

Warehouse Management (WM)

Curriculum: Introduction to S/4HANA using Global Bike

Teaching material - Information

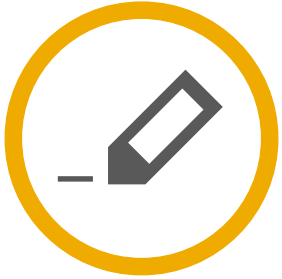


Teaching material - Version

- 4.3 (July 2025)
- Software used
 - SAP S/4HANA 2023
 - Fiori 3.0
- Model
 - Global Bike
- Prerequisites
 - No Prerequisites needed



Module Information



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Target Audience

- Beginner

Module Information



Learning Objectives

You are able to

- name some functionalities of the WM module.
- define the central organizational structures of the WM module.
- summarize the master data which is most important for the WM module.
- explain standard Warehouse Management processes.

Functionality

- Goods Receipt
- Goods Issue
- Picking
- Packing
- Shipping
- Physical Inventory

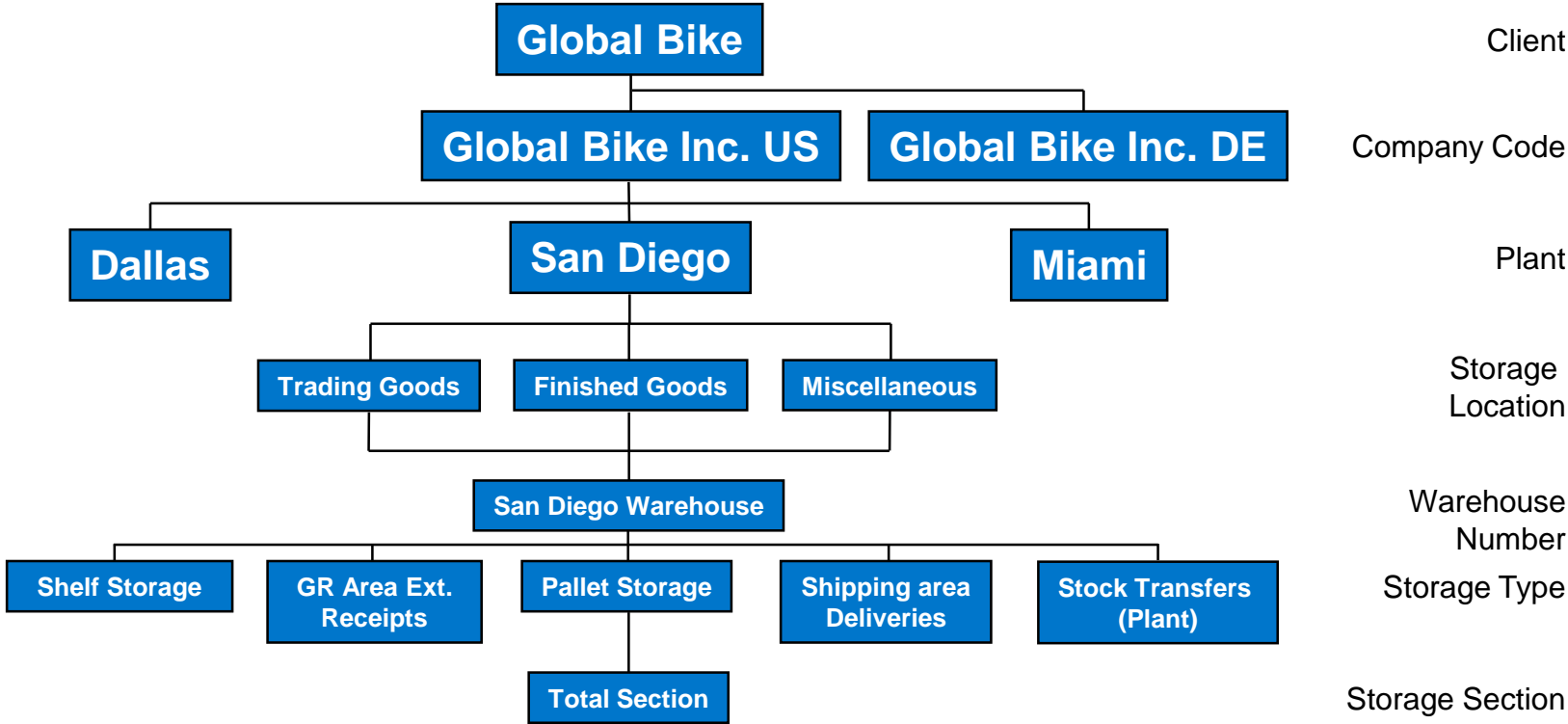
Agenda

- WM Organizational Structure
- WM Master Data
- WM Process Management and Control

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WM Organizational Structure



WM Organizational Structure

- Client
 - An independent environment in the system
- Company Code
 - Smallest organisational unit for which you can maintain a legal set of books
- Plant
 - Operating area or branch within a company
 - Manufacturing, distribution, purchasing or maintenance facility
- Storage Location
 - An organizational unit allowing differentiation between the various stocks of a material in a plant

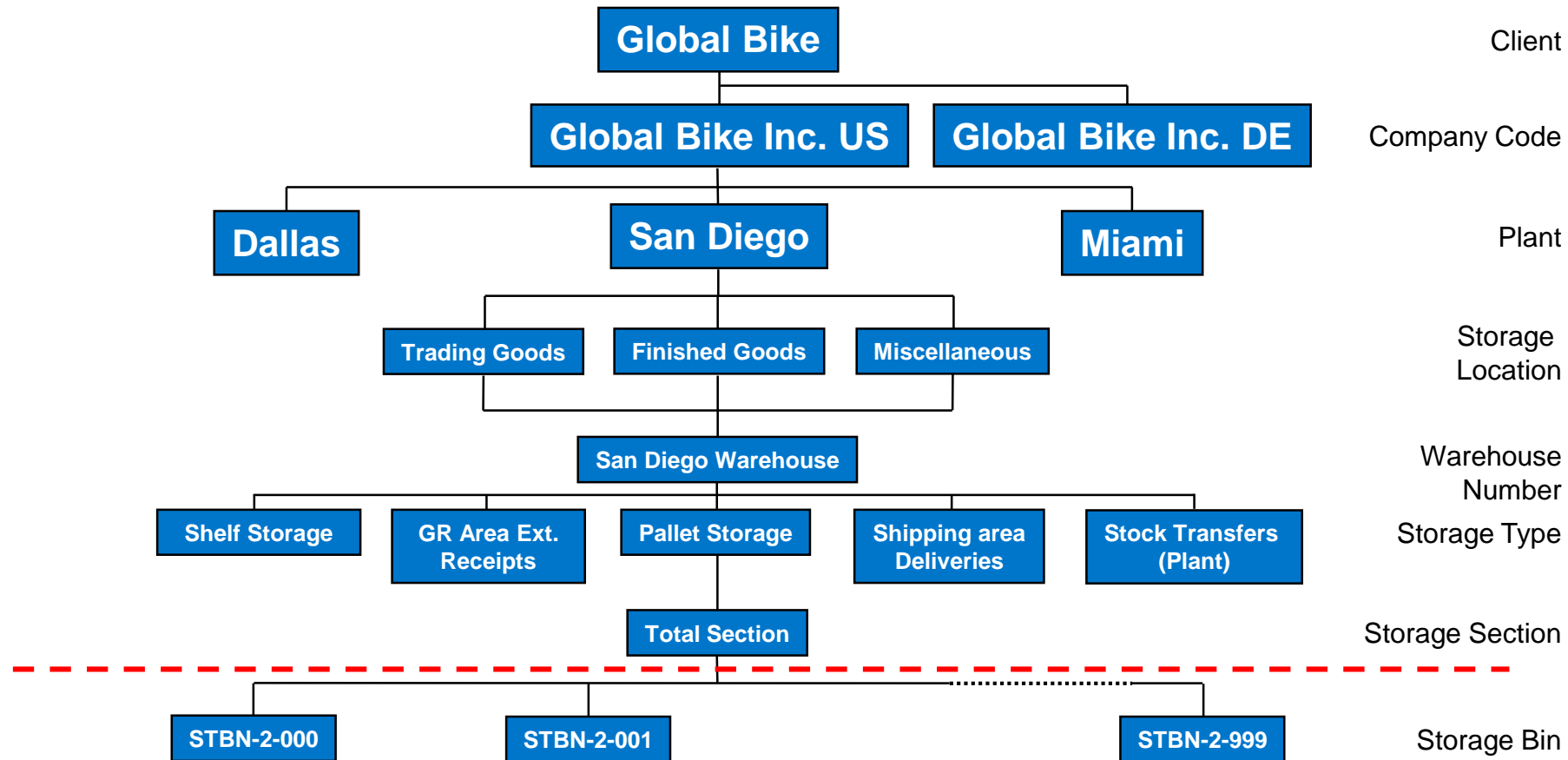
WM Organizational Structure

- Warehouse Number
 - Number that identifies a complex, physical warehouse structure within the warehouse management system
- Storage Type
 - Subdivision of a complex, physical warehouse
 - Is identified by its warehousing technique, form of organization, or its function
- Storage Section
 - Logical or physical subdivision of a storage type
 - Groups together a series of similar storage bins
- Picking Area
 - Groups storage bins together from the standpoint of picking strategies

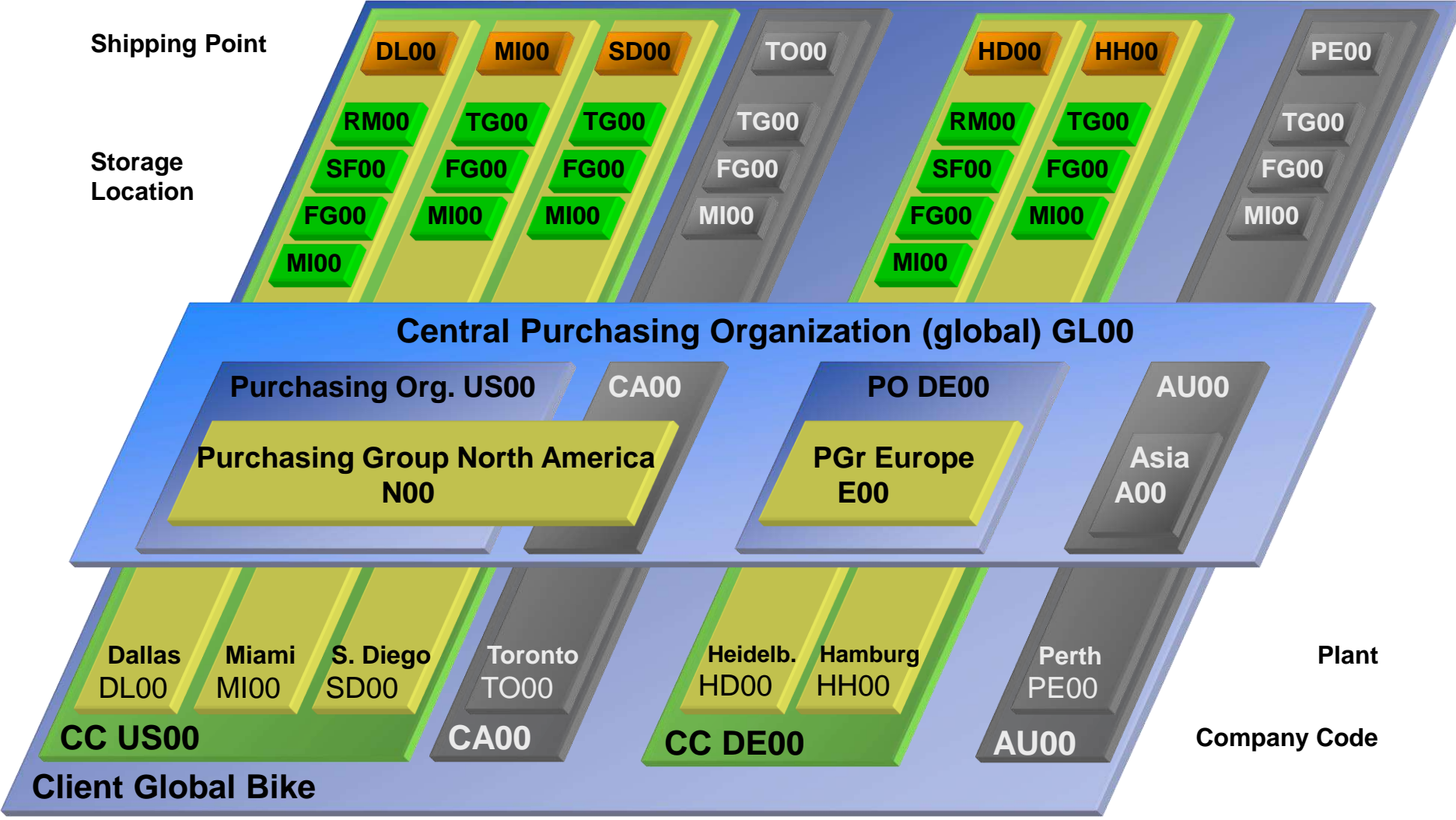
WM Organizational Structure

- Warehouse door
 - Marks the point where the means of transport changes to an internal transportation
- Allocation Zone
 - Temporary storage of goods, which have just arrived or will be shipped soon
- Shipping Point
 - Is the part of the company responsible for the type of shipping, the necessary shipping materials and the means of transport
- Storage Bin
 - Smallest addressable unit in a warehouse, which identifies the exact location in the warehouse where goods can be stored
 - Master Data

Global Bike Structure for Warehouse Management



Global Bike Enterprise Structure in SAP ERP (Logistics)



Agenda

- WM Organizational Structure
- **WM Master Data**
- WM Process Management and Control

WM Master Data

SAP

Display Transfer Requirement: List for Material ▾

Menu ▾

Warehouse Number

100

Material

DXTR1000

Plant

SD00

Location

FG00

Batch

Shipment Type

▾

Stock Segment:

Stock Cat.

*

Special Stock

*

Status of Movement

☐ Processing Complete

General Selection Criteria

Transfer Priority:

Execute From (Date):

Execute to (Date):

Requirement Number:

Additional Number:

Source Storage Type:

Dest. Storage Type:

Layout:

Storage Bin Master Data

Material Master Data

Hazard Master Data

Batch Master Data

Storage Bin Master Data

■ Storage Bin Master Data

- Two different organizational levels
 - Warehouse Level:
All indicators and fields which are valid for the whole warehouse
 - Storage Type Level:
All indicators which are only valid for specific storage types
- Also includes Storage Bins and Quants

The screenshot displays the SAP 'Display Storage Bin' (SAP T-Code: 309) interface. The header shows the SAP logo and the title 'Display Storage Bin'. Below the header, there are input fields for 'Warehouse No.' (100), 'Storage Type' (001), and 'Storage Bin' (STBN-1-200). The 'Storage Type' is labeled 'Shelf Storage'. The main area is divided into tabs: 'Stor. bin', 'Stock', 'Invent.', 'Bin sectioning', and 'Statistic'. The 'Stor. bin' tab is active, showing fields for 'Storage Section' (001), 'Picking Area', 'Fire-cont.sect.', 'Stor. bin type' (S1 Shelf), 'Maximum Weight' (9,999,000 LB), 'Total capacity' (0,000), 'Utilization' (0.00), 'Occupied weight' (0,000), 'Cap.used' (0,000), 'No. of quants' (0), and 'No.stor.units' (0,000). Below these fields, there is a 'Status' section with checkboxes for 'Putaway block' and 'Stock Removal Block', and a 'Blk.reason' field. At the bottom, there is a 'Stock per storage bin' table with columns for 'Material', 'Plant', 'Loc...', 'Total Stock', 'Ba...', and 'Batch'. The table is currently empty. At the very bottom, there are buttons for 'Quant', 'Stor.unit', and several navigation icons.

Storage Bin Master Data

- Storage Bin: Smallest addressable unit in a warehouse

- General Data
 - Warehouse
 - Storage type
 - Storage bin number
- Storage Bin Data
 - Storage section
 - Picking area
 - Fire-containment section
 - Bin type
 - Max. weight
 - Total capacity
- Status
 - Blocked for putaway
 - Stock removal block
 - Blocking reason

General Data

Storage Bin Data (WM)

Status (MM)

Storage Bin Master Data

- Quant: Smallest addressable unit of measure for a material in SAP S/4HANA

- General Data
 - Material
 - Plant / Storage location
 - Batch
 - Warehouse
 - Storage type
 - Storage bin
- Stock Data
 - Total stock
 - Available stock
- Block Indicator
 - Block
 - Putaway/removal status

General Data

Stock Data (MM)

Blocking Indicator (MM)

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 displays the SAP Material Master Data interface for a product named 'Deluxe Touring Bike (black)' with material number DXTR1000. The interface is organized into several sections: a top navigation bar with a back arrow, the SAP logo, and a 'Product' dropdown; a main header area showing the product name and number; a metadata section with fields for Product Type, Category, Group, Base Unit of Measure, GTIN, and Revision Level; a tabbed interface with 'General Information' selected; a 'Basic Data' section with fields for Division, Old Product Number, Basic Material, Batch Management Required, and Marked for Deletion; and a 'Descriptions' section with a table of descriptions in German and English.

< **SAP** Product ▾

Deluxe Touring Bike (black)

DXTR1000

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

General Information ▾ Product Compliance Components Configuration Sales Storage ▾

Basic Data

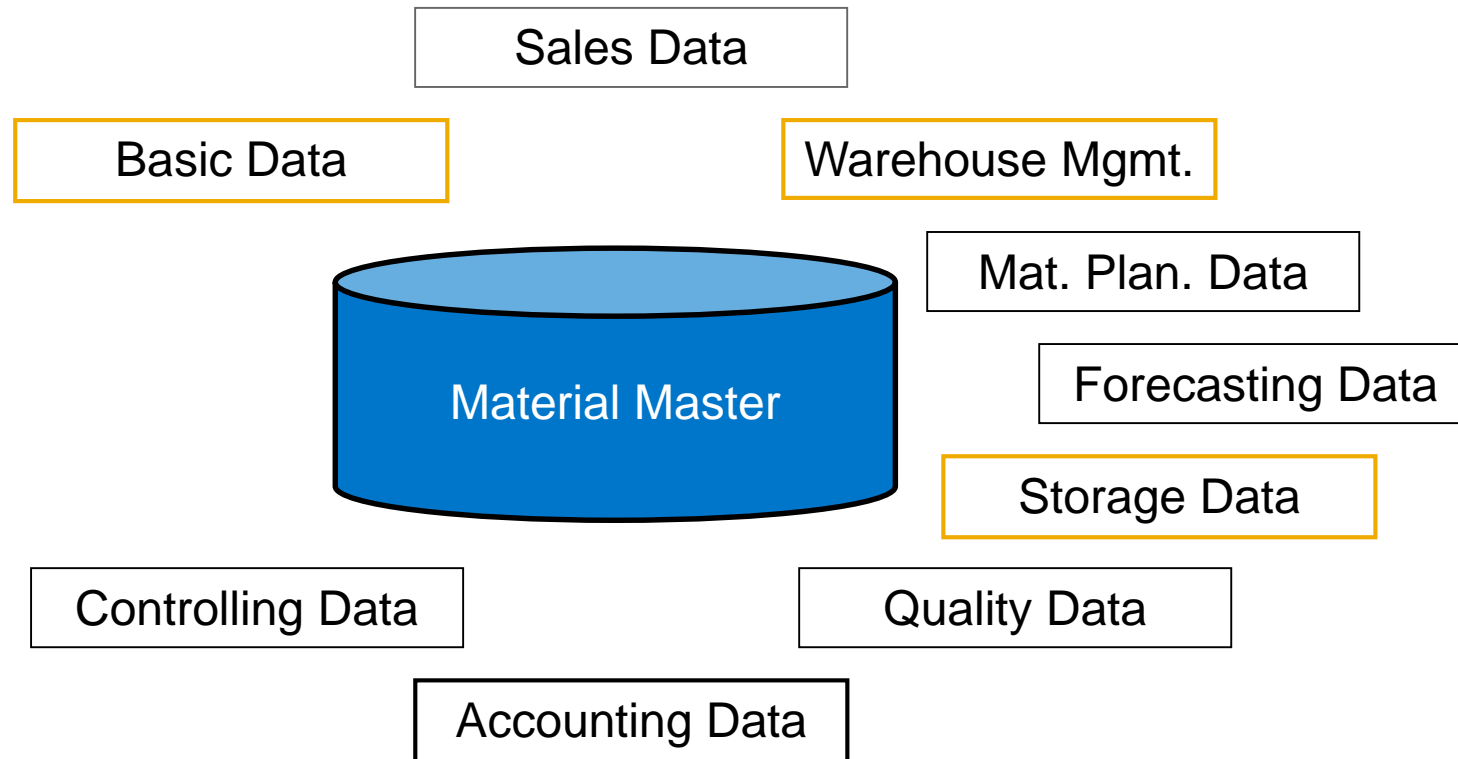
Division: Bicycles (BI) Batch Management Required: No
Old Product Number: — Marked for Deletion: No
Basic Material: —

Descriptions

Descriptions (4) Standard ▾

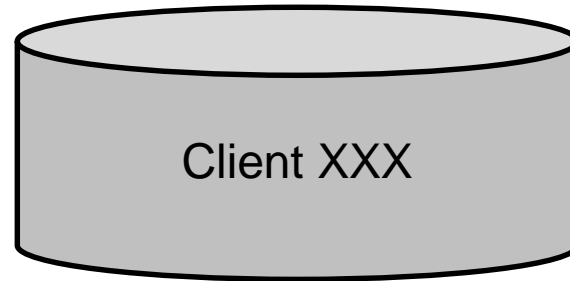
Language	Product
German DE	Deluxe Touring Bike (schwarz)
English EN	Deluxe Touring Bike (black)

Material Master Views



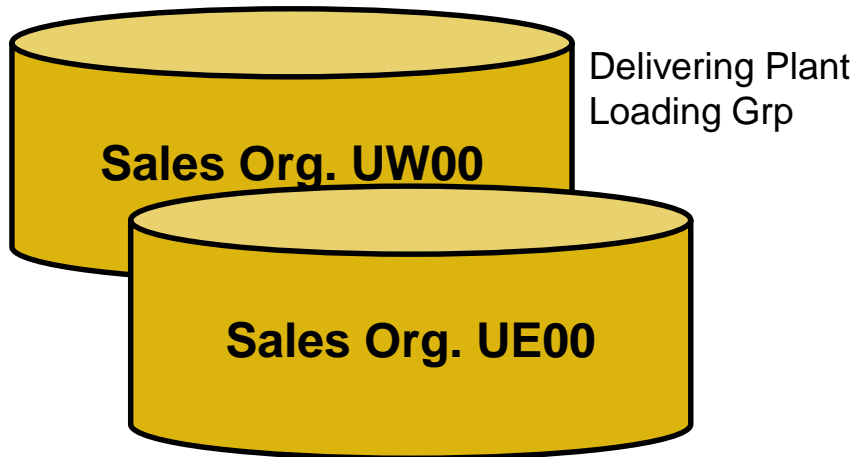
Material Master

General Information relevant for the entire organization:

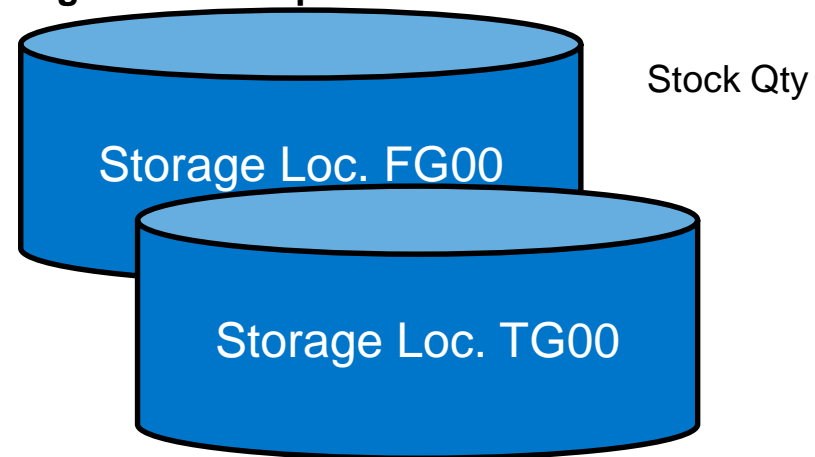


Name
Weight
Unit of Measure

Sales specific information:



Storage Location specific information:




Hazard Master Data

- Storage area for hazardous materials
 - Flammable liquids
 - Toxic materials
 - Radioactive materials
- General Data
 - Storage class
 - Water pollution class
 - Flash point
 - Aggregate state
 - Hazardous material warning
 - Hazardous substance number

☰ Hazardous material warning (1) 2 Entries found	
Restrictions	
☑ ☒ 📄 🔍 🔍+ ⭐ 🗣️ 🖨️ ⌵ ⚡	
HW	Danger
01	Use gloves
02	Careful: corrosive !








Batch Master Data

- Subset of Material
 - homogeneous series of unreplicable units with a unique specification
- Basic Data 1 & 2
 - Expiration date
 - Inspection date
 - Trading data
 - Administration data
 - Text data
- Classification of Batch
- Material data

<  Batch ▾

New Batch

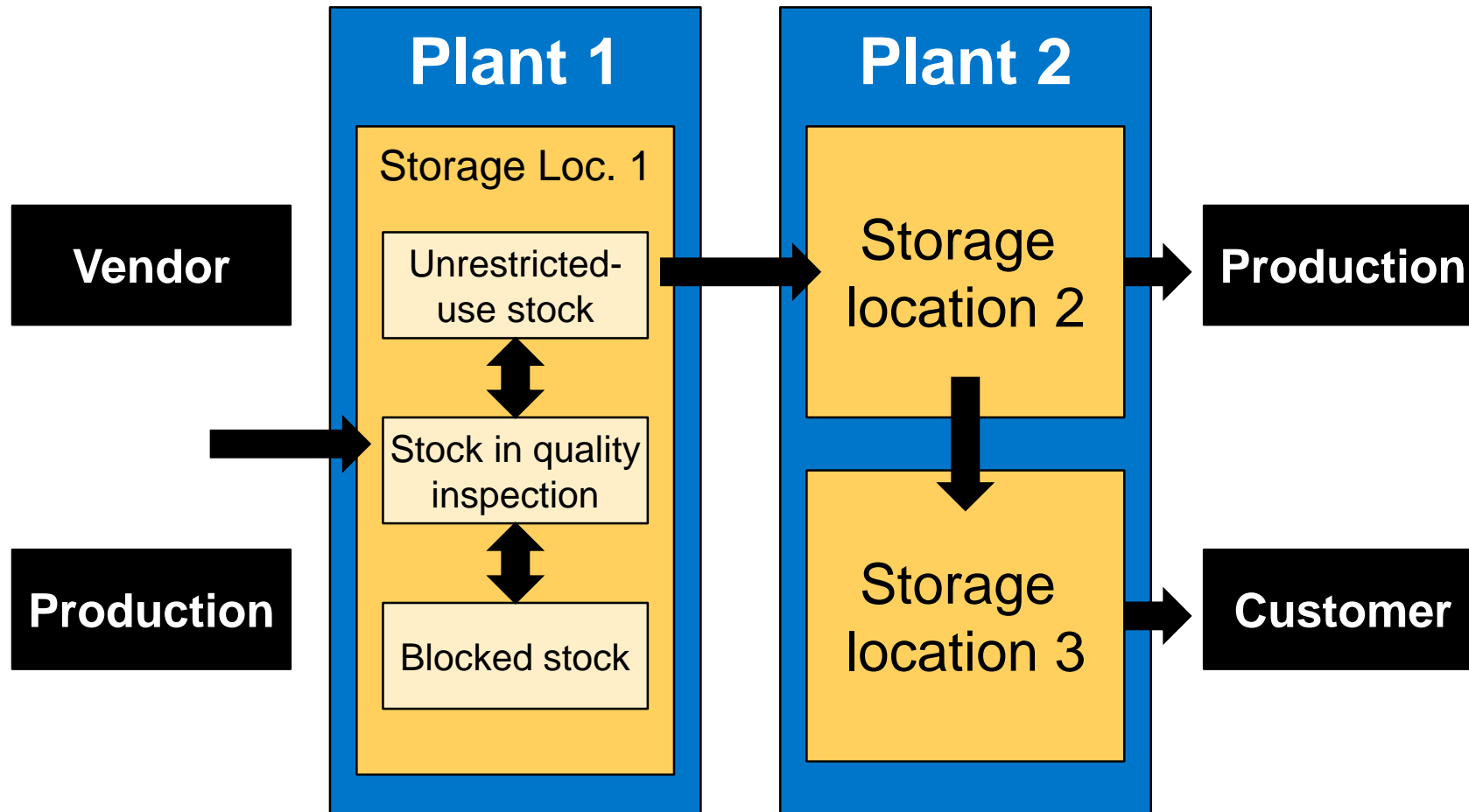
General Information Classification

Header Data	Basic Data
Material: * TEST_CB 	Date of Manufacture: e.g. 12/31/2025 
Batch: —	Next Inspection Date: e.g. 12/31/2025 
Shelf Life Expiration Date: e.g. 12/31/2025 	Batch Status: Unrestricted
	Date for Free Use 1: e.g. 12/31/2025 
	Date for Free Use 2: e.g. 12/31/2025 
	Date for Free Use 3: e.g. 12/31/2025 

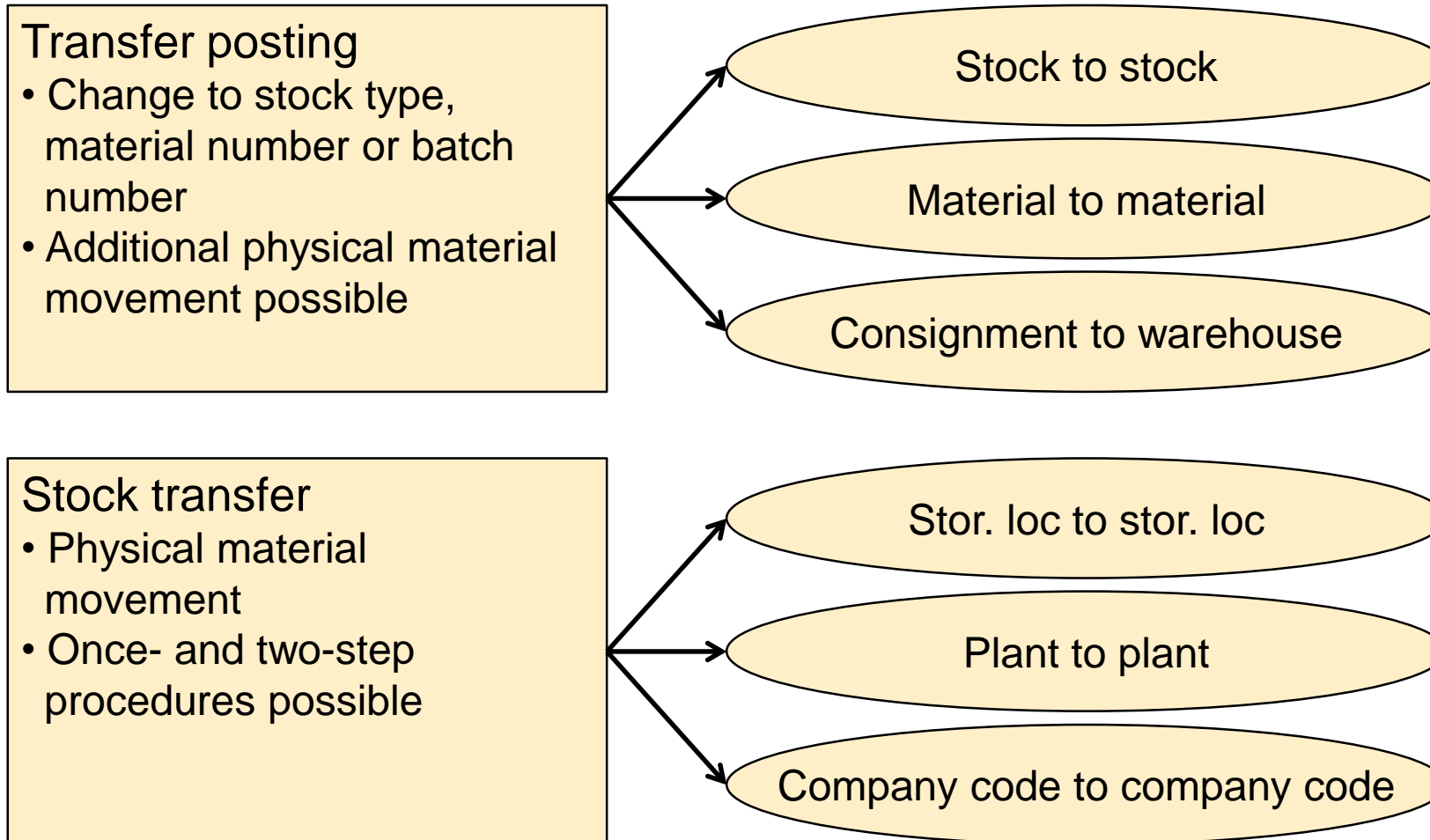
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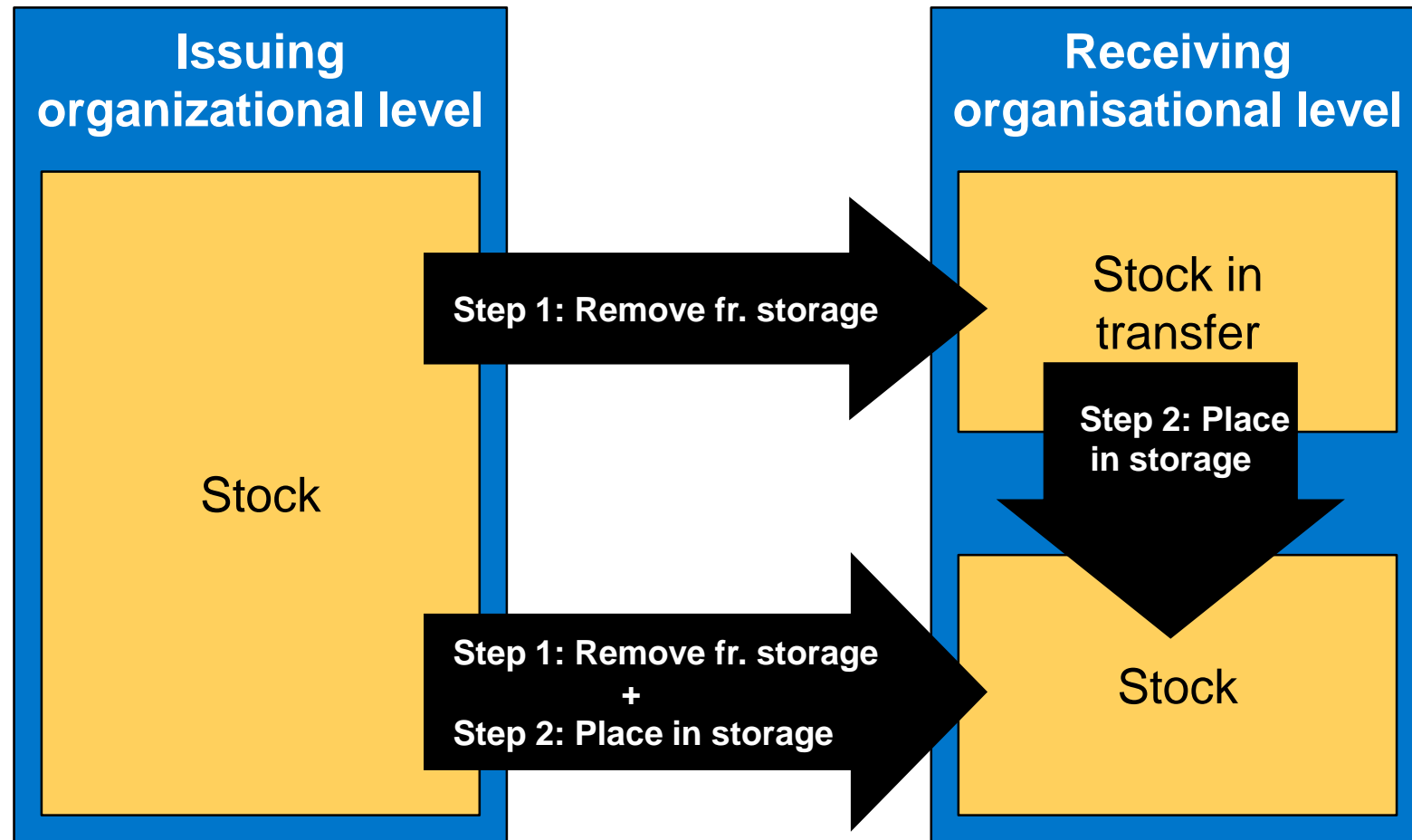
WM Types of goods movements



Transfer posting and stock transfer

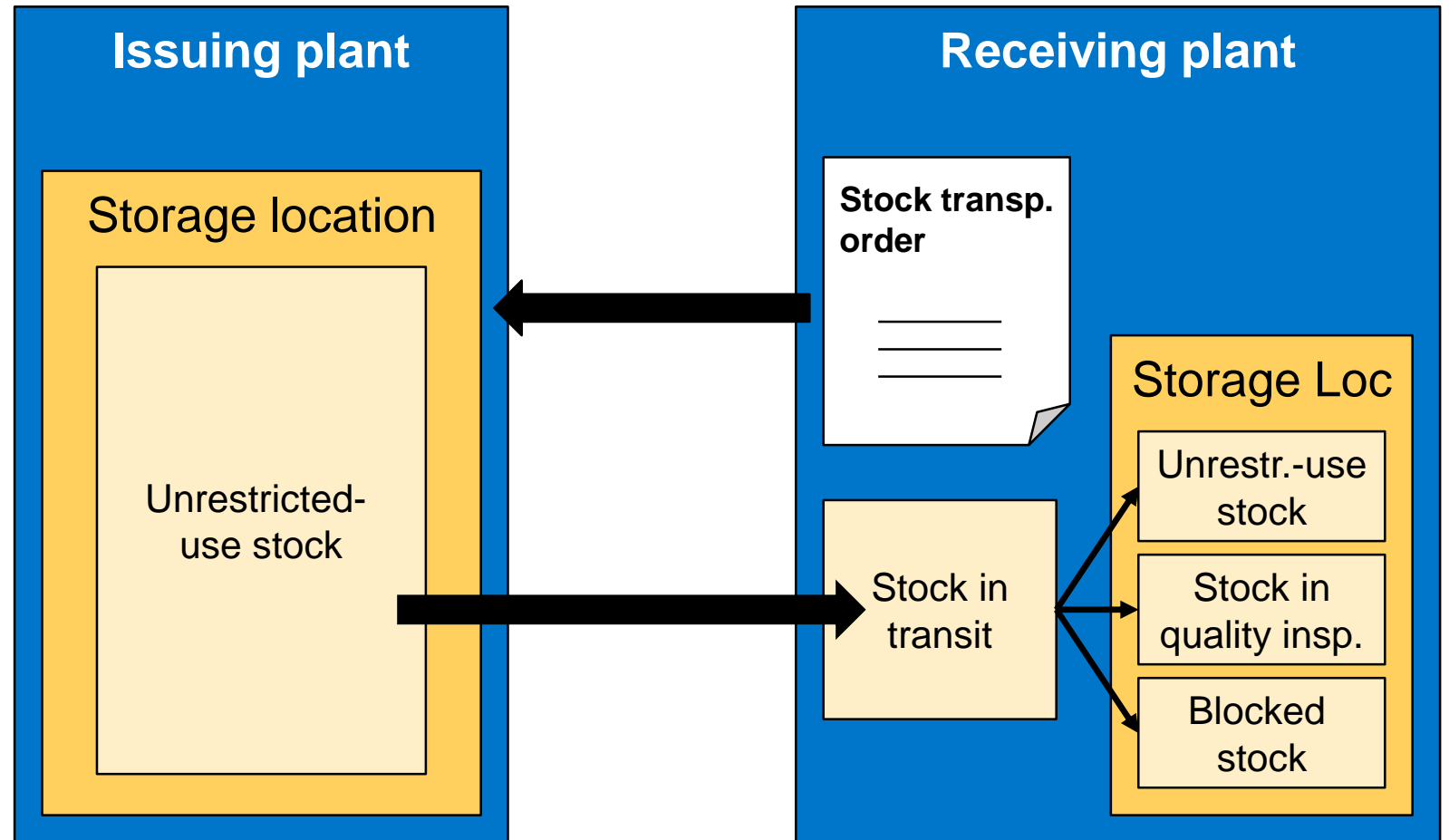


One-Step/Two-Step Procedures

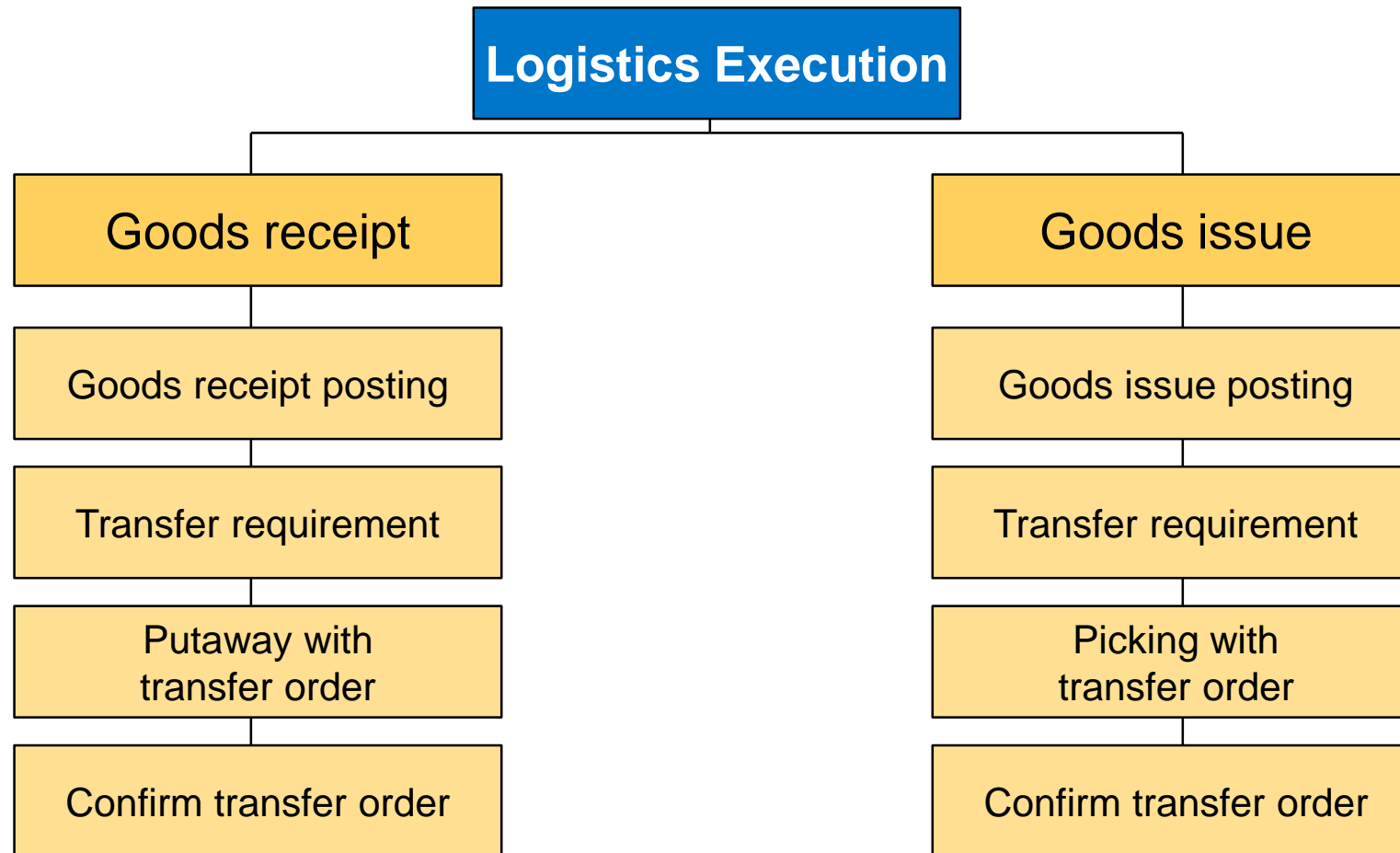


Stock transport order

- A Stock Transport Order (STO) is a purchase order used to request or instruct a plant to transport material from one plant to another (that is, to effect a long distance physical stock transfer) within the same corporate enterprise.
- The stock transport order allows delivery costs incurred as a result of the stock transfer to be charged to the material transported.



WM Processes



WM Process Management and Control

- Posting change notice (PCN)
 - Generated by posting change processes in WM-administrated stocks
 - Functionality similar to transfer requests
 - Not necessarily combined with a physical goods movement
- Transfer requirement (TR)
 - A request to transfer materials at a particular time from a source storage bin to a destination storage bin in a warehouse complex
 - Represents the expected and scheduled goods movements in WM
 - Normally generated by postings in the inventory management
 - Consists of transfer request header and line items
- Transfer order (TO)
 - Central documents for WM
 - Every material movement requires a transfer order
 - No difference between real and logical movement

Transfer Order

- Creation of transfer order depends on preceding document
 - Transfer request
 - Posting change notice
 - Outbound delivery
 - Inbound delivery

- Types of Transfer Order Creation
 - Manual (TR, PCN, material document)
 - Direct TO-Creation
 - Automatic TO-Creation
 - Manual (Delivery Monitor)

Inventory

- Periodic inventory
- Continuous inventory
- Inventory on putaway
- Zero stock check
- Sample-based physical inventory
- Cycle-Counting

Physical inventory process

