Camelot ITLab
Innovative Technologies Lab

TRANSFORM DATA INTO VALUE

How Companies can turn their MDM into Next Generation Data Management in 2021

The role of SAP MDG and data capabilities in uncertain times and beyond

Study & White Paper

Preamble

The term Data Management is becoming ubiquitous nowadays, but companies rarely grasp the full extent of the implications for their industry, their companies and even themselves. With the current COVID-19 pandemic impacting our personal lives as well as the economical health of companies, transparency across business processes equally as much as the ability to transition to a fully digital operating mode have become indispensable in a matter of days. Many companies have struggled to make this sudden transition happen, realizing the importance of having a solid data, system & process foundation so that reporting, governance and dynamic adaption are possible in turbulent times like these.

The crisis has proven to be a catalyst for companies to question their data capabilities. However, the excellence in managing data, deriving insights from them and enabling full transparency across the value chain is relevant at all times, beyond this exceptional situation. The necessity of highly functioning businesses becomes a lot clearer when the stakes are high, therefore we need to prepare ourselves in times of well-being in order to efficiently handle future emergency situations and cope with the arising challenges. This paper aims to lay out a structured approach on how to achieve the next level of data management and prepare for the uncertainty and volatility of crises in the future by identifying actionable areas in the current market.

We surveyed leaders in the field of data management across different industries to analyze the current state of master data management programs as well as the market sentiment and future ambitions to achieve Next Generation Data Management. We'd like to thank everyone participating in this survey for their insights and wish all readers and their loved ones to stay healthy and safe.

Thomas Tolksdorf
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THE SURVEY

At the Camelot MDG Forum in Walldorf at SAP, experts in the field of Master Data Management came together to exchange their thoughts and experience with their peers, as well as to gain new insights for future developments. In this context we engaged in discussions with over 70 delegates and industry leaders, held and listened to presentations and ultimately conducted a survey to answer the central question "Which trends are currently shaping the future of the master data management landscapes?".

We saw a good adoption-rate of standardized Master Data Management solutions and in particular some advanced approaches, but companies are not yet fully embracing their modern data management aspirations. Data Intelligence platforms and Artificial Intelligence are future trends to mention just two topics which have already been tackled. Many of those companies see challenges in the technological as well as human capabilities of their organizations.

Building on these insights, we have designed a roadmap for companies to advance their management initiatives to the next level consisting of three fields. Each field has then been further broken down into the actionable tasks required for implementation.

The Need for Next Generation Data Management

Vast amounts of data are being produced and the relevant system's landscapes are becoming increasingly complex. Efficiently handling, maintaining, monitoring, analyzing and deleting the data therefore has become an essential task in the daily business of any organization. In order to achieve a state of readiness for this ever-changing and diverse environment, businesses need to initiate new approaches to data management on strategic as well as operational levels. An integral role in this modern data management architecture is described by the Master Data Management (MDM) programs which build the foundation to add and deliver value to a business and help companies stay competitive in their future operating environment.

A large majority of companies either already have MDM systems in place, or are planning to implement them in the near future. In other words, solely having an MDM system is not a factor of differentiation or a source of competitive advantage any longer, but rather a common standard necessary to keep up with the market. An example well-known and frequently used by the participants of the Camelot MDG Forum was the adaption and application of the SAP MDG (Master Data Governance) module.

The majority of companies' future strategic objectives will need to be the implementation of a Next Generation Data Management (NextGen DM) to stay competitive. In our understanding NextGen DM is the logical adaption of common MDM approaches to a data-driven business model in a distributed environment:

Value of Data
Data has become a commodity and is often described as the oil of the 21st century, because of the enormous amounts of data available today and the assumed potential and value which could be unlocked through refinement. The ability of companies to harness this potential can just be as valuable as the insights themselves which can be derived from the data itself.
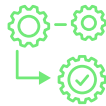
Extreme Process Automation
The automation of ingesting, cleansing, enriching, maintaining and governing master data by using data pipelines can greatly reduce process cost and improve master data quality on a large scale.

External Factors
NextGen MDM adapts to the requirements set by a multitude of external factors affecting master data management (e.g. organization structures, cultural requirements, legal regulations, etc.)

Analytics & Data Science
The application of improved analytics across master data enables the realization of optimization potential and can reveal synergies across the value chain by identifying dependencies and connections between different business objects.

User Experience
A user-friendly interface can greatly enhance the user experience, and in return can improve the overall quality of master data by empowering and motivating end-users to maintain master data on a continuous and flawless basis.

Drivers for a Changing MDM Environment

Master data is defined more as static rather than dynamic data, and is the foundation for billions of transactional data sets across our information processing globe. Since change and volatility are ubiquitous in the information age the question arises: How can we reconcile Master Data Management (rather static) with the pace of change around us and what are the steps required to achieve this reconciliation? In short: there is no single or simplistic answer to this question, but in order to provide a foundation to start to answer it, we must first understand the characteristics of the goal itself.

In order to do so we start by clarifying the underlying key drivers and define their potential impact. We identified the following five key drivers for the current dynamic MDM environment.

1 Digital Transformation and accelerated automation

Almost all companies have woven Digital Transformation goals into their corporate strategy for the coming years. Common methods to achieve the vision are the accelerated automation of processes (for example Robotic Process Automation (RPA)) and the streamlining of key processes themselves. However, companies neglect fundamental requirements needed in order to proceed with their transformation activities such as a stable and efficient data management foundation.

2 ERP-Implementation (esp. S/4HANA transformations)

The new product SAP S/4HANA caused a shift in the ERP roadmap for many companies across all industries. As a means to achieve this goal of a successful ERP transformation, a certain degree of (master) data quality, a working MDM framework and the organizational approval have become mandatory.

For instance, around 70% of respondents from our survey are currently planning a transformation from SAP ECC to S/4HANA. An additional 19% are planning to do so in the next 2 years. Therefore, master data migration and master data integration concepts are essential for this undertaking.

Figure 1: Percentage of respondents with an upcoming S/4HANA transformation

USAGE OF SAP MDG TO AUTOMATE MASTER DATA MANAGEMENT (MDM)

12%

19%

69%
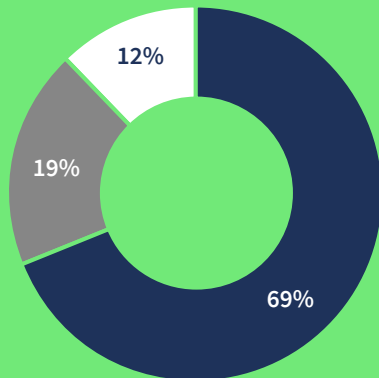
- Yes
- Planned within the next 2 years
- No - not planned

3 Increased Regulations

Further tightening in national and international data regulations forces companies to constantly check data security measures in order to comply with the regulatory requirements being set by law-makers. The (administrative) overhead caused by badly designed processes can in many cases ultimately make or break a business model.

4 MDM & Data Science Capabilities

The value of master data as mentioned in the introduction is the reason why whole industries are now doubling-down on advanced analytics and improved reporting to fundamentally change the way they operate. However, in the first step data cleansing is a prerequisite to guarantee a certain degree of master data quality and integrity. This requires both, MDM and data science capabilities to take each step along the path required to achieve NextGen DM.
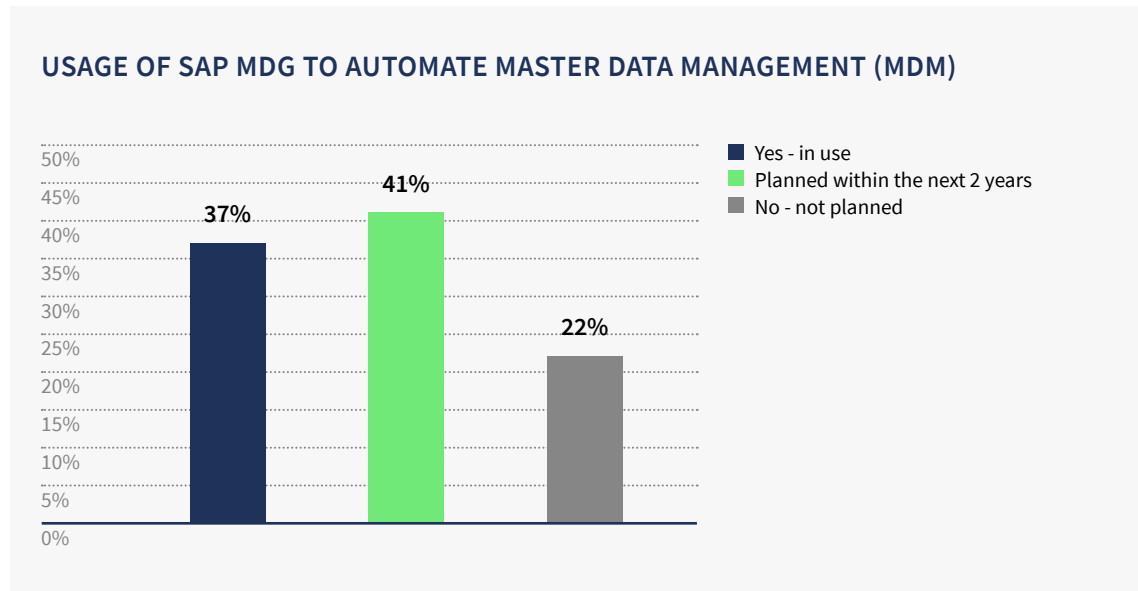
5 Technical Capabilities

The multitude of technological solutions currently on offer, paired with the most advanced tools companies have ever had, which in turn facilitate new ways of working with old and new systems. In order to utilize these tools a variety of technical capabilities regarding software and hardware is necessary. Companies must build a core competency when it comes to technical capabilities as the dependency of an outsourced solution will no longer be strategically acceptable in the future operating environment.

Strategy

Processes | Organization | Master Data | It Systems

Operation & Support

MASTER DATA MANAGEMENT

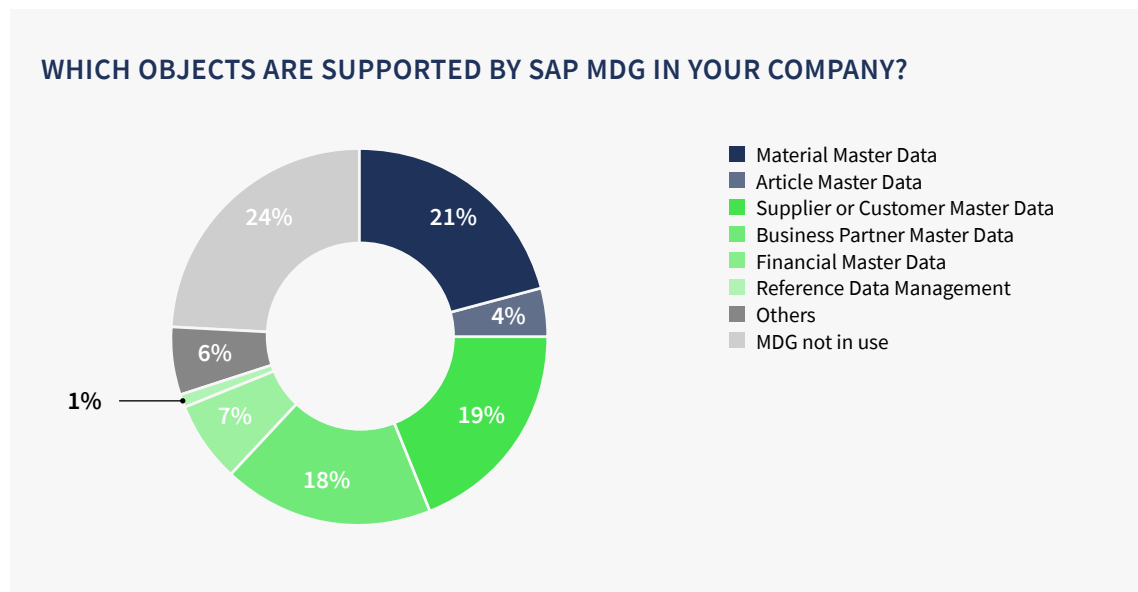| Digital Transformation & Accelerated Automation | ERP-Implementation (esp. S/4 Transformations) | Increased Regulations | MDM & Data Science Capabilities | Technical Capabilities |

Large Amount of Untapped Potential in MDM

Approximately 4 out of 5 companies either have SAP MDG in place or are planning to implement within the next 2 years in order to automate MDM.

Figure 2:
Percentage of respondents who use SAP MDG to automate MDM within their companie

USAGE OF SAP MDG TO AUTOMATE MASTER DATA MANAGEMENT (MDM)

Legend:
- Yes - in use
- Planned within the next 2 years
- No - not planned

Values: 37%, 41%, 22%

The master data objects most commonly supported by SAP MDG within the respondents' companies are **Material** (21%), **Business Partner** (18%) and either **Supplier** or **Customer Master Data** (19%) which can be consolidated within the Business Partner Concept. A **quarter** stated they don't use SAP MDG at all.

Figure 3:
Business objects supported by SAP MDG in the respective companies of respondents

WHICH OBJECTS ARE SUPPORTED BY SAP MDG IN YOUR COMPANY?

Legend:
- Material Master Data
- Article Master Data
- Supplier or Customer Master Data
- Business Partner Master Data
- Financial Master Data
- Reference Data Management
- Others
- MDG not in use

Values: 21%, 4%, 19%, 18%, 7%, 1%, 6%, 24%

When asked about further SAP Data Management Technologies, **15% of respondents** stated that they use dedicated **Quality Measurement/Management Tools** such as SAP IS and SAP ADP, while archiving tools such as SAP ILM are still falling short with usage rate of only **4%**.

SAP Data Intelligence

The usage of Data Intelligence as a Data Platform **is lower than** expected, **with only 27%** either using SAP Data Intelligence already or are planning to implement it in the next 12 months.

WHICH OBJECTS ARE SUPPORTED BY SAP MDG IN YOUR COMPANY?

Legend:
- SAP Data Intelligence
- Not planned to be used

27%

73%
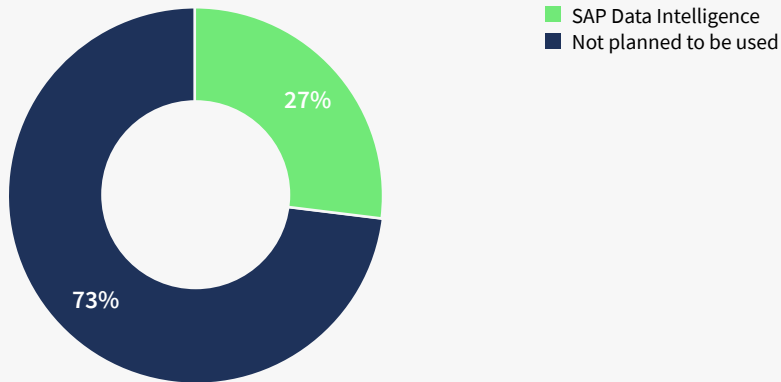
Figure 4:
Percentage of respondents using SAP Data Intelligence or planning to do so in the next 12 months

EXCURSUS

Data Intelligence describes a standardized data management approach across multiple data sources to ingest, cleanse, enrich and analyze data by applying data pipelines in the different source systems, rather than loading all the data into a central system. This greatly streamlines the analytics process and utilizes the entirety of systems to unveil potential improvements. Being able to process data in a distributed manner and adding new data sources without efforts is a necessity in the future, therefore Data Platforms will become indispensable in the future.

Only 14% of those surveyed have implemented PoCs in AI to improve MDM in their companies, another 6% are planning to implement it in the next 12 months. Unexpectedly, **4 out of 5 respondents** stated, they do not plan to proactively use AI to improve MDM within their company.
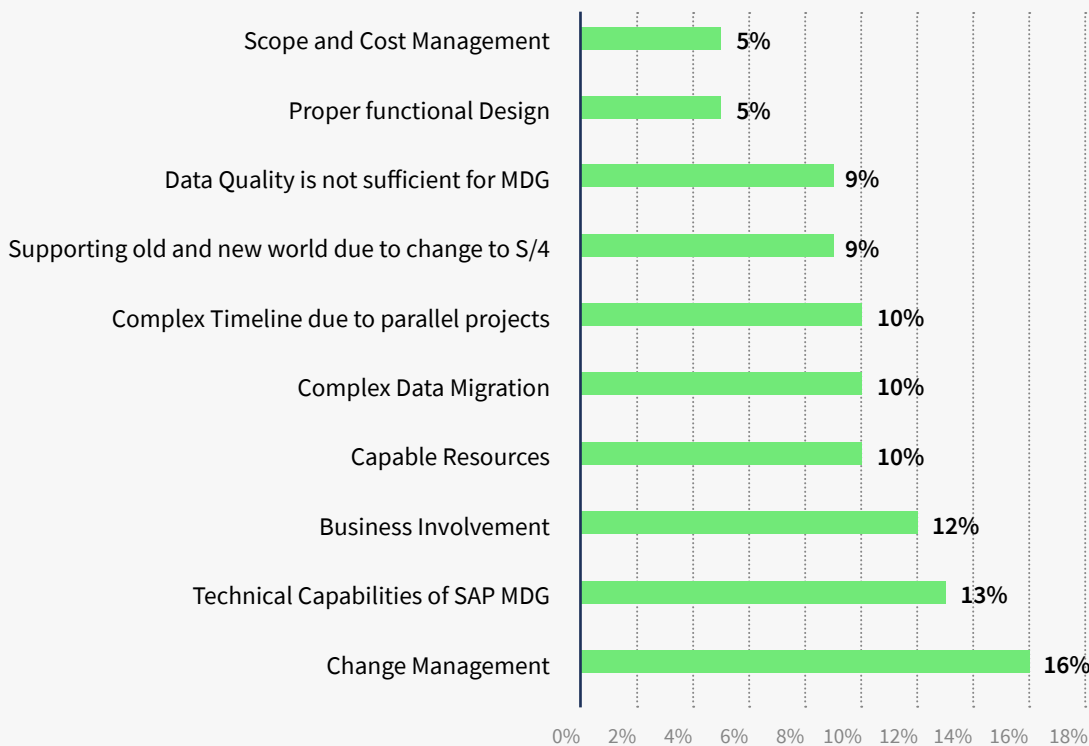
USING AI TO IMPROVE MASTER DATA MANAGEMENT

Legend:
- Yes
- Planned in the next 12 months
- No

14%
6%
80%
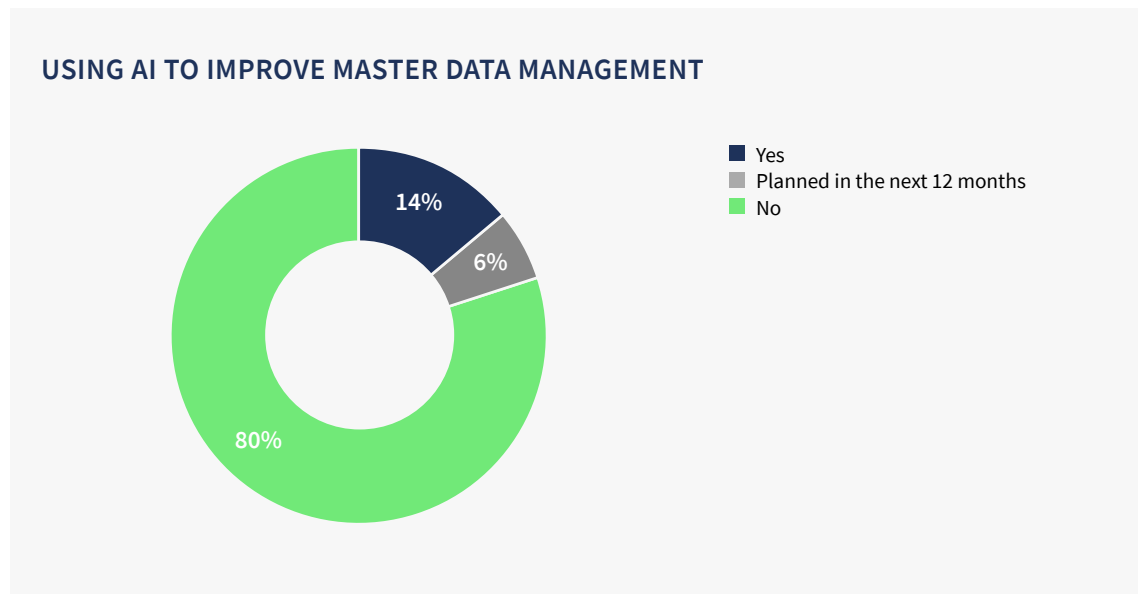
Even though MDM, data science and development of system landscapes are highly prioritized and define a central role in the IT strategy of companies, many of them see challenges along their implementation roadmaps. The biggest challenges seen by the respondents were **Change Management (16%)**, **Technical Capabilities of SAP MDG (13%)** and **Business Involvement (12%)**.
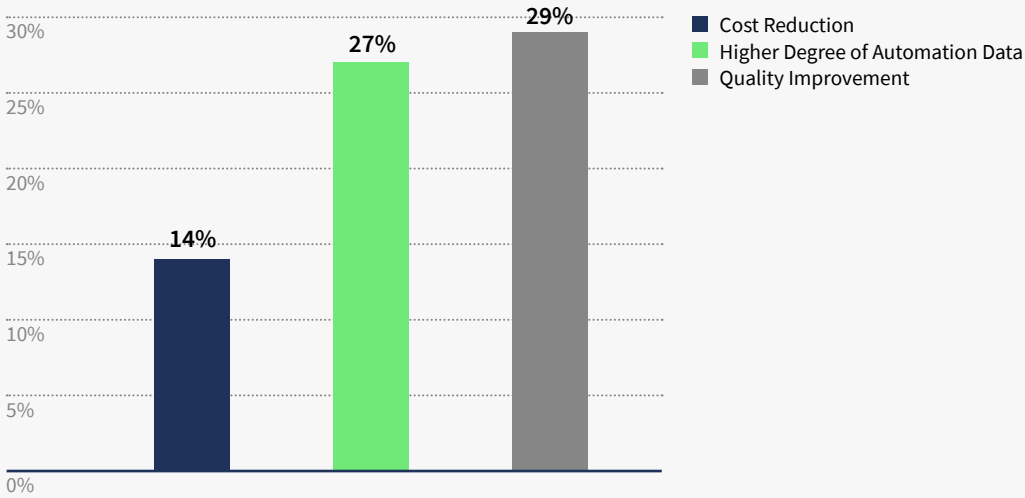
THE BIGGEST CHALLENGES AS PERCEIVED BY THE RESPONDENTS

Challenge	Percentage
Scope and Cost Management	5%
Proper functional Design	5%
Data Quality is not sufficient for MDG	9%
Supporting old and new world due to change to S/4	9%
Complex Timeline due to parallel projects	10%
Complex Data Migration	10%
Capable Resources	10%
Business Involvement	12%
Technical Capabilities of SAP MDG	13%
Change Management	16%

Modern Data Management technologies, as seen by the respondents, offer highly attractive benefits for future digital initiatives and business programs, among them: **Data Quality Management (29%)**, **Higher Degree of Automation (27%)** and **Cost Reduction (14%)**.

BENEFITS IN IMPLEMENTING MODERN DATA MANAGEMENT TECHNOLOGIES AS SEEN BY THE RESPONDENTS

Legend:
- Cost Reduction
- Higher Degree of Automation Data
- Quality Improvement

Values: 14%, 27%, 29%

As the results above show, the majority of respondents are already using SAP MDG as an MDM solution and therefore have already taken action regarding data management in their companies. While the foundation seems to be well layed, a lack of further aspirations or ambition for NextGen DM methods & tools is visible. These NextGen DM methods & tools include data quality measurement/management, artificial intelligence solutions and platform solutions like SAP Data Intelligence. Interestingly, companies perceive the actual benefits of modern data management technologies like cost reduction and a higher degree of automation as being substantial and many endeavor to become more savvy in the field of data management. In order to do so, companies need to overcome the stated challenges of which the biggest have been identified, such as Change Management, Technical Capabilities, Complex Data Migration, Capable Resources and Business Involvement.

Roadmap to Next Generation Data Management

In conclusion, we at Camelot ITLab have defined three fields in which concrete next steps have been defined to help guide companies throughout their MDM transformation journey. In particular, thesethree steps are especially important if you are just starting to rework your overall approach to your MDM landscape. Here in summary:

1 **Do your "Homework"**

    a. Implement a proper data infrastructure and build your organization so it can utilize the full potential of the current data.

    b. Improve the overall data quality of your master data as well as transactional data before ingesting further data from external sources.

    c. Continuously train and empower your employees to create the foundation for a sustainable data management approach and integrate the willingness for proper DM in your daily operational routines.

    d. Investigate possible tools based on the individual MDM approach and findings within your company to facilitate your efforts.

2 **Dimension your "Vision"**

    a. Analyze the potential requirements and benefits of (NextGen) MDM for your organization and integrate objectives and milestones into your digital strategy roadmap.

    b. Set realistic and achievable goals based on the level your organization is currently at and avoid overstretching staff and resource.

    c. Identify enabler projects and start the process of Digital Transformation and MDM transformation in order to bring your organization up to speed.

    d. Remodel the process landscape with an eye to potential process automation and the digital strategy roadmap defined in the previous steps.

3 **Deliver your "Roadmap"**

    a. Measure & improve actions taken to realize the strategic goals as well as adapting your strategy to specific needs along the way.

    b. Incentivize good behavior, innovative, intrapreneurial/entrepreneurial spirit and foster proactivity.

    c. Be a role model an: Change needs to be lived by the management as much as it needs to be executed by the employees.

At the Camelot MDG Forum in Walldorf we had the chance to enter a dialog with over 70 experts in the field of MDM. This forum offered an environment for lively discussions, a creative exchange of like-minded experts and many great impulses for the participants. We conducted this survey in which we were able to analyze the overall MDM industry sentiment, identify the current state of MDM programs at the participating companies and to design a roadmap to support transformations planned for the upcoming years. We thank everyone who joined the conference and who engaged with us at the Camelot MDG Forum and appreciated the refreshing exchange of ideas in which we gained many interesting new insights.

Camelot ITLab GmbH

Camelot Innovative Technologies Lab (Camelot ITLab) is the leading IT consultancy for digital value chain management and driver of innovation in emerging enterprise technologies including Blockchain and AI. We guide businesses around the globe in transforming their IT ecosystems, with a strong focus on Supply Chain Management, Logistics, Data & Analytics, Customer Experience, and ERP.

Camelot ITLab is a long-standing partner of SAP with joint co-development initiatives, offering customized SAP implementations as well as our own disruptive solutions. As part of CAMELOT Consulting Group with 1,800 employees worldwide, Camelot ITLab stands for highest quality and responsibility, proven by an excellent track record. From innovations to solutions.

www.camelot-itlab.com

Why Camelot

$\longrightarrow$ Next level understanding of Enterprise Data Science

$\longrightarrow$ Camelot helps you to understand and communicate the value of data science integration to your business

$\longrightarrow$ Tailored to your current applied data to value path and your business needs

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