

# Controlling (CO)

Curriculum: Introduction to S/4HANA using Global Bike

# Teaching material - Information

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## Teaching material - Version

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- 4.1 (June 2022)
- Software used
  - S/4HANA 2020
  - Fiori 3.0
- Model
  - Global Bike
- Prerequisites
  - No Prerequisites needed

# Module Information

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## Authors

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- Babett Ruß



## Target Audience

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- Beginner

# Module Information

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## Learning Objectives

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You are able to

- define the central organizational structures of the CO module.
- summarize the master data which is most important for the CO module.
- explain standard controlling processes.

# Agenda

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- CO Organizational Structure
- CO Master Data
- CO Processes
- Innovations in S/4HANA

# Agenda

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- CO Organizational Structure
- CO Master Data
- CO Processes
- Innovations in S/4HANA

# Goal of Controlling (CO)

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- Managerial Accounting – also termed Controlling – is designed to collect transactional data that provides a foundation for preparing internal reports that support decision-making within the enterprise.
- These reports are exclusively for use within the enterprise and include:
  - Cost center performance
  - Profit center performance
  - Budgets analyses

# Target Audience

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- Executives
- Senior Management
- Department Managers
- Controllers
- Cost Accountants



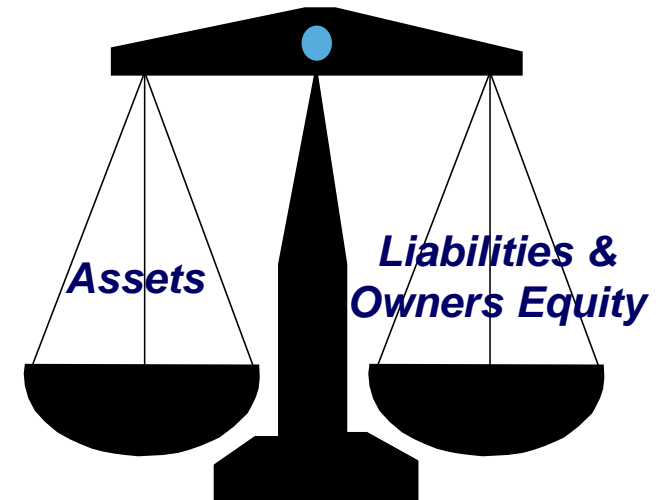
# CO Organizational Structure

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- Represents the legal and/or organizational views of an enterprise
- Forms a framework that supports the activities of a business in the manner desired by management
- Permits the accurate and organized collection of business information
- Supports the development and presentation of relevant information in order to enable and support business decisions

# CO Organizational Structure

- Client
  - An independent environment in the system
- Company Code
  - Represents an independent legal accounting unit
  - Balanced set of books, as required by law, are prepared at this level.
  - A client may have more than one company code
    - United States
    - Germany
    - United Kingdom
    - Australia
    - ...



# CO Organizational Structure

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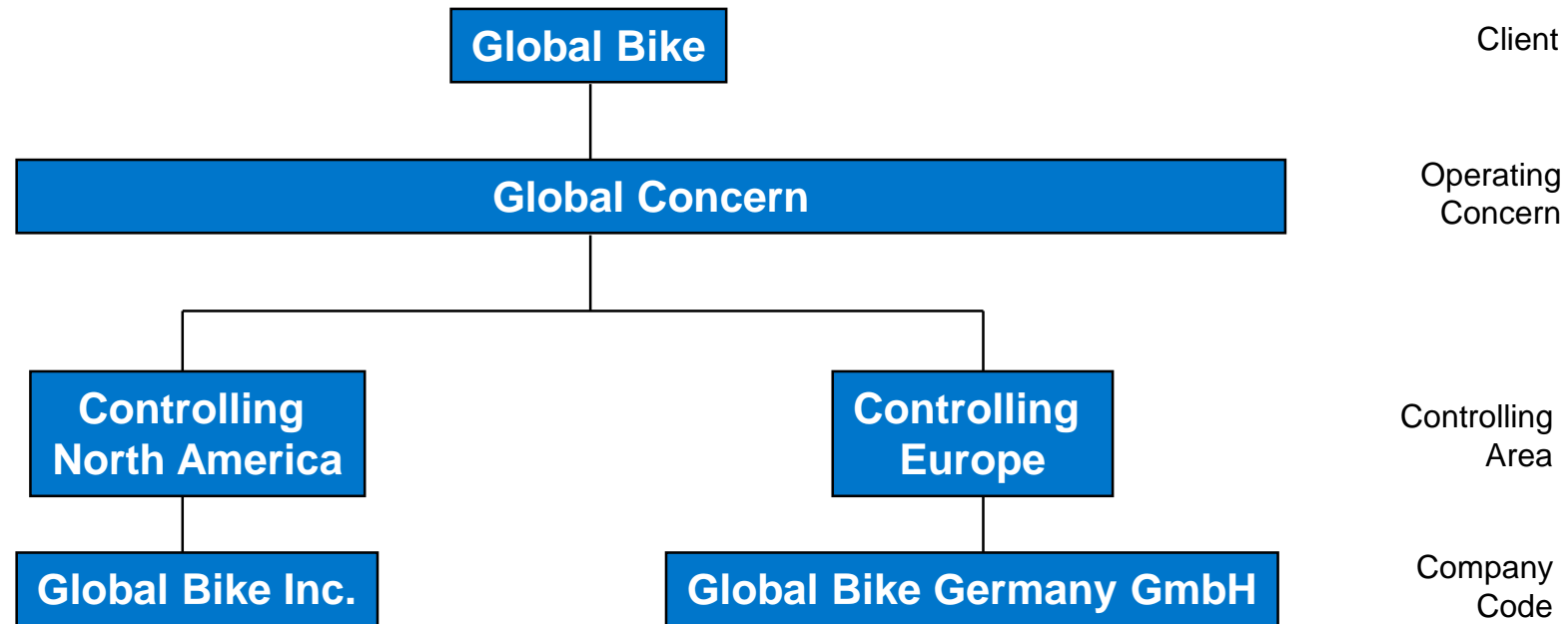
- Controlling Area

- A self-contained, organizational unit for which the management of revenues and expenses can be performed
- May include one or more company codes; therefore, an enterprise can perform management accounting analyses and reports across several companies
- A way to identify and track where revenues and costs are incurred for evaluation purposes

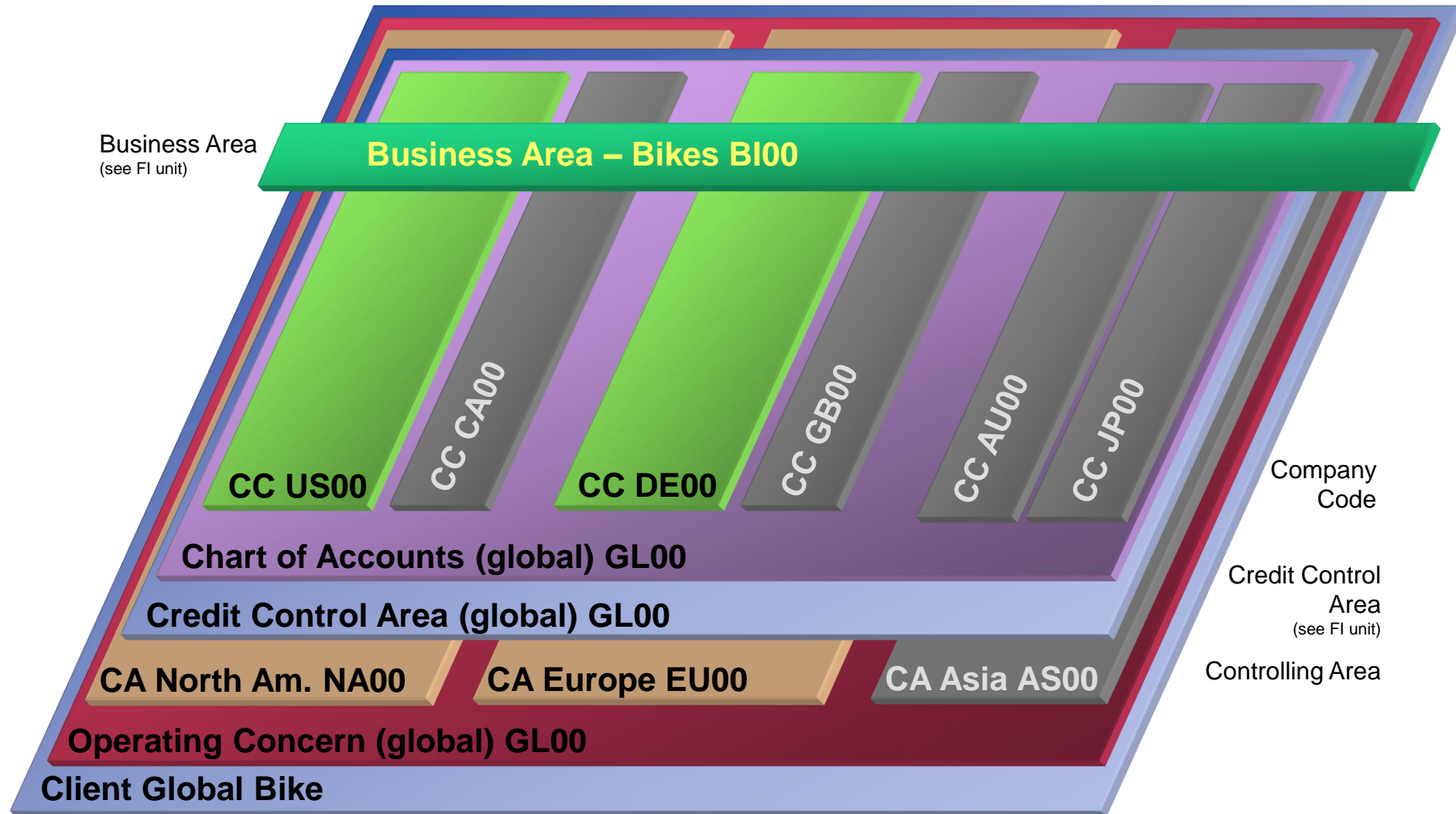
- Operating Concern

- Represents a part of an organization for which the sales market is structured in a uniform manner
- A operating profit for the individual market segments can be calculated.
- Multiple controlling areas can be assigned to one operating concern.

# Global Bike Structure for Controlling



# Global Bike Enterprise Structure in SAP ERP (Accounting)



# Agenda

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- CO Organizational Structure
- **CO Master Data**
- CO Processes
- Innovations in S/4HANA

# CO Master Data

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## ■ Profit Center

- Responsible for revenue generation and cost containment
- Evaluated on profit or return on investment
- Enterprises are commonly divided into profit centers based on
  - Region
  - Function
  - Product

## ■ Cost Center

- Responsible for cost containment, not responsible for revenue generation
  - One or more value-added activities are performed within each cost center.
  - Unit that is distinguished, for example, by area of responsibility, location, or type of activity
    - Copy center
    - Security department
    - Maintenance department

# CO Master Data

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## ■ Internal Order

- Temporary cost collector responsible for cost containment, not responsible for revenue generation
- It is used to plan, collect, and monitor the costs associated with a distinct short-term event, activity, or project
  - Company picnic
  - Trade show/fair
  - Recruiting campaign

## ■ Revenue Element

- A one-to-one linkage (mapping) between General Ledger revenue accounts and CO revenue elements is established to permit the transfer of FI revenue information to CO.
- Posting in FI that impact revenue accounts lead to a posting in CO to a revenue element.
- In other words, revenue account = revenue element – just different words depending on whether FI object or CO object.



# CO Master Data

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## ■ Cost Element

- A one-to-one linkage (mapping) between General Ledger expense accounts and CO cost elements is established to permit the transfer of FI expense information to CO.
- Postings in FI that impact cost accounts lead to a posting in CO to a cost element.
- In other words, expense account = cost element – just different words depending on whether FI object or CO object.

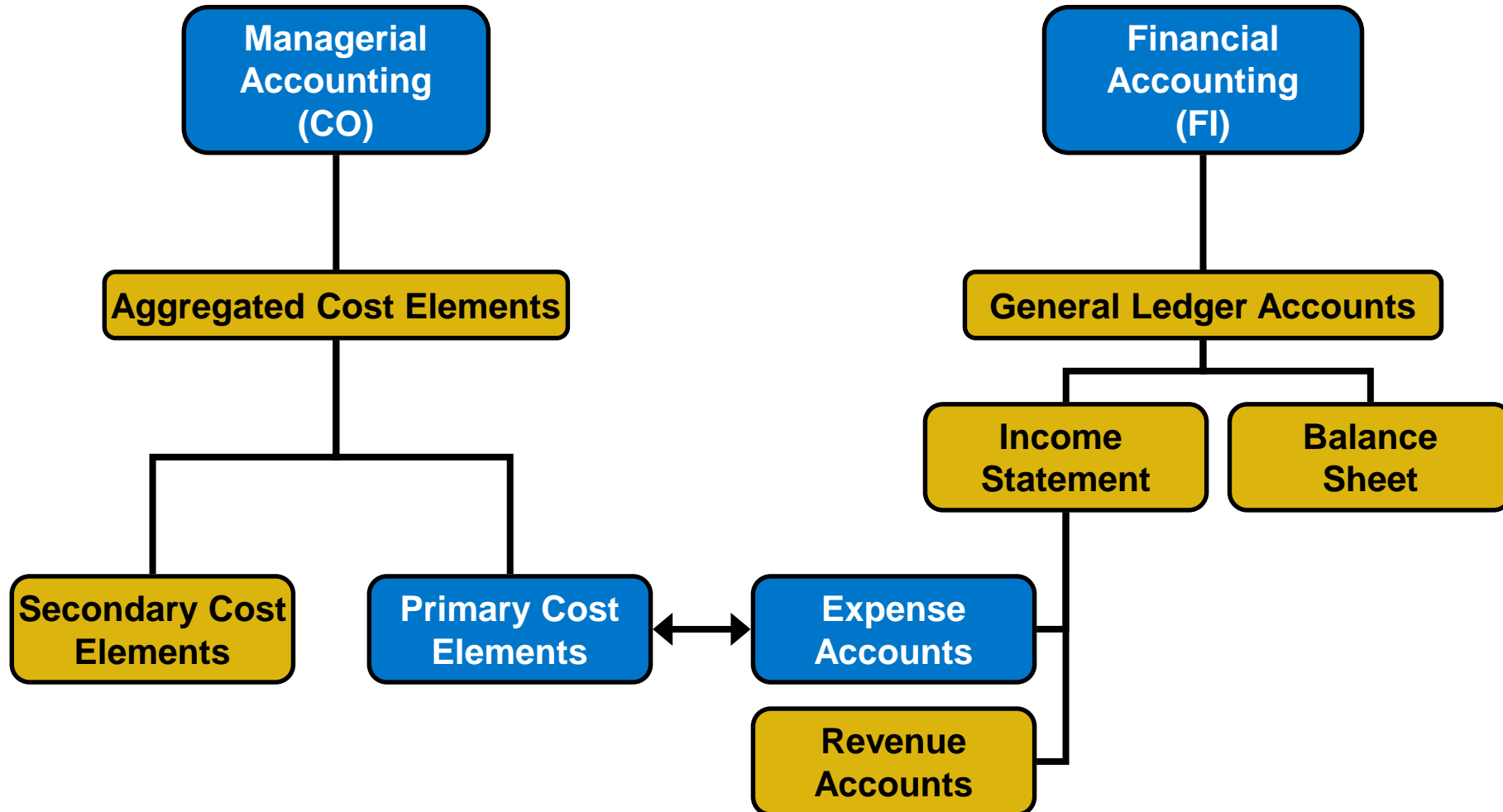
## ■ Primary Cost Element

- Originate in the General Ledger within FI and are automatically transferred to CO when an FI transaction is recorded in the General Ledger

## ■ Secondary Cost Element

- Used exclusively in CO for allocations and settlements between and amongst cost centers

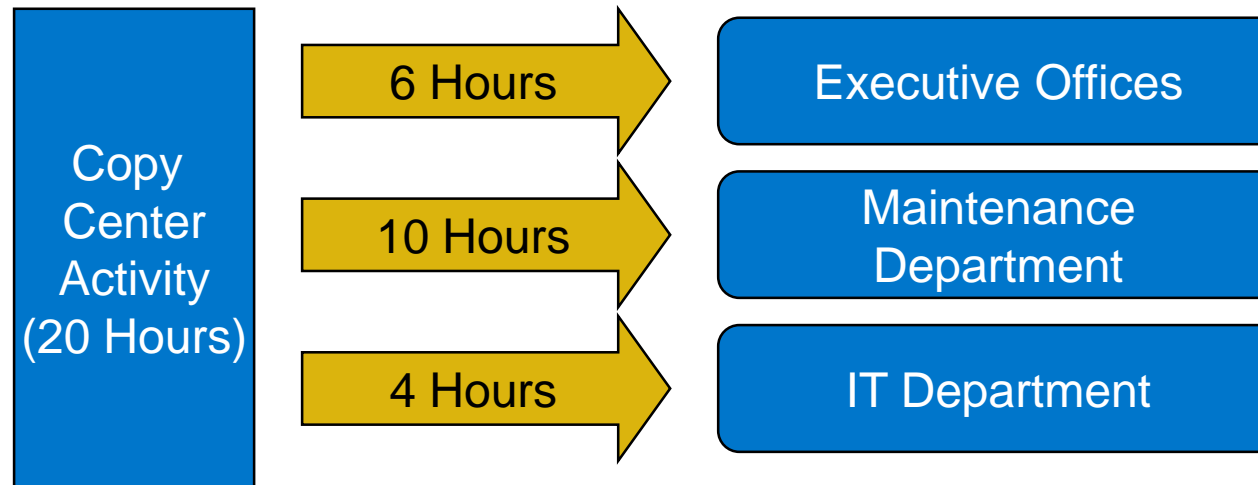
# Primary vs. Secondary Cost Elements



# CO Master Data

## ■ Statistical Key Figures

- Provide the foundation for accurate and effective cost allocations between cost objects
- Utilized to support internal cost allocations involving allocations, assessments, and distributions
- Examples:
  - number of employees
  - square footage
  - minutes of computer usage



# Agenda

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- CO Organizational Structure
- CO Master Data
- **CO Processes**
- Innovations in S/4HANA

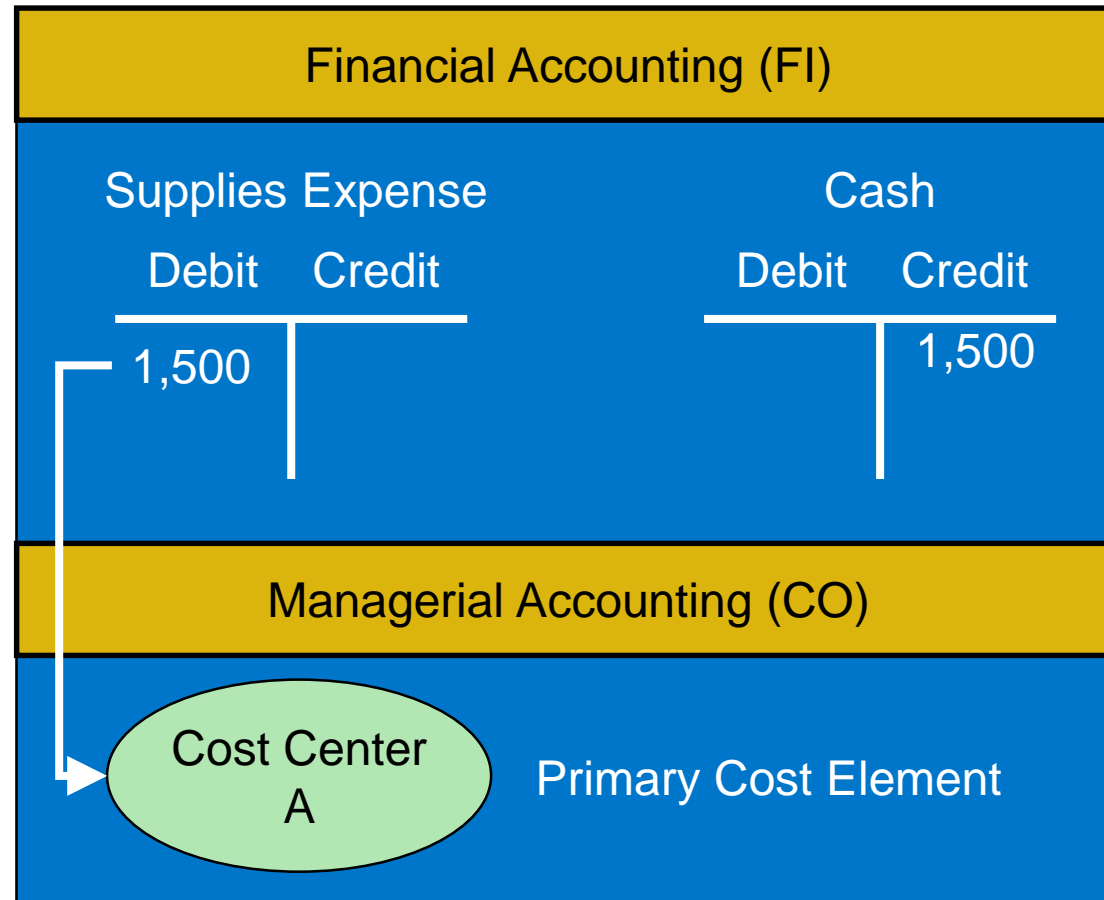
# Primary & Secondary Cost Element

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- Cost elements describe the origin of costs
- Cost elements are defined as either
  - Primary cost elements arise through the consumption of production factors that are sourced externally
  - Secondary cost elements arise through the consumption of production factors that are provided internally
- Expenses and Revenue accounts in Financial Accounting correspond to Primary Cost and Revenue Elements
- Secondary Cost Elements are used exclusively in CO to identify internal cost flows such as assessments or settlements. They do not have corresponding General ledger accounts in FI and are defined in CO only.
- When you create a cost element, you must assign a cost element category. This Assignment determines the transactions for which you can use the cost element.

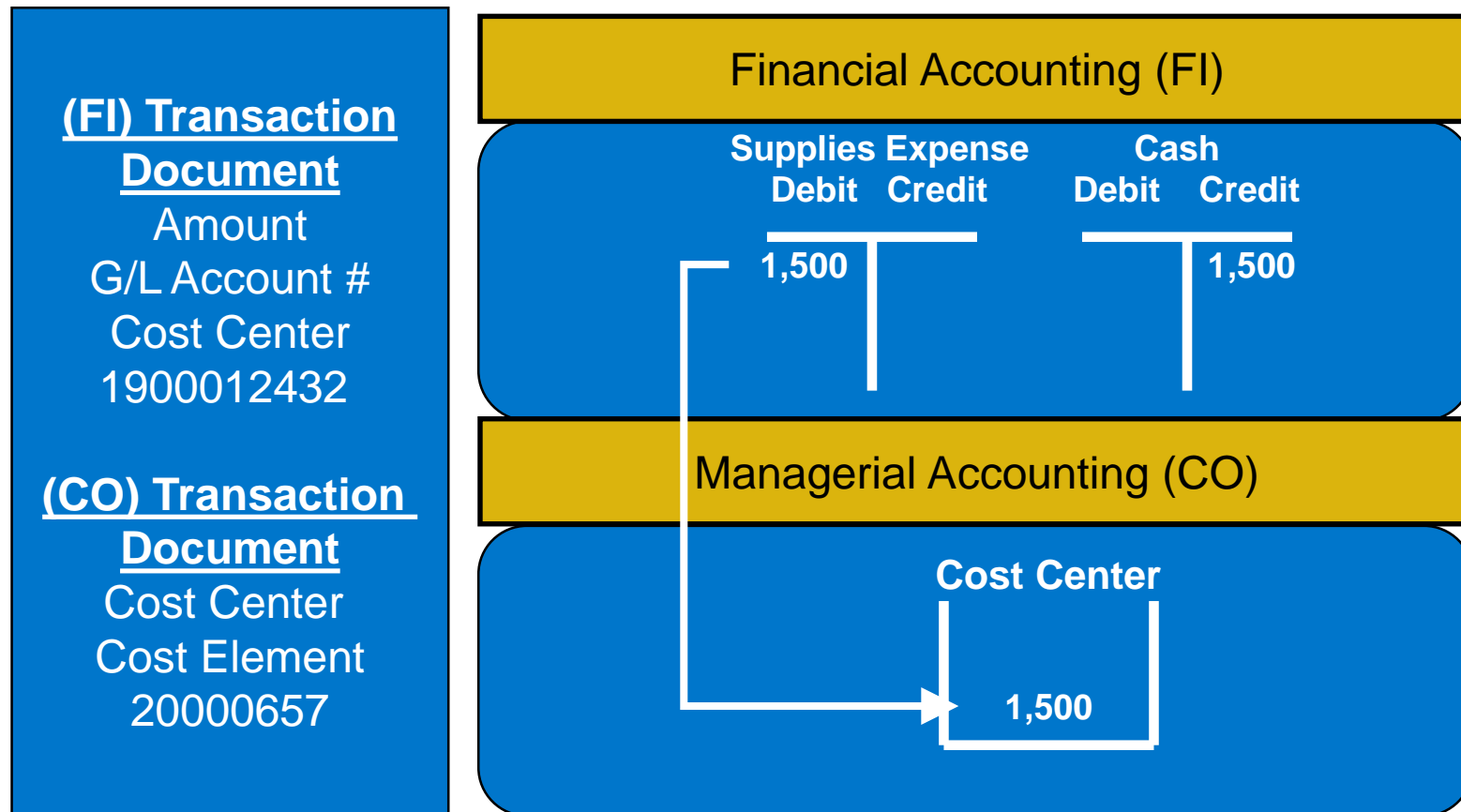
# CO Processes

- Posting Primary Cost Element



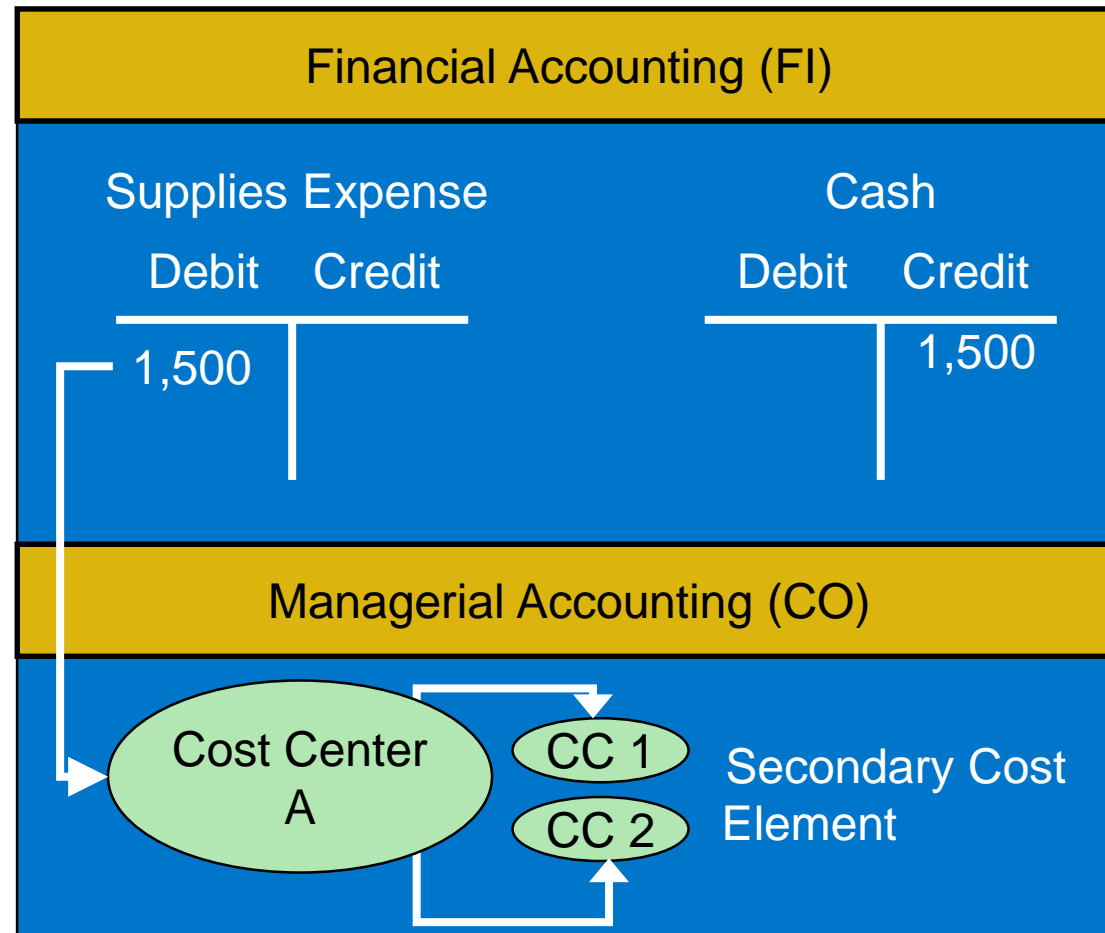
# CO Processes

- Posting Primary Cost Element



# CO Processes

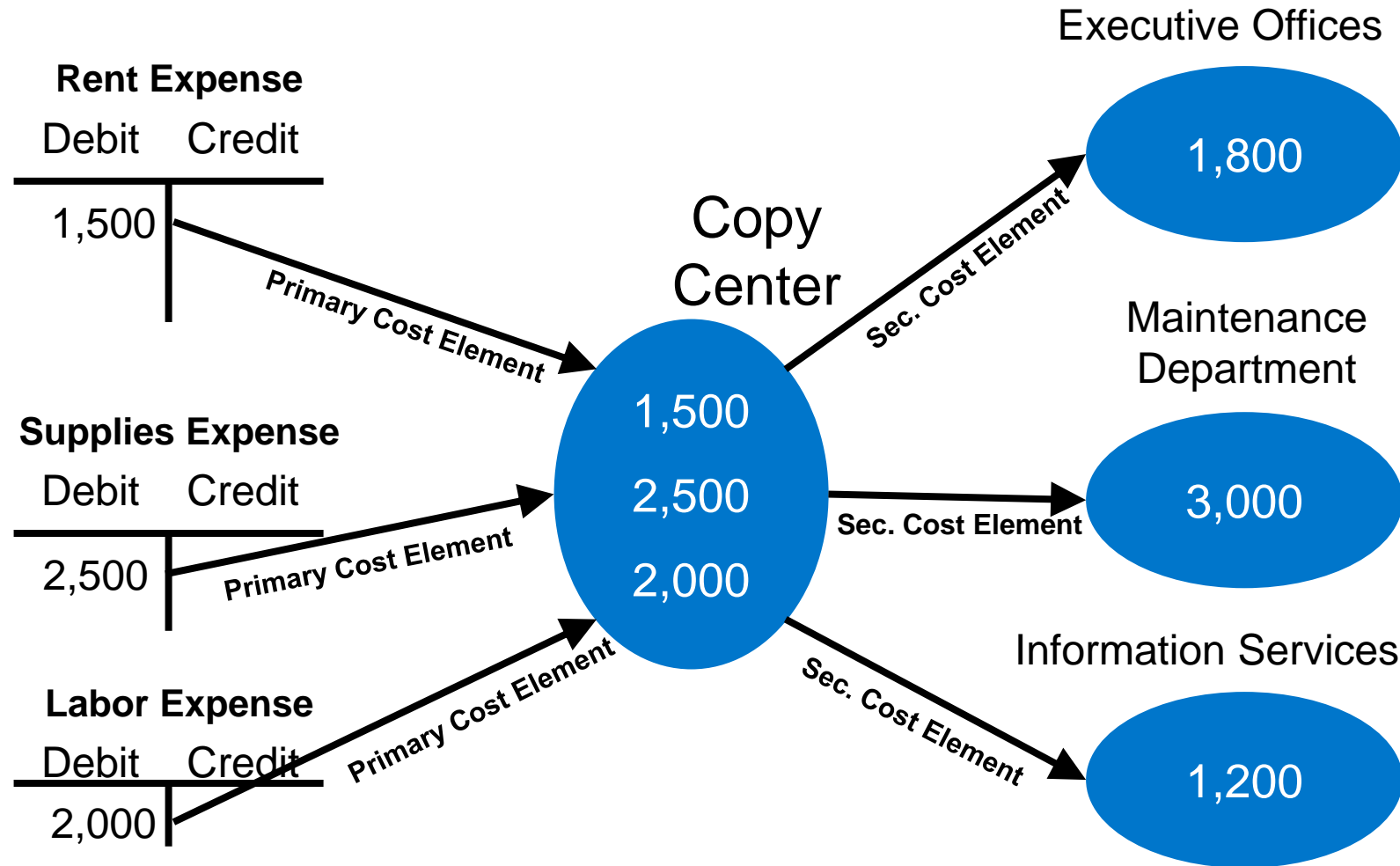
- Posting Secondary Cost Element





# CO Processes

- Posting Secondary Cost Element



# Types of Allocation

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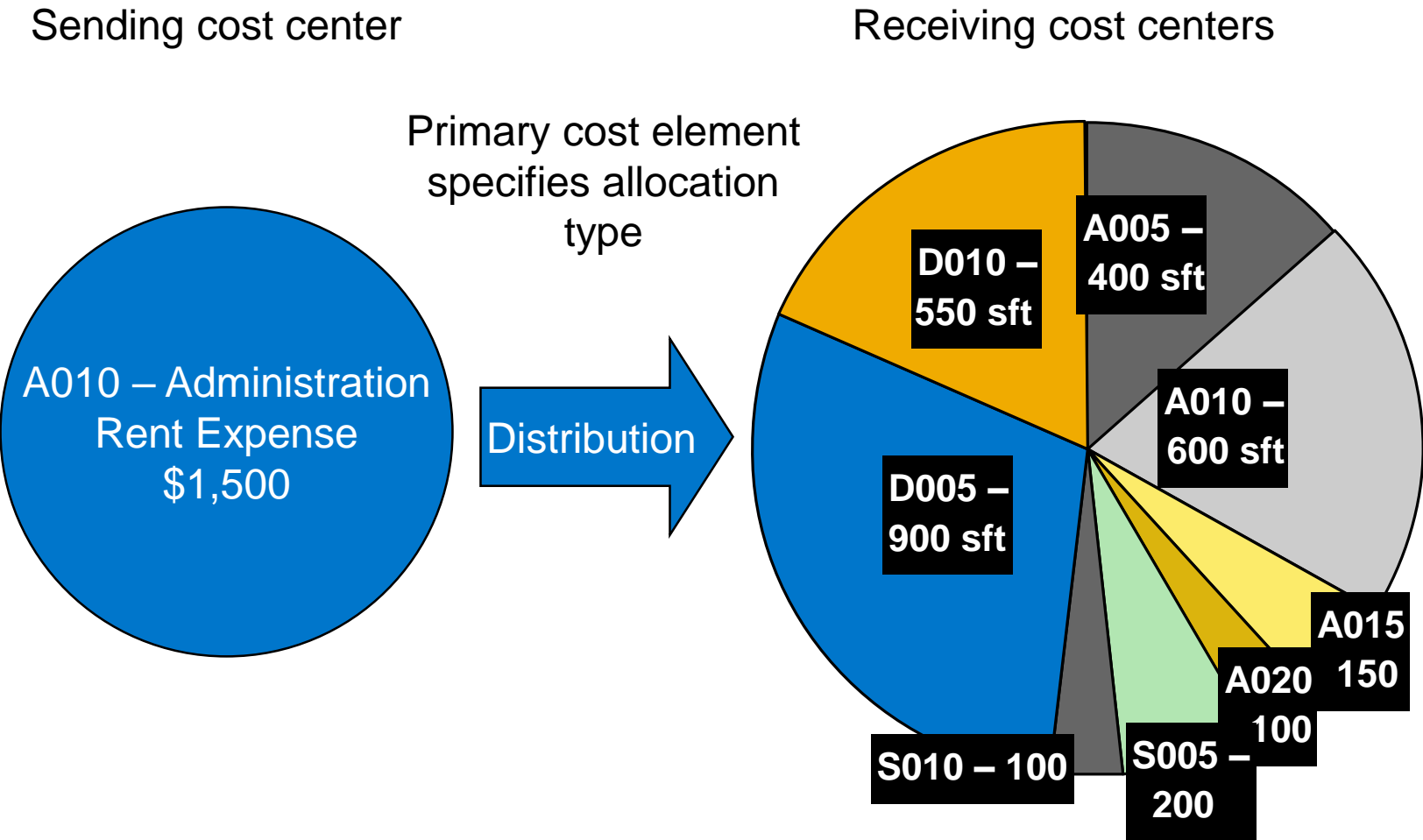
## ■ Distribution

- Method for periodically allocating primary cost elements
- Primary cost elements maintain their identities in both the sending and receiving objects
- Sender and receiver cost centers are fully documented in a unique Controlling (CO) document.

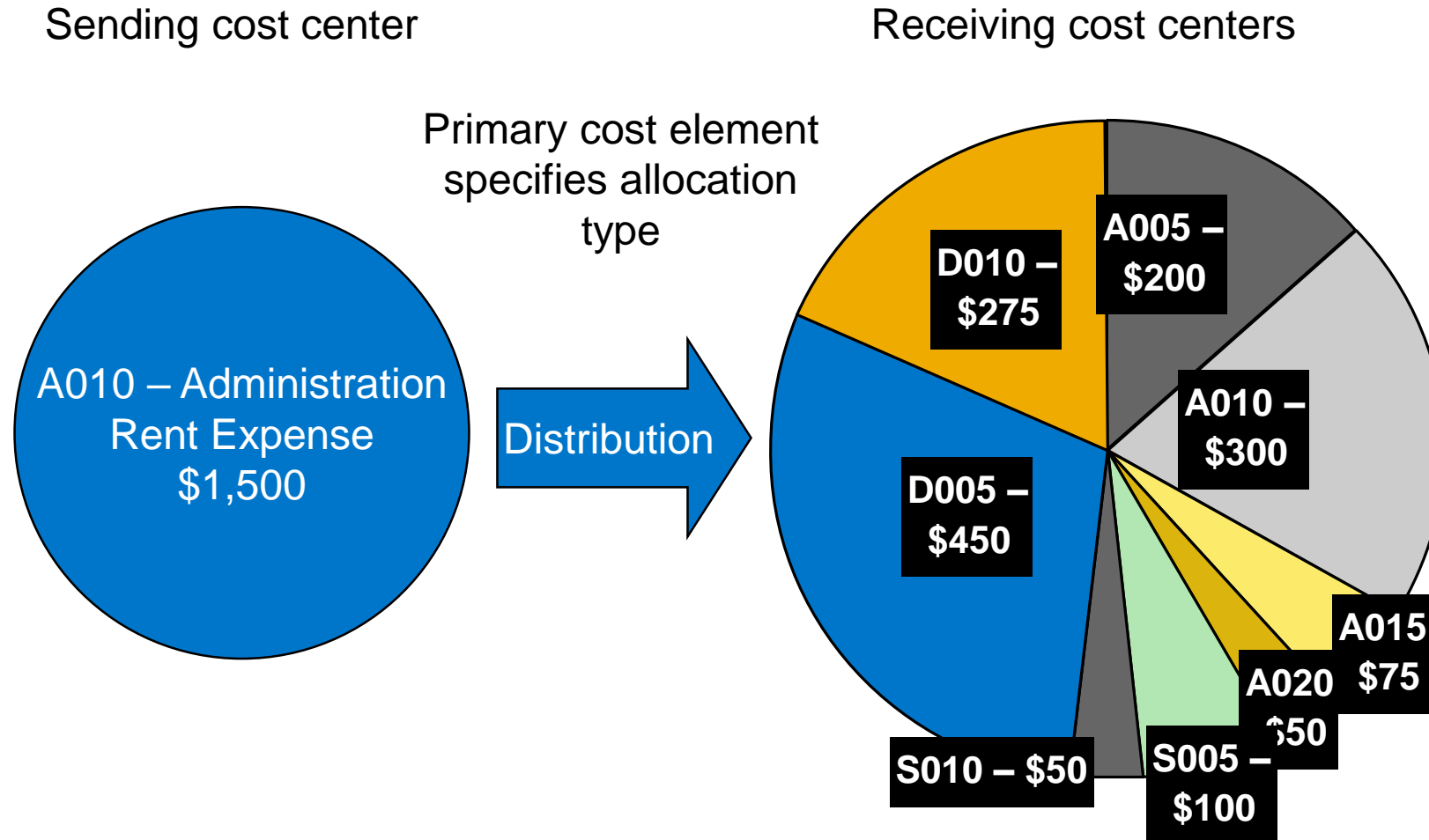
## ■ Assessment

- A method of allocating both primary and secondary cost elements
- Primary and/or secondary cost elements are grouped together and transferred to receiver cost centers through use of a secondary cost element.
- Sender and receiver cost centers are fully documented in a unique Controlling (CO) document.

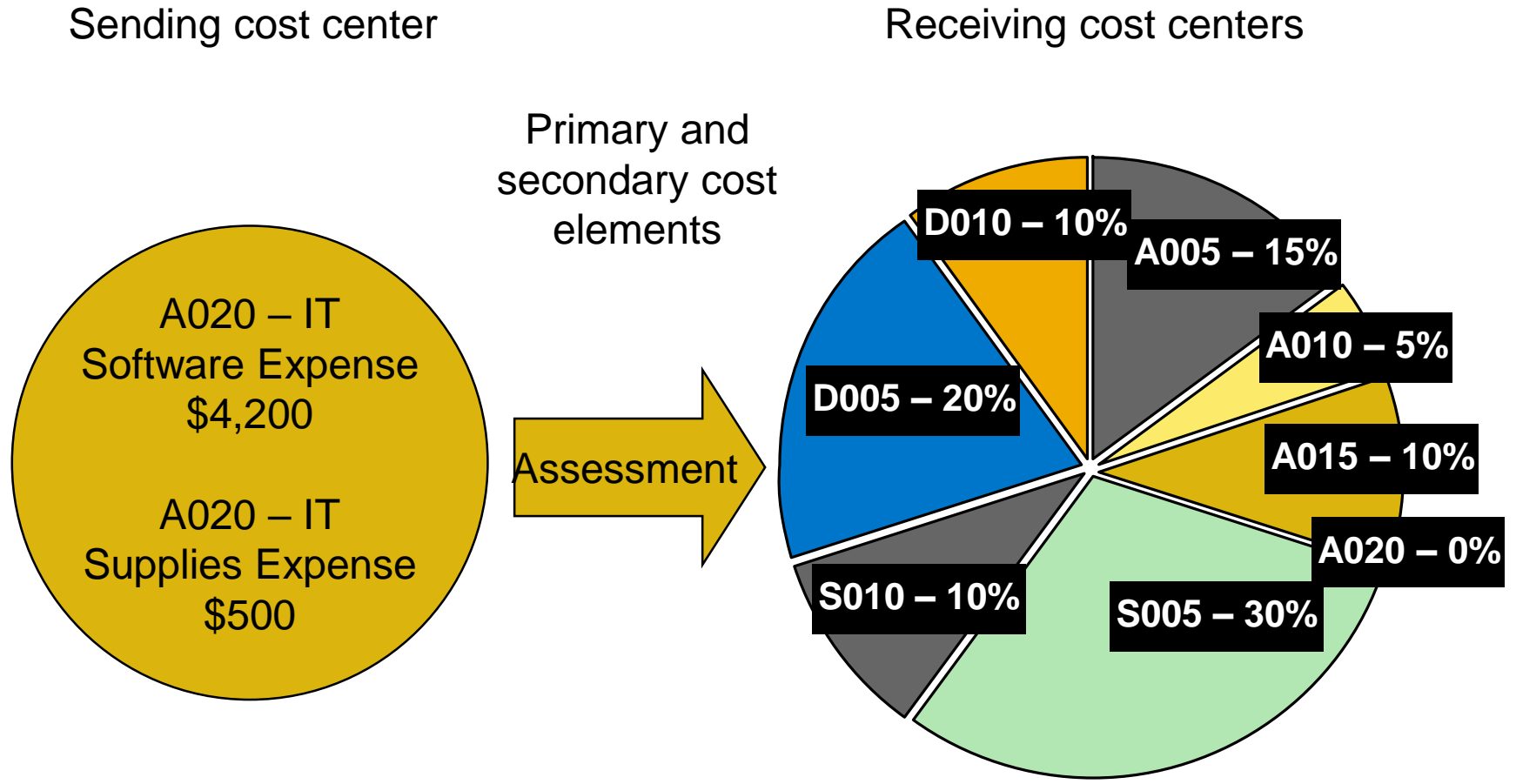
# Distribution



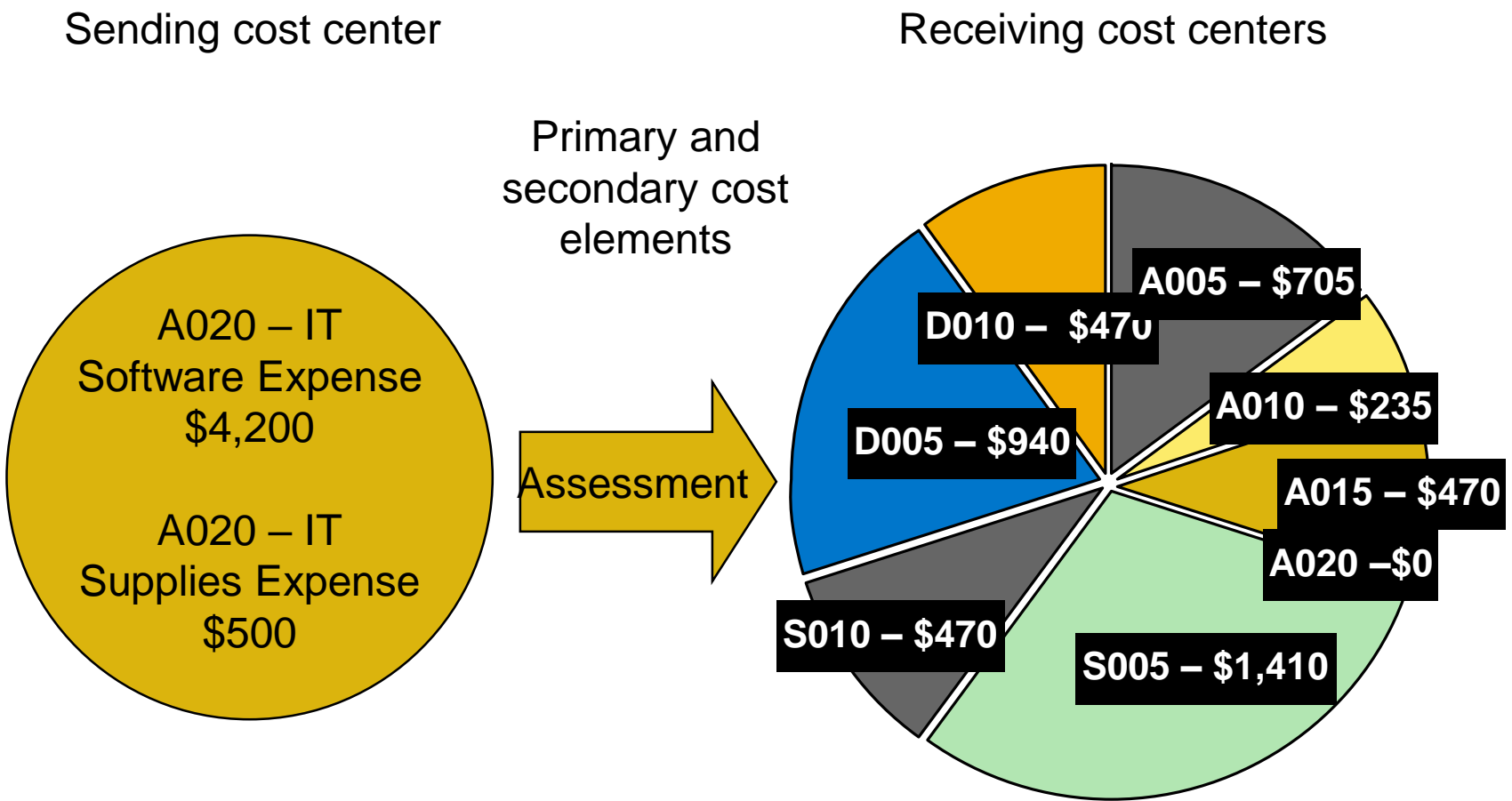
# Distribution



# Assessment



# Assessment



# SAP CO Module

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- Fully integrated with other SAP modules including, but not limited to:
  - Financial Accounting (FI)
  - Materials Management (MM)
  - Sales and Distribution (SD)
  - Production Planning and Execution (PP)

# Agenda

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- CO Organizational Structure
- CO Master Data
- CO Processes
- Innovations in S/4HANA



# Innovations in S/4HANA

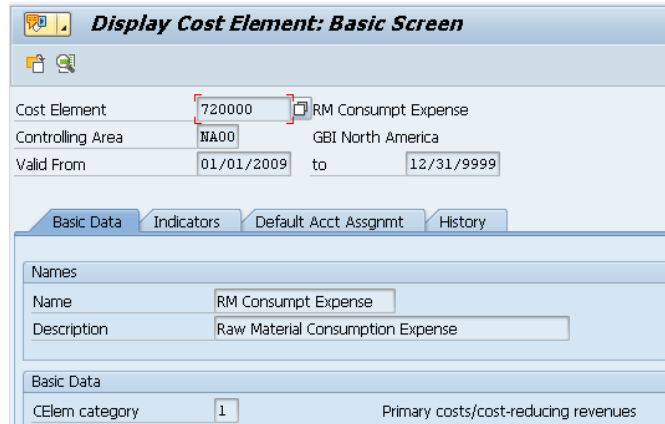
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- 1) No separate cost element master data maintenance anymore
- 2) Universal Journal combines account assignment of Controlling
- 3) Technical changes in material ledger

# Innovations in S/4HANA

## 1) Cost element master data maintenance

- No separate cost element master data maintenance anymore
  - Part of chart of accounts, are managed in GL account master data
  - Transactions not available anymore: KA01, KA02, KA03, KA06
  - Default account assignments (cost center, order) will be transferred from cost element masters to table TKA3A (view using transaction OKB9)



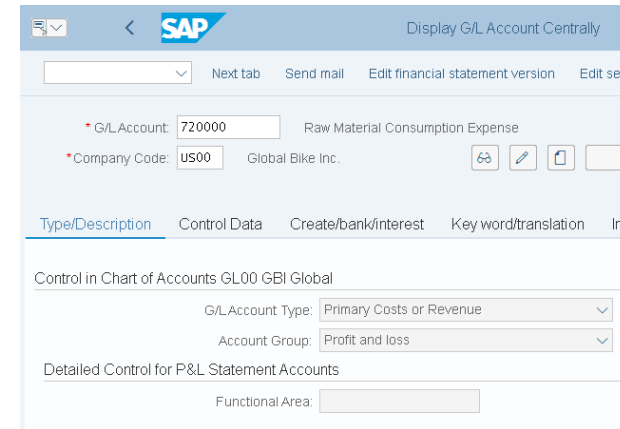
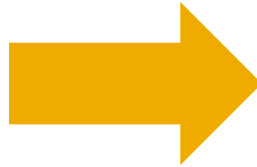
**Display Cost Element: Basic Screen**

Cost Element: 720000 RM Consumpt Expense  
Controlling Area: NA00 GBI North America  
Valid From: 01/01/2009 to 12/31/9999

Basic Data Indicators Default Acct Assgnmt History

Names  
Name: RM Consumpt Expense  
Description: Raw Material Consumption Expense

Basic Data  
CElem category: 1 Primary costs/cost-reducing revenues



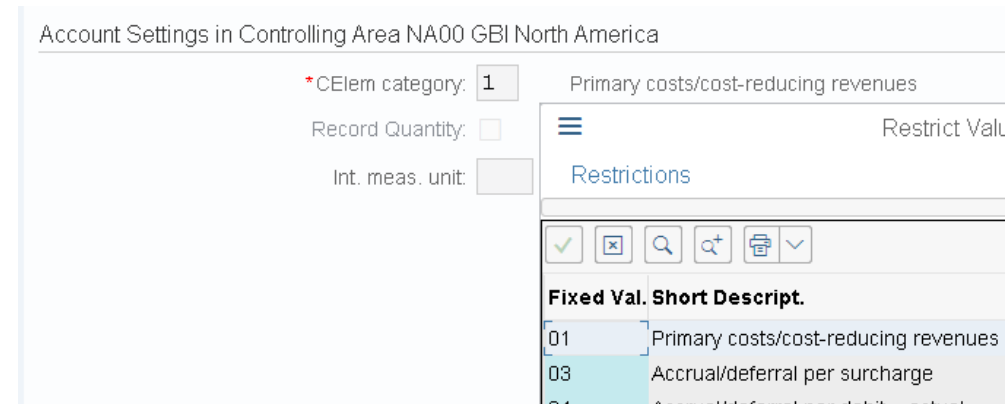
**Display G/L Account Centrally**

G/L Account: 720000 Raw Material Consumption Expense  
Company Code: US00 Global Bike Inc.

Type/Description Control Data Create/bank/interest Key word/translation Info

Control in Chart of Accounts GL00 GBI Global  
G/L Account Type: Primary Costs or Revenue  
Account Group: Profit and loss

Detailed Control for P&L Statement Accounts  
Functional Area:



**Account Settings in Controlling Area NA00 GBI North America**

\*CElem category: 1 Primary costs/cost-reducing revenues  
Record Quantity: Restrict Val.  
Int. meas. unit:

Restrictions

Fixed Val.	Short Descript.
01	Primary costs/cost-reducing revenues
03	Accrual/deferral per surcharge
04	Accrual/deferral per debit = actual

- The GL account master record includes a new mandatory field for cost element category for classification of GL accounts
- Previously in KA01

# Innovations in S/4HANA

## 1) Cost element master data maintenance

- GL accounts have now attributed on three levels:
  1. Chart of accounts area
  2. Company-code-specific area
  3. Controlling-area-specific area
- New account types for primary costs/revenues and secondary costs

The screenshot displays the SAP Cost Element Master Data Maintenance interface. The 'G/L Account Type' dropdown menu is open, showing four options: 'Primary Costs or Revenue' (selected), 'Balance Sheet Account', 'Nonoperating Expense or Income', and 'Secondary Costs'. The dropdown is highlighted with a red border. The background shows the 'Control in Chart of Accounts GL00 GBI Global' and 'Detailed Control for P&L Statement Account' sections.

Type/Description	Control Data	Create/bank/interest	Key word/translation	Ir
Control in Chart of Accounts GL00 GBI Global				
G/L Account Type:	Primary Costs or Revenue			
Account Group:				
Detailed Control for P&L Statement Account				
Functional Area:				

- Journal entries are recorded under GL accounts (secondary and primary costs)

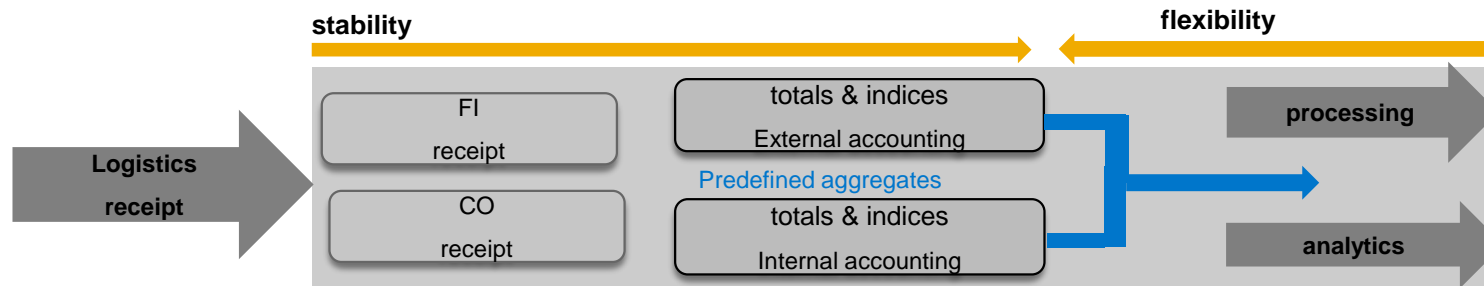
# Innovations in S/4HANA

## 2) Universal Journal

- **Universal Journal** combines account assignment of Controlling (cost center, WBS element..), Profitability Analysis (products, customers..), and Enterprise Controlling (profit center)
  - In previous architecture, many reconciliation work was necessary because the components for P&L representations were structured differently and stored in different tables
  - More flexibility: reporting on following dimensions: profit center, functional area, cost center, internal order, project and market segment

### SAP Accounting versus SAP ERP

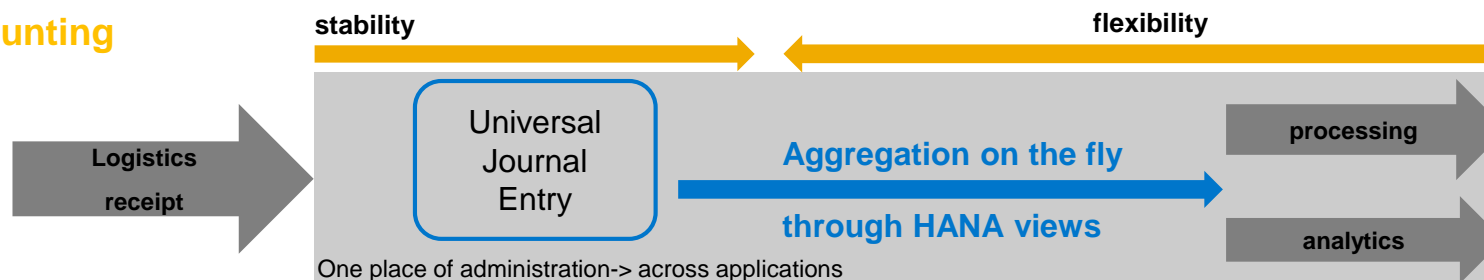
#### SAP ERP



#### Advantages:

- Harmonized external and internal reporting
- Increased flexibility in reporting and analysis
- No need for coordination
- Significantly reduced memory requirements
- Compatibility Views for the sum / index tables
- Reporting continues to work

#### SAP Accounting



# Innovations in S/4HANA

## 2) General Ledger

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- General Ledger in S/4HANA is based in the Universal Journal
- Line items are stored in the new database table ACDOCA → optimized to SAP HANA
  - no need for CO real-time integration for transfer of secondary CO postings to New GL or the Reconciliation Ledger of Classic GL
- CO internal postings are now visible in General Ledger as well
- The new journal entry consists of a header (table BKPF) and the respective items (table ACDOCA).
- The ACDOCA table contains all fields needed for G/L, CO, AA, ML, PA, providing one single source of truth for all these modules. For CO, the universal journal also contains all cost elements, including secondary cost elements, which are also in SAP S/4HANA G/L accounts.

# Innovations in S/4HANA

## 2) Universal Journal

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- Advantages:
  - No need for coordination
  - Significantly reduced memory requirements
  - External and internal accounting are harmonized
  - Flexible, multi-dimensional real-time analyses can be executed directly from the Universal Journal - without replication of the data into the BI.
- There are apps for:
  - reporting on cost centers, internal orders, projects, sales, items and reporting on market segments based on the account-based approach
- There aren't yet apps for:
  - reporting on commitments for any of the CO account assignments, reporting on target costs, variance categories, intercompany eliminations, reporting on budget, allotted costs, work in process or results analysis, reporting on cost estimates

# Innovations in S/4HANA

## 3) Technical Changes in Material Ledger

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- The use of Material Ledger (ML) is now obligatory and automatically active in all SAP S/4HANA systems fulfills two basic objectives:
  - the ability to manage material prices in multiple currencies/valuations: Material inventory values are normally managed by the system in only one currency (company code currency). The material ledger enables the system to manage inventory values in additional currencies/valuations. This is achieved by updating all goods movements in the material ledger. Currency amounts are translated into foreign currencies at historical exchange rates directly at the time of posting.
  - and actual costing: with the purpose of determining actual costs for externally procured materials and materials produced in-house
    - In addition, actual costing uses actual costs to value inventories of raw materials, semi finished products, and finished products
    - Actual costing calculates an actual price (periodic unit price) for each material, into which all actual costs for the particular period flow.

# Innovations in S/4HANA

## 3) Technical Changes in Material Ledger

- It is no longer allowed to use an ML type that references currency settings defined in FI or CO
- Transaction CKM3PH (Price Determination Structure) replaces CKM3 / CKM3N
  - provides an improved view of materials in plants with active Actual Costing
  - All views offered by CKM3/CKM3N are no longer available, except CKM3 Price History view (via CKM3PH for all materials)

SAP Material Price Analysis

\*Material: DXTR1000 Deluxe Touring Bike (black)

\*Plant: SD00 DC San Diego

Valuation Type:

+ Sales Order Stock/Project Stock

Period/Year: 8 2016 < > Period Status: New Objects

\*Curr./Valuation: Company code currency USD

View: Price History

+ Prices and Inventory Values

Transaction	Object	Unit	ChgTotInv.	Value Chg.	Price Mov.	Per	TotalStock	Total Val.	New Price
Period Opening		EA	0	0,00	0,00	1	0	0,00	1.400,00





Thank you!

