Walgreens: EIM

Enterprise Data Governance Program Organization				
Deliverable	**Enterprise Data Governance Executive Committee (EDGEC)**	**Data Governance Committee (DGC)**	**Data Domain Team (DDT)**	**Program/Project Team**
Data Policy	I, A,M	I, D, E, M	I, M	I
Data Standard	I, A, M	I, D, E, M	I, D, M	I
Business Metric	A, M	D, E, M	I, M	I, R
Data Definitions/Metadata	A, M	I, D, E, M	A, I, D, M	I, R
Master Data	I, A, M	D, E, M	I, D, M	I, R
Reference Data	A, M	I, D, E, M	I, D, M	I, R
External Data Requirements	A, M	D, E, M	I, M	I, R
Data Retention Requirements	A, M	D, E, M	I, M	I, R
Information Quality Requiremnets	A, M	D, E, M	I, D, M	I, R
	A = Approve, D = Draft, E = Endorse, I = Identify, M = Monitor, R= Resolve			

Business Metadata

- Business metadata is metadata about the business terms, business processes and business rules.
- Business metadata provides the semantic layer between your systems and their business users.
- It provides users a roadmap for navigating all the data in the enterprise by documenting what information is available and, when accessed, provides a context for interpreting the data.

Invaluable for making sound business decisions.

Business Metadata	Definition	Standards
Entity Business Name	Contains the common name of the Entity that is recognized by business users.	ISO/IEC 11179-5 Information Technology – Metadata Registries Part 5: Naming and Identification principles.
Entity Business Description	Contains the detailed explanation of the business meaning of the Entity in the context of the enterprise.	ISO/IEC 11179-4 Information Technology – Metadata Registries Part 4: Formulation of data definitions
Data Attribute Business Acronym	Common, business recognized acronym coding of the data attribute (if applicable)	Industry standards (e.g., ISO, industry), ACME, or application specific
Data Attribute Business Description	Detailed explanations of the business meaning of the data attribute.	ISO/IEC 11179-4 Information Technology – Metadata Registries Part 4: Formulation of data definitions
Data Attribute Business Name	Contains the common name of the data attribute that is recognized by business users.	ISO/IEC 11179-5 Information Technology – Metadata Registries Part 5: Naming and Identification principles.

Walgreens Data Domain Teams (DDTs)

Walgreens: Lessons Learned

Lessons Learned

Methods for Achieving EIM Objectives

1) *Identify and lobby business executive sponsors.*
2) *Identify pilot or POC opportunities.*
3) *Drive organizational adoption through an enterprise level data governance program.*
4) *Drive efforts to improve data quality across the organization.*
5) *Establishment of enterprise master and reference data initiatives. Prioritize subject areas based on business need.*
6) *Establish enterprise data policies, standards, and processes.*
7) *Establish an EDM as a reference data model.*
8) *Use enterprise data definitions and structures to organize your data and information areas.*
9) *Engage with tier 1 & 2 projects and SDLC to utilize data management practices.*
10) *Measure and monitor data management metrics for business impact.*
11) *Perform continuous communication, socialization, and education efforts.*
12) *Provide business value early on, as prioritized by the business.*
13) *Pick and choose your areas of focus, concentrating on areas of strategic business significance.*

EIM is a program, not a project

Themes

- Big Data
- Governance and Framework Development
- Measurement and Value

Information as an asset: a problem unresolved

Dear CEO

We, your auditors, have recently uncovered an area requiring explanation.

- We have found e-mails speaking of an asset that that has cost you millions, but we cannot find it on the balance sheet.
- The same e-mails also disclose you may soon have to report liabilities inherent in that asset
- Nobody can tell us where the asset sits, or where it came from
- In spite of this lack of control, this asset is repurposed thousands of times a day.
- As many managers claim to own this asset as totally try to absolve themselves of any accountability.
- Those that do claim ownership deny all accountability
- For every request from compliance to destroy this asset there are 4 requests to keep this asset available and "take a chance" with the risks
- Can you please explain this area to us, and better yet, how will you explain these findings to your shareholders?

- John Ladley
- Doug Laney

knoware
The Knowledge Warehouse Limited

Information as an asset

What granularity should we consider?

Granularity	Examples	Implications
Portfolio of information	• All customer transactions • All customer records • All company e-mail records	The relative contribution of this kind of information to any given business process can be established. Use the number of records in the data set for individual estimates.
Collection of information	• A customer's transactions • An employee's e-mails	Somewhat of an arbitrary slice. Not directly attributable to a business process action.
Unit of information (Record)	• A transaction • A customer contact record • An e-mail	The probability any given record is used in a business process at any given time can sometimes be determined. It's relative value to the business process can be established.
Unit of information (Field)	• A transaction item • A customer phone number • E-mail's addressees	Usually meaningless and onerous. Like tracking the number of cup holders in a car.

What can be counted?

Information-related characteristics
- Quality features (completeness, accuracy, etc.)
- Relevance (its bearing on a process, uniqueness)
- Timeliness (accessibility, currency)

Information-related costs
- Cost to acquire it
- Cost to administer it
- Cost to apply it
- Revenue lost if we don't have it

Information-related benefits
- Process/function performance gain
- Revenue/margin contribution

Information as an asset

Information asset valuation: Example

Method 2: Business Value of Information (BVI)

$$BVI = \frac{Accuracy * Completeness * Relevance}{Latency}$$

(Business process = Online offer to website customer)

Type of data	Accuracy	Completeness	Relevance	Latency	BVI
Our customer's contact data	90%	70%	40%	0.97	0.26
Purchased individual's contact data	80%	80%	50%	0.95	0.34
Our customer's transaction data	90%	90%	80%	0.99	0.65

Our customer transaction data is of the most potential value to us in dynamically adapting the visitor's website experience.

Information asset valuation: Example

Method 3: Loss Value of Information (LVI)

$$LVI = AcquisitionCost + \sum_{1}^{t} LostRevenue$$

Type of data	Acquisition Cost	Revenue Lost (t=1)	Revenue Lost (t=2)	Revenue Lost (t=3)	Loss Value
Our customer's contact data	$5	$20	$20	$20	**$65**
Purchased individual's contact data	$1	$0	$0	$0	**$1**
Our customer's transaction data	$3	$25	$0	$0	**$28**

We would take the biggest hit if we were to lose a customer's contact data. Should we insure it against loss or spend more to secure it?

Information asset valuation: Example

Method 5: Economic Value of Information (EVI)

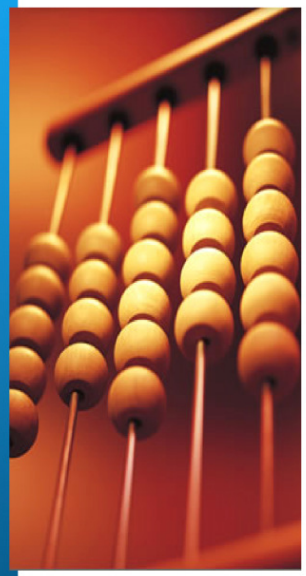
$$EVI = PVI(r) - (AcquisitionCost + AdministrationCost + ApplicationCost)$$

Type of data	Sales (control)	Sales (influenced)	Sales Lift	Acquisition Cost	Admin Cost	Application Cost	Total Cost	Economic Value
Our customer's contact data	$15,000	$16,000	$1,000.00	$100	$1,500	$250	$1,850	-$850
Purchased individual's contact data	$42,000	$85,000	$43,000.00	$20,000	$500	$250	$20,750	**$22,250**
Our customer's transaction data	$9,000	$11,000	$2,000.00	$250	$750	$500	$1,500	**$500**

It looks like we need to establish better control over our customer contact data quality costs. However, purchasing contact lists provides solid ROI.

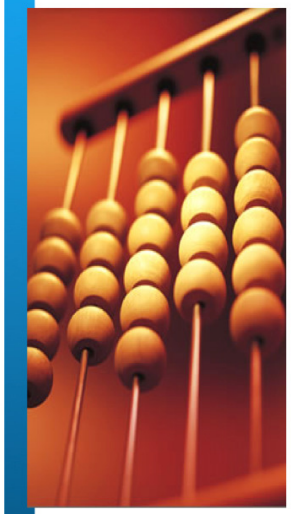
Information as an asset

Accounting for information



- Accounting for information assets enables us to take steps to ensure they're delivering business value, and make the argument for business valuation premiums.
- The double-entry accounting system is over 500 years old and our current balance sheet standard predates computers.
- Information is best accounted for as an intangible asset.
- It's easiest to account for information at a portfolio or record level.
- Many characteristics of an information asset influence its economic value.

Information Asset Valuation Methods



- Start with what you have – What information asset variables can you compile or compute most easily? Then select a valuation method.
- Use big, round estimates for subjective measures.
- Ideally, take into consideration empirical measures of an information asset's effect on the business.
- Consider the cost-side of the equation to get a bottom-line picture.