Global Material Master Data Management at Merck

Combining innovative solutions with a collaborative approach

Merck has emphasized and given priority to global master data in a significant excellence program. Management executives have identified the need to establish corporate-wide standards – “one common language” – when more efficiency and agility is required for process management “in the digitizing business process world”. To address these strategic objectives, the executive board developed its global master data management vision – reaching out for excellence in all areas of corporate MDM. Consequently a holistic transformation program has been launched covering MDM strategy, organization, governance, processes, data quality and technology.

Statement

“Only with correct and reliable data can an organization have the necessary transparency to fully understand developments in the business, provide superior service, and make the right decisions to drive a successful strategy.”

Karl-Ludwig Kley
Chairman of the Executive Board, Merck
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The project approach

In a first step an MDM strategy project was conducted by Merck together with Camelot Management Consultants. The project defined the concepts for the main aspects of global material master data management at Merck. It was decided to launch a global program creating a consistent approach to capturing and managing master data across the company to run a better and more profitable business.

The Material Master Data Management program had the following overall objectives:

- Establish and re-align clear roles and responsibilities for corporate master data management
- Implementation of a harmonized approach for global product introduction
- Enable global management of materials over its entire lifecycle
- Replacement of the existing MDM system with new state-of-the art MDM technology
- Extend the scope of globally governed materials

The program was divided into four modules to be delivered successively in the time frame of two years. Each module consisted of individual projects that were managed by Merck’s Global Master Data Management team supported by Camelot consultants and by representatives from the business units.

Statement

“We were looking for a master-data governance application with a future – one that would enable us to harmonize master data for unified processes across our global business.”

Joerg Schwamberger
Program Manager M3, Merck
MDM strategy: “Building up and mobilizing corporate MDM strategy”
The future MDM strategy has been developed and aligned with business priorities and stakeholders. Mobilization across the organization with intensive communication and transformation actions have been conducted.

Module 1: “Building the technological basis /-platform”
In module 1, the existing SAP MDM 3.0 system was replaced with the current state-of-the-art technology SAP MDG-M (Master Data Governance – Materials). Whereas Camelot Management Consultants supported the solution design, the implementation of the solution was realized by Camelot ITLab consultants. Close co-operation and efficient processes between all parties, business and IT, led to a successful and smooth go-live. SAP Master Data Governance was implemented on schedule and within budget. SAP Master Data Governance solution provides Merck with a robust, extensible framework for harmonizing the collection, management and use of master data globally.

Module 2: “Enhancing the MDM capabilities in the organization”
In module 2, the focus was on the definition and introduction of new roles and enhanced workflow capabilities for material master data maintenance. A concept was designed and implemented for material lifecycle management as a standardized process to phase out materials across all ERP systems and the company’s global reporting systems. Also the scope of globally governed materials was extended by migrating formerly locally managed materials into the global MDG-M system. This is regarded as a major cornerstone in strengthening Merck’s central master data governance.

Module 3: “Introducing advanced and sustainable Data Quality concept”
In module 3, Merck and Camelot started a master data quality project with the objective to implement a solution for data quality measurement. As a first step, key performance indicators to measure data quality were defined. In a second step, SAP Information Steward – a system used to calculate and visualize data quality based on pre-defined business rules – was implemented by Camelot ITLab. Supported by reports and scorecards, this module has enabled Merck to quickly assess its master data quality on a repeatable basis. Incorrect data can easily be identified and corrected with mass workflows directly.

Module 4: “Establishing end-to-end workflows for the new MDM governance model”
In module 4, the core deliverable was the standardization of end-to-end material maintenance workflows. This means the maintenance and approval of “global attributes” in MDG-M triggers the subsequent maintenance of “local attributes” in ERP by an integrated workflow. After the standard template with all necessary workflow steps was designed, SAP Business Process Management was chosen as tool to implement the workflow sequence. Merck now has the ability to steer the material maintenance process the creation of global attributes until the material is ready-for-execution on plant level.
The results

The MDM program at Merck has defined the industry best practice by leveraging latest technologies and by a consequent implementation of innovative concepts within all MDM areas.

One of the key success factors was the holistic approach and the drive of the team during the realization of the complete program. Starting with the overall MDM strategy to the development and implementation of global concepts and systems for master data management, Camelot Management Consultants and Camelot ITLab supported Merck in a two years significant transformation program until final results have been successfully delivered.

All concepts introduced were tailored to fit to the Merck business requirements together with Merck’s Global Master Data Management team. This very close collaboration as well as the trustful and integrated co-operation between business and IT was another important success factor during the MDM program.

Statement

“First the MDM implementation took Merck one major step further on the way to process excellence in material master data management and more is still to come. One of the most important success factors so far was the close and trustful collaboration between both parts of the team - business and IT.”

Jürgen Jost
Head of Global Master Data Management, Merck

Statement

“By deploying SAP Master Data Governance, we are able to meet our high requirements for the quality of our master data. This innovative and stable solution also supports ownership policies and harmonized processes in material master data management.”

Bjoern Ebeling
Associate Director Information Services MDM and Integration Applications, Merck
The MDM transformation highlights at Merck

**Organization**
- Product ownership concept rolled-out: new role to enable centralized portfolio management by controlling material creations and steering phase-out processes.
- Field ownership concept rolled-out: new role to enable clear responsibilities for the usage of global attributes and the definition of related business rules.

**Governance**
- Complex business rules implemented: around 350 different validation and derivation rules have been and implemented to enable the “first-time-right” principle and to support dialog users.
- Meta data management with MDG-X: the SAP MDG framework was used to develop a customized application for the consistent maintenance of product hierarchies.

**Processes**
- Lifecycle control established: global process supporting product owner to manage their portfolio by different material status with a direct effect on ERP-transactions.
- Mass maintenance enhanced: mass workflows were implemented with data error tracing functionalities to reduce manual effort in case of data corrections.

**Data quality**
- Data quality reporting implemented: to calculate data quality based on pre-defined business rules, SAP Information Steward was implemented to visualize reporting results on scorecards.
- Inheritance concept rolled-out: field values get inherited between master records and assigned materials. Inherited values cannot be changed by dialog users to ensure data consistency.

**Technology**
- Process performance reporting implemented: SAP Business Context Viewer was implemented to measure workflow cycle times and the number of change requests with drill-down options.
- End-to-end workflows implemented: SAP Business Process Management was implemented to guide users from the maintenance of “global attributes” in MDG-M to the subsequent maintenance of “local attributes” in ERP by an integrated workflow.
Camelot Management Consultants provides strategic and organizational consulting within the Camelot Group. The company is one of the leading management consultancies for the optimization of supply chains focusing primarily on the chemical and pharmaceutical industries. Camelot Group is present worldwide with more than 1,400 consultants; 200 working in Germany and Switzerland. Due to the strong collaboration with renowned technology specialists, Camelot Management Consultants guarantees project success in all phases of consulting: from strategic decision-making to evaluation and technical implementation.

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