

A Simple Guide to Material Master Data Governance

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Summary

Master data within an enterprise is often segmented by domain. Examples of common domains include Customer, Suppliers, Assets, Finance, Employee and Materials/Products, among others. Each master data domain has a unique identity that can vary based on a company's business operations or organizational relationships. Elements within master data domains may also overlap in some cases, especially as certain master data management events—such as new product creation, make-to-order, quote-to-settle or other business processes—may involve multiple master data domains, as well as shared attributes across them.

This paper discusses the Materials Domain in terms of its overall identity, common challenges and data governance indicators. It also highlights the most common conditions for data governance in the Materials Domain.



Common Challenges of the Materials Domain

Master data domains can be characterized as having push/pull or upstream/downstream types of qualities in terms of how data originates and how it creates challenges in an ERP landscape. While some domains exhibit a single consistent characteristic (i.e., push or pull, but not both), the Materials Domain may exhibit either or both characteristics. This duality is possible due to the vast breadth of business uses within the Materials Domain.

A typical ERP system can store many types of material data of different points of origin. Businesses that do not manufacture products, such as those in retail, use materials that have upstream challenges, with the majority of material data originating externally. Companies that design and manufacture products often have intermediate materials and finished goods that exhibit downstream challenges, since their attributes are defined through internal processes, rather than external sources.

Some examples of the nuances that distinguish and frame the business use and challenges in the Materials Domain include:

- Branded products that originate from a common base product
- Configurable/programmable items
- Bundling of individual items to create a promotional item in retail
- Kitting of individual items to create a maintenance pack
- Transforming raw materials into compounds or alloys
- Packing bulk materials into discrete units

Each of the above scenarios includes business challenges that governance in the Materials Domain must address in order to ensure data and process integrity. In implementing any governance initiatives, organizations must assess which processes and attributes should be the focus of their efforts to meet specific business needs. This paper covers the aspects of master data governance that apply universally to the Materials Domain.

Due to the inherent complexities of the Materials Domain, it is often regarded as the most challenging of all master data domains, with the greatest number of stakeholders, users, views and data elements. Data found in this domain can be either externally sourced or internally created, or even derived from a combination of attributes that are sourced or created. As a result, governance for the Materials Domain requires process discipline to support sequencing, data standards to support data integrity and, ultimately, business rules to describe unique conditions for business process integrity.

Business interruptions and financial losses resulting from incorrect or missing material data can range from minimal to severe in impact. Therefore, governance and quality assurance of material data must be proportionate to the business risk involved.

Indicators for Material Data Governance

An effective material data governance program can help organizations address the challenges listed above. The following examples illustrate types of business issues indicating a need for a well-developed master data governance program.

Compliance

Some industries are highly regulated by various government agencies (e.g., FDA, DoD, ATF), as their products may pose health hazards, security threats or other risks. Thus, effective governance must be in place to ensure that all materials are properly categorized and contain the requisite compliance data. Without proper controls to maintain up-to-date content and prevent master data errors, a manufacturer/distributor may face heavy fines, economic sanctions, or even criminal penalties. Therefore, compliance can create a strong incentive to establish a data governance program.

For example, consider a company that manufactures products deemed hazardous for the environment. Ensuring compliance with the myriad of controls throughout the manufacturing, storage and shipment stages requires a high degree of data quality and a clear line of ownership to support traceability in process and data change control. These challenges apply not only to the material master record itself, but also to processes, inventory records, equipment and other items that may affect the data in the Materials Domain.

Establishing governance controls to ensure that master and transactional data records (e.g., material, bill of material, recipe, storage location, etc.) are properly created and maintained would allow the company to validate compliance and avoid liability.

Operations

Many companies depend on the Materials Domain for daily productivity and profitability. In such cases, the timely availability of accurate, up-to-date material data should be the focus of governance and data architecture activities. The timeliness and integrity of master data can have great impact on operational reporting and execution of key business processes.

For example, the profitability of a retail business is strongly dependent on having the most current material master information available to drive key decisions in purchasing, marketing, distribution and inventory. Imagine a company that is trying to optimize its purchases and inventory of seasonal materials with the goal of increasing turns and minimizing stock outages. Duplicate material records, conflicting material cost data and incomplete cross-references between SKUs and manufacturer part numbers would make this effort difficult, time-consuming and flawed. Furthermore, if the underlying data used for calculations changed during the reconciliation process, the end result could not be trusted.

For businesses involved in product development, the consequences could be even more dramatic. For instance, consider a company preparing for a new product launch in a competitive marketplace. Current metrics afford the company a six-week advantage over the competition, positioning the firm to reap sizable rewards. A slip in any part of the production process due to inaccurate or outdated material master data could easily cause significant delays, eradicating the company's competitive advantage and bringing millions of dollars in losses.

Implementing a governance initiative that integrates all aspects that undermine the trustworthiness of material master data used to run the business can empower organizations to reliably achieve the desired results.

Analytics

The same scenario that affects business operations can also have strong implications for analytics. Errors and inconsistencies in material master data can easily lead to inaccurate reporting, affecting decision-making, strategic planning and financial output across the enterprise.

In the retail example above, errors in material master data resulting in misguided calculations could have caused the purchasing organization to miss an opportunity to negotiate a larger discount with a supplier, leading to substantial financial losses and grim downstream effects.

It can be a challenge to separate data issues associated with analytics from those attached to operations, but the key determinant is the root cause associated with the event. More often than not, data governance opportunities are embedded in the refinement of roles, processes and policies that describe good business practices.

Identifying Business Needs

When assessing the need for material data governance, organizations should start with a business-centric dialogue around the three fundamental areas of compliance, analytics and operations. The critical question to ask is, “What are the operational impacts of incorrect or uncontrolled material master data?” Examples may include incurred fines as a result of noncompliance with regulatory requirements, reduced margin due to inefficient procurement, stock shortages, manufacturing line shutdowns and excessive inventory costs, among other issues.

Once the business risks and challenges of working with ungoverned material master data are clearly defined, the next steps will involve establishing the primary areas of focus and the processes required to address these challenges. Companies should consider how to readily compile the knowledge needed to address each identified issue, how to manage the people and data elements involved, and how to measure governance success. Due to the pervasive nature of material data, the number of stakeholders that must be involved in the governance planning and execution will likely be greater than for other data domains, typically encompassing almost every function in the company.

A well-defined material data governance program should incorporate both agility and control to ensure that business needs are seamlessly met as they evolve over time. Since material data may be externally or internally sourced, the governance program must be tailored to provide cost-effective controls based on the origin and criticality of the data to the business.

Integrating User-Friendly Tools with Process Flexibility

Integrating user-friendly tools with process flexibility will position organizations to effectively automate material data governance and easily adapt to changing regulatory and operational requirements without glitches or delays. A sound master data governance technology implementation should encompass function and flexibility to meet both short- and long-term business needs.

Organizations should look for the following key capabilities when choosing a technology solution:

- **Data Validation:** A sound technology solution should allow users to validate material master data requests at the point of entry against rules inside and outside of SAP.
- **Cross-Business Integration:** A robust system should provide configurable workflows, multi-step approvals, conditional logic for branching, support for extensive notifications and alerts for service-level management, designed to work across a global enterprise platform such as SharePoint.
- **Data Governance:** Business users should be able to create role-based and traceable governance processes that route change requests to different stakeholders for input, review and approval.
- **Streamlined Data Entry and Processing:** An effective “create-to-update” solution should integrate processes from data lookup, extraction and filtering to data validation and the final SAP material data update, while eliminating the need for data re-entry and providing forms for specific department updates.
- **Mass Maintenance:** Users should be empowered to perform mass maintenance directly from Microsoft Excel without any programming.

As the leading provider of end-to-end SAP solutions, Winshuttle has helped hundreds of companies worldwide to optimize their material master governance processes. By integrating user-friendly interfaces such as SharePoint and Excel with SAP, Winshuttle's products transform inefficient, cumbersome material master governance processes into agile, automated workflows that speed up productivity and free up valuable resources.

"We found Winshuttle to be a really useful tool for getting [external] data loaded into SAP. That really gave us the ability to detail out what types of documents were going in, mapped to the location [of] the original files...We got about a thousand documents uploaded within an hour."

—Material Master Data Steward, Information Technology,
Manufacturing Industry

Winshuttle for Master Data allows business users to instantly resolve urgent problems with customer, material, vendor and other key master data objects. With better master data, users can reduce costly business interruptions in all areas of their organization, while gaining significant operational efficiency and cost-savings.

For more information about how Winshuttle can help your company improve master data management and get the most out of your SAP installation, visit www.winshuttle.com/masterdata or email info@winshuttle.com.

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