

Developing and Implementing Data Policies and Standards to Manage Data as an Enterprise Asset

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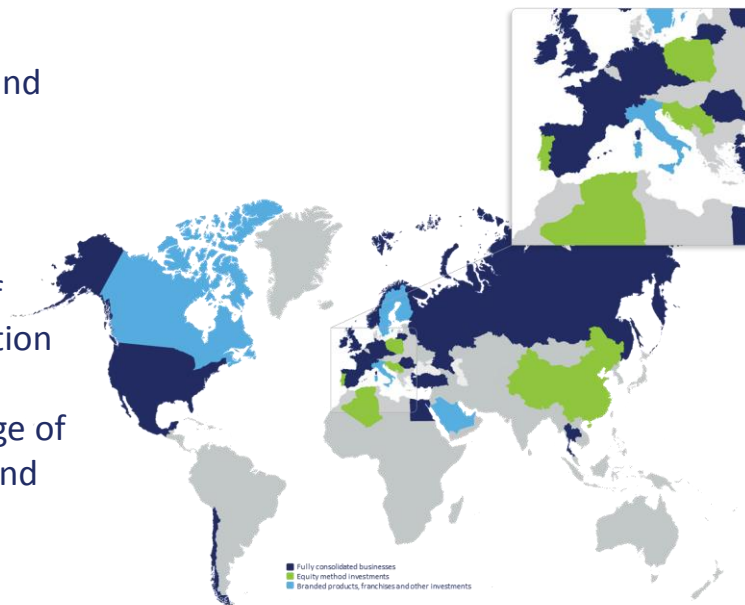


Walgreens Boots Alliance

Walgreens Boots Alliance

Walgreens Boots Alliance is the first global pharmacy-led, health and wellbeing enterprise in the world. Our purpose is to help people across the world lead healthier and happier lives.

Walgreens Boots Alliance was created through the combination of Walgreens and Alliance Boots on 31 December 2014. This transaction brought together two leading companies with iconic brands, complementary geographic footprints, shared values and a heritage of trusted healthcare services through pharmaceutical wholesaling and community pharmacy care, dating back more than 100 years.



- A presence in more than 25* countries
- Employs over 370,000* people and is the largest retail pharmacy, health and daily living destination in the USA and Europe, and (including equity method investments) is:
 - The global leader in pharmacy-led, health and wellbeing retail with over 12,800* stores in 11* countries
 - The largest global pharmaceutical wholesale and distribution network with over 340* distribution centers delivering to more than 180,000† pharmacies, doctors, health centers and hospitals each year in 19* countries
 - The world's largest purchaser of prescription drugs and many other health and wellbeing products

* As at 30 November 2014 including equity method investments on a pro-forma basis excluding Alliance Healthcare Italia which ceased to be an equity method investment of Alliance Boots in December 2014

† For year ended 30 November 2014 including equity method investments on a pro-forma basis excluding Alliance Healthcare Italia which ceased to be an equity method investment of Alliance Boots in December 2014



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Setting Expectations

What you can expect from today

- Sharing pragmatic experience from half a decade of data management and data governance at Walgreens and Walgreens Boots Alliance on how to:
 - Develop and implement policies in a changing environment
 - Respond to ongoing merger and acquisition activity
 - Respond to changes in the business model
 - Build a global program on a light budget
- A Case Study – our experience
- A real world example of how things work



Agenda

- **Getting Started**
- **Walgreens Data Management History**
- **Governance Structures and Partnerships**
- **Data Governance Policies**
- **Policy Development & Enforcement**
- **Data Standards**
- **The Emergence of Global Data Governance**
- **Communication, Education, and Ongoing Compliance**
- **Measuring Success**



Getting Started



Data Policies and Standards: Define Your Terms

Policy

Definition: ***Data Policies*** are the **overall business rules and processes** that an enterprise utilizes to provide guidance for data management. Policies might include adherence of data to business rules, providing guidance for protection of data assets, compliance with laws and regulations, defining enterprise data management functions, and others.

Examples:

- Data Classification Policy
- Data Sharing Policies
- Data Governance Policies
- Information Security Policies
- HIPAA Privacy Policies

Standard

Definition: ***Data Standards*** are the **precise criteria, specifications, and rules** for the definition, creation, storage and usage of data within an enterprise. Data Standards include basic context items like naming conventions, number of characters, and value ranges. Data Standards may also dictate specific quality measures, retention rules, and backup frequency.

Examples:

- Data Standards, such as Name and Address
- National and Industry Standards (HL7, GS1)
- Data Quality Standards
- Meta Data Standards (ISO 11179, ISO 15836)
- Data Model Standards



What Data Policies and Standards do you need?

In selecting which data policies and standards to develop, consider aligning with:

Business
Objectives

EIM Goals

EIM Program
Framework

Corporate
Structure and
Culture

Policies and standards should drive behaviors needed for data management success.

Policies and standards must be adapted to a changing environment.



Align Policies and Standards with Business Objectives

Reduce business cost

Improve business capability

**Support Merger &
Acquisition activities**

**Reduce overall data risk
(Privacy and Compliance,
data sensitivity, overall data
risk)**

**Efficient, secure data
exchange with external
partners**

**Consistent data experience
for customers, clients,
partners, vendors,
employees**



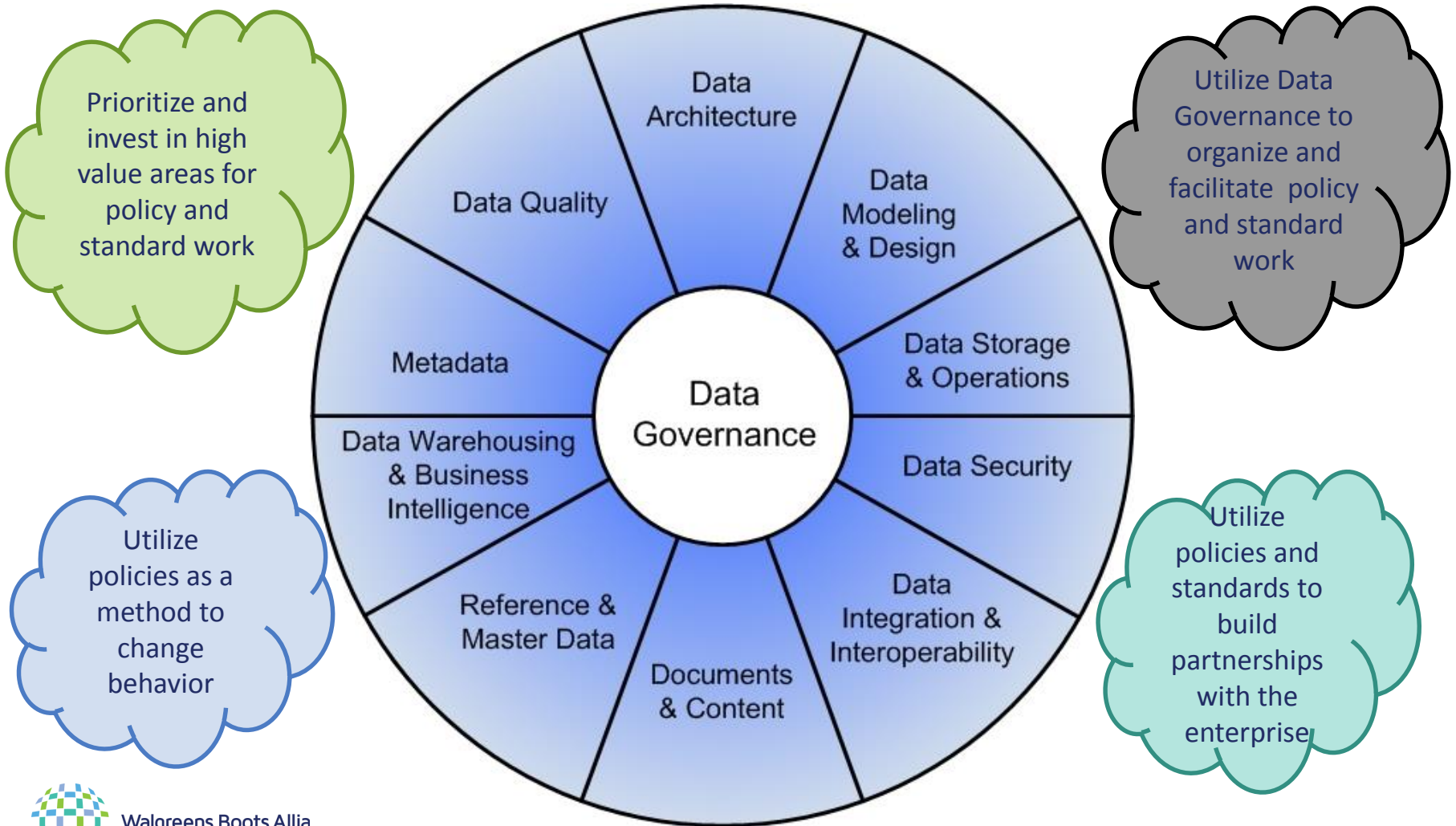
Align Policies and Standards with EIM Goals

- To **understand the information needs** of the enterprise and all relevant stakeholders.
- To **reduce costs through efficient management** of data and information.
- To **capture, store, protect and ensure the integrity** of the data and information needed, across all business functions and applications.
- To **improve the quality and availability** of data and information throughout the enterprise.
- To promote **consistent understanding of the meaning and context** of data across the enterprise.
- To **prevent inappropriate use** of data and information.



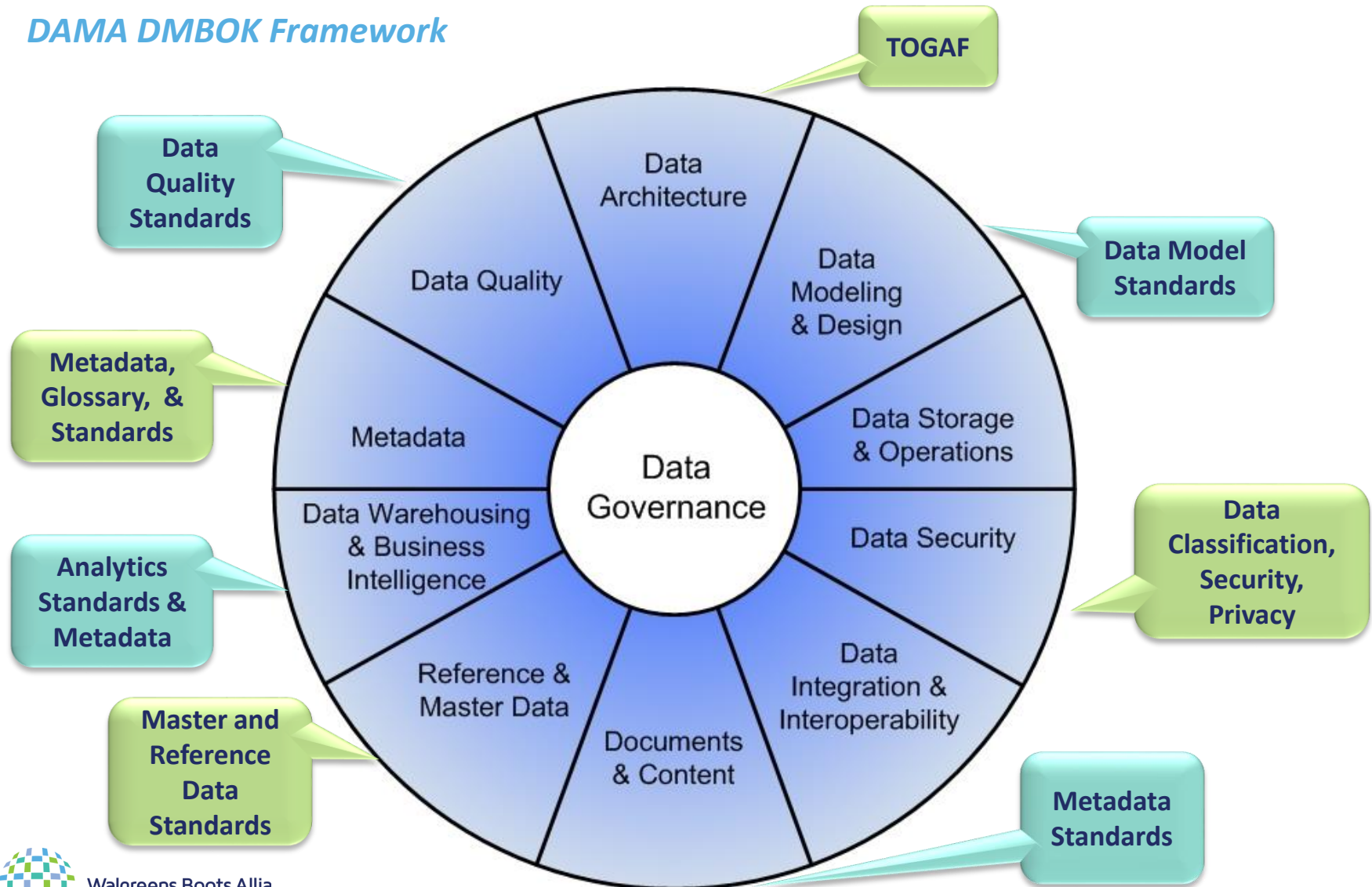
Align Policies and Standards with Enterprise Information Management Framework

Context within the DMBOK Framework



Align Policies and Standards with Your Program

DAMA DMBOK Framework



Policies and Standards: Cultural and Corporate Structural Alignment

- What does your executive committee value?
- Is the organization centralized or de-centralized? Are there existing enterprise programs to align with?
- Will the policy be enforceable enterprise-wide or partial?
- How will the policy or standard be enforced? Recommendation? Full enforcement? How are other policies enforced?
- Is the policy in keeping with existing IT, Risk, and Privacy policies?
- Are there organizational partners willing to do the policy and standard work?
- Is there adequate funding?
- Others...



Policies, Standards and EIM / Data Governance

- **Policies and Standards** can support EIM and Data Governance by improving:
 - Management of Data Risk & Data Security
 - Master & Reference Data consistency
 - Meta Data richness and consistency
 - Data Quality
 - Data Model consistency
 - Analytics metric consistency and quality
 - Definition of Data Governance Roles and Responsibilities, Structure and Authority
 - Others?

***Policies and Standards will improve
Communication, Discussion, Acceptance, and
Understanding of Enterprise Information
Management and Data Governance.***



Walgreens Data Management History



Walgreens – Pre-Merger

Walgreens



In 2012, Walgreens was the largest drugstore chain in the U. S. The Company had 240,000 employees and more than 8,300 locations.

■ *Business Mix:*

- *Store Pharmacy*
- *Retail – brick and mortar*
- *E-Commerce – Walgreens.com, other websites such as drugstore.com, vision.com, skinstore.com*
- *Retail and Corporate Clinics*
- *Specialty pharmacy*
- *Home Care*
- *Infusion and Respiratory*

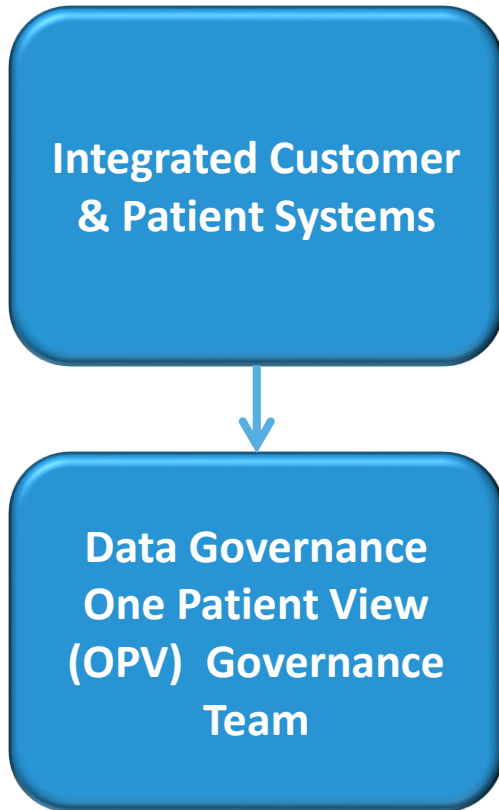


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Walgreens Data Governance – 2009

Early Data Governance efforts at Walgreens

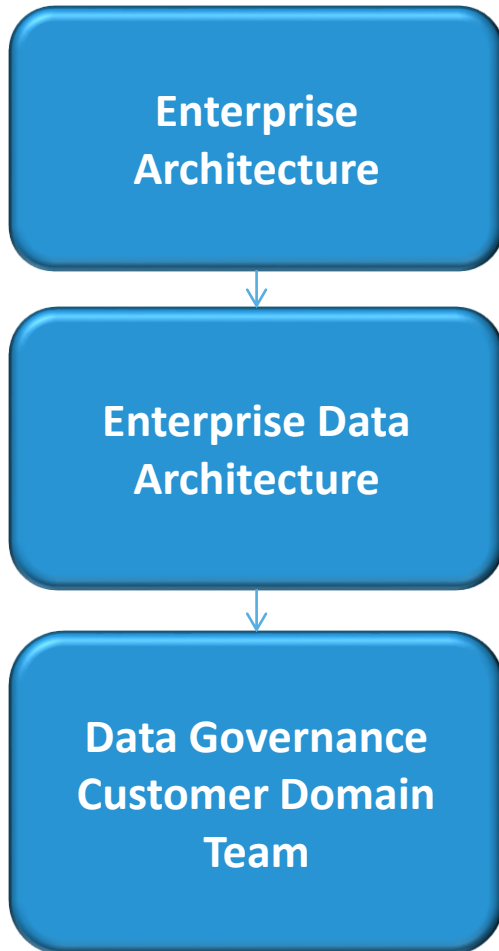


- Data Governance formally kicked off in 2009 with one FTE
- Reported to a customer /patient master data application system
- Governance team consisted of one business steward from marketing and a group of operational / technical data stewards
- Focused on Operational Data Governance decisions supporting Customer data quality, such as address – e.g. Addresses would be limited to home, home 2, and work, etc.)
- Governance = “data scrubbers”



Walgreens Data Governance – 2010

Early Data Governance efforts at Walgreens



- Mid 2010, formed Enterprise Architecture
- Still IT based, one FTE for Data Governance
- Set a structure in place to allow for the possibility of a broader focus
- Continued focus on Customer and Patient Data Quality, customer / patient MDM
- Data Governance program had some successes in a single domain:
 - Master Data
 - Data Quality
- Data Governance disbanded in 3rd Quarter 2010

No standards or policies formally approved, and communicated/published



2011 Reformulation of Governance: Key Concepts

Program stayed within Enterprise Architecture, but increased business engagement and enterprise partnerships

Formalized Data Governance: Components of Data Governance, Mission / Vision, Goals, Policies, Standards

Introduced the concept of Data Management, based on DAMA DMBOK models and staff experience

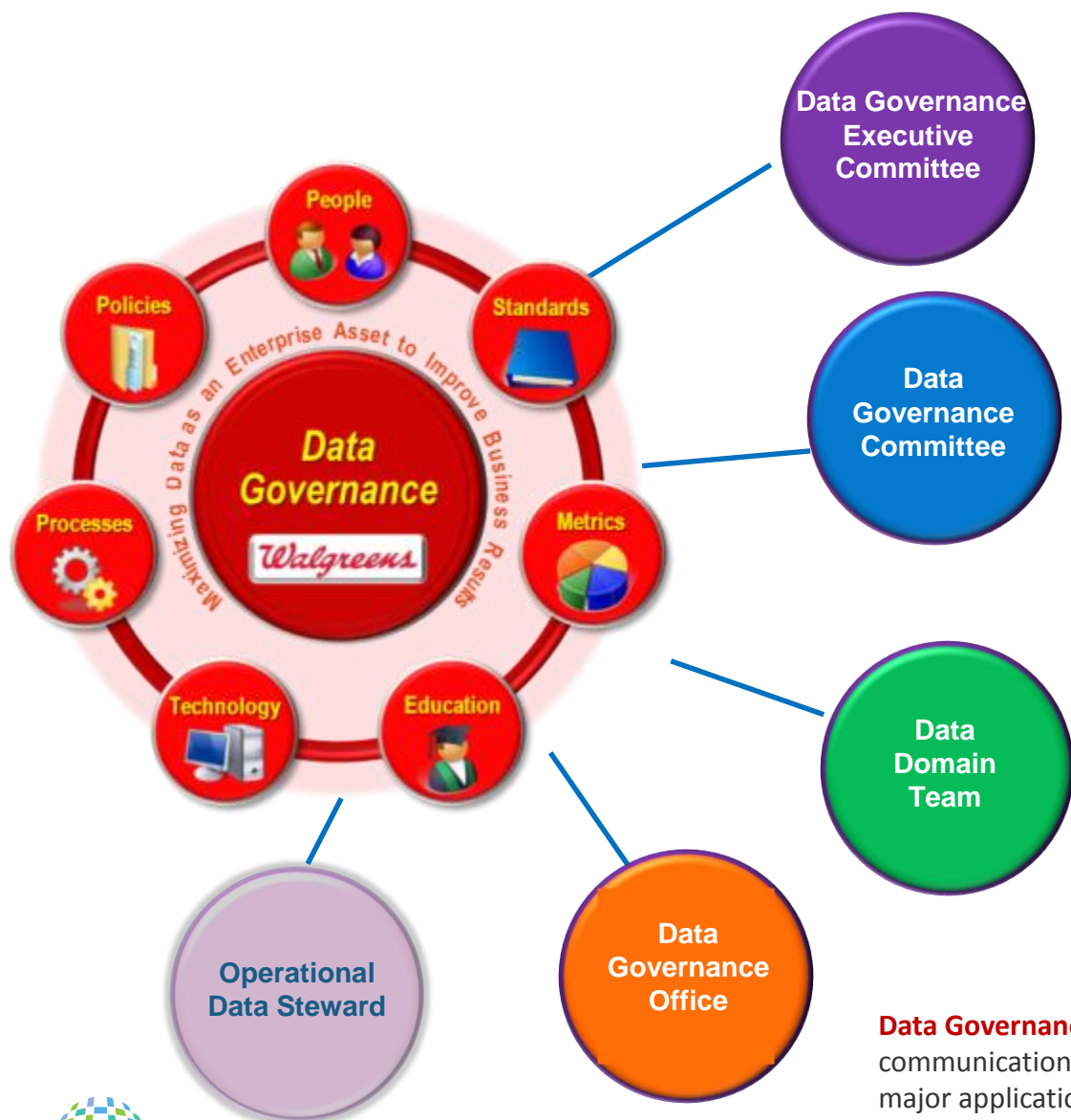
Developed processes to collect, and resolve data management issues (MDM, RDM, Meta Data, business glossary, Data Quality)

Created formal 3 tier stewardship structure (Executive, Operational, Data Domain); formalized roles and established Data Governance Office

Formalized documentation: business glossary, stewardship decisions, education, and communication, marketing, and training



Walgreens Data Governance – 2011 Pre- WBA Merger Structure



Data Governance Executive Committee – provides strategic data management direction to the overall EDG program based on business strategy, direction, and prioritization. Approves enterprise data governance policies, standards, and processes. Communicates and promotes the Enterprise Data Governance program throughout the organization.

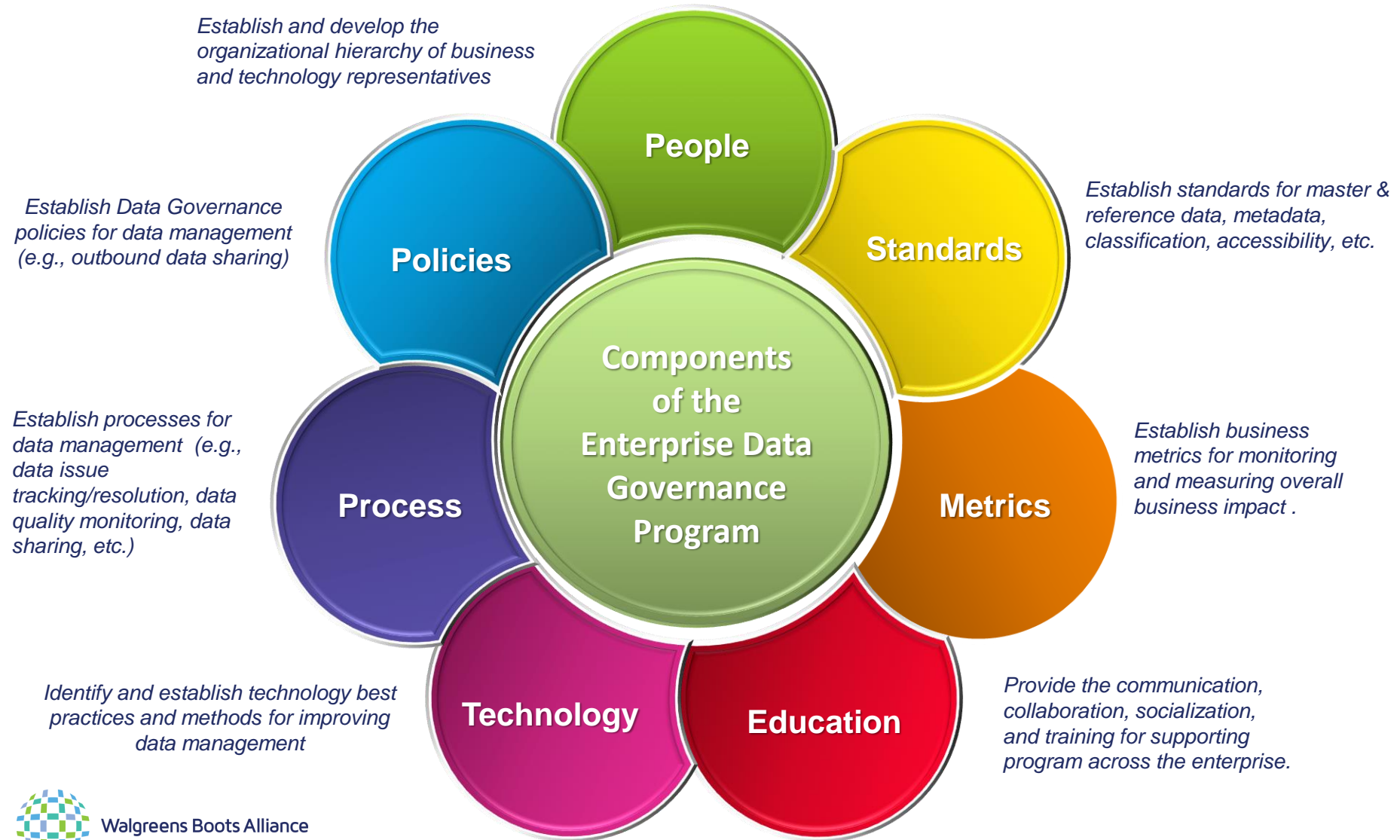
Data Governance Committee – provides operational data management direction for issues, request, and questions that cross data domains or subject areas to ensure approaches and methods are done consistently. Venue for proposing new or modified data management policies, standards, and processes for endorsement by the DGC and then to the EDGECEC for approval. Data Domain Leads serve on this committee besides their own Data Domain Teams.

Data Domain Team – provides direction for operational data management issues and questions for a single data domain or subject area level including development of logical master records.

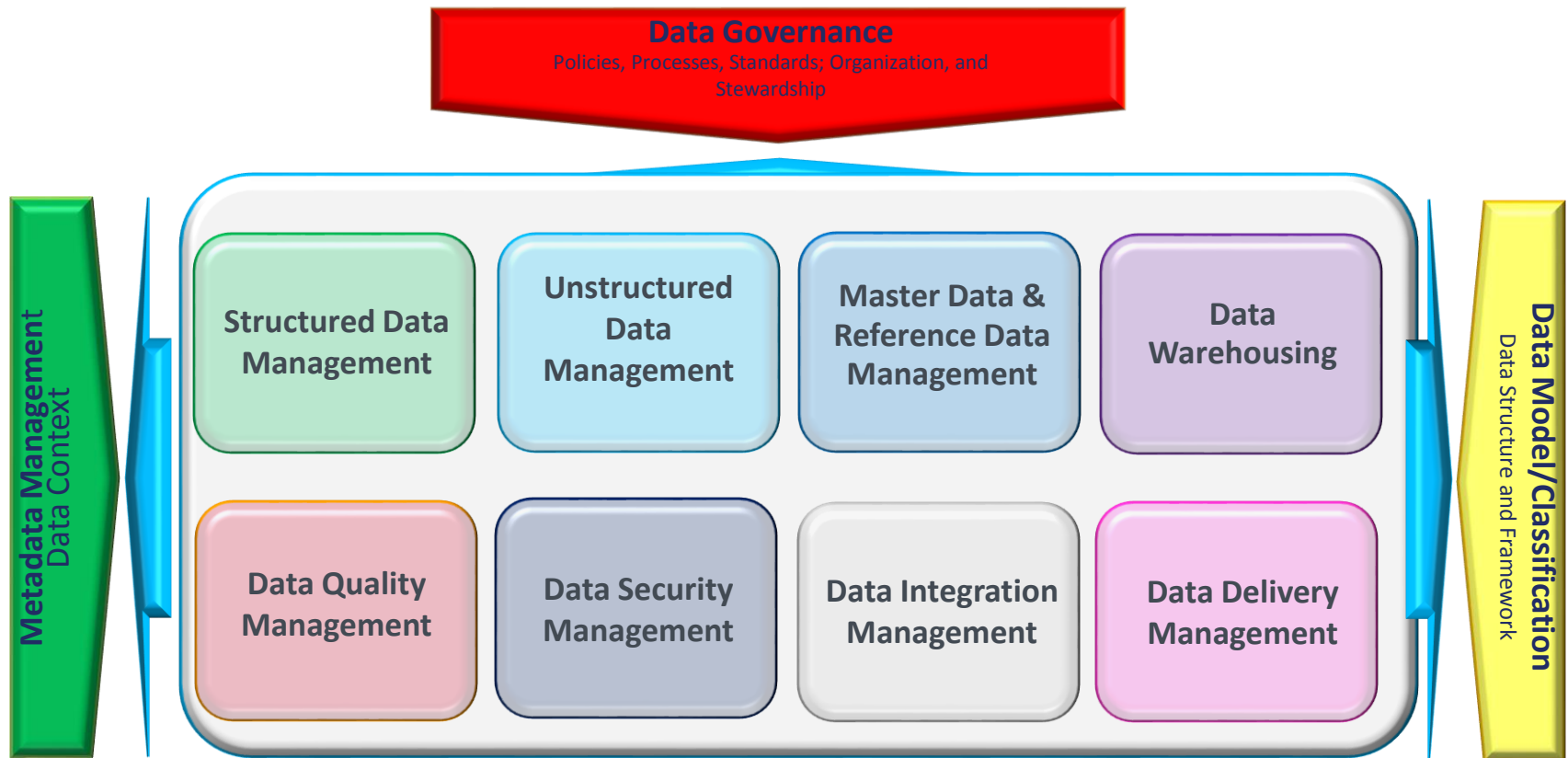
Data Governance Office – provides data management education, communication, and collaboration throughout the enterprise. Supports major application programs and initiatives that have potential impact on enterprise data management direction.



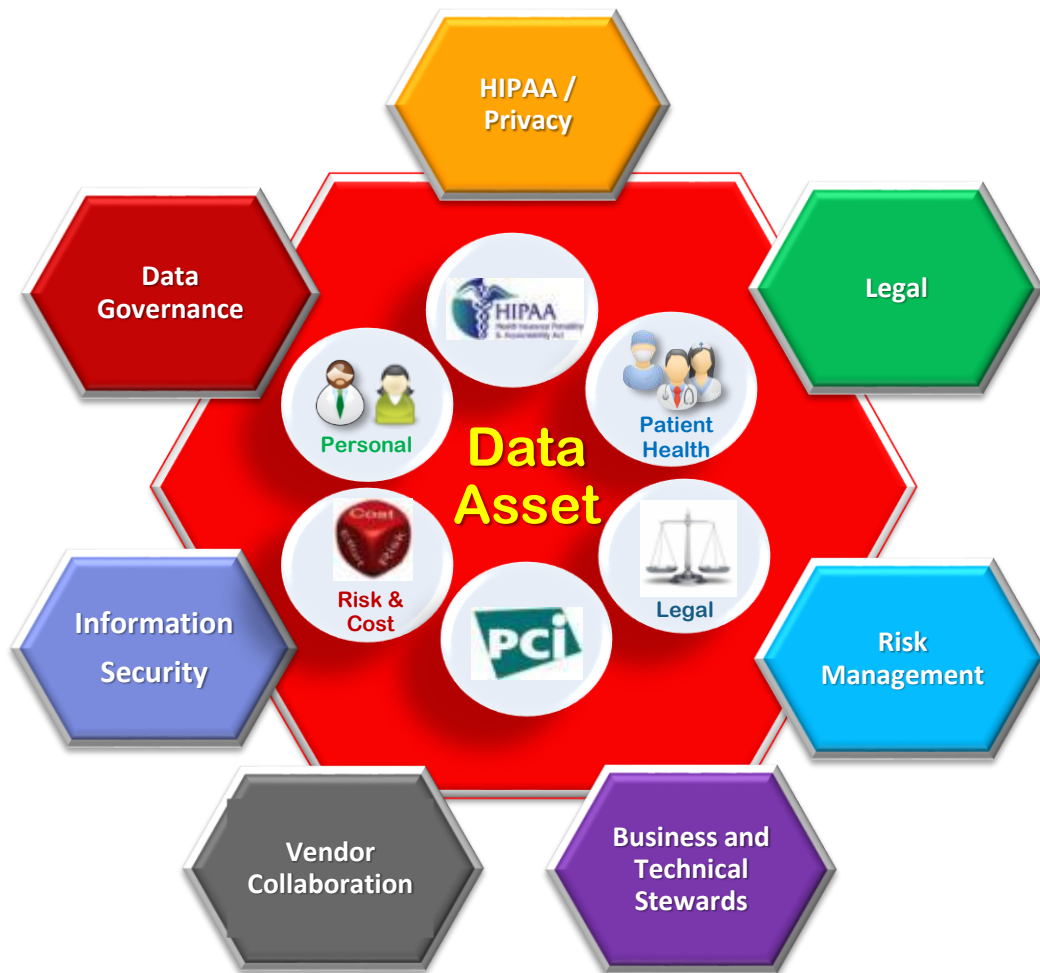
The Components of the Enterprise Data Governance Program



Customized Enterprise Information Management Framework for Walgreens



Developed Enterprise Partnerships



- Stewardship
- Compliance
- Policy
- Data Monetization
- Data Security
- Data Privacy (HIPAA)
- Data Quality
- MDM, RDM
- Education and training



Defined Formal Role Descriptions



Executive Stewards

- Member of the Data Governance Executive Committee.
- Provides strategic data management direction to the Data Governance program based on knowledge of business strategy and business areas priorities.
- Provides approval authority for adoption of Enterprise Data Governance policies, standards, and processes.
- Provides input and approval of targeted projects for the fiscal year.
- Provides input and approval for targeted data domain priorities.
- Provides guidance, direction, and support for funding of Data Governance initiatives.
- Communicates and promotes the Data Governance program throughout the organization.
- Typically at a Divisional Vice President level or above.

Enterprise Stewards

- Member of the Data Governance Committee.
- Provides broad operational data management support for enterprise data management issues and policy requests across all business areas.
- Ensures data management approaches and methods are done consistently across the enterprise.
- Provides primary development, update, & enforcement support for DG policies, standards, & processes as either a member of the DGC or a sub-committee.
- Provides insight, knowledge, and endorsement for adoption of international, national and industry data standards in a timely manner.
- Provides or recommends canonical data structures that can be leveraged by the enterprise.
- Provides endorsement of proposed Enterprise Data Governance policies, standards, and processes that will be presented to EDGEc for approval.
- Identifies and presents potential data issues, from their department/business unit, to the DGC for review and resolution.
- Communicates and promotes the Data Governance policies, standards, and processes throughout their business area.
- Typically at a manager level or above or a subject matter expert.

Operational Stewards

- Member of the Data Governance Stewardship Organization.
- Provides data insights from both a business operations perspective and applicability to relevant data governance issues.
- Identifies and presents potential data issues and requests from their department/business unit, to the Data Governance Office for review and resolution.
- Provides insight and endorses the adoption of international, national, and industry data standards within the business area in a timely manner.
- Communicates and promotes Data Governance policies, standards, and processes throughout the business area.
- Provides guidance for aligning business area data usage with Enterprise Data Governance policies, standards, and processes.
- Provides service account management on critical systems or those containing confidential information.
- A business data expert representing a business area.

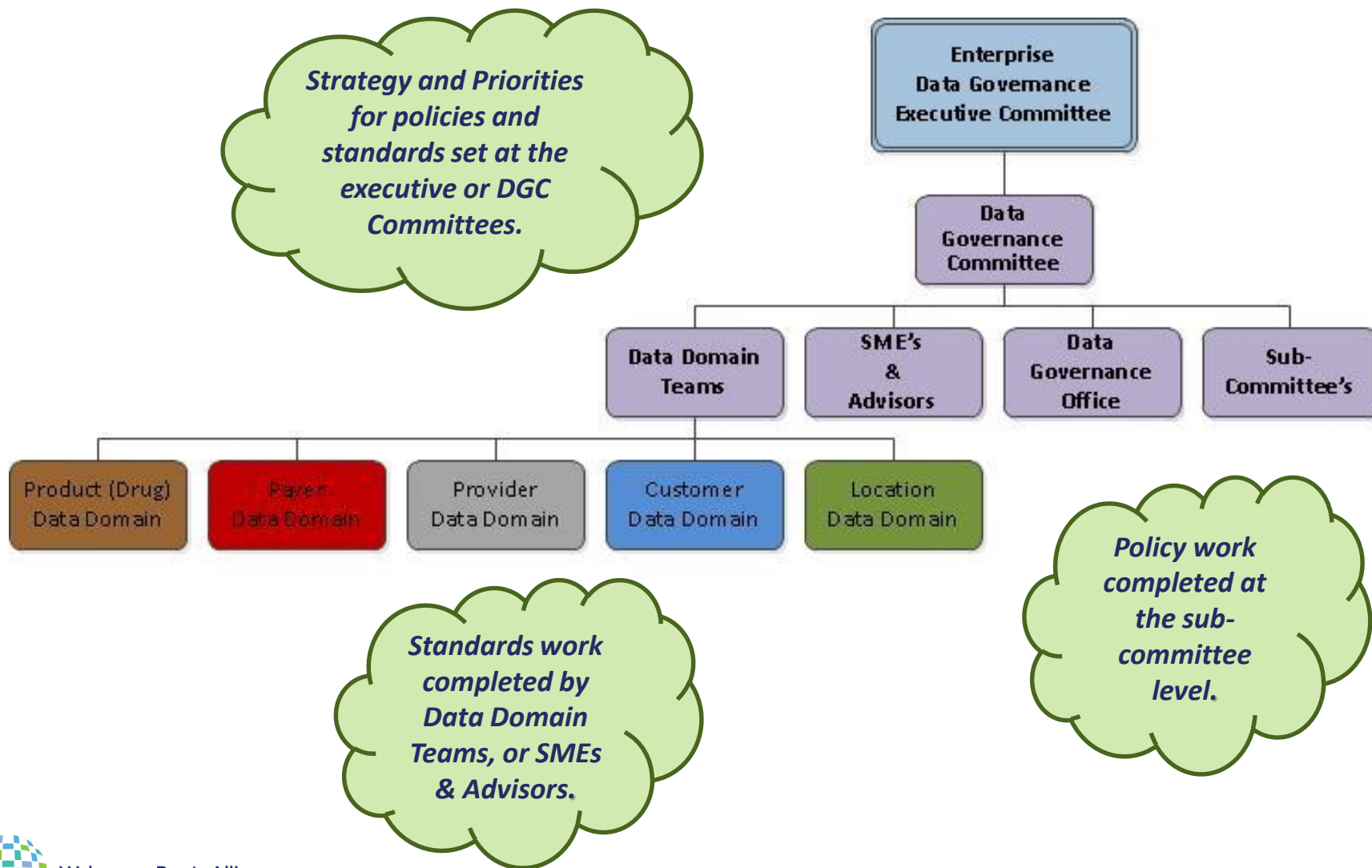
Domain Stewards

- Member of a specific Data Domain Team.
- Provides operational data management support for a specific enterprise data domain (e.g., Customer, Location).
- Aligns with enterprise data management approaches and methods.
- Provides expertise and insight into the operational data management challenges specific to the data domain, as a subject matter expert.
- Provides insights and endorses the adoption of international, national, and industry data standards for the specific data domain (e.g., logical master data record) in a timely manner.
- Provides or recommends canonical data structures that can be leveraged by the enterprise for the specific data domain.
- Communicates and promotes the Data Governance policies, standards, and processes throughout their business area.
- Identifies and presents potential data issues, from their department/business unit, to the Domain Team and the DGO for review and resolution.
- A subject matter expert for the specific subject area.

Governance Structures and Partnerships



Data Governance Organization

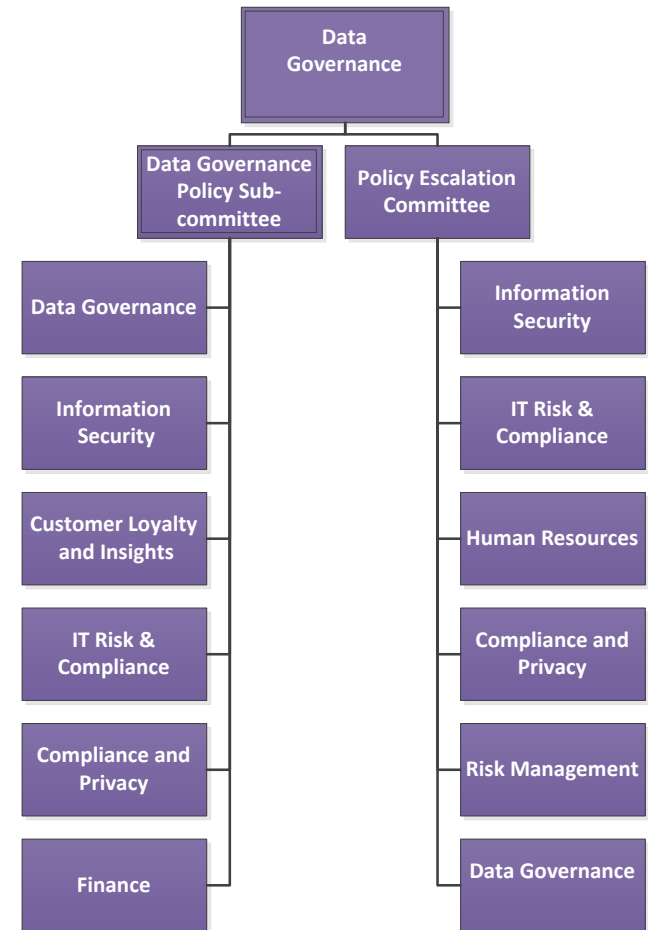


Enterprise Partnerships: Who Should You Include in Policy and Standard Work?



Recommended: Data Governance Policy Sub-Committee(s)

- **Functional Maturity:** Committee may start by making recommendations for policies and enforcement. As the function matures, it may be appropriate for enforcement to be authoritative.
- **Escalation / Exceptions:** Depending on the policy, escalation and exceptions may be to the **Data Governance Executive Committee**, to an **Executive Policy Committee**, or to another **Cross Functional Executive Committee**.
- **Metrics:** Tracking metrics on policy enforcement assists with maturation of function.
- **Range of Authority and Responsibility:** What data? Test? Production? Vendor? Data at Rest? In motion? Structured? Unstructured? E-mail? Wikis, blogs? Verbal?



Set Clear Boundaries on Partnerships

Data Governance does *not own*, but may be involved in conversations on:

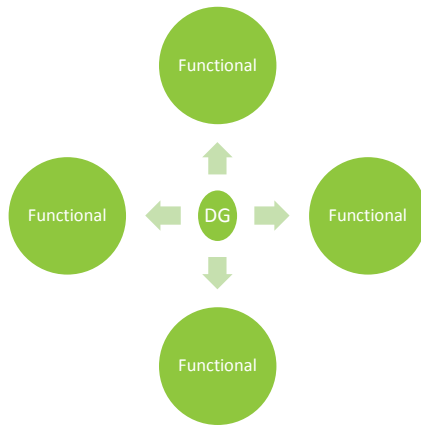
- Interpreting compliance, privacy, HIPAA, and other laws and regulations.
- Establishing protection methods for data assets.
- Interpreting legal and contractual issues.
- Monetizing data.
- Performing a formal data risk assessment.
- Determining data retention.
- Setting practices for test data.
- Deciding if data can be shared and with whom.



Data Governance Models: Structure to Synergize with Your Organization

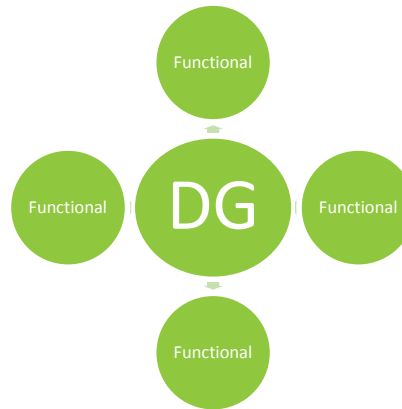
Increasing ability to enforce policies and standards

Functional



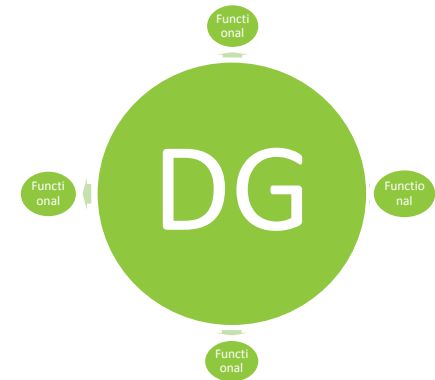
Functional areas operate with complete autonomy. Can choose to implement selected policies and standards to meet specific enterprise requirements, but are not required to. Governance by influence is the norm.

Federated



Responsibility and ownership are shared between functional areas and the enterprise. Data Governance has the authority to enforce certain policies and standards enterprise-wide, but not all. Governance by influence still needed.

Enterprise



Data Governance provides a single point of control and decision making, with functional areas having little or no authority and responsibility. Most data policies and standards are fully enforced at an enterprise level. Governance is authoritative.

*It is fine to fully enforce
on some things, but
only do limited
enforcement on others.*



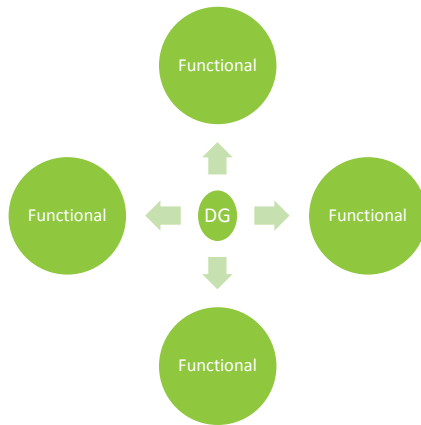
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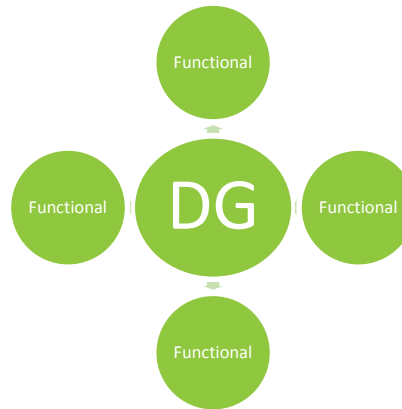
Data Governance Models: Aligning Policies with Your Model

Increasing ability to enforce policies and standards

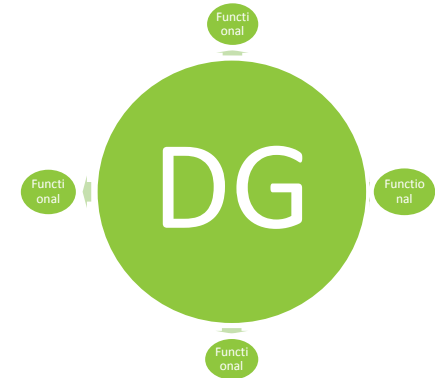
Functional



Federated



Enterprise



Governance by Influence:

- Recommend adherence of projects, systems, and processes to standards.
- Roles, responsibilities are guidelines.
- Determine what data is enterprise, and influence as much as possible.
- If legal or regulatory, enforce consistently.

Shared Responsibility and Ownership:

- Some recommendation, some enforcement of policies, standards, processes.
- Roles, responsibilities can be partially enforced, or guidelines.
- Increased governance of enterprise data.
- Can set up departmental governance efforts.
- If legal or regulatory, enforce consistently.

Single Point of Control (Governance is Authoritative):

- Enforced policies and standards for enterprise data.
- Enforced Data Governance processes, roles, and authority.
- Role in information management lifecycle can be authoritative.
- Compliance with legal and regulatory enforced consistently.



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Data Governance Policies



Data Policies – Some Ideas and Possibilities

Depending on the culture and the need, Data Governance / Data Management Policies may define:

- Data classification and sensitivity.
- Data Sharing Rules (Inbound, Outbound, Internal)
- Adherence of projects, systems, and processes to data governance and information management standards.
- Differentiation between what is enterprise versus departmentally governed.
- Rules of engagement for Data Governance, including definition of the eligibility, training required, roles, and responsibilities of data owners and stewards.
- Application Software Package Acquisition as a Components of the Information Resource Lifecycle
- Defined Quality Standards for Acquired External Information
- Others..

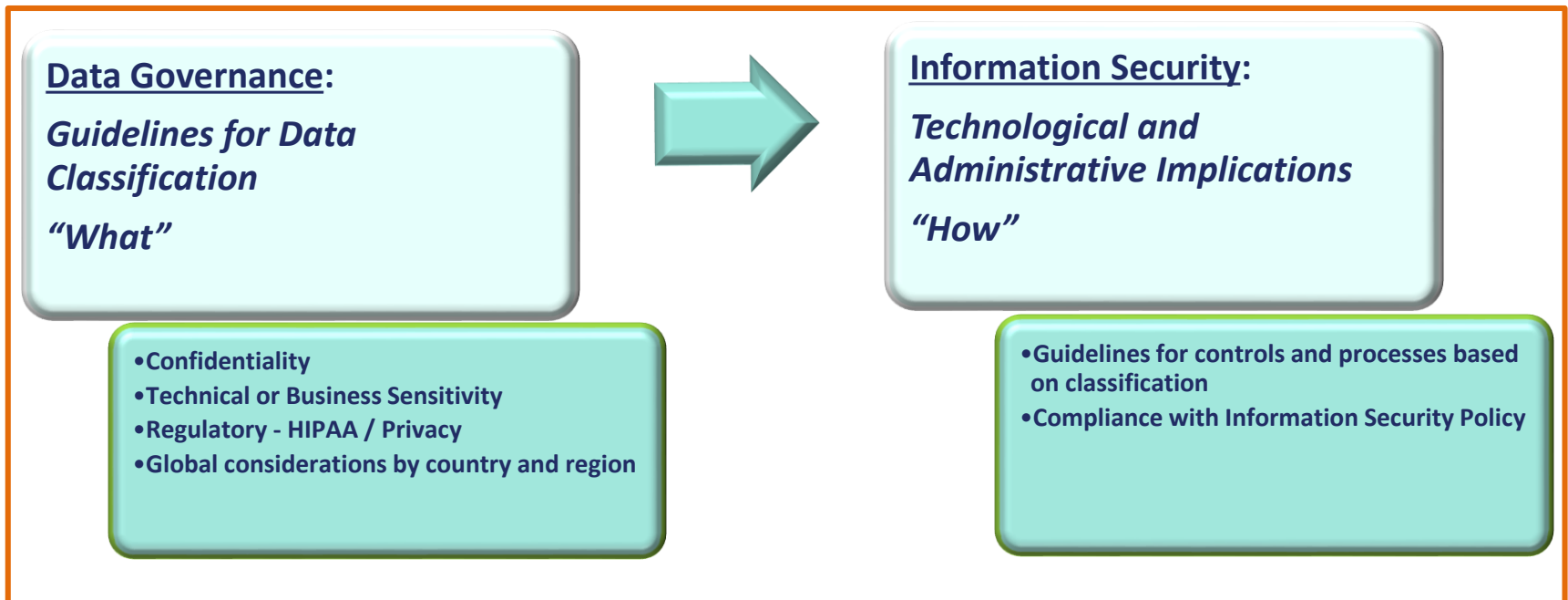
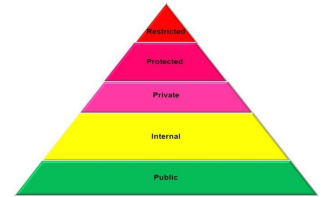


**Always consider
corporate cultural and
political realities**

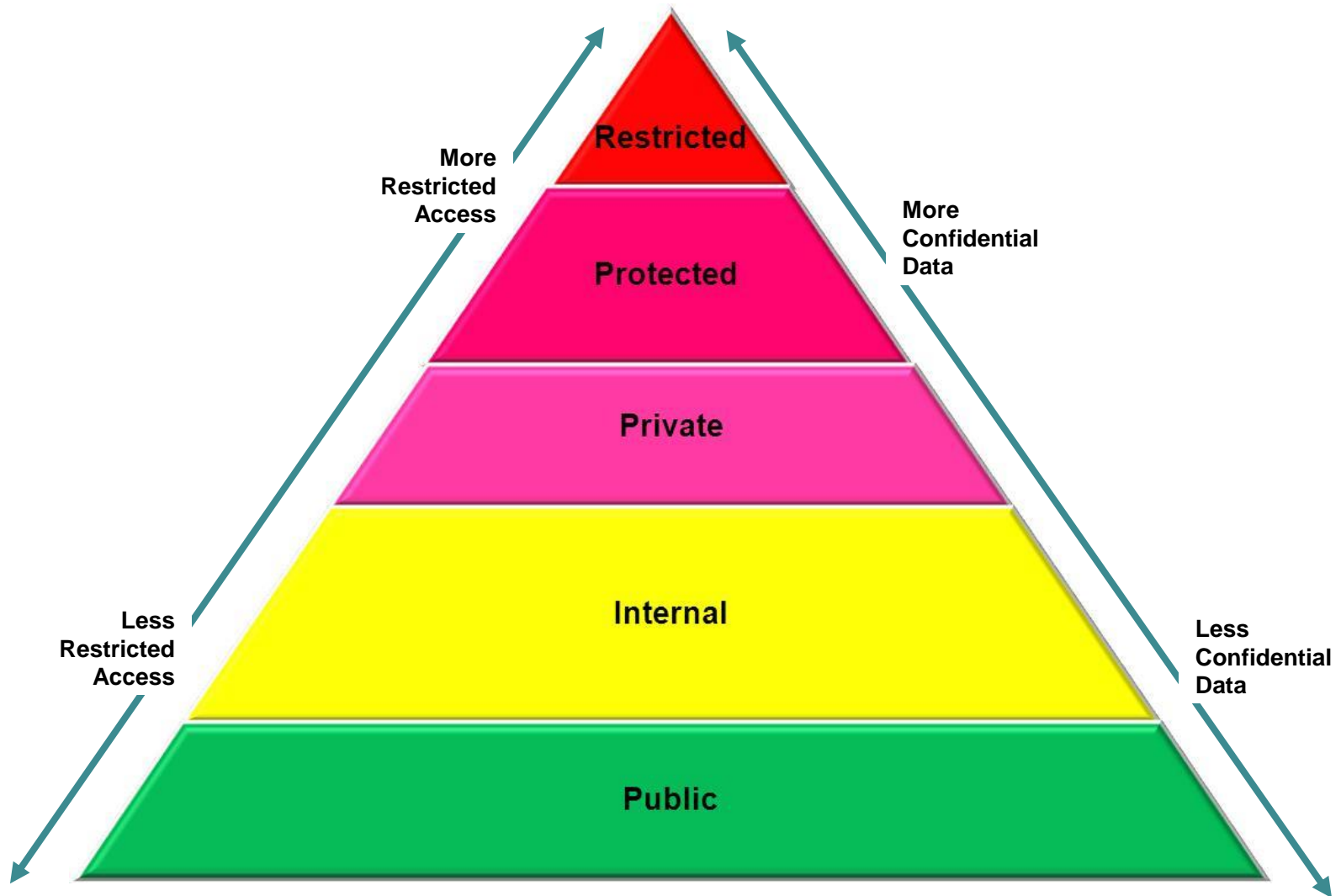


Data Classification Policy

- Provides guidelines for **business decision-making** regarding the **classification or sensitivity** of information.
- Works together with applicable **Information Security Policies, HIPAA / Privacy Policies, Risk**, and **Legal Policies and Practices** to govern and protect customer, patient and business information.

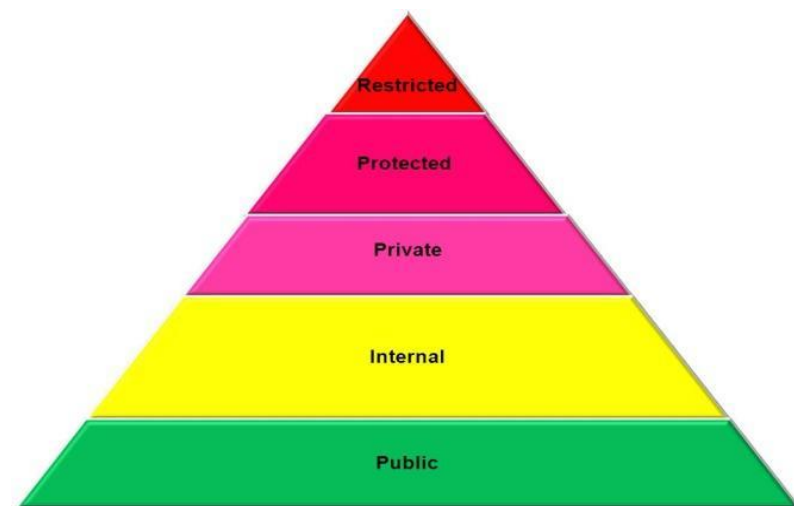


Data Classification Policy – Sample Levels



Data Classification Policy : Additional Considerations

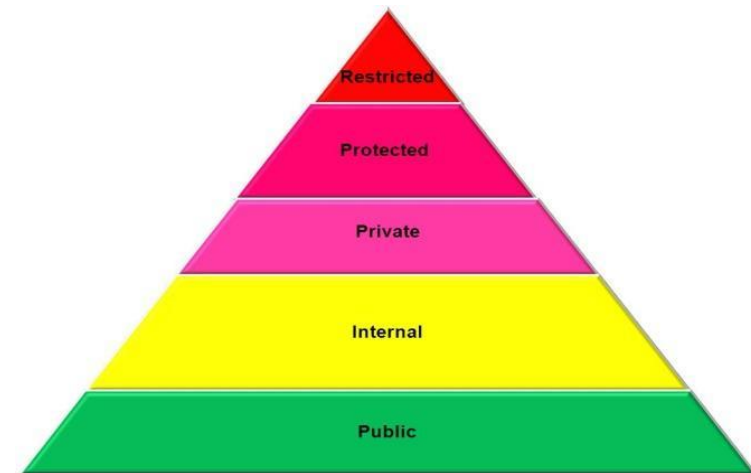
- **Pyramid Levels:** Higher levels of pyramid determined by regulatory and privacy concerns; and by business sensitivity.
- **Consistent Enforcement:** Pyramid should be enforced consistently for the entire enterprise, as much as possible. This may need to be phased in.
- **Global Considerations:** Levels may vary when applied outside of the U. S. due to legal and regulatory concerns, such as E.U. Privacy laws. Do not assume that levels determined for domestic use will apply globally. Work with attorneys to determine.
- **Integrated Effort:** Development and enforcement of this policy will be heavily integrated with other areas of the firm: Privacy, Risk, IT Risk Management, IT Security.
- **Synergies:** Policy can have synergies with non-data governance policies and practices: IT Risk Management, IT Security, Privacy, Regulatory, Legal.
- **Functional Alignment :** Other functions align and leverage policy enforcement, such as data monetization and records retention.



Data Classification Policy : HIPAA Privacy Rule De-identification Methods

Under HIPAA, protected health information can be de-identified two ways:

- **Safe Harbor:** Remove 18 identifiers from the data. This option can render the data largely useless for business purpose but will protect privacy.
- **Expert Determination:** Certification from an expert that there is a low probability the data can be used to re-identify an individual. The expert determination method does not require all 18 identifiers to be removed from the data. Data is looked at holistically by the statistician to determine whether it can be de-identified based on all factors..



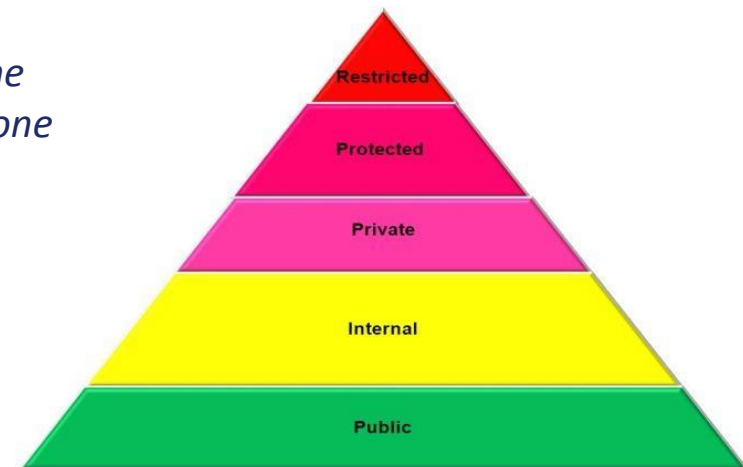
Work with your Privacy Office to determine best practice. Method chosen may affect classification level and thus security protocols. .



Data Classification Policy : De-Identification Standards – HIPAA Statistical Method

A person with appropriate knowledge of and experience with generally accepted statistical and scientific principles and methods for rendering information not individually identifiable:

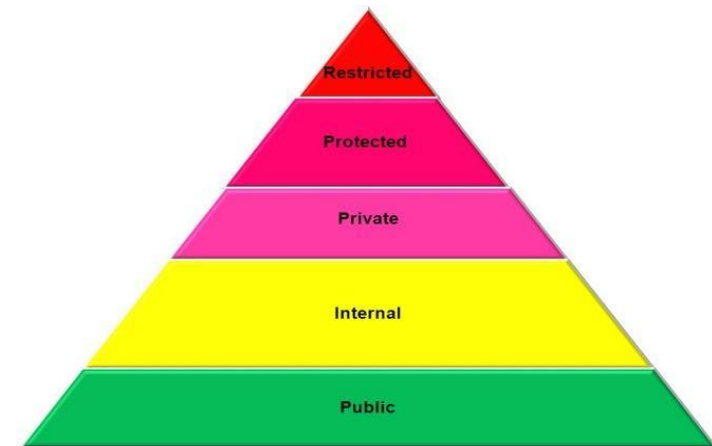
- *Applying such principles and methods; determines that the risk is “very small” that the information could be used, alone or in combination with other reasonably available information by an anticipated recipient to identify an individual who is a subject of the information; and*
- *Documents the methods and results of the analysis that justify such determination*



Data Classification Policy : De-Identification Standards - HIPAA Safe Harbor

Safe Harbor Direct Identifiers and Quasi-identifiers

1. Names
2. All geographic subdivisions smaller than a state, except for the first 3 digit of zip code
3. All elements of dates (except year)
4. Telephone numbers
5. Fax numbers
6. Electronic mail addresses
7. Social security numbers
8. Medical record numbers
9. Health plan beneficiary numbers
10. Account numbers
11. Certificate/license numbers
12. Vehicle identifiers and serial numbers, including license plate numbers
13. Device identifiers and serial numbers
14. Web Universal Resource Locators (URLs)
15. Internet Protocol (IP) address numbers
16. Biometric identifiers, including finger and voice prints
17. Full face photographic images and any comparable images;
18. Any other unique identifying number, characteristic, or code



Data Sharing Policies: Outbound, Inbound, Internal

Provides guidelines for business decision-making regarding the sharing or exchanging of customer, patient, and business information.

Comply with Applicable Policies and Procedures

- Data Classification Policy
- Information Security Policies
- HIPAA / Privacy and Legal Policies
- Business Area Policies and Procedures
- Contractual Considerations

Consider the Need to Share

- Is there a business need to share the data?
- What is the minimum necessary?

Consider the Risk

- Comply with Risk Management procedures
- Consider the party with whom the data will be shared (e.g. vendor capabilities, offshore location)
- Compliance with retention and purge policies



Data and Information Management Policies – Guiding Principles

- What you develop should be tuned to your program's focus areas and goals
- Develop only what you need to make your program successful
- Not everything is a policy - Consider leaving some policies as guidelines, charters, or education and training
- Consider what will have the most impact
- If it is legal or regulatory, you must enforce uniformly. But that is the only case we know of where that is true.

Business
Objectives

EIM Goals

EIM Program
Framework

Corporate
Structure and
Culture

Avoid the political nightmare of being seen as a restrictive burden rather than a useful program. Sell first, then police if you have to.



Policy Development & Enforcement

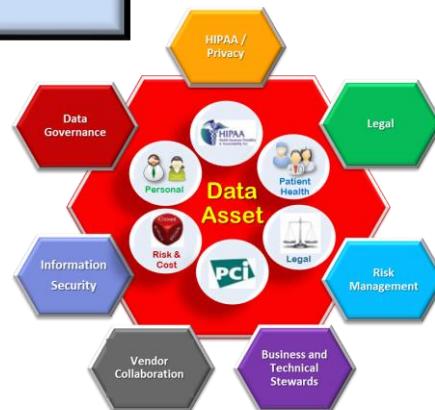


Structuring Policies: Align with Enterprise Policy Standards

- Introduction
 - Purpose
 - Scope
 - Governing Bodies
 - Compliance
- Main Section
 - Policy Details
- Appendices
 - Supporting Policies and Standards
 - Glossary
 - Appendix

For standard policy sections, align and integrate with:

- Established, related policy conventions, format, language, implementation methods
- Related policy content
- Policies can specifically refer to each other, thereby strengthening acceptance and enforcement by the enterprise (e.g. Info Security, Privacy, Data Governance, EIM, Business, IT)

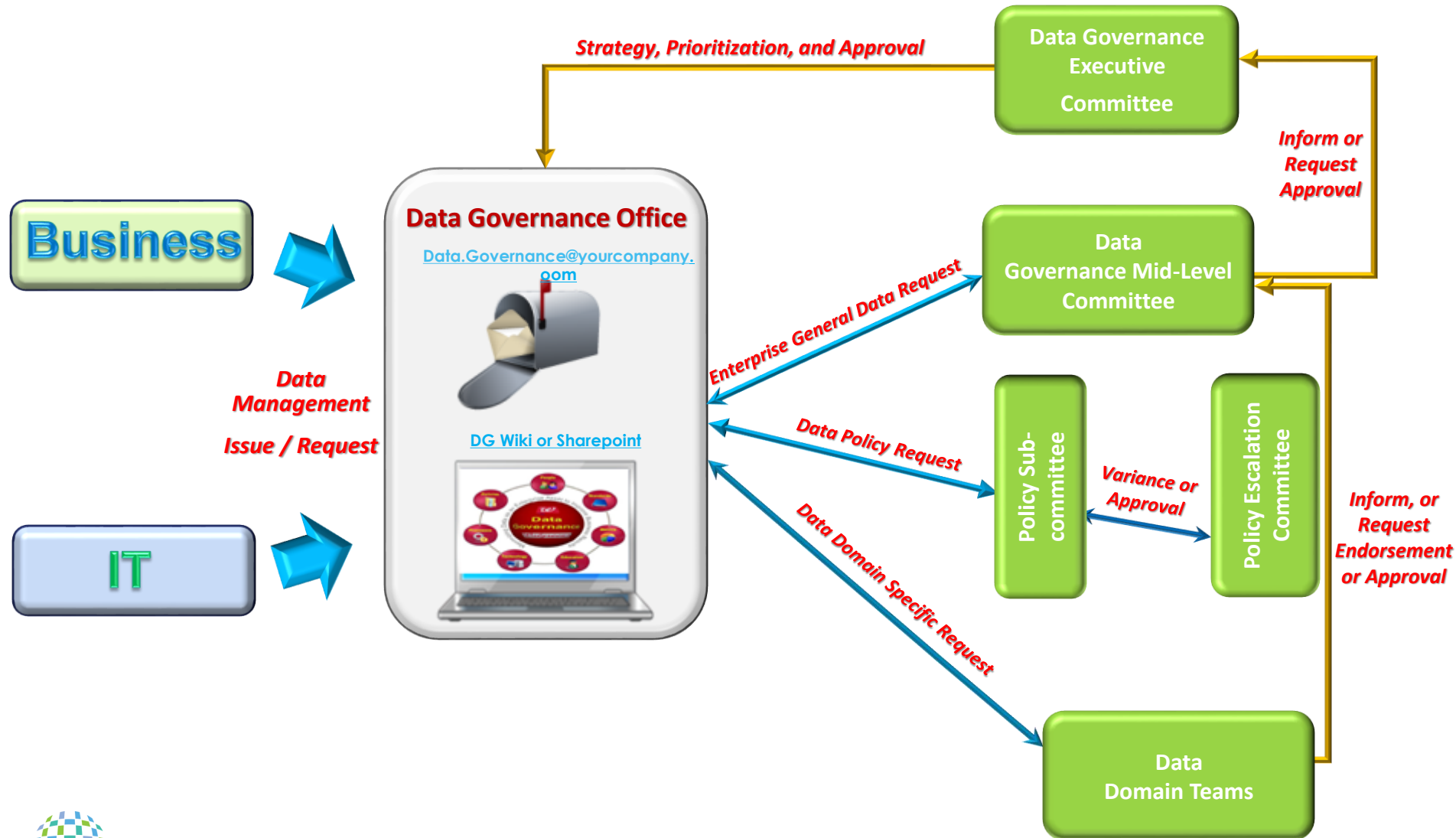


Data Governance Policy - More Details, a Template

Policy Name	
Purpose:	State Purpose of policy: For Example, from a Data Exchange Policy: This policy provides guidance on the minimal qualitative characteristics and information specifications of information acquired from external sources either through purchase (e.g., vendor) or exchange to meet business or technical requirements.
Scope	State Scope: Data and People policy applies to: For example: This policy applies to all customer and business information in all formats (both paper and electronic). This standard applies to all employees, contractors, and agents.
Governing Bodies	Specify group(s) for policy management: develop, approve, application, escalation, variance / exception.
Compliance	Specify how to comply, and ramifications if not complied with . For example : Discipline, up to and including dismissal.
Policy Details	Specific policy details and requirements.
Supporting Policies and Standards	List all supporting and related policies and standards from Legal, Privacy, Compliance, Information Security, Application Development, Business, etc.
Glossary	Define all terms and acronyms.
Appendix	Specific details, such a charts, standards, etc.



Publish Clear, Simple Processes for Issues and Requests



Policy Development, Maintenance, and Approval Process



Enforcement of the Data Classification and Sharing Policies

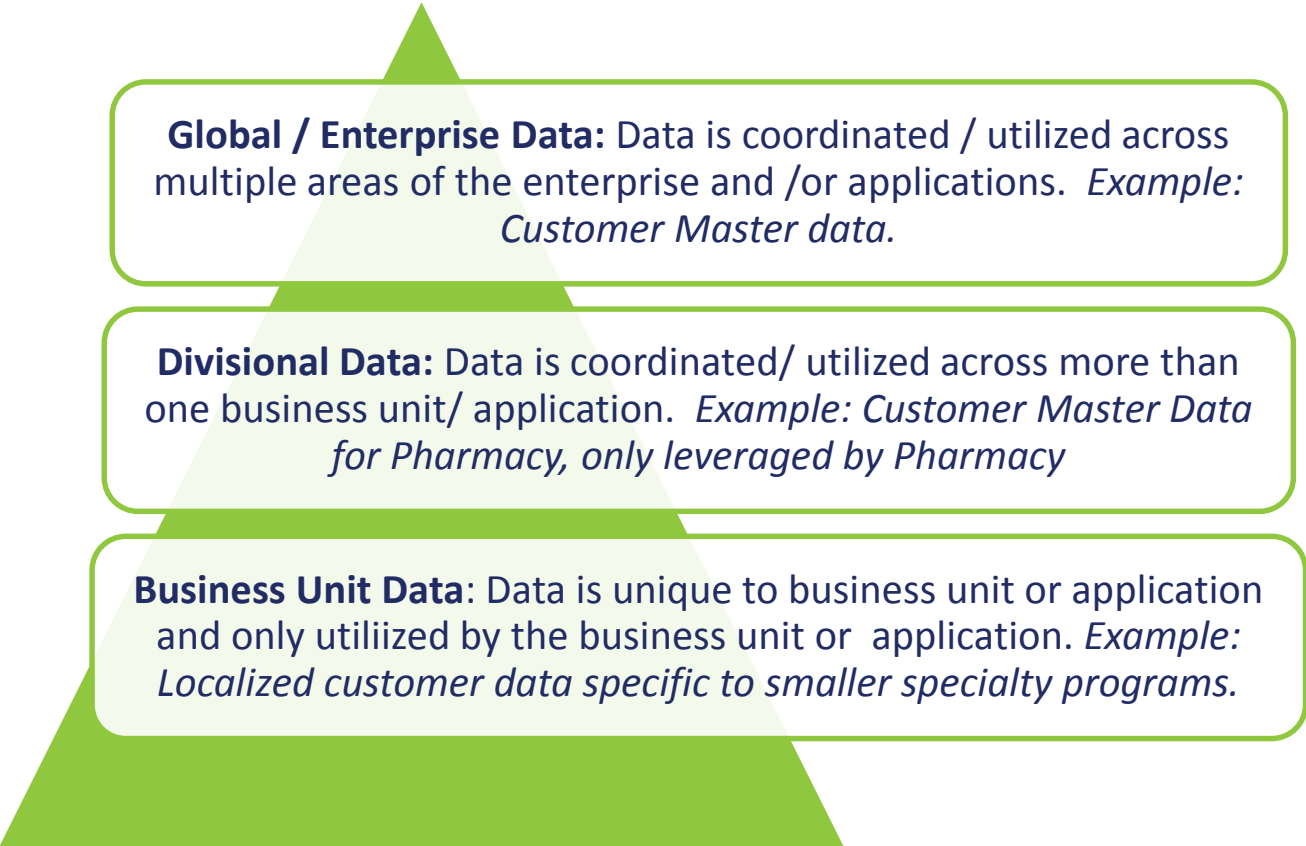


Data Standards



Data Element – Level of Governance – Where to Focus

Data Elements may be organized into three basic classifications: global / enterprise, divisional, and business unit data. Understanding the usage of data elements by the Business and Applications helps determine strategy for application of standards to those elements.



Global / Enterprise Data: Data is coordinated / utilized across multiple areas of the enterprise and /or applications. *Example: Customer Master data.*

Divisional Data: Data is coordinated/ utilized across more than one business unit/ application. *Example: Customer Master Data for Pharmacy, only leveraged by Pharmacy*

Business Unit Data: Data is unique to business unit or application and only utilized by the business unit or application. *Example: Localized customer data specific to smaller specialty programs.*



Leveraged National & Industry Standards



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Established data standards based on industry standards.

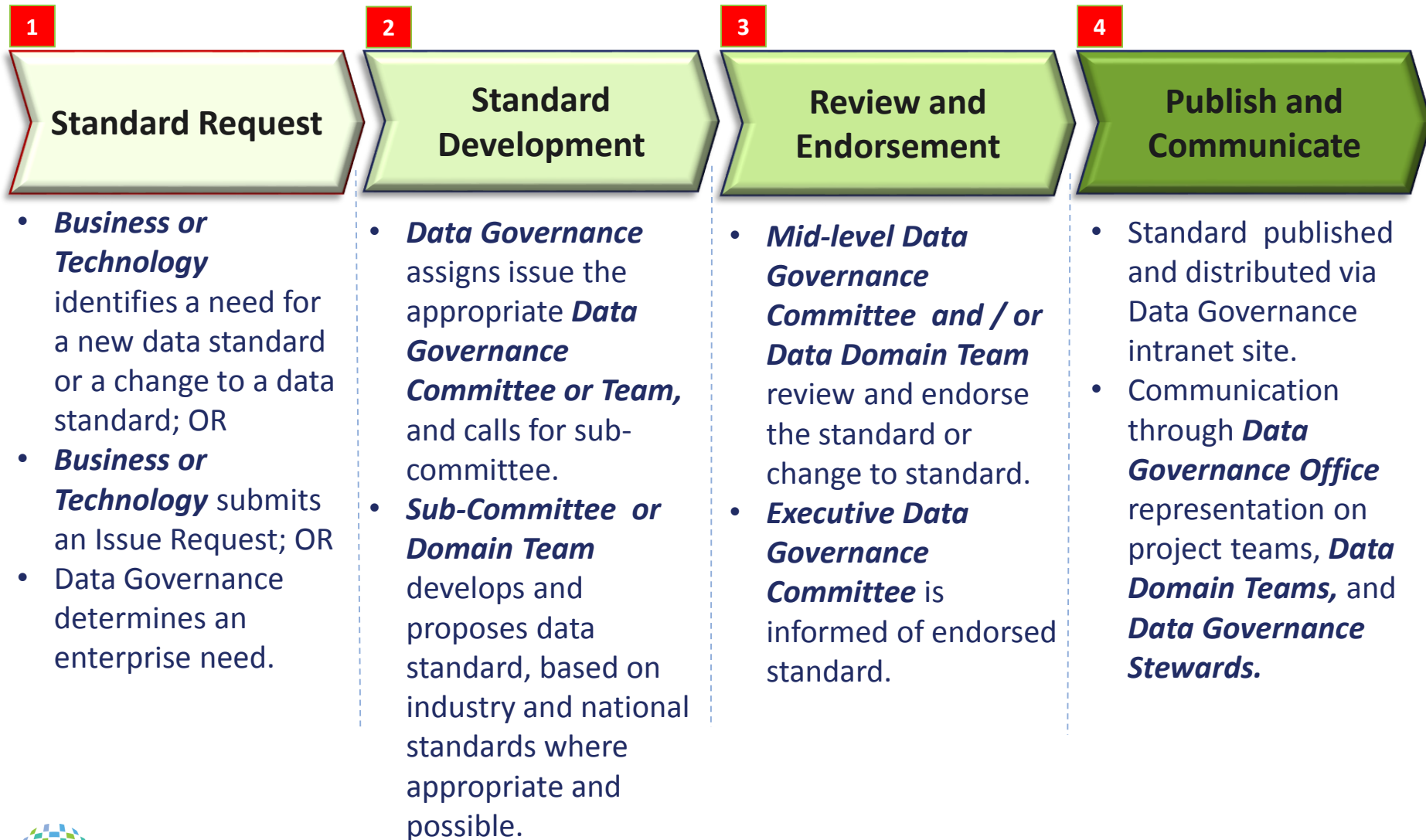
Name	Language	Gender
Race & Ethnicity	Email Address	Marital Status
Telephone	North American Address	Immunization Standard
International (telephone, address, name)	Customer Contact Preferences	Medication History & Allergies
Person Name: Suffix/Prefix	Immunization Codes	Definitions for Enterprise Data & Transactional Data

Standards apply at an enterprise level. Business rules may vary at an application level based on business requirements.

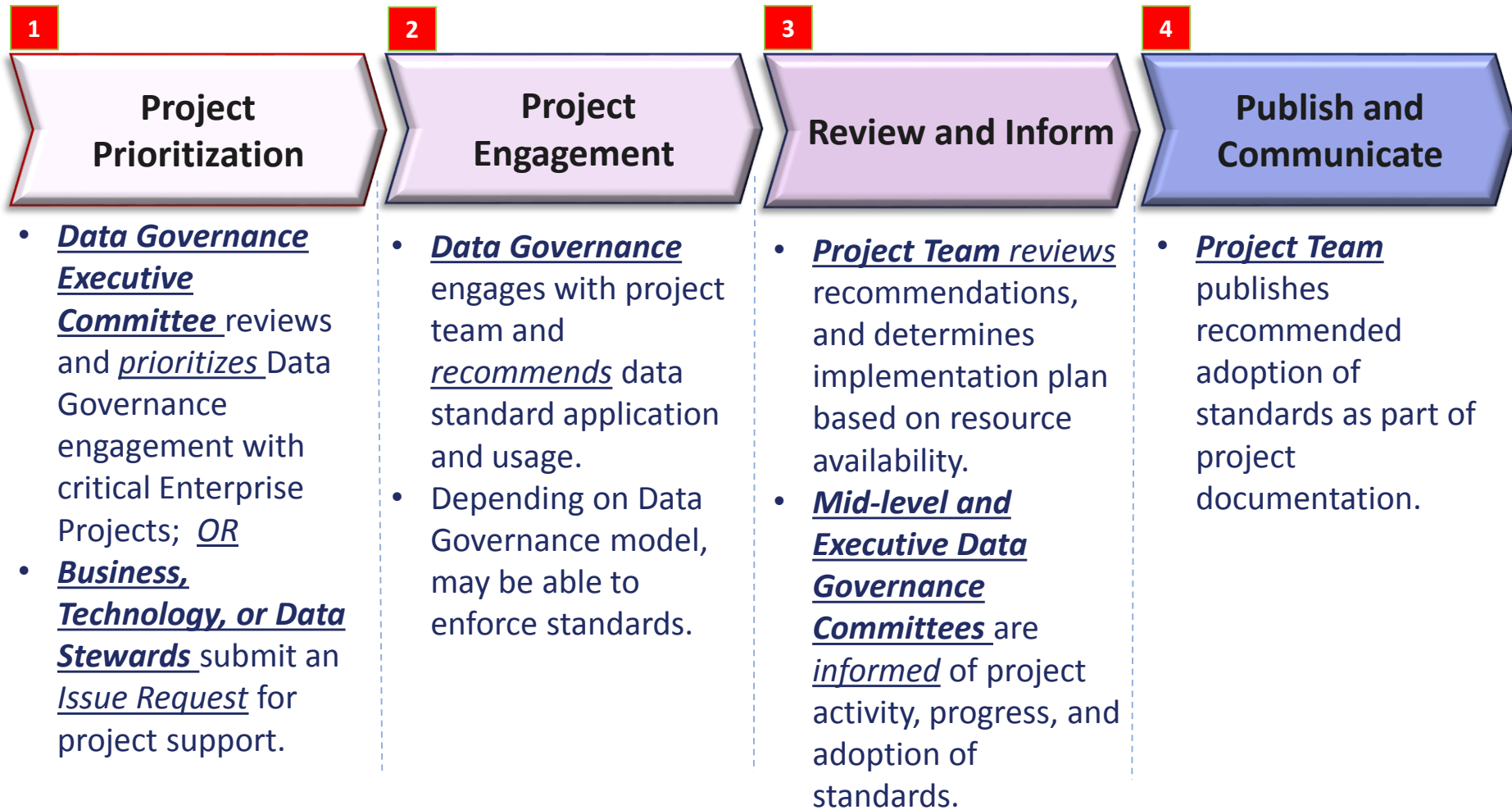
Application of standards should be on a go-forward basis. Retro fitting for legacy systems done on a case by case opportunity basis.



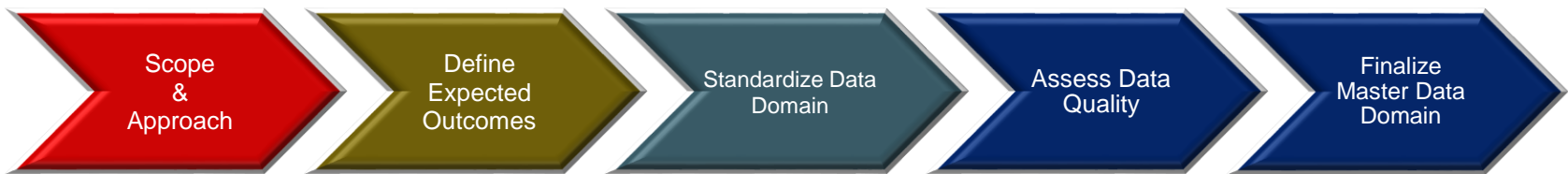
Standards Development / Selection / Harmonization, Update, and Endorsement



Implementation of Standards through Project Teams



Approach to Applying Data Standards to Enterprise Master Data



- ✓ Data Governance Council identifies enterprise master data domain / sub-domain business priorities.
- ✓ Data Domain Teams determine divisional relevance and high level requirements (needs mastering across divisions, common structures, master system of record, etc.)
- ✓ Data Governance Offices produces a business case, define roadmap, critical path and key dependencies with other programs.
- ✓ Confirm impact and outcomes: data model, and logical master records impacted.
- ✓ Confirm Master Data technology and architecture type recommendation by master data domain in partnership with Data Architecture and / or other appropriate data management or governance groups.
- ✓ Determine roadmap and implementation approach, including review of existing master data programs currently in production or planned.
- ✓ Gather high level business requirements for data domain.
- ✓ Gather and review business processes and potential internal source(s) of record, including MDM tool data standards.
- ✓ Identify potential external data sources (if required) as source of record
- ✓ Consider external standards to apply (e.g. GS1, etc.)
- ✓ From the above inputs, identify initial set of data fields that make up the global logical data record for master data; and relationships and hierarchies.
- ✓ Conduct Data Quality assessment across 6 dimensions (accuracy, completeness, timeliness, consistency, compliance, metadata) & data profiling for the initial enterprise logical master record.
- ✓ Determine external data sources based on data quality assessment.
- ✓ Publish data quality baseline for source system changes and enterprise logical master record.
- ✓ Finalize internal data source(s) .
- ✓ Recommend enterprise master logical record structure; relationships and hierarchies; metadata / business glossary terms.
- ✓ Establish new Master Data Domain in Enterprise or Divisional MDM Hub using candidate source(s); application(s); and enterprise master record.

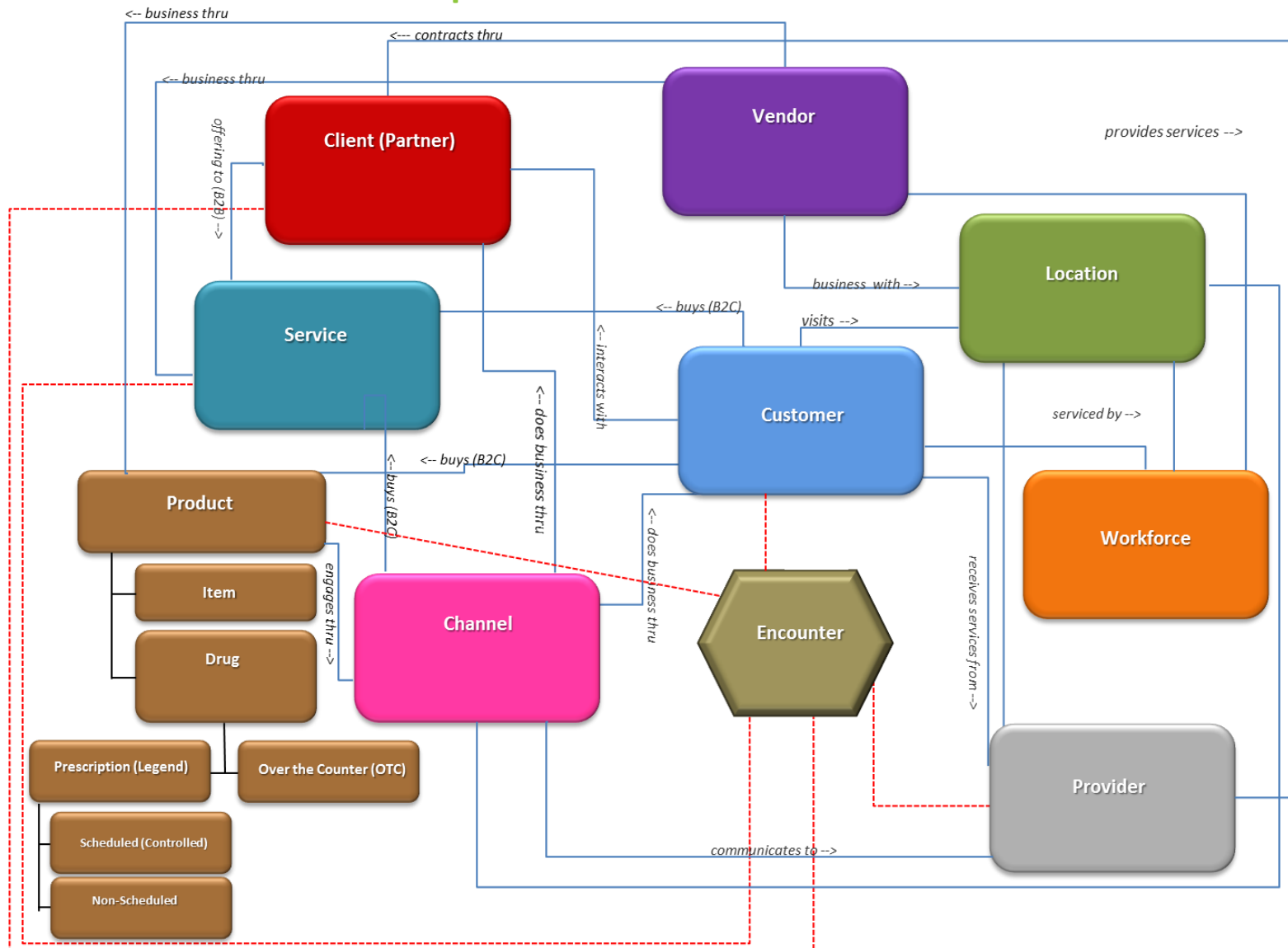


Defining a Logical Master Record - Sample Worksheet

			<u>Business Definition</u>	<u>Projects</u>		<u>Applications</u>			<u>External Sources</u>				<u>Standards</u>						
			Bus Defi	Proj 1	Proj 2	App 1	App 2	App 3	First Data Bank	Medi span	NLM Rx Norm	CMS	HIE	HL7 2.6	NCPDP D.O	NCPDP Telecomm	NCPDP Data Dict	NCPDP Common Elec Data Interchange	SOP's
<u>Categories</u>																			
Drug Information	Drug Unique Identifiers	NDC							X	X				X	X	X	X	X	
		UPC							X	X				X	X	X		X	
		HRI							X	X					X	X		X	
		RXCUI									X								
	Drug Type	DEA Class Code							X	X				X		X	X		
		AHFS Therapeutic Class Code							X	X									
		Therapeutic Equivalence Code							X	X						X	X		
	Ingredients	Active = API							X										
		Inactive							X										
		Active moiety							X										
		FDA UNII																	
		Strength							X	X				X			X		
		Dosage							X	X				X		X	X	X	
		Appearance							X										
		SRS																	
	Description	Shape (form?)								X									
		Route of Administration (oral, topically)																	
									X	X				X	X	X	X	X	
		Size							X	X									
		Unit							X	X				X	X	X	X	X	



Standardized Enterprise Data Domains & Transaction

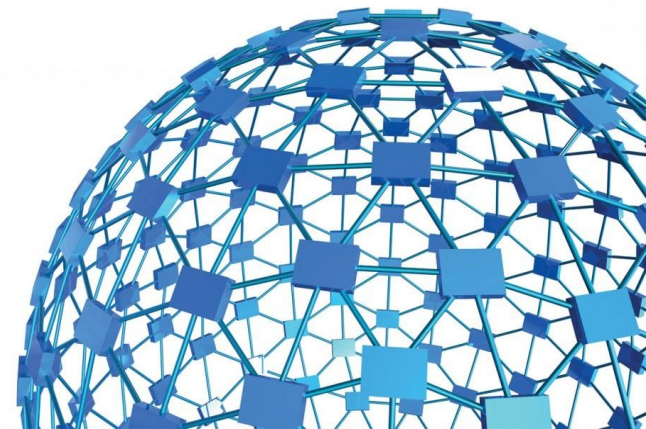


The Emergence of Global Data Governance



Global Data Governance Practice Goals – A Draft

- Engage with **targeted global and divisional programs** to build and maintain data consistency and quality for the full lifecycle of key data domains.
- Enable and ensure the **alignment of global** data governance program **timelines and tasks** with targeted global and divisional program timelines and tasks, managing dependencies between programs.
- Provide **support for funding** of Global Data Governance initiatives. This will primarily be divisional project-based funding.
- Develop and **standardize data** domains, data glossary, data standards, data models, and data hierarchies across divisions and projects supporting targeted master and analytic data.
- Ensure a level of **conformity for** definition and approach to **data management**.
- **Provide expertise** where needed and available. Advocate to obtain expertise where gaps exist.



Global Data Governance Scope and Priorities – Evolving

- Global Data Model(s)
- Global Master Logical Records
 - Global Data Attributes
 - Attribute Metadata
 - Application of Data Standards
- Local and Global Hierarchies / Relationships
- Business Glossary
- Data policies and standards
- Global Data Standards (GS1, etc.)
- Governance Processes and Approval

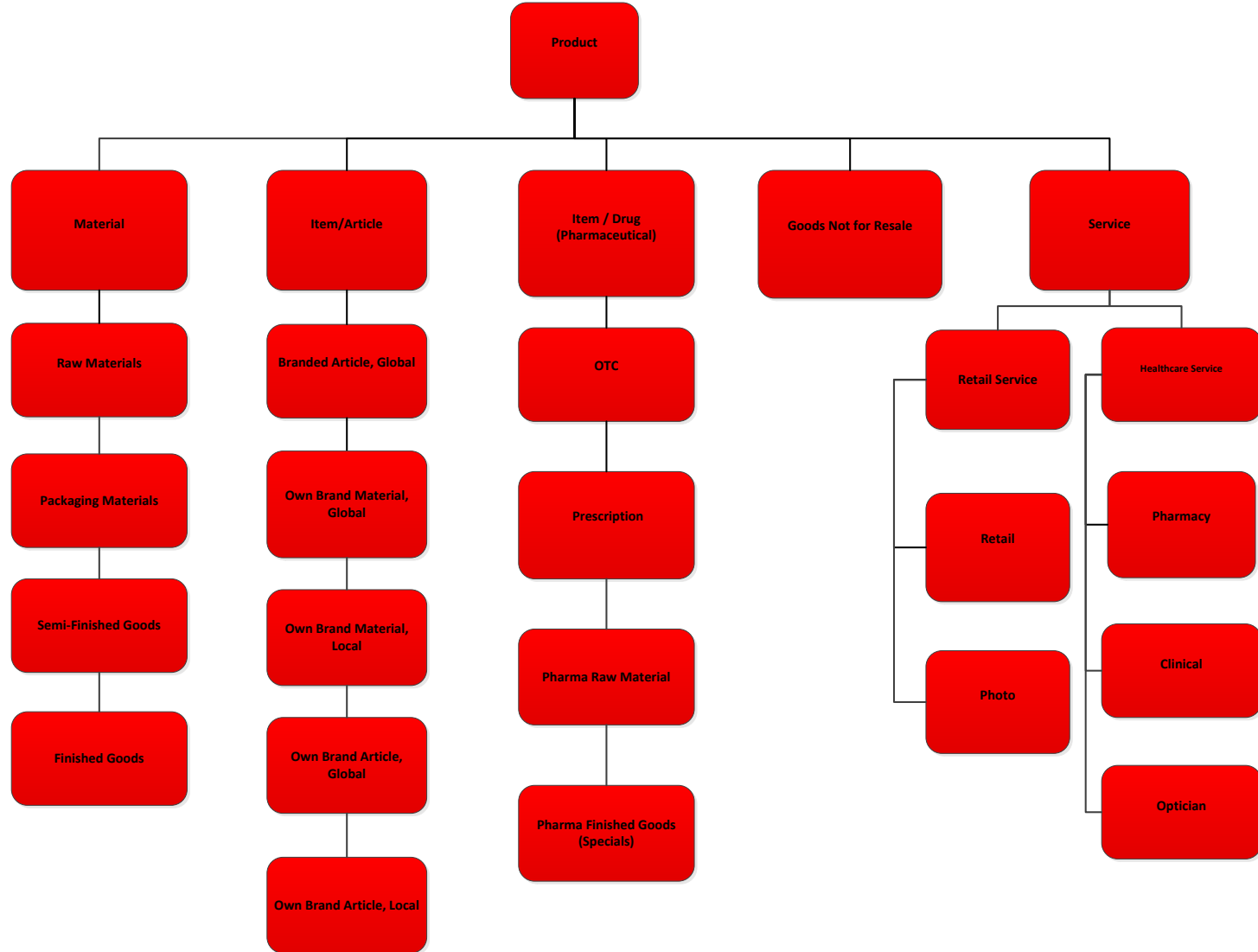


Global Data Governance Data Domain Steward Role - Evolving

- Develop and standardize data domains, data glossary, data standards, data model, and data hierarches across divisions and projects supporting targeted master data.
- Provide domain specific subject matter expertise where needed and available:
 - Provide insights and endorse the adoption of international, national, and industry data standards for the specific data domain (e.g., logical master data record).
 - Provide insights from both divisional operations and project perspectives.
- Provide input to effectively manage dependencies between programs.
- Provide input and endorsement for the adoption of applicable Global Data Governance policies, standards, and processes.
- Enable primary development, update, & enforcement GDG policies, standards, & processes.



Data Domains - Product Logical Representation



Global Data Governance Council Role and Responsibilities (proposed – future)

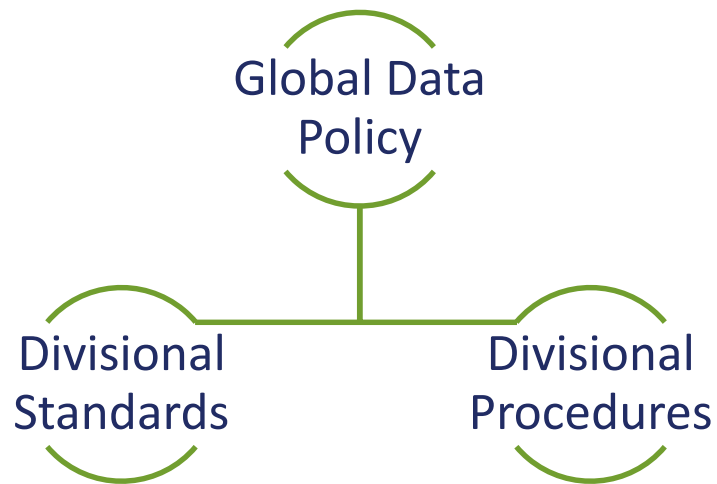
The Global Data Governance Council has the authority to recommend a set of data governance policies, standards, processes, metrics, structures, and solutions; and to develop the general criteria regarding qualifications and selection of Global Data Governance team and committee members.

The Global Data Governance Council will perform the following duties:

- Provide strategic data management direction to the Global Data Governance (GDG) practice based on knowledge of business strategy and business area priorities.
- Set a strategy for data management approaches and methods so that they are done consistently across WBA.
- Provide input and approval of projects to be considered for Global Data Governance engagement; and for targeted data governance priorities, including data domain priorities.
- Enable and ensure the alignment of global data governance program timelines and tasks with targeted divisional program timelines and tasks.
- Provide support for funding of Global Data Governance initiatives. This will primarily be divisional project-based funding.
- Appoint data domain team and sub-committee members to carry out data governance work.
- Provide approval authority for adoption of Global Data Governance policies, standards, and processes.



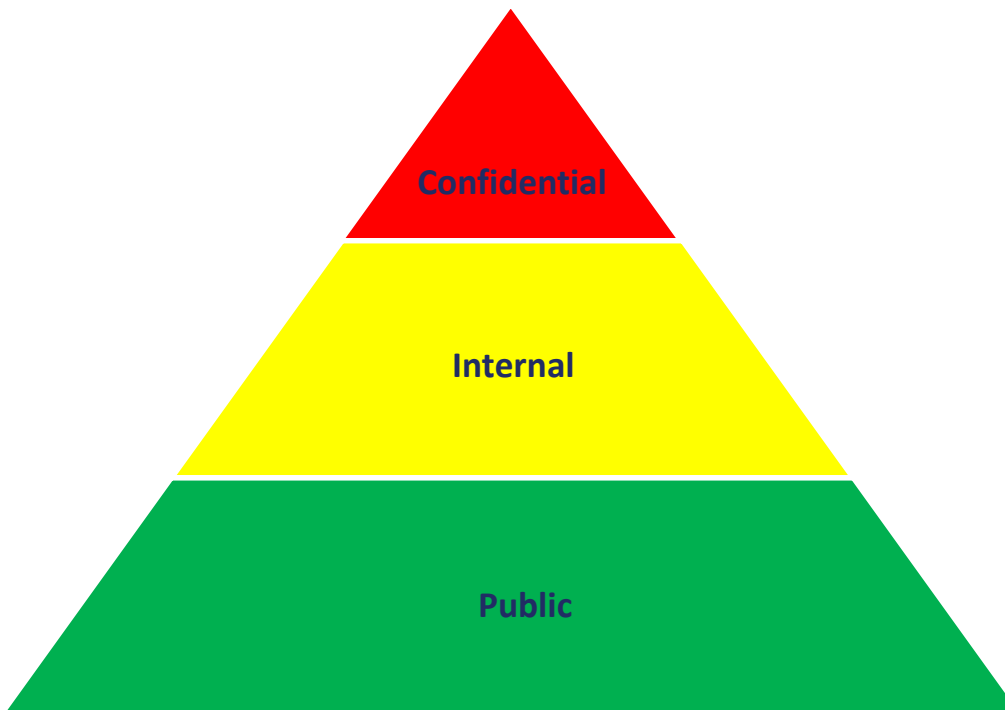
Global Policy Considerations – Data Classification



- **Global Policies:** Due to variances in local laws, local terminology, and divisional culture, global data classification policies must be done at high level.
- **Divisional Standards:** Divisional standards may be much more specific. The pyramid above is an example of a divisional classification standard.
- **Divisional Procedures:** Can be very specific, and serve divisional needs.



Global Data Classification Standard



- **Pyramid Levels:** Generalized levels allow for variances in local law, divisional terminology and divisional processes.
- **Divisional Standards and Procedures:** Divisional standards and procedures must align with the global standard.
- **Development of the Global Standard** is shared with IT Risk Management and Global Compliance.



Communication, Education, and Ongoing Compliance

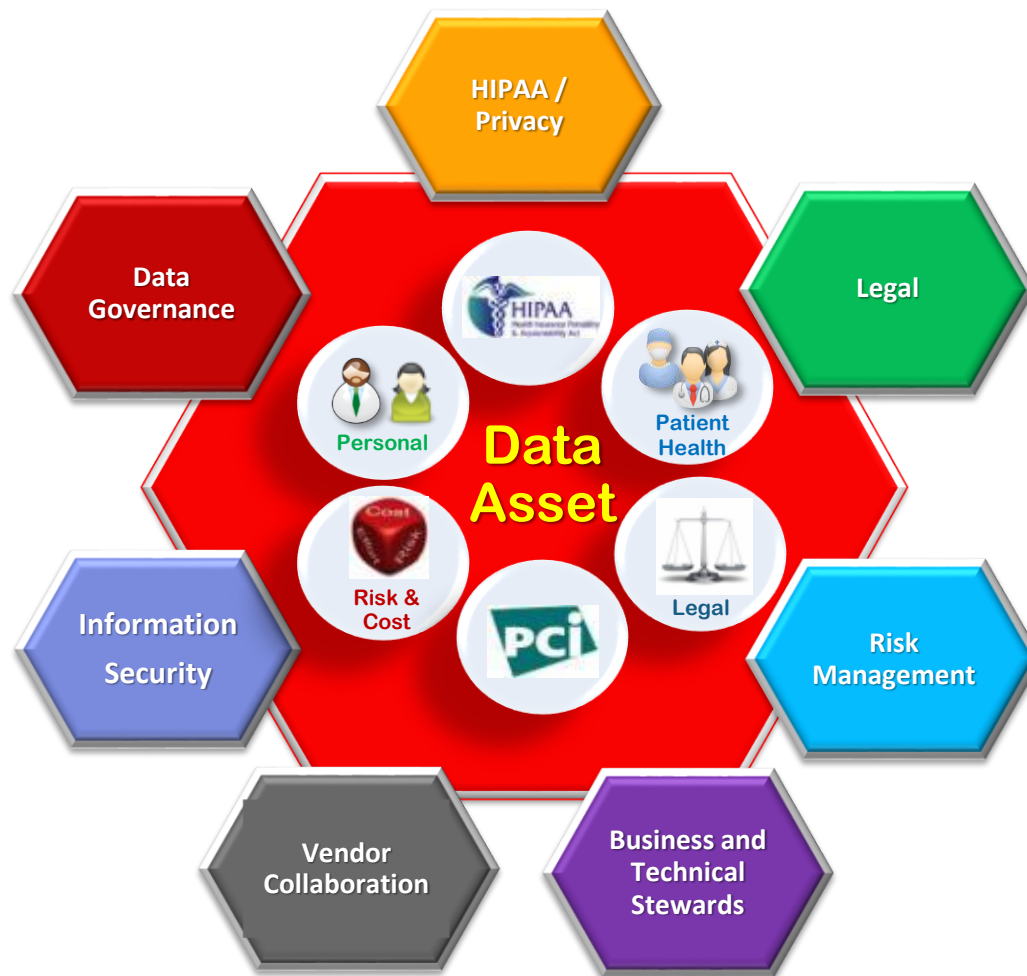


Communication and Education

- Start by assessing the **level of understanding** across the organization – can be informal or formal depending on your budget and organization
- **Listening is key to success** - **Communication** is one-direction – **Socialization** is bidirectional
- Many ways to communicate:
 - Committees (DG and other enterprise)
 - Wikis
 - Blogs
 - Enterprise processes
- **Branding** can be a good tool for some.



Communication, Education, and Ongoing Compliance: Use your Partnerships



Align and integrate with other enterprise programs for communication, socialization, and training:

- Enterprise Education programs (HIPAA, IT, Onboarding)
- Enterprise Meetings and Town halls
- Newsletters
- Intranet sites
- Blogs, forums

Building Relationships around the enterprise is the key to Success



Measuring Success



Policies and Standards: Metrics

- Measure **activity, compliance, training and awareness**
- Metrics provide visibility to Data Governance effectiveness and value
- Metric Ideas:
 - **Activity Metrics:**
 - # of policies and standards approved
 - # of enforcement or compliance requests processed
 - # of projects, applications, or business areas impacted
 - % of enterprise utilizing standards or policies
 - **Compliance Metrics:**
 - # or % of applications, fields, or files in compliance with standards
 - Definition or business rules needed (e.g. what does “in compliance” mean?)
 - # or % all master data elements following data governance standards – can measure new vs. established
 - **Training and Awareness Metrics:**
 - # or % staff members, or data stewards trained in policies
 - # or % of organizational units trained
 - % of organization that has received communication regarding policies and standards
 - # of communications sent regarding policies and standards



Policies and Standards: Supporting your program?

Did the policies and standards increase program visibility?

Did the policies and standards help to build the relationships needed for a successful EIM program?

Did they support critical EIM program components (data quality, metadata management, data security, data standards?)

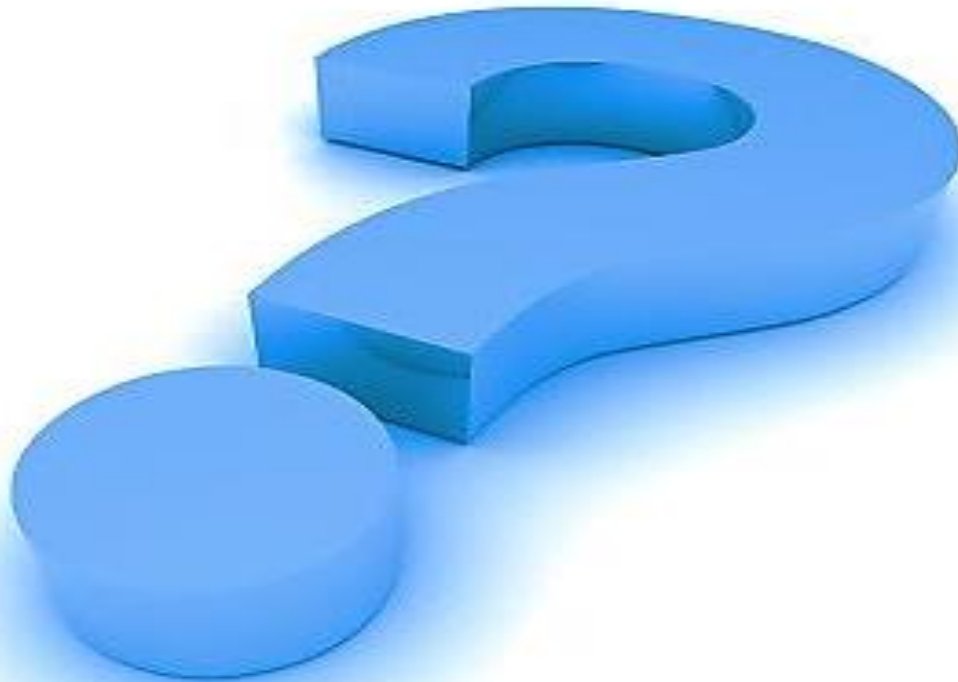
Did the policies and standards support meeting an executive goal for EIM ?

Did they provide enterprise standards for disparate systems and master and reference data management?

Were you able to provide program metrics: number of requests, number of business areas and processes impacted?



Questions



Thank You

Bio



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Janet Lichtenberger is an information management consultant, program manager, and analyst. Specialties include data governance, data policy (data privacy, data governance), master and reference data management, business glossary / metadata management, data standards, data quality, data modeling, information governance (records & email management), business requirements, analytics / business intelligence, and application development.

She has founded and implemented programs in data and information governance, and managed large, multi-phase client implementations for new lines of business. Corporate and consulting experience includes pharmacy, retail, healthcare, insurance, banking, human resources, and others.

She serves as the VP of Operations for the Wisconsin DAMA Chapter and is the co-chair for the DGPO Data Governance Best Practices Working Group.



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