

The State of Master Data Management

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1.0 Executive Summary

Having a clear picture of where you are today is essential to understand what is required to get you where you would like to be in the future. Without an overview of the shortcomings and strengths of your organization, how do you know where to improve and what to leverage? While this is important in most aspects of management, it certainly applies to the enterprise management of Master Data – the discipline also known as Master Data Management or MDM for short.

This white paper presents the results of a recently conducted Master Data Management maturity assessment, where organizations across the world have answered a number of self-assessing questions related to how well they do in various aspects of MDM.

This is not the first survey of its type, and it will probably not be the last, however it is the first public maturity assessment based on the industry’s most comprehensive best practice framework for managing data and information, Platon Insight®.

Key findings:

- Most companies are yet to define an enterprise approach to MDM, and despite investments in MDM software, many respondents found that their current MDM solutions did not meet their expectations.
- Surprisingly many organizations rate the quality of their data relatively high, which is possibly due to significant investments in data quality tools and data cleansing efforts that have been made over the last couple of years.
- Establishing common business definitions around data and information is something a lot of organizations have started, yet most still have far to go.
- Very few organizations are sufficiently in control of how Master Data is synchronized across systems, but most are aware of the issues and are working to address them.
- Many larger organizations struggle with multiple overlapping technologies like MDM hubs and data quality tools.
- Many organizations are yet to establish robust data management teams and clear business ownership of master data.
- There seems to be a stronger support for MDM from IT management than from business management.
- Project management practices are generally strong, while program management and cross project coordination is still maturing. This is of utmost importance for MDM as uncoordinated IT projects are one of the main root causes of today’s MDM challenges.

2.0 Introduction

As there does not seem to be industry consensus on the term MDM, here is the definition behind our framework:

“Master Data Management (MDM) is the holistic and structured management of Master Data in terms of definitions, governance, architecture, technology and processes.”

Having this holistic view on the management of Master Data is critical to your success. Software vendors in the MDM space tend, not surprisingly, to put a great deal of focus on the technology aspects of Master Data Management. But successful Master Data Management is about much more than technology, hence the assessment looks across all aspects required to manage Master Data.

Do note that not everyone should expect to be at the top of the maturity ladder (see section 2.3). Moving up often comes with a price and the benefits differ across organizations and industries. For this reason we normally suggest a detailed maturity assessment as the first step in defining a MDM strategy. And even though

asking organizations to rate their own maturity really only gives a partial picture, comparing your own scores to the benchmark provided in the survey is a quick and easy way to start.

2.1 Survey Demographics

The MDM maturity assessment survey was conducted between June and December 2009 and involved close to 100 participants from organizations around the globe.

In the following the demographics are broken down in key dimensions.

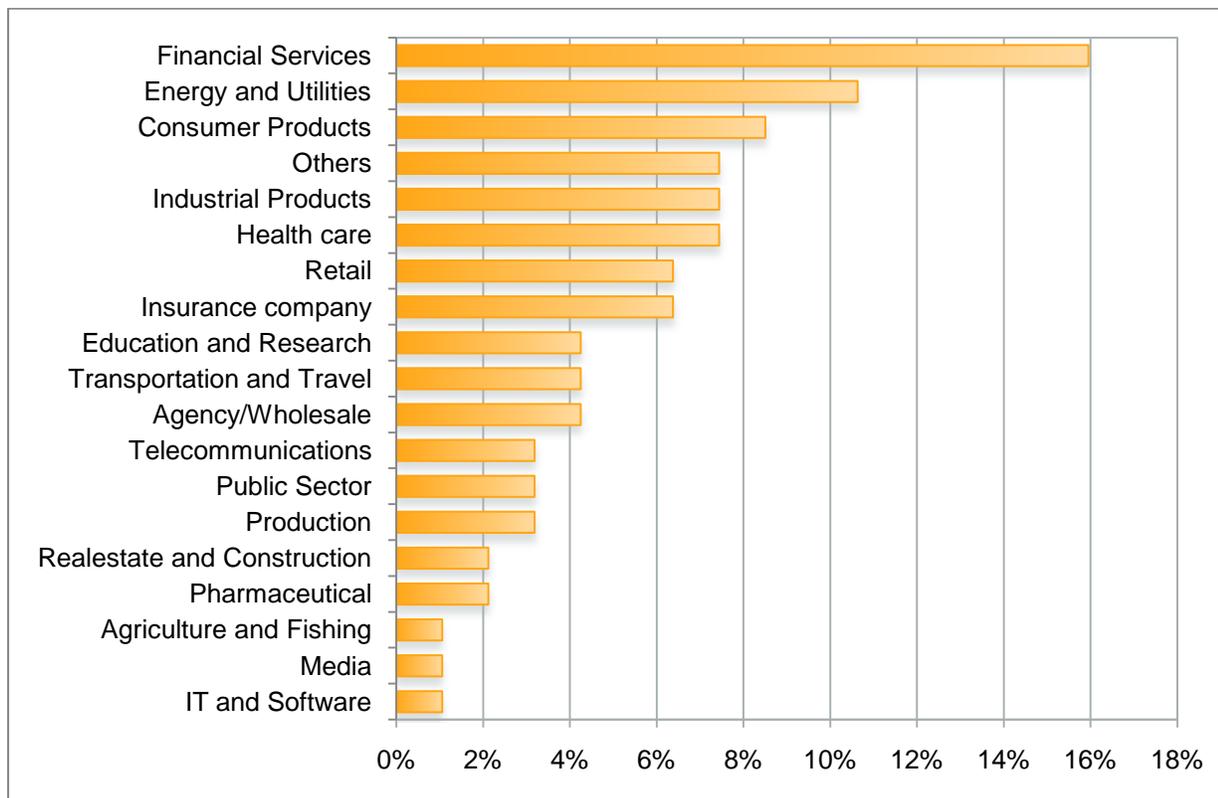


Figure 2.1 Industry distribution

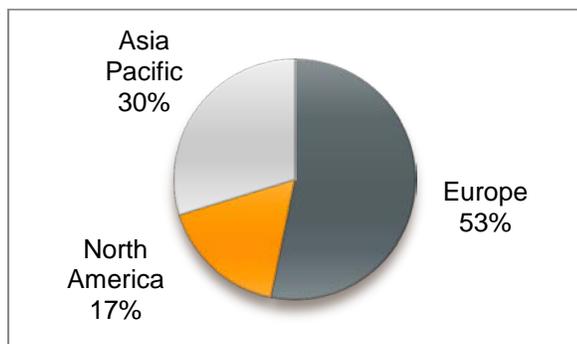


Figure 1.2 Geographical distribution

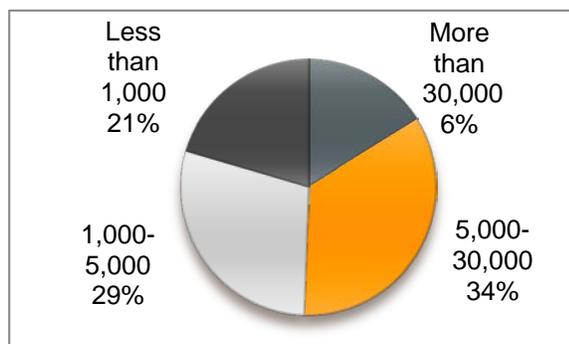


Figure 2.3 Company size distribution

2.2 Platon Insight® - The Reference Framework

Platon Insight® is an industry-leading methodology that provides best practices for the entire Information Management area (covering Business Intelligence, Master Data Management, Meta Data Management, Data Integration and Data Quality Management). Using a best practice framework like Platon Insight® as the basis for the maturity assessment survey provides a unique solid reference with clear characteristics of organizations at various maturity levels.



Figure 2.4 - Platon Insight® Methodology

Platon Insight® has five perspectives (pillars) that represent the foundation of Information Management (or in this case Master Data Management). These perspectives are Mission, Architecture, Technology, Organization and Policies.

2.3 Assessment Methodology

The maturity model used in this survey is a standard component of the framework with five levels of maturity ranging from the lowest 1 (Unaware) to the highest 5 (Optimized).

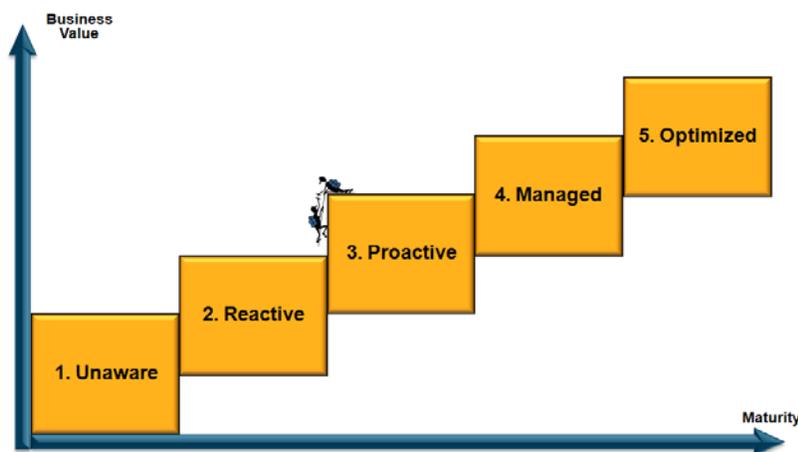


Figure 2.5 MDM Maturity Model

The survey is divided into the five perspectives (pillars) mentioned above, and within each perspective the analysis is done through a number of measurement points in the form of questions, where the survey participants score their organization with a number ranging from 1 (lowest) to 5 (highest). Individual question scores are then aggregated to a perspective score.

There were a total of 36 questions across the five perspectives. All questions and the criteria for each score can be found here: www.platon.net/mdm_maturity_survey.asp.

This form of self-assessment bears the risk of being biased as some people may be reluctant to flaunt the dirty underwear, and then the answers are of course based on the limited knowledge of individuals, who may not be able to speak for an entire organization.

3.0 Survey Results

The overall picture of maturity is that slightly more than half of the organizations surveyed are on level 2, with 38% still on level 1 and 11% on level 3. No organizations rated themselves at level 4 or 5 on average across all aspects of MDM.

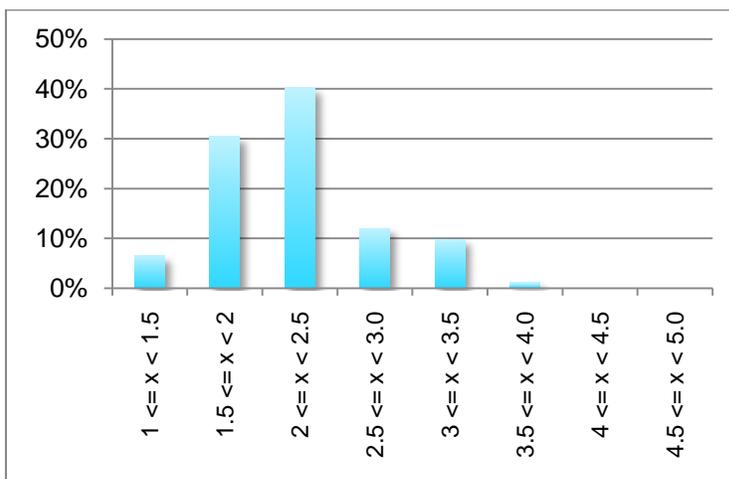


Figure 3.1 Overall Maturity Scores

Interestingly this picture is surprisingly close to that reported in a 2001 MDM market maturity assessment conducted by MetaGroup. While this might seem like no progress has been made over the last decade, the reality is that the world has become more complex since then in terms of compliance requirements and the increasing need for transparency and high quality data.

While most large organizations have invested heavily in trying to get in control of Master Data, these organizations also have the greatest challenges in terms of company politics, geographical distribution, heterogeneous systems landscapes, etc. The challenges may have been further exacerbated by merger and acquisitions that have left many organizations with a disparate and fragmented Master Data landscape.

Furthermore, the understanding of how a world class organization should be managing its Master Data has certainly increased thanks to a myriad of conferences and articles about the topic – not to mention the push from software and consulting companies encouraging organizations across the world to improve the way they manage their Master Data.

3.1 Mission Perspective

The mission perspective is about alignment of the MDM and data governance initiative with business strategy, requirements and expectations.

Level	Typical characteristics of an organization on this level
1. Unaware	There is no MDM strategy. MDM initiatives are not aligned with the business strategy. New initiatives are not coordinated across platforms or master data entities.
2. Reactive	MDM initiatives are reactively based on business requirements. MDM projects are not well coordinated, and not able to keep up with business needs, which often results in local, single function or silo solutions.
3. Proactive	MDM initiatives are coordinated with the business strategy. Plans are made to cover all master data entities in one overarching program.
4. Managed	MDM initiatives are coordinated in a common program that supports all business areas. MDM program is actively involved with the business to proactively anticipate requirements.
5. Optimized	Robust and business aligned MDM program is fully implemented and continuously seeks to improve ways to manage master data.

Figure 1.2 The five levels of maturity in the Mission Perspective

As illustrated below the majority of respondents are at level 2, with around 20% at level 3, 25% at level 1 and 1% at level 4. Clearly an indication of how difficult this aspect of MDM is. Proper alignment between MDM and business objectives is a challenging issue, and a clear holistic MDM strategy that is closely aligned with the business strategy is still not common in organizations.

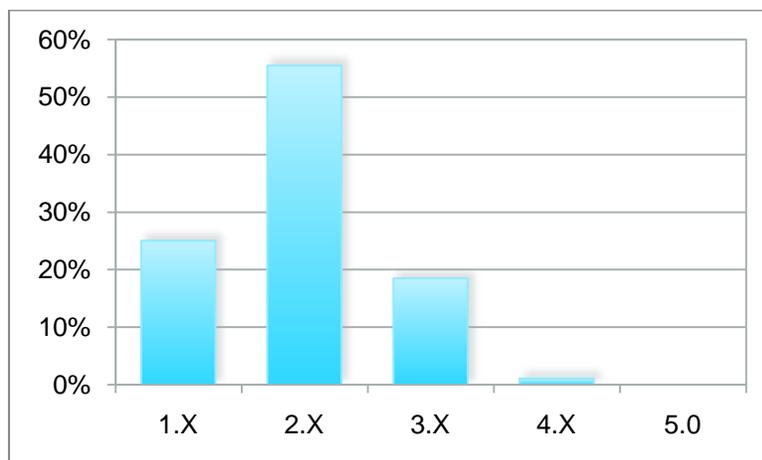


Figure 3.3 Distribution of Maturity Scores in the Mission Perspective

The diagram below shows the survey average scores for each of the 7 measurement points in the mission perspective.

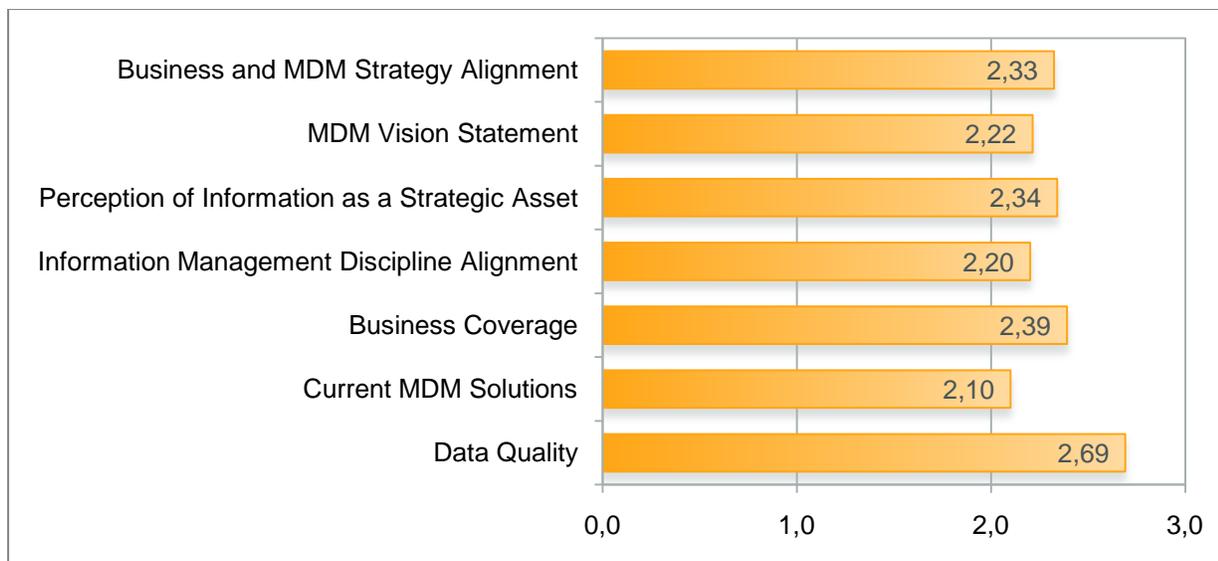


Figure 3.4 Survey Average Scores for Measurement Points in the Mission Perspective

The scores, along with our experience from working with organizations of all sizes across industries, tells us many companies are yet to define an enterprise approach to MDM. And despite investments in MDM software, many respondents found that their current MDM solutions did not meet their expectations.

Surprisingly many organizations rate the quality of their data relatively high, which we believe is due to significant investments in data quality tools and data cleansing efforts that have been made over the last couple of years.

3.2 Architecture

The Architecture perspective addresses where Master Data is entered and how it is synchronized between IT systems to achieve a single version of the truth. This perspective also assesses to which extent common business definitions for data exists and are used.

Level	Typical characteristics of an organization on this level
1. Unaware	No or little awareness of architectural principles. Integration between IT-systems is point-to-point. Data is not formally modeled.
2. Reactive	Simple architecture defined. Only a few Master Data entities considered. Many systems are still Master Data silos. A few data entities are modeled.
3. Proactive	There is a defined Master Data architecture with transition plans. Integration architecture is defined. Meta Data architecture may be defined. Master Data definitions are agreed on and maintained.
4. Managed	A complete Master Data architecture is defined. Data cleansing is addressed. Meta Data is used actively. Robust Enterprise Information model defined and managed.
5. Optimized	Enterprise Information Model is managed. Master Data architecture fully implemented and supports easy integration of new systems and data to/from external parties.

Figure 3.4 The five levels of maturity in the Architecture Perspective

As illustrated below, 28% of organizations find themselves at level 1, 61% at level 2 and 11% at level 3. Not a single respondent rates their organization at level 4 or 5 when averaged across all the architecture measurement points.

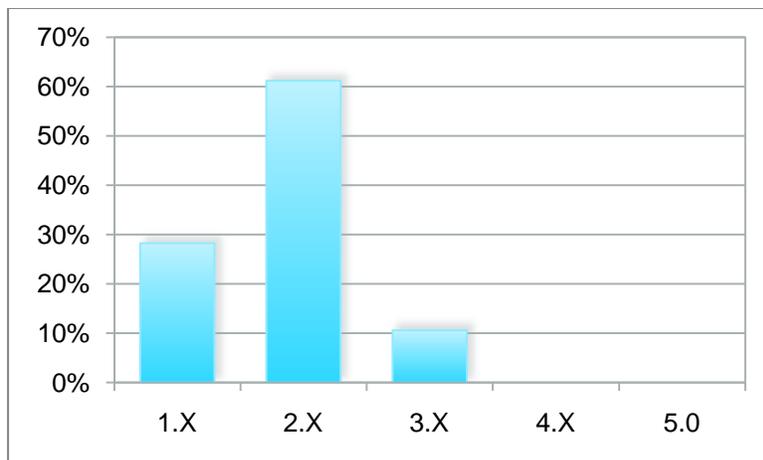


Figure 3.5 Distribution of Maturity Scores in the Architecture Perspective

The diagram here shows the survey average scores for each of the 5 measurement points in the Architecture Perspective.

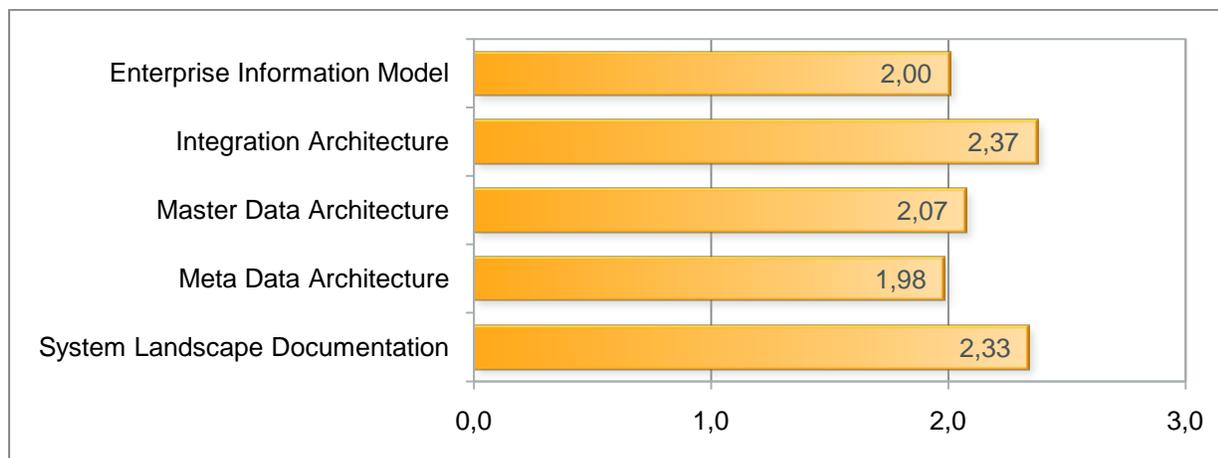


Figure 3.6 Survey Average Scores for Measurement Points in the Architecture Perspective

Establishing common business definitions around data and information, also known as an Enterprise Information Model, is something a lot of organizations have started, yet most have far to go. Challenges seem to be related to disagreements between divisions and departments, insufficient funding for information modeling and lack of understanding of the importance of this discipline.

Very few organizations are sufficiently in control of how Master Data is synchronized across systems, but most are aware of the issues and are working to address them. Though, while we often see organizations

with a clearly defined end-state for their architecture, a manageable transition plan for how to get there is often missing.

3.3 Technology

The Technology perspective assesses the extent to which standardized technologies for MDM have been acquired and implemented, and whether these tools meet the business requirements.

Level	Typical characteristics of an organization on this level
1. Unaware	No dedicated tools for Master Data Management.
2. Reactive	Some tools managing Master Data exist in the organization but they are used on ad hoc basis.
3. Proactive	Standard Master Data tools have been implemented and support most business areas. Tools for profiling and cleansing are adopted.
4. Managed	Robust tools including workflow, data cleansing, profiling and Master Data repository are used in an integrated manner.
5. Optimized	Complete integrated technology stack for Master Data Management is used across the organization.

Figure 3.7 The five levels of maturity in the Technology Perspective

This is the only perspective where the majorities (47%) of the respondents are at level 1, with 44% at level 2 and 9% at level 3.

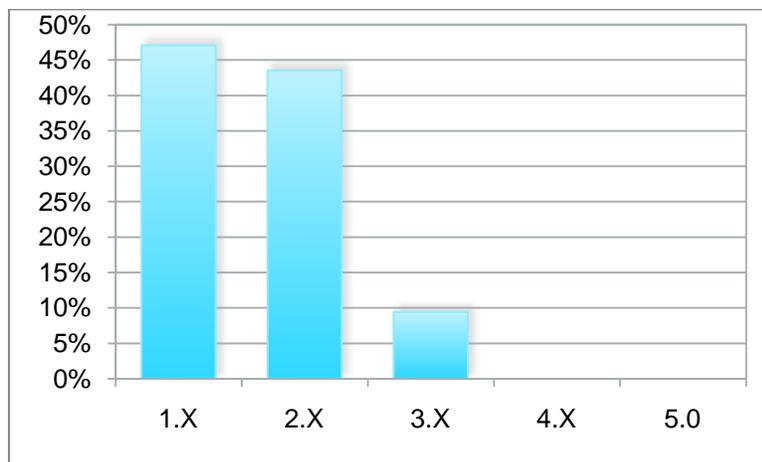


Figure 3.8 Distribution of Maturity Scores in the Technology Perspective

The diagram below shows the survey average scores for each of the 8 measurement points in the Technology Perspective. And there are significant differences in maturity between the different types of tools. Standard ETL and Integration tools have been defined in nearly every organization, while newer tools like data quality and Master Data repositories are lacking behind. Many companies have acquired these tools, but often at departmental level to support one or two business areas. It’s not uncommon for larger organizations to have multiple Master Data repositories for instance – somewhat defeating the purpose of having one in the first place.

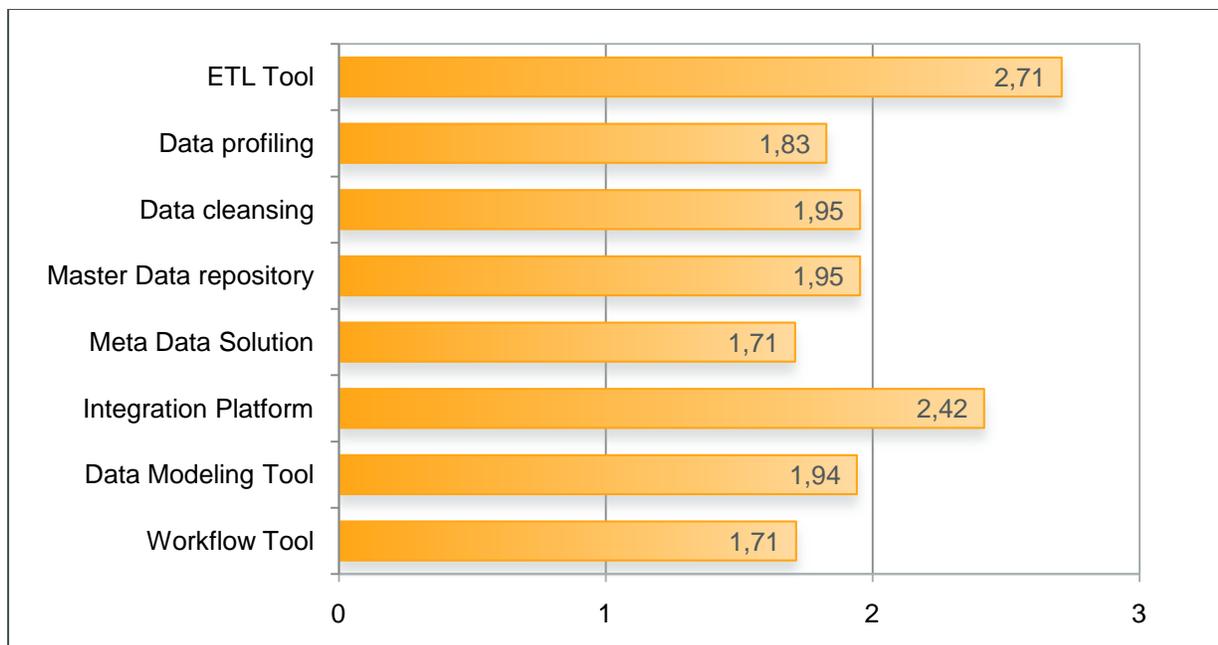


Figure 3.9 Survey Average Scores for Measurement Points in the Technology Perspective

Another reason behind the lack of agreement of standard technologies is mergers and acquisitions, where the different pre-merger organizations had their own standard tools.

3.4 Organization

The Organization perspective is about roles and responsibilities around MDM including, business data ownership, decision forums, operational stewardship, IT support organization, etc.

Level	Typical characteristics of an organization on this level
1. Unaware	MDM/data governance teams have not been defined. Skills are lacking seriously.
2. Reactive	A team has been defined, but executive sponsorship is lacking. No formalized roles and skills are lacking.
3. Proactive	Some executive commitments exist. MDM/data governance Team appropriately staffed with sufficient skills. Business is taking ownership for Master Data.
4. Managed	Clear Executive commitment and strong MDM/data governance team with significant experience. Clearly defined business ownership around Master Data.
5. Optimized	Very mature MDM/data governance team with clear roles and responsibilities at the business and the IT side.

Figure 3.10 The five levels of maturity in the Organization Perspective

Getting the organizational aspect right has always been one of the most challenging hurdles of MDM. And for 91% of the respondents this is still work in progress. Only 9% of organizations in the survey feel they have a robust MDM team in place and a committed business that takes ownership for data.

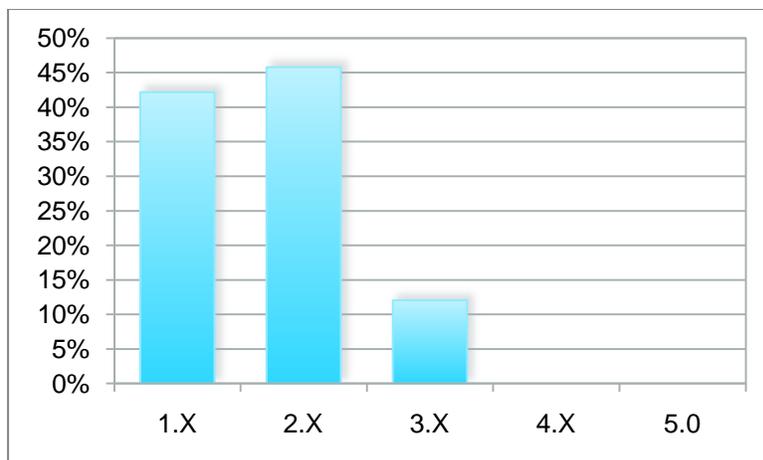


Figure 3.11 Distribution of Maturity Scores in the Organization Perspective

The diagram below shows the survey average scores for each of the 8 measurement points in the Organization Perspective. An interesting observation is that the highest score is the IT commitment, indicating that the IT department and often the CIO understand the importance of managing Master Data well. But when it comes to getting the business to take ownership and to the implementation of a strong Center of Excellence for Data Management that supports an enterprise MDM initiative, there is clearly still room for improvements.

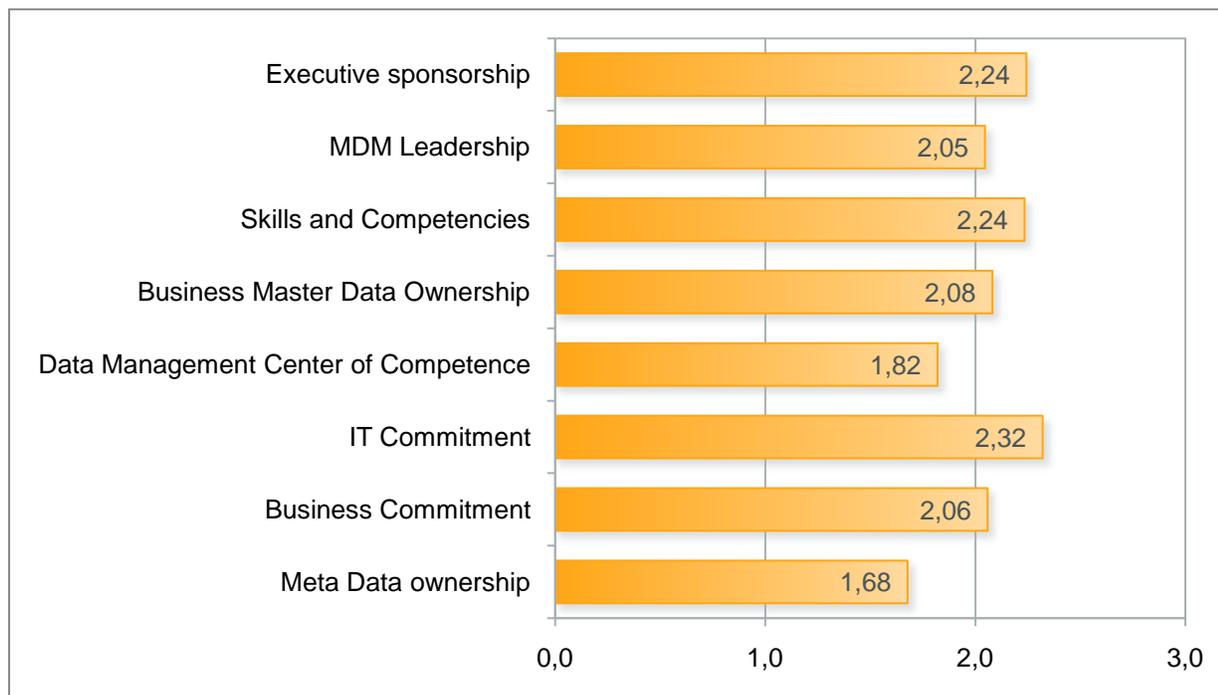


Figure 3.12 Survey Average Scores for Measurement Points in the Organization Perspective

3.5 Policies

The Policies perspective assesses elements like funding model, project and program management maturity.

Level	Typical characteristics of an organization on this level
1. Unaware	No policies for Information or Master Data Management exist.
2. Reactive	No cross-organizational policies for master data management exist. No common framework or methodology is followed.
3. Proactive	Some cross-organizational policies are being implemented. Some framework or methodology for working with data exist.
4. Managed	Policies are being managed. Clear prioritization, planning and management of all aspects of data. Clear data governance model implemented. Robust framework or methodology is implemented and followed.
5. Optimized	Everything is managed through one common program for Information Management. Clear prioritization, planning and management of all aspects. Everyone is fully aware of procedures and act accordingly.

Figure 3.13 The five levels of maturity in the Policies Perspective

As illustrated below, 34% of organizations find themselves at level 1, 55% at level 2 and 11% at level 3, when it comes to the maturity or their MDM related policies. No one rated their organization at level 4 or 5 when averaged across all of the policies measure points.

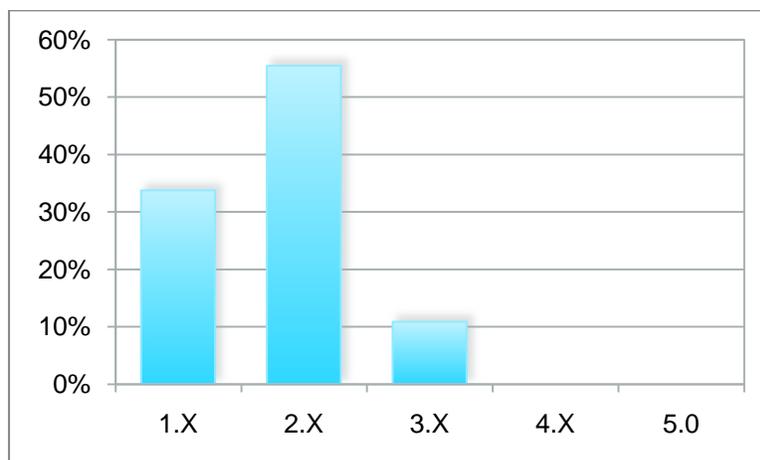


Figure 3.14 Distribution of Maturity Scores in the Policies Perspective

Not surprisingly, project management practices are generally strong, while program management and cross-project coordination is still maturing. This is a serious problem for successfully managing enterprise Master Data, as uncoordinated IT projects are one of the main root causes of today's MDM challenges.

Few companies have a dedicated methodology for MDM projects. They either use a standard system development process or nothing at all. And too often projects are run in silos without common policies that ensure reuse of existing data and definitions.

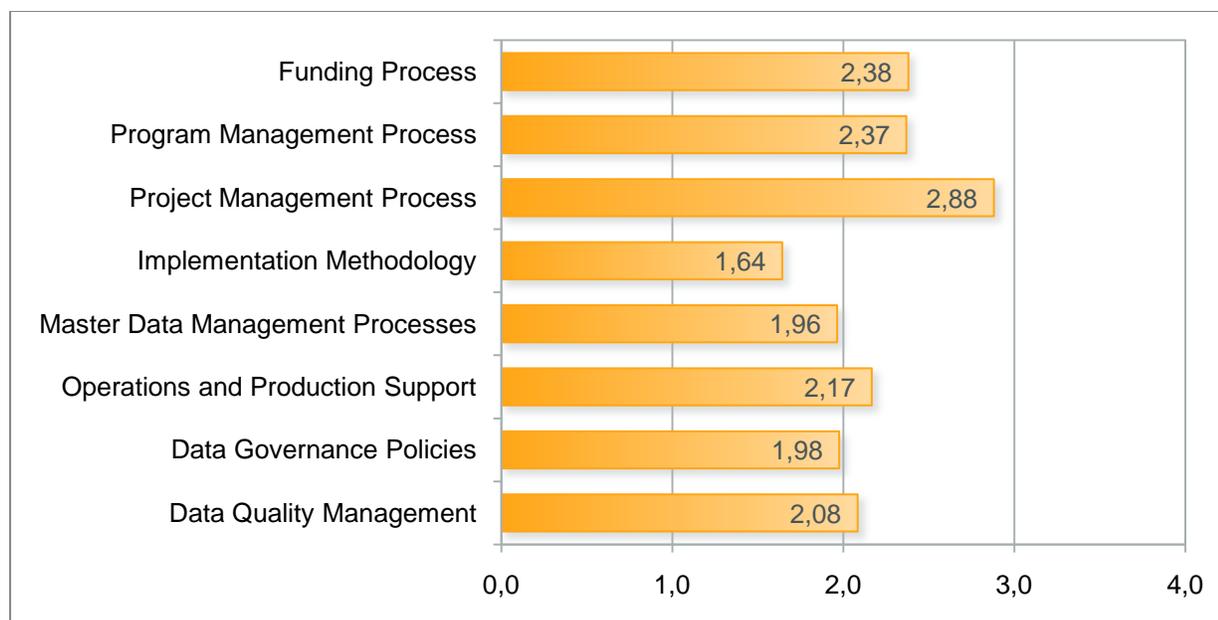


Figure 3.15 Survey Average Scores for Measurement Points in the Policies Perspective

4.0 Conclusion

There are certainly differences in the maturity among the different regions of the world and between industries. To have the broadest appeal, this paper has only presented the overall scores and observations.

It's clear that MDM is an important topic to organizations everywhere, and the survey clearly indicates that managing your Master Data is work in progress for most. To ensure you focus on the right aspects of MDM, we believe it is essential that you understand your current situation, where there are gaps, and how both impact on the achievement of your business objectives.

The maturity assessment survey described in this white paper is a light-weight version of our maturity assessment consultancy offering.

For more information on how Platon can help you assess the maturity level of your organization, identify areas of improvements and balance long term strategy with short term benefits, please visit www.platon.net or contact Practice Director Thomas Ravn at tra@platon.net.

5.0 Platon

Platon is a leading global independent consulting company, specializing exclusively in Information Management, which covers: Business Intelligence, Performance Management, Data Warehousing, Master Data Management, Information Life Cycle Management and Data Integration.

Platon does not sell hardware or software, but concentrates solely on consulting, project management, solution implementation, support and training. Over the last 10 years Platon have successfully solved the toughest Information Management related challenges in over 300 organizations worldwide.

The Platon Group has offices in Denmark, Sweden, Norway, Finland, Iceland, United Kingdom, USA and Australia, and currently has over 200 competent and highly qualified employees. For more information please visit www.platon.net.