

Rating Your Data Stewardship Maturity

INTRODUCTION

A Data Stewardship effort matures as you develop it and noting the (hopefully) advancing maturity can be a great way to show progress (in addition to the metrics discussed in Chapter 8: Measuring Data Stewardship Progress: The Metrics). Measuring the maturity of an effort helps to quantify that progress and enables the stakeholders in the Data Stewardship effort to provide their input on the effort.

DEFINING A DATA STEWARDSHIP MATURITY MODEL: LEVELS AND DIMENSIONS

Maturity can be thought of as occurring in levels, and through several *dimensions*. Each of the dimensions can be rated as having a different maturity level. By laying out the dimensions and levels in a grid (as will be discussed in this chapter) you can show the current maturity as well as the target maturity.

There are many capability and maturity models (CMM) for data quality and given that one of the primary goals of Data Stewardship is to improve data quality, it is no surprise that the maturity model presented bears many similarities to those presented by others. For example, in chapter 3 of *Information Quality Applied (Information Quality Applied: Best Practices for Improving Business Information, Processes, and Systems*, Wiley, 2009) Larry English presents the Information Quality Maturity Management Grid. This grid (adapted from P.B. Crosby's Quality Management Maturity Model) shows how a data quality effort progresses from Uncertainty (ad-hoc) to Certainty (optimizing) across six categories. In chapter 3 of David Loshin's book *The Practitioner's Guide to Data Quality Improvement (The Practitioner's Guide to Data Quality Improvement*, Elsevier, 2011), Loshin catalogs eight sets of Component Maturity Model Descriptions (including one for Data Governance). Loshin details how each of the eight topics (such as Data Quality Expectations, Data Quality Protocols, Information Policies, etc..) progresses through five levels of maturity; moving from Initial to

Repeatable, Defined, Managed, and Optimized. This exceptionally detailed set of Component Maturity descriptions is an excellent resource in constructing your own maturity model.

DATA STEWARDSHIP MATURITY LEVELS

The maturity model presented here has five levels, not including “level zero” where there is no Data Governance or Data Stewardship at all. Each level can be broken down further into four categories. You may want to start from this model and customize it to suit your own needs.

Maturity Level 1: Initial

- *Response to data issues:* This level is “Reactive”; it shows response to issues as they arise with no attempt to prevent them from happening. Root cause analysis begins as the realization is made that just fixing the data in the target data store doesn’t work. Areas to correct become more apparent. Processes form around fixing data issues; those charged with “fixing data” recognize patterns of issues and develop a framework around fixing them. Documenting of resolution processes begins to occur.
- *Attitude of management:* Perception that poor data quality is an IT issue and not a business issue. There is little encouragement to form an organization to manage data and metadata.
- *Handling of Metadata:* Attempts at cataloging and managing data definitions and other metadata are scattered and there is no centralized effort to gather and document metadata.
- *Development of formal organization and structure:* Small teams form to recommend changes.

Maturity Level 2: Tactical

- *Response to data issues:* Data issues are starting to be responded to using repeatable processes that are becoming more formalized. Individuals charged with “fixing data” may begin to see stewardship duties in job descriptions and objectives that reflect those duties.
- *Attitude of management:* Data quality is still seen as an IT issue, though there is more involvement from business areas that are affected by poor quality data. There is recognition that business areas are responsible for their metadata, data, and data quality.
- *Handling of Metadata:* There is a recognized need to gather metadata around systems and applications and to store that metadata in a central location such as a Metadata Repository.

- *Development of formal organization and structure:* Business Data Stewardship is beginning to appear, as are some Data Governance standards. These are limited to a few business functions that are most affected by data issues. Data ownership is beginning to be recognized as well.

Maturity Level 3: Well-defined

- *Response to data issues:* Data quality issues are being rigorously tracked. The organization includes risk assessment for data quality in project processes. Data integration efforts begin and include Data Stewardship as a crucial participant. Data quality metrics are beginning to be measured.
- *Attitude of management:* Business areas are stepping up to own their data. The importance of data and data quality is communicated across the enterprise. Business and IT partner to support Data Governance and data quality.
- *Handling of Metadata:* The need for robust business metadata is recognized and it is stored in a central location such as a Business Glossary.
- *Development of formal organization and structure:* Standards are developed, documented, and communicated. The change process now includes data quality and Data Governance as the corporate culture changes to embrace these disciplines. Performance metrics for Data Governance and Data Stewardship are beginning to be measured. A formal Data Stewardship Council and Data Governance Board have been instituted, however, not all business functions are represented. The beginnings of a Data Governance Program Office are in place.

Maturity Level 4: Strategic

- *Response to data issues:* Tools are added for data quality and profiling with ongoing improvement efforts. Data Stewards are always involved in data quality improvement efforts. Risk assessments for data around projects are done early. Data quality issues and resolutions are measured, monitored, and communicated.
- *Attitude of management:* Data Governance and Data Stewardship metrics have become a primary corporate measurement of success in managing data across the enterprise. Senior management drives Data Governance strategy. Data is seen as a valuable corporate asset. Accountability for quality and understanding of data is practiced across the enterprise. Data quality is a corporate objective, not a business or IT problem. Ongoing investments in managing data and

Metadata are supported and championed. Stewardship metrics are included in assessments of projects and employee performance.

- *Handling of Metadata:* Expertise increases in metadata management and Master Data Management. Single sources of the truth for both metadata and data are identified and documented. All key business data elements have full metadata collected quickly and efficiently.
- *Development of formal organization and structure:* All business functions are represented in Data Governance and Data Stewardship, and participation is mandatory. The executive leadership team gets regular updates and handles escalated issues quickly and efficiently. The Data Governance Program office is fully staffed and funded, and reports progress, metrics, and issues to senior leadership on a regular basis.

Maturity Level 5: Optimized

- *Response to data issues:* Innovation becomes key in maintaining the vision of improving data quality and remediating data issues. Requirements are in place to safeguard data quality from outside business partners.
- *Attitude of management:* The Corporation is ready to innovate where Data Governance/Data Stewardship and data quality are concerned. Innovation drives the vision of Data Governance. Management and the Data Governance staff keep abreast of important emerging trends in data management and adapt accordingly. Creativity and competitive advantage in using high-quality data is encouraged. Staff is freed up to explore new ideas and new technologies.
- *Handling of Metadata:* All metadata is collected and stored in a central repository. Data profiling results are used to automatically open and remediate issues on an ongoing basis.
- *Development of formal organization and structure:* Data Governance and Stewardship expand to incorporate outside business partners. Standards and controls are in place and have become the corporate culture. The company is considered an example of good Data Governance and Data Stewardship in the global business community.

DATA STEWARDSHIP MATURITY DIMENSIONS BY LEVEL

The dimensions of Data Stewardship maturity establish the measurement criteria for evaluating each of the five maturity levels. For example, the Value Creation dimension starts in *Level 1: Initial* with no stewardship

value recognized and unknown values of the data. In *Level 5: Optimized* Data Stewardship has a proven track record of driving value. *Level 3: Well-defined* is where the value of data is becoming well recognized. As stated previously, in this model there are four of these dimensions, namely Organizational Awareness; Roles and Structures; Standards, Policies, and Processes; and Value Creation.

Organizational Awareness

The Organizational Awareness dimension rates how well Data Stewardship is integrated into the organization, sponsorship, and the development of the metrics. [Table 9.1](#) shows the various levels of maturity for Organizational Awareness.

Table 9.1 Organizational Awareness Dimension by Maturity Level	
Level	Description
Initial	<ul style="list-style-type: none"> ● <i>Data Stewardship integrated into the organization:</i> Business areas look to IT to manage data. ● <i>Sponsorship:</i> Data Stewardship may be defined for some business applications. Some local subject matter experts are promoting the value of Business Data Stewardship for data quality, but are gaining little support. ● <i>Development of the metrics:</i> There are no Data Stewardship metrics (and probably few data management metrics).
Tactical	<ul style="list-style-type: none"> ● <i>Data Stewardship integrated into the organization:</i> The need for both business and IT roles in the management of data is emerging. Localized teams or individuals are becoming champions of Data Stewardship and data management practices within the organization. Efforts to educate and raise awareness of the value of Data Stewardship are occurring in isolation. ● <i>Sponsorship:</i> Some business areas are demonstrating success in adopting a Data Stewardship approach and gaining executive-level visibility and support. ● <i>Development of the metrics:</i> Some metrics for Data Stewardship participation are being proposed. "Anecdotal metrics" around data quality are being communicated.
Well-Defined	<ul style="list-style-type: none"> ● <i>Data Stewardship integrated into the organization:</i> Efforts are underway to raise awareness of the value of data management and the need for Data Stewardship across the organization. There is recognized (and endorsed) need for both business and IT accountabilities for data management. ● <i>Sponsorship:</i> A corporate executive sponsor has emerged. A push for a corporate-level Data Stewardship program has also begun. ● <i>Development of the metrics:</i> Metrics for operational/participation Data Stewardship are in place and being measured. Some participation metrics are being built into evaluations of the Business Data Stewards. Business results metrics (how Data Stewardship supports the data program) are being proposed. Direct impacts to improvements in data quality are being measured and published, however, there is a lack of acceptance that Data Stewardship is responsible for better data quality.
Strategic	<ul style="list-style-type: none"> ● <i>Data Stewardship integrated into the organization:</i> Data Stewardship has become part of an enterprise-wide Data Management/Data Governance framework. Data Stewardship has been integrated into the IT development processes. Education about Data Stewardship is being provided to all employees.

Continued

Roles and Structures

The Roles and Structures dimension rates how well-defined the Data Stewardship roles are as well as how effectively those roles are being staffed and executed. In addition, this dimension rates the completeness and integration of the supporting structures. [Table 9.2](#) shows the various levels of maturity for Roles and Structures.

Table 9.1 Organizational Awareness Dimension by Maturity Level *Continued*

Level	Description
	<ul style="list-style-type: none">● <i>Sponsorship</i>: There is broad executive understanding and support of the need for Data Stewardship across functional areas and business processes.● <i>Development of the metrics</i>: Participation metrics and business results metrics are in place and are built into the evaluations of Data Stewards. A formalized method for gauging the value of improving data quality is in place and a portion of that value is attributed to the Data Stewardship effort.
Optimized	<ul style="list-style-type: none">● <i>Data Stewardship integrated into the organization</i>: Data Stewardship is implemented at the corporate level. Formal data management programs and metrics are in place. Data Stewards are viewed as an integral and necessary part of data management.● <i>Sponsorship</i>: Ongoing communication and education across the organization is occurring such that all employees understand their responsibilities in managing data and understand that the mandate for Data Stewardship comes from the very top—and is actively supported in all levels of the organization.● <i>Development of the metrics</i>: The responsibility of all employees for the management of data is accepted as part of the corporate culture, and a portion of every employee’s evaluation reflects the importance of data as a corporate asset.

Table 9.2 Roles and Structures Dimension by Maturity Level

Level	Description
Initial	<ul style="list-style-type: none">● <i>How well-defined Data Stewardship roles are</i>: Each business and IT team define their own data roles based on specific data management needs such as data definition, quality, access, protection, and retention.● <i>How effectively Data Stewardship roles are staffed and executed</i>: There is little commonality or opportunity for reuse and it is unclear whether accountability for specific data is achieved from an end to end perspective. There is a lack of a corporate-wide approach or oversight in the creation of data management roles.● <i>Completeness and integration of supporting structures</i>: Each business and IT team define their own supporting structures (such as steering committees and data subject matter expert groups). There is a lack of a corporate-wide approach in the establishment of supporting structures.
Tactical	<ul style="list-style-type: none">● <i>How well-defined Data Stewardship roles are</i>: In some business areas accountabilities for data management are more formalized and described. Some delineation of business and IT roles are in place.

Continued

Table 9.2 Roles and Structures Dimension by Maturity Level *Continued*

Level	Description
	<ul style="list-style-type: none"> ● <i>How effectively Data Stewardship roles are staffed and executed:</i> A Data Stewardship position may be established, but there is no mechanism to ensure that the accountabilities of this role are consistent with other business areas. ● <i>Completeness and integration of supporting structures:</i> Consistency of supporting structures is beginning to spread across business units, especially those that must work together to solve data quality issues. A group of managers from different units may be working together to solve data issues, effectively performing some of the duties of the Data Governance Council. However, they have not officially been designated with the appropriate authority.
Well-Defined	<ul style="list-style-type: none"> ● <i>How well-defined Data Stewardship roles are:</i> A corporate level Data Stewardship program is being defined and communicated. A framework of standard data management roles and responsibilities at all levels is available to support implementation. Respective accountabilities of business and IT roles in data management are explicitly defined. ● <i>How effectively Data Stewardship roles are staffed and executed:</i> Stewardship is being implemented in some business areas or for critical data. The sponsoring executive is actively promoting the adoption of Data Stewardship across the enterprise. ● <i>Completeness and integration of supporting structures:</i> Supporting structures such as centers of competency, decisioning committees, or councils are defined and becoming established.
Strategic	<ul style="list-style-type: none"> ● <i>How well-defined Data Stewardship roles are:</i> Roles and responsibilities for Data Stewards are clearly and consistently defined and measured. Data Stewardship is seen as a business responsibility. ● <i>How effectively Data Stewardship roles are staffed and executed:</i> Business Data Stewards with the necessary skills have been designated from the appropriate business functions. The Data Stewards have been trained and are performing their responsibilities. ● <i>Completeness and integration of supporting structures:</i> A Data Stewardship Council has been established across the organization and is operating in conjunction with the Data Governance Board and Data Governance Program Office.
Optimized	<ul style="list-style-type: none"> ● <i>How well-defined Data Stewardship roles are:</i> Everybody in the organization understands their role in managing data and information. They also recognize the Business Data Stewards as the key players in managing data and resolving data issues. ● <i>How effectively Data Stewardship roles are staffed and executed:</i> Data Stewardship is fully integrated and rationalized with Data Governance and development processes. The Data Stewards work together as a cohesive team in full cooperation with each other. They also work to support projects. ● <i>Completeness and integration of supporting structures:</i> Data Stewardship is fully integrated and rationalized with enterprise structures.

Standards, Policies, and Processes

The Standards, Policies and Processes dimension rates how well-defined the framework for supporting policies, processes, practices, and standards is. In addition, the existence and robustness of the policies, processes, practices, and standards themselves are rated. Finally, having executive support (endorsement) of the policies is a critical success factor and the level of endorsement increases with increasing maturity. [Table 9.3](#) shows the various levels of maturity for Standards, Policies, and Processes.

Table 9.3 Standards, Policies, and Processes Dimension by Maturity Level

Level	Description
Initial	<ul style="list-style-type: none"> ● <i>How well-defined is the framework for supporting and sharing policies and processes:</i> There is little or no framework for supporting standards, policies, and processes. ● <i>Existence and robustness of the standards, policies, and processes:</i> For data, IT development and operations standards exist. There may be some business standards for data management or methods for business areas and/or Stewards to deploy. Business data standards may exist at the application or business area level, but only a few are promoted enterprise wide. ● <i>Executive support and endorsement of the policies:</i> There is little or no executive support or endorsement.
Tactical	<ul style="list-style-type: none"> ● <i>How well-defined is the framework for supporting and sharing policies and processes:</i> Successful local practices are shared with other business areas and some best practices are emerging. ● <i>Existence and robustness of the standards, policies, and processes:</i> Data management principles and guidelines are emerging in business areas based on business, legal, or regulatory drivers. A complete set of standards and methods have not been developed, nor is there an understanding of all that is required. ● <i>Executive support and endorsement of the policies:</i> The need for enterprise-wide standards and practices has been identified.
Well-Defined	<ul style="list-style-type: none"> ● <i>How well-defined is the framework for supporting and sharing policies and processes:</i> An enterprise-wide data management policies and standards program is defined. ● <i>Existence and robustness of the standards, policies, and processes:</i> Selected best practices are elevated to de facto standards. There is early adoption in selected business areas and projects. ● <i>Executive support and endorsement of the policies:</i> There is board-level endorsement to develop and implement corporate-level data management standards. Executive sponsorship and support for standards is strengthening.
Strategic	<ul style="list-style-type: none"> ● <i>How well-defined is the framework for supporting and sharing policies and processes:</i> Enterprise-wide data management and Data Governance frameworks are defined for standards and policies. Processes have become more standardized across the organization as the push for the adoption of standards and practices through review and audit mechanisms increases. ● <i>Existence and robustness of the standards, policies, and processes:</i> Stewardship processes have been defined, and are measured and monitored. ● <i>Executive support and endorsement of the policies:</i> There is a focus on teaching and promoting the standards, processes, and policies across the organization. The executives endorse the policies and promote the education of employees.
Optimized	<ul style="list-style-type: none"> ● <i>How well-defined is the framework for supporting and sharing policies and processes:</i> Data management and Data Stewardship standards and practices are in place and under continuous improvement. ● <i>Existence and robustness of the standards, policies, and processes:</i> Broad adoption of all standards has occurred across the enterprise. Exception management processes are in place. ● <i>Executive support and endorsement of the policies:</i> There is continued communication and education about policies to employees for compliance. Executives are publicly supporting the policies and actively promoting adherence to them as well as the creation of procedures to implement the policies.

Table 9.4 Value Creation Dimension by Maturity Level

Level	Description
Initial	<ul style="list-style-type: none"> ● <i>Recognition of the value of data:</i> Data is purely seen in context of executing operational transactions. Data issues are seen as “IT issues.” ● <i>Recognition of the value of Data Stewardship:</i> The value of Data Stewardship and data is not explicitly known.
Tactical	<ul style="list-style-type: none"> ● <i>Recognition of the value of data:</i> Data is beginning to be used to gain insight into how business areas can improve operations and cut costs. ● <i>Recognition of the value of Data Stewardship:</i> Stewards prove the value of good data management practices in selected projects or business areas. Improved data quality and success of projects are seen as “wins.” Value is recognized and communicated across the organization.
Well-Defined	<ul style="list-style-type: none"> ● <i>Recognition of the value of data:</i> Forward-thinking business functions and analytics gain competitive advantage. ● <i>Recognition of the value of Data Stewardship:</i> Business Data Stewards help to use information in new ways to gain additional business insights and leverage business capabilities.
Strategic	<ul style="list-style-type: none"> ● <i>Recognition of the value of data:</i> Data is recognized as a key business asset to be managed in most business functions with a focus on improving the quality of the data. ● <i>Recognition of the value of Data Stewardship:</i> Stewardship and data management metrics are established with a clear understanding of the value of improving data quality, cost reduction through standardization and reuse, and customer satisfaction.
Optimized	<ul style="list-style-type: none"> ● <i>Recognition of the value of data:</i> Treating data as a business asset is firmly embedded in the corporate culture. ● <i>Recognition of the value of Data Stewardship:</i> Data Stewardship has a proven track record of driving tangible business value. Stewards are change agents that enable business value through leveraging data assets.

Value Creation

The Value Creation dimension rates the recognition of the increasing value of data as well as the recognition within the organization of the value of Data Stewardship. [Table 9.4](#) shows the various levels of maturity for Value Creation.

GATHERING THE MATURITY MODEL EVALUATION DATA

To evaluate the current state of maturity, it is necessary to gather information from a wide variety of people who work with data. This is typically done via a survey that consists of carefully chosen questions which align to the dimensions. The answers to these questions provide the data from which the level of maturity in each dimension can be calculated. For example, [Table 9.5](#) shows questions that align to the dimensions and could be included in the survey.

Table 9.5 Sample Survey Questions by Maturity Model Dimension

Dimension	Questions
Organizational Awareness	<ul style="list-style-type: none"> ● Most of our management and leadership team are aware of Data Stewardship and Data Governance. ● Most managers show interest in and actively support Data Stewardship activities across the line of business. ● A Data Stewardship Council exists, is adequately resourced, and is enabled to address most of the Data Stewardship needs in the enterprise. ● A communication plan designed to convey Data Stewardship objectives exists and has been implemented. ● All managers favor Data Stewardship activities and may have included Data Governance projects in their budget. ● A formal communication plan has been implemented that the entire organization embraces and leverages.
Roles and Structures	<ul style="list-style-type: none"> ● Organizational roles are designated, funded, and staffed to develop and maintain standards. ● You can easily describe your organization's main products and services. ● IT is closely aligned to the business. ● You can easily describe your structure and governance system. ● Individuals are assigned to stewardship roles and are visible, respected, and influential. ● Managers of functional organizations are responsible for mapping individuals to stewardship roles. ● Individuals assigned to stewardship roles possess a passion for quality as well as the required skills and knowledge.
Value Creation	<ul style="list-style-type: none"> ● The value of Data Governance and Data Stewardship is accepted at all levels of the organization. ● Are you able to put a monetary value on your data? ● All managers understand the value of Data Stewardship and have formed a partnership to champion its cause. ● There is a communication plan that provides a means for demonstrating the value of the Data Stewardship program throughout the entire organization.

One thing you should notice right away is that the “questions” are actually statements, which the survey participants can agree with (Yes), disagree with (No), or partially agree with (Partial). Something else you need to be careful with is that the answers to the questions (Yes or No) always change the rating of the maturity in the same direction. For example, in the list of questions provided, a “Yes” answer indicates a higher maturity score, whereas a “No” answer always indicates a lower maturity score. This is important because the survey results are converted into numerical scores. Thus if a “Yes” answer sometimes means a higher maturity score and sometimes means a lower maturity score, the calculations get much more complex.

Table 9.6 Level Setting for Organizational Awareness Maturity Dimension

Level	Score Range
0: None	0–5
1: Initial	6–13
2: Tactical	14–20
3: Well-defined	21–25
4: Strategic	26–30
5: Optimized	31–37

EVALUATING THE RESULTS OF THE MATURITY SURVEY

As noted previously, a set of calculations is performed based on the answers to a survey. At its simplest level, a numerical value is assigned to each answer, and a range of values is chosen that sets which level of the dimension to pick. For example, [Table 9.6](#) shows a possible range for the Organizational Awareness dimension. Note that the range of scores for each level will vary with the dimension since the number of questions (and, thus, the maximum score) will be different for each dimension.

MEASURING PROGRESS IN MATURITY

The most useful way to use the designated levels and dimensions of Stewardship maturity is to lay them out in a grid, as shown in [Fig. 9.1](#). By examining the intersection of each dimension with each level (as detailed in [Tables 9.1–9.4](#)), you can rank your Stewardship maturity for each dimension. [Fig. 9.1](#) shows the appropriate cells (intersection of the current level in each dimension) circled.

The next step is to have the Data Stewards recommend (and the Data Governors approve) the target levels for each dimension. It is not always possible or necessary to get to *Level 5: Optimized* in each dimension, but the Data Stewards and Data Governors should set the goals that the organization will strive for, and the goals should be to show progress in increasing the level of maturity. These goals can then be documented by the arrows stretching from the current state to the target goals in the grid, as shown in [Fig. 9.2](#).

Once you have your initial level for each dimension recorded, you should periodically revisit (perhaps every 6 months) the Stewardship

NOTE

In this example a value of 1 was used for each “Yes” answer, a value of 0 was used for each “No” answer, and a value of 0.5 was used for each “Partial” answer.

It is important to point out that the calculation is more complicated than previously described. You need to deal with averages and choose whether the average is taken across the entire population or only particular business functions. For example, some of the more technically focused questions are better answered by participants in IT. Further, you need to deal with questions that are skipped because a participant has no real idea of the answer.

	Level 1	Level 2	Level 3	Level 4	Level 5
	Initial	Tactical	Well-defined	Strategic	Optimized
Organizational awareness	IT manages data ; BDS defined for some business applications ; local SMEs promoting BDS for DQ.	Some business areas having success in adopting Data Stewardship ; Some executive support ; local teams or individuals championing Data Stewardship and DM. Isolated attempts to educate and raise awareness. Some recognition of needing both business and IT in effort .	Corp executive sponsor emerges . Need for Data Stewardship across org. Need for business and IT accountability in DM. Push for corp. level Data Stewardship program.	Stewardship part of enterprise-wide DM and DG . Broad executive understanding of need for stewardship across functional areas . Integrated into development process . Wide educational effort	Data Stewardship implemented at corp level. Formal DM programs and metrics in place. Ongoing communication and education so that all employees know their responsibilities to manage info.
Roles and structures	Each business /IT team defines data roles with little commonality . No corporate-wide approach to roles or structure . Accountability is not achieved end -to-end.	Accountability achieved in some business areas ; some business and IT roles in place. Data Stewardship position may be established but no accountability mechanism for this role.	Corp-level Data Stewardship program is being defined . Standard DM roles and resp to support implementation . Accountabilities for business and IT roles in DM defined . Stewardship being implemented in some business areas for key data . Sponsoring executive actively promoting adoption of Data Stewardship corp-wide.	Roles and resp of data stewards clear and consistently defined . Data Stewardship is business resp. Communities of practice established .	Data Stewardship fully integrated and rationalized with corp-wide DG processes . Everyone understands their role in managing data .
Standards, policies, and processes	IT standards exist ; no standardized DM methods in the business . Some business standards for applications or business area , few for corp-wide.	DM principles emerging based on business , legal drivers . No complete set of standards , no understanding of requirements . Need for Corp standards identified . Local and best practices emerging .	Endorsement to implement corp DM standards . Corp DM policies and standards program defined . Selected practices made into standards . Executive sponsorship for standards is strengthened .	Corp DM /DG framework defined for standards ; DM programs and methods with education and promotion across org. Stewardship processes measured and standardized, audited .	DM standards in continuous improvement, broad adoption of standards, exception management in place, communication and education for all employees .
Value creation	Value of data not known. Stewards are not adding value. Data for transactions and reporting . Data issues are IT's resp.	Stewards prove value in some projects or business areas . Improved quality of data and value recognized .	Corp-wide recognition of data as an asset . Stewards use data in new ways and gain insights and new capabilities .	Stewardship and DM metrics established . Clear understanding of value in improving DQ , cost reduction .	Data Stewardship has proven track record of driving tangible business value. Stewards are change agents.

■ **FIGURE 9.1** The Stewardship Maturity Grid with the initial (current) levels for each dimension displayed (solid rounded rectangle). The text in each of the cells is a summary of the text in [Tables 9.1—9.4](#).

Maturity Grid and ask the Business Data Stewards to ascertain the current level for each dimension. Planning tasks and setting goals that increase the maturity levels in each dimension will cause the overall level of maturity to increase over time, reaching the assigned targets and maintaining Data Stewardship at those maturity levels.

IDENTIFYING GAPS AND REMEDIATION

Once you have figured out where you are (the current level for each dimension) and where you need to be (the target level for each dimension), the next task is to identify the gaps you have and how to close those gaps

	Level 1	Level 2	Level 3	Level 4	Level 5
	Initial	Tactical	Well-defined	Strategic	Optimized
Organizational awareness	IT manages data ; BDS defined for some business applications ; local SMEs promoting BDS for DQ .	Some business areas having success in adopting Data Stewardship ; Some executive support ; local	Corp executive sponsor emerges . Need for data	Stewardship part of enterprise-wide DM and DG . Broad executive	Data Stewardship implemented at corp level . Formal DM programs and metrics in place . Ongoing communication and education so that all employees know their responsibilities to manage info .
Roles and structures	Each business /IT team defines data roles with little commonality . No corporate-wide approach to roles or structure . Accountability is not achieved end -to-end .	Accountability achieved in some business areas ; some	Corp-level Data Stewardship program is being defined . Standard DM roles and resp to support implementation . Accountabilities for	Roles and resp of Data Stewards clear and consistently defined . Data Stewardship is business resp . Communities of practice established .	Data Stewardship fully integrated and rationalized with corp-wide DG processes . Everyone understands their role in managing data .
Standards, policies, and processes	IT standards exist ; no standardized DM methods in the business . Some business standards for applications or business area , few for corp-wide .	DM principles emerging based on business , legal drivers . No complete set of standards , no understanding of requirements . Need for Corp standards identified . Local and best practices emerging .	Endorsement to implement corp DM standard . Corp DM policies and standards . Exec sponsorship for standards is strengthened .	Corp DM /DG framework defined for standards ; DM programs and methods with education and promotion across org . Stewardship processes measured and standardized , audited .	DM standards in continuous improvement , broad adoption of standards , exception management in place , communication and education for all employees .
Value creation	Value of data not known . Stewards are not adding value . Data for transactions and reporting . Data issues are IT's resp .	Stewards prove value in	Corp-wide recognition of	Stewardship and DM metrics established . Clear understanding of value in improving DQ , cost reduction .	Data Stewardship has proven track record of driving tangible business value . Stewards are change agents .

■ FIGURE 9.2 The Stewardship Maturity Grid with the target levels for each dimension displayed (dashed rounded rectangle).

(remediation). This is the *real* value of doing a maturity assessment, that is, the creation of a list of things to work on.

To work through identifying the gaps, you need to compare questions that were answered with a low score to how that question would be answered at the target level. For example, one gap in the Organizational Awareness dimension might be:

- Gap: There is a wide variance across managers regarding whether they have interest and/or actively support Data Stewardship activities across lines of business.

Once the gap has been identified, the Risk/Impact and priority of the gap also need to be identified, usually through discussions with

key stakeholders, including the Business Data Stewards and Data Governors:

- Risk/Impact: A successful Data Stewardship program requires support from management, which then helps to change the culture (change management) to align the company with objectives for successful governance. Participation in Data Governance and Data Stewardship should not be “optional.”
- Priority: High

The mitigation is a general approach to closing the gap, while the recommendation may include a more detailed, step by step approach to the solution:

- Mitigation: Continue to engage the teams with regards to progress and deliverables to provide current and short-term value. Work with the Data Governors and Data Stewards to ensure they understand the direct impact that they are having to the process and how it benefits all the various levels of the organization.
- Recommendations:
 - Identify key managers whose support is crucial to Data Governance and Data Stewardship in each line of business.
 - Create education plan to inform them on what Data Governance and Data Stewardship entail, what advantages they bring, and what is needed to make them successful.
 - Communicate achievements and risks to selected group on a regular basis (part of Communication Plan).
 - The Data Governance Program Office should find ways to build executive support and make sure that Data Governance and Data Stewardship are pushed down the organization as they tie to job descriptions and budgets.

The final step in the analysis of the gap is identify roles that must participate in the mitigation and recommendations:

- Roles: Executive Steering Committee, Data Governance Board, Data Governance Program Office (especially the Data Governance Manager).

SUMMARY

The maturity of your Data Stewardship effort—measured in levels across a set of dimensions—is an important way to rate how the program is progressing and becoming more robust. The first step is to establish the levels and dimensions, most likely based on a maturity model available in the literature that is adjusted for your organization. The next step is to rate the current

maturity levels and determine what the target levels should be. This exercise enables you to identify and prioritize areas of improvement so that you can get more out of the Data Stewardship program. From the gaps identified by the maturity model evaluation, identify the steps that need to be taken to close the gap, and which roles need to participate in that effort. Finally, you need to revisit the maturity on a periodic basis to determine the current maturity level and see if progress is being made.