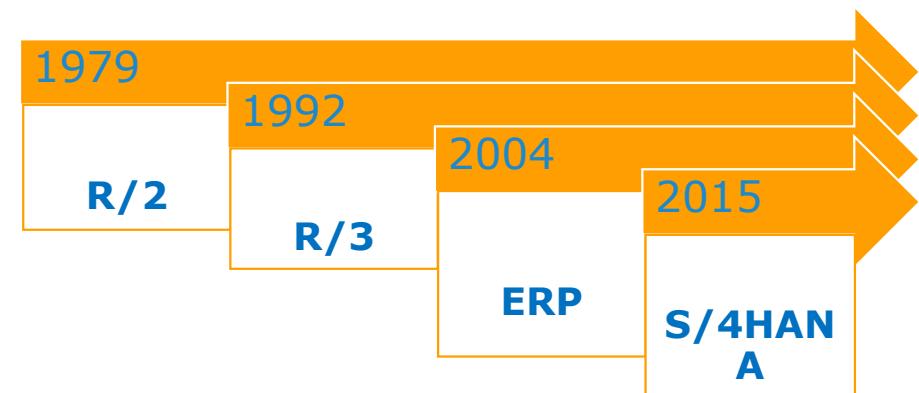
... works in real time



... represents efficiency, simplicity and innovation

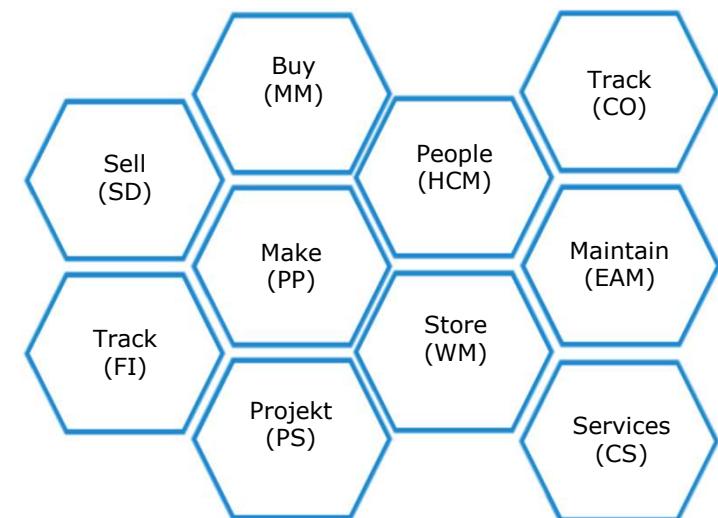


... master data is managed centrally, for example partners, customers and vendors



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



Fast Facts about SAP S/4HANA

Data Types in ERP Systems

?	?	?
...

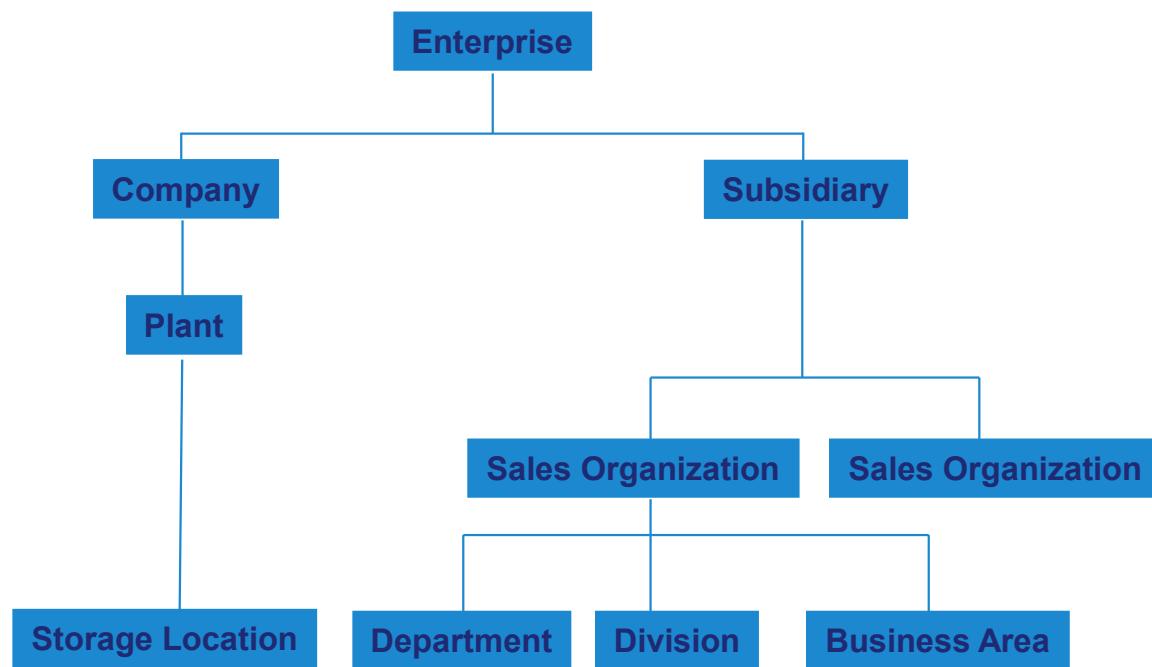
Fast Facts about SAP S/4HANA

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 Centers	Transportation Order
...

Fast Facts about SAP S/4HANA

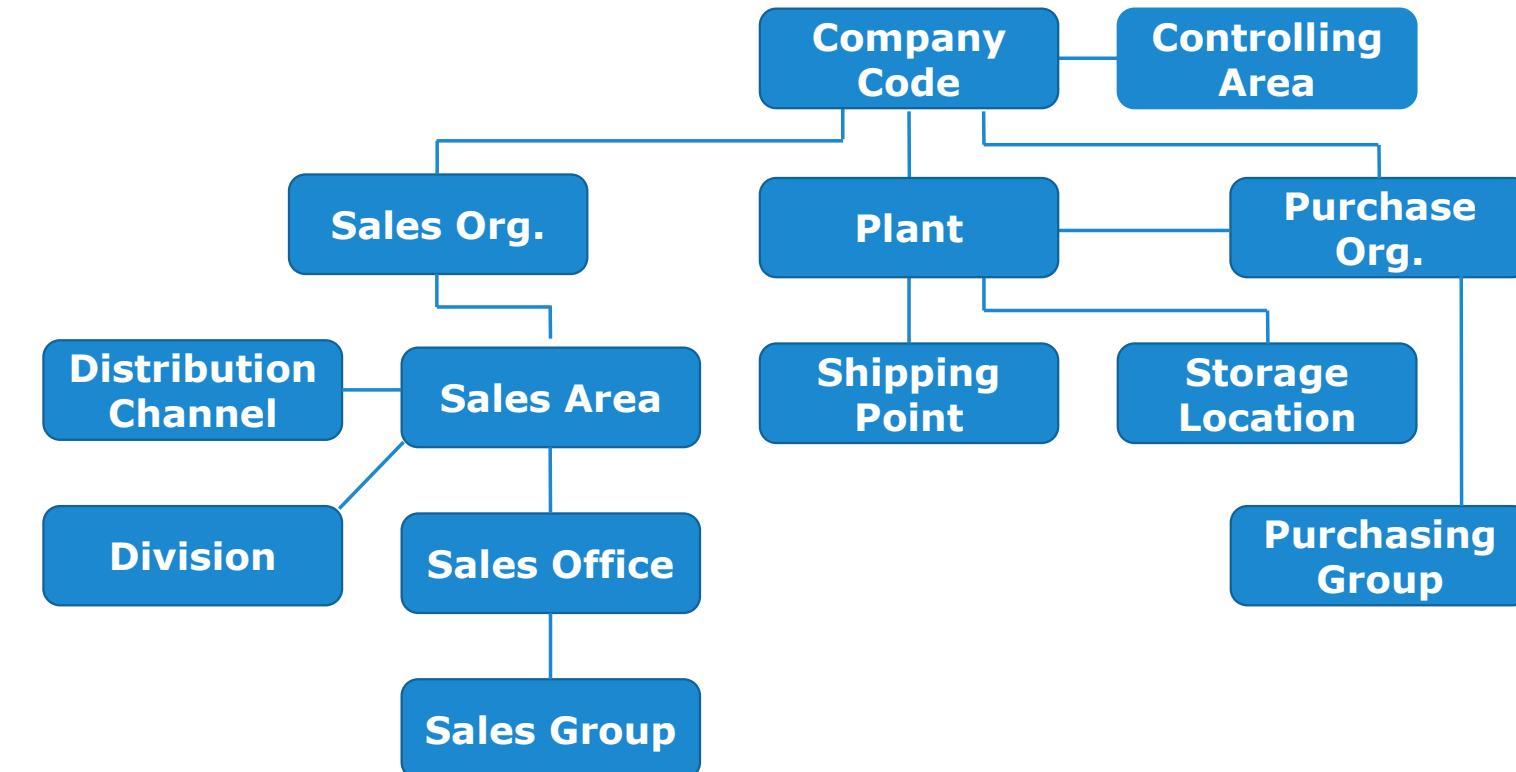
Organizational Unit



SAP Terminology:

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

Organisational Structures



Organisational Structures



Company Code

The company code in SAP is the smallest organizational unit of external accounting for which a complete, self-contained set of accounts can be created. This includes the entry of all posted transactions and the creation of individual financial statements, such as the balance sheet and the profit and loss statement.

Plant

A plant is an operational facility within a company code (e.g. a production facility, regional or branch office). As an organizational unit within logistics, the plant subdivides an enterprise from the viewpoints of production, procurement, maintenance and materials planning.

Purchase Org.

The purchasing organization subdivides an enterprise according to the requirements of purchasing. It procures materials and services, negotiates conditions of purchase with vendors, and is responsible for such transactions.

Sales Org.

The sales organization is an organizational unit within logistics, that structures the company according to its sales requirements. A sales organization is responsible for the sale and distribution of goods and services. It represents the selling unit as a legal entity.

Storage Location

A storage location defines where the stock is stored physically within a plant.

Distribution Channel

A distribution channel is the way in which products and services are brought to the customer. It can be understood as a sales channel. Examples: retail, wholesale, webshop. The aim of distribution channels is to regulate responsibilities and evaluate sales statistics. Sales prices can be set for each channel.

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

The screenshot shows the SAP S/4HANA product master data interface. At the top, it displays the product name "Deluxe Touring Bike (black)" and the internal reference number "DXTR1000". On the right side of the header, there are buttons for "Edit", "Copy", and "LL". Below the header, there is a product icon and several key properties listed: "Product Type: Finished Product (FERT)", "Base Unit of Measure: Each (EA)", "Revision Level: ", "Product Category: Product", "GTIN: ", and "Product Group: Finished Bikes (BIKES)", "GTIN Category: ". The main content area is titled "General Information" and includes sections for "Basic Data", "Product Compliance", "Components", "Texts", "Sales", "Storage", and "Warehouse Management". Under "Basic Data", details such as "Division: Bicycles (BI)", "Created By: Chris Reich", "Old Product Number: -", "Created On: 08/19/2021, 11:55:19", "Batch Management Required: No", "Last Changed By: Learn-900 Learn-900", "Marked for Deletion: No", and "Last Changed On: 09/06/2021, 16:18:36" are displayed. A "Show More" link is located at the bottom right of the data grid.

Fast Facts about SAP S/4HANA

Transaction Data

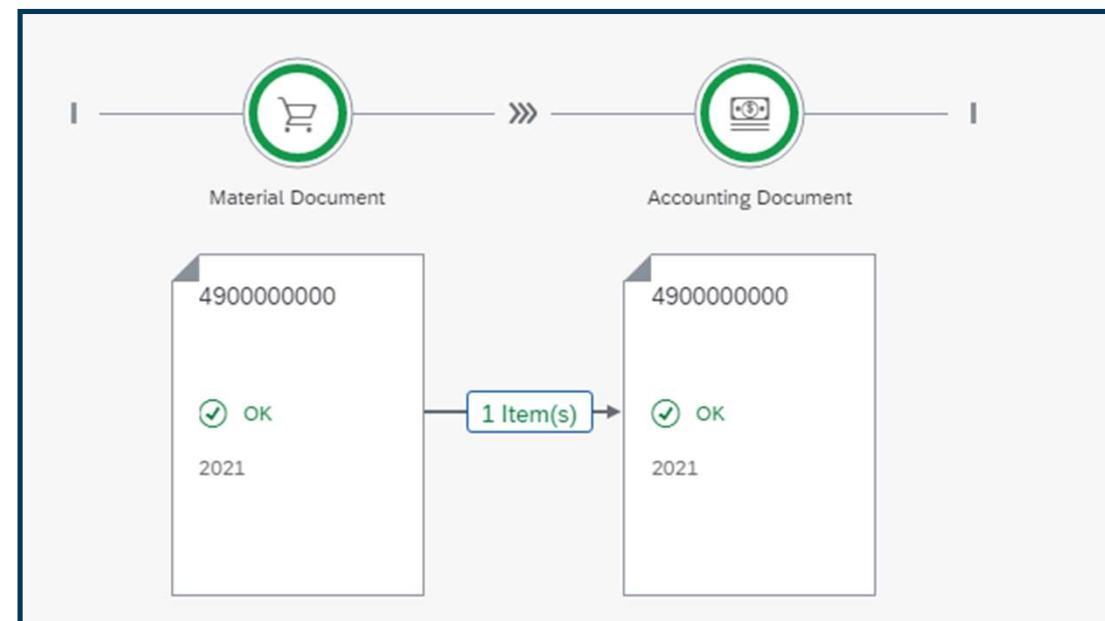
- Transaction data is the system record of business events
- Depending on the business event, different master data and organizational data will be referenced
- For example, during a sales order business event, the following data is stored
 - Organizational level: client, company code, sales organization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

The screenshot shows the SAP Create Inquiry: Overview screen. At the top, there are fields for Inquiry (empty), Net Value (21.400.00 USD), Sold-To Party (1003070 - The Bike Zone 100 / 2144 N Orange Ave / Orlando FL 32804), Ship-To Party (1003070 - The Bike Zone 100 / 2144 N Orange Ave / Orlando FL 32804), Cust. Reference (100), and Cust. Ref. Date (09/17/2021). Below this is a navigation bar with tabs: Sales (selected), Item Overview, Item detail, Ordering party, Procurement, Shipping, and Reason for rejection. Under Sales, there are fields for Valid From (09/17/2021) and Valid To (10/17/2021), and a field for *Req. Deliv.Date (D) with a value of 10/17/2021. There is also a field for Expect.Ord.Val. (0.00 USD). At the bottom, there is a toolbar with various icons and a table titled 'All Items' with columns: Item, Material, Req. Segment, Order Quantity, SU, and Altitm. The table contains two rows: one for item 10 (DXTR1100) with order quantity 5 EA, and one for item 20 (PRTR1100) with order quantity 2 EA.

Item	Material	Req. Segment	Order Quantity	SU	Altitm
<input type="checkbox"/>	10 DXTR1100		5	EA	
<input type="checkbox"/>	20 PRTR1100		2	EA	

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

Fast Facts about SAP S/4HANA

On-Premise vs. Cloud

As a Service			
Public Cloud	Private Cloud	As a Product	
		On Premise	
 RISE with SAP S/4HANA Cloud <ul style="list-style-type: none">- Lowest TCO & highest Cloud value- Comprehensive ERP scope & some industries- Flexibility within standards- RISE business transformation services- Single contract- Implementation: Greenfield	 SAP S/4HANA Cloud, extended edition <ul style="list-style-type: none">- Cloud value with full ERP & industry scope- Traditional flexibility with some restrictions (no modifications)- Hosted on SAP HANA Enterprise Cloud- Multiple contracts- Implementation: Greenfield	 RISE with SAP S/4HANA Cloud, private edition <ul style="list-style-type: none">- Cloud value with full ERP & industry scope- Traditional flexibility (incl. modifications)- Hosted on SAP HANA Enterprise Cloud- RISE business transformation services- Single Contract- Implementation: Brownfield, Greenfield	 SAP S/4HANA On Premise <ul style="list-style-type: none">- Total control and customization with full ERP & industry scope- Traditional flexibility- Multiple contracts- Implementation: Brownfield, Greenfield

Fast Facts about SAP S/4HANA

On-Premise vs. Cloud

Feature	Public Cloud	On-Premises	Private Cloud
Infrastructure	Hosted by a third-party provider (e.g., AWS, Azure, SAP)	Managed and maintained within a company's own data center	Dedicated cloud environment for one organization
Ownership	Shared with multiple users	Fully owned by the company	Exclusively used by one company
Cost	Pay-as-you-go, subscription-based	High upfront investment, maintenance costs	Higher cost than public cloud, but lower than on-premises
Scalability	High, flexible and on-demand	Limited by hardware capacity	Scalable but requires dedicated resources
Security & Control	Less control, depends on provider	Full control and security	More control than public cloud but managed externally or internally
Maintenance	Managed by cloud provider	Managed by in-house IT team	Managed by the company or a third-party provider

Group Research & Debate Task: Cloud Deployment Models & Service Models

1. Group Formation:

- Count through: 1, 2, 3, 1, 2, 3...
- Group 1: All students with number 1
- Group 2: All students with number 2
- Group 3: All students with number 3

2. Research Phase (10 Minutes – Individual Work):

- Each student researches the following topics:
 - **Public Cloud, Private Cloud, and On-Premises**
 - **SaaS, PaaS, and IaaS**
 - **Advantages & Disadvantages**

3. Group Task: Preparing Arguments (10 Minutes – Group Work):

- Each group will argue from a specific perspective:

• Group 1:

- **Advocates for On-Premises**
- Presents the **advantages** of On-Premises solutions
- Explains the **disadvantages** of Public and Private Cloud

• Group 2:

- **Advocates for Private Cloud**
- Presents the **advantages** of Private Cloud
- Explains the **disadvantages** of On-Premises and Public Cloud

• Group 3:

- **Advocates for Public Cloud**
- Presents the **advantages** of Public Cloud
- Explains the **disadvantages** of On-Premises and Private Cloud

3. Debate & Discussion (30 Minutes):

- Each group will present their arguments, trying to convince a fictional CEO about the best solution.
- ☺ Goal: The CEO must decide on the best strategy based on the debate.

Evaluation Criteria

Criteria	On-Premises (Group 1)	Private Cloud (Group 2)	Public Cloud (Group 3)
Security & Compliance	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak
Cost Efficiency	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
Scalability & Flexibility	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
Control & Customization	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
Maintenance & Responsibility	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
Business Continuity & Disaster Recovery	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak
Innovation & Technology Updates	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
Integration with Existing Systems	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak	<input type="checkbox"/> Strong <input type="checkbox"/> Medium <input type="checkbox"/> Weak

Key Takeaways from Group Presentations:

- On-Premises: _____
- Private Cloud: _____
- Public Cloud: _____

Evaluation Criteria

Criteria	On-Premises (Group 1)	Private Cloud (Group 2)	Public Cloud (Group 3)
Security & Compliance	<input checked="" type="checkbox"/> Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox" warning=""/> Medium
Cost Efficiency	<input error="" type="checkbox"/> Low	<input type="checkbox" warning=""/> Medium	<input checked="" type="checkbox"/> High
Scalability & Flexibility	<input error="" type="checkbox"/> Low	<input type="checkbox" warning=""/> Medium	<input checked="" type="checkbox"/> High
Control & Customization	<input checked="" type="checkbox"/> High	<input checked="" type="checkbox"/> High	<input error="" type="checkbox"/> Low
Maintenance & Responsibility	<input error="" type="checkbox"/> High (IT required)	<input type="checkbox" warning=""/> Medium (Managed IT)	<input checked="" type="checkbox"/> Low (Fully managed)
Business Continuity & Disaster Recovery	<input type="checkbox" warning=""/> Medium (Depends on internal setup)	<input checked="" type="checkbox"/> Strong	<input checked="" type="checkbox"/> Strong
Innovation & Technology Updates	<input error="" type="checkbox"/> Low (Requires manual upgrades)	<input type="checkbox" warning=""/> Medium (Some automation)	<input checked="" type="checkbox"/> High (Automatic updates)
Integration with Existing Systems	<input checked="" type="checkbox"/> Strong (Full control)	<input checked="" type="checkbox"/> Strong (Customizable)	<input type="checkbox" warning=""/> Medium (Depends on provider)

On-Premises: Best for security, control, and compliance, but costly and difficult to scale.

Private Cloud: Balances control, security, and flexibility, but still requires IT management.

Public Cloud: Most cost-effective and scalable, but less control and potential security concerns.

Fast Facts about SAP S/4HANA

Public Cloud vs. Private Cloud vs. On-Premise



Subscription Licensing

→ Deployment in the public cloud, maintained by SAP

- SAP provides system and controls maintenance
- Automatic participation in quarterly innovation upgrades
- In-App extensibility with ABAB side by side extensibility
- Current release cycles
- Fast implementation with pre-configure best practices
- Multi-tenant environment, shared infrastructure for cost efficiency



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
- More control over environment than in the public cloud
- Current release cycles
- SAP ERP embedded
- Single-tenant environment



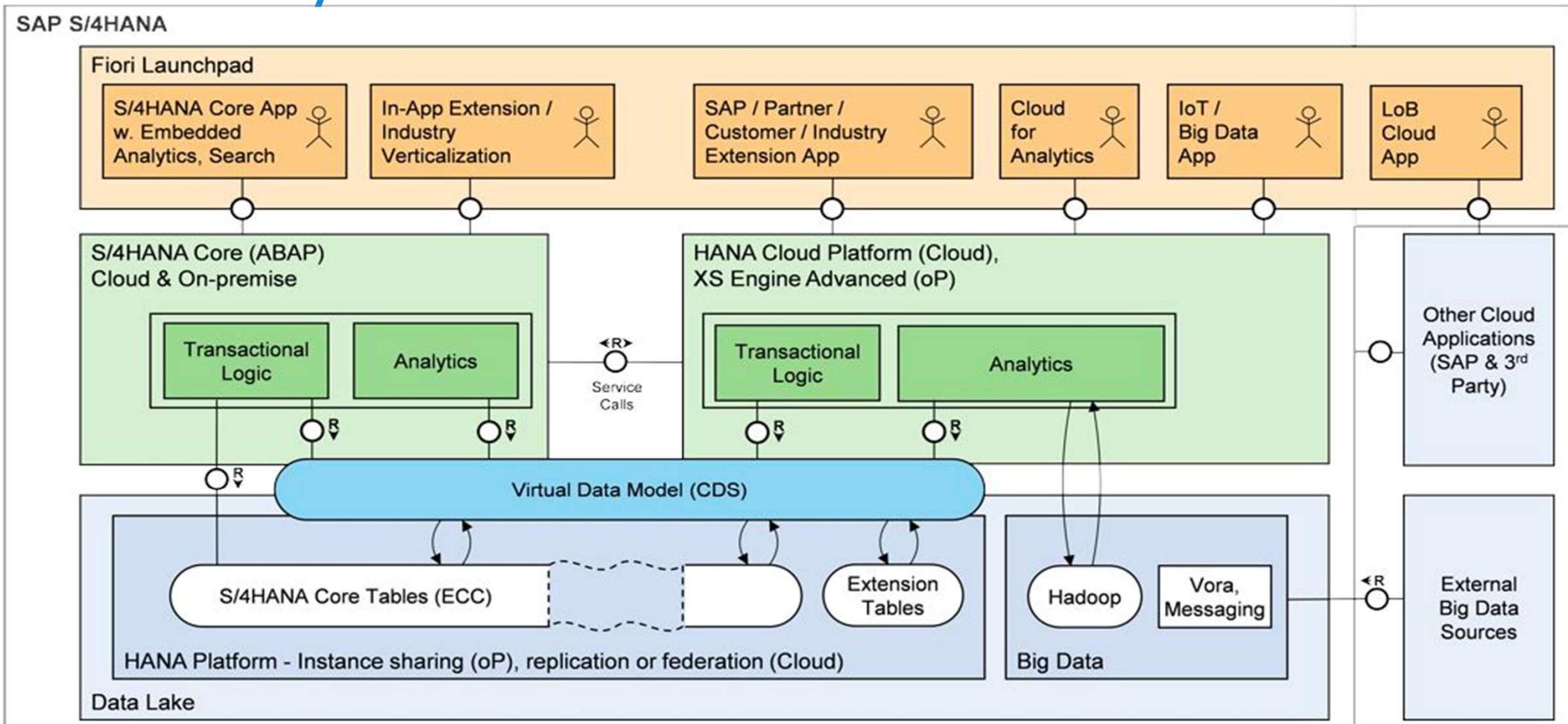
Traditional licensing

→ 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

SAP S/4HANA Architecture

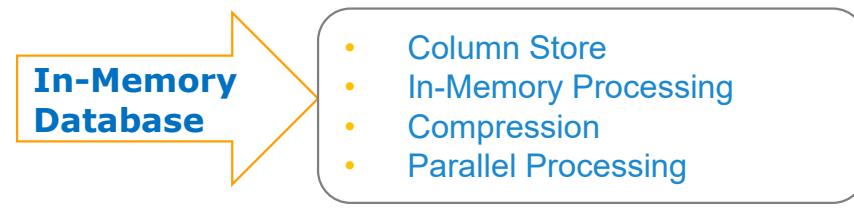
SAP S/4HANA



What's New?

- SAP S/4HANA ...

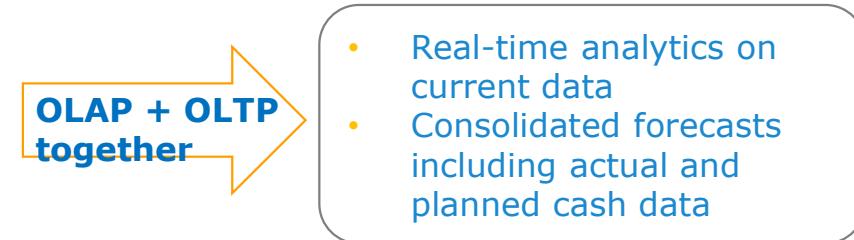
... works with in-memory



... has a new and modern design



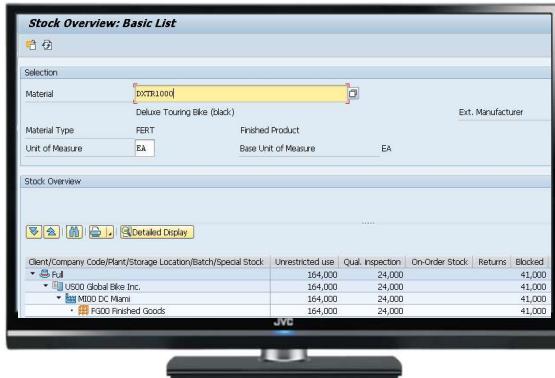
... works with new technology



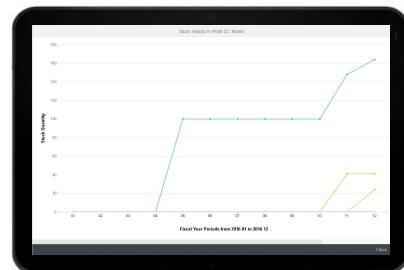
What's New?

SAP FIORI

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



SAP S/4HANA
• Independent of hardware
• Real-time



Simulation



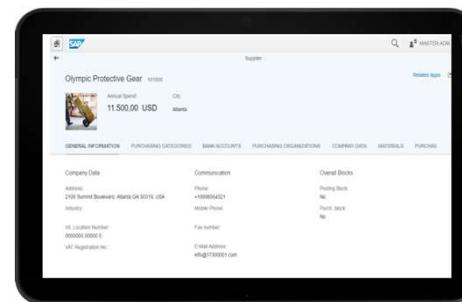
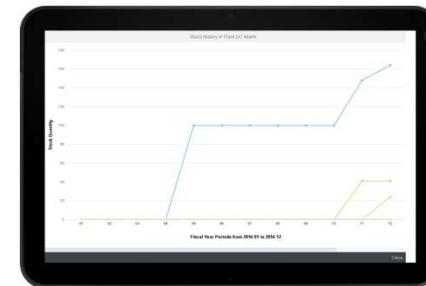
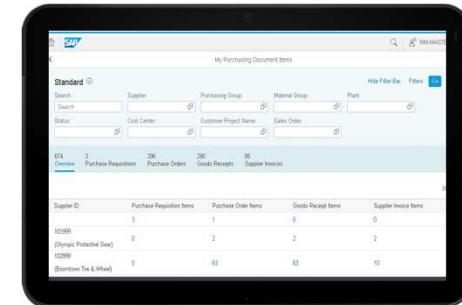
Decision Support



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



Transition to SAP S/4HANA

Greenfield

A completely new implementation of SAP S/4Hana without carrying over legacy system configurations

Best for:

Companies looking for a fresh start with optimized business processes.

Brownfield

A system conversion/migration from an existing SAP ERP (e.g., ECC) to SAP S/4HANA while retaining existing configurations and historical data

Companies wanting a smooth transition while keeping custom developments.

Bluefield

A selective data migration approach where companies choose what to keep and what to redesign while transitioning to SAP S/4HANA

Companies needing a hybrid solution, retaining key data but modernizing processes

Transition to SAP S/4HANA

New Implementation

Scenario description

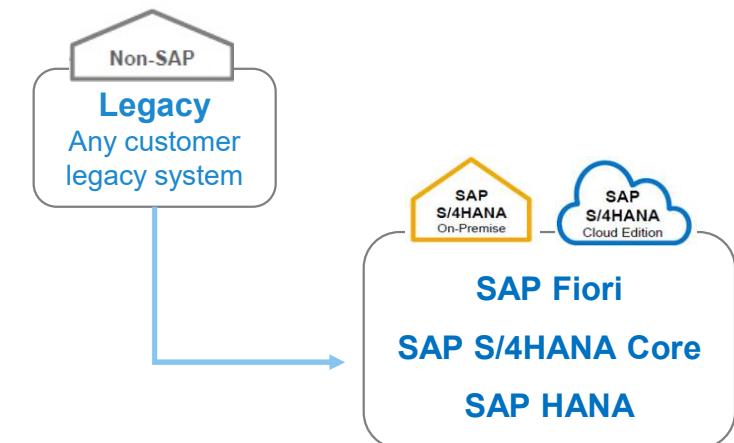
- **New implementation** of SAP S/4HANA
- e.g. for customers migrating a legacy system
(also known as “greenfield” approach)

Benefits for the customer

- Reengineering and process simplification based on ready-to-run business processes
- Predefined migration objects & best practices available with guided configuration
- Reduce time to value and customer total cost of ownership
- Rapid adoption of new innovations

Project duration parameters

- Number of data migration objects (Material, Customer, Vendor, etc.)
- Volume and complexity per data migration object



Transition to SAP S/4HANA

System conversion

Scenario description

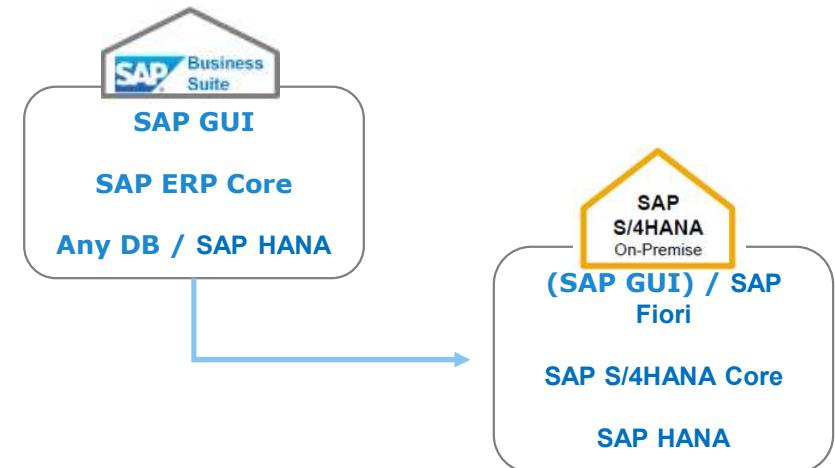
- Customers who want to convert their current system into an SAP S/4HANA system
- Database, SAP NetWeaver and application transition in one step

Benefits for the customer

- Migration without re-implementation
- No disruption for existing business processes
- Re-evaluation of customization and existing process flows

Project duration parameters

- Technical: Number of systems and source database size
- Functional: Number of company codes, ledgers, operating concerns, etc.



Transition to SAP S/4HANA

Landscape transformation

Scenario description

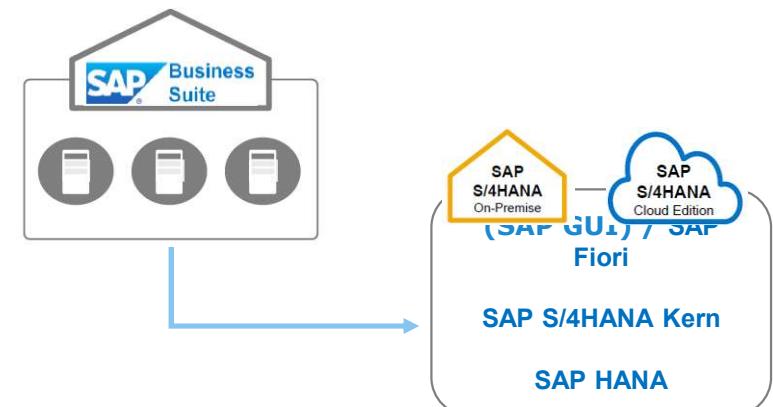
- Customers who want to consolidate their landscape or to selectively transform data into an SAP S/4HANA system

Benefits for the customer

- Selective data transformation allows a phased approach, focusing on parts of the business with highest ROI and lowest TCO
- System and landscape consolidation with harmonized/simplified processes and unified master data lead to lower TCO

Project duration parameters

- General: Depending on the selected sub-scenario (System Consolidation, Selective Migration, Central Finance)
- Specific: Number of systems to be consolidated, volume of selected data



What are Scope Items?

Customer Returns (BKP)
This scope item covers three customer return scenarios:
0 Fragen 0 Notizen

Customer Returns Involving Supplier by Message Exchange (3QD)
1.) Seller returning to supplier:
0 Fragen 0 Notizen

Customer Returns Management - Consumer Products (61V)
This scope item covers the Return to Seller process for a customer return
0 Fragen 0 Notizen

Customer Returns for Non-Stock and Service Materials (3TE)
A non-stock or service material can be used in the returns order. Non-stock and
0 Fragen 0 Notizen

Debit Memo Processing (1F1)
A debit memo request is created with the amount to be debited and placed on a
0 Fragen 0 Notizen

Delivery Processing Without Order Reference (1MI)
If the relevant master data has been previously maintained (for example,
0 Fragen 0 Notizen

Digital Payments - Sales (1Z1)
SAP digital payments is a payment capability for payment service providers
0 Fragen 0 Notizen

Engineer Products and Systems - Project with Production (6GD)
Engineer Products and Systems - Project with Production (6GD) ETO is an end-to-end
0 Fragen 0 Notizen

Scope items contain:

- Process flow diagrams
- Functional descriptions
- Test scripts and Test data
- Best practice configurations

We will often reference scope items.
Examples:

- BKP = Customer Returns
- 6GD = Project with production

InClass: CaseStudy

Global Bike



Global Bike Group



- Background:
 - Global concern using full ERP capabilities
 - Consists of two companies located in the US and in Germany
- History:
 - **John Davis** won numerous mountain bike championships in the US
 - In 1990, started his own mountain bike company (Frankenstein Bikes)
 - **Peter Schwarz** grew up on road bikes in the Black Forest, Germany
 - As a student, he engineered ultra-light composite frames
 - In 1993, started his own bike frame company (Heidelberg Composites)
 - Both met in 2000
 - In 2001, merged to form Global Bike Inc.

Global Bike Group



Strategy:

- John and Peter are Co-CEOs



- John is responsible for (in terms of reporting)
 - Sales, Marketing, Service and Support, IT, Finance, and Human Resources
 - Sells products and brings in money



- Peter is responsible for
 - Research, Design, Procurement, and Manufacturing Groups
 - Builds products and spends money

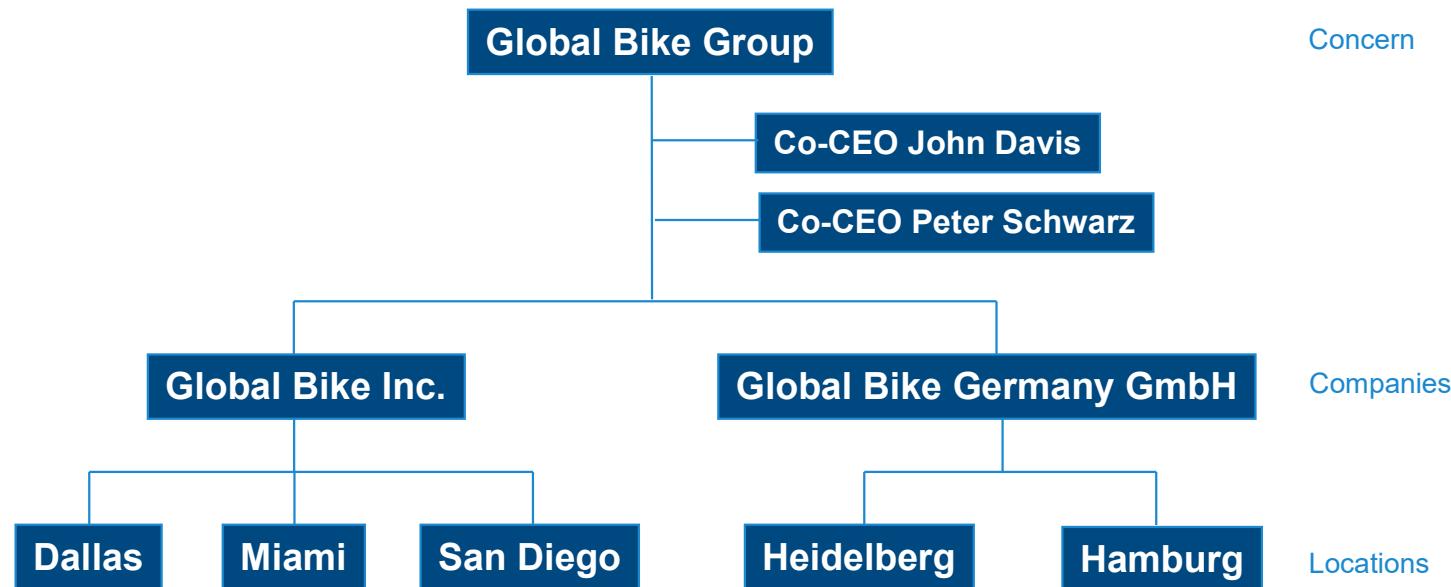


- World-class bicycle company serving both the professional and “prosumer” in touring and off-road racing.



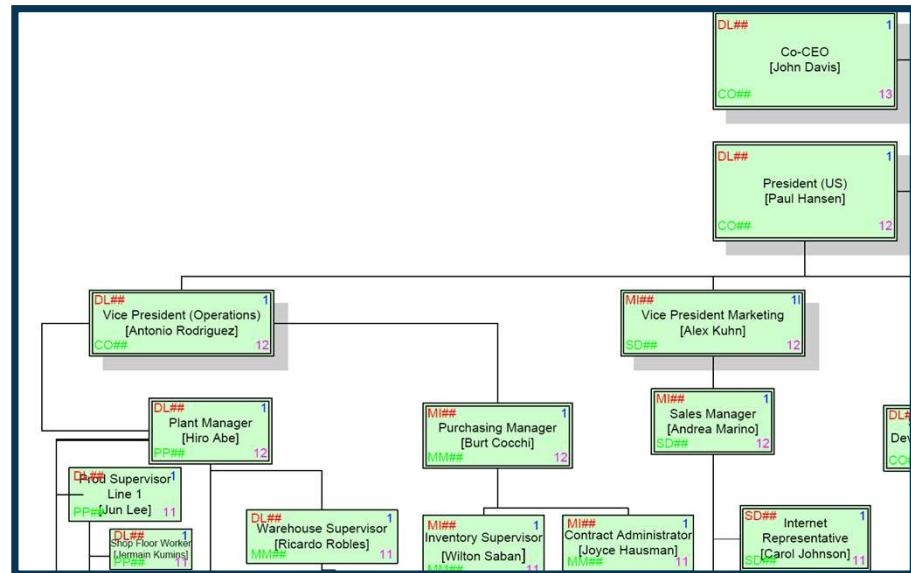
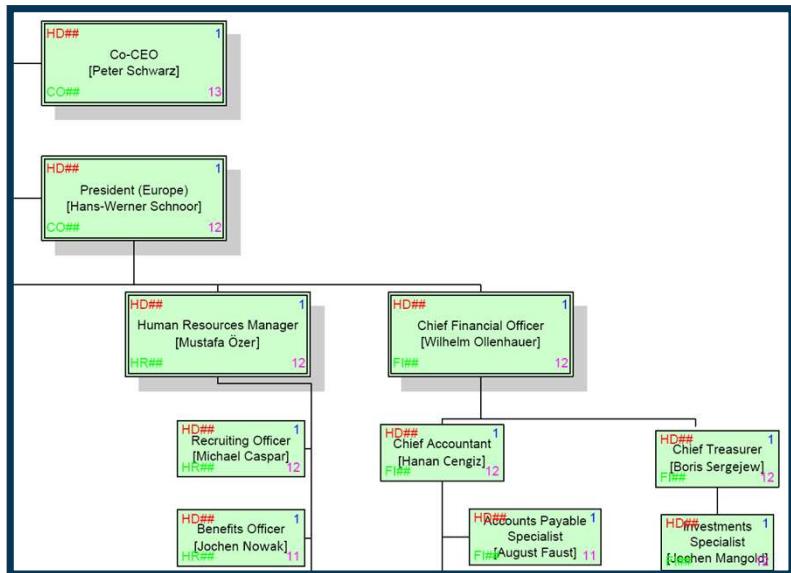
- Focus on:
 - Quality
 - Toughness
 - Performance

Organizational Structure (Overview)



Organizational Structure (Human Resources)

Employees (Germany and US)



Products

- Trading Goods

- Accessories
 - Safety Gear
 - Other

AIR PUMP	EN	PUMP1000
ELBOW PADS	EN	EPAD1000
FIRST AID KIT	EN	FAID1000
KNEE PADS	EN	KPAD1000
OFF ROAD HELMET	EN	OHMT1000
REPAIR KIT	EN	RKIT1000
ROAD HELMET	EN	RHMT1000
T-SHIRT	EN	SHRT1000
WATER BOTTLE	EN	BOTL1000
WATER BOTTLE CAGE	EN	CAGE1000

- Raw Materials

BRAKE KIT	EN	BRKT1000
CARBON COMPOSITE WHEEL	EN	CCWH1000
CHAIN	EN	CHAN1000
CIRCULATION FAN FILTER	EN	FLTR1000
DERAILLEUR GEAR ASSEMBLY	EN	DGAM1000
HEX NUT 5 MM	EN	HXNT1000
LOCK WASHER 5 MM	EN	LWSH1000
MEN'S OFF ROAD FRAME	EN	OFFR1000
OFF ROAD ALUMINUM WHEEL	EN	ORWH1000
OFF ROAD HANDLE BAR	EN	ORHB1000
OFF ROAD SEAT KIT	EN	ORSK1000
OFF ROAD TIRE	EN	ORTR1000
OFF ROAD TUBE	EN	ORTB1000
PACKAGING	EN	PCKG1000
PEDAL ASSEMBLY	EN	PEDL1000
SOCKET HEAD BOLT 5X20MM	EN	BOLT1000
TOURING ALUMINUM WHEEL	EN	TRWH1000
TOURING FRAME-BLACK	EN	TRFR1000
TOURING FRAME-RED	EN	TRFR3000
TOURING FRAME-SILVER	EN	TRFR2000
TOURING HANDLE BAR	EN	TRHB1000
TOURING SEAT KIT	EN	TRSK1000
TOURING TIRE	EN	TRTR1000
TOURING TUBE	EN	TRTB1000
WARRANTY DOCUMENT	EN	WDOC1000
WOMEN'S OFF ROAD FRAME	EN	OFFR2000

Products

▪ Semi-Finished Goods

CARBON COMPOSITE WHEEL ASSEMBLY	EN	CCWA1000
OFF ROAD ALUMINUM WHEEL ASSEMBLY	EN	ORWA1000
TOURING ALUMINUM WHEEL ASSEMBLY	EN	TRWA1000

▪ Finished Goods

- Touring Bikes (Deluxe, Professional) in three colors
- Off-Road Bikes (Men, Women)

DELUXE TOURING BIKE (BLACK)	EN	DXTR1000
DELUXE TOURING BIKE (RED)	EN	DXTR3000
DELUXE TOURING BIKE (SILVER)	EN	DXTR2000
MEN'S OFF ROAD BIKE	EN	ORMN1000
PROFESSIONAL TOURING BIKE (BLACK)	EN	PRTR1000
PROFESSIONAL TOURING BIKE (RED)	EN	PRTR3000
PROFESSIONAL TOURING BIKE (SILVER)	EN	PRTR2000
WOMEN'S OFF ROAD BIKE	EN	ORWN1000

Business Processes



Sell – Fulfillment



Track – Financial Accounting



Buy – Procurement



Track – Controlling



Make – Production



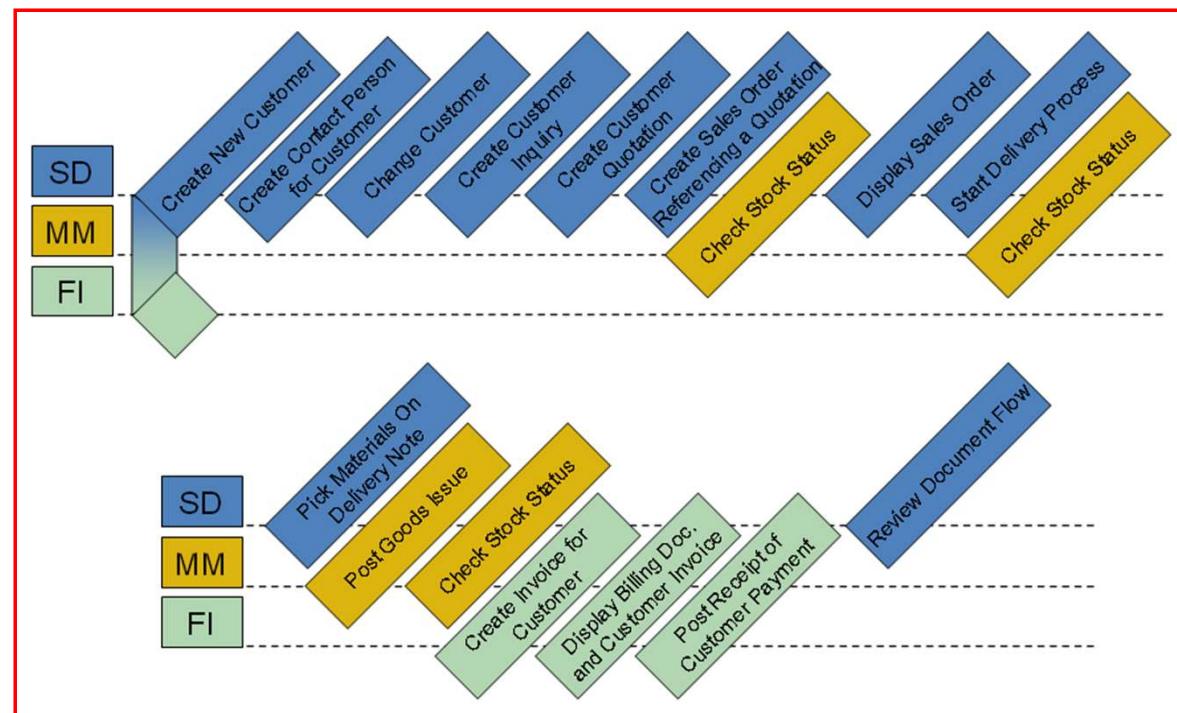
Store – Inventory and Warehouse Management

Cross-functional Integration



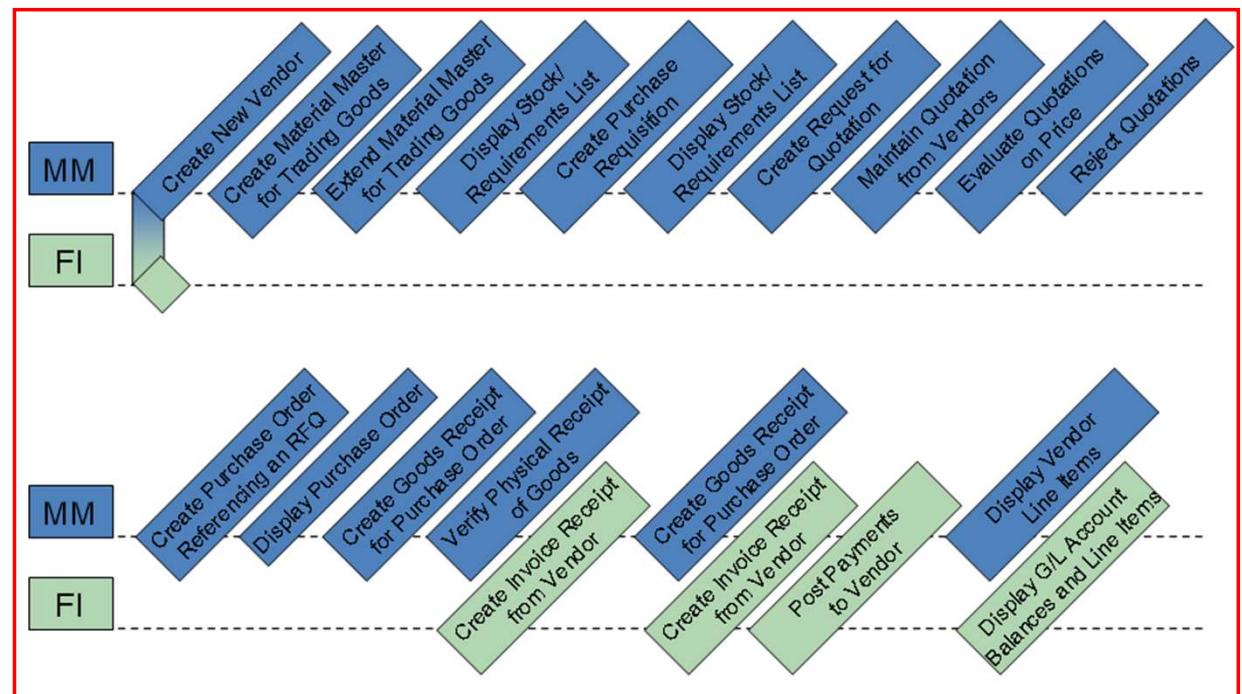
Process Integration (example)

- Order-to-Cash Process
 - Sales and Distribution (SD)
 - Materials Management (MM)
 - Financial Accounting (FI)



Process Integration (example)

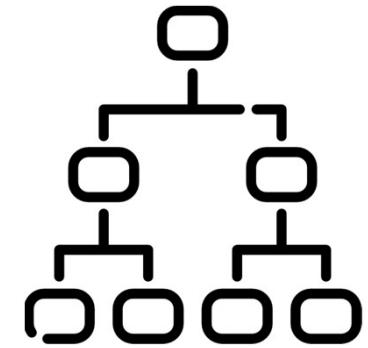
- Procure-to-Cash Process
 - Materials Management (MM)
 - Financial Accounting (FI)



Sales and Distribution (SD)

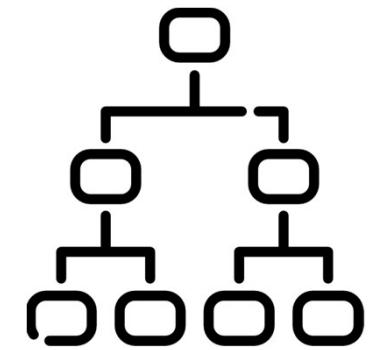
SD Organizational Structure

- Client
 - An independent environment in the system
- Company Code
 - Smallest org unit for which you can maintain a legal set of books
- Credit Control Area
 - An organizational entity which grants and monitors a credit limit for customers.
 - It can include one or more company codes
- Sales Organization
 - An organizational unit responsible for the sale of certain products or services.
 - The responsibility of a sales organization may include legal liability for products and customer claims
- Distribution Channel
 - The way in which products or services reach the customer
 - Typical examples of distribution channels are wholesale, retail, or direct sales

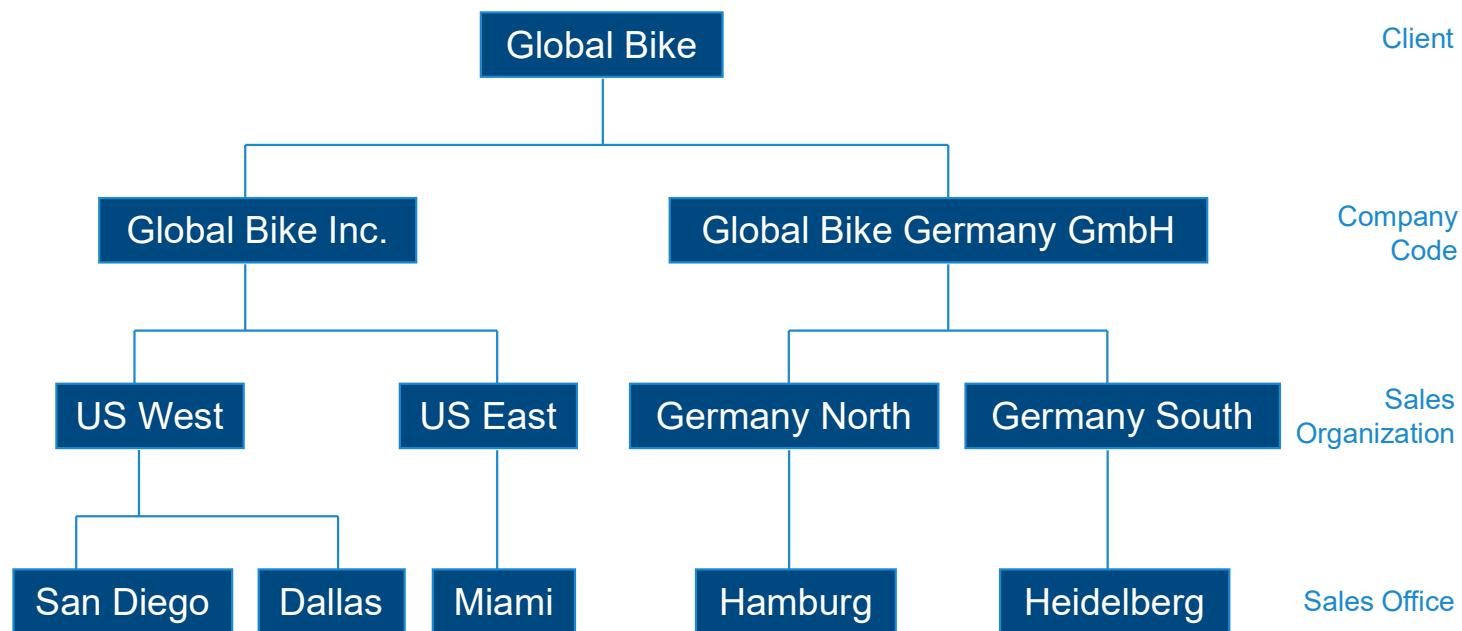


SD Organizational Structure

- Division
 - A way of grouping materials, products, or services
- Sales Area
 - Combination of Sales Organization, Distribution Channel and Division
 - Determines conditions (i.e. pricing) for sales activities
- Plant (here: Delivering Plant)
 - Plant from which the goods should be delivered to the customer
- Other SD organization units:
 - Shipping Point
 - Loading Point
 - Sales Office
 - Sales Group
 - Sales Person



SD Organizational Structure



SD Master Data

- Customer Master Data
 - Contains all of the information necessary for processing orders, deliveries, invoices and customer payment
 - Every customer MUST have a master record
- Material Master Data
- Condition Master Data (Pricing)
 - Condition master data includes:
 - Prices
 - Surcharges
 - Discounts
 - Freights
 - Taxes
 - You can define the condition master to be dependent on various data:
 - Material specific
 - Customer specific

SD Master Data

SAP Display Standard Order 5: Overview

Standard Order: 5 Net Value: 20.092.50 USD

Sold-To Party: 1003063 The Bike Zone 000 / 2144 N Orange Ave / Orlando FL 32804

Ship-To Party: 1003063 The Bike Zone 000 / 2144 N Orange Ave / Orlando FL 32804

Cust. Reference: 000 Cust. Ref. Date: 09/14/2021

Customer Master

Sales Item Overview Item detail Ordering party Procurement Shipping Reason for rejection

Req. Deliv.Date: D 10/14/2021 Deliver.Plant:
Complete Delv.: Total Weight: 57,170 G

Delivery Block: Volume: 0.000

Billing Block: Pricing Date: 09/14/2021

Pty Terms: 0001 Pay immediately w/o deduction

Inco. Version:

Incoterms: FOB

Inco. Location1: Miami

Material Master

All Items

Item	Material	Req. Segment	Order Quantity	Un	S	Item Description
<input type="checkbox"/>	10 DXTR1000			5	EA	Deluxe Touring Bike (black)
<input type="checkbox"/>	20 PRTR1000			2	EA	Professional Touring Bike (black)

Sales Condition

Detailed description: This screenshot shows the SAP SD Master Data interface for a sales order. At the top, it displays basic order information like the standard order number (5), net value (20.092.50 USD), and customer details (The Bike Zone). A yellow oval highlights the 'Sold-To Party' and 'Ship-To Party' fields. Another yellow oval highlights the 'Total Weight' field (57,170 G). A third yellow oval highlights the 'Incoterms' field (FOB) and the material numbers listed in the table below. To the right of the interface, three blue cylinders are labeled 'Customer Master', 'Material Master', and 'Sales Condition', representing the master data domains involved in this transaction.

SD Master Data

- **Customer Master**

- Contains all the information necessary for processing orders, deliveries, invoices and customer payment
- Every customer MUST have a master record
 - But you can have one-time customers

- **Condition Master Data (Pricing)**

- Condition master data includes:
 - Prices
 - Surcharges
 - Discounts
 - Freights
 - Tax

- You can define the condition master to be dependent on various data:
 - Material specific
 - Customer specific

- The customer master information is divided into 3 areas:

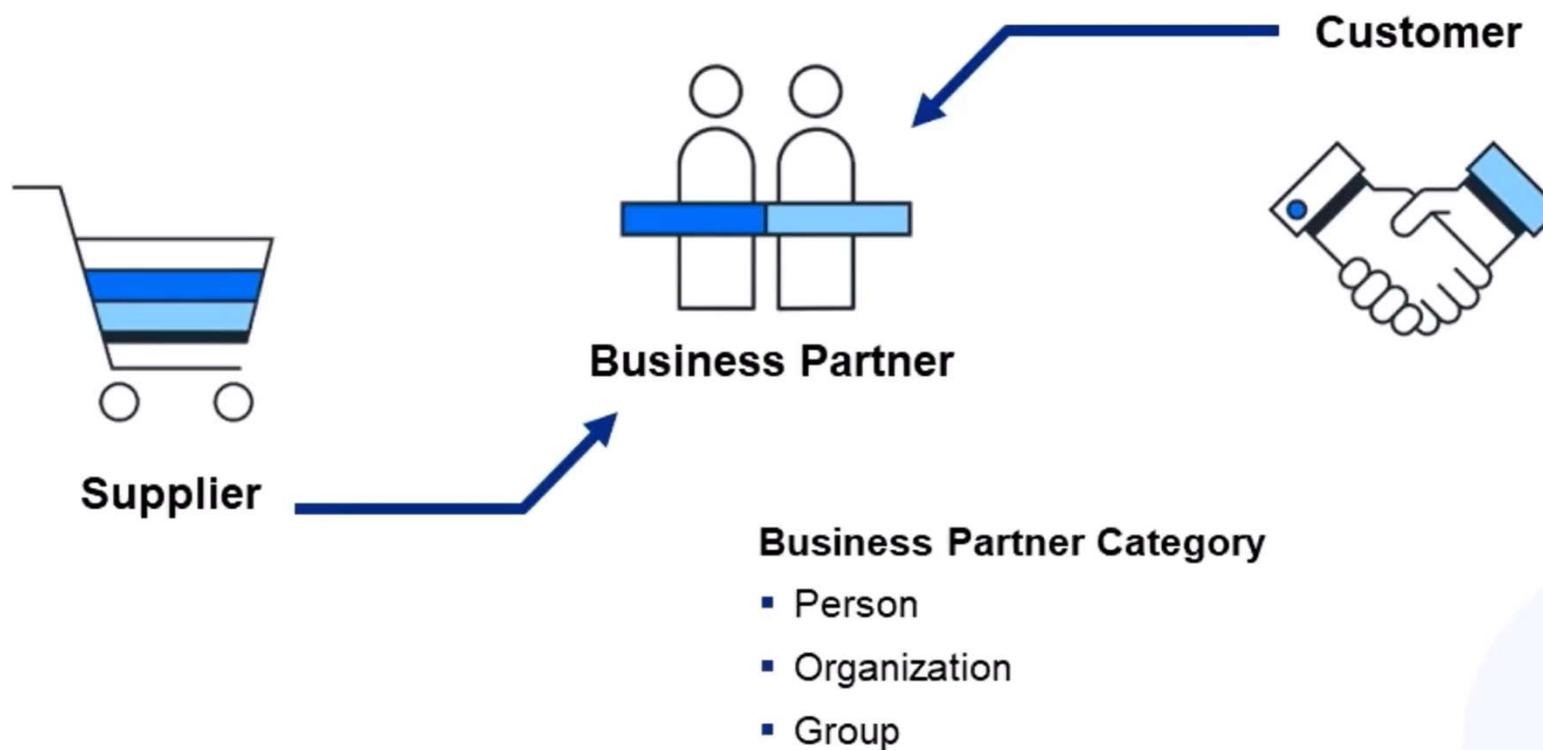
- General Data
- Company Code Data
- Sales Area Data

The screenshot shows the SAP Business Partner interface for a customer record. The header displays the SAP logo and 'Business Partner'. The main area shows the customer details for 'The Bike Zone 000' (ID 1003063). Key information includes:

- General Information:** Title: Company, Name 1: The Bike Zone 000, Name 2: (empty), Name 3: (empty).
- Address:** Grouping: Internal number assignment (0001), Business Partner Category: Organization (2), Standard Address: 2144 N Orange Ave 32804 Orlando US.
- Communication:** Standard Communication.

The navigation bar at the bottom includes tabs for Basic Data, Roles, Address, Bank Accounts, Payment Cards, Identification, Contacts, and Attachments.

Concept of the Central Business Partner



Overview of the Business Partner Roles

Business Partner (Basic Data)

e.g.: Name, Search Term, Address, Bank Accounts, Tax Numbers

Supplier (Financial Accounting)

e.g.: Company Codes, Reconciliation Account, payment terms, payment methods, House bank

Supplier (Purchasing - MM)

e.g.: Purchasing Organizations, Purchasing Group, Order Currency, Incoterms

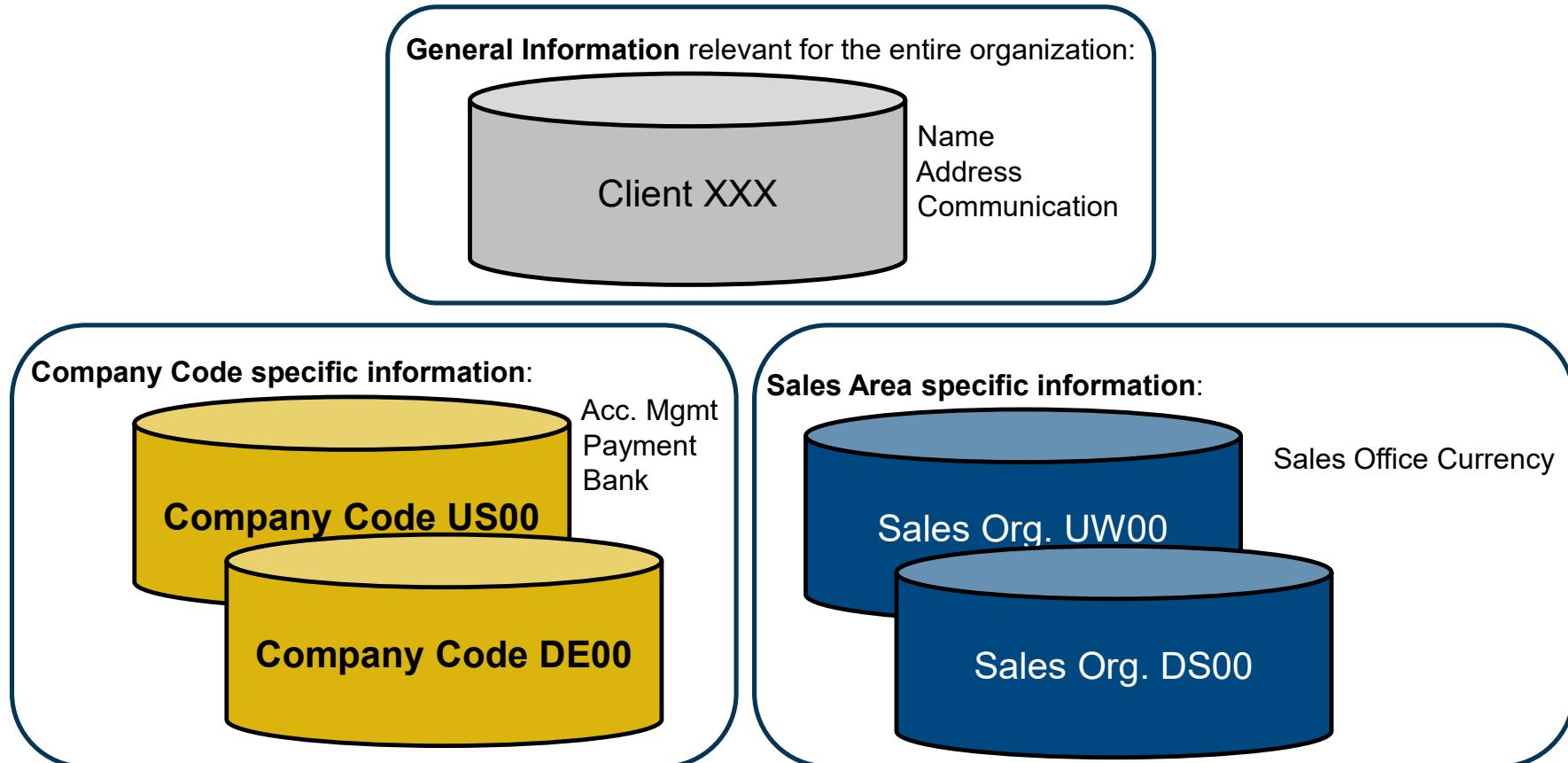
Customer (Financial Accounting)

e.g. Company Codes, Reconciliation Account, payment terms, dunning data

Customer (Sales - SD)

e.g.: Sales Areas, Distribution Channel, Incoterms, payment terms, delivery plant

Customer Master



Create Customer Master

- Name 1: Bike Center ### S25
- Roles:
 - FLCU00
 - FLCU01
- Company Code:
 - US00
- Sales Organisation
 - US East

Create Customer Master -

- Name 1: Bicycle accessoires ###
- Roles:
 - FLCU00
 - FLCU01
- Company Code:
 - US00
- Sales Organisation
 - US East

Try the exercise on your own!

Material Master Data

- Material Master contains all the information a company needs to manage a material
- It is used by most components within the SAP system
 - Sales and Distribution
 - Materials Management
 - Production
 - Plant Maintenance
 - Accounting/Controlling
 - Quality Management
- Material master data is stored in functional segments called Views

The screenshot shows the SAP Material Master Data view for a product named "Deluxe Touring Bike (black)" with ID "DXTR1000". The top navigation bar includes the SAP logo, a back arrow, and a "Product" dropdown. Below the header, there are sections for "General Information", "Product Compliance", "Components", "Texts", "Sales", "Storage", and "Warehouse Management". The "General Information" tab is selected, displaying the following details:

Product Type:	Finished Product (FERT)	Base Unit of Measure:	Each (EA)	Revision Level:	
Product Category:	Product	GTIN:		GTIN Category:	
Product Group:	Finished Bikes (BIKES)				

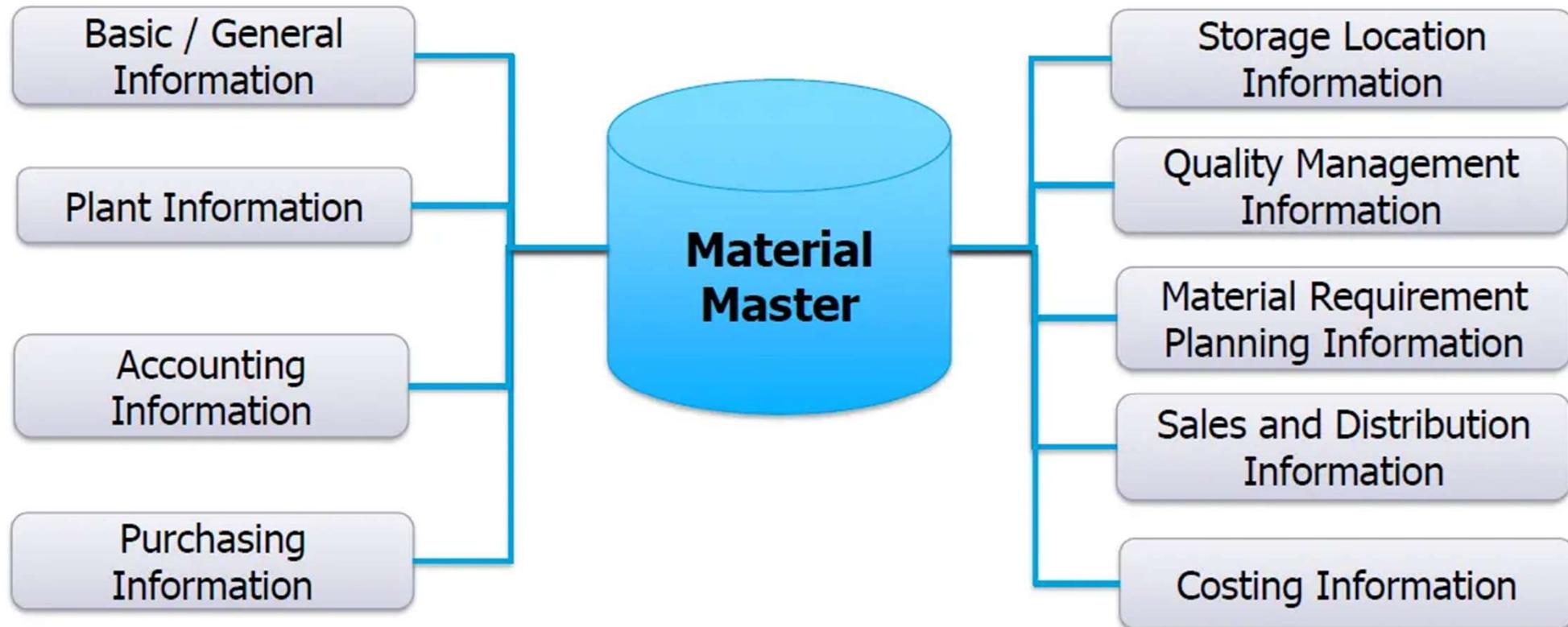
Under the "Basic Data" section, the following fields are shown:

Division:	Bicycles (BI)	Batch Management Required:	No
Old Product Number:	-	Marked for Deletion:	No

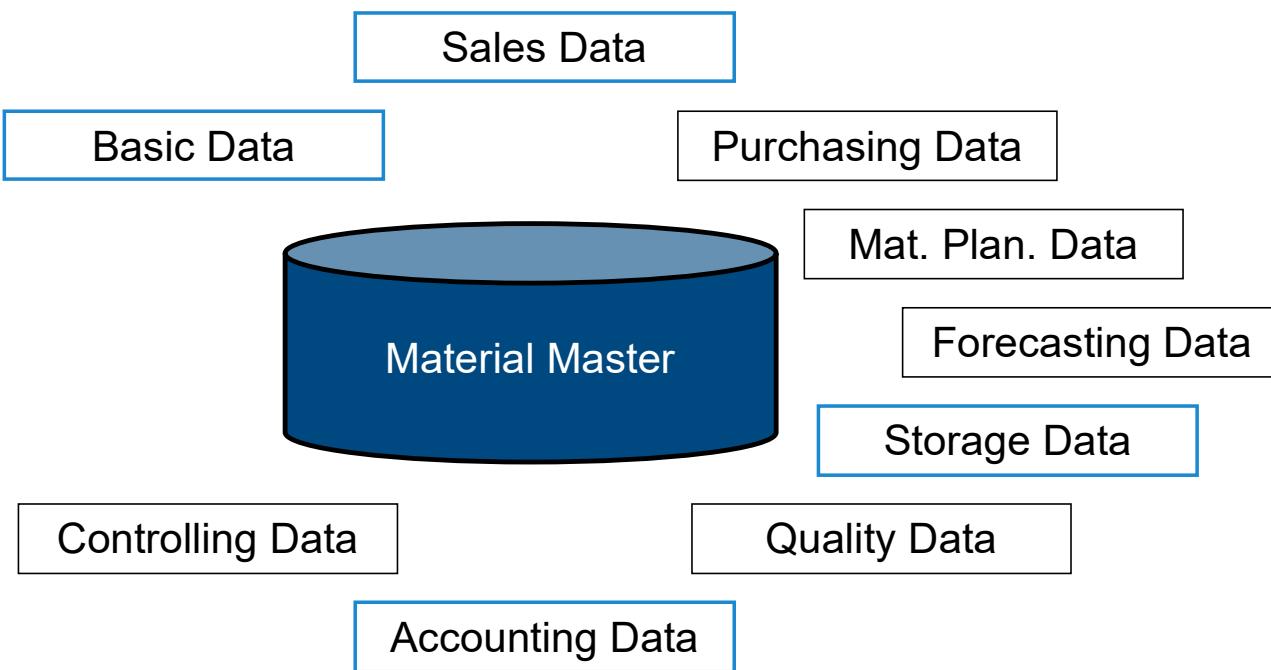
Under the "Descriptions" section, the following language mappings are listed:

Language	Product
German DE	Deluxe Touring Bike (schwarz)
English EN	Deluxe Touring Bike (black)

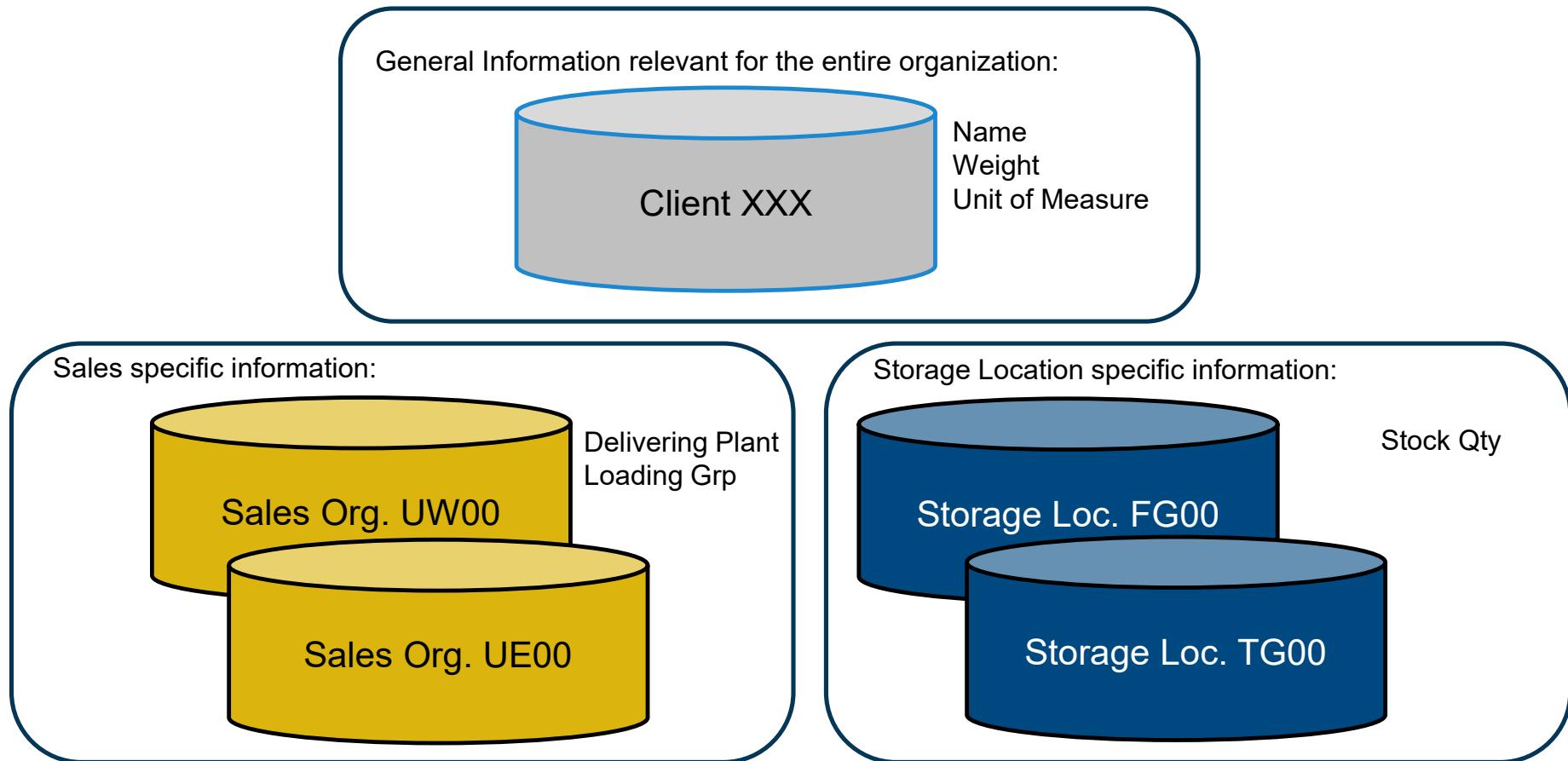
MATERIAL MASTER DATA STRUCTURE



Material Master Views



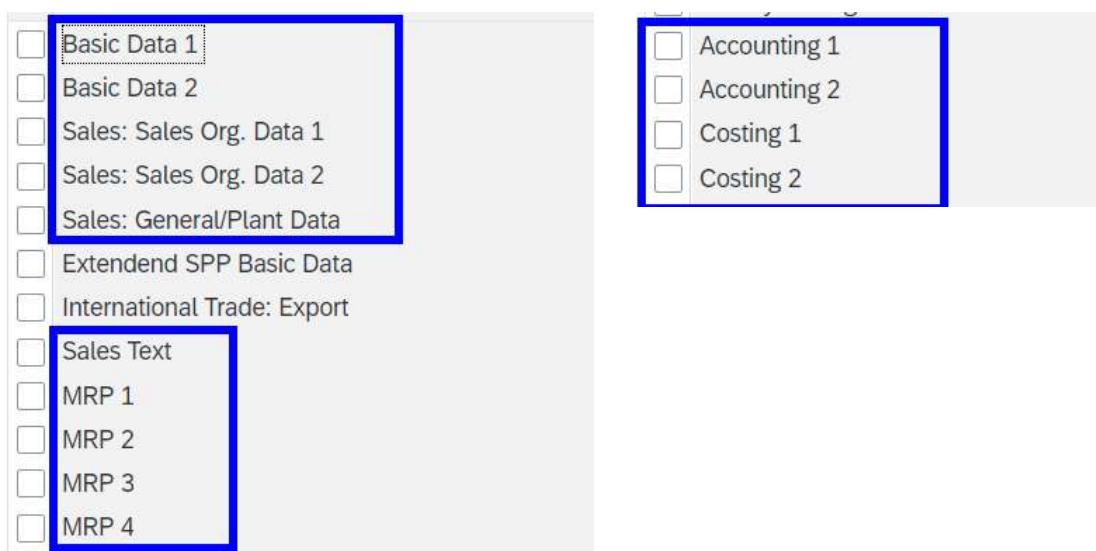
Material Master



Create Material Master

- Descr: Mountainbike ### - Green

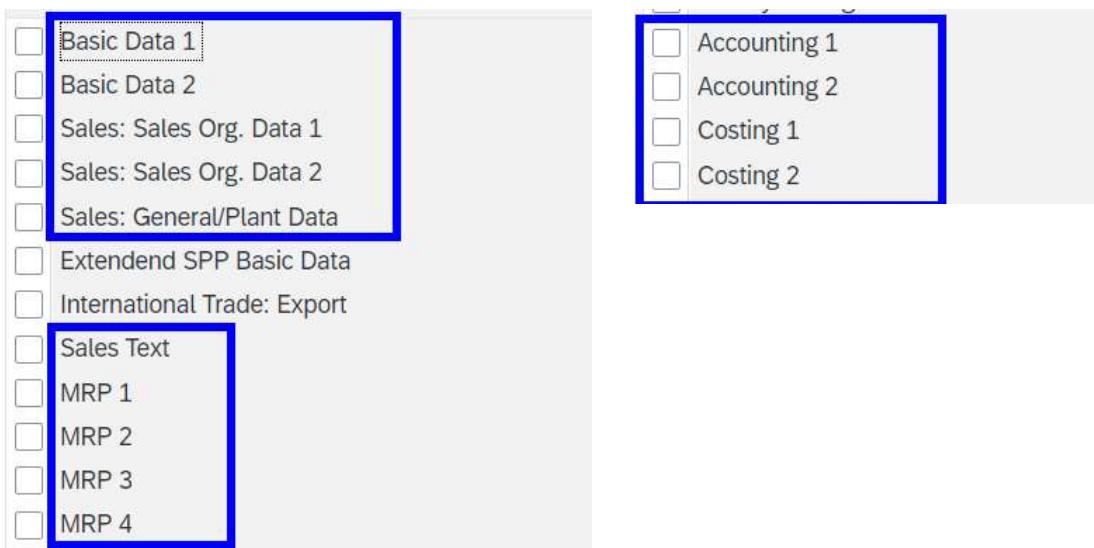
- Views:



- Plant:
 - MI00 DC Miami
- Sales Org:
 - UE00
- Distr. Channel:
 - WH

Create Material Master

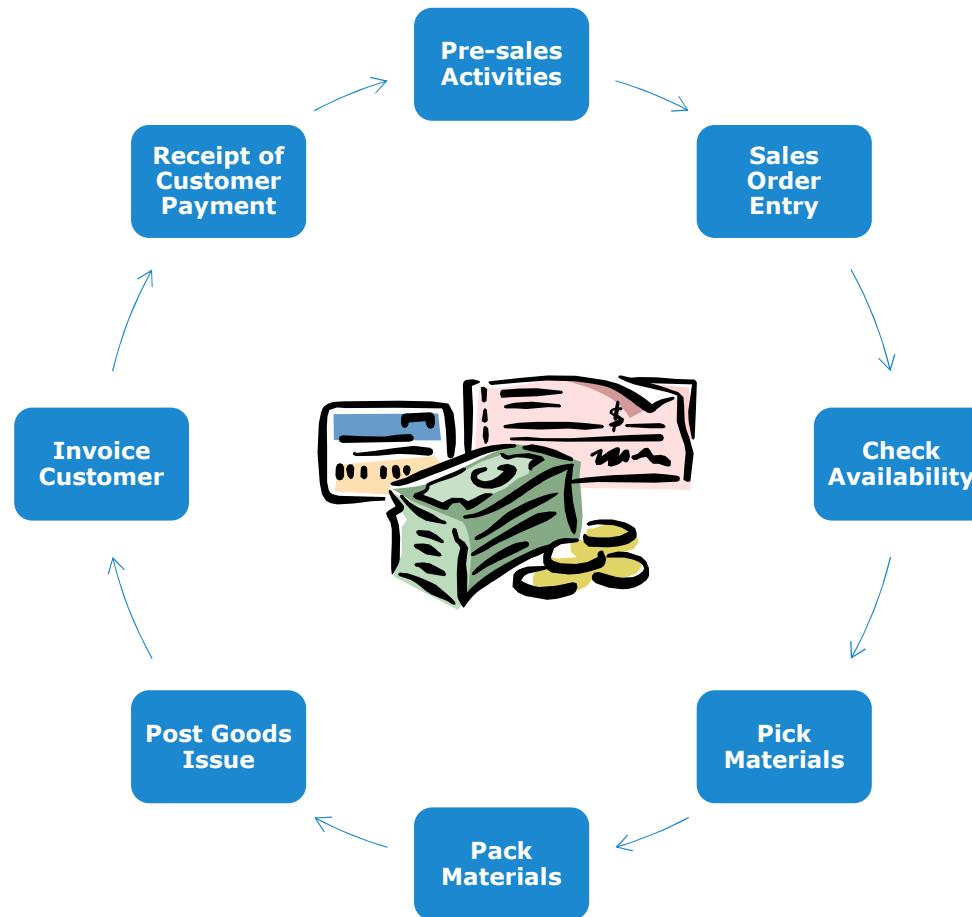
- Descr: bicycle chain ### - Black
- Views:



- Plant:
 - MI00 DC Miami
- Sales Org:
 - UE00
- Distr. Channel:
 - WH

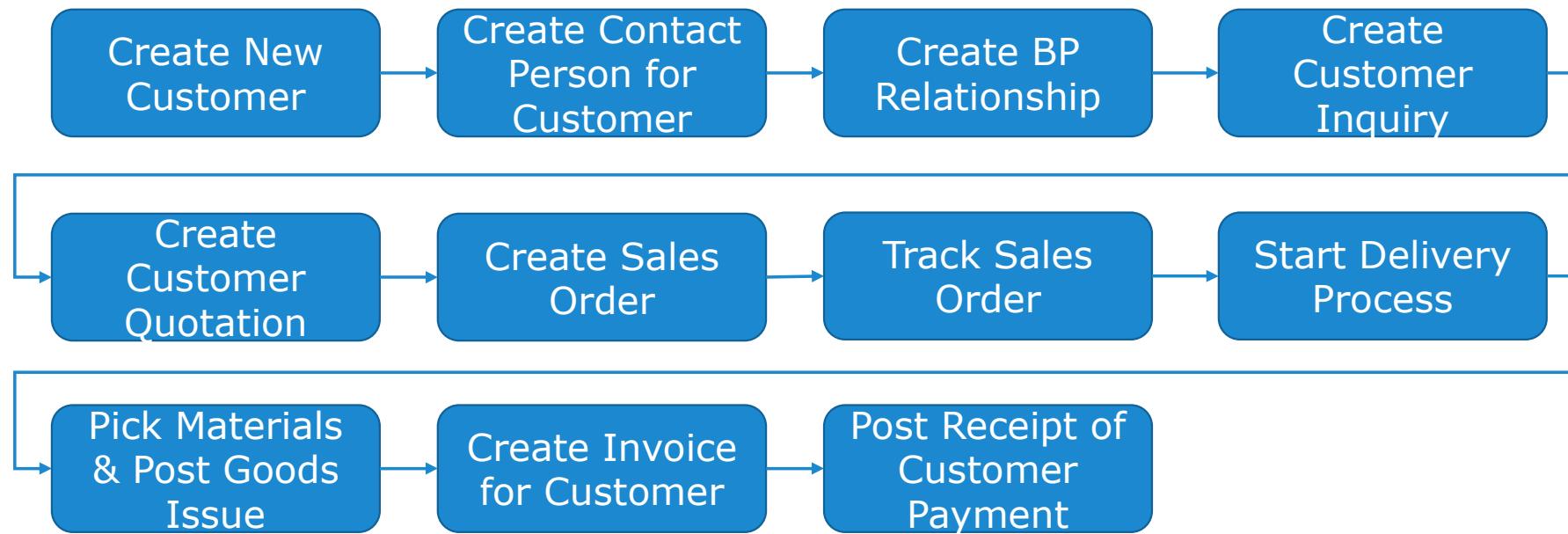
Try the exercise on your own!

Sales Order Process



Integrated order-to-cash cycle

Integrated order-to-cash cycle



Inquiry

An inquiry is a customer's request to a company for information or quotation in respect to their products or services without obligation to purchase.

- How much will it cost
- Material/Service availability
- May contain specific quantities and dates

The inquiry is maintained in the system and a quotation is created to address questions for the potential customer

- A way of grouping materials, products, or services

Company The Bike Zone 2105 N Lewis Ave Portland OR 97227	Inquiry					
	Number/Date 10000002 / 04/21/2010					
	Reference no./Date 000 /04/21/2010					
	Delivery date Day 04/21/2010					
	Cust. no. 1301					
	Validity period 04/21/2010 bis 05/21/2010					
We deliver according to the following conditions: Terms of payment Payable immediately without deduction	Currency USD					
Terms of delivery FOB San Diego						
Weights (gross/net) - Volume - Mark						
Gross weight 57,170 G	Net weight 57,170 G					
Please see our promotional offer enclosed. Delivery as long as stocks last.						
Item	Material	Qty	Description	Price	Price unit	Value
000010 DXTR1000	5 EA		Deluxe Touring Bike (black)	3,000.00	USD	1 EA 15,000.00
000020 PRTR1000	2 EA		Professional Touring Bike (black)	3,200.00	USD	1 EA 6,400.00
Final amount						21,400.00

Quotation

- The quotation presents the customer with a legally binding offer
 - to deliver specific products or a selection of a certain amount of products
 - in a specified timeframe
 - at a pre-defined price
 - Legally binding on the vendor

Company The Bike Zone 2105 N Lewis Ave Portland OR 97227	Quotation					
	Number/Date 20000000 / 04/21/2010 Reference no./Date 000 /04/21/2010 Delivery date Day 04/21/2010 Cust. no. 1301 Validity period 04/21/2010 bis 05/21/2010					
We deliver according to the following conditions: Terms of payment Payable immediately without deduction Currency USD						
Terms of delivery FOB San Diego						
Weights (gross/net) - Volume - Mark Gross weight 57,170 G Net weight 57,170 G						
Please see our promotional offer enclosed. Delivery as long as stocks last.						
Item	Material	Description		Price	Price unit	Value
	Qty					
000010 DXTR1000		Deluxe Touring Bike (black)				
	5 EA	3,000.00	USD	1 EA		15,000.00
Material		50.00-	USD	1 EA		250.00-
% Discount from N		5.000-	%			737.50-
Net Value for Ite		2,802.50	USD	1 EA		14,012.50
000020 PTRR1000		Professional Touring Bike (black)				
	2 EA	3,200.00	USD	1 EA		6,400.00
Material		50.00-	USD	1 EA		320.00-
% Discount from N		5.000-	%			
Net Value for Ite		3,040.00	USD	1 EA		6,080.00
Final amount		20,092.50				

Sales Order

- Sales order processing can originate from a variety of documents and activities:

- 📞 Customer contacts us for order: phone, internet, email
- 📅 Existing Contract
- 📄 Quotations

Sales Order

- The sales document is made up of three primary areas:

- Header

- Data relevant for the entire sales order: Ex: customer data, total cost of the order

- Line Item(s)

- Information about the specific product: Ex: material and quantity, cost of an individual line

- Schedule Line(s)

- Uniquely belongs to a Line Item, contains delivery quantities and dates for partial deliveries

SAP Display Standard Order 5: Overview

Standard Order: 5	Net Value: 20,092.50 USD					
Sold-To Party: 1003063	The Bike Zone 000 / 2144 N Orange Ave / Orlando FL 32804					
Ship-To Party: 1003063	The Bike Zone 000 / 2144 N Orange Ave / Orlando FL 32804					
Cust. Reference: 000	Cust. Ref. Date: 09/14/2021					
Sales						
Req. Deliv.Date: D 10/14/2021	Deliver.Plant:					
Complete Dlv: <input type="checkbox"/>	Total Weight: 57,170 G					
Delivery Block:	Volume: 0.000					
Billing Block:	Pricing Date: 09/14/2021					
Pty Terms: 0001 Pay immediately w/o deduction						
Inco. Version:						
Incoterms: FOB						
Inco. Location1: Miami						
All Items						
Item	Material	Req. Segment	Order Quantity	Un	S	Item Description
<input type="checkbox"/> 10 DXTR1000			5 EA	<input type="checkbox"/>		Deluxe Touring Bike (black)
<input type="checkbox"/> 20 PRTR1000			2 EA	<input type="checkbox"/>		Professional Touring Bike (black)

Sales A	Sales B	Shipping	Billing Document	Conditions	Account Assignment	Schedule lines	Partner	Texts	Order Data	Status	Structure
Fixed Date and Qty: <input type="checkbox"/>						Order Quantity: 5 EA					
						Delivery Time:					
						Delivered qty: 5					
<input type="checkbox"/> Sales <input type="checkbox"/> Shipping <input type="checkbox"/> Procurement											
Quantities/Dates											
P..	Delivery Date	Order Quantity	Rounded qty	Confirmed Qty	Sa...	Delivery Block	Delivered qty	Sch...	Purchase Re...	Requ...	
<input type="checkbox"/> D	10/14/2021	5	5	5	EA	v	5	CP		0	

Create Sales Order

- ..
- Views:
- Plant:
 - MI00 DC Miami
- Sales Org:
 - UE00
- Distr. Channel:
 - WH

Try the exercise on your own!

Create Sales Order

- ..
- Views:
 - Plant:
 - HH
 - Sales Org:
 - DN00
 - Distr. Channel:
 - WH

Try the exercise on your own!

SD Challenge

Try the exercise on your own!

Scenario Your customer has opened a new store *Alster Adventures* and wishes to profit from your new initiative, which promises one free off-road helmet for each mountain bike ordered. A single position can be marked as Free of Charge Item (Hint: ITEM Category TANN) within the Item detail view of a standard order. Please note that off-road helmets belong to a different division. Create a new customer *Alster Adventures* by copying from *Capital Bikes* (Debitor 140000). Both customers are sharing one address. Your new customer should be supplied from the factory in Hamburg (HH00) via the sales organization Germany North (DN00). Remember that in Europe, the EURO is the usual currency. German companies are taxable. Notice that you need to create your customer *Alster Adventures* for all three divisions to be able to release cross-division orders.

Subsequently, please order five mountain bikes for men and five mountain bikes for women in the role of *Alster Adventures*. Since *Alster Adventures* is a new customer, the company gets 50\$ discount on each ordered mountain bike and an additional discount of 3% of the net price for the complete purchase.

Note the new customer will be created by references to a German customer, so the standard communication language is automatically set to German.

Task Information Perform a complete order-to-cash-process