What is Data Management

Data management is a vital enterprise asset. It can help organizations gain insight into the customer base and inform innovation, strategy, and meet key business goals. Deriving value from data requires intentional planning, coordination, management, and leadership. Data management is the development, execution, and supervision of plans, policies, programs, and practices that deliver, control, protect, and enhance the value of data and information throughout their life cycles[1]. Companies that have reliable, high quality data maintain an edge in the competitive market. Failure to manage data appropriately is similar to mismanagement of capital. The ability to maintain the highest standards of data integrity and quality can be achieved through a process known as data governance.

What is Data Governance

Data governance is the principled approach to managing data during its life cycle. It is the systematic and intentional manner in which an organization's mission and vision can be accomplished. Data governance is informed by an organization's data philosophy:

- Beliefs: We believe that data can and should be accessible by anyone in order to inform their decisions.
- Values: we value transparent data management, solid data architecture, sustainable data stewardship, and reliable controls. For our Data Practitioners, we value creativity, curiosity, collaboration, and consistency.
- Vision: Our vision is to develop a robust technological foundation in order to foster an environment of data excellence that supports both data practitioners and partners alike.
- Mission: Our mission is to make data understandable and accessible to our partners to ensure that they can quickly and easily make evidence-based decisions on reliable and trustworthy data.

Data philosophy is demonstrated through comprehensive data governance. Vision and mission are informed by beliefs and values, all of which are supported by four

[1] DAMA-DMBOK2

pillars: Management, Architecture, Stewardship, and Controls. Simultaneously, each pillar supports the next and together, these pillars support our mission and vision.

Data Excellence and Other Practice Standards

Data Excellence represents the *standard* of practice within data management. It is the commitment to incorporating and acting on the principles of data management in every Knowledge Area within the organization, at the highest level of proficiency.

Organizations may support the principles of data management in theory, but lack the infrastructure to execute advanced data management activities. Different Knowledge Areas and departments may be at different levels throughout the process of improvement or implementation of data management principles; that is acceptable and expected. Again, Data Excellence is not an end point; rather it is the highest level of data management practice and implementation. It is our goal to work toward and maintain this standard.

These standards are metrics designed to assist with data maturity assessments and roadmapping with actionable steps. Data maturity refers to how advanced an organization is in using data to drive decision-making.

Principles of Data Management

Data is and should be considered an asset, just like any other kind of asset within a company. As such, it is important to know what data a company has, what the company can accomplish with the data, and how to use the data to reach organizational goals.

The value of data can and should be expressed in economic terms; it is up to the organization to quantify the value of data, including the cost of low-quality data and value of high-quality data. This allows a company to quickly find inefficiencies and redundancies in data and data processes.

The key principles of effective data management are:

- Data is valuable
    - Data is intangible, but it is still essential to conducting business

- Effective data management requires leadership and commitment
  - This approach must come from the top down
- Data management requirements are business requirements
  - It takes planning and Metadata to manage data
- Data management depends on diverse skills
  - A combination of technical and managerial skills is required to effectively manage data across multiple functional areas.
- Data management is lifecycle management
  - Different datasets have different life cycles and life cycle characteristics.
- Managing data includes managing the risks associated with data
  - In addition to being an asset to the company, data is also a risk to the company. Ethical implications must be considered as part of data management.
- Data management must drive information technology decisions
  - It is essential that technology serves, rather than drives, an organization's strategic data needs.

How to Move Forward

Determining next steps may seem like an impossible task. The first step is recognizing that data management is a critical component to the success of the business and making the commitment to invest in it. Conducting a data maturity assessment is an opportunity to understand the current state of the data landscape, learn about internal data pain points, and develop an actionable strategy to begin the practice of data excellence.

Cultural Commitment

Developing a culture of data excellence must be a top-down commitment from senior leadership. Steps to incorporate data excellence into the culture include:

- Incorporating data as a fundamental core value of the organization
- Financially equating the cost of bad data versus good data
- Establish a common, basic message

Word choice can be a difference-maker when it comes to accepting change. Consider your company culture and the right approach to achieve buy-in from everyone. For example, “governance” might imply new rules and regulations, but “data strategy” or “partnership” might send a clearer message around the intent of the changes.

Leadership Interviews

Leadership within an organization can be broadly defined within this context. Besides interviews with the senior leadership team, interviews should be conducted with area leaders and subject matter experts (‘data stewards’). Interviews provide context to the current data landscape, help identify pain points in both processes and issues with data quality and integrity. This is a *story* collecting initiative that answers the following questions:

- How data is currently managed, created, used, and consumed?
- What is the level of trust in the data across the company?
- How is data perceived?
- What are the systems and processes surrounding the flow of data?

In addition to gaining insight into the data landscape from a user perspective, interviews are an excellent opportunity to begin establishing buy-in from all members of the organization by seeking their opinions, gathering their ideas, and listening to their wants and needs. Stakeholder buy-in at every level is critical for the success of any change in culture.

Data Mapping

Data mapping is the process of understanding and documenting the organization of a company’s data, how it is created, how it flows through systems, and how it is used. Data mapping includes an evaluation of the technical organization of the data, data definitions, business rules, and user-facing software.

Process Review

Similar to data mapping, process review is an evaluation of the process documentation for how users handle and consume their data. In addition to a review

of formal processes, interviews with process owners helps to identify discrepancies between the established process and the actual process. These discrepancies may be the result of mis-communication, formal processes that have not been updated, formal processes that do not work in a practical way, or other reasons. Rectifying any discrepancies is critical for data integrity. Ultimately, regardless of any technical changes or adjustments to the data, if the users do not handle the data in a regular or consistent manner, then the technical changes won't matter anymore.

Key Objectives

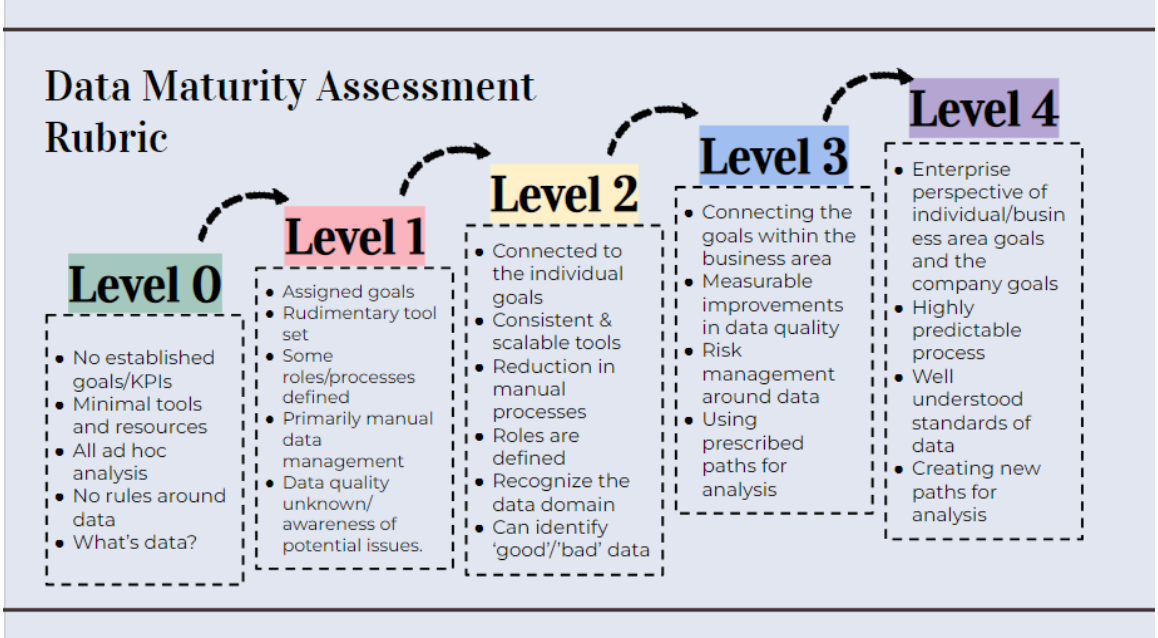
Key objectives can be any objectives that the company determines are the most important when it comes to data. These are the areas in which the company wants to improve, as related to data. For example, key objectives may include:

- Goals: more than just goal setting - engaging everyone in the company to be invested in their goals, the company goals, and using data to inform those goals.
- Data Literacy: feeling comfortable and confident in using data to make decisions and take actions.
- Tools: having tools that work for the users and not the other way around.
- Relationship with Data: developing a positive relationship with data, through improved literacy, to make everyone an expert in the data.
- Data Management: establishing a system that is transparent, reliable, and predictable, leading to data that has integrity.

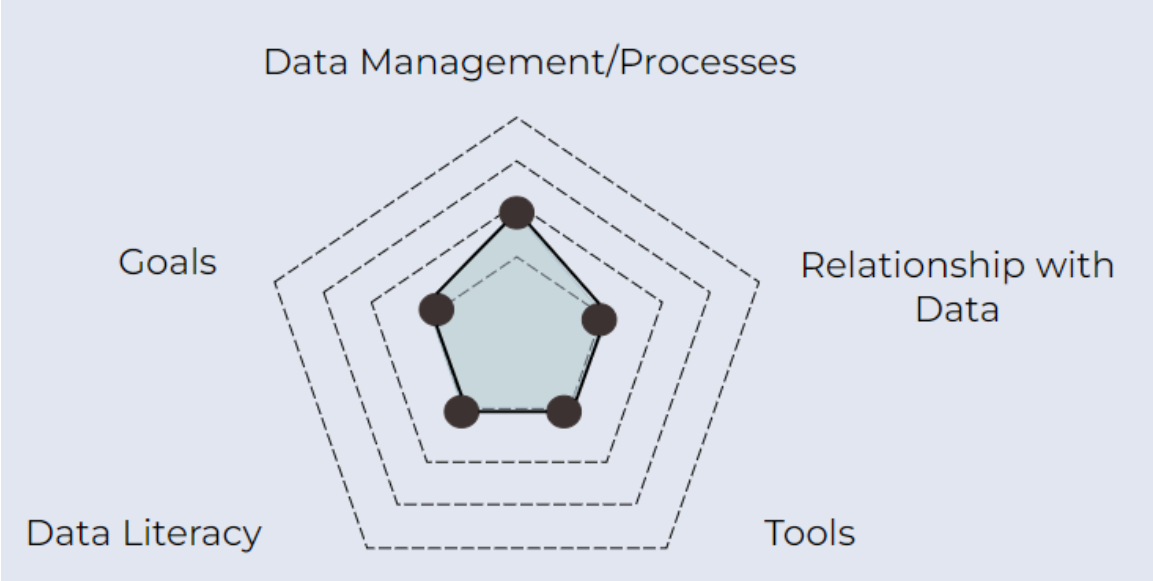
Key objectives are discovered through the themes extracted from interviews. They are further defined in conjunction with senior leadership as well as data stewards.

Data Maturity Assessment

By using an internationally-recognized rubric, a full data maturity assessment can now take place. The general rubric framework is used to create a fully customized pathway to data maturity improvement.



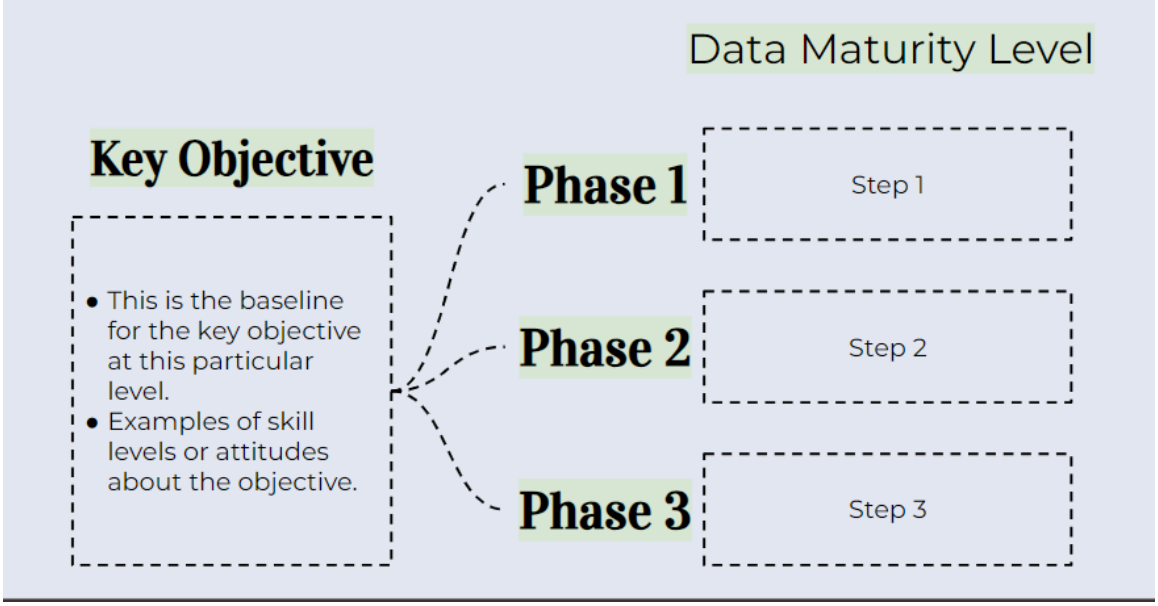
Results



Results of a data assessment are placed on a grid to visualize the maturity within each objective.

Strategy Framework and Roadmap

Following the data maturity assessment, a proposed strategy framework is developed. The strategy framework breaks down each level rubric level rating into actionable steps to move toward the next level within the rubric for that objective.



In conjunction with senior leaders and data stewards, a roadmap is created with specific actionable steps to move to the next level within the rubric. Depending on the size of the organization, this can be accomplished through summits or retreats, or in smaller settings. The key component is that there is buy-in and contribution from across the company to ensure compliance with changes and establish a sustainable data management approach.