SAP S/4 HANA Transitions

Discovery Workshop Overview for Make / Buy / Sell

ASUG Education Welcomes the Kentucky Chapter

ASUG's 'S/4 Transitions' Approach

- Face-to-face courses with ASUG Membership
  - FI Transitions Class
  - Discovery Workshop
  - Procurement, Fulfillment, Production are under development
  - Other courses are being planned

- Content is based on a review of SAP's Simplification Guide for S/4HANA (currently 1809 FPS 01)
  - When needed, other sources from SAP are used (e.g. S/4HANA Road Maps)

- A consistent content structure for each main business processes (module)
  - Side-by-side comparisons of R/3 vs. S/4HANA capabilities
  - Exercises in S/4HANA to illustrate specific changes

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Content for Each Module

1. Overview
2. Process Enhancements
3. ~~Industry Solution Impacts (when appropriate)~~
4. Future Enhancements (roadmap)
5. ~~Reporting/Analytics Features~~
6. Data Structure Changes
7. ~~Interface Implications~~
8. ~~Obsoleted Transactions~~
9. ~~Security Implications~~
10. ~~Migration Implications~~
11. ~~Exercises~~
12. Summary

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Outline

10:00 – 10:45

- SAP S/4 HANA Environment
- SAP Fiori

11:00 – 11:45

- Differences in FI/CO

1:00 – 1:45

- Differences in Procurement
- Differences in Fulfillment

2:00 – 2:45

- Differences in Production

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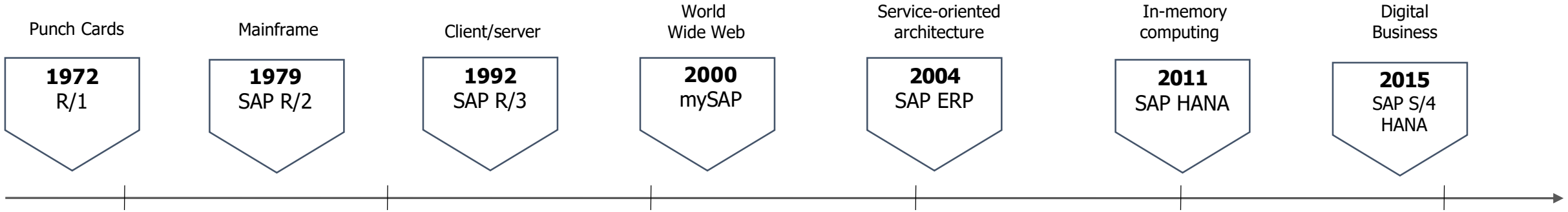
SAP S/4 HANA Overview

- New database: in memory
- New UX: Fiori
- New thinking:
  - OLTP + OLAP in one
  - Greater process focus vs. modules
  - Greater integration

Source: Introduction to SAP Business Suite 4 SAP HANA



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HANA DB Structure

- In memory
- Row and column store
- Compression
- Aggregates and indices
- Compatibility views

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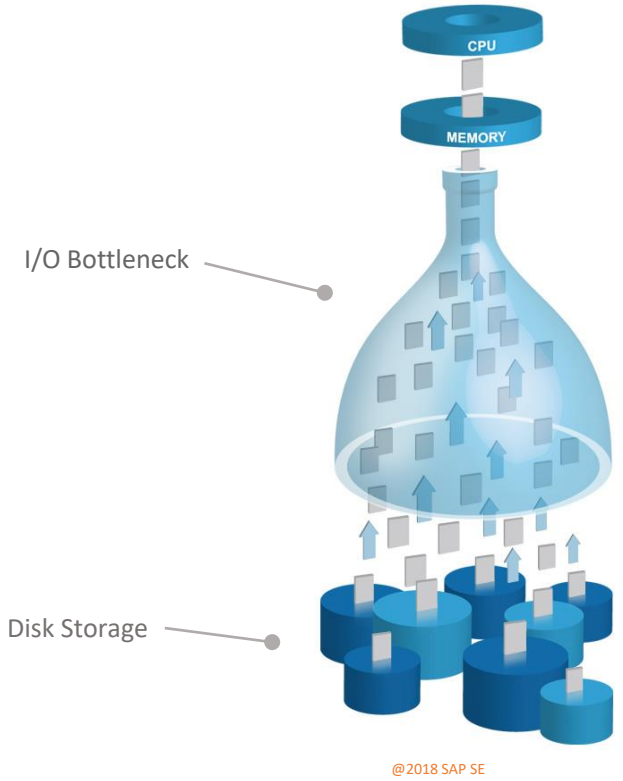
Old vs New DB Technologies

ERP

- Relational data structures
  - Normalized
- Disk based
- Computer architecture
  - Disk – Memory – CPU
  - Single core CPU
  - Expensive memory



S4

- *Non-normalized*
- In-memory
  - Memory is relatively cheap
- Multi core
- Columnar store

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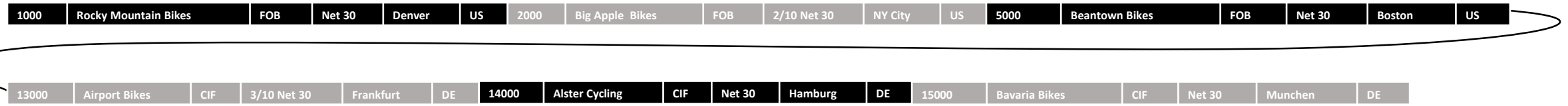
Row vs. Column Store

Customer Master

Customer Number	Customer Name	Shipping Terms	Payment Terms	City	Country
1000	Rocky Mountain Bikes	FOB	Net 30	Denver	US
2000	Big Apple Bikes	FOB	2/10 Net 30	NY City	US
5000	Beantown Bikes	FOB	Net 30	Boston	US
13000	Airport Bikes	CIF	3/10 Net 30	Frankfurt	DE
14000	Alster Cycling	CIF	Net 30	Hamburg	DE
15000	Bavaria Bikes	CIF	Net 30	Munchen	DE



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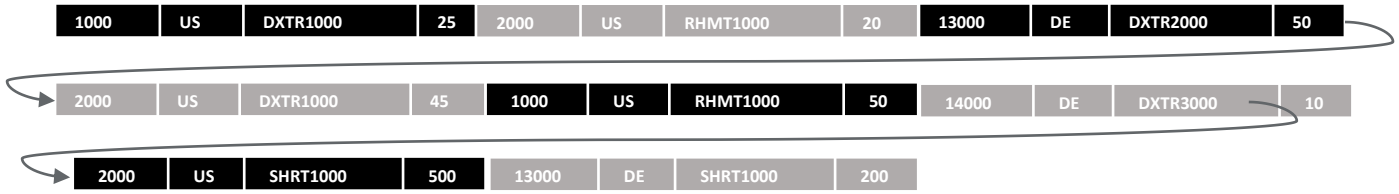
Row vs. Column Store

Sales Data

Customer	Country	Material	Quantity
1000	US	DXTR1000	25
2000	US	RHMT1000	20
13000	DE	DXTR2000	50
2000	US	DXTR1000	45
1000	US	RHMT1000	50
14000	DE	DXTR3000	10
2000	US	SHRT1000	500
13000	DE	SHRT1000	200

- *Types of questions asked*
  - Total sales
  - Total sales by country
  - Total sales by customer
  - Total sales by product

Row Store



Column Store

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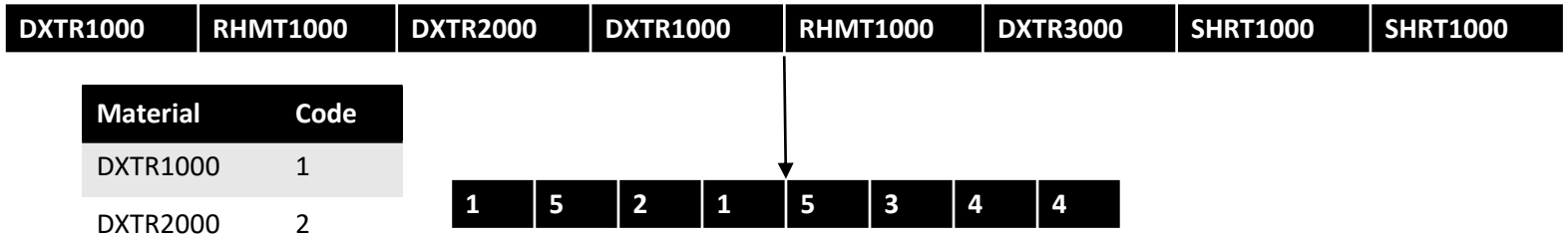
Compression

- Repeated text
- Replace text (material number) with a number
- Other techniques



Material	Code
DXTR1000	1
DXTR2000	2
DXTR3000	3
SHRT1000	4
RHMT1000	5

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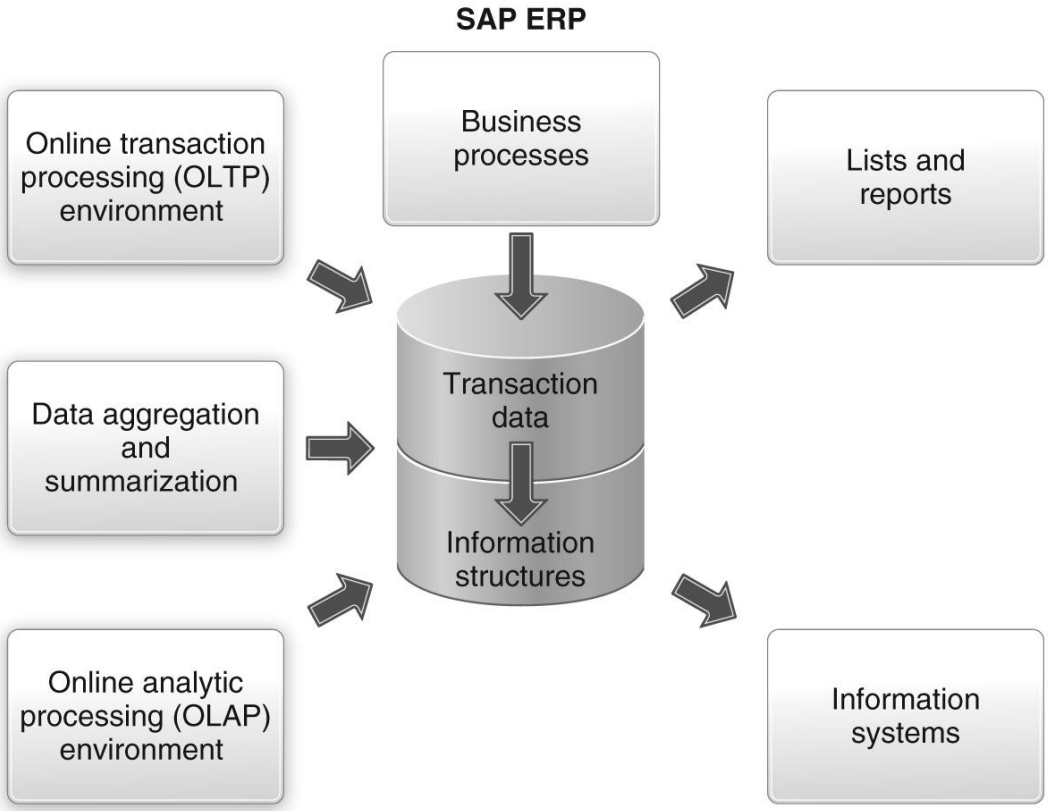
Aggregates and Indices



Source: Magal and Word Business Process Integration w/ SAP ERP

Customer	Country	Material	Quantity
1000	US	DXTR1000	25
2000	US	RHMT1000	20
13000	DE	DXTR2000	50
2000	US	DXTR1000	45
1000	US	RHMT1000	50
14000	DE	DXTR3000	10
2000	US	SHRT1000	500
13000	DE	SHRT1000	200

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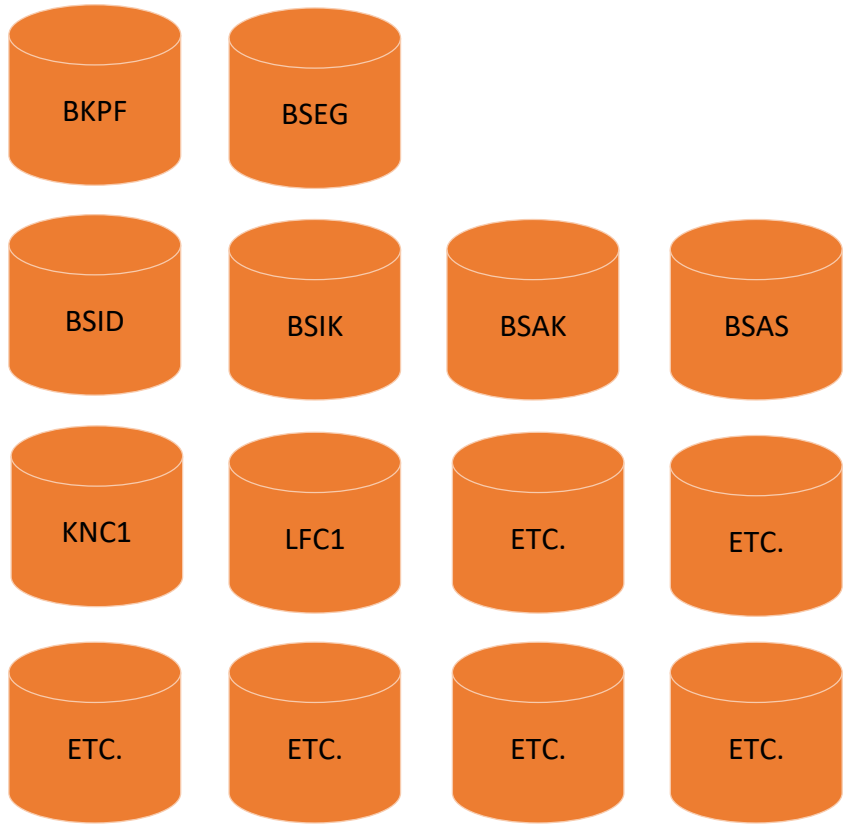
Data structures in ERP (FI Related)

- Business processes create accounting documents
- Procurement, fulfillment, production, etc.
- Posting are made to the following tables
  - BKPF: Document header
  - BSEG: Line items
  - BSID: Open A/R items
  - BSIK: Open A/P items
  - BSAK: Cleared A/R items
  - BSAS: Cleared A/P items
  - KNC1: Total A/R
  - LFC1: Total A/P
  - Indices to allow for faster retrieval
  - Total of 15 tables



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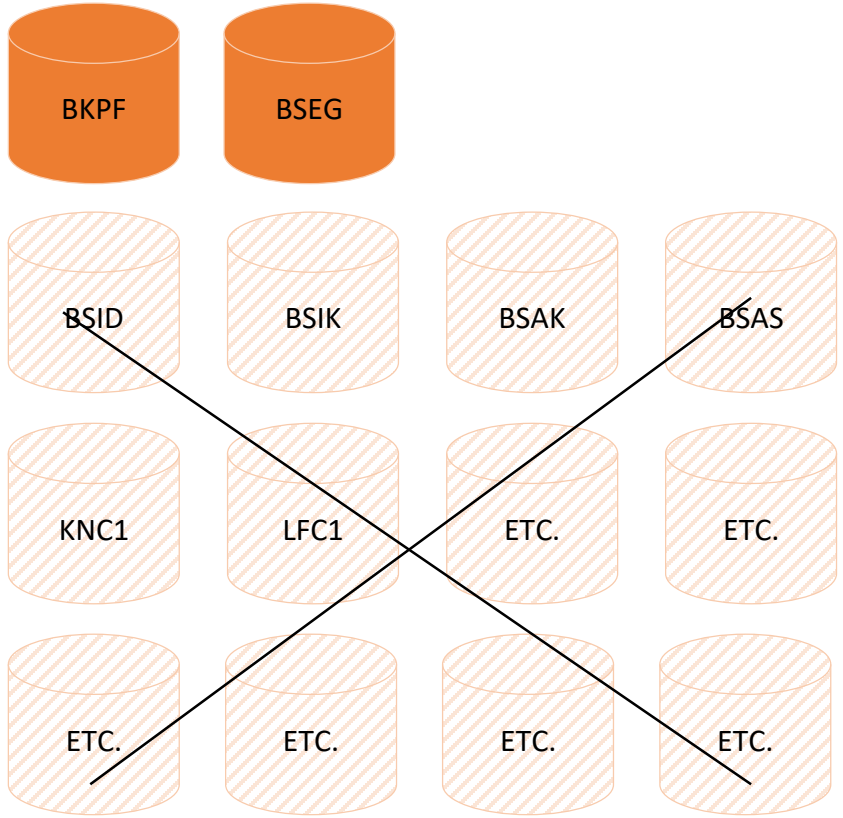
Data structures in S/4 (FI related)

- Accounting documents are still created
- Posting are still made to
  - BKPF – header table
  - BSEG – line item table
  - Other tables are eliminated
  - Calculations are made on the fly
- New: Universal journal (ACDOCA table)
  - Includes fields for all processes
  - Single source of data



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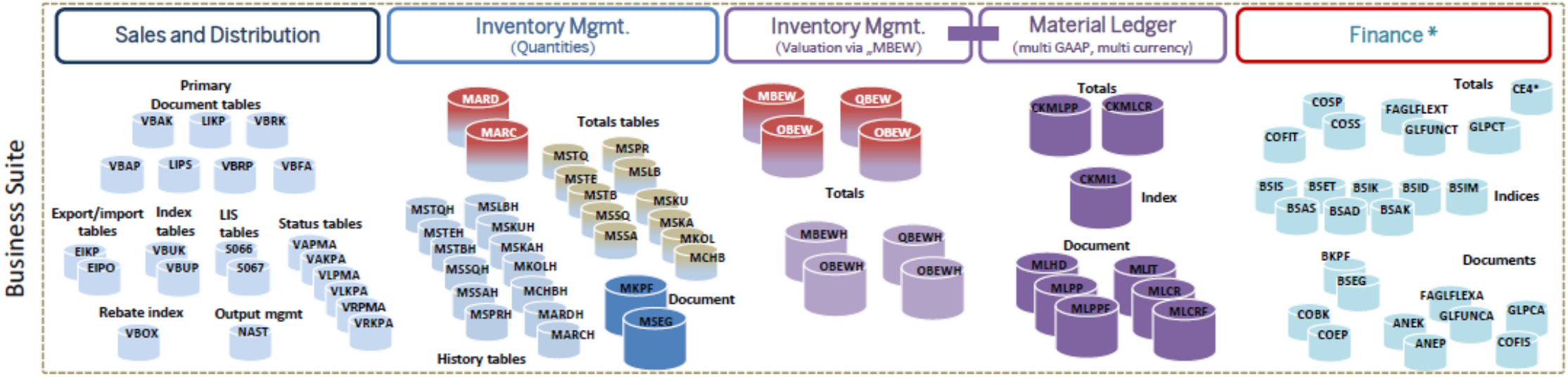
Data structures in ERP



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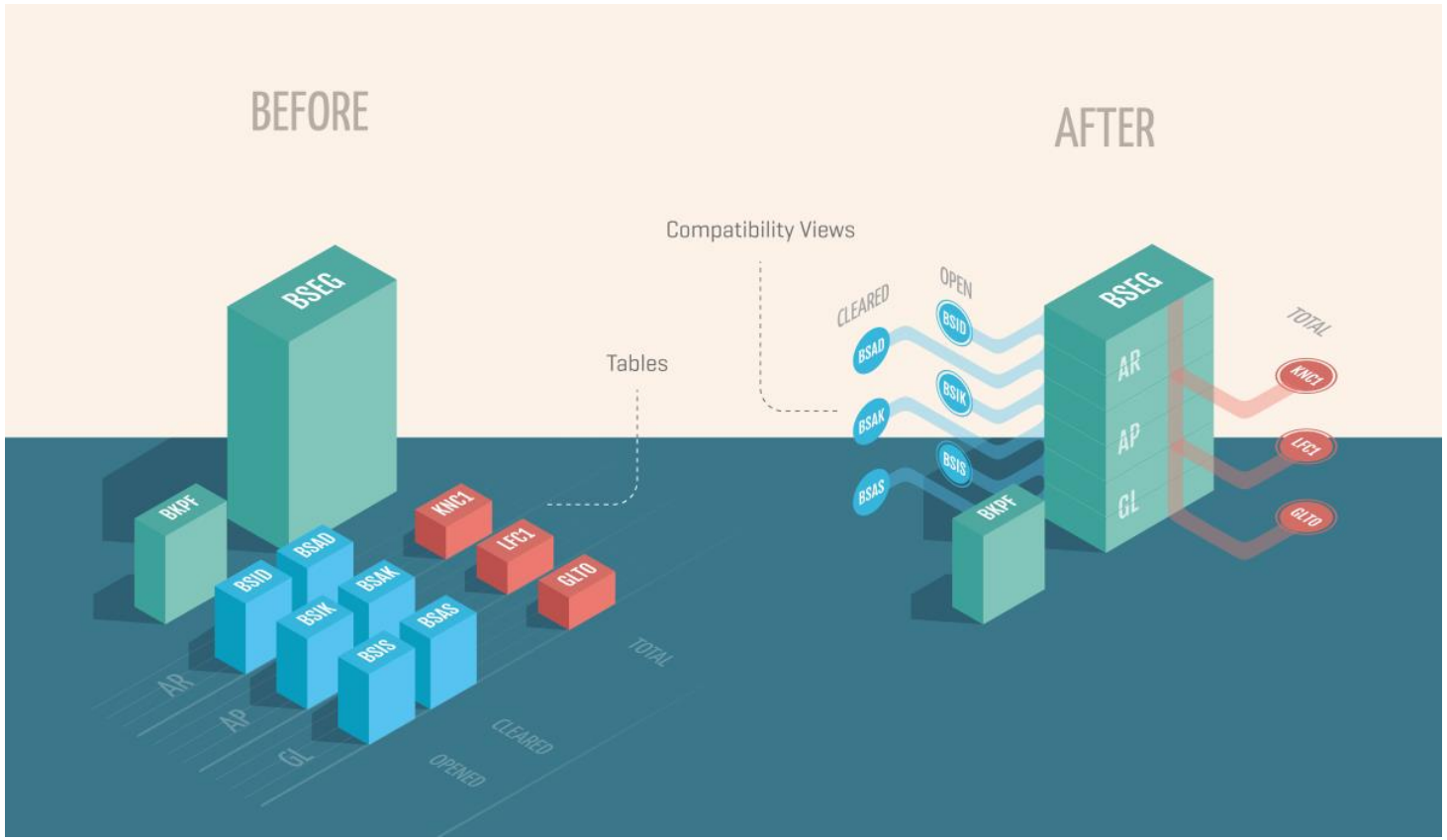
Compatibility views

- Compatibility views are maintained for eliminated tables
  - To support older programs (for read access)



Source: How Simple Finance Removes Redundancy

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Reduced Data Footprint

Adapted from: S4 HANA-The future is here!

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HANA DB Structure

- In memory ✓
- Row and column store ✓
- Compression ✓
- Aggregates and indices ✓
- Compatibility views ✓

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Outline

- SAP S/4 HANA Database ✓
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- Differences in Production

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Fiori Introduction

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SAP S/4 HANA Overview

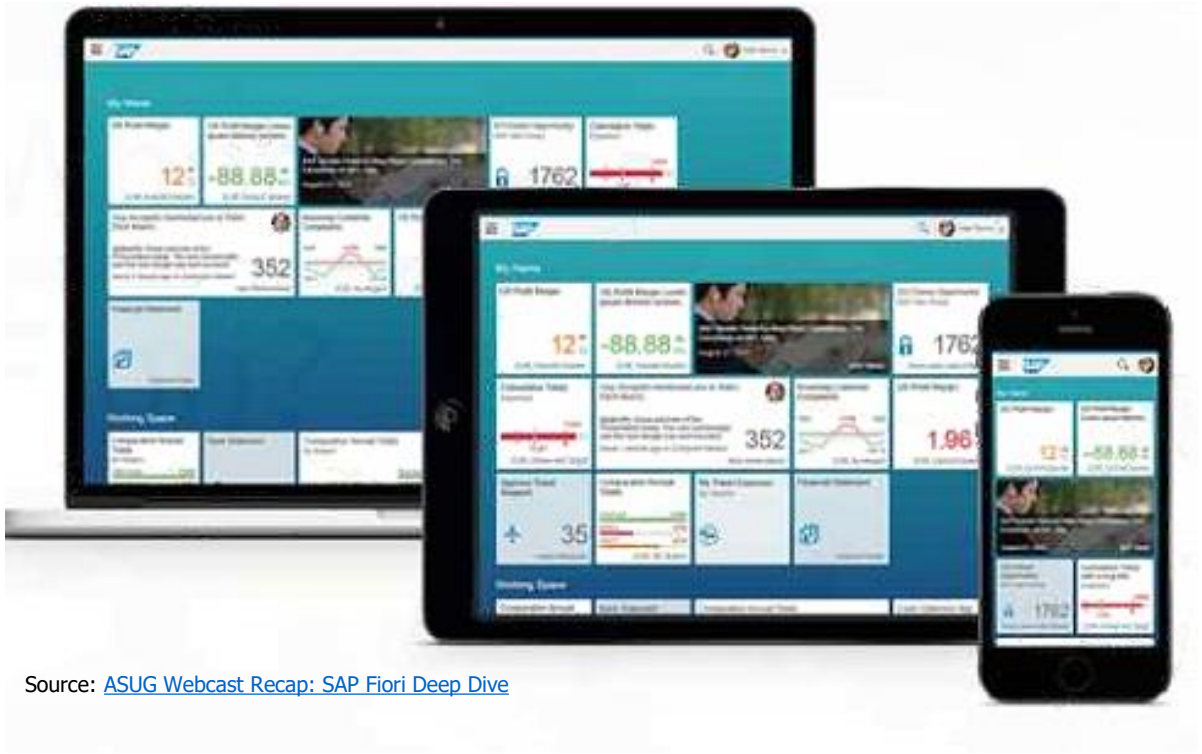
SAP Fiori principles

Source: Seven Reasons Why You Should Become an SAP Fiori Developer

 © 2020 ASUG

Fiori: Adaptive

- Responsive to any device



Source: ASUG Webcast Recap: SAP Fiori Deep Dive

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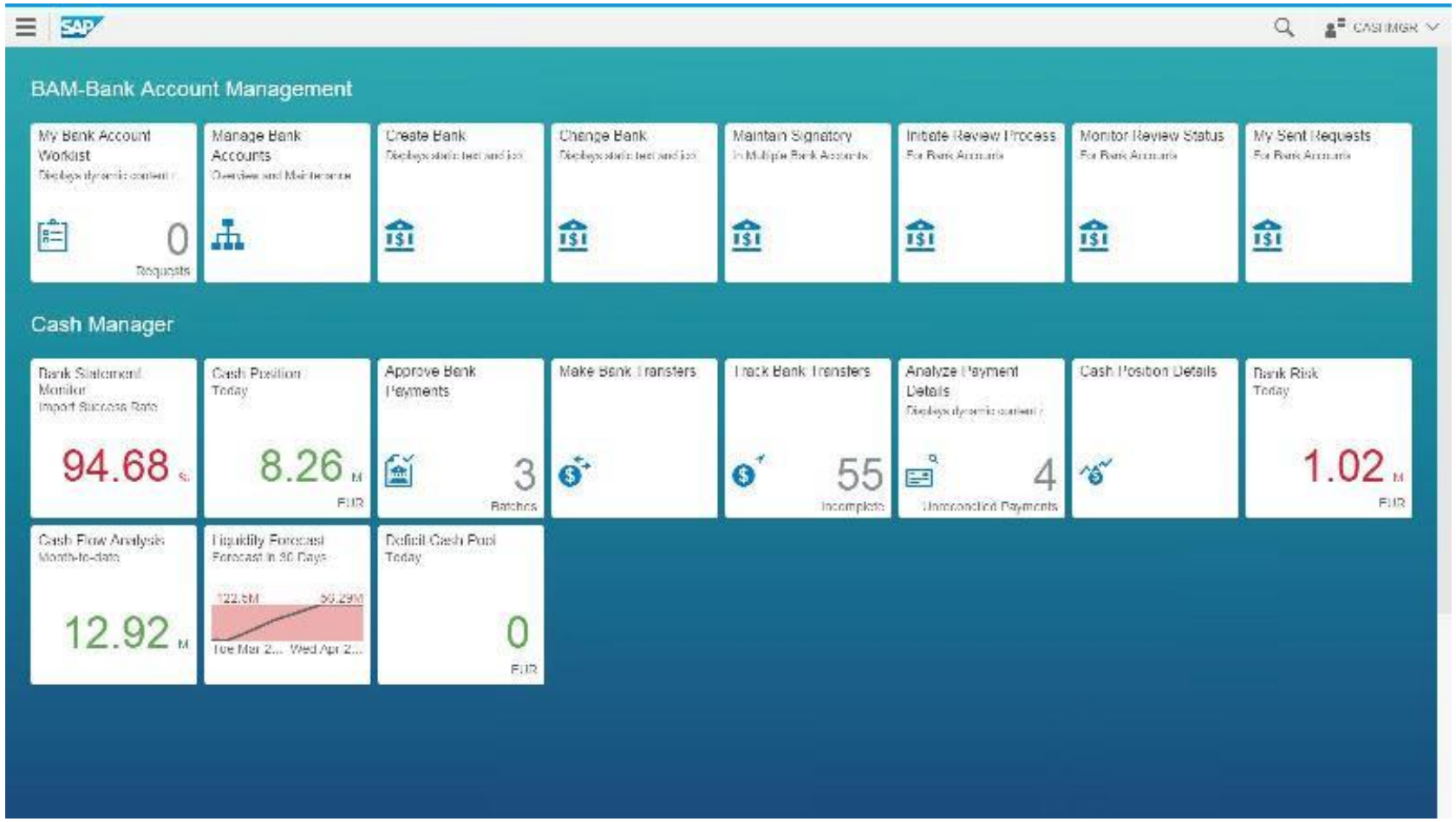
Fiori: Role Based



Source: Fiori Launchpad Plugins

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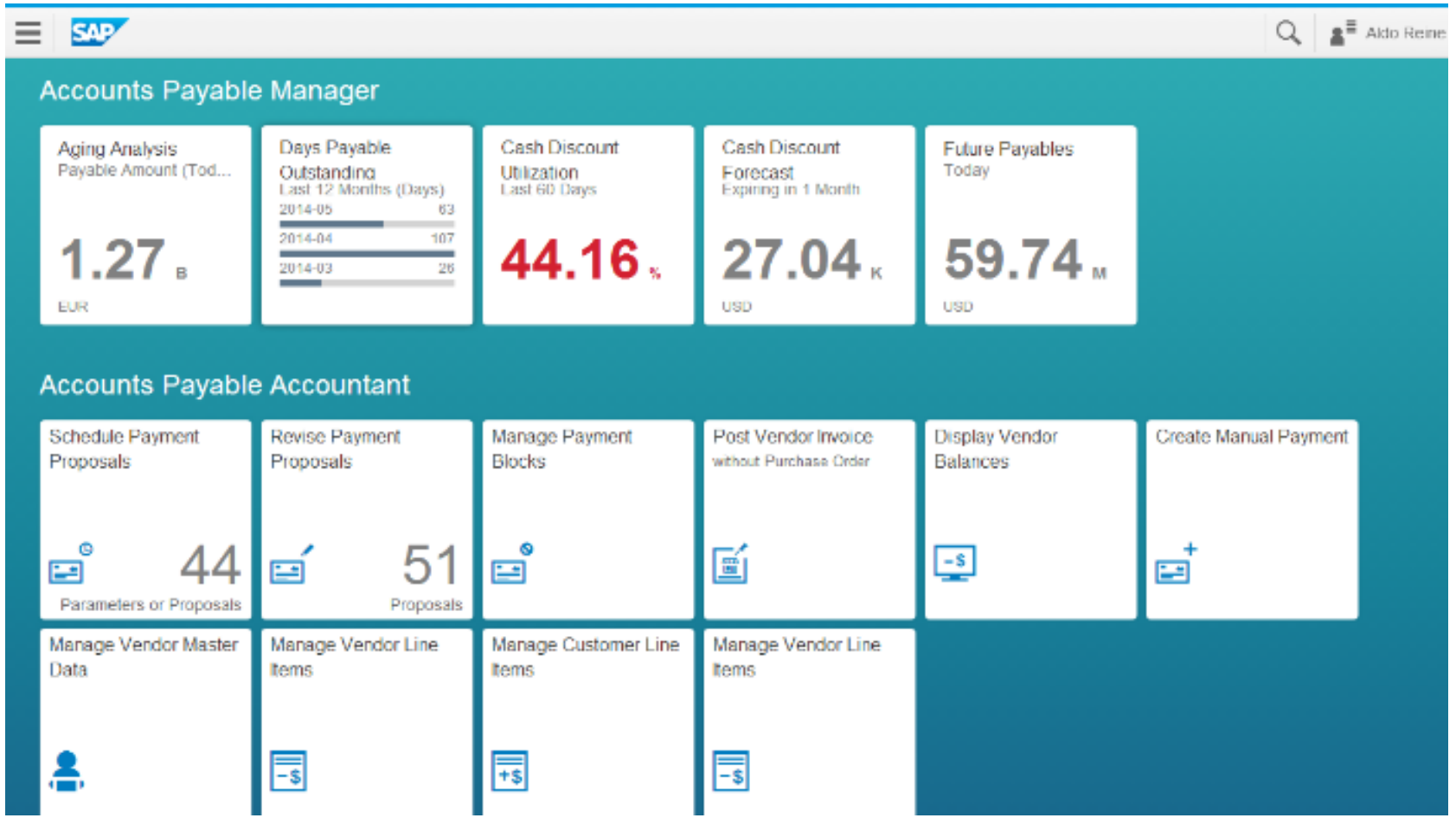
Fiori: Role Based



Source: [S / 4HANA Finance versus SAP ECC (R / 3)]

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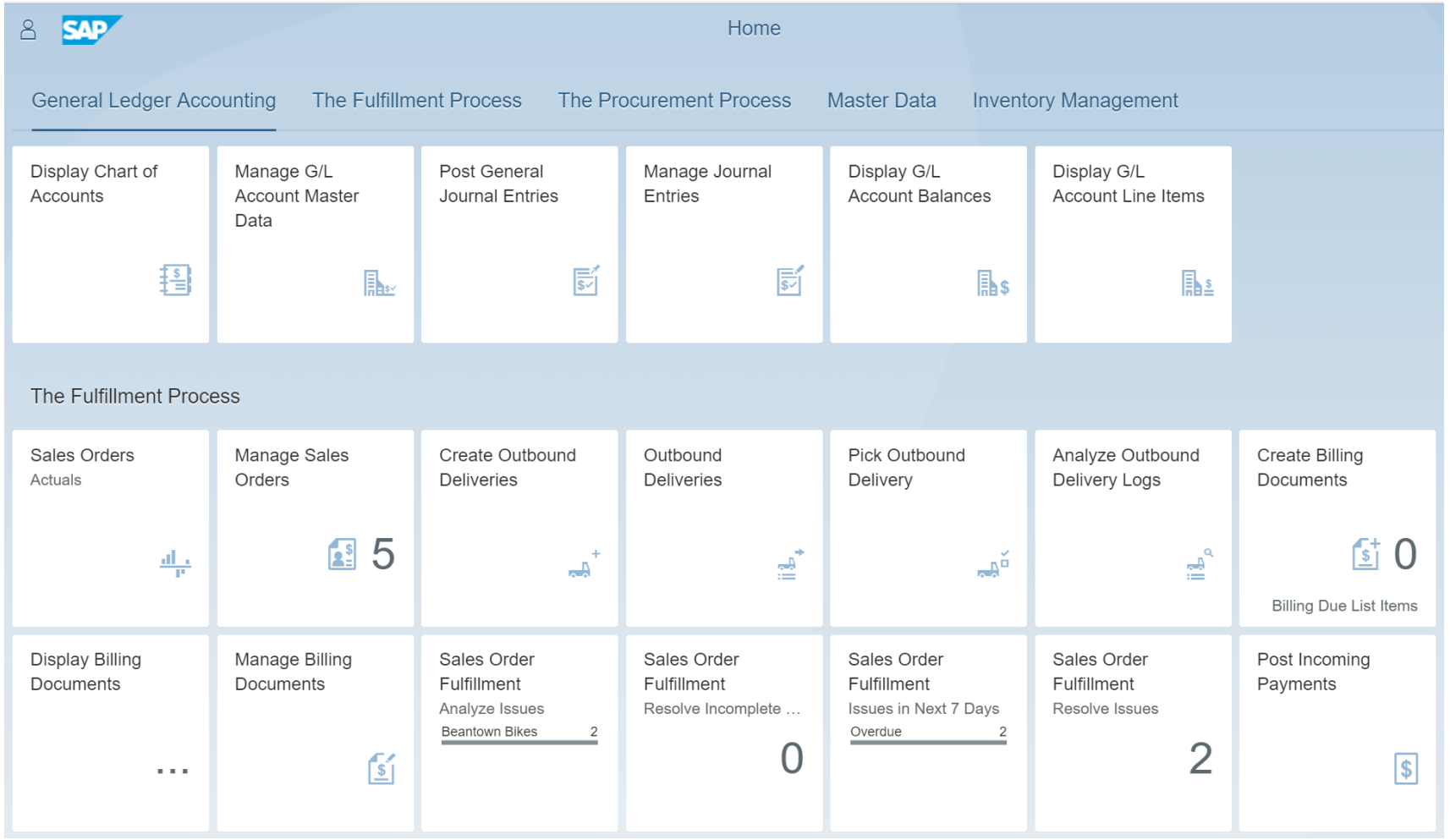
Fiori: Launchpad



Demo: Fiori Launchpad

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Fiori: Type of Apps

- Transactional
  - Create, display, change
  - Combines data from multiple transactions
- Fact sheets
  - Essential information in context
  - Material, customer, vendor, etc.
- Analytical
  - KPIs
  - Insights

Source: ASUG Webcast Recap: SAP Fiori Deep Dive

Demo: T, FS, A apps

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Outline

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Finance and Controlling

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Overview

Major characteristics for Finance* and Controlling transition from R/3 ECC to S/4 HANA

- Assumes migration to 'New General Ledger Accounting'
- Implementation of Universal Journal
  - Tighter FI/CO integration
  - Controlling and Material Ledger Activation is automatic
  - Reduced data footprint
  - Reduced Reconciliation needs
- Consolidation of FI & CO Master Data
- Intelligent Finance Capabilities

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FI Process Changes

Changes:

- Universal Journal and enhanced FI/CO integration (SG1809/01/13.1)
- Controlling and Material Ledger activation is no longer optional
- Country specific transaction codes changes (SG1809/01/38.1, 38.2, 38.3)
- Improved currency capabilities (SG1809/01/3.4)

Architecture shift:

- FSCM Biller Direct is no longer the target architecture for self service Accounts Payable and Accounts Receivable (SG1809/01/9.2)
- Closing cockpit is available, but no longer considered the target architecture. (SG1809/01/13.3)
- Credit Management (FI-AR-CR) is not available as part of SAP S/4HANA and is replaced. (SG1809/01/16.1)

No longer available:

- Cash and Liquidity Management (Cash Management and Liquidity Planner) is not available in SAP S/4HANA (SG1809/01/11.1)
- Differentiation-category dependent Financial Services data cannot be read or maintained after release 1610 (SG1809/01/16.6)
- The Product Design Cost Estimate (PDCE) solution is not available in SAP S/4HANA (SG1809/01/16.7)

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Controlling Process Changes

Changes:

- Cost elements become part of the chart of accounts (SG1809/01/12.9)
  - No separate cost elements (they are a type of "account")
  - New account type: secondary costs (to separate from GL accounts)
  - Cost element categories are attributes in the universal journal
- The universal journal includes columns for the standard CO-PA characteristics and all additional characteristics included in an organization's operating concern (up to fifty characteristics). (SG1809/01/12.11)
- Summarization Hierarchies in Controlling are now calculated real-time (SG1809/01/12.2)
- SAP BPC: Use in S/4HANA is currently optional, classic FI-GL and CO-OM planning functions& transactions are still available, but will be obsoleted eventually. (SG1809/01/12.5; SG1909/01/8.3)
- CO-OM planning, P&L planning, and profit center planning are now covered by SAP BPC for S/4HANA Finance (formerly known as Integrated Business Planning) (SG1809/01/12.5)

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Controlling Process Changes

No longer available/supported:

- General Cost Objects and Cost Object Hierarchies are not available within SAP S/4HANA (SG1809/01/12.7)
- The creation of cost estimates with reference to base planning objects is no longer supported in SAP S/4HANA. (SG1809/01/12.1)
- Activity Based Costing: Delta versions used for parallel calculation are no longer supported in SAP S/4HANA. (SG1809/01/12.6)

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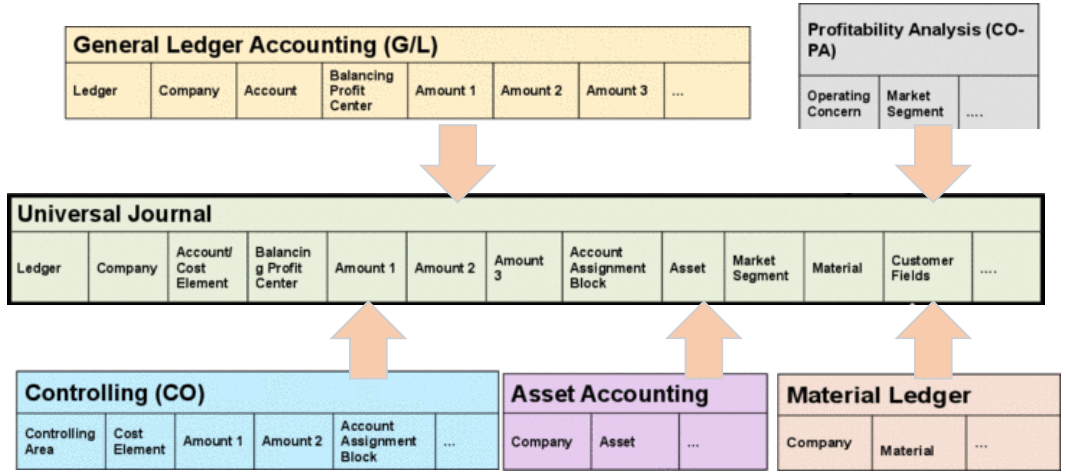
The Universal Journal

- ACDOCA Table: The Universal Journal
  - Eliminates tables for FI, AA, CO, and ML
  - BKPF and BSEG tables still exist
- "Single Source of Truth" for financials
- Reconciliation and settlement between tables (processes) eliminated
- Requires new configuration steps
  - Activation of the material ledger is mandatory



Source: help.sap.com

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FICO Integration in S/4 HANA

- FI postings
  - Same as in ECC
- CO postings
  - Always associated with FI
    - Because all postings are in the universal journal
  - Postings within CO are reflected in FI
- Key changes (associated with universal journal)
  - Controlling integration is automatic
  - No separate cost elements
    - Cost elements are a type of "account"
    - New account type: secondary costs
    - Cost element categories are attributes in the universal journal

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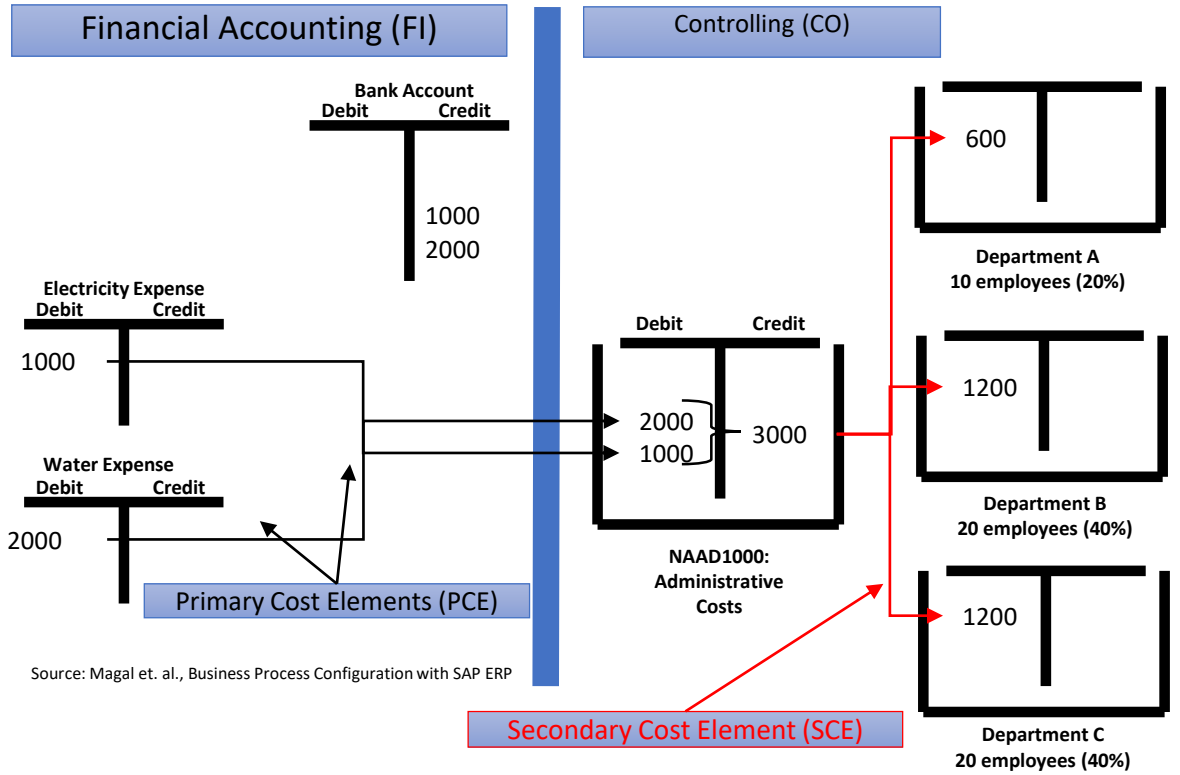
FI CO Integration

- FI Postings
  - Journal entries
  - Invoices
  - Payments
- CO Postings
  - From FI (w/ CO object)
  - Within CO
    - Periodic allocation
    - Internal activity allocation
    - Internal order settlement
    - Not recognized in FI (R/3)
    - Need for reconciliation (R/3)



Source: Magal et. al., Business Process Configuration with SAP ERP

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Material Ledger – Inventory Valuation

- Material ledger is part of the universal journal
  - Separate ML tables no longer maintained
- Activation of material ledger is mandatory
  - Required for material valuation
  - Acts as inventory subledger
  - Permits valuation in multiple (3) currencies

Valuation Area	Company Code	Mat...	Status	ML Act.	Price Deter.
DL00	US00	9000		☑	2
HD00	DE00	9000		☑	2
HH00	DE00	9000		☑	2
MI00	US00	9000		☑	2

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FI Future Enhancements (roadmap)

Recent

- Central Payment Processing
- Tax compliance and reporting
- Entity Close Orchestration
- IFRS 15 and ASC606 compliance
- FX Risk Management
- Foreign currency hedge management with US GAAP.
- Matrix consolidation
- Activity-based costing of investments
- Rule based matching and reconciliation for entity close
- SWIFT cross-border payment traceability
- AR Integration with SAP Ariba, SAP Fieldglass, SAP Success Factors and SAP Concur
- Fiori Integration
- Convergent Invoicing improvements

2020

- Improved Treasury Management processes
- Improved revenue and cost accounting processes
- Improved centralized finance close activities
- Advanced intercompany reconciliation
- Integration with seller-side discount management
- Improved self-service capabilities for invoice and contract information
- Integration with Financial Customer Care
- Predictive accounting extended to non-SAP S/4 HANA documents
- Improved profitability reporting
- Multi-currency internal order settlement
- Improved contract and lease management

2021 +

- 'Liquidity item' Derivation support
- Simplified indirect tax registration for plants abroad
- Parallel ledger improvements
- Improved Group Reporting
- Enable Gift Cards for Payments
- P-card payment improvements
- Event-based cost view reporting in production
- Improved ledger support for multiple accounting principles
- Improved lease management

Adapted from SAP S/4HANA Road Map – October 2019: https://www.sap.com/products/roadmaps/finder-products.html#pdf-asset=b4f98b5d-c37c-0010-82c7-eda71af511fa&page=9

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Procurement

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Procurement Process Changes

Changes:

- Business Partner Approach (SG1809/01/3.15, 2.19, 3.3, 3.8, 3.28)
- New Batch Management transactions (SG1809/01/3.3)
- Transaction MIGO is now the primary inventory management tool for all processes in S/4 HANA. Subtle screen changes. (SG1809/01/24.5)

Architecture Shifts:

- LIS based vendor evaluation is no longer considered the 'future architecture' for this capability. (SG1809/01/35.12)
- Request for Quote with required supplier is no longer considered the 'future architecture' (SG1809/01/35.7)
- FSCM Biller Direct is no longer the target architecture for self service Accounts Payable (SG1809/01/9.2)

No Longer Available:

- WebDynpro Applications are no longer available.. (SG1809/01/35.1 & 35.8)
- Invoice Forecasting Worklist is no longer available (SG1809/01/22.2)

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Procurement 'Moves' in functionality

- Supplier Relationship Management functionality (SRM) moves to SRM Self-Service Requisitioning (SG1809/01/35.9)
- SAP Supplier Lifecycle Management (SAP SLC) as been consolidated into Supplier and Category Management together with SAP Ariba solutions (SG1809/01/35.3, 35.4, 35.11)
- "Supplier Distribution" master data capabilities in SLC are now part of Master Data Governance – Supplier (MDG-S) and requires a separate license (SG1809/01/35.4)
- "Foreign trade solution" capabilities will now be delivered via SAP's Global Trade Solutions (SG1809/01/35.6)
- "Old Architecture" Catch Weight Management (CWM) is being replaced with "New Architecture" CWM (SG1809/01/24.11)
- ERP Shopping Cart capability is being replaced by Self-Service Requisitioning (SG1809/01/35.13)

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Procurement Future Enhancements (Roadmap)

Recent

- Purchasing Info Record support for Subcontracting, consignment and Pipeline processes
- Use of Global Trade Services for Purchase orders and contracts
- SAP Fiori integration for Supplier Invoices, Manage PR's Centrally
- Purchase Requisition completion workflow
- Central Purchasing Requisition Approvals

2020

- Streamlined Intercompany processing for billing
- Improved payment reminders and dunning activities for Purchase Orders
- Integration of Lean Services for Work Orders
- Integration of Transportation Management for procurement documents
- Ability to extend existing purchase contracts for open PR items.
- Purchase contracts for unplanned services
- Legal content templates for contracts

2021 +

- 'Smart workflow' for process exceptions and tasks
- Improved intercompany processes for procurement
- Process trend analysis for central purchasing contracts
- Central purchasing support for complex services
- Centrally managed sources of supply
- Purchaser cockpit for Central Procurement cards

Adapted from SAP S/4HANA Road Map – October 2019: https://www.sap.com/products/roadmaps/finder-products.html#pdf-asset=b4f98b5d-c37c-0010-82c7-eda71af511fa&page=32

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Fulfillment

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Overview

Major Fulfillment functionality implications for the transition from SAP R/3 to S/4 HANA:

- Customer Master Data is now tightly integrated with Vendor via ‘Business Partners’
- A number peripheral capabilities move to other areas in S/4 HANA or other SAP Products
- A number of small, “stand alone” changes have also been made
- Output Condition architecture has changed

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Fulfillment Process Changes

Changes:

- Business Partner Approach (SG1809/01/3.15, 2.19, 3.3, 3.8, 3.28)
- Billing document output determination logic has changed (SG1809/01/36.4)
- Revenue Recognition changes (SG1809/01/36.13)

Architecture Shift:

- FSCM Biller Direct is no longer the target architecture for self service Accounts receivable (SG1809/01/9.2)
- Logistics Execution Transportation (LE-TRA) is no longer the target architecture (SG1809/01/32.1)

No Longer Available:

- Invoice Forecasting Worklist is no longer available (SG1809/01/22.2)
- Internal Sales Reps role & Worklists are no longer available (SG1809/01/36.1)
- Public Sector billing for contractors no longer available (SG1809/01/36.16)

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Fulfillment 'Moves' in functionality

- WebShops functionality is not available in S/4HANA, functionality is available in SAP C/4HANA Commerce Cloud. (SG1809/01/36.2)
- Computer Aid Selling is not available in S/4HANA, functionality is available in SAP CRM (SG1809/01/36.3)
- SD Rebate Processing functionality is being replaced by Settlement Management (SG1809/01/36.5, 36.14)
- Foreign Trade functionality is being replaced by Global Trade Services (GTS) (SG1809/01/36.11)
- "Old Architecture" Catch Weight Management (CWM) is replaced with "New Architecture" CWM (SG1809/01/24.11)
- "Old Architecture" Credit Management (FI-AR-CR) is replaced with "New Architecture" SAP Credit Management (FIN-FSCM-CR) (SG1809/01/36.12)
- Product Catalog web-channel processes will be delivered via SAP Hybris Product Catalog, aka SAP C/4HANA Commerce Cloud (SG1809/01/3.4)

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Fulfillment Future Enhancements (Roadmap)

Recent

- Down payment delivery blocks now available
- Improved schedule agreement functionality
- Fiori support for Scheduling agreements and internal sales representatives
- SOAP data sharing and replication
- Improved Sales Document approval workflow
- Improved customer billing
- Approval workflow for quotations
- Improved BW data integration

2020

- Integration of legal content management into sales contracts
- Customer return approval workflows
- Increased automation for sales inquiries
- Workflow notifications and approvals for credit memo's
- Improved automation for the creation of sales orders
- Integration with PayPal
- Improved integration with Ariba
- Improved pricing simulations

2021 +

- Approval workflows for sales contracts
- Improved visibility of intercompany processes for sales and procurement

Adapted from SAP S/4HANA Road Map – October 2019: https://www.sap.com/products/roadmaps/finder-products.html#pdf-asset=b4f98b5d-c37c-0010-82c7-eda71af511fa&page=32

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Production and MRP

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Overview

Major Production functionality implications for the transition from SAP R/3 to S/4 HANA:

- Inventory Management changes
- Production Version Master Data
- Obsolescence and replacement of Process Industry functionality
- MRP Classic changes to accommodate new planning architecture

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Production Process Changes

Changes:

- Inventory Management Changes (SG1809/01/24.5)
- Production Versions are now required master data (SG1809/01/25.7)
- New Batch Management transactions (SG1809/01/3.3)
- Sequence planning for planned orders in repetitive manufacturing is now available via PPDS (SG1809/01/27.1)

No Longer Available:

- Electronic Records legacy functionality no longer available (SG1809/01/27.13)
- Downtime functionality is no longer available (SG1809/01/27.14)
- Process Flow Scheduling is no longer available (SG1809/01/27.26)

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Production Process Changes

- Functionality available in S/4HANA, but no longer considered as 'future technology '
  - Process Operator Cockpits (SG1809/01/27.23)
  - Legacy Digital signature (SG1809/01/27.12)
  - Production Campaign (SG1809/01/27.18)
  - Electronic batch record (EBR) (SG1809/01/27.19)
  - Process Messages (SG1809/01/27.19)
  - Control Receipts (SG1809/01/27.19)
  - Material Identification/Reconciliation (SG1809/01/27.24)
  - Flow Manufacturing (SG1809/01/27.25)
  - Batch History (not to be confused with Batch Where Used) (SG1809/01/27.29)
  - Logistic Information System in PP (SG1809/01/27.34)
  - Browser-based Process Instruction-Sheets/Electronic Work Instructions (SG1809/01/27.37)
  - Process Data Evaluation (SG1809/01/27.16)
  - Process Messages (SG1809/01/27.20)
  - Control Receipts & Control Instructions (SG1809/01/27.21)

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MRP 'Classic' Process Changes

- Option to implement NEW 'MRP Live' or remain on MRP Classic (upgrade to MRP Live at any time) (SG1809/01/27.2)
- MRP Classic:
  - **Changes:**
    - Certain MRP master data no longer required (SG1809/01/3.21)
    - Sourcing logic has changed (27.36)
    - Forecasting Algorithms have changed slightly (SG1809/01/27.6)
    - MRP logic for subcontract manufacturing has been modified (SG1809/01/27.11)
  - **Architecture Shift:**
    - Computer Aided Process Planning (CAPP) is defined as "not strategic any more" (SG1809/01/27.6)
    - Graphical planning table is no longer considered as the target architecture (SG1809/01/27.33)
    - Sales and Operation Planning table (S&OP) is no longer considered as the target architecture (SG1809/01/27.35)
  - **No Longer Available**
    - Net Change Planning is no longer supported (SG1809/01/27.3)
    - TOTAL dependent requirements is no longer supported (SG1809/01/27.4)
    - ABAP list-based PI sheets no longer supported (SG1809/01/27.9)
    - Planning at Storage Location level is no longer supported (SG1809/01/27.22)
    - Production versions no longer use reference routings, rate routings, and rough-cut profiles in parallel (SG1809/01/27.27)
    - Planning inside the planning horizon is no longer available (SG1809/01/27.28)

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MRP Classic vs. MRP Live – 1/3

S.No	Feature	Classic MRP	MRP Live
1	MRP list	MRP parameter "Create MRP list" can be used to control whether MRP list should be created.	No MRP lists are written by MRP live as MRP lists were intended for checking the MRP result.
2	Scope of planning	MRP parameter "Scope of planning" can be used to combine a group of plants or MRP areas.	Scope of planning is not supported. MRP Live can plan many materials in many plants. It always plans all MRP Areas.
3	Creation indicators	Classic MRP has a complicated set of rules for instructing the MRP run to create either purchase requisitions or planned orders for externally procured materials.	MRP live on HANA always creates purchase requisitions for externally procured materials and schedule lines if there is valid scheduling agreement or source list with scheduling agreement. MRP live on HANA always creates planned orders for inhouse production materials.
4	Opening period	In classic MRP, parameter "Creation indicator for Purchase Requisitions" can be set as 2:Purchase requisitions in opening period.	MRP live on HANA doesn't consider opening period.
5	Planning horizon	MRP parameter "Processing key" NETPL can be set on ERP systems, but it is removed in S/4HANA systems.	MRP live doesn't support planning horizon

From S/4HANA Classical MRP vs MRP Live : https://blogs.sap.com/2019/03/25/s4hana-classical-mrp-vs-mrp-live/

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MRP Classic vs. MRP Live – 2/3

S.No	Feature	Classic MRP	MRP Live
6	Processing key	MRP parameter "Processing key" NETPL can be set on ERP systems, but it is removed in S/4HANA systems.	The indicator "Regenerative planning" in MRP live replaces the MRP parameter "Processing key". If it is set, it works similar like processing key = NEUPL in classic MRP.
7	Scheduling	On ERP systems, if MRP parameter "Scheduling" is set to "2 Lead Time Scheduling and Capacity Planning", Detailed planning, Rate-based planning, Rough-Cut Planning are all supported.	On S/4HANA systems only detailed scheduling is supported.
8	Planning mode	Classic MRP t-codes have 3 options for planning mode: 1 Adapt planning data (normal mode) 2 Re-explode BOM and routing 3 Delete and recreate planning data	No planning mode 2. Planning mode 1 works different from classic MRP. For planning mode 1, either 100% reuse or delete and re-create. AMDP BADI PPH_MRP_REUSE_BADI can be used to influence system behavior.
9	Simulation	T-code MD02 has 2 indicators "Simulation mode" and "Display results prior to saving" to simulate MRP run. T-code MD03 has an indicator "Display results prior to saving".	MRP live doesn't have simulation mode.
10	BOM components	T-code MD02 can be used to run MRP for single-item, multi-level. There is also an indicator "Also plan unchanged components".	MRP live has an indicator "BOM components" if components are also to be planned.

From S/4HANA Classical MRP vs MRP Live : *https://blogs.sap.com/2019/03/25/s4hana-classical-mrp-vs-mrp-live/*

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MRP Classic vs. MRP Live – 3/3

S.No	Feature	Classic MRP	MRP Live
11	MPS planning	T-codes MD40/MD41/MD42/MD43 can be used to run MPS planning. These t-codes are obsolete in S/4HANA systems.	Field "Material scope" is added in MRP live. If it is set to "S" or "A" MPS materials are planned.
12	Stock transfer materials	Classic MRP can use the field "Scope of planning" to plan both supplying plant and receiving plant.	Indicator "Stock transfer materials" is added in MRP live to control whether you want to plan materials in the supplying plants during the planning run for stock transfer.
13	Perfomrance log	Reports RMMDMONI and RMMDPERF can be used to analyze classic MRP performance.	New field "Name for Performance Log" is added in MD01N. Performance logs can later be checked by t-code MD_MRP_PERFLOG. No Performance Log per material.
14	MRP controller	User exit M61X0001 can be used to influence which materials are selected to be planned during classic MRP run.	Fields "Product group" and "MRP Controller" are added in MRP live.
15	User exit key	User exit M61X0001 can be used to influence which materials are selected to be planned during classic MRP run.	User exit M61X0001 is not supported by t-code MD01N. The BADI MRP_DISPATCHER_BADI can be used to implement own logic

From S/4HANA Classical MRP vs MRP Live : *https://blogs.sap.com/2019/03/25/s4hana-classical-mrp-vs-mrp-live/*

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Production Future Enhancements (Roadmap)

Recent

- Quota Arrangements in MRP
- Routing comparison capabilities
- Standard Library and templates for routing maintenance
- Improved material substitutions for BOM's
- Flexible process execution
- Improved Kanban capabilities (O-data, EWM)
- Improved Quality Inspection results recording
- Improved QM workflows

2020

- Improved Fiori Integration
- PPDS (production planning and detailed scheduling) improvements and enhancements
- Order-based integration with IBP (integrated Business Planning)
- Improved PMI capabilities
- Kanban Control Cycles
- Improved FMEA (Failure Mode and Effects Analysis) integration

2021 +

- Improved demand driven replenishment capabilities in PPDS
- Planned rework and disassembly improvements
- Kanban process optimization
- Integration with SAP 3D Visual Enterprise

Adapted from SAP S/4HANA Road Map – October 2019: https://www.sap.com/products/roadmaps/finder-products.html#pdf-asset=b4f98b5d-c37c-0010-82c7-eda71af511fa&page=18

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Outline

- SAP S/4 HANA Database ✓
- SAP Fiori ✓
- Differences in FI/CO ✓
- Differences in Procurement ✓
- Differences in Fulfillment ✓
- Differences in Production ✓

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Thank you.

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References

- SAP Help Portal
  - https://help.sap.com/viewer/product/SAP_S4HANA_ON-PREMISE/1909.000/en-US
- SAP Simplification Guide
  - https://help.sap.com/doc/fffbaea9108349c0bb2a3386140bd95c/1809.001/en-US/SIMPL_OP1809_FPS01.pdf
  - https://help.sap.com/doc/0080a18cdc1045638d31c87b839011e7/1909.000/en-US/SIMPL_OP1909.pdf
- SAP S/4HANA (On-Premise) Road Map
  - https://www.sap.com/products/roadmaps/finder-products.html#pdf-asset=b4f98b5d-c37c-0010-82c7-eda71af511fa&page=9

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Appendix

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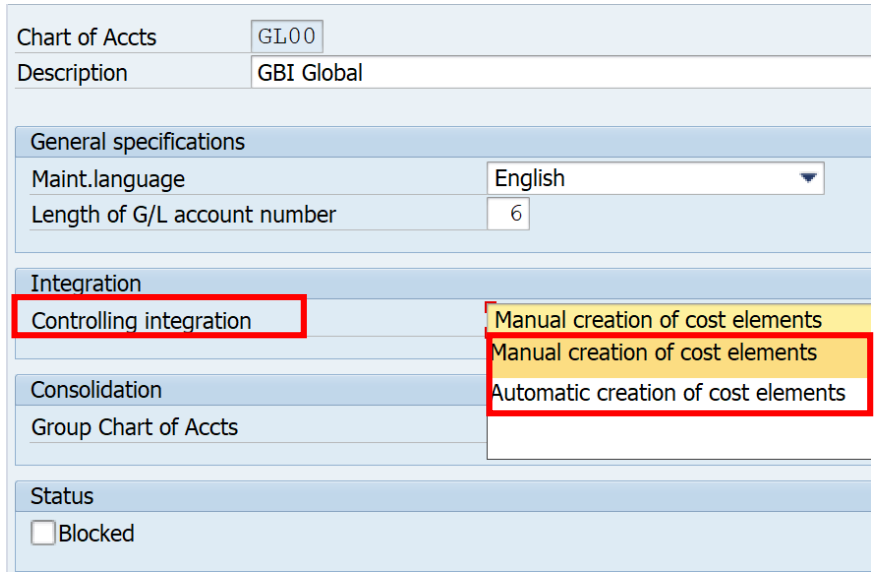
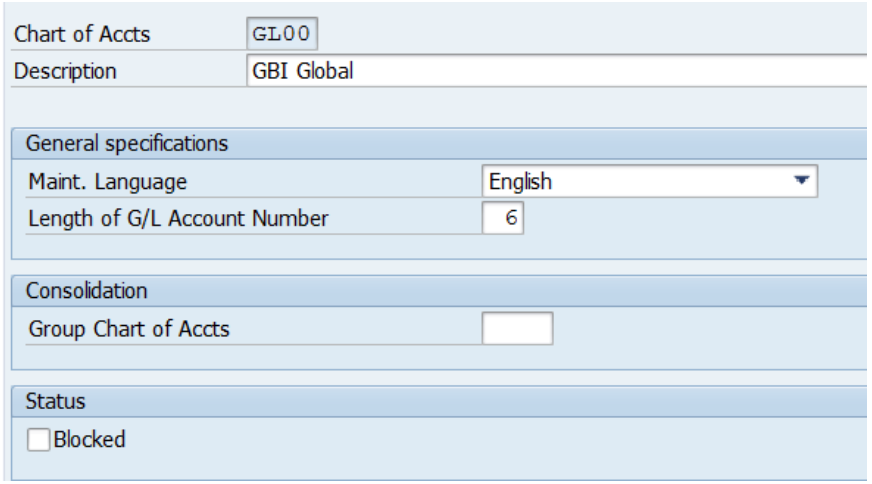
FI – CO Integration

ERP



S/4

- Controlling integration is automatic



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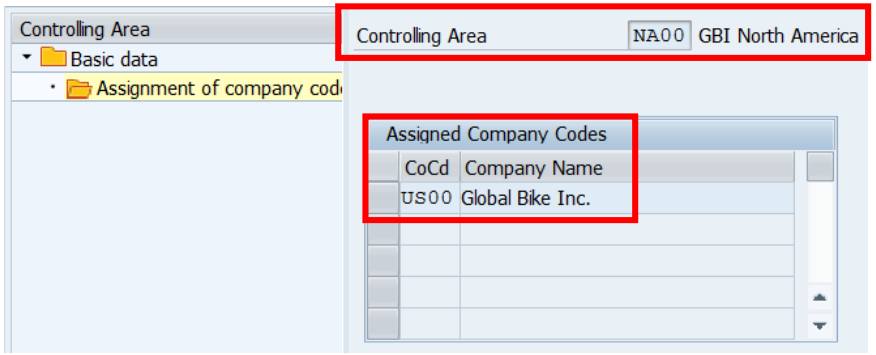
Company Code to Controlling Area Assignment

ERP

- Can be done even when there are accounting documents in the system

S/4

- Must be done before posting any FI documents
- **Cannot be done if FI documents exist!**



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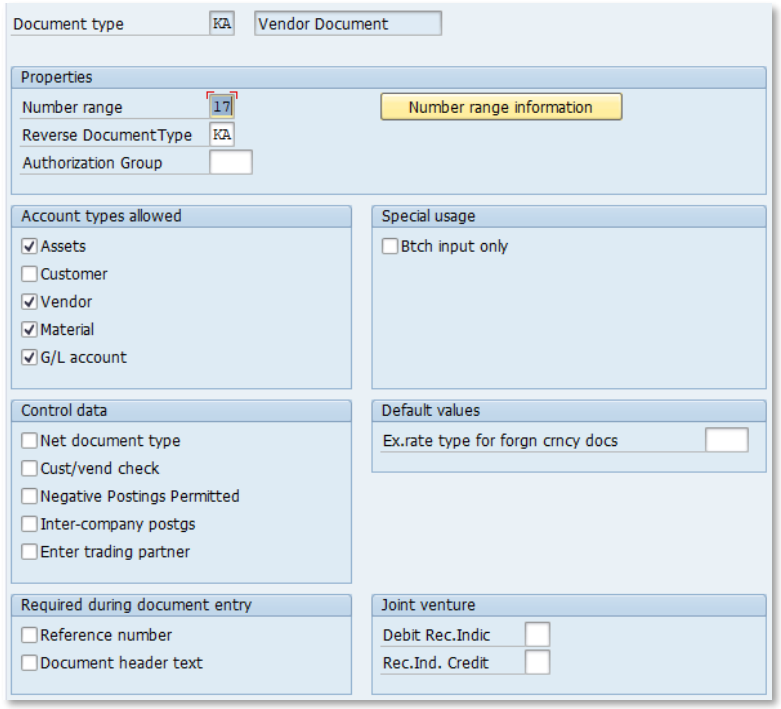
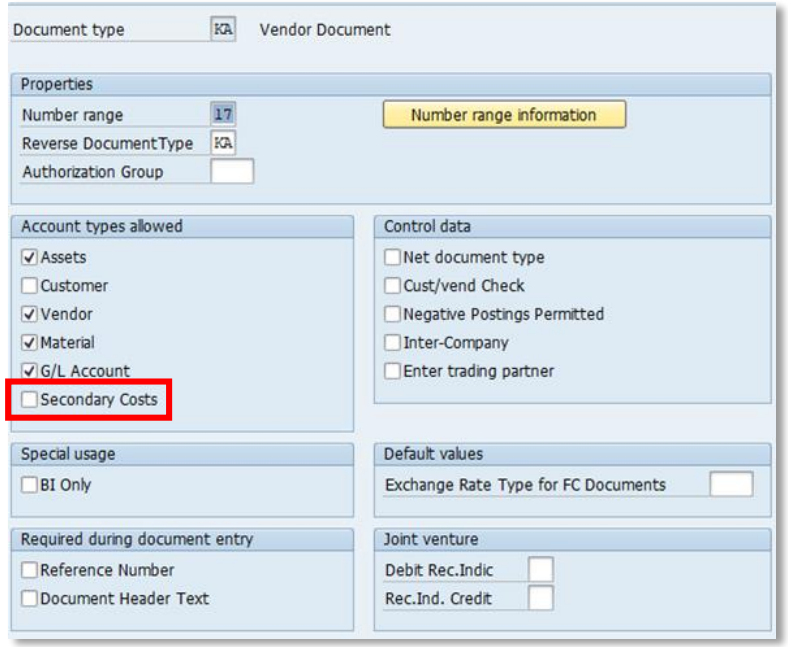
Document Types & Account Types

ERP



S/4



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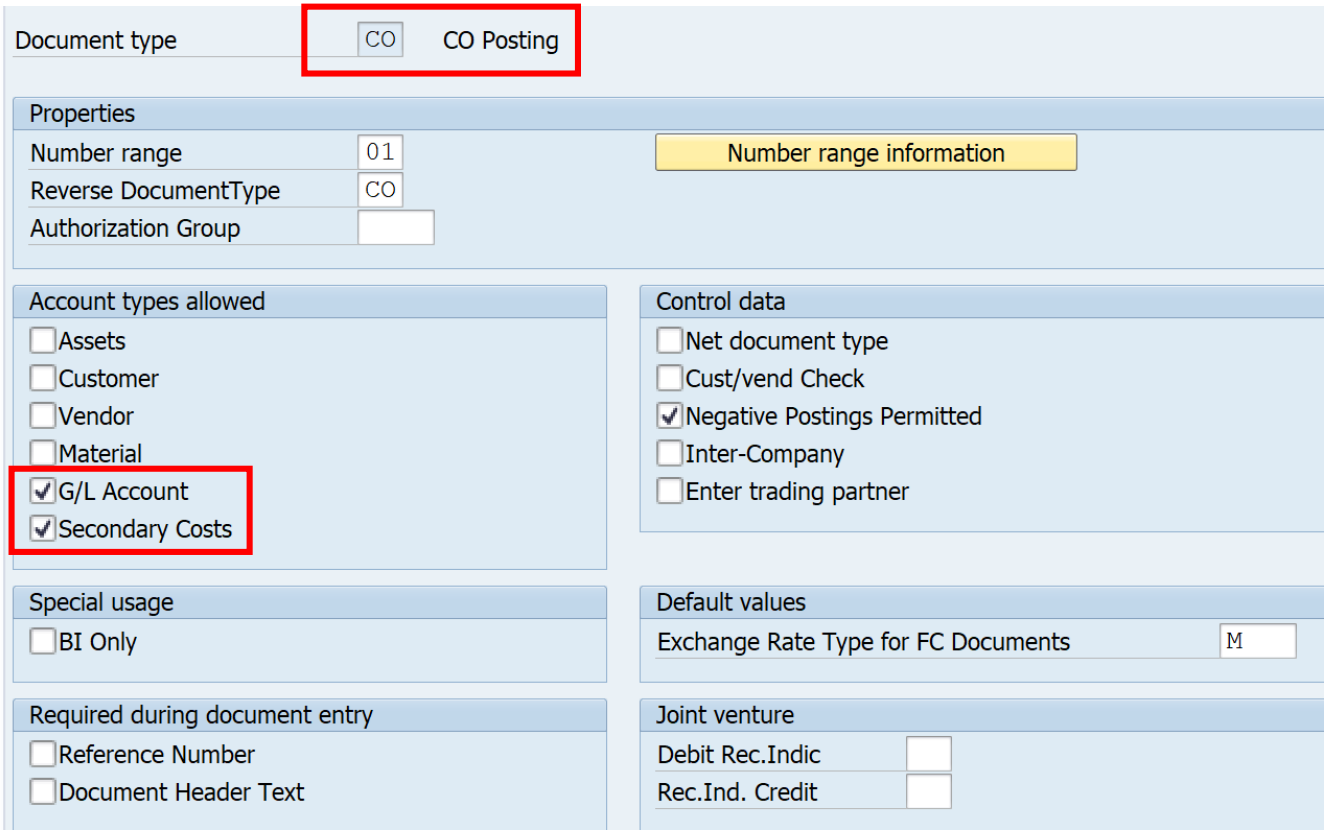
New Document Type in S/4 – CO Posting



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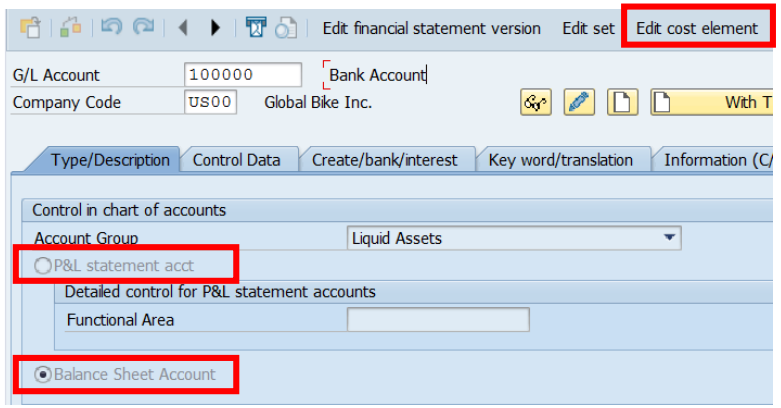
G/L Account Master Data

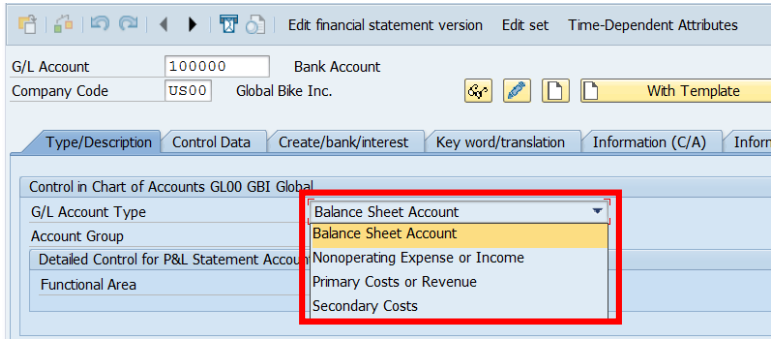
ERP

- Account type:
  - Balance sheet or P&L
- Cost elements created separately



S/4

- Account types include
  - Balance sheet
  - Primary costs / revenues (P&L w/ primary costs)
  - Non-operating expenses (P&L w/out primary costs)
  - Secondary costs



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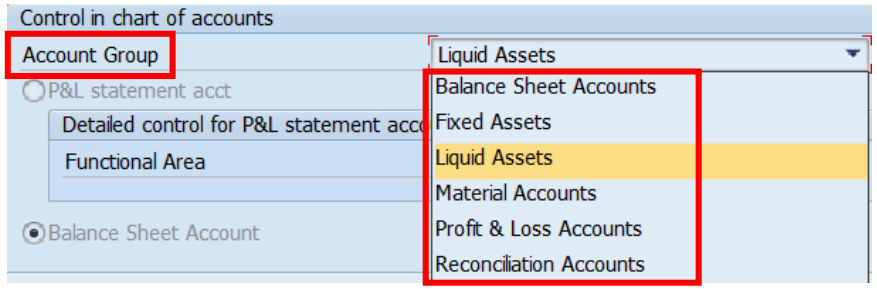
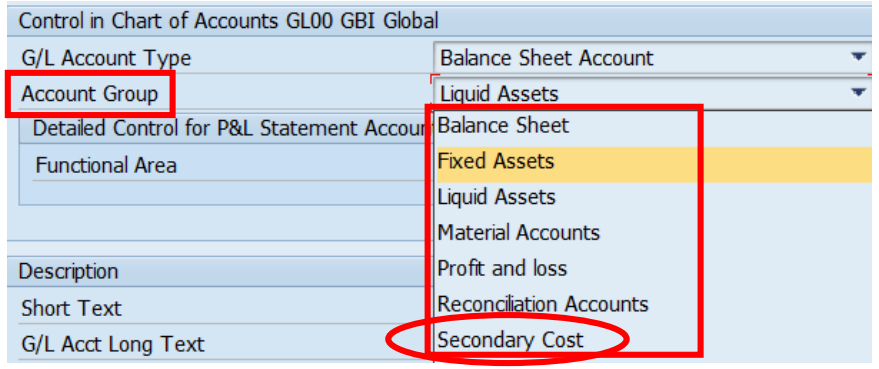
Account Groups

ERP



S/4

- A new account group for secondary costs is required



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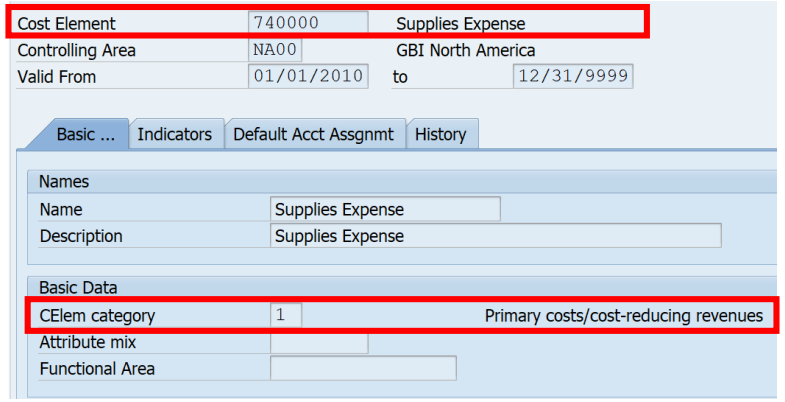
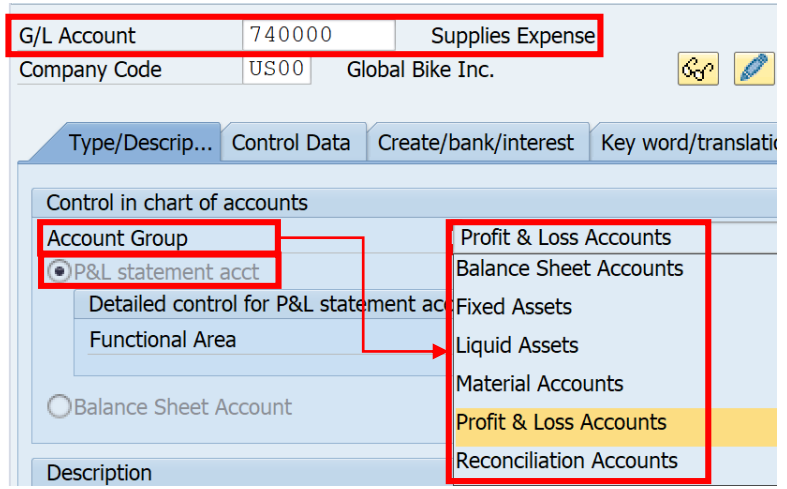
G/L Account Master Data for Primary Costs (ERP)

- Create G/L Account
  - Account type: P&L statement acct
  - Account group: Profit & Loss Accounts



- Create primary cost element
- Cost element category



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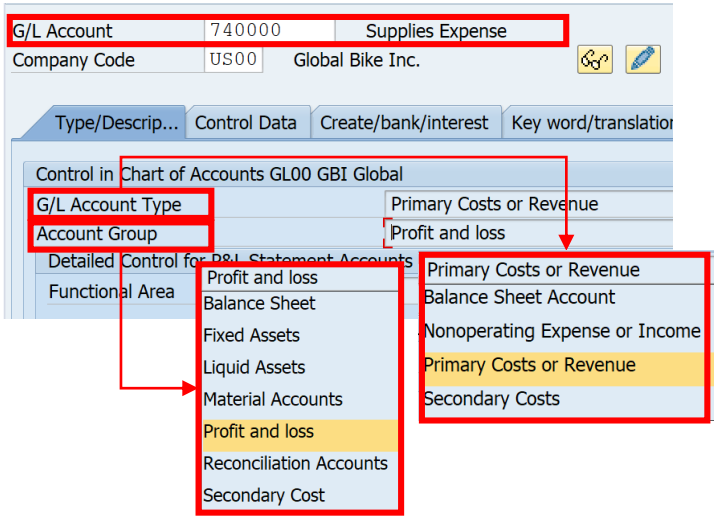
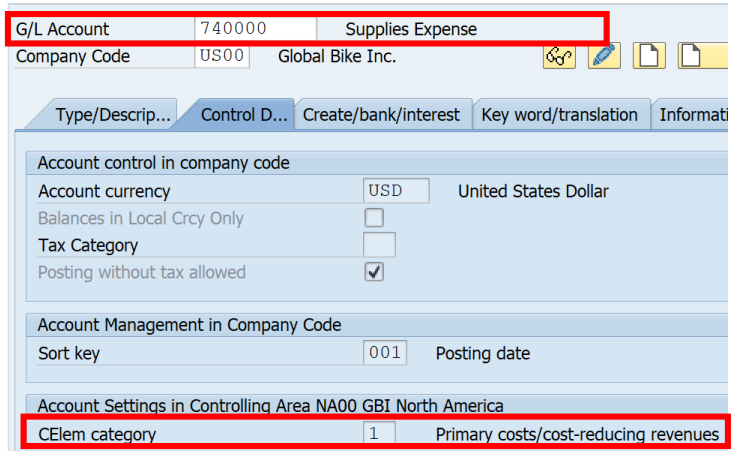
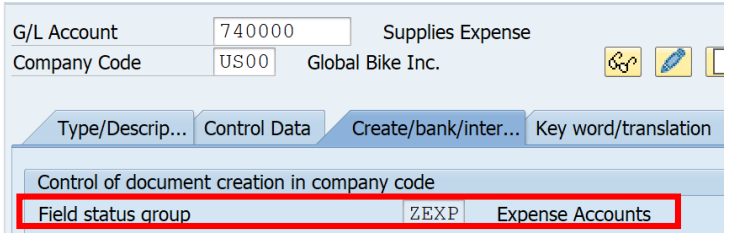
G/L Account Master Data for Primary Costs (S4)

- Create G/L account
  - Account type: Primary cost / Revenue
  - Account group: Profit & Loss Accounts
  - Field status group: Expense accounts
  - Cost element category (Control tab)







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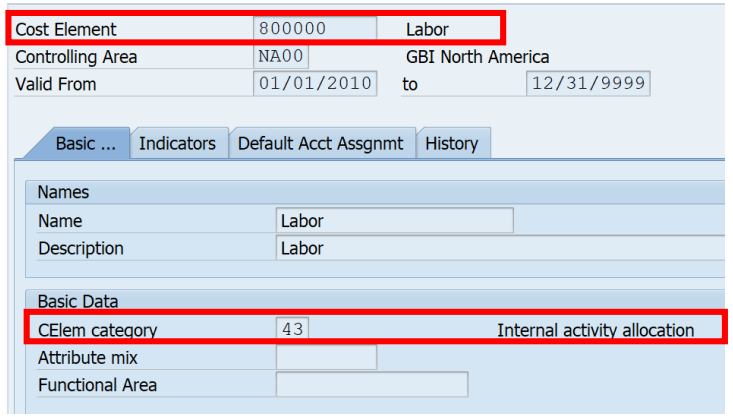
G/L Account Master Data for Secondary Costs (ERP)

- Create secondary cost element
  - Cost element category
- No G/L account



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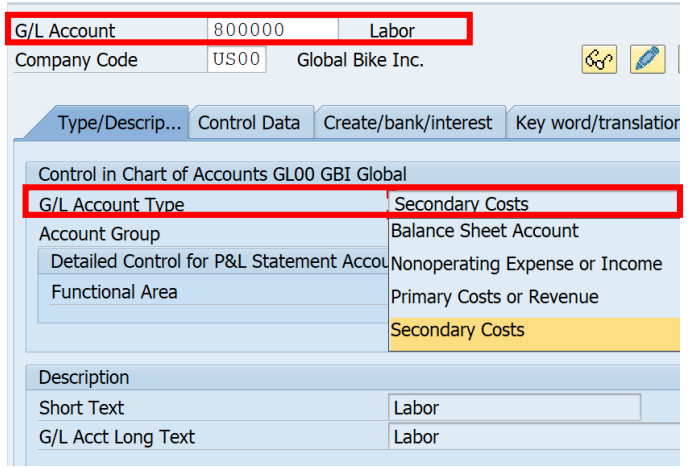
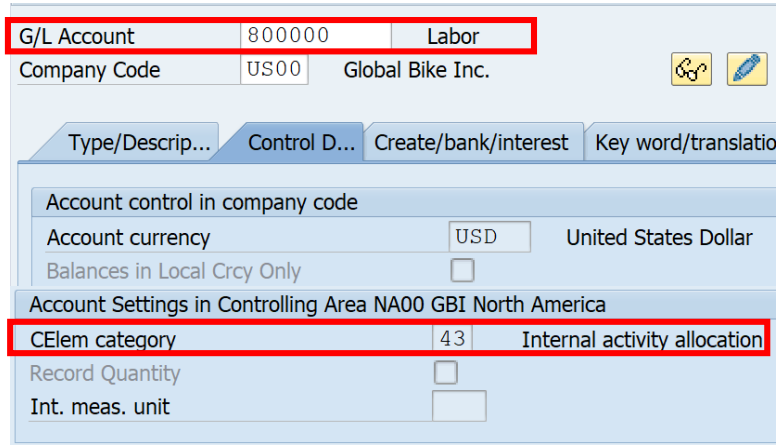
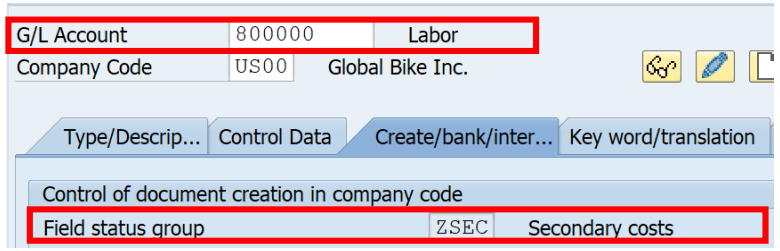
G/L Account Master Data for Secondary Costs (S/4)

- Create G/L account
  - Account type: Secondary costs
  - Account group: Secondary costs
  - Field status group: secondary costs
  - Cost element category (Control tab)







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Cost Elements and Postings (Summary)

ECC

- Cost elements are **separate** master data
  - T-Codes: KA01/ KA06, KA02, KA03
- Data related to G/L, CO, COPA, AA, etc. are stored in **separate** tables
- Postings to accounts with ***primary costs elements*** require an assignment to a controlling object
- Postings in controlling (periodic allocation, internal activity allocation, etc.) using secondary cost elements are not visible in FI

S/4

- Cost elements part of the G/L master data
  - FS00
- All data are stored in the universal journal (ACDOCA table)
- Postings to accounts with **account type primary costs** require an assignment to a controlling object
- Postings in controlling are posted to G/L accounts with account type secondary costs; visible in FI

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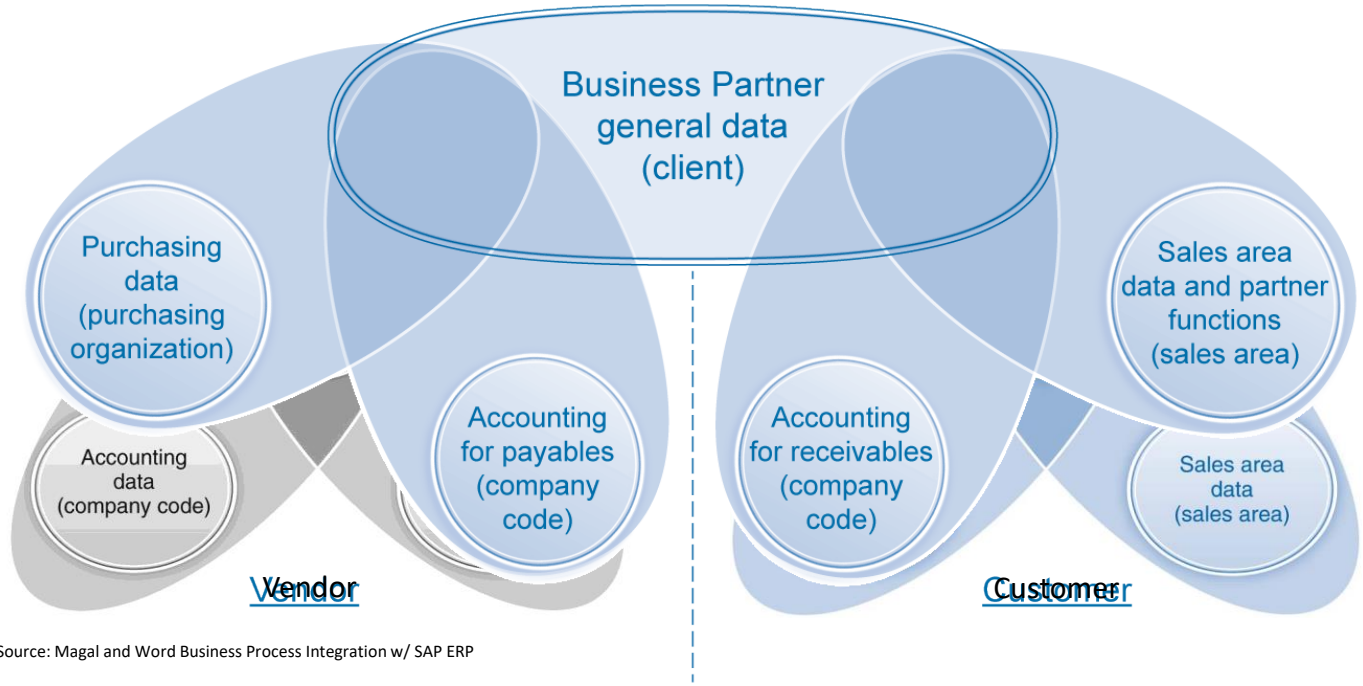
Business Partners - Procurement

- Master data segments
  - General data (Client)
  - Financial accounting data (Company code)
  - Purchasing (Purchasing org.)



Source: Magal and Word Business Process Integration w/ SAP ERP

Vendor	101000
Company Code	us00
Purch. Organization	us00

General data
- [x] Address
- [x] Control
- [x] Payment transactions
- [x] Contact Persons

Company code data
- [x] Accounting info
- [x] Payment transactions
- [x] Correspondence
- [ ] Withholding tax

Purchasing organization data
- [x] Purchasing data
- [x] Partner functions

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Business Partners - Procurement

ERP

- Vendor and customer data are stored in two different places
- Create/change/display Vendor
  - XK01, XK02, XK03
- Create/change/display customer
  - XD01, XD02, XD03

S/4

- New transaction BP
  - ERP transactions are obsolete
  - Single Point of entry to create/change/display
- Three types
  - Individuals (employees, contact persons, sales rep, agents)
  - Organizations (customers, vendors, banks, stores)
  - Groups
- Same entity can play different roles
  - A Vendor can also be a Customer
  - Common general data
  - No duplication of general data

(SG1809/01/3.15)

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Self-Service Procurement

Self service Procurement simplifies and accelerates the purchasing process for members of the organization to It enables employees to create and manage shopping carts for their requisitions.

It provides capabilities to:

- Find and order products via catalogs
- Provides employees with familiar 'shopping cart' like functionality
- Executes approval processes if necessary
- Allows the manipulation of certain order parameters (such as account assignment)

https://help.sap.com/doc/71033c91023c4ac2b127771b4aca8ca8/1511%20001/en-US/frameset.htm?frameset.htm

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Ariba

SAP Ariba is a cloud-based solution that enables collaboration with your suppliers to effectively and efficiently manage all or part of the purchasing process, while controlling spending, finding new sources of savings, and building a healthy supply chain. SAP Ariba Cloud Integration Gateway integrates S/4Hana into the Ariba Network

Enabling capabilities such as:

- Forecasting demand & commitment
- Procurement automation
- Contract Manufacturing support
- Consignment Inventory Management
- Supplier Managed Inventory
- Catalog Management
- Supply Chain Finance
- Supplier Lifecycle & Performance

https://www.ariba.com/solutions/solutions-overview
https://www.ariba.com/-/media/aribacom/assets/pdf-assets/sap-ariba-cloud-integration-gateway-integrating-sap-ariba-solutions-with-sap-erp-and-sap-s4hana.pdf

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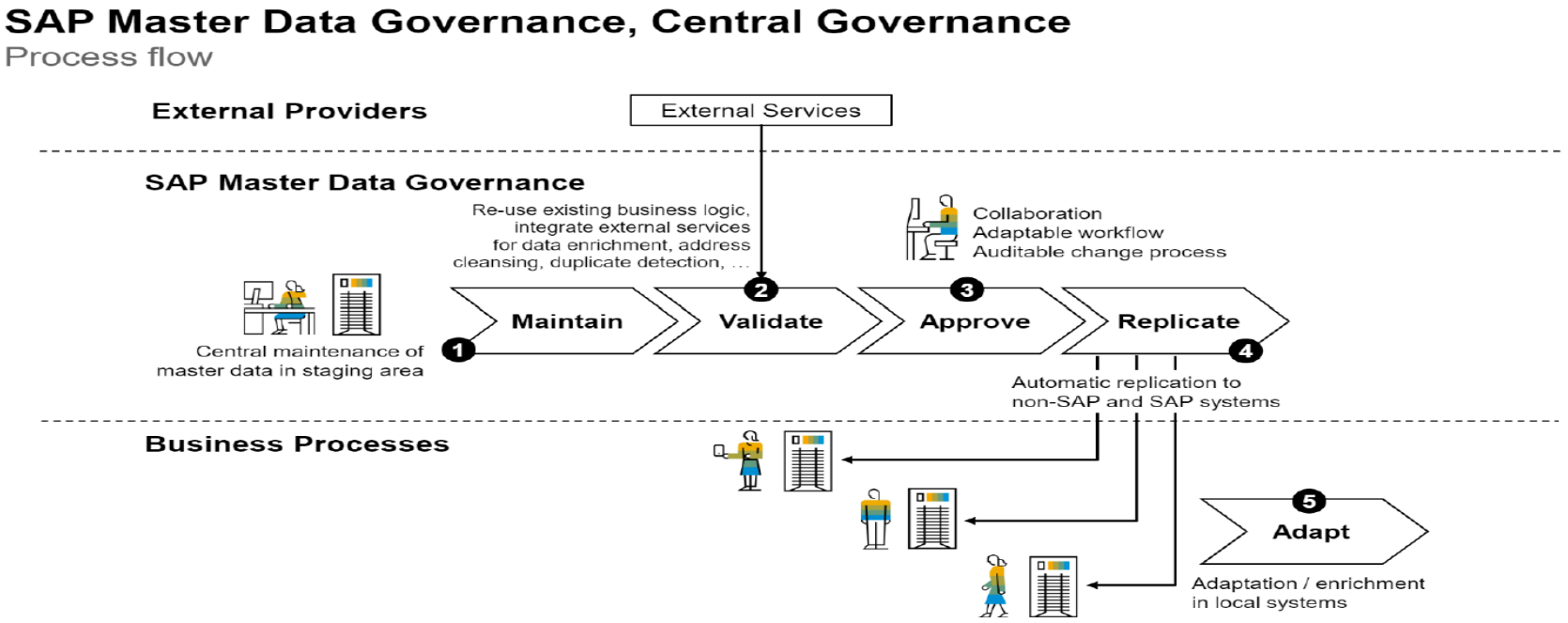
Master Data Governance – Supplier

Master Data Governance for Supplier controls governance of supplier master data on a central hub and on decentralized systems. Changes requests of supplier data are managed centrally and distributed to relevant systems. This improves data quality, and overall process management.



https://help.sap.com/doc/4f42b46c3fb74e3fa81c131c48b9a6db/MDG90_SP05/en-US/af2fb3641f834154ba31ef11ff7abfbb.html
https://www.sap.com/documents/2016/06/84545750-767c-0010-82c7-eda71af511fa.html

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Global Trade Services

A centrally manage global trade application with a single repository for all compliance master data and content. Deploy it stand-alone or as part of SAP S/4HANA®.

Capabilities include :

- Manage export trade regulations
- Manage import and export compliance, classification, trade finance, and documentation
- Enable customs services with direct filing as well as broker communication
- Reduce duties and fees
- Manage vendor and customer declarations
- Centralize master, classification, and compliance data
- Automate regional and industry compliance

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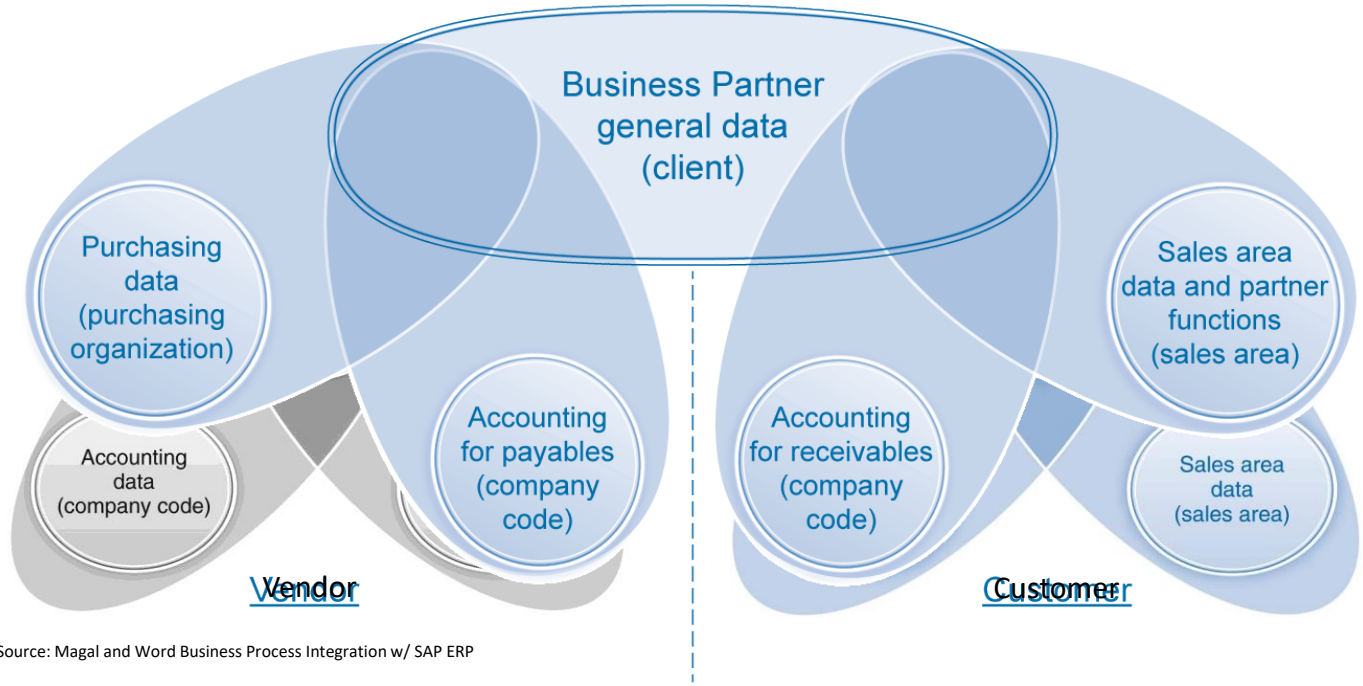
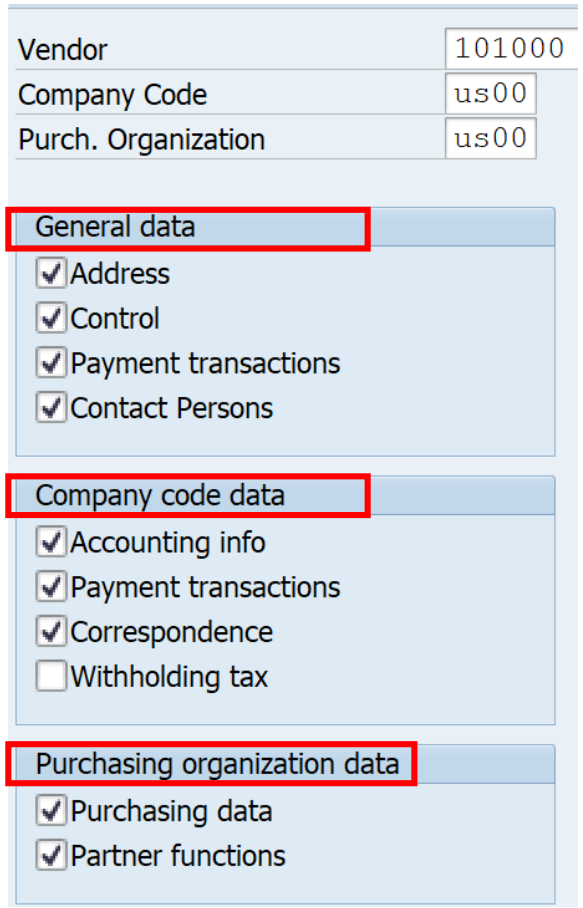
Business Partners - Fulfillment

- Master data segments
  - General data (Client)
  - Financial accounting data (Company code)
  - Sales (Sales Area)



Source: Magal and Word Business Process Integration w/ SAP ERP



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Business Partners - Fulfillment

ERP

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- Create/change/display Vendor
  - XK01, XK02, XK03
- Create/change/display customer
  - XD01, XD02, XD03

S/4

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  - Groups
- Same entity can play different roles
  - A Vendor can also be a Customer
  - Common general data
  - No duplication of general data

(SG1809/01/3.15)

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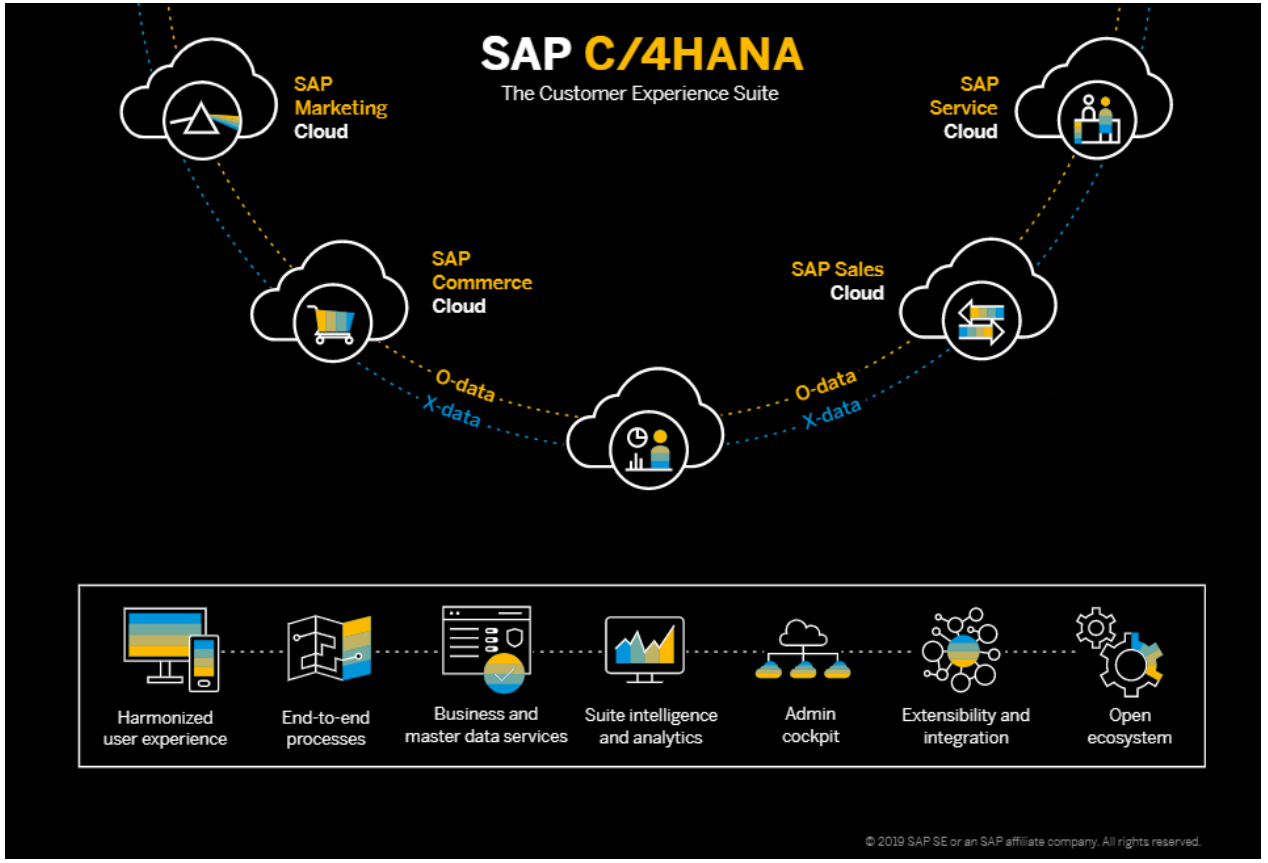
C/4 HANA*

The SAP C/4HANA suite, which includes market-leading, cloud-native solutions for sales, service, marketing, e-commerce, and customer data management, is designed to enable businesses to deliver unique, trusted, and personalized journeys to their customers.



* Includes components of SAP Hybris

https://news.sap.com/2018/06/sapphire-now-announcing-sap-c4hana-sap-hana-data-management-suite/

Adapted from: https://www.sap.com/products/crm.html?pdf-asset=dcee8b44-4b7d-0010-87a3-c30de2ffd8ff&page=3

Global Trade Services

A centrally manage global trade application with a single repository for all compliance master data and content. Deploy it stand-alone or as part of SAP S/4HANA®.

Capabilities include :

- Manage export trade regulations
- Manage import and export compliance, classification, trade finance, and documentation
- Enable customs services with direct filing as well as broker communication
- Reduce duties and fees
- Manage vendor and customer declarations
- Centralize master, classification, and compliance data
- Automate regional and industry compliance

https://www.sap.com/products/global-trade-management.html#pdf-asset=b67ba10b-307d-0010-87a3-c30de2ffd8ff&page=2

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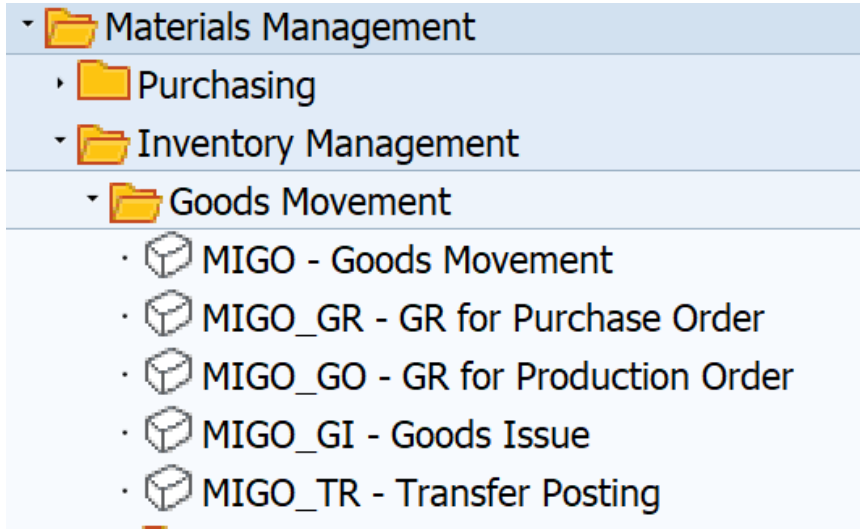
Goods Movement

ECC

S/4



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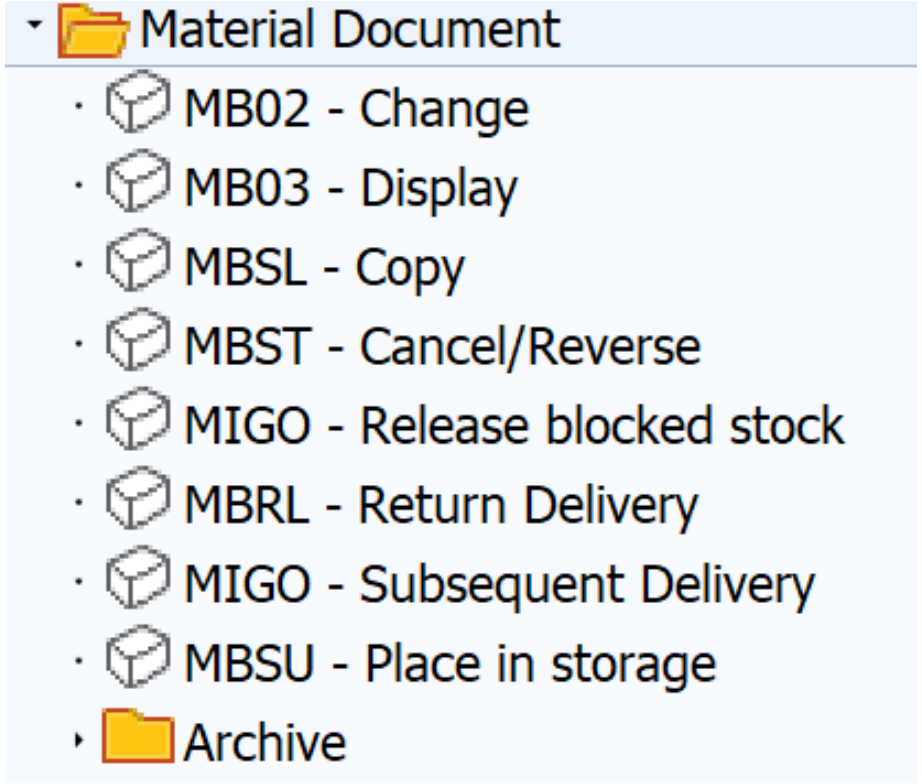
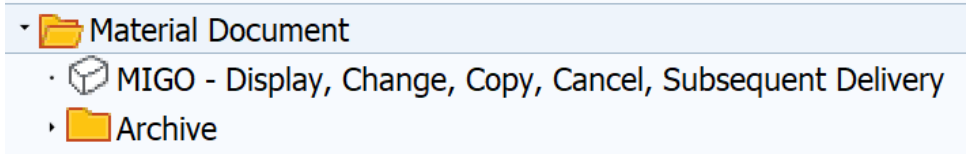
Material Documents

ECC



S/4



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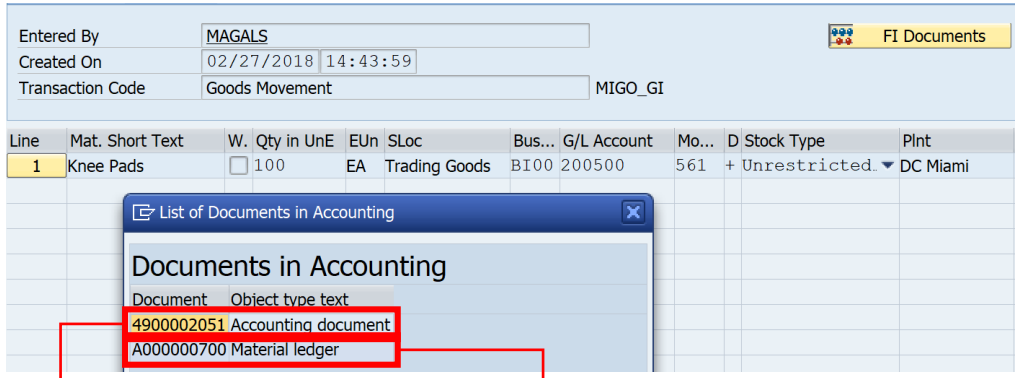
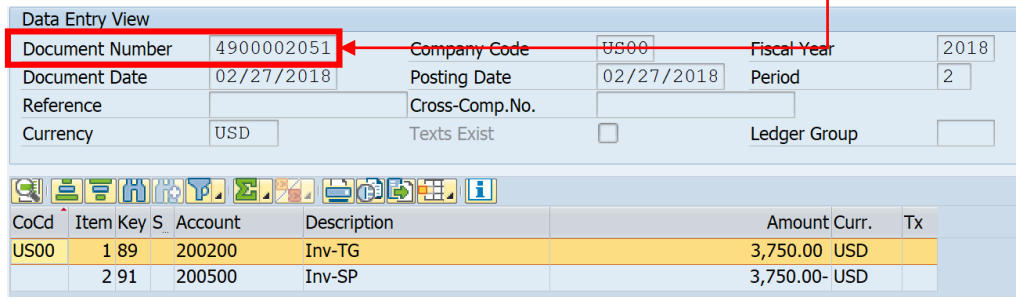
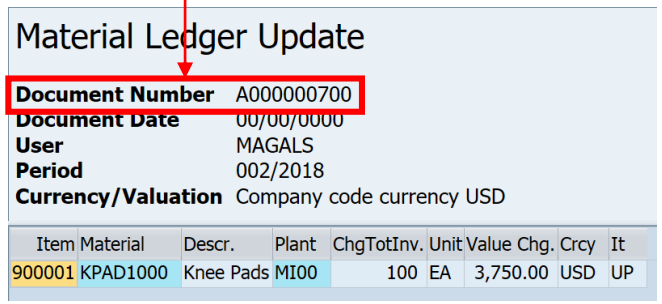
Posting Demonstration (S4)

- Complete goods receipt
- Create material document
- Creates FI documents
- Updates GL
- Updates Material ledger
- Results visible in universal journal







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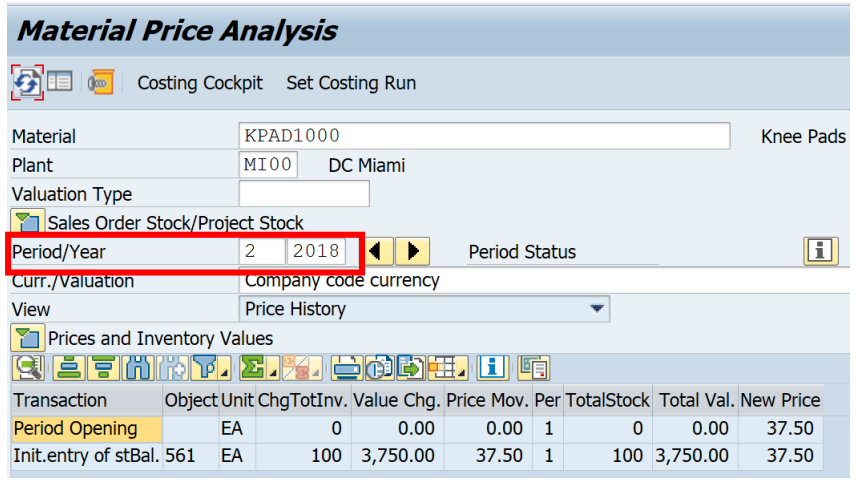
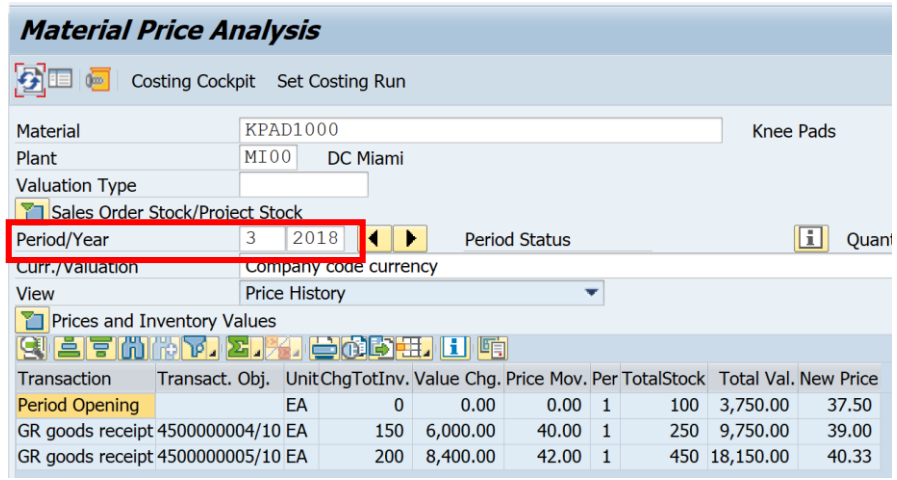
Posting Demonstration (Material Price Analysis)

- Accessable from
  - Material document
  - Material master





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