

# Building an Information Backbone for Intelligent Enterprise Operations

Power Your Move to  
SAP S/4HANA®  
with Comprehensive  
Master Data  
Management



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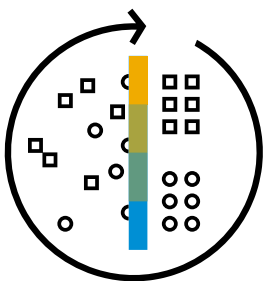


# Migrate to SAP S/4HANA® and Enhance Visibility, Focus, and Agility

Make the move to SAP S/4HANA® to **tap into the value of your digital information**, support innovation and growth, and enable your journey to becoming a real-time, data-driven intelligent enterprise. With a comprehensive, innovative approach to master data governance, you can enable smooth integration and quality control across your IT landscape. You can improve process visibility and decision-making with a single, trusted version of the truth and help drive your transformation.

Migrating to SAP S/4HANA provides a digital foundation that allows you to run transactions and analytics in real time and act with responsiveness, agility, and surety to seize emerging opportunities. Making it happen and realizing positive business results depend on complete and reliable data – which depends on processes to monitor and manage it properly. Your data fuels cross-functional analytics to drive performance management and business decision-making, and it needs to be integrated with unstructured data and machine data captured by the Internet of Things (IoT). Clear audit trails of critical financial data across functional boundaries also are required to support compliance with a complex web of government and industry regulations.

Maintaining reliable master data across domains helps ensure high-quality input to dependent business processes across the organization. Clean master data allows downstream client applications to collect and deliver accurate and complete transactional data for a 360-degree view of each domain. Integrated master data models within SAP S/4HANA capture business logic and validation rules. These models help future-proof your investment in SAP S/4HANA and facilitate a fast go-live with most of your master data design already in place.



Serving as your all-purpose steward for keeping data clean and available for immediate analysis, SAP Master Data Governance on SAP S/4HANA **performs continuous consolidation**, allowing you to run accurate cross-functional reports at any time.

# Maintain a Foundation of High-Quality, Trusted Data

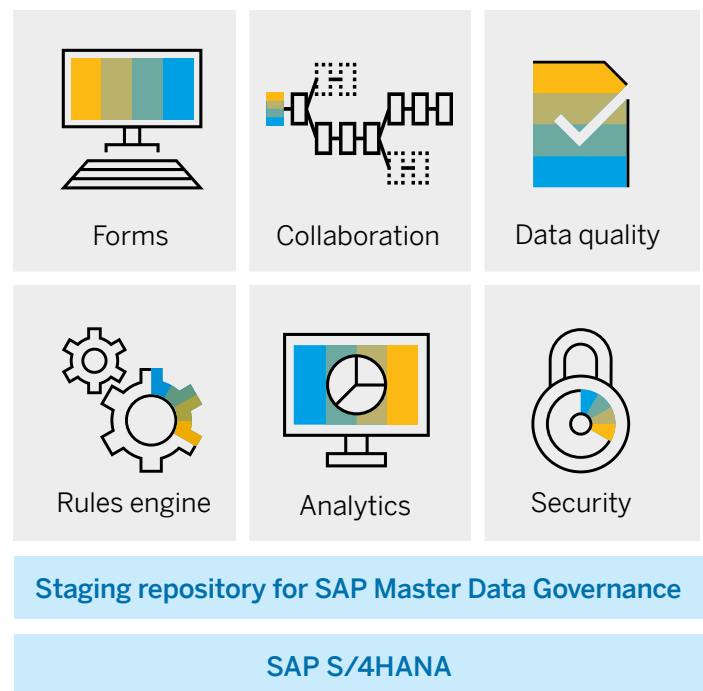
The SAP® Master Data Governance application on SAP S/4HANA provides an intelligent data management platform for your digital foundation and helps ensure the right input for your enterprise business processes. With it, you can maintain reliable master data across domains – customers, suppliers, materials, assets (for capital-intensive industries), and articles (for retail and fashion management).

SAP Master Data Governance on SAP S/4HANA, along with its extensions from Prometheus Group, supports a comprehensive master-data design approach across your intelligent suite of applications. SAP Master Data Governance on SAP S/4HANA features preconfigured, domain-specific governance for the central creation, modification, and distribution of master data. Tight integration with SAP solutions supports the reuse of data models, business logic, and validation frameworks while allowing integration with third-party products and services.

As you create or modify master data, SAP Master Data Governance on SAP S/4HANA helps you maintain consistency, compliance, and transparency through integrated staging and approval while establishing and updating the central audit trail. To promote reliability, the application helps you define, authorize, and replicate key master data entities, eliminating error-prone manual processes for managing master data across systems. You can also consolidate master data in enterprise system landscapes, designate best records, and specify key mappings between duplicates.

SAP Master Data Governance on SAP S/4HANA eliminates data silos, so your processes run smoothly across the organization, and business users in many roles can collaborate effectively. With it, you can govern data to enforce corporate standards, streamline internal and external data integration, and promote enterprise-wide transparency to support flexible forecasting and planning. Figure 1 illustrates the functional building blocks in SAP Master Data Governance on SAP S/4HANA.

**Figure 1: Building Blocks in SAP Master Data Governance on SAP S/4HANA**



### **CENTRALIZED MASTER DATA PROCESSES**

The central repository in SAP Master Data Governance on SAP S/4HANA provides a single virtual location for staging master data processes and requests before real-time posting in SAP S/4HANA. The application also stores master data information not related to ERP, including the standard built-in SAP S/4HANA data models, in the central repository. You can even extend the repository to include data models from third-party software. Once you add new data models, the application persistently stores and automatically exposes them to the full master data governance functionality without the need for new code.

A central rules engine manages existing SAP S/4HANA rules as well as business process rules existing outside SAP solutions, with intelligent functionality that converts rules into business-oriented language that's more understandable for users.

### **BUSINESS USERS EMPOWERED**

Intuitive functionality helps data business owners implement forms and customize them comfortably. The application fosters efficient and effective collaboration through both serial and parallel workflows – for example, to help users track and accelerate approval processes. The sophisticated user interface and role-based user experience streamline collaboration, while prebuilt workflows help users become proficient and productive with SAP S/4HANA functionality more quickly and easily.

### **ENHANCED DATA QUALITY AND SECURITY**

Robust data quality management helps you properly apply business rules in SAP S/4HANA to new models and check newly created master data for duplicates. The application can apply a range of data quality checks – automatically enriching vendor and supplier data and verifying tax jurisdiction codes, for example. Rigorous data security rules for master data governance for SAP S/4HANA help ensure that only rightful owners and authorized users can view and manipulate your data.



## POWERFUL ANALYTICS

The in-memory computing platform that serves as the backbone for SAP S/4HANA manages transactional and analytical data simultaneously on one copy of the database. As a result, you can use master data in the transactional system as soon as it's approved. Embedded analytics in SAP S/4HANA bring you immediate insights into the master data processing state. For example, you can see how much time is spent creating master data, where master data creation slows processing, who is touching which piece of information, and what information is being modified downstream.

You can add enhanced cloud analytics from the SAP Analytics Cloud solution to your master data governance system in SAP S/4HANA. This solution allows you to combine and analyze data into readily consumable visualizations, such as storyboards, that can provide valuable insights.

## SMART, EFFICIENT DATA QUALITY MANAGEMENT

Robust quality management functionality lets you define, validate, and monitor domain- and process-based business rules, helping ensure master data is high quality and fit for use. SAP Master Data Governance on SAP S/4HANA supports proactive data quality checks at the point of entry – automatically validating supplier address data or enriching vendor tax codes, for example – to prevent the costly downstream effect of bad data.

You can monitor data quality with dashboards that display key process indicators for data quality, trends over time, and error distribution along various domains or dimensions. You can manage data quality initiatives and prioritize efforts according to impact and business value.

Let machine learning automatically suggest new rules in existing master data by simply defining the scope of master data to be examined. The rule mining engine does the rest, discovering new rules that may have been hidden and further accelerating your efforts.

Rule mining also tells you the number of records affected by new rules, so you can estimate the impact of data correction and remediation. Taking advantage of artificial intelligence to drive automation, rule mining enables you to create quality rules faster and more efficiently in collaboration with stakeholders and experts across your enterprise.



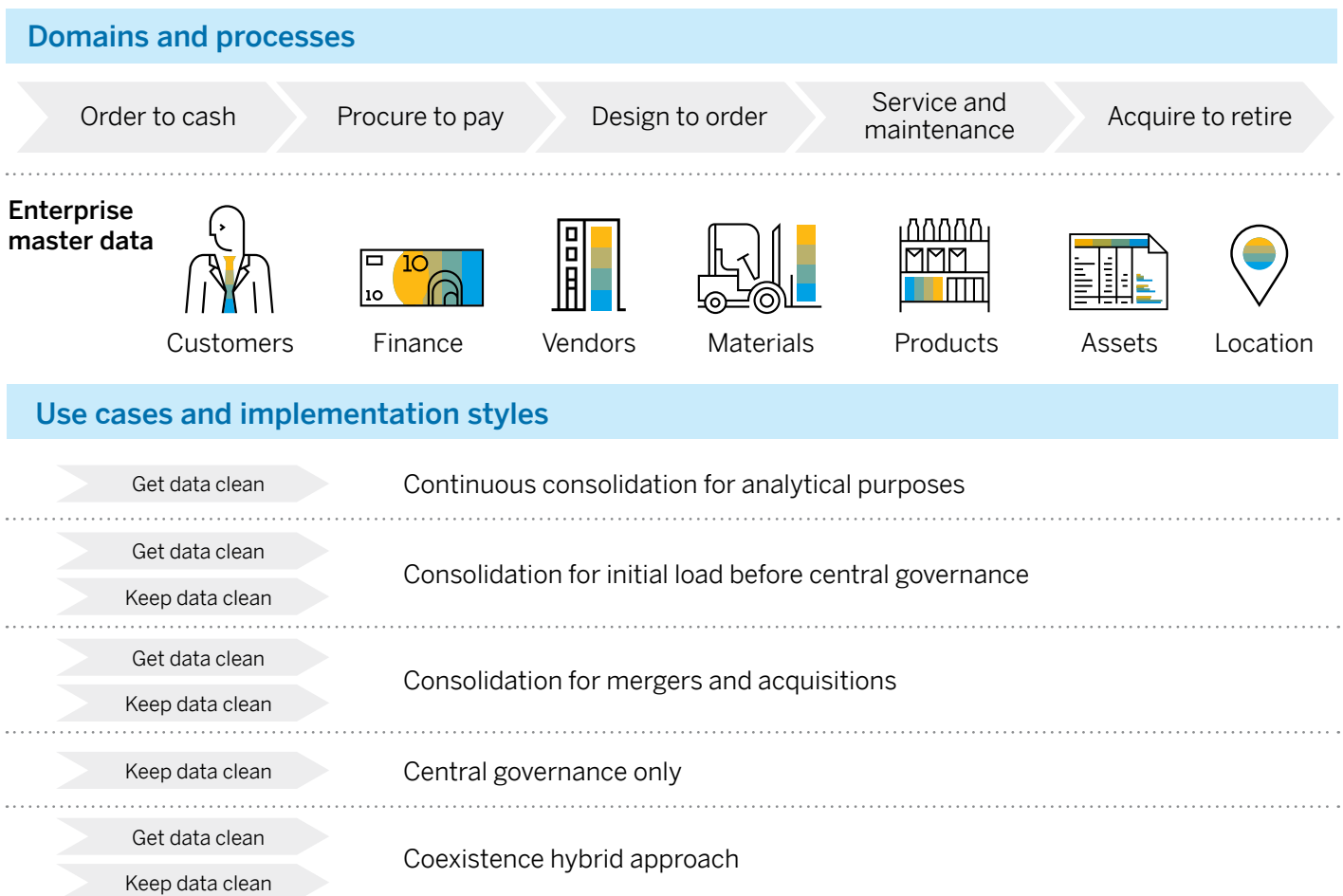
## A SINGLE SOLUTION FOR MASTER DATA MANAGEMENT

Serving as an all-purpose steward for keeping data clean and available for immediate analysis, SAP Master Data Governance on SAP S/4HANA performs continuous consolidation. You can run accurate cross-functional reports at any time – for example, on global operational expenses. An automatic consolidation run before each governance process helps ensure that the data is accurate and properly formatted. When a governance process encounters a process related to mergers and acquisitions, it continues running central governance functions while performing the consistency check on incoming data.

The application is flexible to suit your needs and overall strategy. You can use it strictly for central management, maintaining consistency whenever a master data object is created or changed. Or you can take a hybrid approach, deliberately keeping some data objects under local ownership and running a continuous process to consolidate them with centrally managed data.

Figure 2 illustrates how SAP Master Data Governance on SAP S/4HANA aligns with several different strategic visions for getting and keeping data clean.

**Figure 2: Scenarios and Implementation for SAP Master Data Governance on SAP S/4HANA**



# Choose Your Implementation Approach and Build a Bridge to SAP S/4HANA

For your journey to SAP S/4HANA, you can choose the implementation option that best suits your requirements and strategy.

## DEPLOYING SAP MASTER DATA GOVERNANCE ALONG WITH SAP S/4HANA

To implement both solutions at the same time, a phased rollout of SAP S/4HANA helps ensure optimal performance in a heterogeneous system landscape while you continue your digital transformation. The availability of clean, centralized, and consistent master data helps you bring the features and benefits of SAP S/4HANA to your users in record time.

By shrinking test cycles and delivering production-ready data from the start, you can take advantage of significant cost reductions in the initial deployment of SAP S/4HANA functionality.

## SETTING UP SAP MASTER DATA GOVERNANCE BEFORE SAP S/4HANA

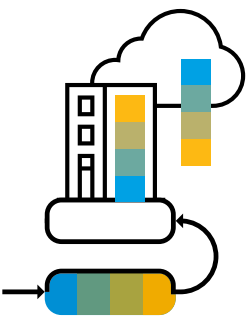
For a stepped implementation, you can set up SAP Master Data Governance on SAP S/4HANA first, then deploy SAP S/4HANA. In this approach, the governance application helps ensure data quality and readiness before SAP S/4HANA goes into production. As a result, you can mitigate deployment and operational risks and gain experience with a controlled

subset of SAP S/4HANA before the full solution comes online. The consolidation process in SAP Master Data Governance on SAP S/4HANA prepares a high-quality master data repository free of duplications in preparation for processing in SAP S/4HANA. In addition, you can switch to central governance before or in parallel with the SAP S/4HANA deployment to keep your data clean for the long term.

This two-step approach also delivers immediate value through improved business processes, increased work efficiency, and enhanced enterprise analytics. You can engage business users as co-owners of their data and prepare for implementation of SAP S/4HANA with significantly lower cost.

## USING CLEAN DATA FOR A SMOOTH MIGRATION

Before you undertake a major migration and populate a new system with master data, you want to free data of the errors that can accumulate over time as strategies and procedures change. Getting internal data and unstructured content right before you load it into the target system helps protect your investments and smooth the way for regulatory compliance. And you can stay ready to respond to emerging market challenges, such as new consumer requirements and evolving technologies.



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When integrated into your system landscape as illustrated in Figure 3, SAP Master Data Governance on SAP S/4HANA can source data to various systems. You can:

- Run SAP Master Data Governance as a hub residing on either SAP S/4HANA or version 6.0 of the SAP ERP application to replicate master data across your system landscape
- Set up SAP S/4HANA as a distribution target for SAP Master Data Governance
- Distribute or consolidate master data across SAP and third-party systems
- Take advantage of centralized master data and key mapping functionality for postings in central finance

### ENTERPRISE ASSET DATA MANAGEMENT

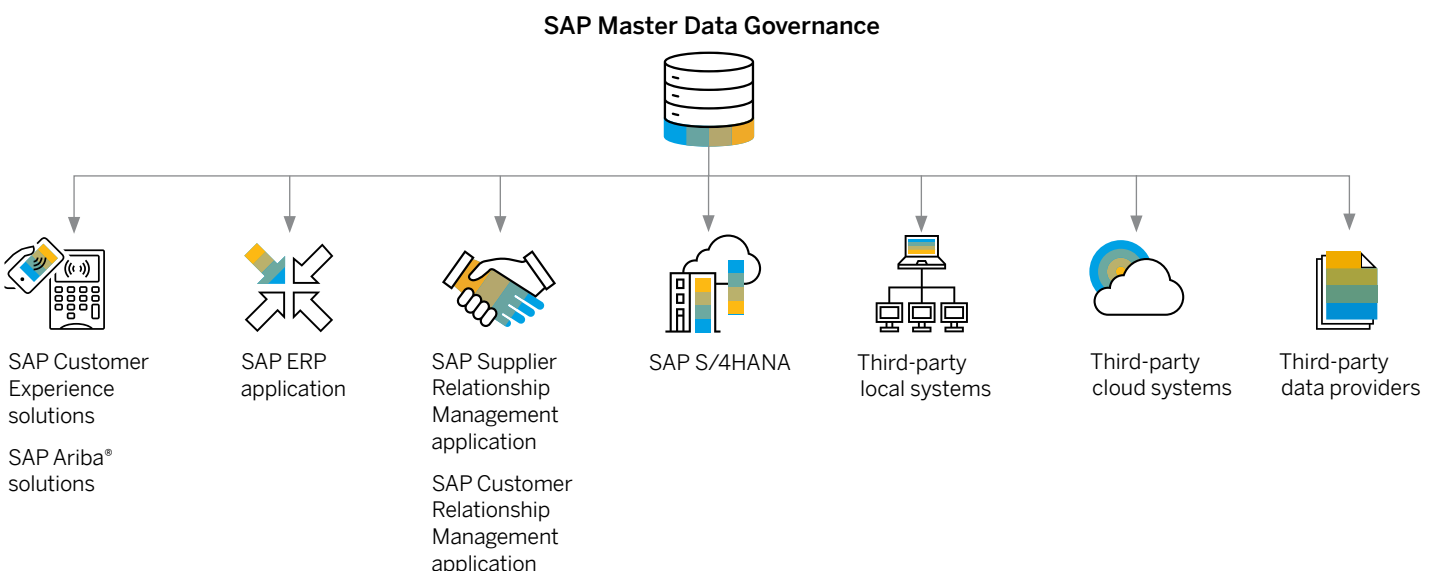
In asset-intensive industries, you count on maximizing asset uptime, optimizing materials inventory, and streamlining project management. The SAP Asset Information Workbench application by Prometheus Group for SAP S/4HANA and the SAP Master Data Governance application, enterprise asset management extension by Prometheus Group on SAP S/4HANA can help you make the most of large physical assets.

With the enterprise asset management extension and SAP Asset Information Workbench, you can anticipate regular maintenance needs, keep parts handy for necessary repairs, and demonstrate compliance with safety guidelines. The software increases your visibility of asset lifecycles and use of raw materials while tightening IT resource planning. You can identify and correct potential risks to product quality or hazardous practices before they degrade performance or profitability.

### USES ACROSS INDUSTRIES

Organizations of all kinds can benefit from careful master data management. With SAP Master Data Governance on SAP S/4HANA, utilities companies can streamline asset operations and synchronize systems of record. Aerospace and defense companies can enhance asset use and help ensure mission success. Rail and transport businesses can govern linear assets more effectively and enhance passenger safety. Life sciences enterprises can simplify regulatory compliance and promote manufacturing excellence. And the retail industry and fashion sector can better manage their wealth of special metadata categories such as taxes, logistics, and bills of materials.

**Figure 3: Integrating SAP Master Data Governance on SAP S/4HANA with the IT Landscape**

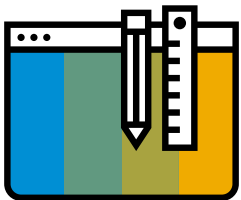


# Optimize Your Asset Master Data Throughout the Lifecycle

## STRAIGHTFORWARD DATA MAINTENANCE

The enterprise asset management extension features a predefined model for standard data objects used in enterprise asset management. The workflow-driven governance process helps keep your asset's master data accurate and up to date throughout the asset lifecycle, including design, construction, operation, maintenance, and decommission.

With the enterprise asset management extension, you can view your list of master data objects. You can drill down as needed with just a few clicks, while built-in workflows let you control access and track changes more efficiently. The extension automatically checks that changes to asset management master data are consistent with predetermined business rules and that those changes are requested and approved only by authorized users. Reports detailing each change to the data help you keep complete records for auditing and compliance purposes. Time- and period-dependent versioning lets you create and manage data charts for various time periods simultaneously.



SAP Asset Information Workbench takes advantage of the strengths of the enterprise asset management extension and integrates with SAP Business Network for Asset Management to provide **direct access to equipment** data and related information.

## SOPHISTICATED VISUAL WORKBENCH

SAP Asset Information Workbench takes advantage of the strengths of the enterprise asset management extension and integrates with SAP Business Network for Asset Management to provide direct access to equipment data and related information. The workbench is a visual staging area for asset master data, enabling collaborative visualization, sharing, comparison, modification, review, and approval of asset data among critical systems of record. It integrates tightly with plant maintenance, content management, geographic information, and engineering design systems (see [Figure 4](#)).

## COMPLETE ASSET STRUCTURE

SAP Asset Information Workbench lets you initiate a single change request to create or maintain multiple mixed objects using native search, copy, replace, and drag-and-drop functionality. The user interface is optimized to let you handle a complete asset structure and related objects at once, with intuitive hierarchy processing. Built-in business rules manage functional location structuring, extended inheritance, and cross-object relationships to minimize manual efforts.

Extended and flexible workflow processing for mixed objects allows sequential and parallel processes with integrated mail notification to adapt to your existing business processes.

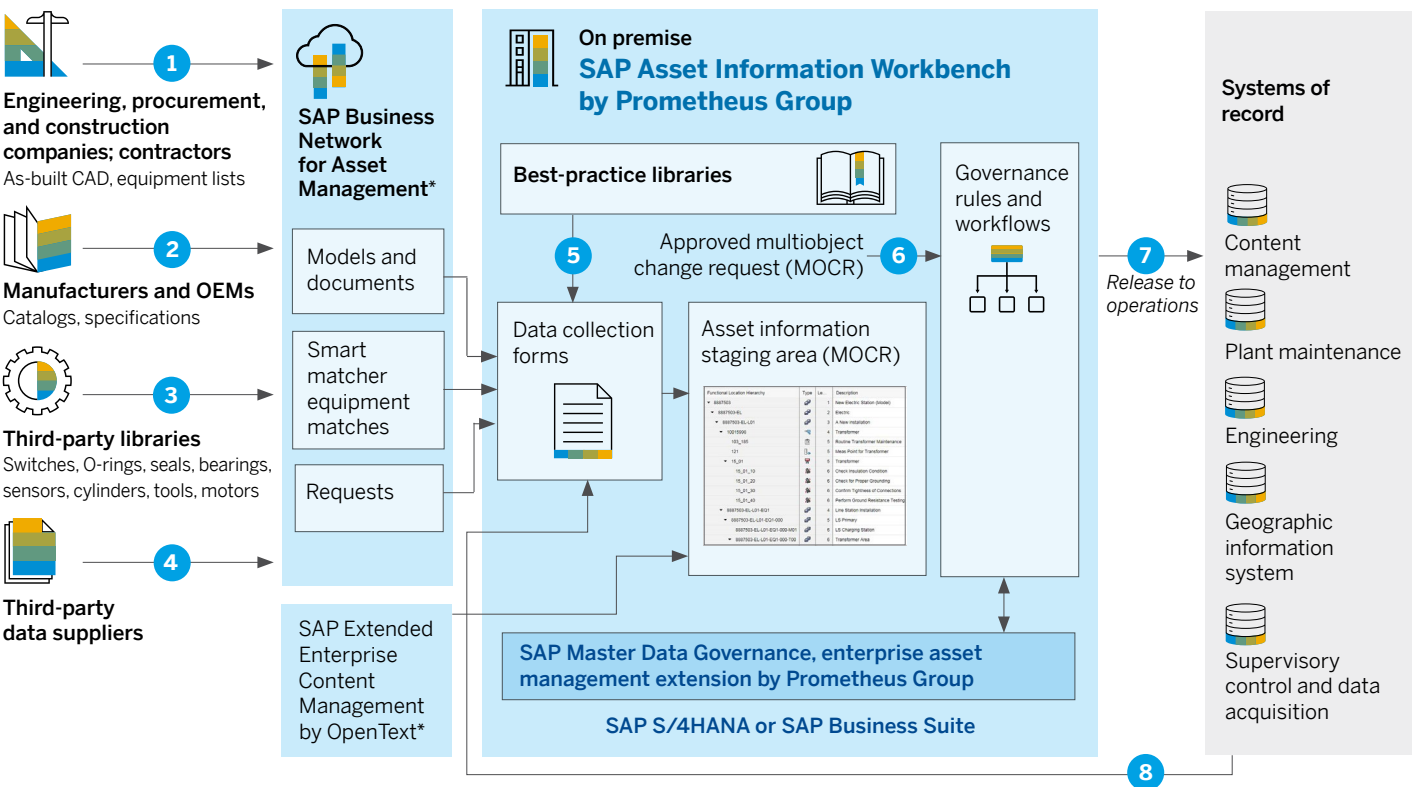
## PRECONFIGURED REFERENCE MODELS

Reference model libraries in SAP Asset Information Workbench help you create and maintain reusable standard models. An intuitive viewer for cross-object hierarchies gives you relative and contextual views of asset, work, and spare-part objects in the staging area and production systems.

## EFFICIENT ACCESS TO DATA SOURCES

Integration with SAP Business Network for Asset Management lets you access external and internal sources of information more efficiently. You also can enrich data for propagation to internal systems, including supervisory control and data acquisition (SCADA) functions and document management systems.

Figure 4: Integration Points of SAP Asset Information Workbench



\*Integration provided by Prometheus Group

# Become a Real-Time, Data-Driven Enterprise

SAP Master Data Governance on SAP S/4HANA integrates information and processes and enhances control and visibility, improving decision-making and responsiveness based on a foundation of dependable quality data. With the application, you can streamline your move to SAP S/4HANA for real-time, data-driven operations.

Data is an invaluable asset in the digital economy, and protecting the master data infrastructure behind it is key to enabling your transformation to an intelligent enterprise. SAP Master Data Governance on SAP S/4HANA and the extensions by Prometheus Group are designed around a central repository. This helps consolidate and manage master data to enable a secure and accurate deployment to SAP and third-party solutions across your IT landscape.

SAP Master Data Governance on SAP S/4HANA enables robust master data governance and facilitates data-related processes. With our master data management solutions, you can bring SAP S/4HANA successfully into production and provision your other solutions with consistent and reliable data throughout their lifecycle, as illustrated in Figure 5. You can simplify your IT landscape while shortening time to value with preconfigured solution extensions for rapid deployment and through native integration with powerful analytics solutions. You can foster high operational performance and wise business decision-making today and tomorrow.

## FIND OUT MORE

To find out more, please contact your SAP representative or visit us [online](#).

Figure 5: Meeting the Master Data Challenge with Consolidation and Central Governance

