Sales and Distribution (SD)

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Innovations in SAP S/4HANA
Focus Sales and Distribution in GBI

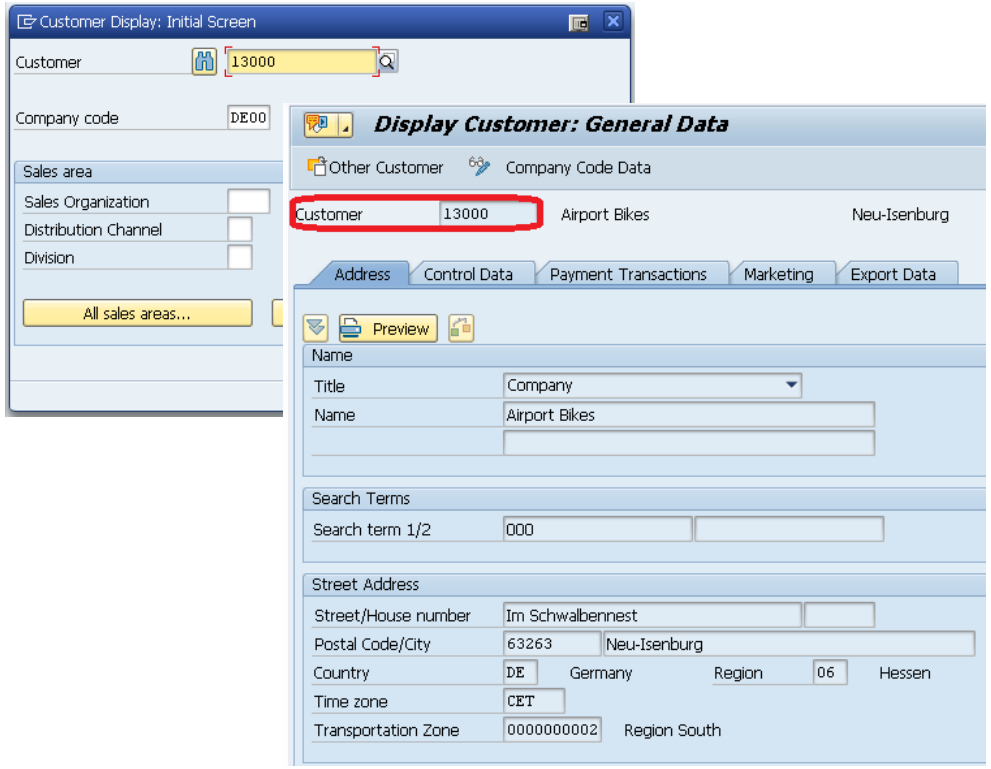
1) Business Partner (BP) is the Single Point of Entry for master data such as customer, vendor, contact person
   - Transaction BP replaces FD01, FD02, FD03, FD05, FD06, FD0 FK01, FK02, FK03, FK05, FK06, FK08 MAP1, MAP2, MAP3 MK01, MK02, MK03, MK05, MK06, MK12, MK18, MK19, V-03, V-04, V-05, V-06, V-07, V-08, V-09, V-11, V+21, V+22, V+23, VAP1, VAP2, VAP3 VD01, VD02, VD03, VD05, VD06 XD01, XD02, XD03, XD05, XD06, XD07 XK01, XK02, XK03, XK05, XK06, XK07

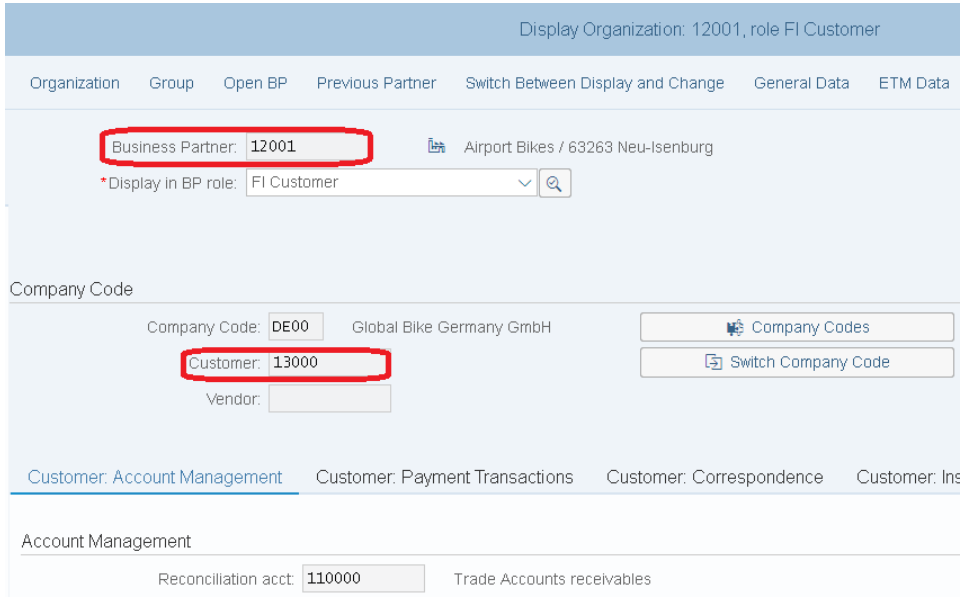
2) Credit Management has to be initialized in S/4HANA to perform processes in distribution

3) Simplification in SD Analytics
   - No aggregates are formed via data for analytical processes. S/4HANA analyzes are based on ODATA and Open CDS (Core Data Services). These data are stored directly on the database and they grow there over time.

Innovations in SAP S/4HANA
Business Partner

- The core function of SAP S/4HANA is the simplification of data structures
- ➡ various transactions, such as the management of customers or creditor, are summarized
- It is (so far) still possible to navigate through the well-known tree paths





A unique business partner number is assigned to customer 13000. This business partner number is assigned to various roles such as the customer, creditor or contact person.

Relationship: n:m

Innovations in SAP S/4HANA
Business Partner

- There are redundant object models in the traditional ERP system where the vendor master and customer master is used.
  - The (mandatory) target in SAP S/4HANA is the Business Partner approach.
- Business partners can be categorized as a person, group, or organization as follows:
  - An organization represents units such as a company (for example, a legal person), parts of a legal entity (for example, a department), or an association. Organization is an umbrella term to map every kind of situation in the day-to-day business activities.
  - A group represents a shared living arrangement, a married couple, or an executive board.

Innovations in SAP S/4HANA
Credit Management

- In contrast to ERP, the component Credit Management (FI-AR-CR) is not available as part of S/4HANA.
- *Equivalent: SAP Credit Management (FIN-FSCM-CR)*
  - In ERP there was the possibility to not use the function FI-AR-CR, but FIN-FSCM-CR has to be initialized.
  - It helps companies to identify the risk of loss of receivables against their business partners at an early stage, and to make credit decisions efficiently and partially automated.
- Recommended for:
  - Companies with a high number of business partners
  - Companies that want to merge internal and external data of a business partner into an own credit assessment or evaluation.
  - Companies that have an extremely distributed system landscape often have problems with the consolidation of information on the purpose of credit decisions

Innovations in SAP S/4HANA
Simplification in SD Analytics

- Analyzes are based on ODATA and Open CDS (Core Data Services)
- stored directly on the database ➡ Data grow there over time
- SD specific business objects such as Sales Order, Customer Invoice, Outbound Delivery and many others in the data base tables VBAK, LIKP and VBRK are represented by CDS views that regulate uniform access to analytical views
  - Is achieved by semantic field names to connect business objects such as customers, materials, etc
  - Predefined analytical view of the CDS queries allows the report to be executed directly on the database, without preformed aggregates
    - ➡ Groupings and filters *on the fly*

Warehouse Management (WM)

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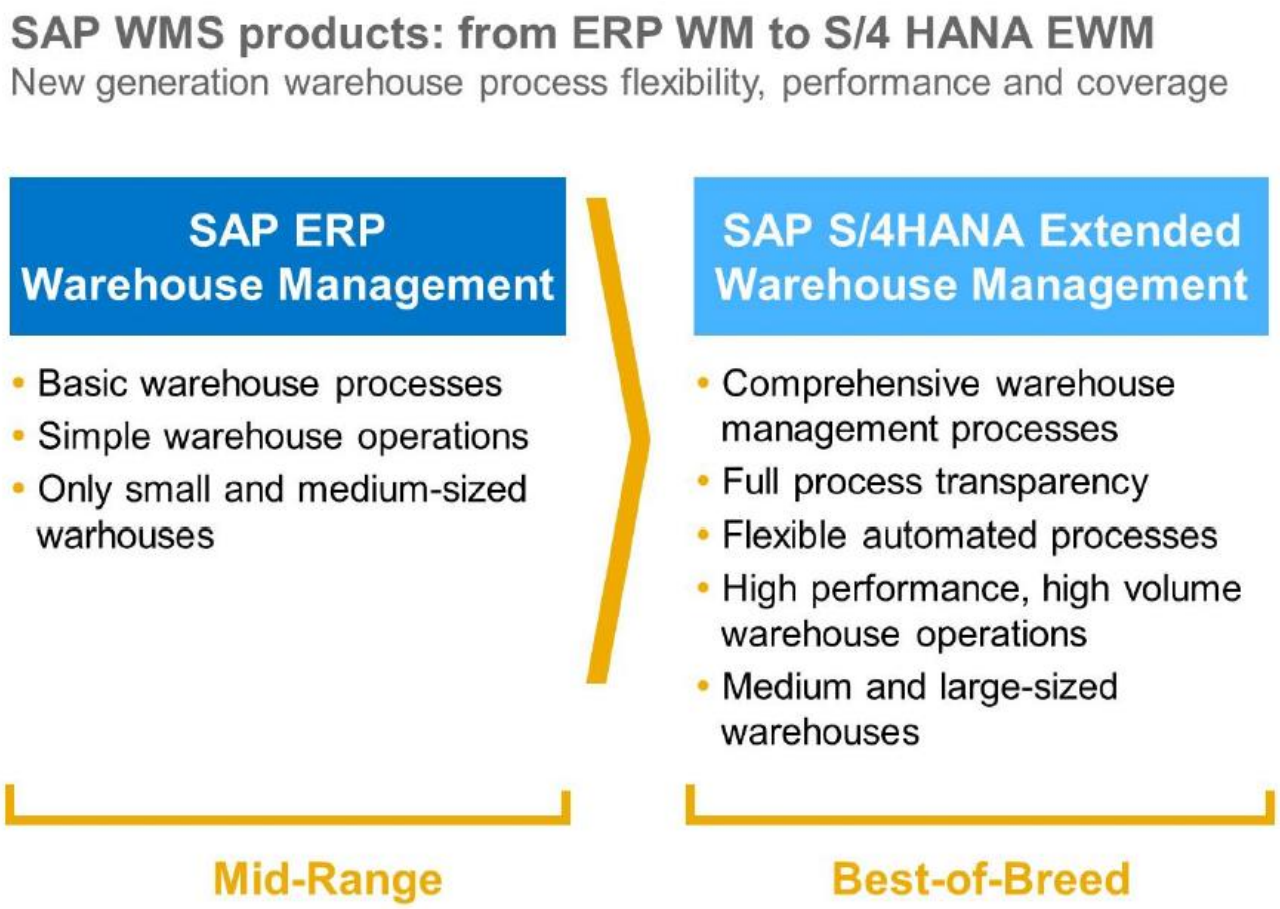
Innovations in S/4HANA
Extended Warehouse Management (EWM)

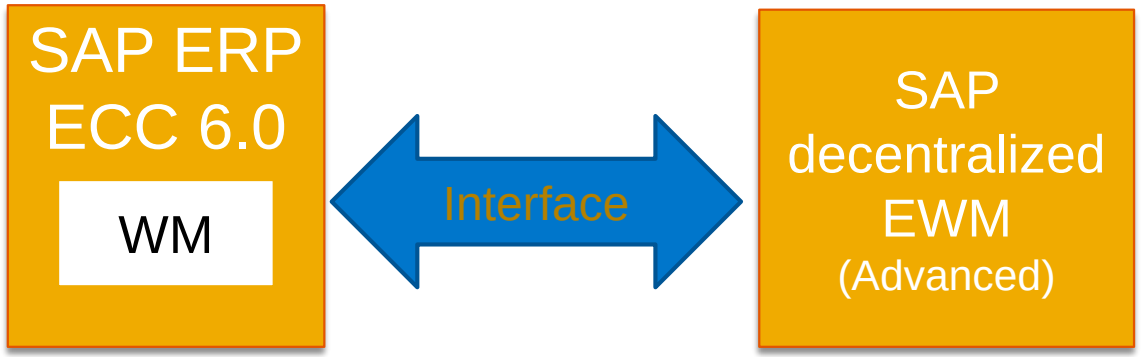
- Long-term the central warehouse management system from SAP
- Part of the Supply Chain Execution (SCE) from SAP in contrast to the WM standard
- Significant difference: WM system concentrates on internal functions
  - Little functionality that provides link to external processes (i.e. contract packaging or transportation)
- In addition to the classical properties for structuring and warehouse control → EWM contains Instruments for strategic placement of the warehouse within the supply chain
- Detailed picture of the complete warehouse complex → improves the overview of the total quantity of the product in the warehouse
- Holdings from several plants can be stored together

Innovations in S/4HANA
Extended Warehouse Management (EWM)



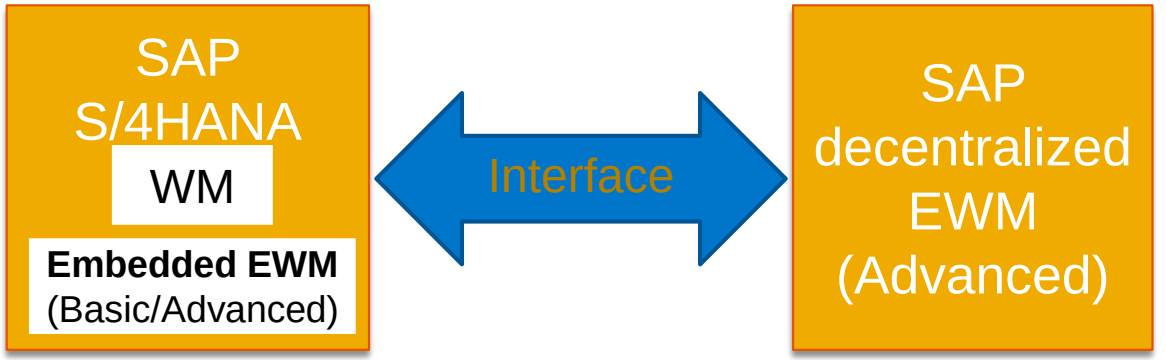
Innovations in S/4HANA
Extended Warehouse Management (EWM)

Scenarios with ECC 6.0



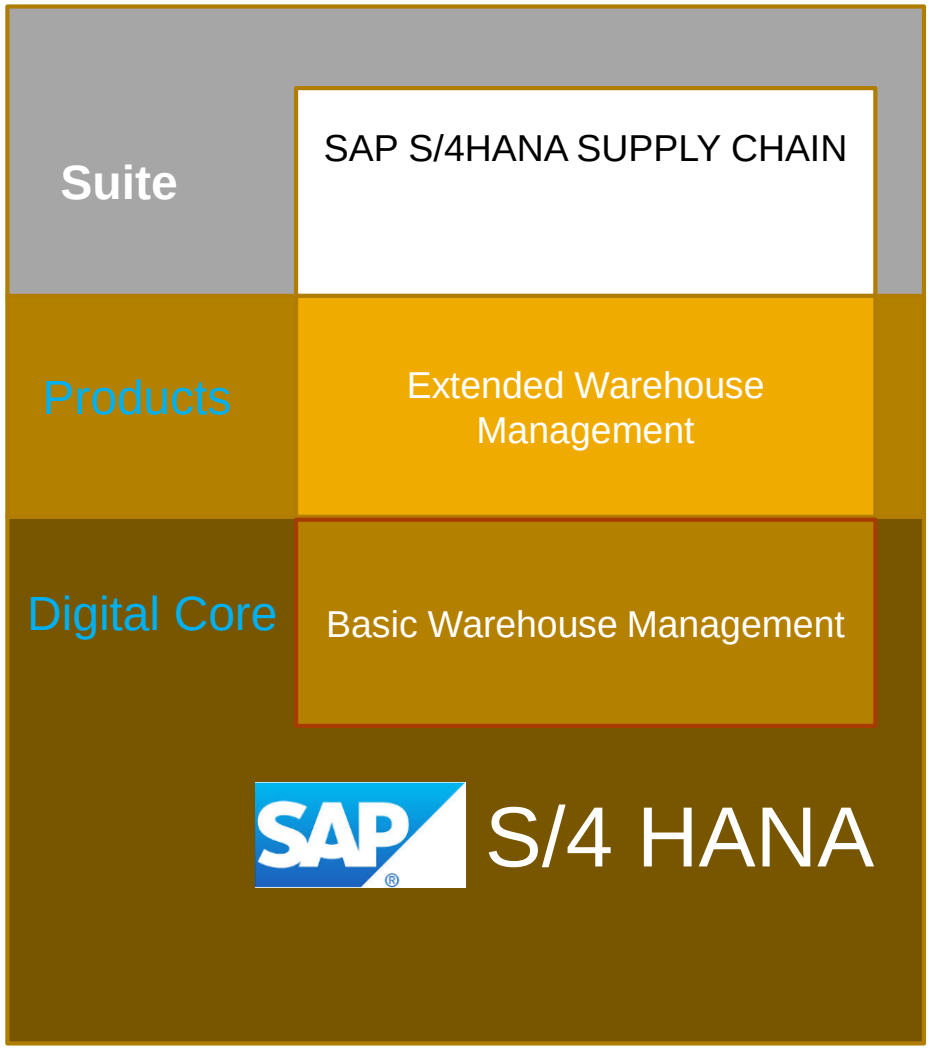
- Classic illustration with an ERP ECC system
- License costs for EWM (decentralized EWM)
- WM can be used indefinitely for new launches (as long as ECC 6.0 is still in use)
- **No SAP support for ERP WM from 2025 onwards**

Scenarios with S/4HANA



- Illustration based on S/4HANA
- No EWM license costs for the „Basic Version“ of the integrated EWM
- **WM usage rights in S/4HANA ends 2025**
- A change from ECC 6.0 to S/4HANA requires a change to EWM from this point onwards

Innovations in S/4HANA
Extended Warehouse Management (EWM)



Extended Warehouse Management

- Optimization of inventory management (e.g., slotting)
- Inbound process optimization (e.g., deconsolidation)
- Outbound process optimization (e.g., wave management)
- Material Flow Control (MFC)
- Yard management (e.g., TU processing, DAS)
- Laboratory management
- Logistic additional services (VAS, for example, Kitting processing)
- Cross docking
- Inventory process cost accounting

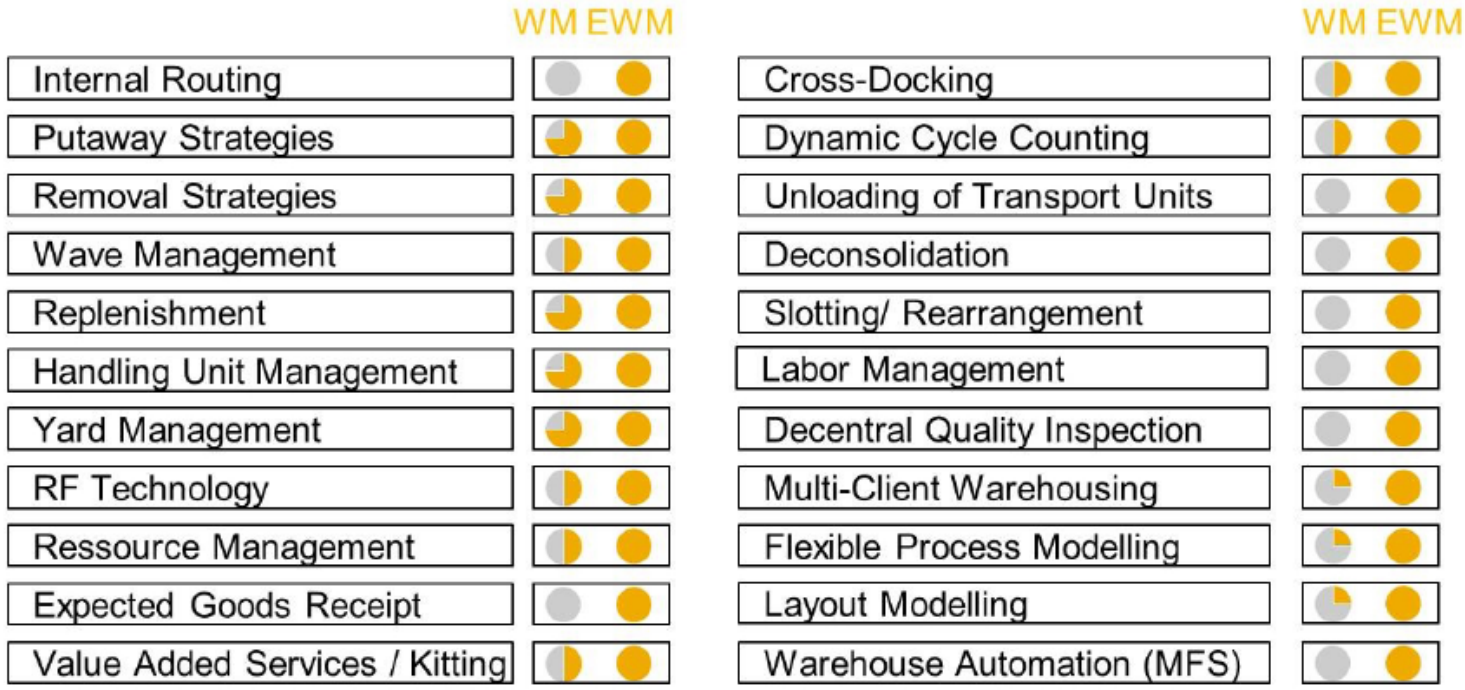
Optimization of warehousing processes

Basic Warehouse Management

- Inventory management
- Inbound processing
- Outbound processing
- Internal stock movements
- inventory procedures
- Reporting

Stock security and transparency

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions



- SAP EWM is the strategic warehouse management solution for SAP S/4HANA
- SAP EWM offers enhanced visibility and flexibility
- Labor Management is part of SAP EWM

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions

- Optimized warehouse space management
  - Different storage facilities (automatic bearings,…) can be arranged in different storage types according to their own requirements
  - Stock movements can be better understood as each storage location is mapped in the system
  - In addition, each product will receive an optimal storage location according to its size and access frequency

- Goods movements
  - EWM is used to process all goods movements that affect the warehouse
  - Storage capacity and material flows are optimized using put away and removal strategies
  - Optimizing takes place individually as required or by using handling units

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions

- Stocktaking
  - Product related or storage related
  - Different monitor with adjustable tolerance groups, over which maximum values can be configured for the calculation of differences
  - Additional extras: automatic close out after time limits, inventory procedures according to different priorities, zero check, low stock control
  - Radio frequency functionality is integrated in for example Cycle Counting

- Planning and monitoring
  - Forward-looking load analysis and early intervention in case of faulty warehouse processes
  - Extensive monitor functions project a up-to-date picture of all activities in the warehouse
  - ➢ Actual work in the warehouse can be controlled this way

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions

- Wireless data connection
  - Controlling the work steps via mobile radio terminals → clear and economical
  - The radio frequency connection (RF connection) for mobile data acquisition ensures a fast data transmission
  - RF devices receive data from the SAP system and transmit data back, e.g. through barcodes

- Warehouse control
  - EWM has interfaces to external systems (storage controllers)
  - ➢ e.g. automated storage and retrieval systems can be integrated for all storage movements

Innovations in S/4HANA
Reasons to Switch to EWM

- Reduce costs through better warehouse efficiency, increased labor productivity, and better space utilzation
- Increase transparency in stock and processes
- Increase flexibility in warehouse process modeling
- Implement customer specific put-away and retrieval strategies
- Quickly onboard new customers
- Better manage value added distribution processes
- Strong integration with other SAP solutions
- Integrated Material Flow System (MFS) for automated storage and retrieval

Production Planning and Execution (PP)

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Innovations in S/4HANA

1) The Functional relationship between Bill of Material (BOM), Routing and Production Version has been changed to streamline future release/revision process .
2) The ERP Engineering Workbench is not the future target architecture. It will not be updated, but will still work at a functional level in the system.
3) MRP has been optimized for the SAP HANA real time database and is called MRP LIve. All MRP relevant data is read directly from the system instead of being stored in a separate table in ERP.
4) Sales & Operations Planning (SOP) is replaced by *Integrated Business Planning (IBP).*
5) Material Number Field length is extended from 18 characters to 40 characters. This will appeal to many different customers

Innovations in S/4HANA

- Innovations in S/4HANA compared to ERP in Production Planning
  - Customizing for date validity is no longer considered for BOM explosion → Instead, only BOMs with valid production version are considered during BOM explosion.
    - For old BOMs you can perform a report
    - For new BOM there are a standard value in the customizing
  - Maintaining product version enables to combine the BOM and Routing entities which helps in streamlining the release/ revision process in future.

- Engineering Workbench is not the target architecture anymore and will not receive any further updates
  - was used in GBI for BOM and Routings
  - required to use alternative UIs, e.g. in Fiori, Web UI or GUI to maintain BOMs and Routings.

Innovations in S/4HANA

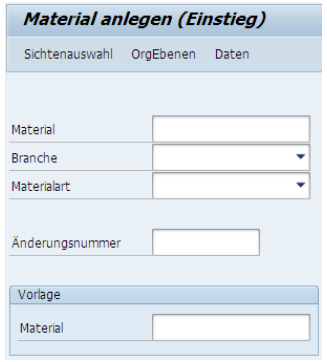
- MRP optimized for SAP HANA
  - reads material receipts and requirements, calculates shortages, and creates planned orders and purchase requisitions all in one database procedure → minimizes the volume of data that has to be copied from database server to application server and back
  - MRP Live reads material receipts and requirements, calculates shortages, and creates planned orders and purchase requisitions all in one database procedure
    - minimizes the volume of data that has to be copied from the database server to the application server and back, which considerably improves performance.
  - MRP Live always creates purchase requisitions if the material is procured externally.
  - Multi-level, make-to-order planning (transaction MD50) and Individual project planning (transaction MD51) is not optimized for HANA

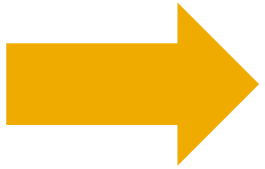
Innovations in S/4HANA

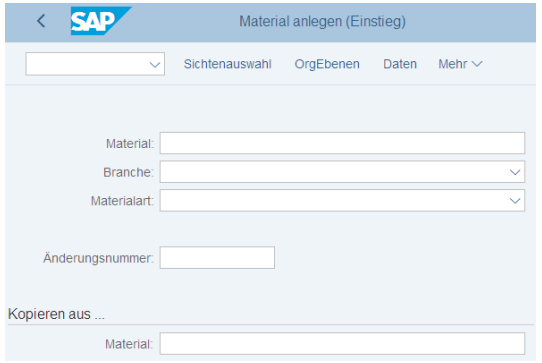
- Sales & Operations Planning (SOP) replaced by *Integrated Business Planning IBP*
  - Sales & Operations Planning (SOP) is a forecasting and planning tool for setting targets for sales and production based on historical, current, or estimated data ➡ used for long-term strategic planning, not short-term tactical planning
  - SOP is often performed on aggregated levels such as product groups and work-center hierarchies.
  - IBP supports all SOP features plus
    - advanced statistical forecasting,
    - multi-level supply planning,
    - Collaboration and optimizing tools,
    - an Excel-based UI, and Web-based Uis
- The key capabilities of SAP IBP for Sales & Operations are as follows:
  - Future production analytics will be based on SAP HANA, core data services (CDS) views aggregating transactional data dynamically, and powerful analytical UIs for multi-dimensional reporting. With this, it will be possible to replace the current logistics information system (LIS).

Innovations in S/4HANA

- Material Number Field Length Extension from 18 to 40 characters







Financial Accounting (FI)

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Innovations in S/4HANA

1) The General Ledger is the Single Point of Truth. All transactions are stored in the Universal Journal table. The table also stores transactions for Controlling thereby removed many of the reconciliation activities in ERP.

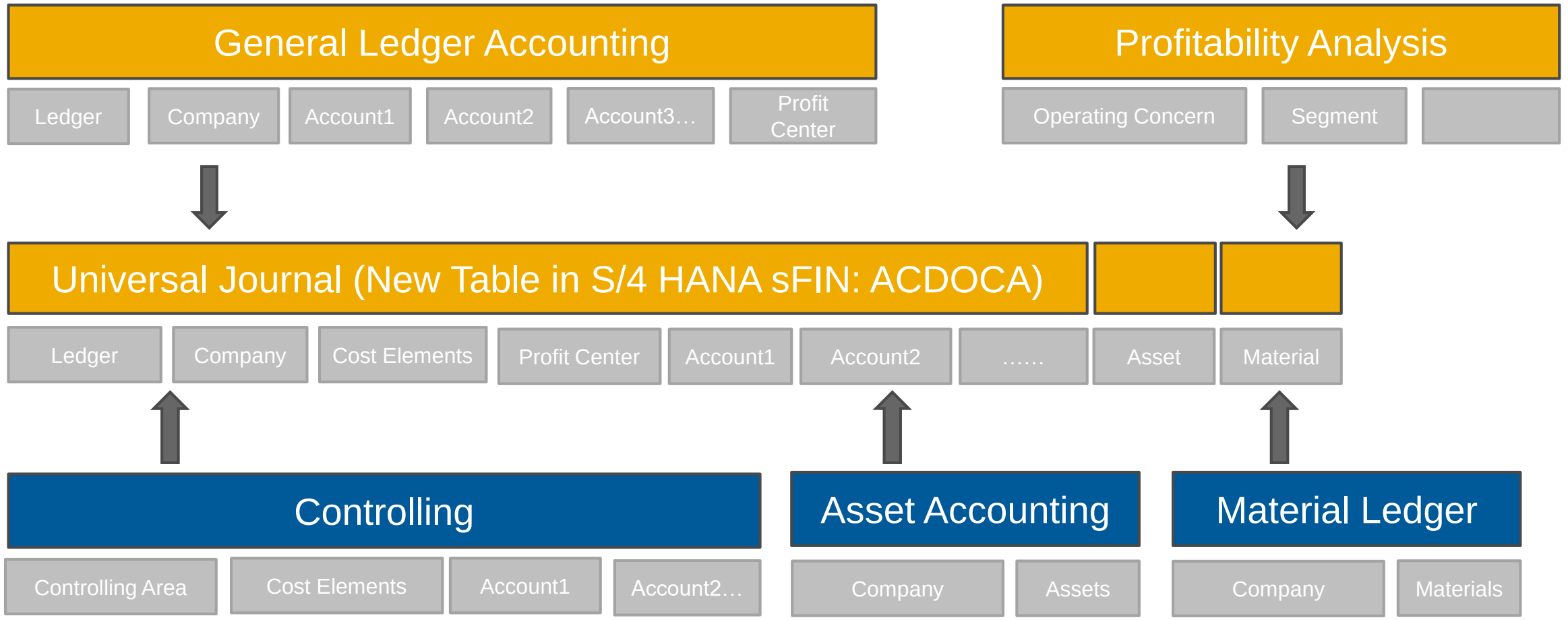
2) Finance incorporates a re-designed General Ledger and and new asset accounting functionalities.

3) Using the real time SAP HANA database means that reporting from many different finance areas is unified into a single repository.

Innovations in S/4HANA
General Ledger

- 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
  - Cost elements are created and managed together with G / L accounts in S / 4HANA. A more detailed description can be found in the CO slides
- 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
General Ledger



- Various accounting applications merge in the new structure of Universal Journal (ACDOCA)
- The new comprehensive data table ACDOCA contains all of the line item documents from FI, FI-AA and CO

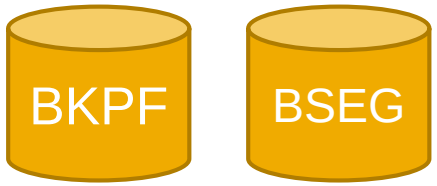
Innovations in S/4HANA
Data Model is made very simple

- All the Aggregate and Index tables are removed and are calculated on the fly

Before S/4 HANA

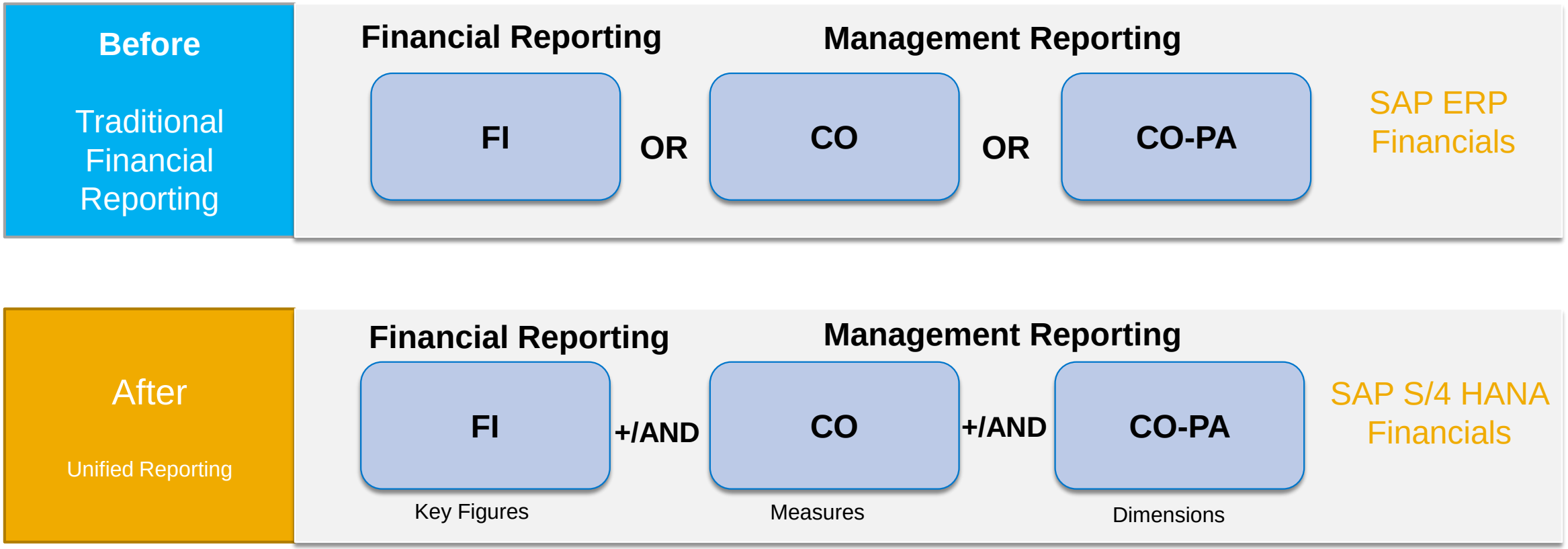
SAP ERP
Financials with Aggregates and Indices

After S/4 HANA



S/4 HANA
Financials

Innovations in S/4HANA
Financial Reporting and Analytics Simplified



Comprehensive Reporting Including CO and CO-PA detail

- Reporting is not limited by application boundaries
- Run one report (e.g. P&L) and drill-down to any dimension available in the financial documents

Innovations in S/4HANA
Currencies in Universal Journal

Situation in ECC

- In the Business Suite (ECC) there used to be up to 3 parallel currencies in FI (table T001A / tx OB22) and 2 parallel currencies in CO (TKA01 / tx OKKP): CO area currency and object currency
- The currencies of non leading ledgers in New GL (T882G) were a subset of the currencies in the leading ledger (T001A)
- One of the CO currencies needed to be the local currency (CT 10), but it was not necessary that the other currency in CO was also configured in FI

Situation in S/4H

- With the universal journal and the common line item table ACDOCA for FI and CO, there is also a central currency configuration for the universal journal. As the currency configuration depends on the universal journal ledgers, there is a combined view cluster for ledgers and currencies, tx FINSC_LEDGER
- Table BSEG is not extended and still contains only 3 parallel currencies
- SAP´s goal is to implement full process integration of all currencies fields in all processes in accounting
- all journal entry items are converted in the accounting interface for all configured currencies, regardless of the source where the business transaction originates from

Controlling (CO)

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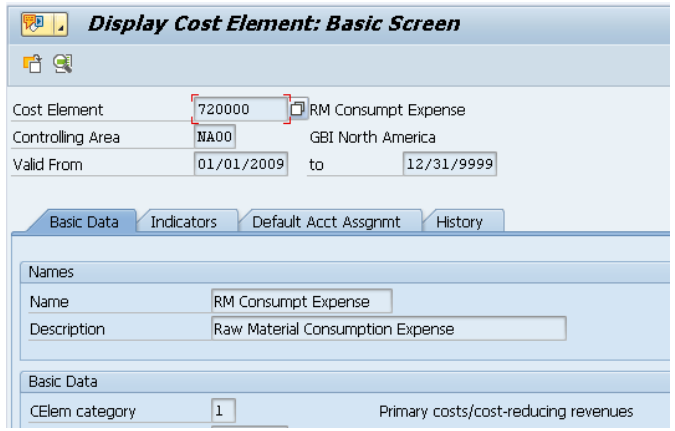
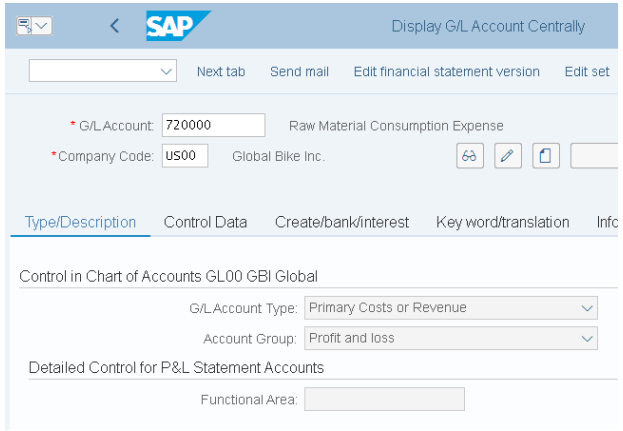
Innovations in S/4HANA

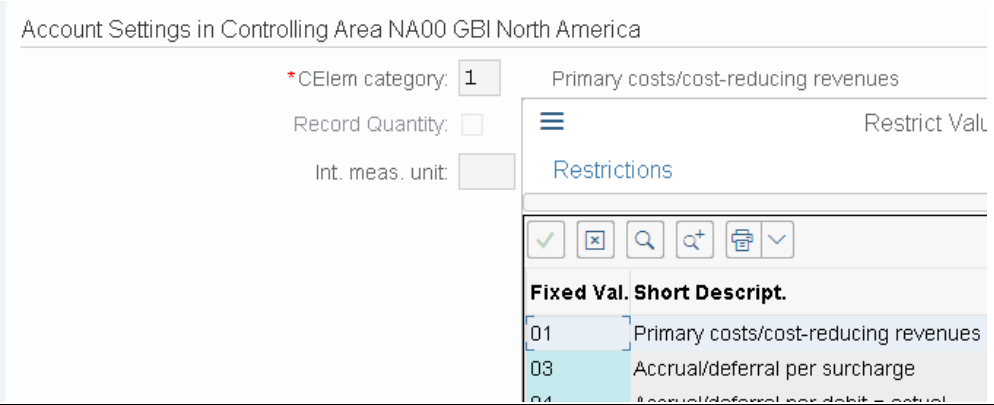
1) No separate cost element master data maintenance anymore
2) Universal Journal combines account assignment of Controlling
3) Technical changes in material ledger

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)





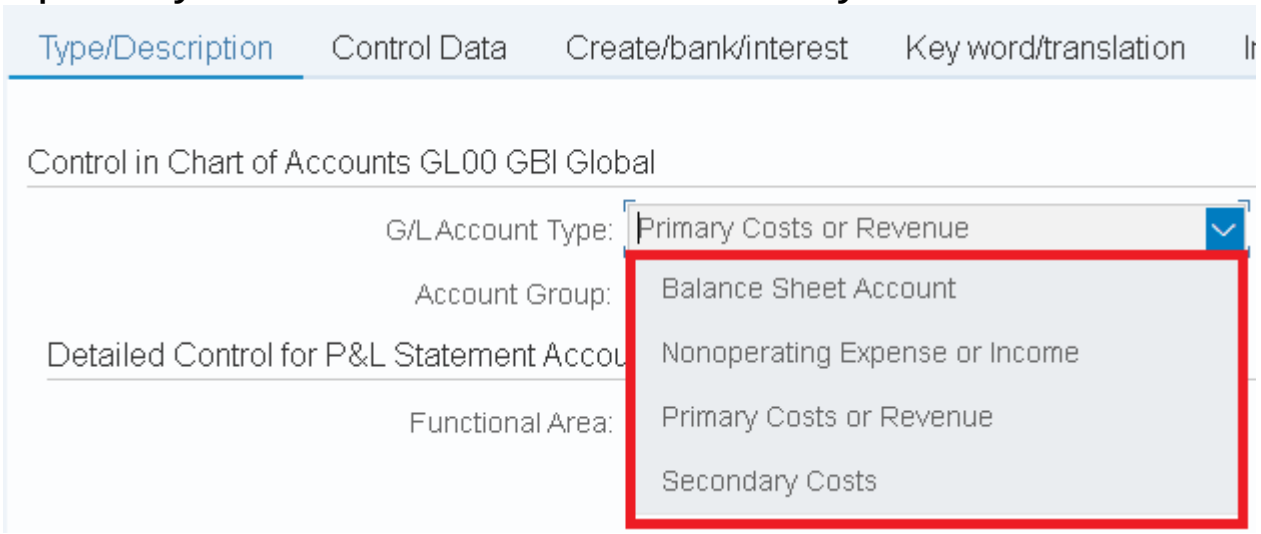


  - The GL account master record includes a new mandatory field for cost element category for classification of GL accounts
  - Previously in KA01

Innovations in S/4HANA

1) Cost element master data maintenance

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

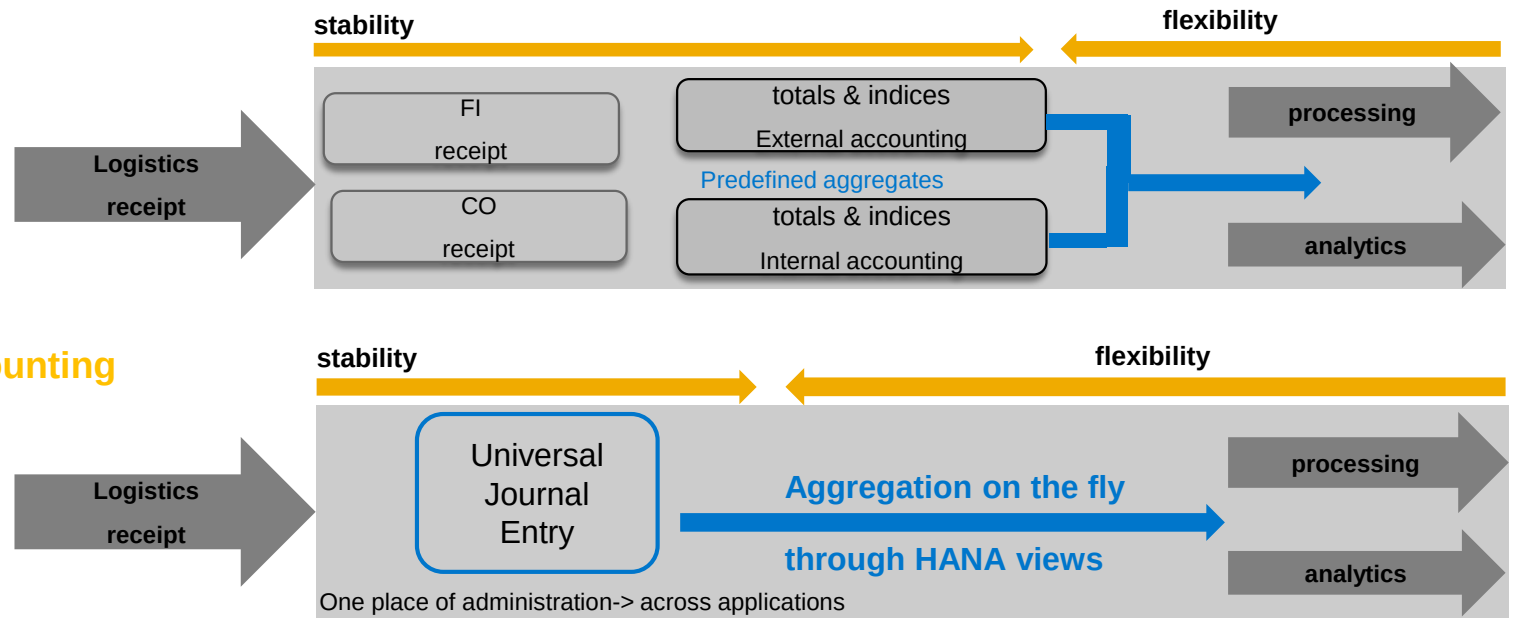


- Journal entries are recorded under GL accounts (secondary and primary costs)

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



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

Innovations in S/4HANA
2) General Ledger

- 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

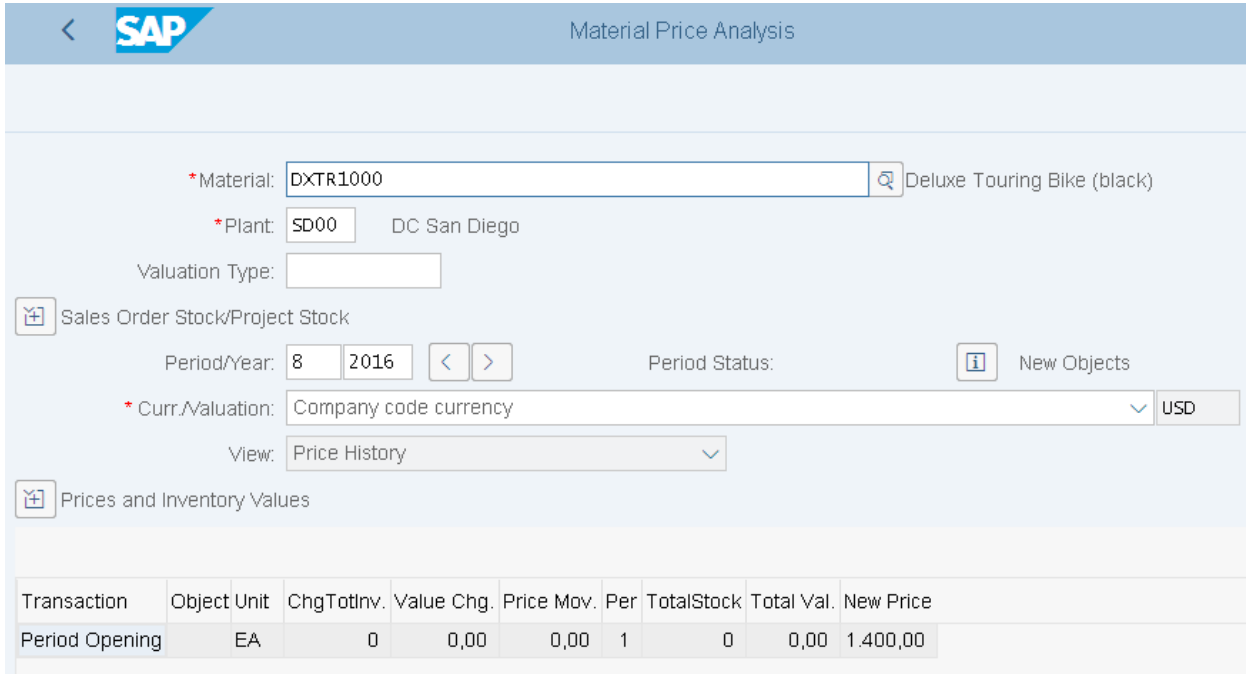
- Advantages:
  - No need for coordination
  - Significantly reduced memory requirements
  - External and internal accounting are harmonized
  - Flexible, multi-dimensional real-time analyses can be executed directly from the Universal Journal - without replication of the data into the BI.
- There are 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

- 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 valuate 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)



Human Capital Management (HCM)

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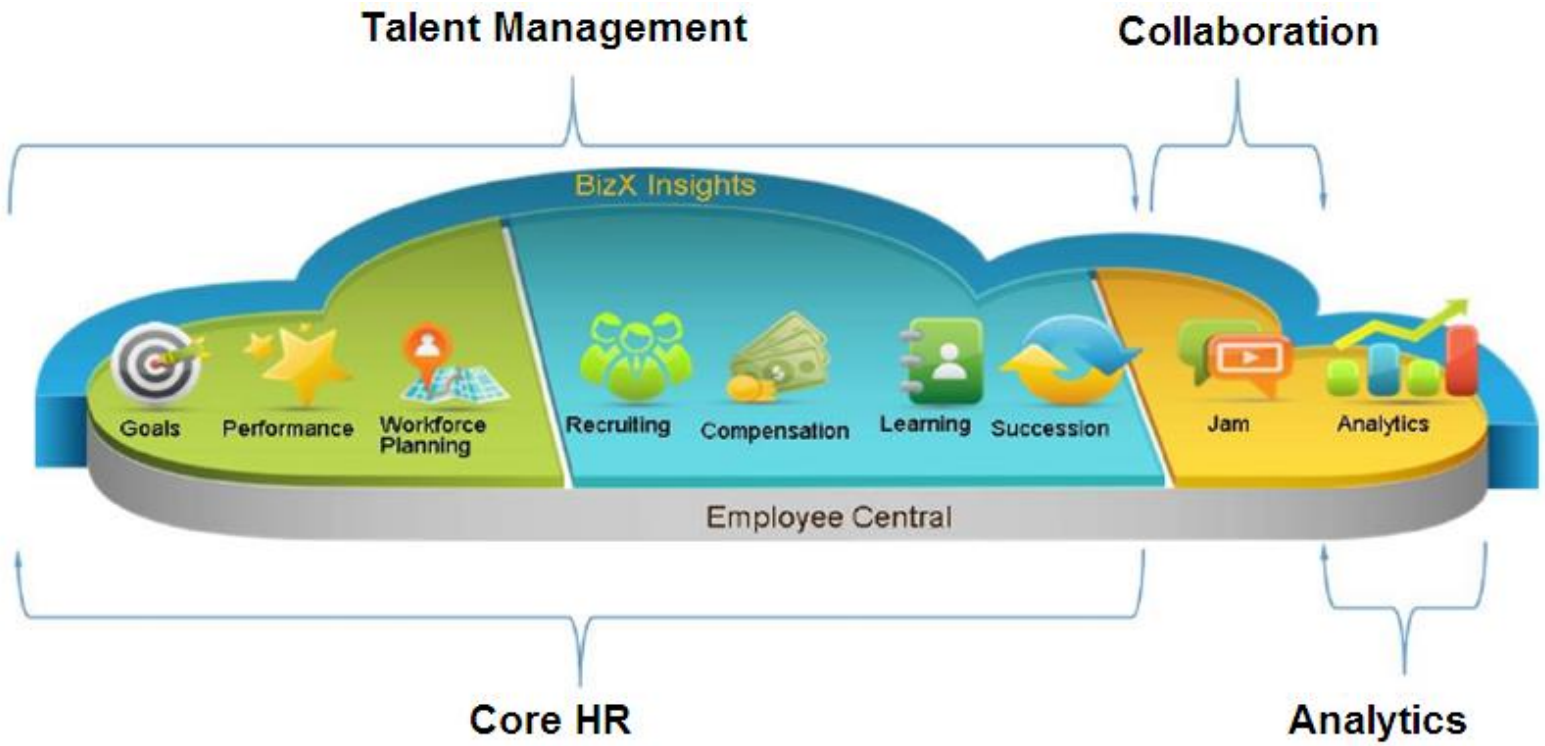
Innovations in S/4HANA

- SuccessFactors: the next generation HCM suite in the public Cloud
  - the go-forward HCM solution for cloud and on premise
- connects S/4HANA with productized integration based on HCI content (HANA Cloud Integration)
  - out-of-the-box connectivity options between cloud and on premise applikations
  - e.g. OnPremise2Onpremise, Cloud2Cloud or Cloud2OnPremise
- SAP S/4HANA customers may also using SAP ERP HCM on-premise

Innovations in S/4HANA

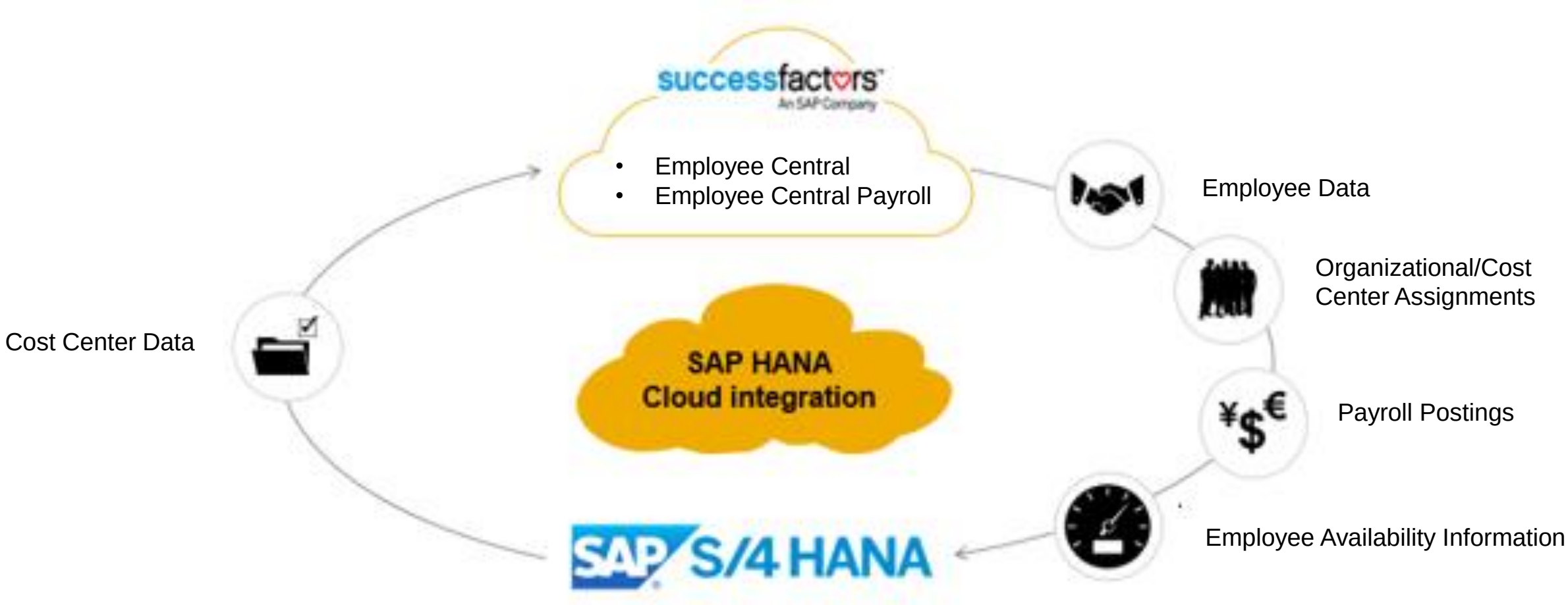
- SAP SuccessFactors is the new HR Management in S/4HANA and is supposed to replace the ERP HCM as a cloud solution in the future

- The functions are organized in combinable modules:



Innovations in S/4HANA

Productized Integrations between SuccessFactors and S/4HANA

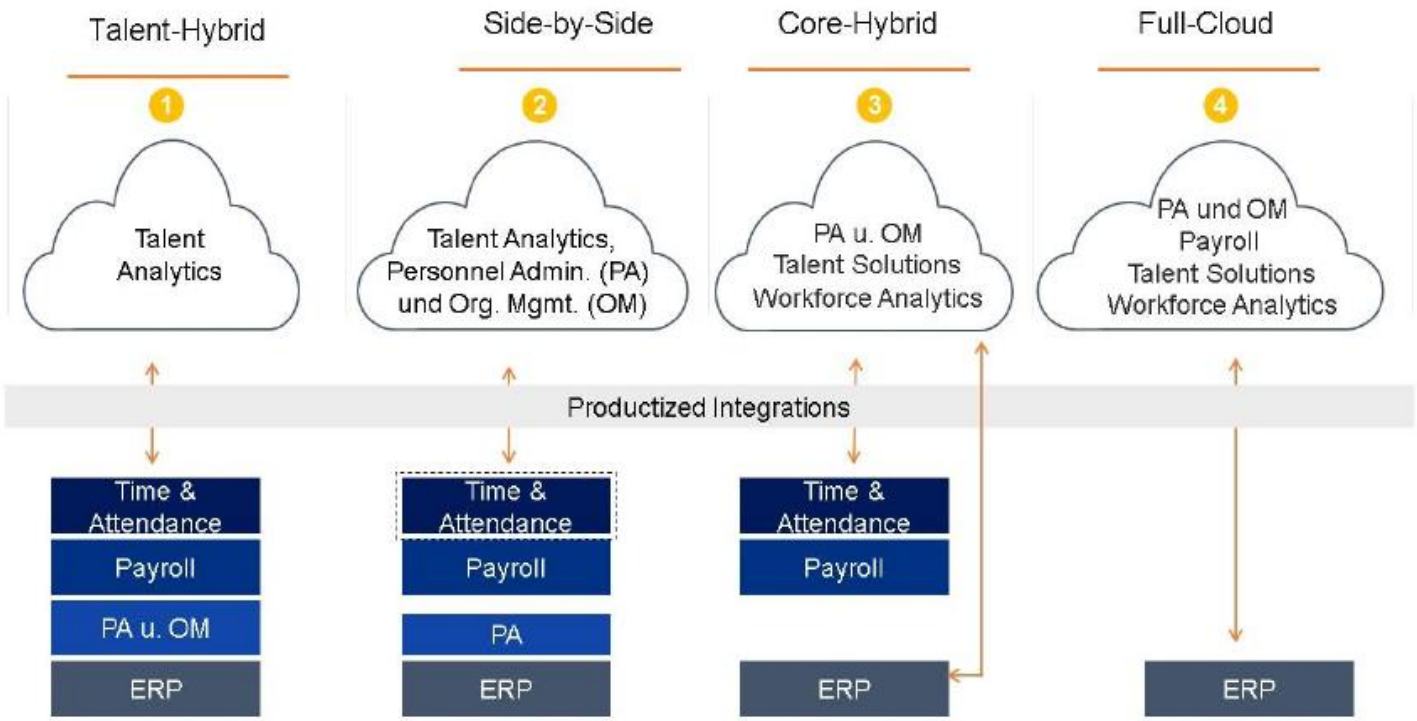


Innovations in S/4HANA

• SuccessFactors is public cloud only	• SAP ERP HCM is on-premise only
• Deploy together with S/4 HANA cloud edition (productized integration available today)	• Deploy as single instance, co-deployed with S/4 HANA on-premise edition
• Deploy together with S/4 HANA on-premise edition (productized integration planned 2H2015)	• Deploy as separate instance connected with S/4 HANA on-premise edition, productized integration based on ALE
• Productized Integration via HCI	• Productized integration to deploy with S/4HANA cloud edition is under consideration

Innovations in S/4HANA

- There are various integration options with the existing SAP systems
- Based on the business requirements, a suitable solution can be selected
- The SAP ERP HCM processes can be executed completely in the cloud, on-premise or with a combination of both variants in a hybrid implementation



Innovations in S/4HANA

- only the Software components SAP-HR and EA-HR are still available in SAP S/4HANA, when using the Compatibility mode
- It´s not planned to provide application simplifications based on the traditional SAP HCM functionalities, such as Fiori-based user interfaces
- Conversion of employees to Business Partners
  - The new data model in S/4HANA is based on Business Partners (BP)
  - A BP must be assigned to each employee

Warehouse Management (WM)

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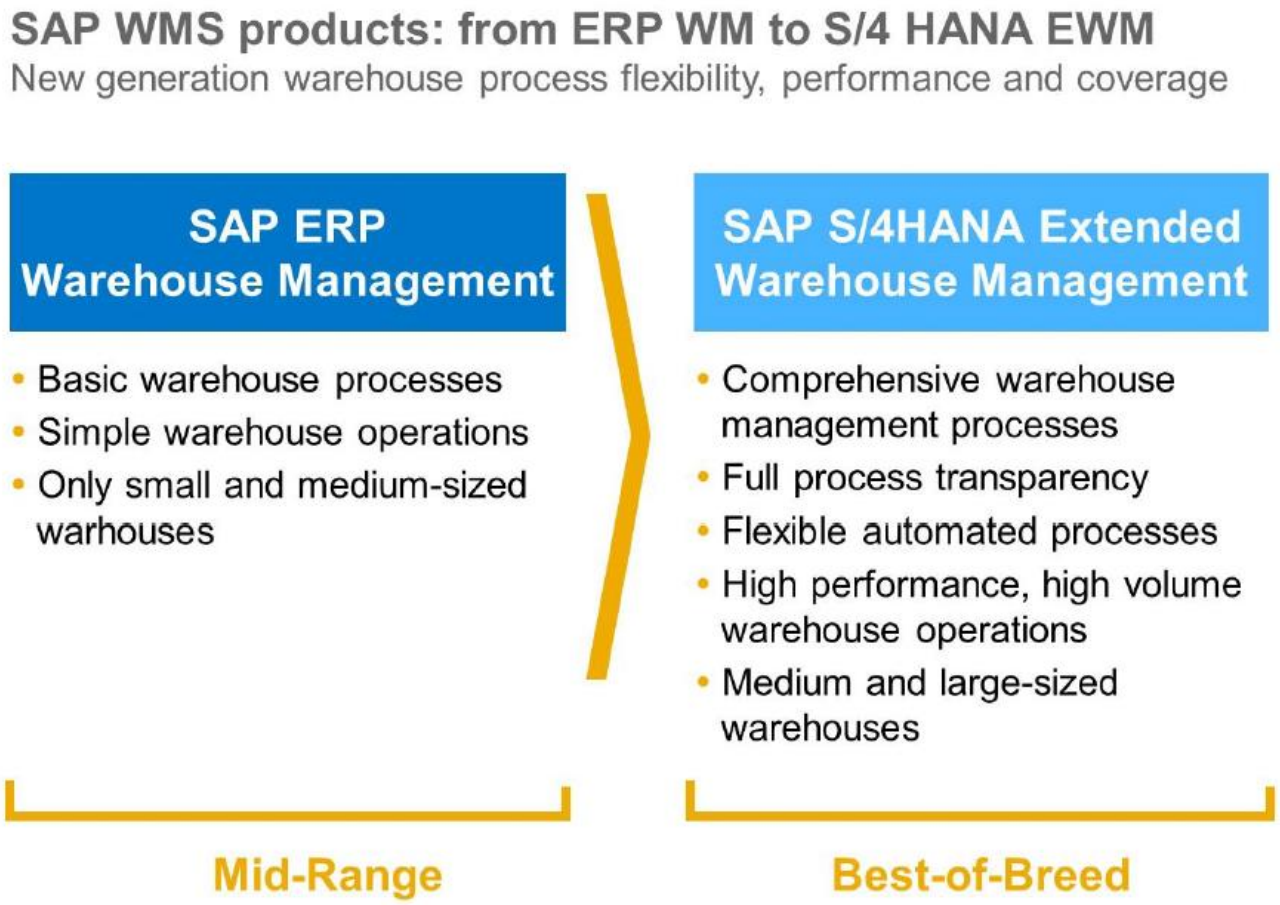
Innovations in S/4HANA
Extended Warehouse Management (EWM)

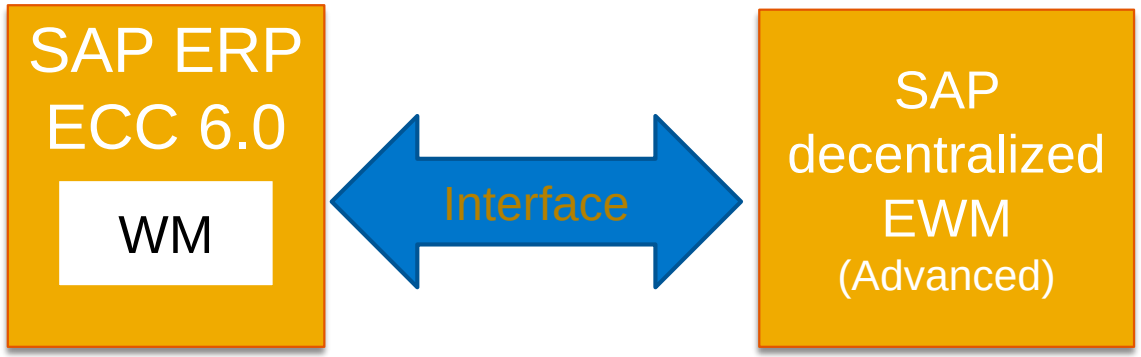
- Long-term the central warehouse management system from SAP
- Part of the Supply Chain Execution (SCE) from SAP in contrast to the WM standard
- Significant difference: WM system concentrates on internal functions
  - Little functionality that provides link to external processes (i.e. contract packaging or transportation)
- In addition to the classical properties for structuring and warehouse control → EWM contains Instruments for strategic placement of the warehouse within the supply chain
- Detailed picture of the complete warehouse complex → improves the overview of the total quantity of the product in the warehouse
- Holdings from several plants can be stored together

Innovations in S/4HANA
Extended Warehouse Management (EWM)



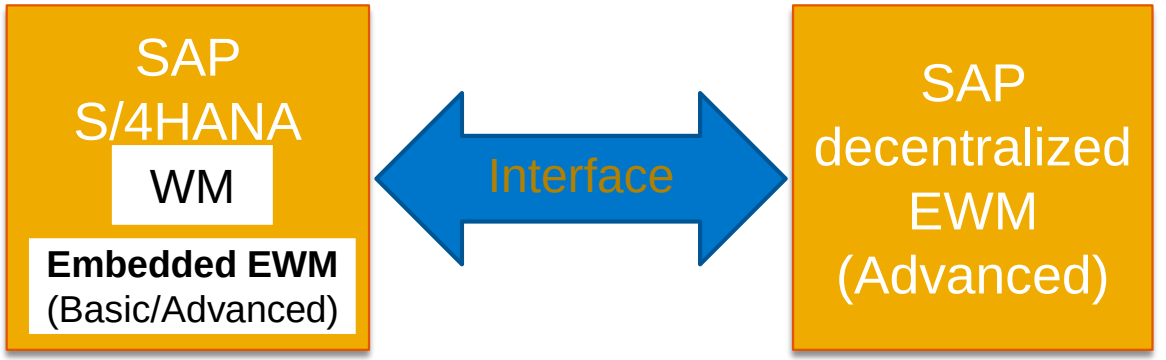
Innovations in S/4HANA
Extended Warehouse Management (EWM)

Scenarios with ECC 6.0



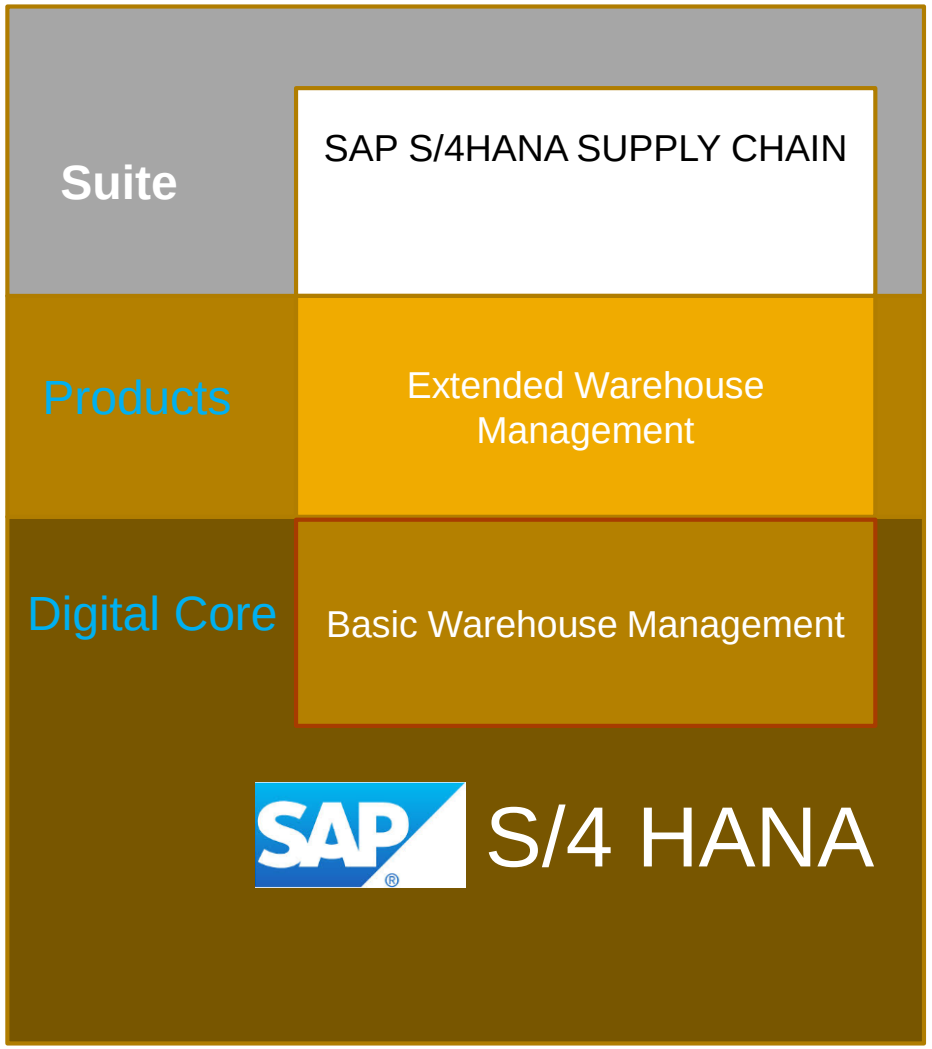
- Classic illustration with an ERP ECC system
- License costs for EWM (decentralized EWM)
- WM can be used indefinitely for new launches (as long as ECC 6.0 is still in use)
- **No SAP support for ERP WM from 2025 onwards**

Scenarios with S/4HANA



- Illustration based on S/4HANA
- No EWM license costs for the „Basic Version“ of the integrated EWM
- **WM usage rights in S/4HANA ends 2025**
- A change from ECC 6.0 to S/4HANA requires a change to EWM from this point onwards

Innovations in S/4HANA
Extended Warehouse Management (EWM)



Extended Warehouse Management

- Optimization of inventory management (e.g., slotting)
- Inbound process optimization (e.g., deconsolidation)
- Outbound process optimization (e.g., wave management)
- Material Flow Control (MFC)
- Yard management (e.g., TU processing, DAS)
- Laboratory management
- Logistic additional services (VAS, for example, Kitting processing)
- Cross docking
- Inventory process cost accounting

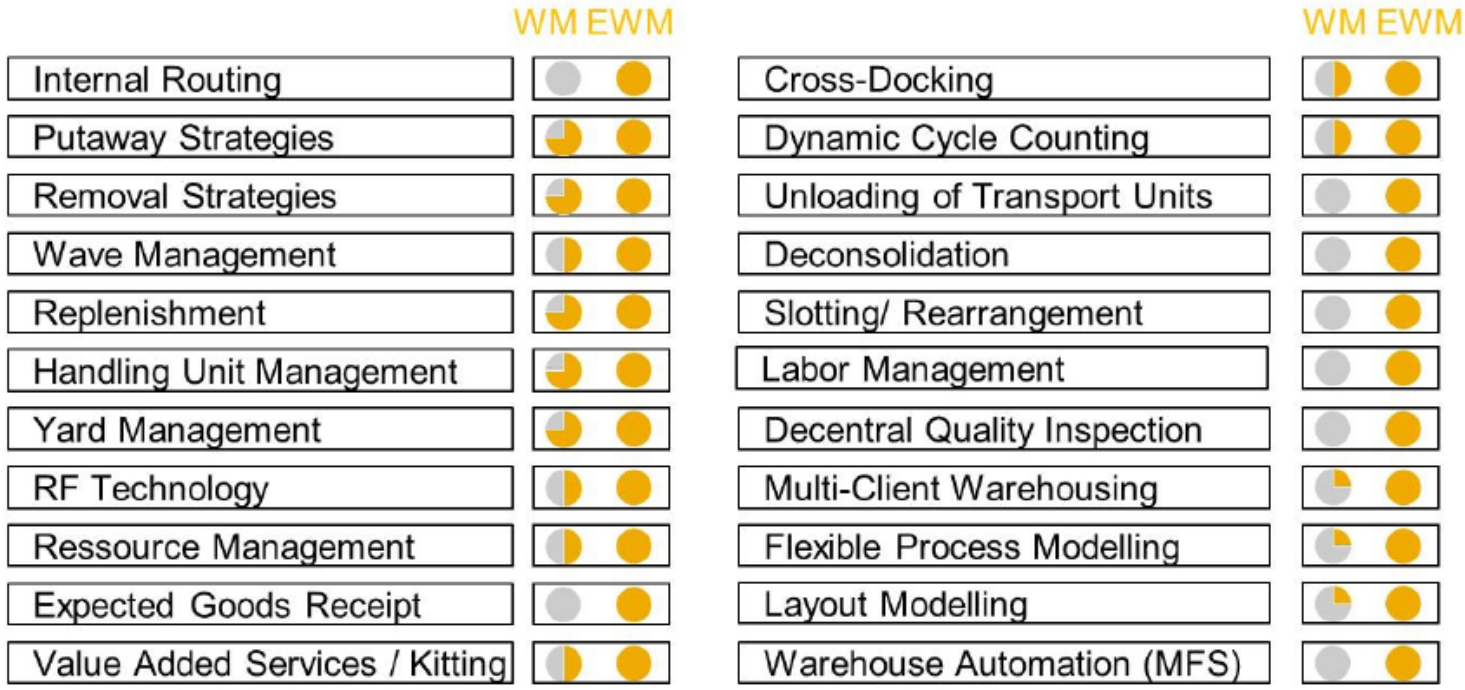
Optimization of warehousing processes

Basic Warehouse Management

- Inventory management
- Inbound processing
- Outbound processing
- Internal stock movements
- inventory procedures
- Reporting

Stock security and transparency

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions



- SAP EWM is the strategic warehouse management solution for SAP S/4HANA
- SAP EWM offers enhanced visibility and flexibility
- Labor Management is part of SAP EWM

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions

- Optimized warehouse space management
  - Different storage facilities (automatic bearings,…) can be arranged in different storage types according to their own requirements
  - Stock movements can be better understood as each storage location is mapped in the system
  - In addition, each product will receive an optimal storage location according to its size and access frequency

- Goods movements
  - EWM is used to process all goods movements that affect the warehouse
  - Storage capacity and material flows are optimized using put away and removal strategies
  - Optimizing takes place individually as required or by using handling units

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions

- Stocktaking
  - Product related or storage related
  - Different monitor with adjustable tolerance groups, over which maximum values can be configured for the calculation of differences
  - Additional extras: automatic close out after time limits, inventory procedures according to different priorities, zero check, low stock control
  - Radio frequency functionality is integrated in for example Cycle Counting

- Planning and monitoring
  - Forward-looking load analysis and early intervention in case of faulty warehouse processes
  - Extensive monitor functions project a up-to-date picture of all activities in the warehouse
  - ➢ Actual work in the warehouse can be controlled this way

Innovations in S/4HANA
Extended Warehouse Management - Scope of functions

- Wireless data connection
  - Controlling the work steps via mobile radio terminals → clear and economical
  - The radio frequency connection (RF connection) for mobile data acquisition ensures a fast data transmission
  - RF devices receive data from the SAP system and transmit data back, e.g. through barcodes

- Warehouse control
  - EWM has interfaces to external systems (storage controllers)
  - ➢ e.g. automated storage and retrieval systems can be integrated for all storage movements

Innovations in S/4HANA
Reasons to Switch to EWM

- Reduce costs through better warehouse efficiency, increased labor productivity, and better space utilzation
- Increase transparency in stock and processes
- Increase flexibility in warehouse process modeling
- Implement customer specific put-away and retrieval strategies
- Quickly onboard new customers
- Better manage value added distribution processes
- Strong integration with other SAP solutions
- Integrated Material Flow System (MFS) for automated storage and retrieval

Project Management (PS)

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Innovations in SAP S/4HANA

1) All project planning activities will be carried out using the single transaction CJ20N - Project Builder. In the past there were several transactions that were used.

2) A new graphic user interface will be used to replace Project System Gantt charts, network graphics and hierarchy graphics

Innovations in S/4HANA
Date Planning Transactions

- Currently multiple transactions to plan dates
  - Project Builder transaction CJ20N for simplification
  - But other transactions are still available with S/4HANA 1511/1610, hence not categorized as target architecture
    - CN24 and CN24N for cross network scheduling, but not the target architecture as well
    - End user need to switch from multiple date planning transactions to single maintenance transaction CJ20N

Innovations in S/4HANA
Project Builder

- Target: one single maintenance transaction instead of multiple, partially redundant transactions to maintain projects → Single Point of Entry
  - CJ20N Project Builder
- Project Builder: Single Point of Entry
  - the target for links and references in reports, still classified as relevant for the target architecture, is going to the Project Builder and not longer to other project related transactions
  - For reports classified as not strategic anymore the navigation has not been adopted

Innovations in S/4HANA
Graphics

- New graphic user interface patterns to replace the following: Project System including Gantt charts, network graphics and hierarchy graphics

➢ Because of this also the following transactions are categorized not as the target architecture:
  - CJ27 Project planning board
  - CJ2B Change project planning board
  - CJ2C Display project planning board

- Improved interface patterns might not provide exactly the same functional scope

- Existing graphics and corresponding transactions can still be used

Enterprise Asset Management (EAM)

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Innovations in S/4HANA in EAM

- Companies are moving more and more to proactive maintenance strategies
- **S/4HANA** enables real-time insights of asset performance for timely, relevant decisions
- Capabilities of **S/4HANA Asset Management**:
  - Simulate maintenance strategies with respect to cost, risk, and performance
  - Analyze data by machines and sensors (OT) to prevent downtime
  - Prioritize maintenance activities for scheduling

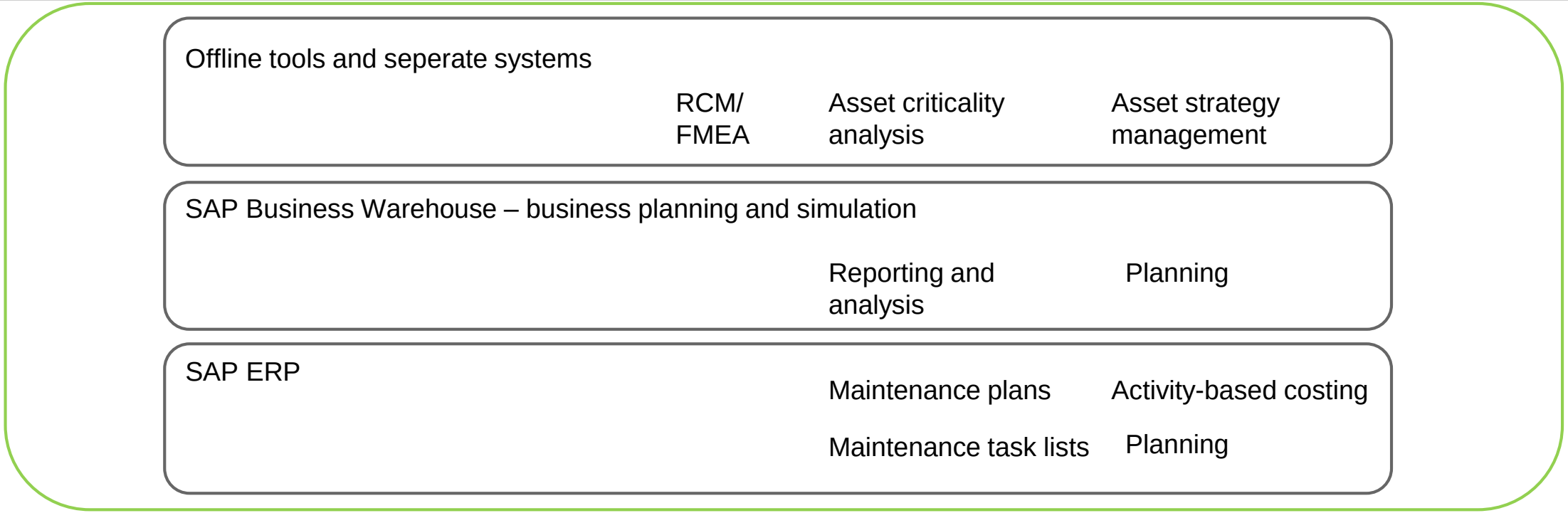
Innovations in S/4HANA in EAM

- Innovations:
  - Instant insight into asset system behaviour
  - combined view of IT and OT data
    - OT: Operational Technology is hardware and software that detects or causes a change by directly monitoring and / or controlling physical devices, processes, and events in the company
  - simplified user experience
- Goal: Added value through increased return on investment, increased customer satisfaction and lower maintenance costs

Innovations in S/4HANA in EAM
Predictive Maintenance and Service

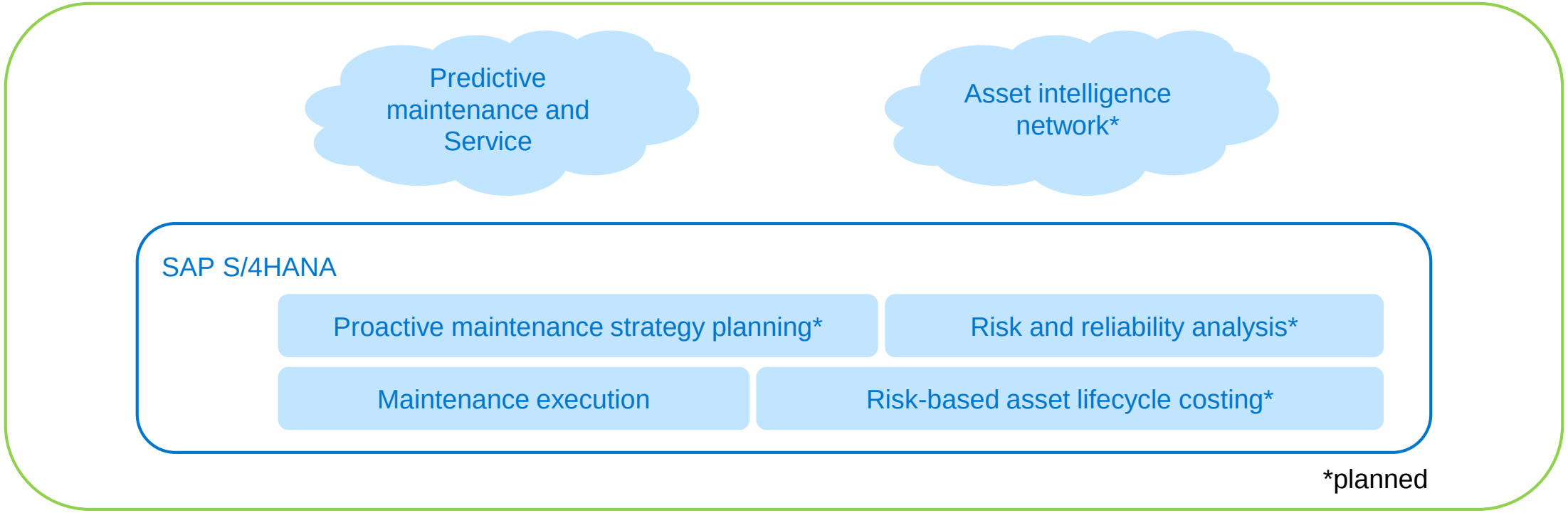
- Powered by SAP HANA in-memory technology
- Analyzes large volumes of sensor data (such as temeprature, vibration or rotation speed)
- Warning message long before a machine breaks down
- Internet of Things (IoT) solution uses real time machine data
  - Predict and prevent failures
  - Asset manufacturers can improve customer service – operators can maximize equipment uptime
- **From reactive to proactive maintenance**

Innovations in S/4HANA in EAM
EAM – Traditional system



- Lack of insight due to disparate systems and incomplete reporting capabilites
- Analysis based on past performance, not proactively driving asset strategies
- No real simulation and forecasting features
- Difficult to include OT data into condition-based maintenance plans
- Sophisticated analytics only available offline, hence losing transparency of strategy changes

Innovations in S/4HANA in EAM
With SAP S/4HANA



- Insight into asset performance, KPIs instantly refreshed
- Real-time view into ongoing maintenance activities with the ability to re-plan schedules multiple times a day
- Developing maintenance strategies based on reliability centered maintenance (RCM) and failure modes and effects analysis (FMEA) and asset criticality
- Planning and budgeting for lifecycle costs (capital expenditure/ operational expenditure) based on risk and performance
- Simulation, planning and optimization of maintenance activities
- Process integration with predictive maintenance and service and asset intelligence network

Quality Management (QM)

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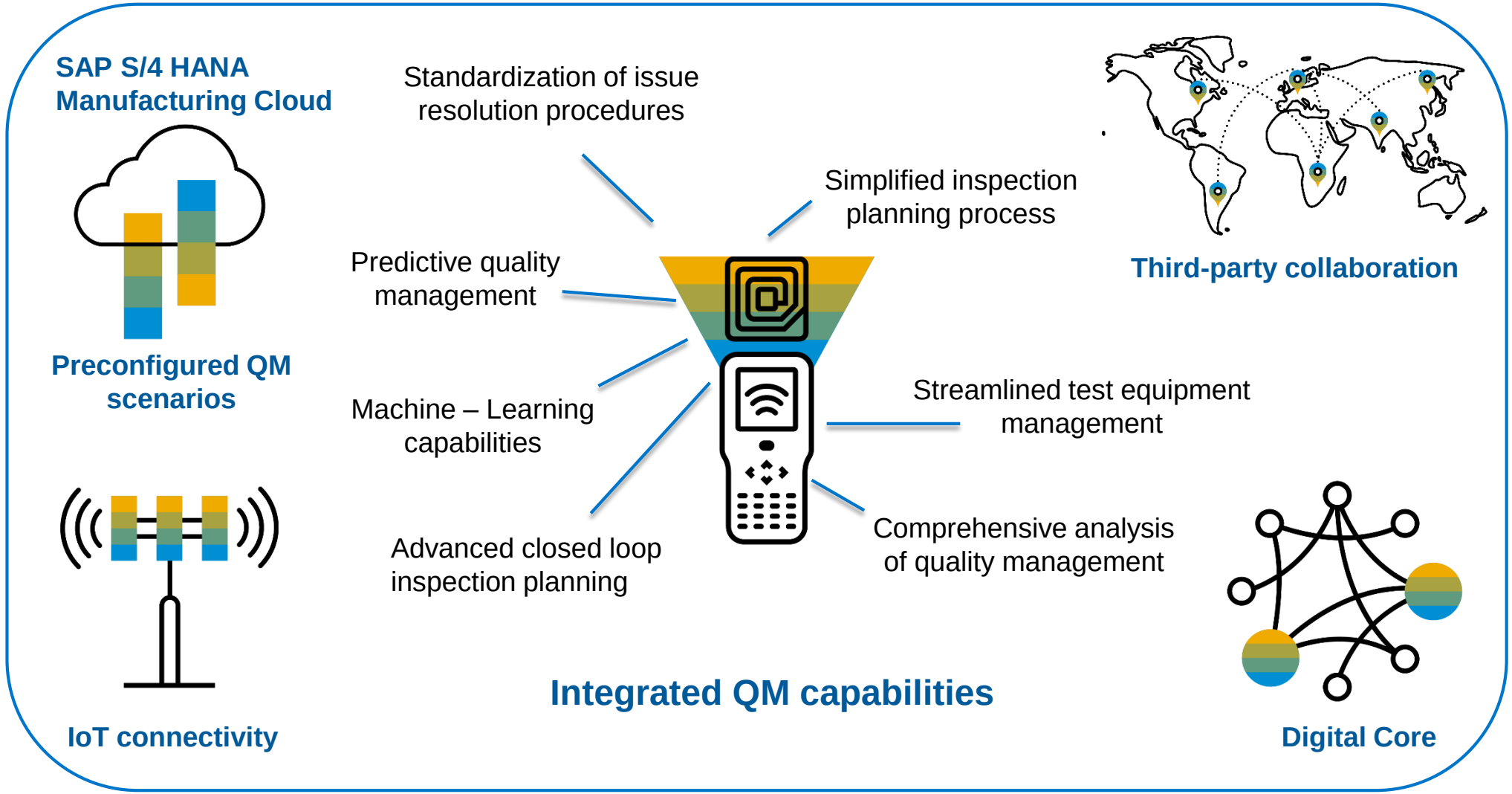
Innovations in S/4HANA in QM
Integrated QM capabilties

- Challenge: mass personalization while ensuring consistent quality in every product
- Manufacturers require flexible and intergrated QM processes from design to final delivery
- With **S/4HANA**, Quality management becomes fully integrated in the entire quality process
  - Improves the Segment of One process
- Streamlined and exceptional end user experience together with new functionalities

Innovations in S/4HANA in QM
Integrated QM capabilties



Innovations in S/4HANA in QM
Preconfigured core processes

Procurement

Inventory Management

Production

Sales

Quality Management

- **Quality management in procurement**
  - Regular quality inspection process at goods receipt
  - Quality inspection process with dynamic modification
  - Quality inspection process with material-supplier release
- **Quality management in stock handling**
  - Post unrestricted or blocked stock to quality inspection stock
  - Post quality inspection stock to different storage location
- **Quality management in discrete manufacturing**
  - Goods receipt from production
  - Within production process
- **Quality management in sales**
  - Goods issue only with accepted quality

Innovations in S/4HANA in QM
Role-specific Fiori launchpads

- Core QM processes supported by new roles
- New personalized Fiori launchpads for the following roles:

Quality planner

- Creating QM data
- Manage plans
- Provide basis for inspection

Quality technician

- Execute quality inspections
- Record the results

Quality engineer

- Monitoring quality inspections
- Analysis of test results

Quality manager

- Establishing quality standards/ procedures
- Set up of controls

Quality auditor

- Check products based on specific inspection plans

Calibration technician

- make sure that testing devices are calibrated correctly

➢ Typical transactions/ apps are combined in business catalogs and assigned to the different roles

Innovations in S/4HANA in QM
New Fiori apps

- New Fiori apps with exceptional end user experience together with new functionalities
  - For example: App for recording results of quality inspections
  - Quality technicians can record the results of their quality inspection easily and efficiently
- In order to achieve this the app provides flexible and state-of-the-art worklists