



# Business Case Study and Report

## MMDM DURING ERP IMPLEMENTATION

Verdantis and Global System Integrator to Deliver Material MDM Project, Ensuring ERP Implementation Success for Fortune 500 Steel Company

---



# Company Overview

For the past decade, Verdantis has successfully undertaken Purchased Part MDM projects worldwide, collaborating with some of the planet's most asset-intensive organizations. Considering that Purchased Parts MDM projects are often mandated within overarching strategic procurement improvement initiatives or IT system consolidations, System Integrators (SIs) such as Accenture and IBM frequently participate in these endeavors. Verdantis contributes its deep domain expertise in Material MDM, while SIs operate at a higher level to ensure that the efficiencies enabled by MDM are fully realized and aligned with the broader umbrella project. This shared knowledge and experience have enabled us to provide our clients with superior, more holistic solutions. This case study delves into one such project where a potentially arduous and obstacle-ridden journey was significantly smoothed out by the collaborative effort and synergy between Verdantis and its partner SI.



# The Client



**World-leading producer of flat-rolled carbon, stainless and electrical steels**

**Fortune 500 Company**

**Heritage spanning over 100 years**

**Revenues exceeding \$6 Billion**

**Workforce of over 6000 people**

The company, a world leader in flat-rolled carbon, stainless, and electrical steels, primarily serves the automotive, appliance, infrastructure, manufacturing, construction, and electrical power generation and distribution markets. With seven steel plants and two tube manufacturing facilities across four states, this **Fortune 500 company** boasts a rich history spanning over a century. With revenues exceeding \$6 billion and a workforce of over 6000 individuals, it stands as one of the largest steel producers in the United States.

This remarkable legacy reflects the organization's growth, both organic and inorganic, over the years. For Verdantis, such a scenario generally presents a predictable challenge: an extensive volume of complex data distributed across a multitude of legacy and ERP/EAM systems, each with its own taxonomy. And indeed, this was the case at the client's organization.

Alongside the multiplicity of data management systems (or the lack thereof), another potential issue was the large number of individuals interacting with the data across various geographies, business divisions, and plants. These individuals employed a variety of languages and conventions to suit their specific needs.

---

# The System Integrator

Verdantis had previously collaborated with this system integrator, one of the largest and most recognizable technology and consulting firms globally, boasting revenues of nearly \$100 billion and a workforce exceeding 400,000 employees. The SI was spearheading an Oracle PIM implementation to ensure accurate product information dissemination across all sales and marketing channels for this leading steel producer. From the project's inception, the SI was actively involved, overseeing the vendor selection process that ultimately led to Verdantis's selection as the preferred MDM solution provider. A domain expert from the SI partner's team assumed the role of Project Manager (PM) for the Material MDM project. This close collaboration with the SI was crucial from the moment Verdantis joined the project.



Workforce of  
**400,000+**  
employees globally



Revenues of  
almost  
**\$100 billion**

Verdantis brings in the deep domain expertise around Material MDM while SIs work on a **40,000 feet level** to ensure that efficiencies enabled by MDM are fully unlocked

# The Challenge

---

- **Multiple source systems with varying data storage structure**
- **425, 000 items coming from numerous suppliers and a large customer base**
- **No eagle-eye view of the actual size and details of the inventory, supplier base and customer base**

The bulk of the master data resided in two distinct legacy systems. One system employed a relational database, with its applications sharing a centralized database accessible across all locations. The other system stored data in a flat file structure, with each location maintaining its own copy of the master data file. This inconsistency in master data across the enterprise eroded the economic benefits of being a large manufacturer. One of the primary advantages of a large organization lies in the potential for communication and collaboration among its various sites, fostering operational efficiencies and competitive edge across production lines. However, the lack of comprehensive visibility into business processes and the master data that drives them prevented the company from capitalizing on this advantage.

With approximately 425,000 items originating from a multitude of suppliers and a sizable customer base contributing to the material master, the company lacked an accurate overview of the actual size and specifics of its inventory, supplier base, and customer base. This significantly impacted their sourcing and procurement strategies, along with other cost-saving initiatives.

MRO materials accounted for around 65% of their purchase requests, and the data complexities resulted in excessively long processing and procurement times, inadvertently causing unnecessary supply chain disruptions, plant downtimes, and lost revenue generation opportunities.

The poor quality of Purchased Parts master data cast a shadow of inefficiency over several cross-functional divisions across the company, as the unreliable data hindered the ability to make effective and informed business decisions. This had a significant financial impact as well, with the company experiencing diminished ROIs from high-cost investments in ERP implementations, other systems, and applications, which were intended to drive synergies and reduce IT infrastructure costs to optimize and support various business operations.

The company had invested in the implementation of a new e-Procurement system to address the challenges faced by sourcing and procurement. However, a comprehensive gap analysis revealed the dire state of their master data, prompting a steering executive committee to recommend the initiation of a Master Data Management initiative to ensure maximum ROI from the substantial IT and business investments.

# The Challenge

---

- **MRO materials accounted for approximately 65% of purchase requests**
- **Inconsistent data resulted in lengthy processing and procurement times.**
- **Unnecessary supply chain disruptions, plant downtimes, and revenue losses**

# The Objective

The main objectives identified for the company from the Purchased Parts MDM initiative were:



- Clean, Consistent and business value-enriched Item Master Data
- Item Master Cleansing as a part of the overall Procurement Umbrella Project to overhaul sourcing/procurement technology infrastructure



- Ensure success of Procurement and ERP Upgrades and similar investments

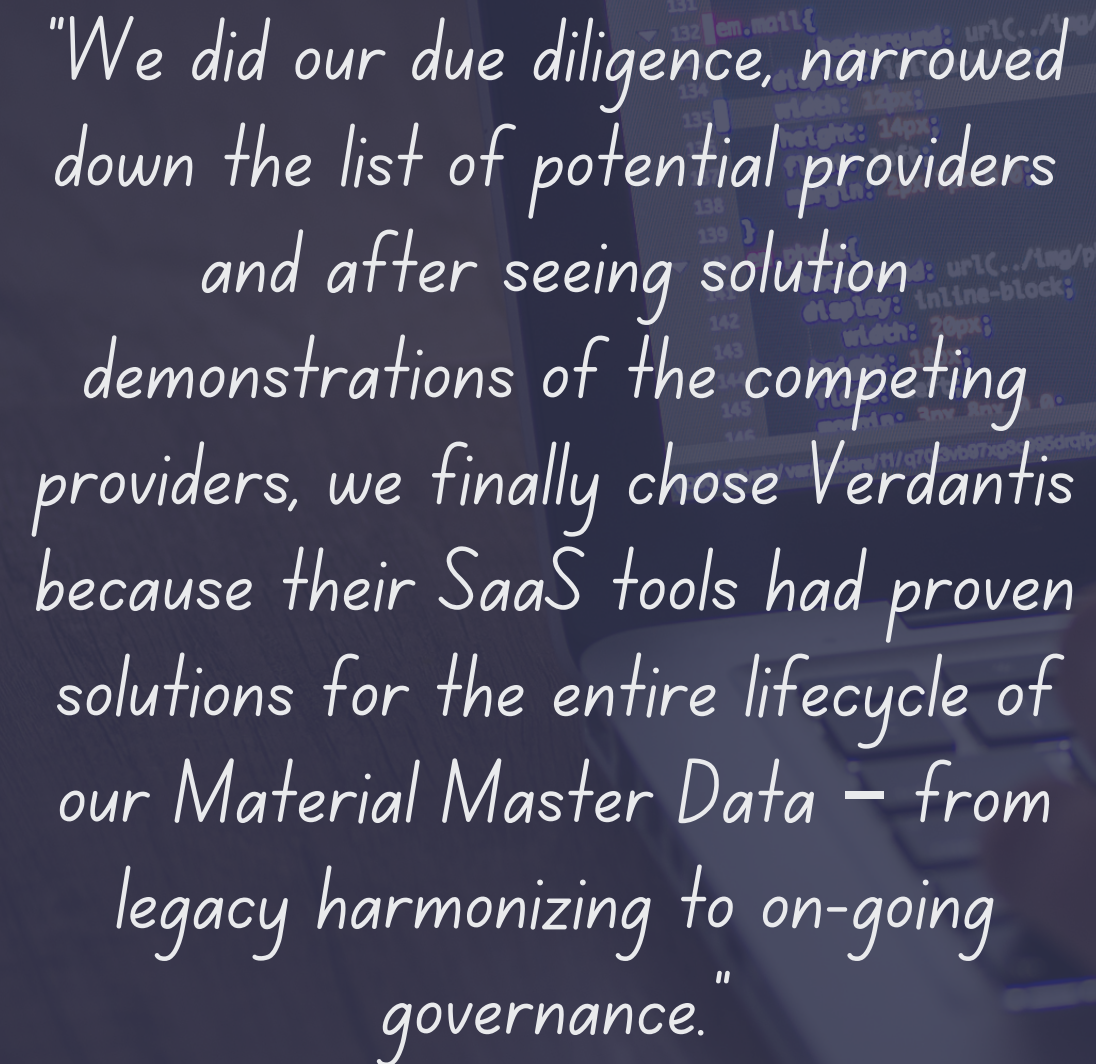


- Total of **425,000 SKU's** to be cleansed, enriched and de-duplicated to cut-down inventory size and improve overall visibility across the organization

# THE PROJECT

---

The Purchased Parts MDM project was spearheaded by procurement, with IT serving as a key stakeholder. The steering committee, composed of representatives from various functional divisions across the organization, unanimously agreed that a Purchased Parts MDM initiative was essential to drive year-over-year productivity gains, enhanced profitability, and a superior competitive edge in operations. The challenge lay in identifying a solution provider that best aligned with their specific requirements. As the Director of Procurement aptly stated, "We conducted thorough due diligence, meticulously narrowed down the list of potential providers, and upon witnessing solution demonstrations from competing vendors, we ultimately selected Verdantis. Their SaaS tools offered proven solutions encompassing the entire lifecycle of our Material Master Data, from legacy harmonization to ongoing governance."



*"We did our due diligence, narrowed down the list of potential providers and after seeing solution demonstrations of the competing providers, we finally chose Verdantis because their SaaS tools had proven solutions for the entire lifecycle of our Material Master Data – from legacy harmonizing to on-going governance."*

*– Director of Procurement*

# THE PROJECT

---

Verdantis embarked on a comprehensive proof-of-concept (PoC) endeavor, meticulously harmonizing a select portion of the company's master data to showcase the features and capabilities of its solution. The PoC process effectively unveiled the magnitude of the challenge and the potential benefits that could be realized with the implementation of the Purchased Parts MDM initiative.

Leveraging an AI-powered classification approach to flag and identify duplicate entries, the solution's ability to crawl suppliers' websites and other electronic sources enriched their material master files with actionable information. This also served to demonstrate a solution with a robust, domain-specific workflow and the capability to search for form-fit-functionally equivalent parts.

The Purchased Parts MDM project was sponsored and championed by procurement with IT as the key stakeholder. The steering committee, which comprised representatives from cross-functional divisions of the organization, agreed that a Purchased Parts MDM initiative is a necessity to drive year-on-year productivity, profitability and superior competitive edge in operations.



# Master Data Harmonization

In the absence of a standardized classification scheme for item master data across the enterprise, the company sought to map the new classification assignment to the new item number using a unique classification scheme based on their adoption of UNSPSC. Other core requirements included creating a cross-reference between the new item number and the legacy item number, identifying duplication within item master data, standardizing noun modifiers (item description), and enriching content and uploading data using the item template.

The harmonization process commenced with loading historical material master data into the Verdantis Harmonize Solution. The solution analyzed cryptic text fields, classified, and then enriched material records in accordance with the company's required classification standards, specifically the global UNSPSC product coding standard.

Leveraging statistical-probability based artificial intelligence, classification and coding were automated. Subsequently, unstructured material attribute information was parsed from text fields into specific fields of a category data template, configured by the client and tailored to the desired level of granularity. **This process was language-agnostic, as the solution supports over 25 languages.**

Enrichment of the data followed classification. Utilizing a variety of sources—existing customer text fields, information crawled and scraped from suppliers'/manufacturers' websites using automated software engines—the solution enriched and filled in missing material attribute information.

In the final step of the harmonization process, duplicates within the material master were identified based on exact matches by supplier names and/or part numbers, as well as probable matches based on identical key technical attributes. **Over the course of the project, the solution identified duplicates accounting for approximately 14% of the total material master data in the legacy systems.**

# SUCCESS AND BENEFITS

In fewer than 90 days, the project resulted in the successful classification and harmonization of master material data for around 425,000 line items in 1,200 categories using superior artificial intelligence (AI) technology.

The Master Data Management initiative ensured that the company could optimize the ROI from their investments and strategies, and at the same time implementing a process framework for improved business and operational performance.



In addition to meeting their requirements, the business value benefits of the harmonization activity included:

- Cleansed and Enriched Material Master Data
- Enhanced search, empowered maintenance teams
- Lower inventory and handling costs
- Supply Chain risk mitigation, decreased plant downtime
- Higher Bottom-line savings on total spend for different indirect commodities
- Optimized ROI from procurement and ERP initiatives



# ABOUT **VERDANTIS**

Verdantis revolutionizes Master Data Management with a unique approach that delivers tangible business value and ROI. Our end-to-end automated ERP MDM solutions leverage Artificial Intelligence (AI) and business rules to streamline data management processes. Our user-friendly solutions are easily configured to meet specific enterprise requirements, ensuring classification, enrichment, security, and governance across the entire material master data lifecycle.

**Verdantis Harmonize**<sup>®</sup> is a powerful automation tool that enhances material master data quality by leveraging internal knowledge assets to master legacy data. It ensures a unified, standardized, de-duplicated, and enriched material master for seamless integration with ERP, EAM, and Verdantis Integrity solutions.

**Verdantis Integrity**<sup>®</sup> is a data governance tool that continuously monitors and maintains the quality of material master data. Its robust workflow engine and guided item creation process safeguard the accuracy and integrity of cleansed and harmonized data. Integrity prevents data duplication, enhances parts discovery and visibility, and ensures compliance across the enterprise.



# Get In Touch

[www.verdantis.com](http://www.verdantis.com)



Location:

103 Carnegie Center, Suite 300,  
Princeton, NJ 08540

Telephone:

Toll free : +1 866 987 4463

Email:

[info@verdantis.com](mailto:info@verdantis.com)

