# Value and Implications of Master Data Management (MDM) and Metadata Management

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# Enterprise Information Management Background

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# Enterprise Information Management (EIM) is about

- Providing business value
- enterprise Managing information (EIM) to provide business value
- cross-disciplinary Setting up a business and IT program to manage information

EIM is an integrative discipline for structuring, describing and governing information assets across organizational and technological boundaries.

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# Enterprise Information Management and the Information-Related Disciplines

Enterprise Information Management (EIM) is about how information gets from a multitude of sources to a multitude of consumers in a relevant, timely and consumable way?

| | |
|---|---|
| …includes large volumes, variety, or high velocity data? | Big Data |
| …can be consistent across business units and across time? | Master Data Mgt (MDM) |
| …can be used to monitor performance and make decisions? | Business Intelligence (BI) |
| …can be used to draw conclusions and make predictions? | Business Analytics (BA) |
| …is it clean enough and good enough to use? | Data Quality (DQ) |
| …no ambiguity on who is accountable for what? | Information Governance |
| …can be enriched and reused? | Metadata Management |

Smart Machines

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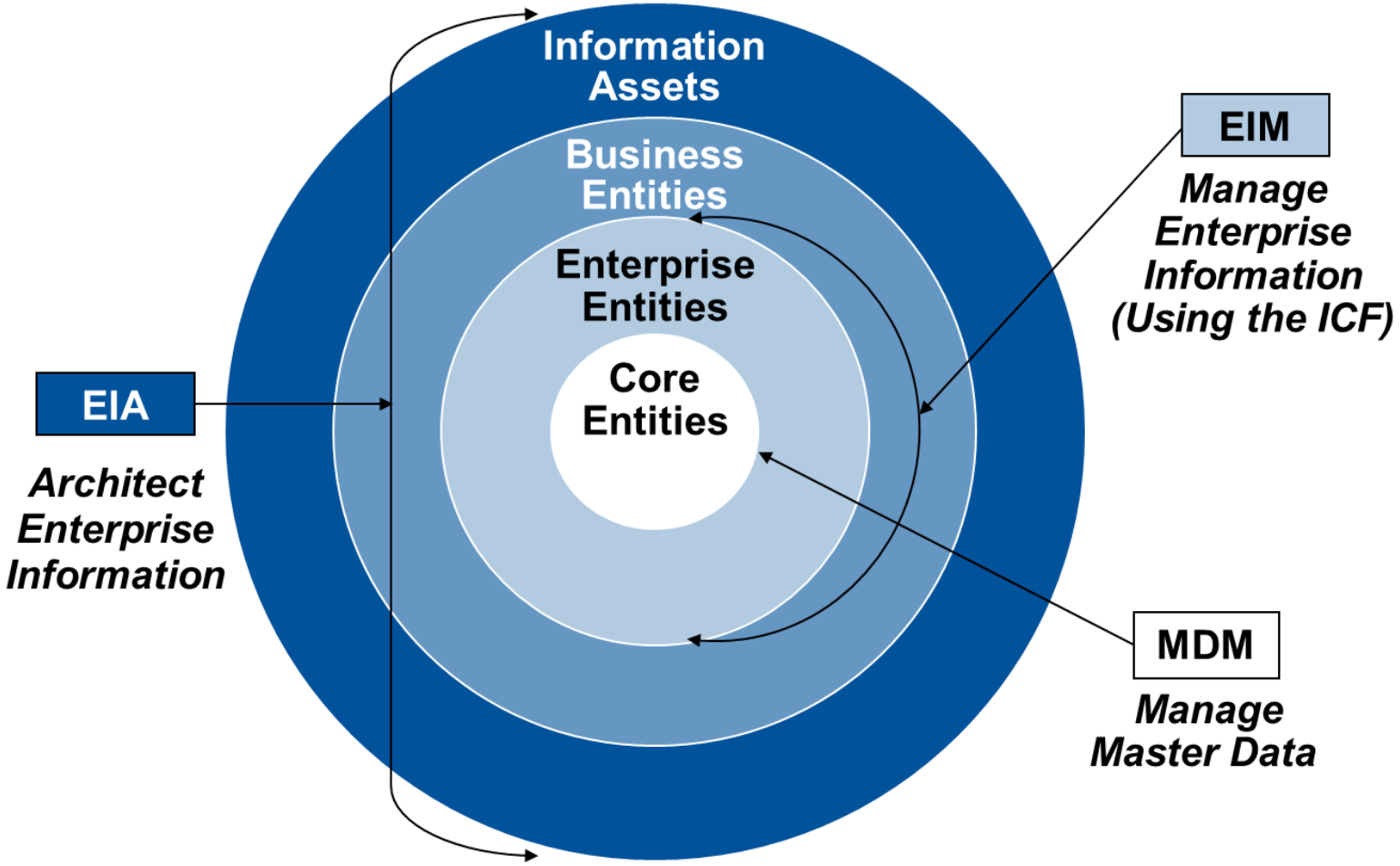
# Enterprise Information Management Scope

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# Master Data Management Background

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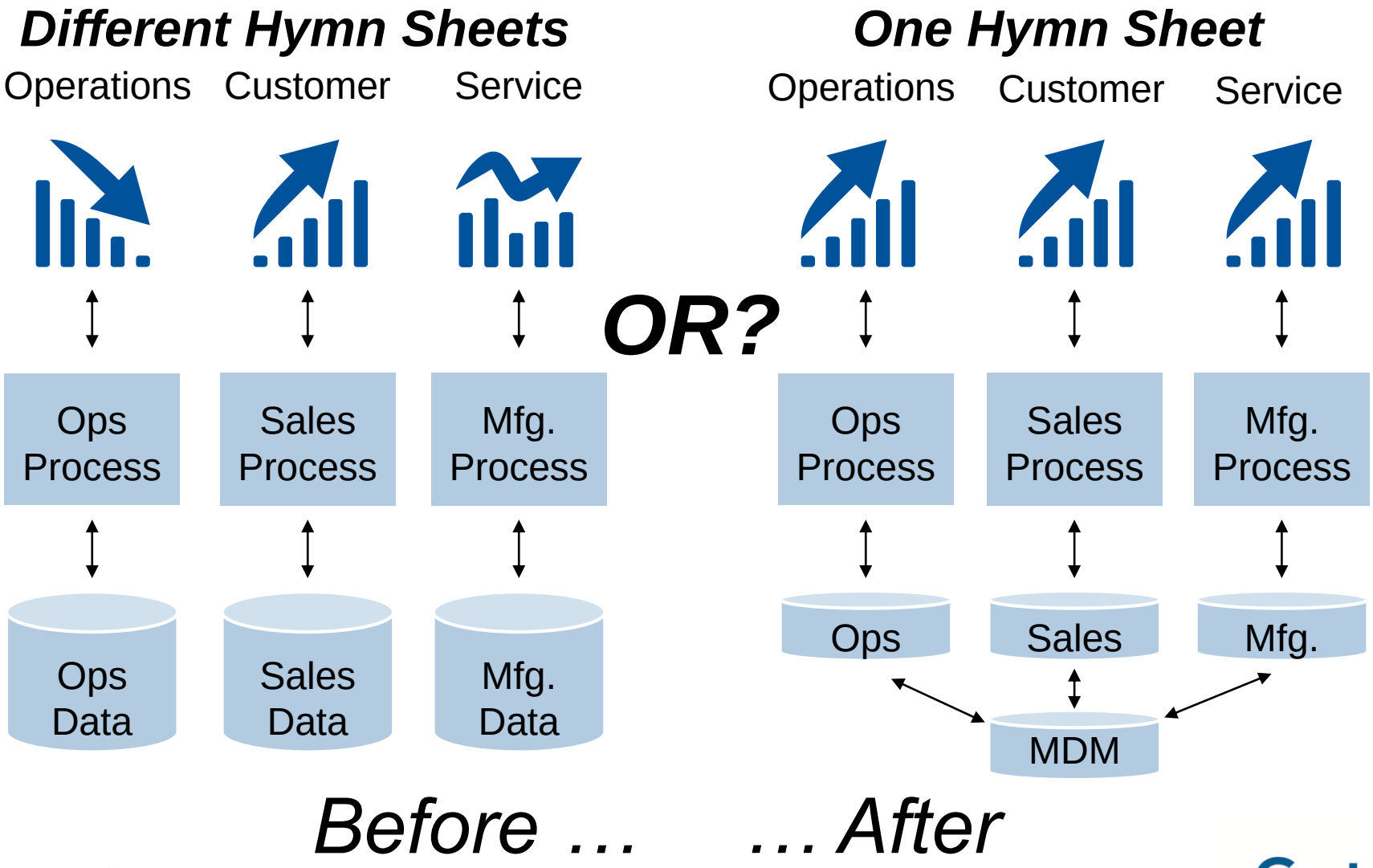


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## Some Definitions

**Master Data: A consistent and uniform set of identifiers and attributes that describe the core entities of the enterprise, and are used across multiple business processes.**

**Master Data Management: Technology-enabled discipline in which business and the IT organization work together to ensure the uniformity, accuracy, stewardship, semantic consistency, and accountability of the enterprise's official, shared master data assets.**

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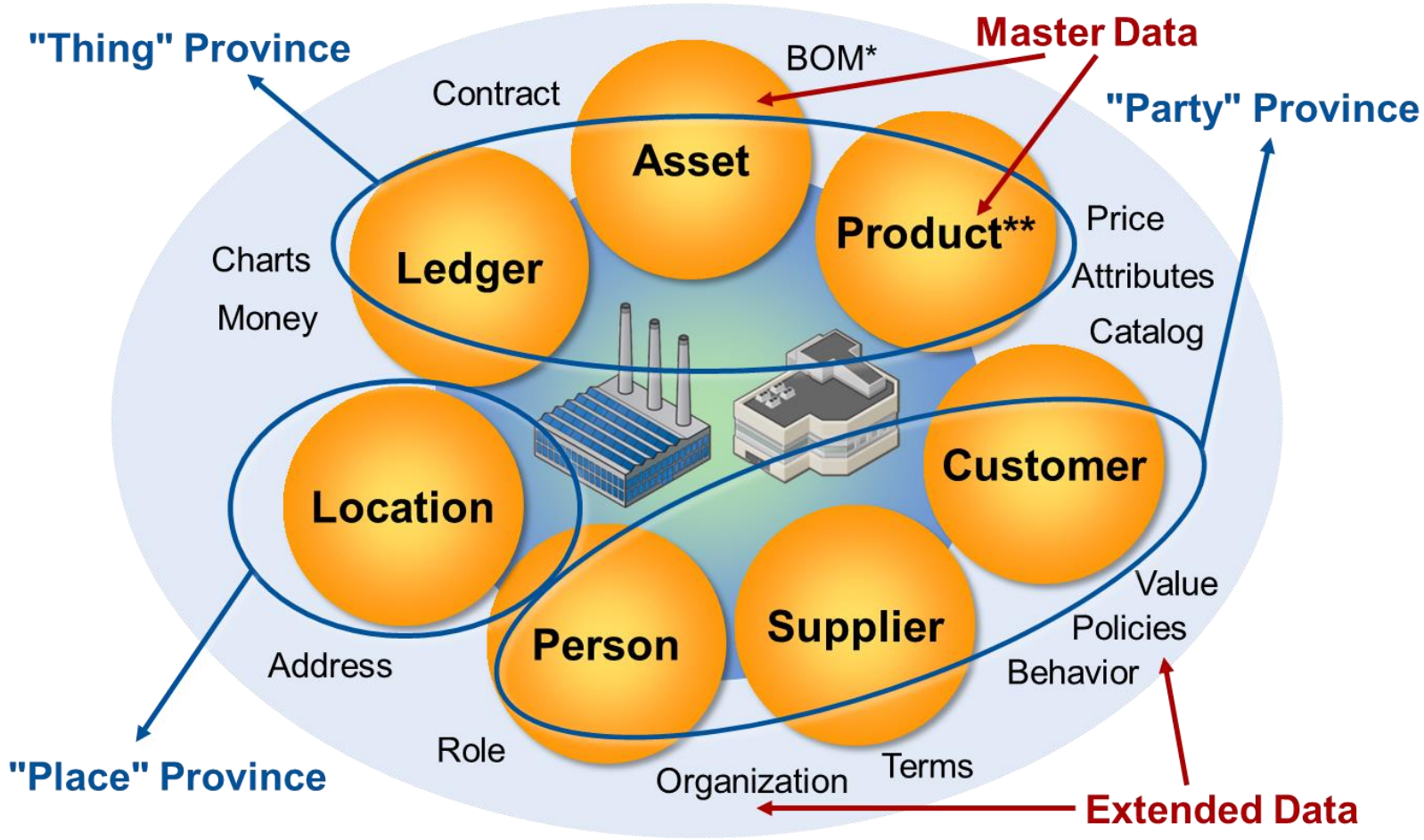
# Master Data Domains





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# Master Data Management Implementation

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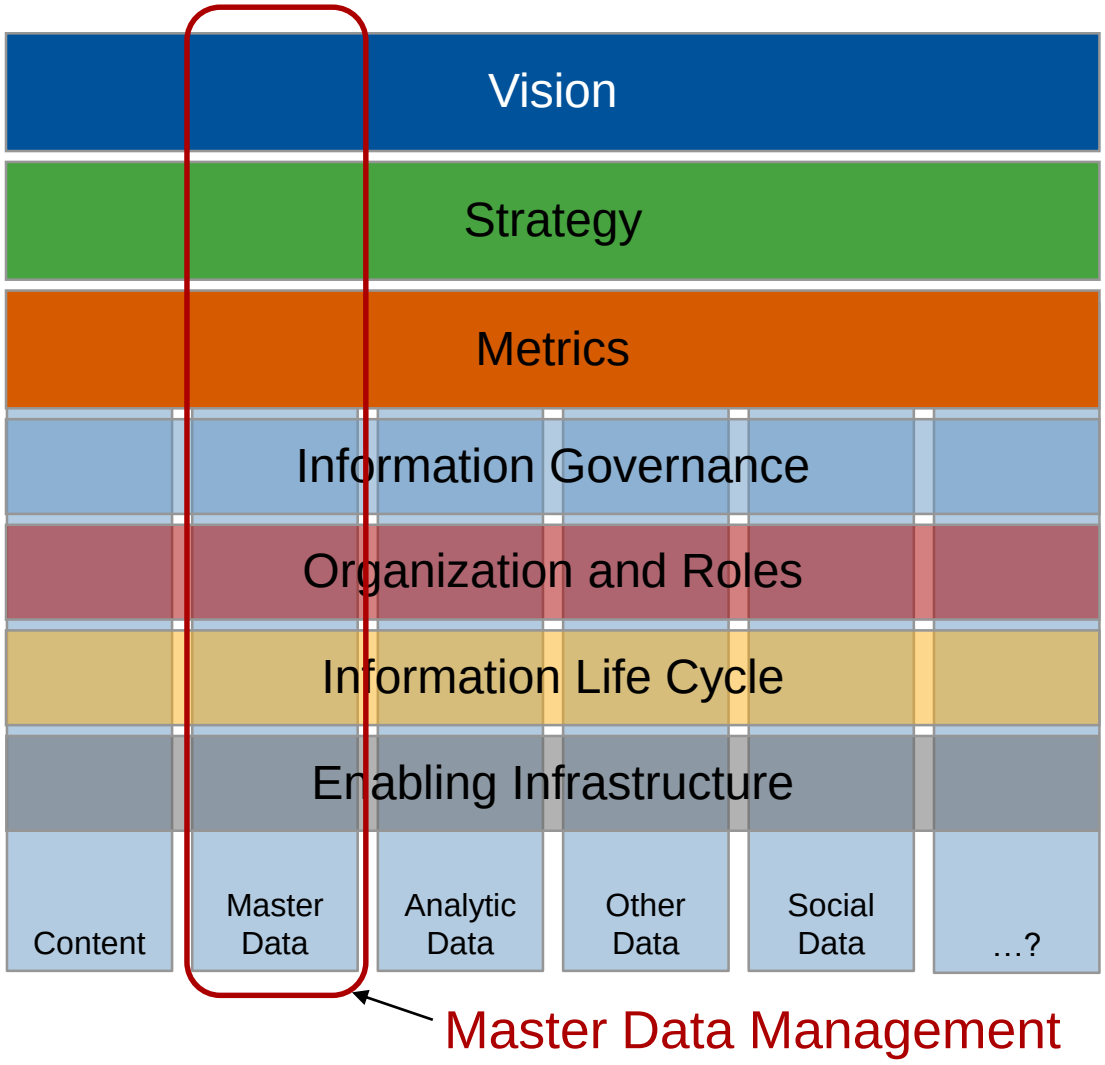
# Enterprise Information Management Framework

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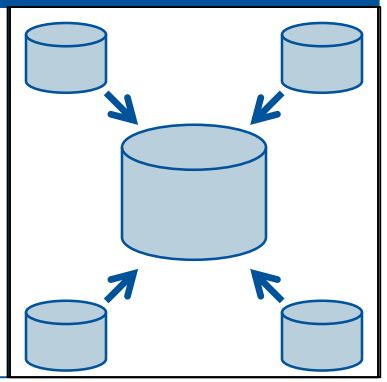
# MDM Vision and Strategy Critical Vector – Implementation Styles

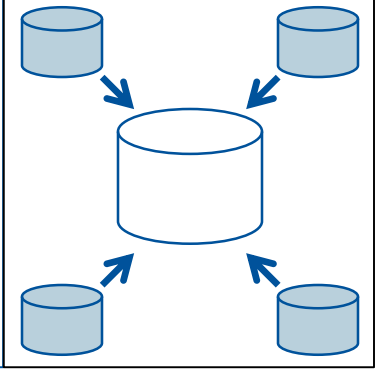
## Consolidation — Downstream reporting or analytics

- Nonintrusive to the business
- BI is the business platform
- Any industry
- BI strategy depended
- No attempt to clean up source



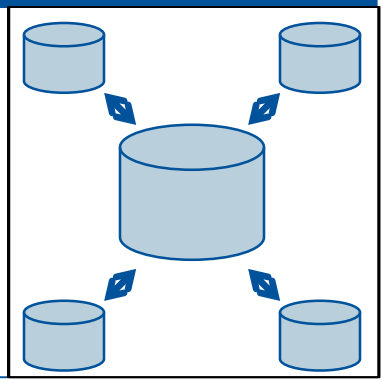
## Registry — Low control, autonomous environments

- Nonintrusive to edge applications
- Emphasis is on remote data and application-to-application integration
- Distributed governance
- Faster to implement than coexistence and centralized



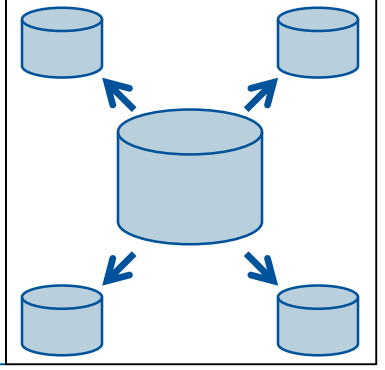
## Coexistence — Large-scale distributed model

- Largest change to information infrastructure
- Greatest need to mirror data
- Global and local governance
- Greatest risk over control, security
- Focused on shared services



## Centralized — High-control, top-down environments

- Largest change to application infrastructure
- Hugely invasive to the business
- Centralized governance
- Greatest control over access, security
- Focus on common services



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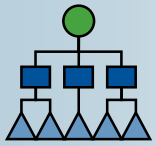
# Information Governance establishes decision rights, and assigns authority for MDM

**Information Governance**

- **What Decisions Have to Be Made**
- **Who Makes the Decisions**
- **How Are Decisions Made**



**Establish Policy**

**Assign Responsibility**

**Encourage and Enforce**

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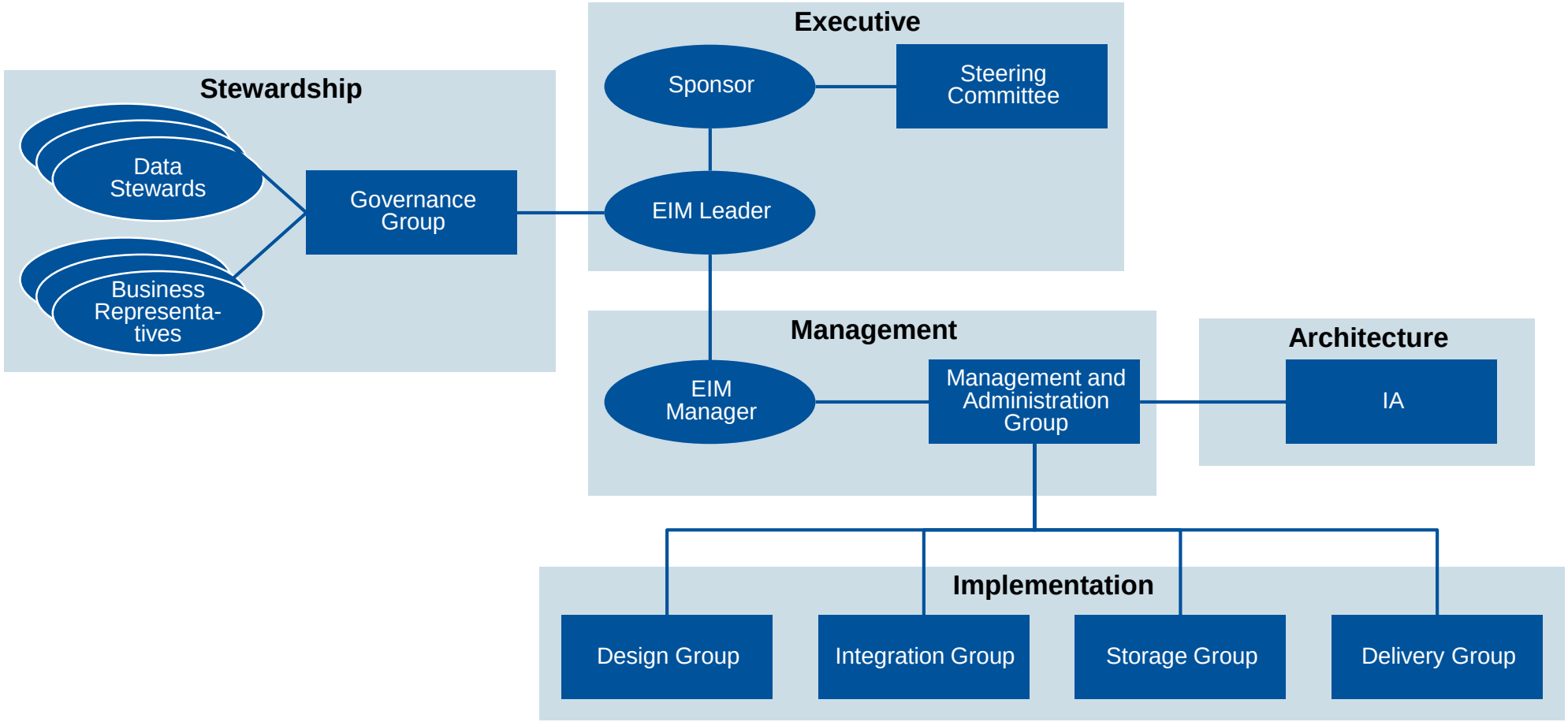
# Organization and Roles forms the group and organizational structures to implement MDM

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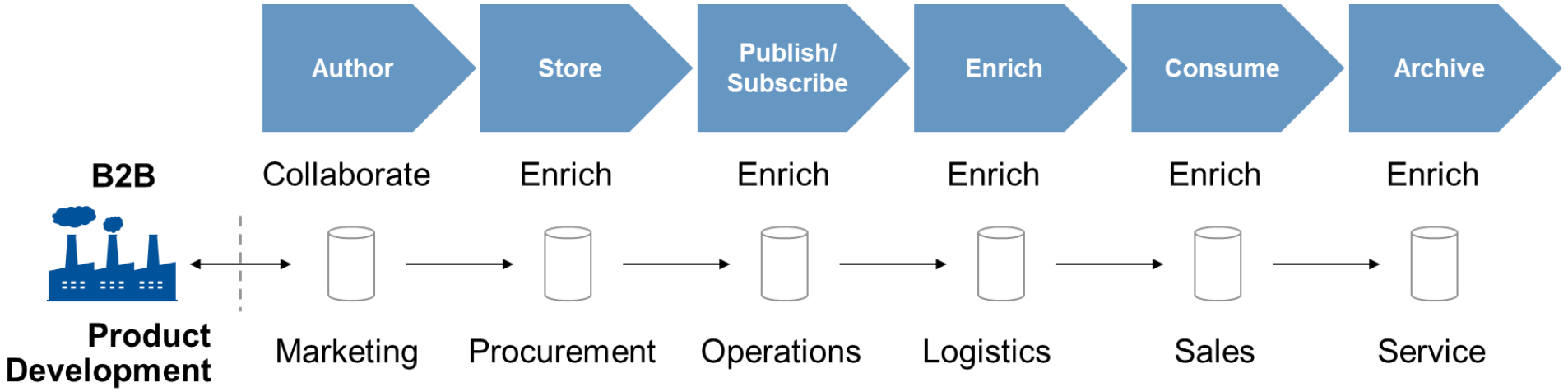
# Information Life Cycle depicts the flow of information and activities where MDM is focused

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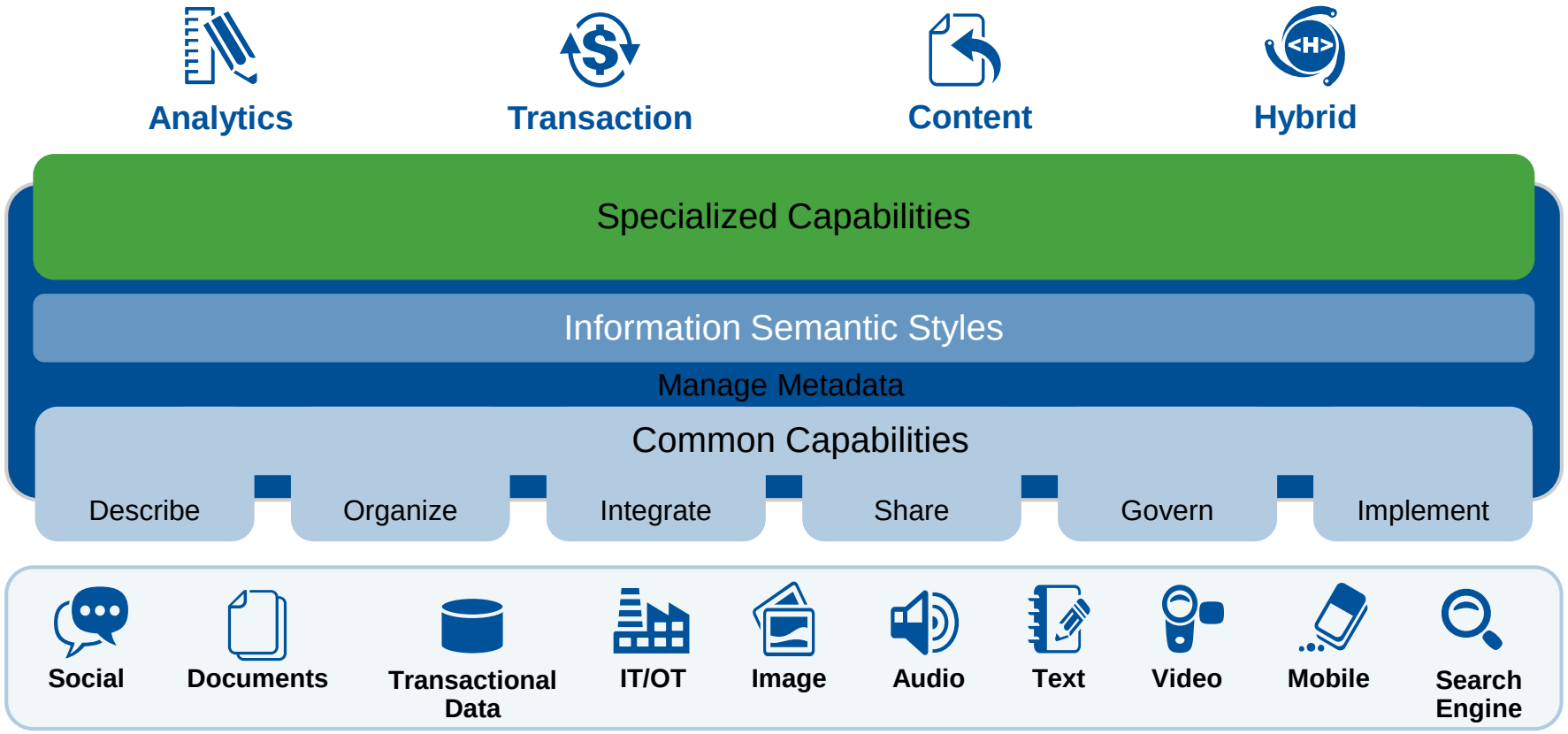
# Enabling Infrastructure provides the technology capabilities to implement the EIM

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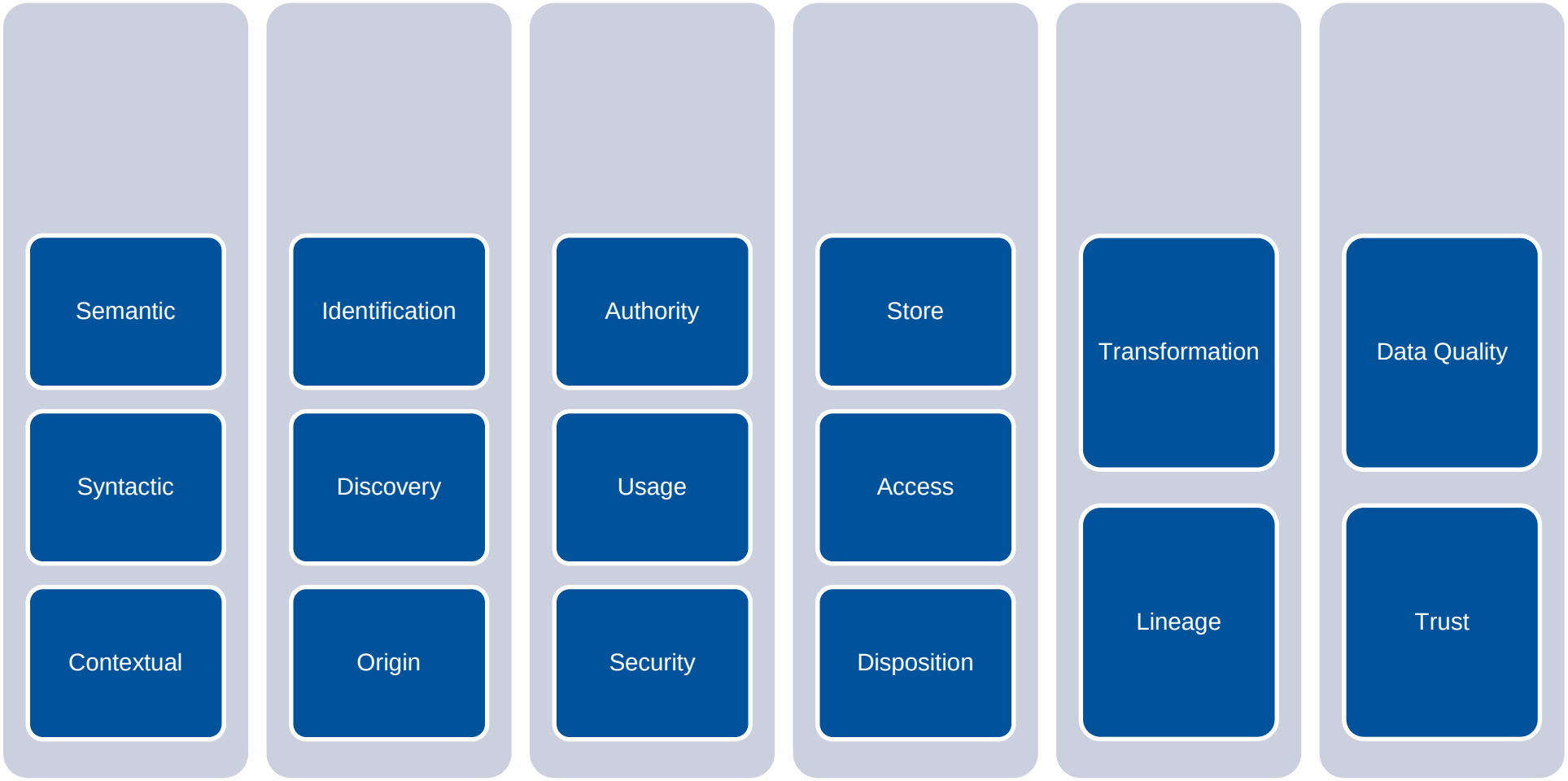
# The Role of Metadata

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# Complexities and Conclusion

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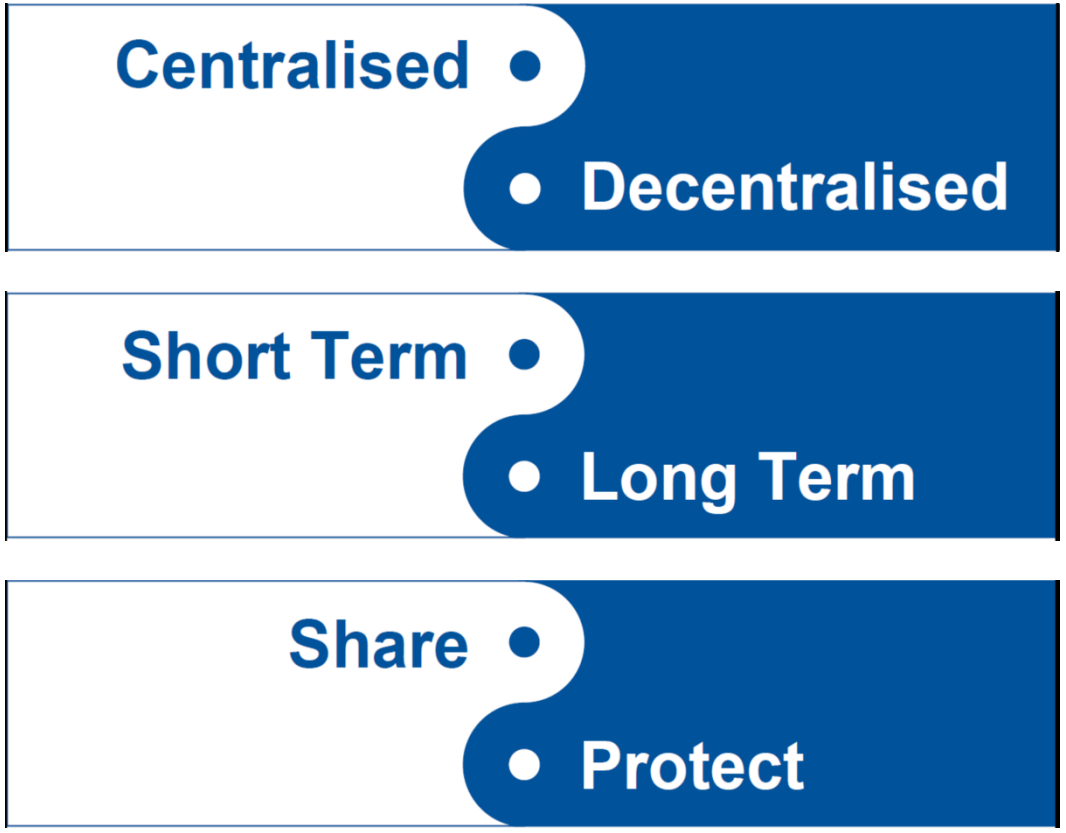
# Strategic Dilemmas




**The answer to all strategic EIM-related dilemmas is "both."**

**There are NO RIGHT OR WRONG answers in EIM, and the most powerful factor is the reallocation of authority and movement of money.**

**Ultimately, EIM requires a POLITICAL POWER SHIFT in the organization.**

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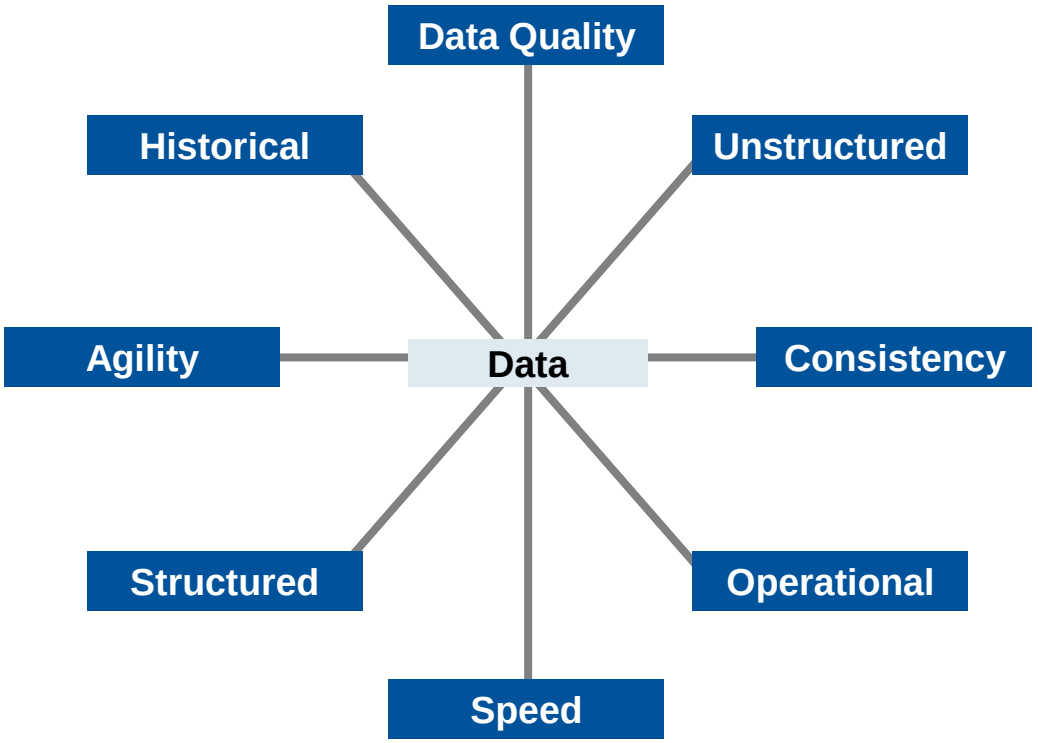
# Tactical Dilemmas




**The answer to all implementation EIM-related dilemmas is "it depends."**

**There are NO RIGHT OR WRONG answers in EIM, and the most powerful factor are the priority and needs of the client.**

**Ultimately, EIM requires a DELIBERATE and ARCHITECTED approach in the organization.**

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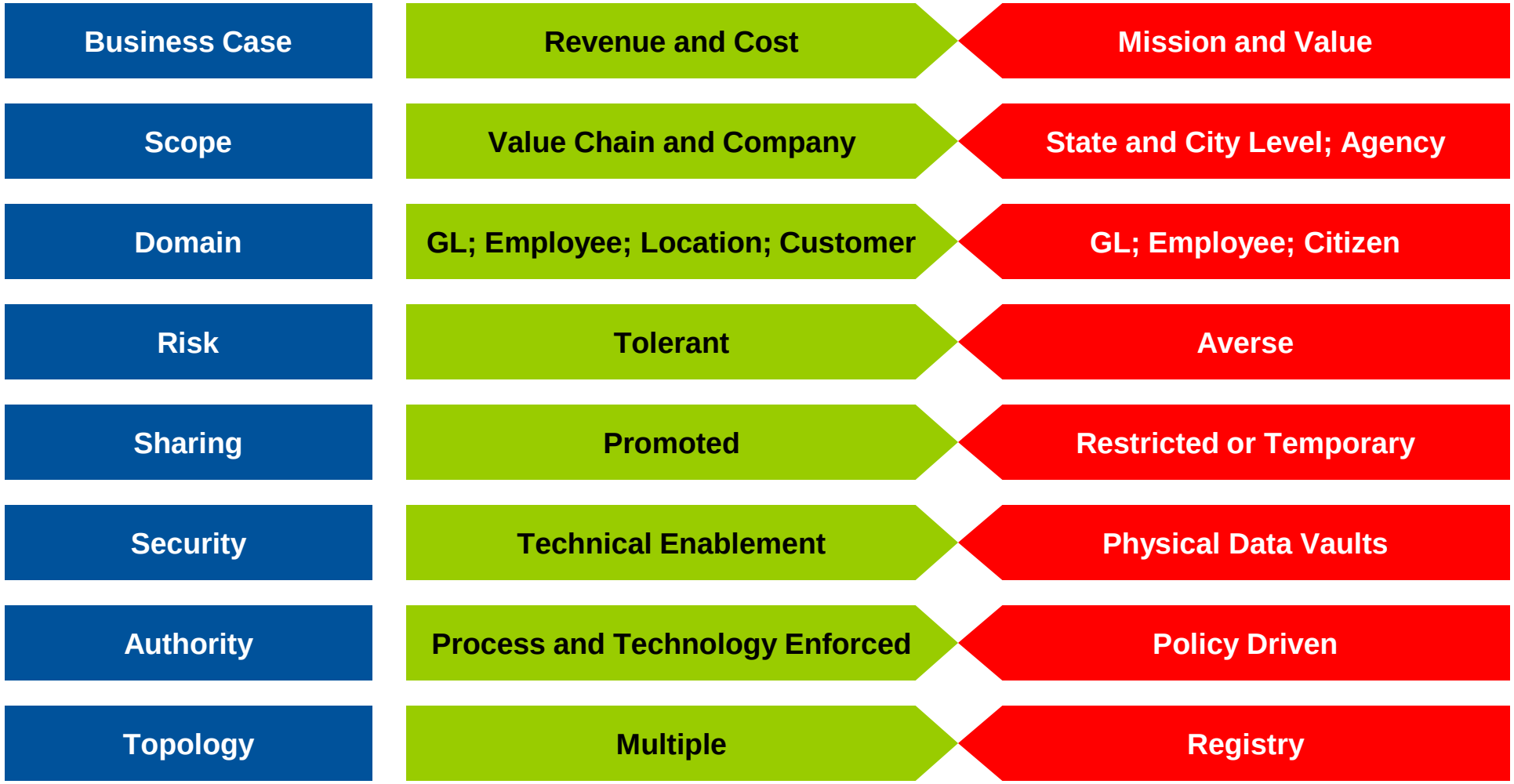
# Commercial v. Public Sector

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# Critical Success Factors

- Clear Vision and Tight Scope – Determine what you really want to achieve and what you need to govern
- Strong Leadership and Sponsorship – Identify and secure a business sponsor to promote the effort and ensure the business stakeholder participation
- Consisted and Objective Semantics – Strive for the “single version of the facts” and not for the “single version of the truth”
- Stratify Scope – Manage Semantics, Syntactic, and Instances differently at different levels of scope
- Comprehensive Viewpoint – Design the strategy and target state to play the tradeoff among governance, organization, processes, and technical infrastructure
- Clear Communications in Business Terms – Express what the stakeholder will get out of it in their terms
- Tight Stakeholder Collaboration – Establish a common work environment and a cross-business/IT team with the business leading and IT enabling
- Pragmatic Approach – Follow the money, do what you can and not what you want
- Respect the Culture – Minimize impact

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# Master Data Management Progress

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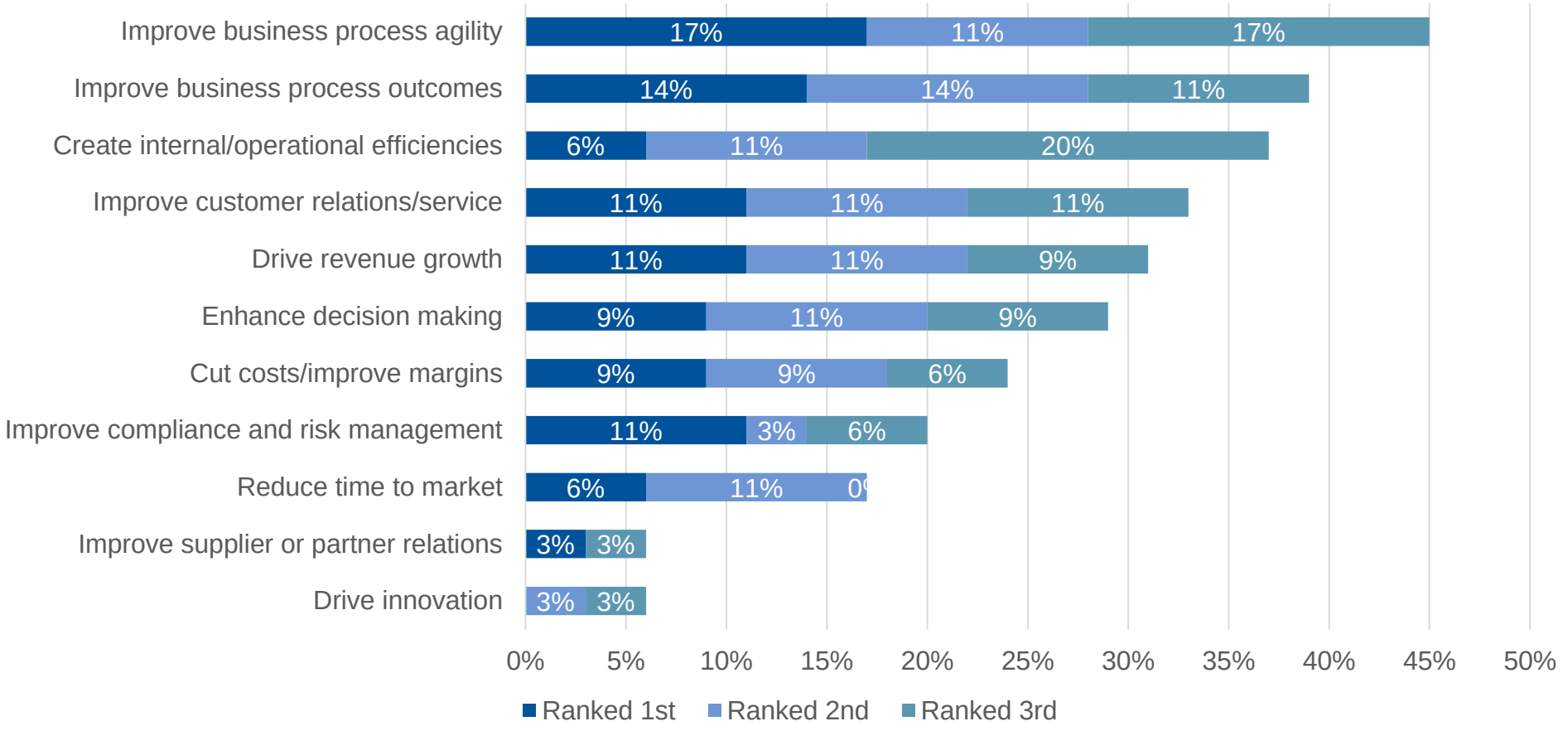
# MDM Business Drivers

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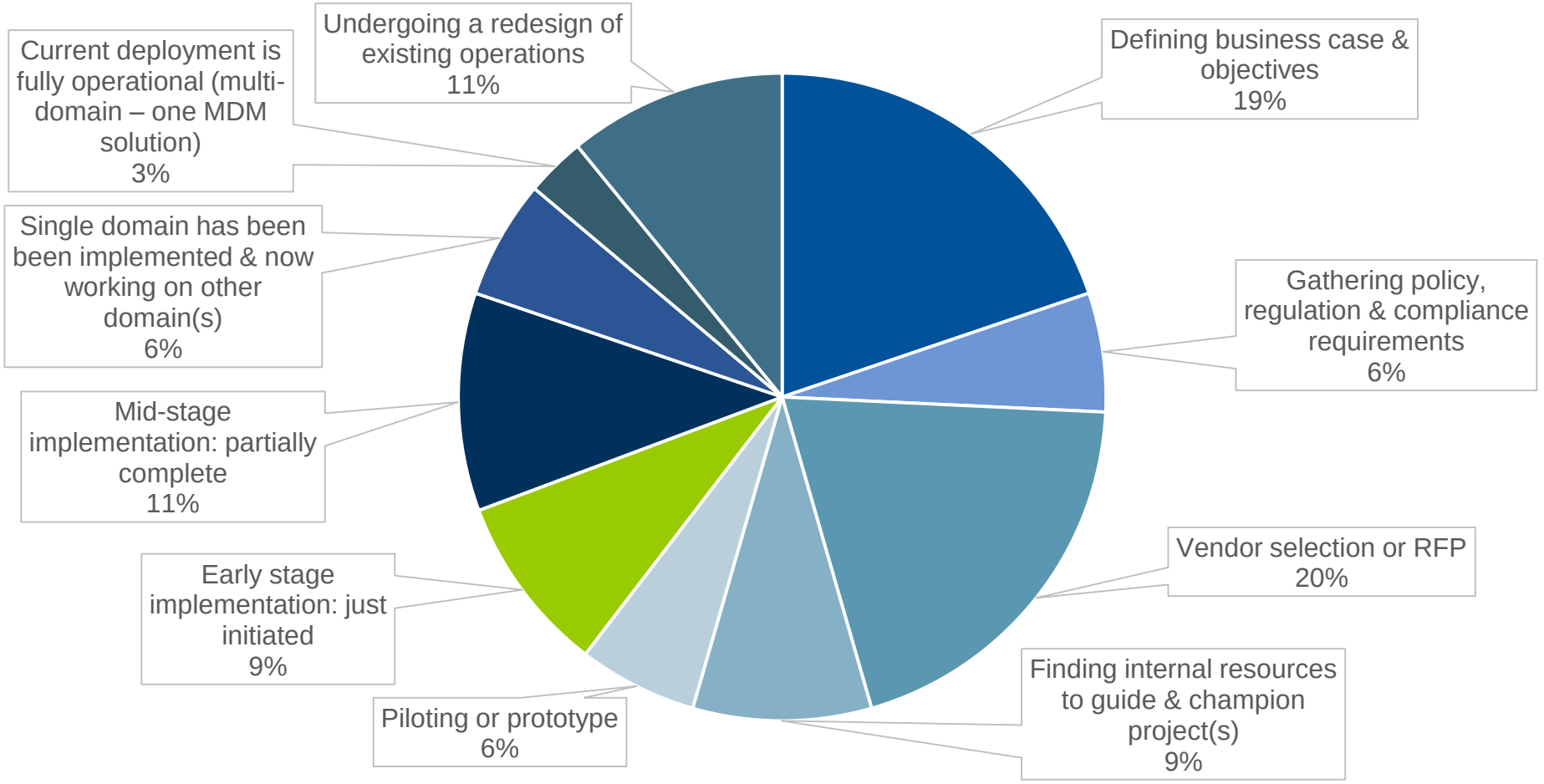
# MDM Adoption

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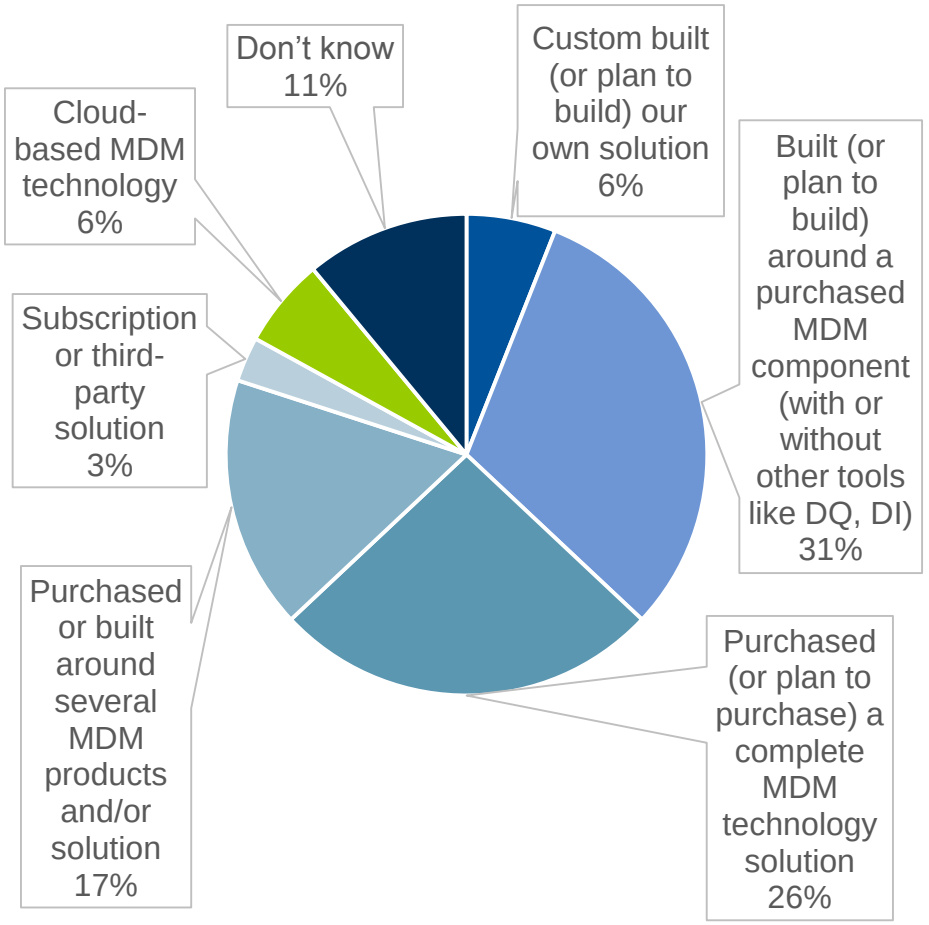
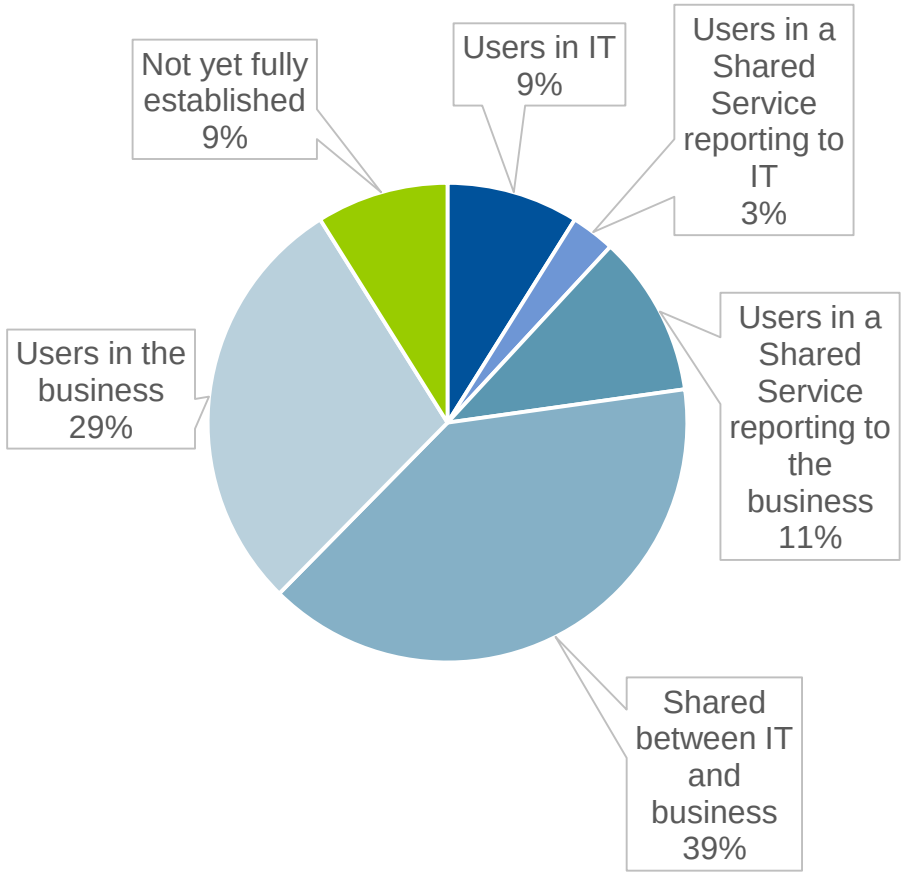
# MDM Deployment

## Technology Solutions




## Stewardship Responsibility

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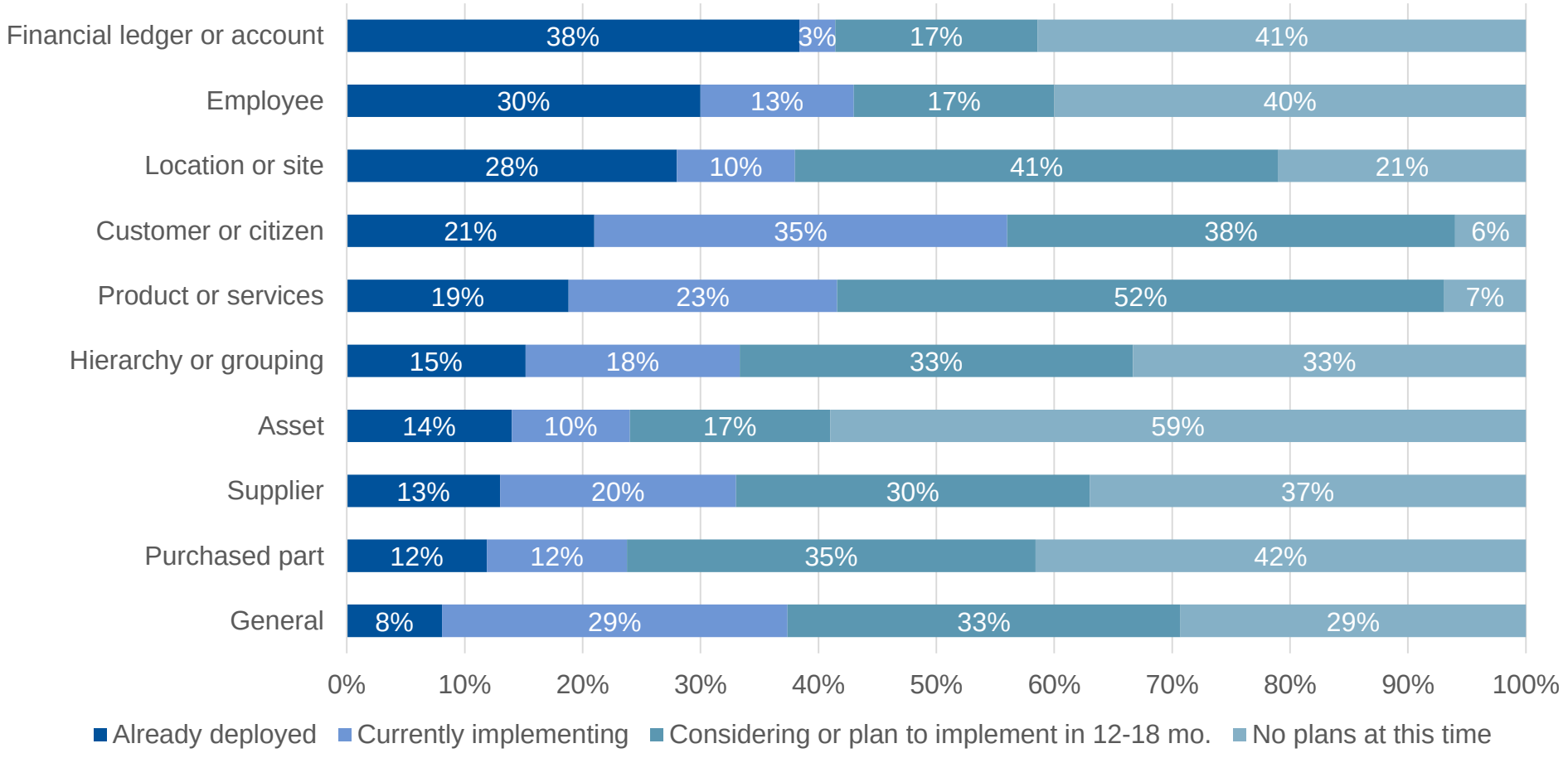
# MDM Domain Implementations

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