All Lines of Business are impacted by master data quality issues

### Organizations & Roles
- **Financials**
- **IT**
- **Sales**
- **Supply Chain**

### Challenges
- **Financials**
  - Inconsistent financial master data across the enterprise
  - Manual efforts to update financial master data in local financial systems
  - Risk of non-compliance to IFRS, SOX etc.
  - Slow group closes
  - Lack of transparency about changes (who, what, when, why)

- **IT**
  - High master data maintenance costs
  - Need for multiple systems to manage master data in different domains
  - Lack of flexibility in dynamic business environments

- **Sales**
  - Lack of consistent consolidated view of customer data across all channels
  - Customer transactions are compromised due to a limited view of the facts

- **Supply Chain**
  - Lack of transparency relating to suppliers and products
  - High costs due to insufficient supplier selection and rationalization
  - Loss of potential for benefit realization (i.e. discounts, conditions, central contracts)
  - Limited availability of up-to-date master data in my business network
Master Data Challenges
Materialize Across the Organization

Reduced Sales Effectiveness
- Lack of consolidated view of customer data across all channels
- Customer transactions are compromised due to limited view of the facts

Sub-optimal Procurement Decisions
- Lack of transparency relating to suppliers and products
- High costs due to insufficient supplier selection and rationalization

Delayed Go-to-Market Process
- Failure to capitalize on market opportunity when introducing new products
- Lack of real-time collaboration with front office, thus hindering customer services

Ineffective Business Decisions
- Lack of consistent information impedes to make critical decisions supporting innovation
- Compromised business dynamics with negative impact on managing resources effectively
Customer’s approaches to master data management
Central governance & distribution / De-central ownership & consolidation

Systems under central governance

- LoB customer
- LoB procurement
- LoB finance
- LoB PLM
- Other LoB

SAP MDG, consolidation *
Consolidate master data into a single view for accurate analytics and operational insight (continuously or on request e.g. for initial load or mergers & acquisitions)

SAP MDG, central governance
Create master data in-line with business processes (e.g., integrated product development, supplier management)

Systems not under central governance

- Legacy systems
- Reporting and analytics
- Business networks
- Cloud

*) new with SAP MDG 8.0: consolidation of business partner master data
SAP Master Data Governance
Centrally govern and consolidate master data for your enterprise

SAP MDG is a state-of-the-art master data mgmt solution, providing out-of-the-box, domain-specific master data governance to centrally create, change and distribute or to consolidate master data across your complete enterprise system landscape

<table>
<thead>
<tr>
<th>Governance</th>
<th>Enables governance, compliance and transparency of master data during creation and change through integrated staging, approval and central audit trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistency</td>
<td>Delivers consistent definition, authorization and replication of key master data entities. Eliminates error prone manual maintenance processes for master data in multiple systems</td>
</tr>
<tr>
<td>Consolidation</td>
<td>Consolidate master data in any enterprise system landscape, create best records and key mapping between duplicates, and optionally combine consolidation with central governance for sustained master data quality</td>
</tr>
<tr>
<td>Integration</td>
<td>Provides native integration in SAP solutions, incl. re-use of data model, business logic, and configuration for validation while offering openness to integrate 3rd party services</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Open to extend the standard models and to create governance for your own master data and flexibly for non-SAP environments</td>
</tr>
<tr>
<td>Data Quality</td>
<td>Measure process quality using SAP Smart Business and integrate with SAP Data Services &amp; Information Steward for quality, enrichment, &amp; remediation</td>
</tr>
</tbody>
</table>
SAP MDG Consolidation
Integrated Consolidation and Central Governance modules out-of-the-box
SAP Master Data Governance
Consolidation optionally combined with central governance
SAP MDG Central Governance
SAP Master Data Governance, Central Governance
Simplified Process Flow Description

External Providers

SAP Master Data Governance

1. **Maintain**
   - Central maintenance of master data in staging area

2. **Validate**
   - Re-use existing business logic, integrate external services for data enrichment, address cleansing, duplicate detection, ...

3. **Approve**
   - Collaboration
   - Adaptable workflow
   - Auditable change process

4. **Replicate**
   - Automatic replication to non-SAP and SAP systems

5. **Adapt**
   - Adaptation / enrichment in local systems

Business Processes
Role-specific User Interfaces
Simplify the access to your master data

Tailored user interfaces support your users’ efficiency

- User interfaces for central governance can appear very differently along the process
- Every expert can get a dedicated, role-specific user interface that best fits their work
- Role-specific user interfaces can be configured in SAP MDG, no programming or modification necessary

SAP Fiori for simplified mobile use

- Simplify your master data management and invite additional people to participate directly
- Efficient scenarios to request new master data, approve master data changes, or to monitor KPIs and trends
- Speed up your data provisioning and decision making by involving people anytime and anywhere
SAP Master Data Governance Capabilities
Establish Best Quality Master Data to Optimize Business Processes

1. Deliver Out-of-the-Box
2. Integrated Object Model
3. Governance, Collaboration & Data Quality
4. Robust Data Replication
5. Re-Usability & Extensibility

SAP Master Data Governance

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## SAP Master Data Governance Capabilities

### Deliver Out-of-the-Box

| Low TCO | Full Integration to SAP Systems as a client  
Offer integration services for non-SAP client systems |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>Workflow flexibility closely integrated to a framework for defining business rules</td>
</tr>
</tbody>
</table>
| Ease of Consumption | Deliver a process-centric solution, with roles and a web-based user interface  
Deliver predefined data quality services |
| Best Practice | Deliver a data model proven by several applications & industries |
| Process Transparency | Reuse of existing processing logic |
| Integration | Out-of-the-box data replication mechanisms, using stable mechanisms |
## SAP Master Data Governance Capabilities

### Integrated Object Model

<table>
<thead>
<tr>
<th>Financials</th>
<th>Material</th>
<th>Supplier &amp; Customer</th>
<th>Enterprise Asset Mgmt</th>
<th>Retail &amp; Fashion Mgmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL Account/Chart of Accounts</td>
<td>General Data &amp; Descriptions</td>
<td>Central Data</td>
<td>Basic, General, Manufacturer and Reference Data, Class Assignment</td>
<td>Descriptions</td>
</tr>
<tr>
<td>Financial Reporting Structures: Balance Sheet, P&amp;L Statement</td>
<td>Units of Measure</td>
<td>Bank Details</td>
<td>Location Data</td>
<td>Units of Measure</td>
</tr>
<tr>
<td>Cost Element/ Hierarchies</td>
<td>Quality Data</td>
<td>Tax Numbers</td>
<td>Org. Data: Account Assignments, Responsibilities, Structuring</td>
<td>Tax</td>
</tr>
<tr>
<td>Cost Center/ Hierarchies</td>
<td>EAN, UPC</td>
<td>Addresses with Usage and Versions</td>
<td>General Data</td>
<td>Bill of Material</td>
</tr>
<tr>
<td>Profit Center/ Hierarchies</td>
<td>Classification</td>
<td>Business Partner Relationships</td>
<td>General Data</td>
<td>Characteristics Assignment &amp; Variants</td>
</tr>
<tr>
<td>Company</td>
<td>Document Link</td>
<td>Business Partner Attributes</td>
<td>Supplier Attributes</td>
<td>Purchase Info Record</td>
</tr>
<tr>
<td>Accounting, Controlling and Consolidation</td>
<td>Sales Data</td>
<td>Customer Attributes</td>
<td>General Data</td>
<td>Purch. Org / Vendor / Site</td>
</tr>
<tr>
<td>Logistics Data</td>
<td>Plant Data</td>
<td>Supplier Attributes</td>
<td>Comp. Code Data</td>
<td>Stores</td>
</tr>
<tr>
<td>Basic &amp; Classification Data</td>
<td>Storage &amp; Warehouse Data</td>
<td>General Data</td>
<td>Comp. Code Data</td>
<td>Distribution Center</td>
</tr>
<tr>
<td>Value</td>
<td>Production Version</td>
<td>Comp. Code Data</td>
<td>Sales Area Data</td>
<td>Sales Org. Data</td>
</tr>
<tr>
<td>General Data &amp; Descriptions</td>
<td>Valuation, Costing, Material Ledger</td>
<td>Purchasing Data</td>
<td>Sales Area Data</td>
<td>Point of Sales</td>
</tr>
<tr>
<td>Cost Element/ Hierarchies</td>
<td>Valuation, Costing, Material Ledger</td>
<td>Purchasing Data</td>
<td>Sales Area Data</td>
<td></td>
</tr>
</tbody>
</table>
SAP Master Data Governance Capabilities

Governance, Collaboration…

- Linear or distributed and workflow based
- Has roles and responsibilities and also task authority (e.g., create, change, approve)
- Can be adapted and tailored based on customer needs
- Possibility to extend the process by adding business logic and thereby bringing in data quality
- Data in process stored in a separated repository, will be transferred to operational database after final approval
- Flexible enough to respect the distributed responsibilities existing in a company across various business units
SAP Master Data Governance Capabilities

Prevent creation of duplicates for increased effectiveness and efficiency

- Checked early and embedded in the process
- High detection quality of matching using Enterprise Search or SAP Data Services

Validations

- Re-use of existing validation logic in ERP
- Custom validations can be modeled and programmed (e.g. code lists, simple checks, or modeled rules via SAP BRF+)

Address Enrichment

- Simple check and selection lists
- Integration with content provided by SAP Data Services
- Automatically adding Tax Jurisdiction Code re-using existing interfaces / providers
SAP Master Data Governance Capabilities

Robust Data Replication

Replication
- Automatic or manual replication to SAP and non-SAP systems
- Peer-to-peer or mediated

Replication Techniques
- DRF controlling replication mechanisms like
  - ALE for SAP ECC, R/3 and non SAP systems
  - SOA service for SAP and non SAP systems
  - RFC and File for SAP and non SAP systems
  - CIF for SAP SCM and MW for SAP CRM/SRM

Replication Features
- Flexibility to replicate selected data only to a specific client system by defining filters (controlled by DRF)
- Support of different object IDs or customizing keys between hub and client systems (via mapping in SAP MDG or SAP PI)
- Monitoring and error handling
SAP Master Data Governance Capabilities

5 Reusability & Extensibility

Reuse standard content
- Reuse existing data structures and functionality of SAP Business Suite

Enhance functionality
- Be able to enhance MDG functionality based on predefined content (e.g. plant or sales data) or customer-specific extensions

Extend data structures
- Provide easy-to-use extensibility capabilities for enhancing nodes and fields
  - data models
  - user interfaces
  - processes
  - data replication
SAP MDG Deployment
SAP Master Data Governance
High-level Architecture Overview

Central System for Master Data Processes
Portal / NetWeaver Business Client

SAP Master Data Governance

- Workflows
- Staging
- Validation

Change Request, Governance Model, Search & DQ Adapters,
UI Framework, Analytics, Replication, Key / Value Mapping

User Interfaces, Roles, Work Centers

- Financials
- Material
- Business Partner
- Custom Objects

SAP ERP 6.0
AS ABAP

Optional Parts
SAP Fiori

Information Steward
Data Services
Enterprise Search
SAP Information Management Suite

SAP HANA

Client Systems
ERP
CRM
SRM
going
PCM
Cloud Systems
3rd Party

Integrate services for data standardization and enrichment, data load, search and matching
Tight integration into SAP Business Logic and leveraging standard AS ABAP
Client systems are integrated via various channels (such as SOA, ALE, RFC, File)
SAP MDG Deployment Options
Consciously Decide for a Central hub or Co-deployment

Deploy SAP MDG…

… as a standalone system / a dedicated master data hub

… on top of an existing operational SAP ERP system

Customers typically choose to…

… create a dedicated master data hub and distribute to all operative systems, or
… co-deploy*) with an existing SAP ERP (e.g. pick one of their SAP ERP’s as the master for a particular domain) and create and distribute master data from there

*) if speed of innovation in their ERP systems does not allow for quick introduction of SAP MDG, some customers create a separate system first, and re-combine later
Optionally using SAP HANA in the Context of SAP MDG as Primary or Secondary Database

If installed on EhP8 for SAP ERP 6.0, SAP MDG can run on SAP HANA as primary database.
You can also run SAP HANA side-by-side – but not for Master Data Consolidation.

**Option 1: MDG on HANA**
- SAP MDG 9.0
- EhP8 for SAP ERP 6.0
- SAP HANA

**Option 2: HANA Side-by-Side**
- SAP MDG 9.0 *
- EhP8 for SAP ERP 6.0
- Any Database
- SAP HANA

*SAP MDG 8.0 requires at least EhP7 for SAP ERP 6.0

duplicate-detection and similarity-ranked search

replicate
The role of SAP MDG in the context of SAP S/4HANA
MDG roadmap is fully integrated and aligned with the S/4HANA roadmap

The role of an SAP MDG hub in a system landscape does not change

- **Distribute** master data to all systems in the landscape: non-SAP systems, SAP Business Suite systems, SAP S/4HANA systems, ...
- **On-premise** or private cloud deployment is supported for SAP MDG
- Most companies run SAP MDG as a **hub** / co-deployment with SAP ERP supported **today** / co-deployment with SAP S/4HANA on-premise **planned**
- (Please note that while SAP HANA is still optional for SAP MDG, we will continue to simplify and optimize MDG on HANA. We plan to provide these improvements with non-disruptive upgrades.)

SAP S/4HANA move is a perfect opportunity to revisit your data quality

- Smooth business operations and accurate analytics depend on **high-quality (master) data**
- Support your **move to SAP S/4HANA** with master data consolidation in SAP MDG
- After that, use central governance in SAP MDG to guarantee **long-term quality of master data**

Integration with SAP S/4HANA available today

- SAP S/4HANA can be a distribution target for SAP MDG’s master data
- Central Finance can leverage MDG’s centralized master data & key mapping for aligned postings
- Co-deployment of SAP MDG and SAP S/4HANA is supported (see also [SAP Note 2103558](https://support.sap.com/notes/2103558))
- also [SAP Note 2103558](https://support.sap.com/notes/2103558)
SAP MDG Roadmap
SAP Master Data Governance
Product road map overview - key themes and capabilities

<table>
<thead>
<tr>
<th>Today</th>
<th>Planned Innovations</th>
<th>Future Direction</th>
</tr>
</thead>
</table>
| **Out-of-the-box applications for central master data management and governance**  
  - for supplier, customer, material, financial, enterprise asset mgmt. and retail master data | **Master data consolidation and mass processing**  
  - Improvements for handling of classification data, business partner relationships, mass creation or deletion scenarios, file upload, and transparency of changes for business partner and material master data as well as custom objects | **Support strategic trends**  
  - Complete the core master data management capabilities for the entire master data lifecycle  
  - Leverage business networks and the cloud to provide trusted master data as the DNA of the enterprise and the extended value chain |
| **Flexible application foundation for your own master data**  
  - Define your own, or adjust standard data models, processes, user interfaces, validations, … | **Analytics and consumer-grade usability**  
  - Master data quality analytics on SAP HANA for simple quality issue detection and correction  
  - Complete the standard scope of SAP Fiori apps for master data request and approval scenarios  
  - Enhance the user experience and efficiency across master data domains and processes | **Simplify your future**  
  - Leverage master data as a foundation to prepare for the next steps of your enterprise software journey  
  - Mobilize your business with consumer-grade user experience and efficient master data access  
  - High-quality master data leveraging SAP HANA to address your IoT and big data challenges  
  - Support system landscape simplification and the move to the cloud with synchronized master data across on-demand and on-premise solutions |
| **Master data consolidation and mass processing**  
  - Out-of-the-box applications for central master data management and governance  
    - for supplier, customer, material, financial, enterprise asset mgmt. and retail master data |  |  |
| **Flexible application foundation for your own master data**  
  - Define your own, or adjust standard data models, processes, user interfaces, validations, … |  |  |
| **State-of-the-art SAP MDM solution**  
  - Advanced data standardization, search and duplicate detection (SAP HANA as an option)  
  - Compelling user experience and dedicated SAP Fiori apps for master data request and approval  
  - Interactive mass processing for data specialists  
  - Process quality and data quality analytics  
  - Data replication to all cloud & on-premise systems |  |  |
| (SAP Master Data Governance 9.0) |  |  |

This is the current state of planning and may be changed by SAP at any time.
SAP Enterprise Master Data Management
Integrated Solution Suite Addressing all Customer Needs

SAP Master Data Governance
Out-of-the-box Applications to create, maintain, and replicate master data

SAP BusinessObjects Data Services and Information Steward
Industry leading data quality, integration, profiling, & visualization

SAP NetWeaver MDM*
Toolset to consolidate, harmonize, and share master data

*Not supported from 2020
Generic MDM Scenarios
Basic description

**Master Data Consolidation**
- Load master data from client systems
- Identification and consolidation of similar or identical objects
- Provision of key mapping for unified, company-wide analytics and business operations

Aggregate master data across SAP and non-SAP systems into a centralized master data repository. Once data is consolidated, you can search for data across linked systems, identify identical or similar objects across systems, and provide key mapping for reliable companywide analytics and reporting.

**Master Data Harmonization**
- Master Data Consolidation plus
- Distribution of consolidated data to client systems
- Local completion of master data with application-specific information

Consolidate and harmonize master data from heterogeneous systems. Ensure high quality master data by distributing harmonized data that is globally relevant using distribution mechanisms. Allow subscribing applications to enrich master data with locally relevant information.

**Collaborative Master Data Processes**
- Centrally controlled creation of master data in heterogeneous contexts, e.g., by integrating SAP NetWeaver BPM to facilitate master data processes with automated and human activities
- Distribution to client systems and local completion with application-specific information

Support company quality standards by ensuring the central control of master data, including maintenance and storage. Distribute master data to client systems as required using distribution mechanisms.
# Master Data Solution Comparison

<table>
<thead>
<tr>
<th>Data Management Functionality</th>
<th>SAP MDG</th>
<th>SAP MDM/BPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonization</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>Central Governance</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>Consolidation</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>HANA Support</td>
<td>Standard</td>
<td>Not supported</td>
</tr>
<tr>
<td>Cloud Support</td>
<td>Standard</td>
<td>Not supported</td>
</tr>
<tr>
<td>Governance and Stewardship</td>
<td>Standard</td>
<td>Build</td>
</tr>
<tr>
<td>Workflow Management</td>
<td>Standard (BRF+)</td>
<td>Build (BPM)</td>
</tr>
<tr>
<td>Staging Repository</td>
<td>Standard</td>
<td>Build</td>
</tr>
<tr>
<td>Replication /Syndication</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>Cleansing &amp; Standardization Integration</td>
<td>Standard</td>
<td>Build (SAP DS)</td>
</tr>
<tr>
<td>Pre-delivered User Interfaces for Data Management</td>
<td>Standard (ABAP WD), Fiori</td>
<td>Standard (JAVA WD)</td>
</tr>
<tr>
<td>Business Suite Validations and Business Logic</td>
<td>Standard</td>
<td>Build</td>
</tr>
</tbody>
</table>
SAP MDG Services
NetWeaver MDM to MDG - Goal of Our Service

The goal of the Service is to **assess the current use of SAP NetWeaver MDM and create a Roadmap for migrating to SAP MDG.**
Approach and Deliverables

Assess current state
- Stakeholder interviews
- Use of Key topics
- Deliverable: as-is report

Set to be scope
- Map the actual implementation with MDG functionalities
- Set the scope for all topics including possible improvements
- Deliverable: To be scope

Fit / gap analysis
- Determine the steps required to achieve the ‘to be scope’
- Analyse the new required landscape
- Deliverable: Fit / gap analysis

Roadmap Proposal
- Define the effort required for the to be scope
- Define implementation roadmap
- Deliverable: Roadmap Proposal
Rapid Deployment Service for SAP MDG
The path to Information Governance with SAP Master Data Governance

Business challenges

- Introducing master data governance in your organization
- Lack of transparency of master data process execution in a distributed environment
- Viewing system-wide transactional information of master data objects
- Understanding data quality of the governed master data

There is a solution

- This rapid-deployment solution delivers the fast track to adopt SAP MDG for supplier, material, customer and finance in the organization. Obtain end-to-end insight in master data CRUD processes across the landscape. Integrates with SAP Information Steward rapid-deployment solution for data quality analysis.
Fast track your path to Information Governance with SAP Master Data Governance

SAP Master Data Governance rapid-deployment solution

This RDS delivers the fast track to adopt SAP MDG for supplier, products, customer and finance* in the organization, to gain end-to-end insight in master data CRUD processes across the landscape, and to remediate data quality challenges by integrating with SAP Information Steward.

Baseline Implementation SAP Master Data Governance

Central Master Data Process Insight

- Baseline Implementation SAP Master Data Governance
- Central Master Data Process Insight

- Data Maintenance
- Validation & Data Quality
- Approval
- Business Logic
- External Services
- Local adaptations in de-central systems
- Integrated Master Data Remediation *

- Monitor
- Validate
- Profile

- Covers customer, product, supplier and finance* domains

*Only baseline scenario is supported for finance domain
### Detailed Solution Scope

#### Module 1: Installation and activation of the MDG components supported by the RDS in DEV and QA only. SAP will support customer for installation and activation in PROD systems

<table>
<thead>
<tr>
<th><strong>Customer</strong></th>
<th><strong>Material</strong></th>
<th><strong>Supplier</strong></th>
<th><strong>Finance</strong></th>
<th><strong>Custom Object</strong></th>
</tr>
</thead>
</table>
| • 2a: Baseline  
• 3a: Process Insight  
• 4a: Remediation | • 2b: Baseline  
• 3b: Process Insight  
• 4b: Remediation | • 2c: Baseline  
• 3c: Process Insight  
• 4c: Remediation | • Baseline  
• 5a: Chart of Accounts  
• 5b: Company Code  
• 5c: Cost Centers  
• 5d: Profit Centers  
• 5e: Cost Elements  
• 5f: Companies  
• 5g: Consolidation Unit/Group | • Baseline  
• 6a: Activity Type |

**Notes:**

- RDS supports HUB deployment on only.
- Module 4 requires RDS for Information Steward
- Licensee need to setup connectivity with operational ERP system and harmonize all customizing entries from ERP operational system to MDG hub instance
Integrating multiple RDS’s to fast track your road to a successful master data governance strategy

1. Master Data Governance (Process)
2. Master Data Governance Process Insight
3. Master Data Intelligence
4. Master Data Remediation

- Maintenance
- Validation & Data Quality
- Approval
- Replication

SAP Master Data Governance rapid-deployment solution
SAP Information Steward rapid-deployment solution
Thank you

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