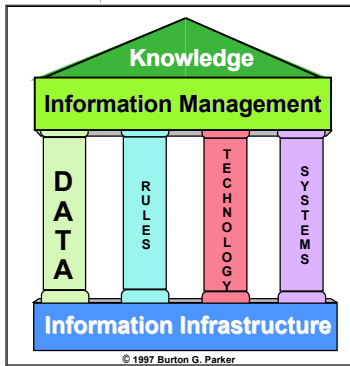


Enterprise Data Management – Data Stewardship



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Outline

- **Data Management Key Concepts Review**
- **Data Stewardship Scope**
- **Data Stewardship Commitment**
- **Data Stewardship Guidance**

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Enterprise Data Management: A Definition

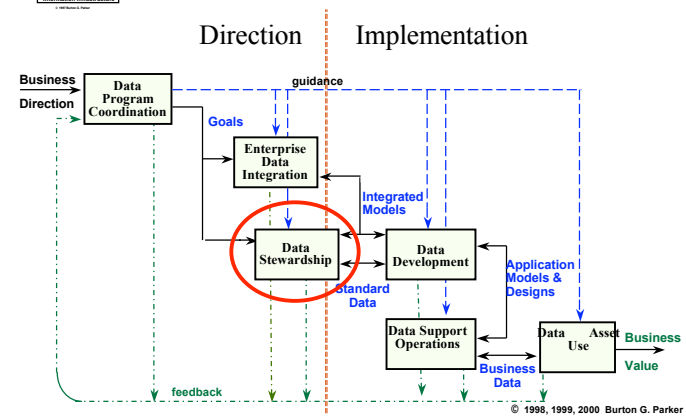
Enterprise-wide management of data is **understanding** the **current** and **future** data needs of an enterprise and making that data **effective and efficient** in supporting **business activities**.

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Enterprise Data Management Template



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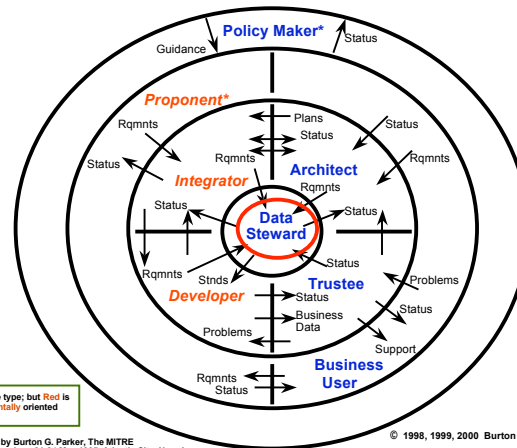
Data Asset Definitions

- **Business Data:** Business facts and their constructs used to accomplish enterprise business activities, e.g., data elements, records, files, databases, data warehouses, reports, displays; and their contents
- **Data-Stewardship Data:** Descriptive facts about data documenting their semantics and syntax, e.g., name, definition, format, length, data dictionaries and their contents
- **Data-Development Data:** Descriptive facts, propositions, or observations used to develop and document the structures and inter-relationships of data: e.g., data models, database designs, specifications, data registries, and their contents
- **Data-Program Data:** Descriptive propositions or observations needed to establish, document, sustain, control, and improve enterprise data-oriented activities, e.g., vision, goals, policies, processes, standards, plans, budgets, metrics, training, feedback, repositories, and their contents

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Enterprise Data Management Role Types



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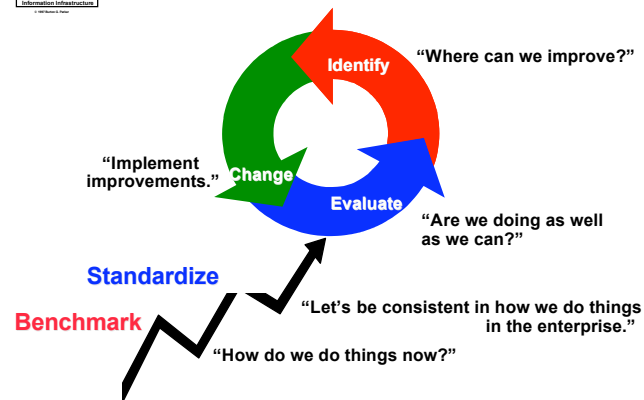
Enterprise Data Management Maturity Template

KEY PROCESS AREAS	MATURITY LEVELS				
	Initial	Repeatable	Defined	Managed	Optimizing
Requirements Mgt Project Oversight Project Planning Quality Assurance Contract Management Configuration Mgt					
Asset Development/Maint Product Review Process Focus Process Definition Training Management Group Coordination	Informal Processes	Disciplined Processes	Standard Process	Predictable Process	"Self" Improving Process
Integrated Management Quality Management Quantitative Management					
Change Management Technology Management Defect Management					

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Process Improvement Cycle



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- Data Management Key Concepts Review
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Consider

“He has the right to criticize who has the heart to help.”

Abraham Lincoln

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Data Stewardship

The business of
 identification,
 definition,
 specification,
 sourcing,
 standardization

of all business data across all business areas

within a specific business subject area
 consisting of some set of entity types, e.g.,
 customer

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Data Stewardship (Meta) Data

- **Identification:** e.g., descriptive name, symbolic name(s), unique identifier(s).
- **Definition:** e.g., definition, name context, classification, relationships, derivation, unit of measure, remarks/comments.
- **Specification:** e.g., data type, value domain, interchange format, length, language, display layout
- **Sourcing:** e.g., data concept source, instance value source.
- **Standardization:** e.g., ISO 11179, *Specification and Standardization of Data Elements*, quality registration status levels

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Registration Status Levels (ISO 11179)

- **Incomplete (Draft):** “The registered data element does not contain all Mandatory Attribute values.” [operational registries impose a minimum number of meta attribute values; typically: unique ID#, descriptive name, submitter, submitter org, submitter phone #]
- **Recorded:** “The registered data element contains all Mandatory Attribute values, but the contents may not meet the quality requirements specified in other parts of ISO/IEC 11179.”
- **Certified (Qualified):** “The recorded data element has met the quality requirements specified in this [Part 6] and other parts of ISO/IEC 11179.”
- **Standardized (Preferred):** “The certified data element that is established by the Registration Authority as a data element preferred for use in data interchange and in new or updated applications. The “standardized” data element may be unique within the registry, or it may be the preferred data element among similar data elements.”
- **Retired:** “A recorded, certified, or standardized data element is no longer used after having been marked as “phased out” for a period of time as prescribed by the appropriate RA.”

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Data Steward Meta Meta Duties*

- **Descriptive/Symbolic name/abbreviation standards**
- **Standard entity definitions**
- **Standard attribute definitions**
- **Standard business rules specification**
- **Standard calculation/summarization specifications**
- **Entity/attribute aliases**
- **Data quality criteria**
- **Data security specifications**
- **Data retention/retirement specifications**

* Adaptation from *Ensuring Data Quality through Data Stewardship*, Claudia Imhoff, DM Review, April 1998

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Consider

“Compromise is odious to passionate natures because it seems a surrender; and to intellectual natures because it seems a confusion..”

George Santayana

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Data Stewardship Commitment

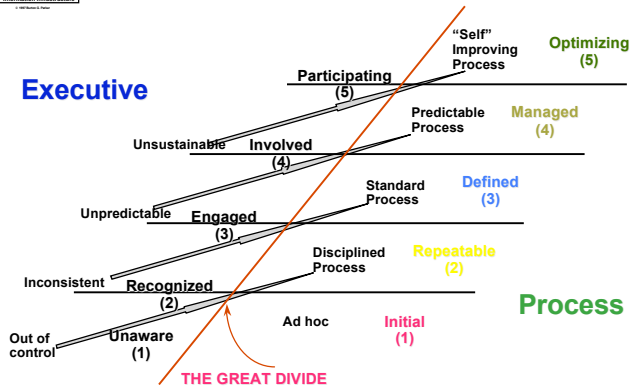
- Resolving data integration issues
- Establishing data security requirements (in coordination with enterprise security)
- Documenting data concept name(s), definitions, calculations/summarizations, and specification details
- Establishing data quality metrics, and analyzing/improving those metrics
- Including business representatives in data development and specifications

* Adaptation from *Ensuring Data Quality through Data Stewardship*, Claudia Imhoff, DM Review, April 1998

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Executive Maturity Begets Process Maturity



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Consider:

“It is common sense to take a method and try it. If it fails admit it frankly and try something else. But above all, do something.”

FDR

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Data Stewardship Guidance

- **Policies (e.g.):**
 - » Entity-types of importance to the enterprise shall be defined.
 - » Enterprise-wide data stewards shall be established by entity type, or subject area sets of entity types.
 - » Enterprise data stewards shall be involved in the review/approval of all IT projects.
 - » Enterprise data stewards shall be involved in review of all RFP/contract initiatives and reviews.
- **Processes: procedural statements of how to accomplish data stewardship activities:, e.g.,**
 - » Defining stewardship for subject areas (data entity, or sets of entities) responsibilities!!
 - » Data concept naming conventions
 - » Meta attribute quality requirements
 - » Data harmonization procedures
 - » (etc.)

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Data Stewardship Program Guidance-2

- **Stewardship is all about standards**
- **ISO or ANSI? What is the you scope of the enterprise?**
 - » National focus, then ANSI standards; International focus the international standards
- **Standards are adopted/adjusted according to the needs of the enterprise.**

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Consider

“Progress walks Indian file behind a guy willing to stick his neck out.”

Bill Gold

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