BW Modernization Webinar Series
Embedded Analytics in SAP S/4HANA Cloud*

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Solution Management for SAP S/4HANA Cloud

Public

SAP S/4HANA Cloud and SAP Business Technology Platform
A versatile platform to speed innovation

Comprehensive extensibility capabilities to allow cloud lifecycle compliant innovation and differentiation whilst retaining the benefits of a clean digital core
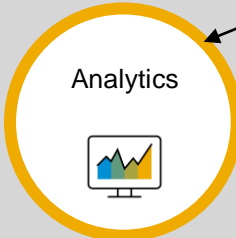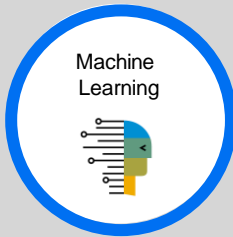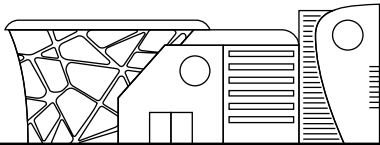
Further intelligent industry capabilities available **side-by-side via SAP Business Technology Platform**

Business Data Fabric structures allow for **enterprise-wide data democratization**

Intelligent Situation Automation

Machine Learning

Analytics

Situation Handling

Machine *Learning*

Analytics

SAP Build Process Automation

Digital Assistant & Chatbot

Intelligent technologies fully **embedded in SAP S/4HANA Cloud**
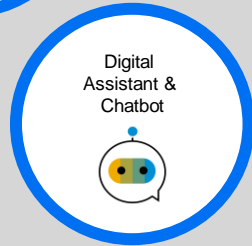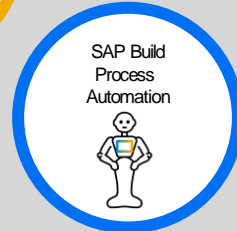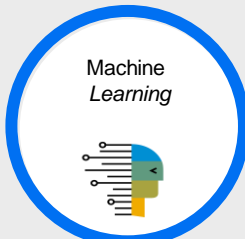
SAP S/4HANA

The right structure and business processes set up to improve your business performance through business innovation and intelligent technologies

Extend Prebuilt use cases via:

Key User Extensibility

Developer Extensibility

Side-by-side extension via:

Custom code development

Integration with BTP services

Digital core & backbone

SAP S/4HANA embedded analytics* – the basics you need to know

Concepts

Enhanced ERP process example:

Hybrid App

Analyzing business KPIs

The drill-down providing the actionable insights…

…helps to select documents/ products, customers

Data Entry

submit

Provide initial results
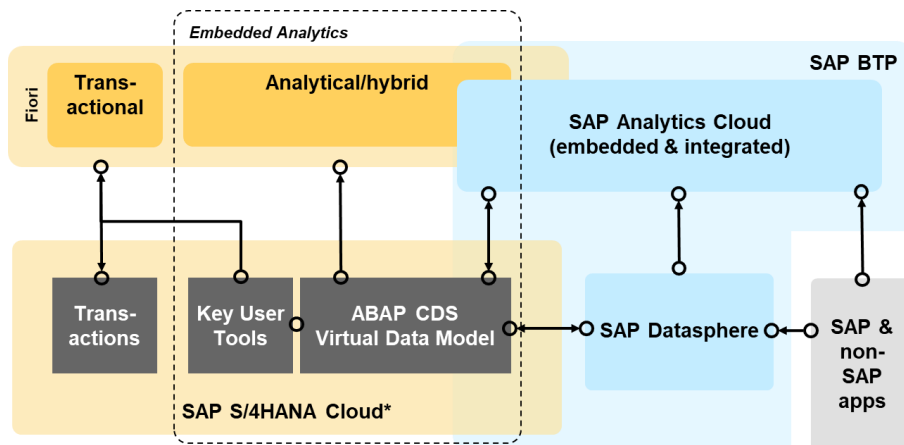
Give recommendations
Decision support, potentially supported by AI functionality
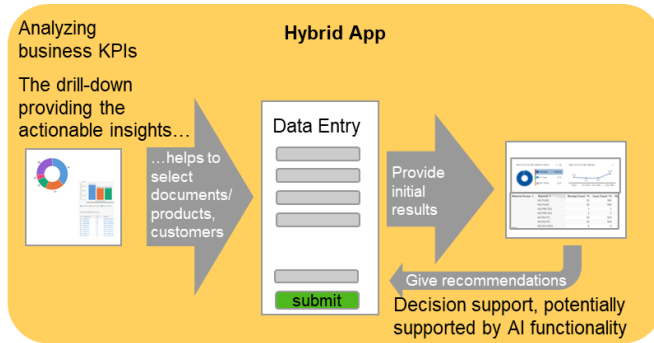
*embedded analytics includes technical embedding of analytical functionality and visualizations for seamless interoperability between transactional and analytical aspects of an **optimized business process**

Note: SAP Analytics Cloud is included commercially only in SAP S/4HANA Cloud, public edition (GROW) as OEM version

Principles

Key Principles (technical setup unique to SAP S/4HANA Cloud*):

"Insight-to-action"
Use analytics findings to navigate to the transaction to initiate the necessary changes

"fact-based process handling"
Use analytical visualizations to prioritize the order of work

Recommendation:

"To assure the optimization of ERP processes, the close alignment and integration of transactional and analytical components is essential.

Therefore, the usage of embedded analytics should be maximized wherever possible."

Architecture

Embedded Analytics

Fiori

Trans-actional

Analytical/hybrid

SAP BTP

SAP Analytics Cloud (embedded & integrated)

Trans-actions

Key User Tools

ABAP CDS Virtual Data Model

SAP Datasphere

SAP & non-SAP apps

SAP S/4HANA Cloud*

Note: SAP Analytics Cloud is included commercially only in SAP S/4HANA Cloud, public edition (GROW) as OEM version

Functionality

Fiori business user visualizations
- Smart Business KPIs
- Overview Pages
- Analytical List Page
- Multidimensional Reports
- Dashboards (powered by SAP Analytics Cloud)
- Hybrid Applications (In-app Analytics and Machine Learning)
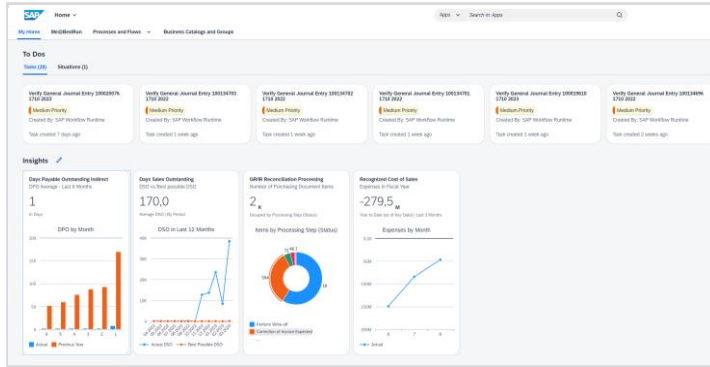
Key user tools for the Analytics Specialist
- Manage KPIs and Reports
- View Browser
- Custom CDS Views
- Custom Analytical Queries
- Embedded SAP Analytics Cloud Stories
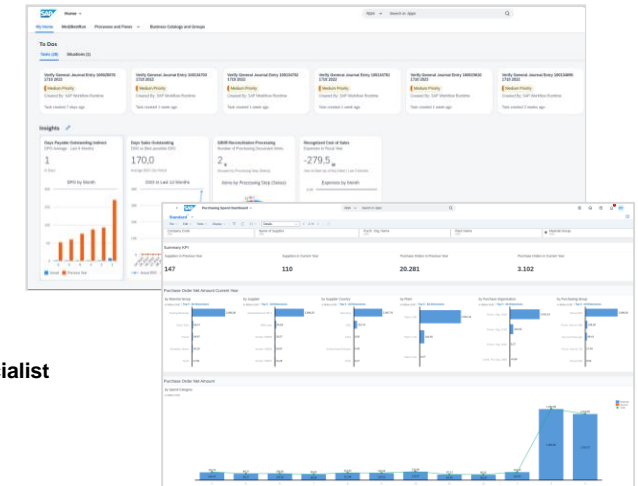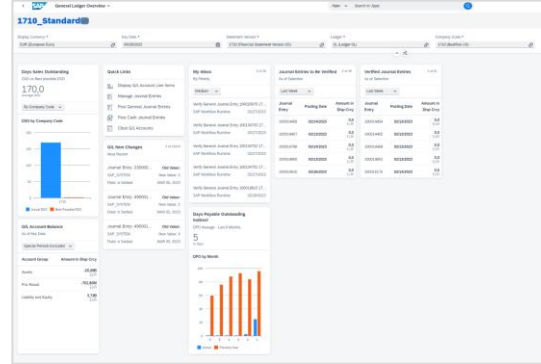
Appendix slides

SAP S/4HANA embedded analytics – Offering for the Business User

Smart Business KPIs

- KPI monitoring on the Fiori Launchpad
- Drill-down into further analytical or transactional apps
- Save personal variants

Overview Pages

- Consolidated view on a certain domain, e.g. Purchasing
- Information presented in analytical tables and charts
- Take action in the same place or navigate to other apps
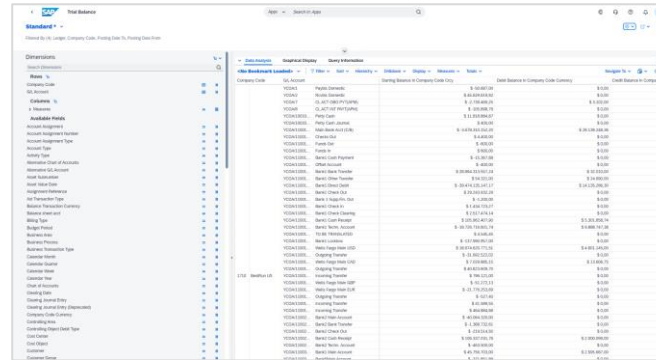- Save personal variants

Analytical List Page
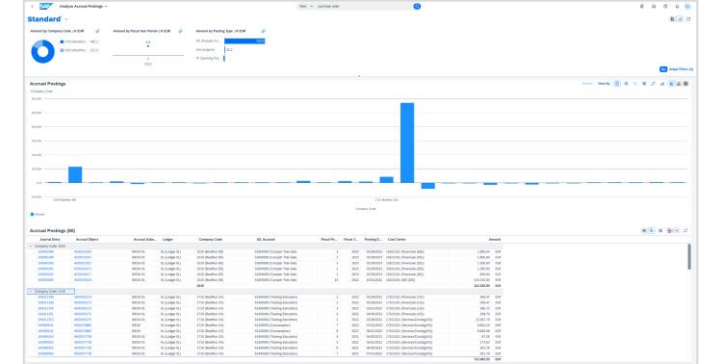
- Generic approach to mix analytical and transactional activities
- Display table or chart or a combination
- Take action directly in the same app or navigate to other apps
- Save personal variants.

In-app Analytics and ML
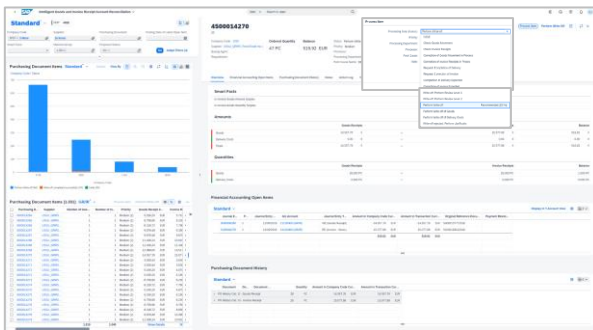
- Combine Analytics with transactional content in one screen
- Insight to action to prioritize based on facts
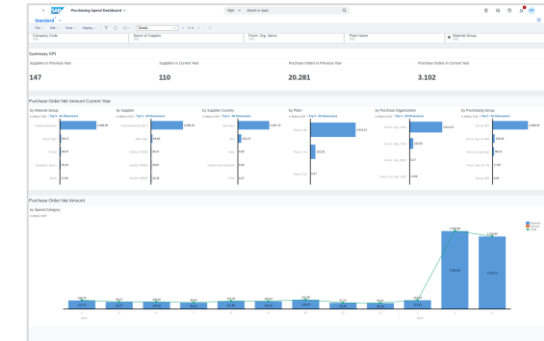- Use drill-downs to determine transactional input parameters

Multidimensional Reports

- Analyze and visualize data from multiple dimensions
- Display pivot-table or chart or a combination
- Save personal variants

Powered by SAP Analytics Cloud

Dashboards

- SAP S/4HANA: Optional, additional content, Stories (SAP S/4HANA data only) shipped via SAP Analytics Cloud Content Repository
- SAP S/4HANA cloud: Fiori-embedded SAP Analytics Cloud content for SAP S/4HANA, stories available via SAP Analytics Cloud OEM tenant
- Queries supplying the data are shipped with SAP S/4HANA
- Used as templates, customers will copy and adapt

SAP S/4HANA embedded analytics Overview - Key user tools for the Analytics Specialist (selection)
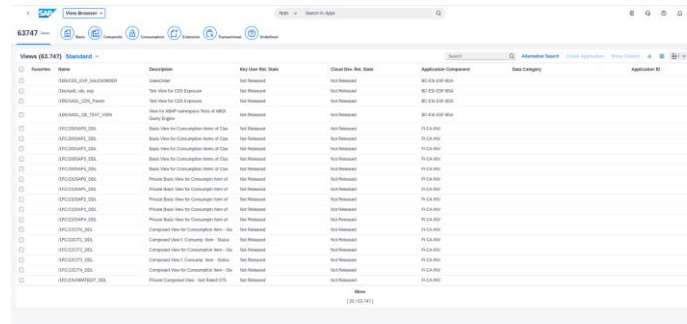
Manage KPIs and Reports
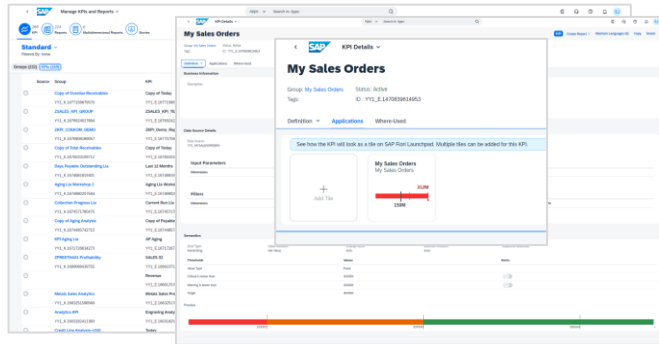
Smart Business KPI & Report Modeler enables your company to define, manage, and leverage consistent KPIs and Reports across all your business functions.
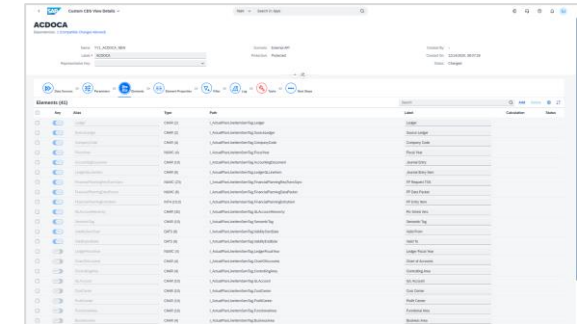
View Browser

Search, browse and tag analytical and non-analytical queries. This application displays all the views that are created and released by SAP as well as the customer-created SAP views.

Custom CDS Views

If you need access to data in your system in a way the system does not offer so far, you can create your own data access by making use of a Custom Core Data Services view.

Custom Analytical Queries
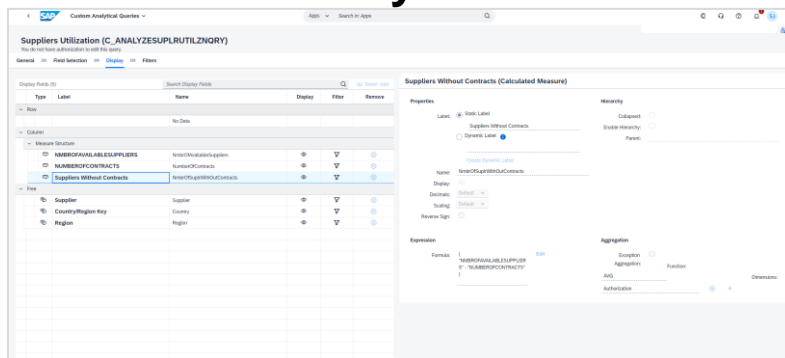
Custom Analytical Queries transforms and organizes raw data delivered from business documents into a meaningful multidimensional report.

Custom Catalog Extensions
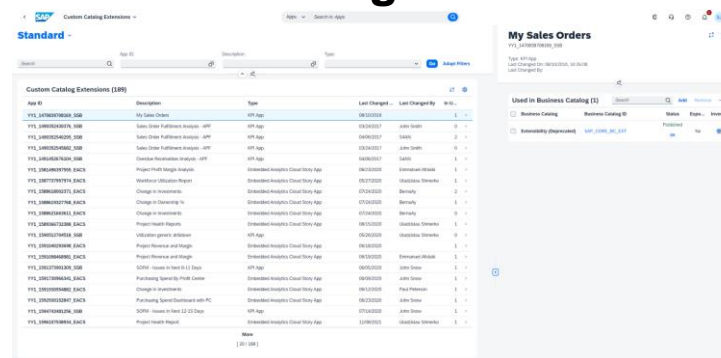
With this app you assign your apps, such as new multidimensional reports or KPIs to the required business catalogs and thus to the user roles.

Embedded SAP Analytics Cloud Stories

Enable seamless integration between SAP S/4HANA Cloud and SAP Analytics Cloud: Create SAP Analytics Cloud Stories, and tiles in the SAP Fiori Launchpad

SAP data and analytics solutions - building the business data fabric

Analytics

Embedded Analytics

Fiori

Trans-actional

Hybrid

Analytical
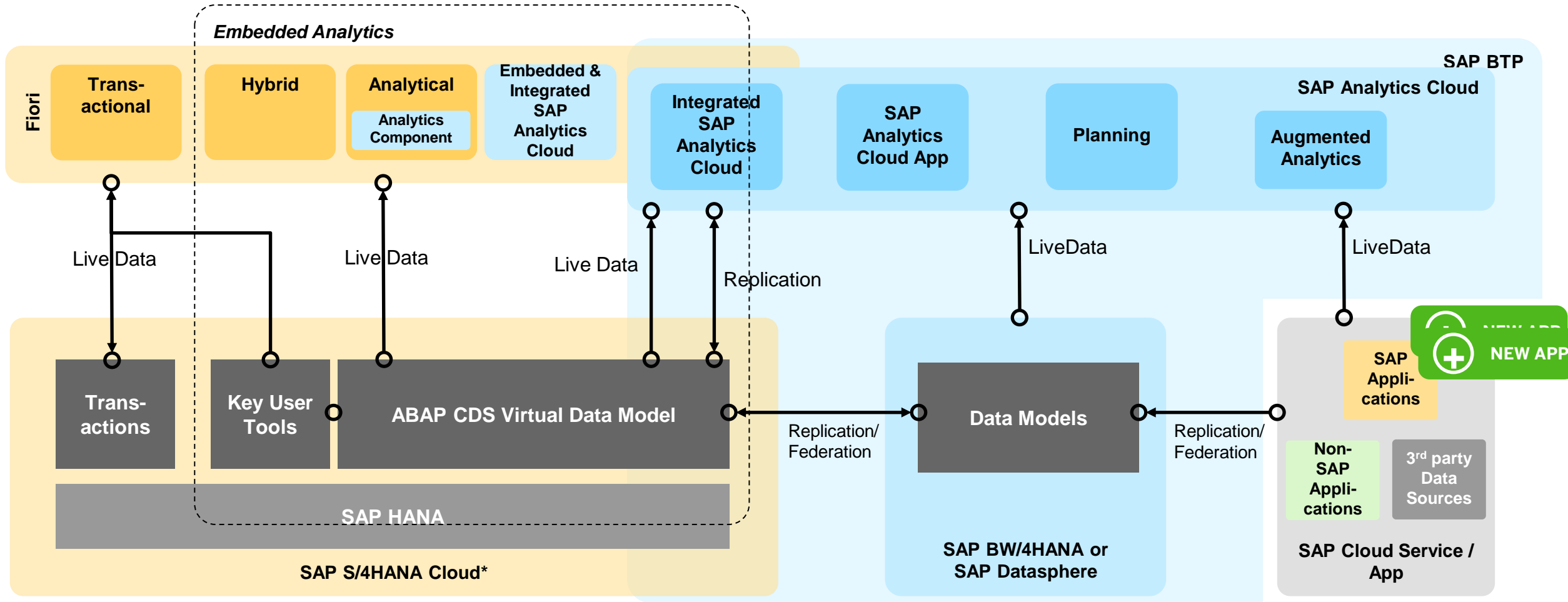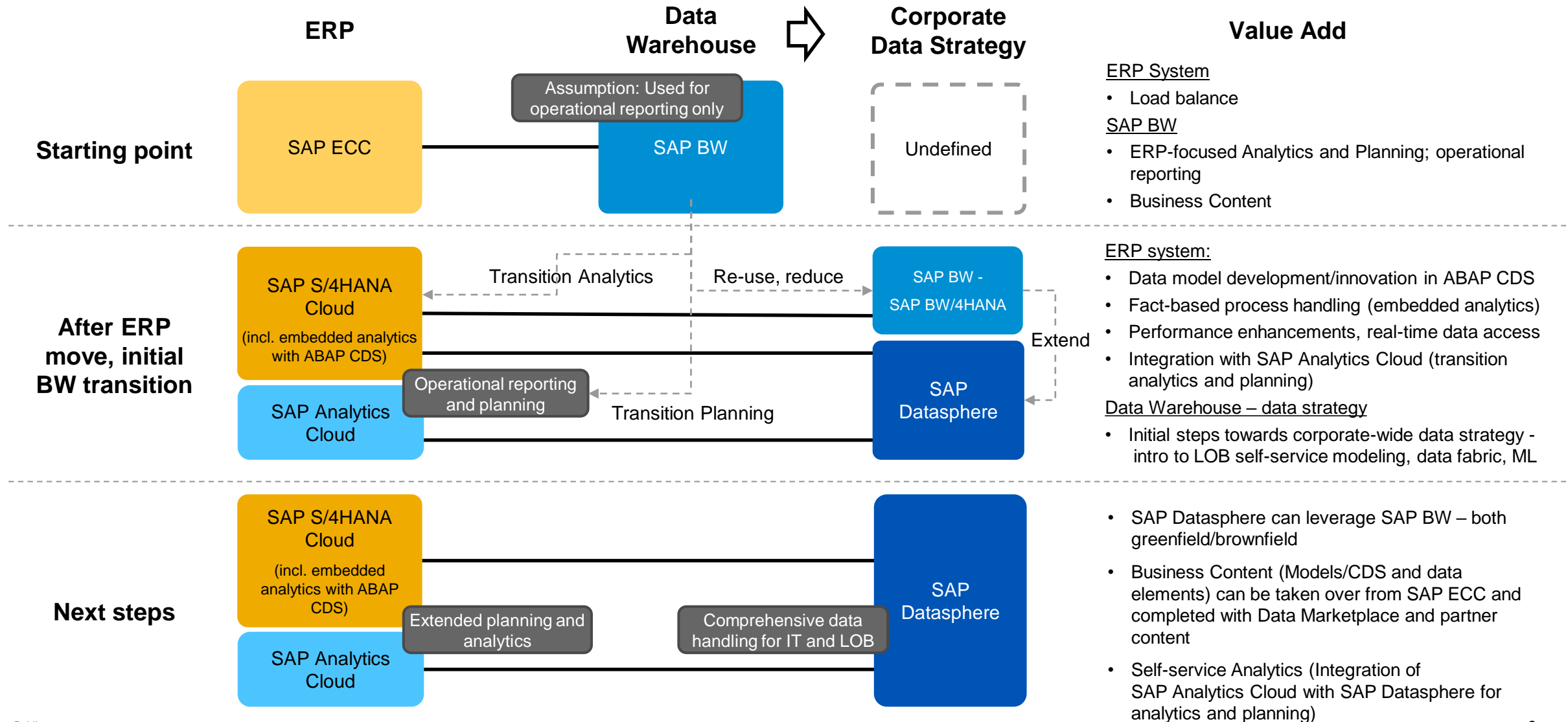- Analytics Component

Embedded & Integrated SAP Analytics Cloud

SAP BTP

SAP Analytics Cloud

Integrated SAP Analytics Cloud

SAP Analytics Cloud App

Planning

Augmented Analytics

Live Data

Live Data

Live Data

Replication

LiveData

LiveData

Trans-actions

Key User Tools

ABAP CDS Virtual Data Model

Data Models

SAP HANA

Replication/ Federation

Replication/ Federation

NEW APP

SAP Appli-cations

Non-SAP Appli-cations

3rd party Data Sources

SAP S/4HANA Cloud*

SAP BW/4HANA or SAP Datasphere

SAP Cloud Service / App

*including **SAP S/4HANA Cloud, public edition**, **SAP S/4HANA Cloud, private edition**, and **on premise deployments of SAP S/4HANA**

Value Add and new paths for Analytics while moving to SAP S/4HANA Cloud

	ERP	**Data Warehouse** ⇨	**Corporate Data Strategy**	**Value Add**

Starting point

SAP ECC

Assumption: Used for operational reporting only

SAP BW

Undefined

ERP System
- Load balance

SAP BW
- ERP-focused Analytics and Planning; operational reporting
- Business Content

After ERP move, initial BW transition

SAP S/4HANA Cloud (incl. embedded analytics with ABAP CDS)

SAP Analytics Cloud

Transition Analytics

Operational reporting and planning

Re-use, reduce

Transition Planning

SAP BW - SAP BW/4HANA

SAP Datasphere

Extend

ERP system:
- Data model development/innovation in ABAP CDS
- Fact-based process handling (embedded analytics)
- Performance enhancements, real-time data access
- Integration with SAP Analytics Cloud (transition analytics and planning)

Data Warehouse – data strategy
- Initial steps towards corporate-wide data strategy - intro to LOB self-service modeling, data fabric, ML

Next steps

SAP S/4HANA Cloud (incl. embedded analytics with ABAP CDS)

SAP Analytics Cloud

Extended planning and analytics

Comprehensive data handling for IT and LOB

SAP Datasphere

- SAP Datasphere can leverage SAP BW – both greenfield/brownfield
- Business Content (Models/CDS and data elements) can be taken over from SAP ECC and completed with Data Marketplace and partner content
- Self-service Analytics (Integration of SAP Analytics Cloud with SAP Datasphere for analytics and planning)

SAP-delivered SAP S/4HANA Cloud embedded analytics Content

380+
Finance

100+
Sourcing & Procurement

30+
Sales and Distribution

10+
Services Industries

12+
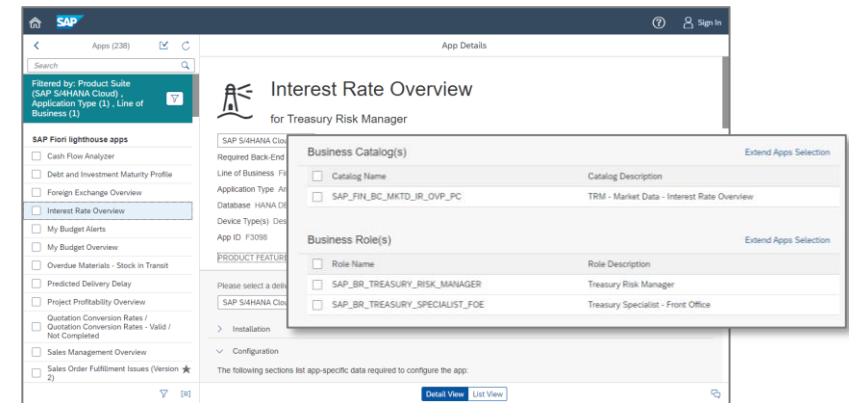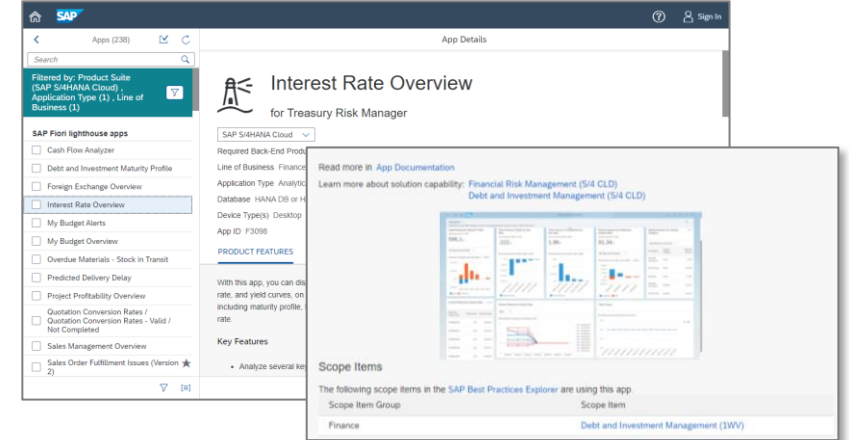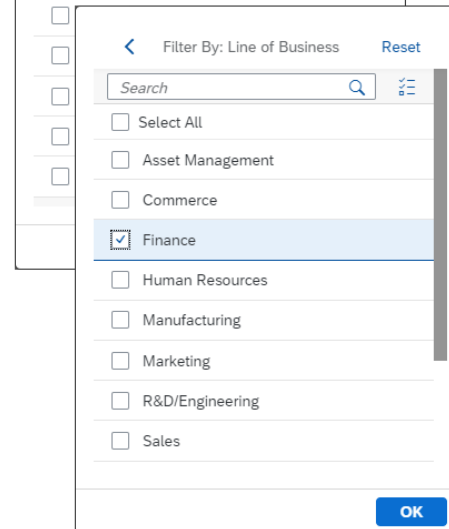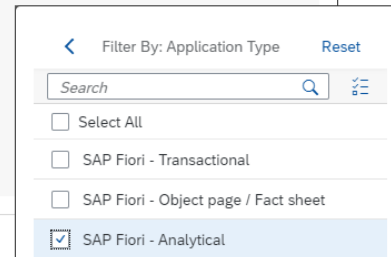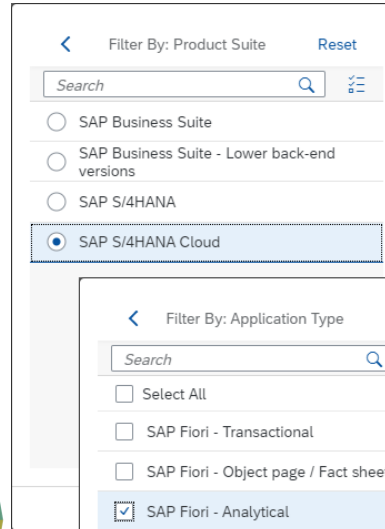embedded SAC Stories on multiple LOBs

15+
Foundation and Cross

Exploring pre-delivered Analytics Content

SAP Fiori Apps Reference Library
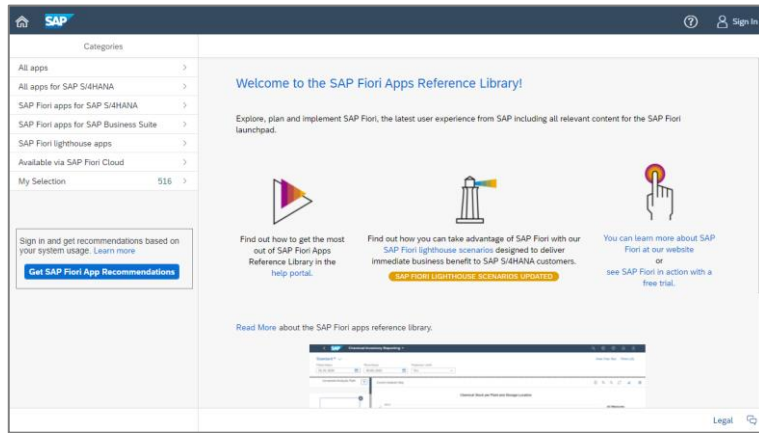
- Get general info
- Learn about features
- Learn how to get started

Pre-delivered non-Analytics Content

Most Used Analytical Apps in Logistics

Persona	Analytical App	Line of Business
Internal Sales Representative	Sales Order Fulfillment Issues (Version 2)	Finance, Sales, Service, Sourcing and Procurement
Inventory Manager	Dead Stock Analysis	Asset Management, Sales, Sourcing and Procurement, Supply Chain
	Slow or Non-Moving Materials	Asset Management, Sales, Sourcing and Procurement, Supply Chain
	Stock - Multiple Materials	Asset Management, Finance, Manufacturing, Sales, Sourcing and Procurement, Supply Chain
Production Planner	Manage Work Center Capacity	Manufacturing, Sourcing and Procurement, Supply Chain
Purchaser	Monitor Purchase Contract Items	Sourcing and Procurement, Supply Chain
	Monitor Purchase Order Items	Sourcing and Procurement, Supply Chain
	Monitor Purchasing Info Records Price History	Sourcing and Procurement, Supply Chain
Warehouse Clerk	Material Documents Overview	Asset Management, Sales, Sourcing and Procurement, Supply Chain
	Overdue Materials - Stock in Transit	Asset Management, Finance, Manufacturing, Sales, Sourcing and Procurement, Supply Chain

Embedded Analytics | Core Finance Capabilities

Accounting and Financial Close	Financial Operations	Cost Mgmt. and Profit. Analysis	Treasury	Real Estate Management
Accounting standards, Data quality through single source of truth, accelerated close, reporting flexibility	**Control DSO, Reduce credit risk, Reduce debt write-off, Optimal payment and receivable process**	**Visibility across elements of the margin based as per Universal Journal attributes, account based approach elimination reconciliation efforts**	**Facilitate dynamic liquidity forecasting with cash flow analysis, Enable treasurers to take immediate action with integrated bank account management, Real-time drill-down analysis into global bank balances and cash positions**	**Lease accounting standards, Financial postings and collections of leases Lease Contract Data**
• General Ledger Overview Pages	• **Accounts Payable & Receivable Overview**	• Market Segments	• Bank Account Balance	• Contract and Lease Management
• Trial Balance	• Days Sales Outstanding	• Product and Services Margins	• Cash Position	• Contract and Lease Cash flow
• Tax Reconciliation	• Aging	• Project profitability	• Cash flow Analyzer	
• Financial Statements	• **Collections & Disputes Dashboards**	• Predictive Sales		
• Asset Accounting Overview	• **Credit Utilization and Management Overview**			
• Group Financial Statements				

Key Personas steering Insight to Actions with core embedded analytics capabilities

General Ledger Accountant (GL_ACCOUNTANT)

Asset Accountant (AA_ACCOUNTANT)

Consolidation Specialist (BR_CONSLDTN_SPECIALIST)

Accounts Payable Manager (AP_MANAGER)

Accounts Receivable Manager, Accounts Receivable Accountant (AR_MANAGER, AR_ACCOUNTANT)

Credit Controller (CREDIT_CONTROLLER)

Sales Accountant (SALES_ACCOUNTANT)

Cost Accountant – Overhead (OVERHEAD_ACCOUNTANT)

Cash Manager (CASH_MANAGER); Cash Management Specialist (CASH_SPECIALIST)

Treasury Risk Manager (TREASURY_RISK_MANAGER)

Contract Specialist Leasing (RECM_SPECIALIST)

Contract Valuation Specialist Leasing (RECM_VALSPECIALIST)