Enterprise Data Modelling

Pascale Stendell

Enterprise Data Modelling

Agenda

- Objectives
- Challenges
- Risks
- Observations
- Resources
- Enterprise Data Modelling

Enterprise Data Modelling

- Establish a common understanding of some of the challenges the business is faced with from problem definition, to (data) requirements elicitation, to solution
- Explore some avenues to address those challenges

Some of the challenges the business faces

- Highly dispersed data
- Often without adequate controls on quality
- Most data is duplicated across a number of systems
- With significant variations in quality, format, and meaning
  - *Modelling the enterprise data architecture* – paper available at http://www-128.ibm.com/developerworks/rational/library/754.html
- No mechanism to report on impact analysis of change on data in current applications

Some of the challenges the business faces

- Retaining business knowledge
- Articulating evolving requirements
- Shorter time to market
- Architecturing for growth
  - Dynamic within a coherent framework
- Conducting business as usual whilst evolving within set budget and resources

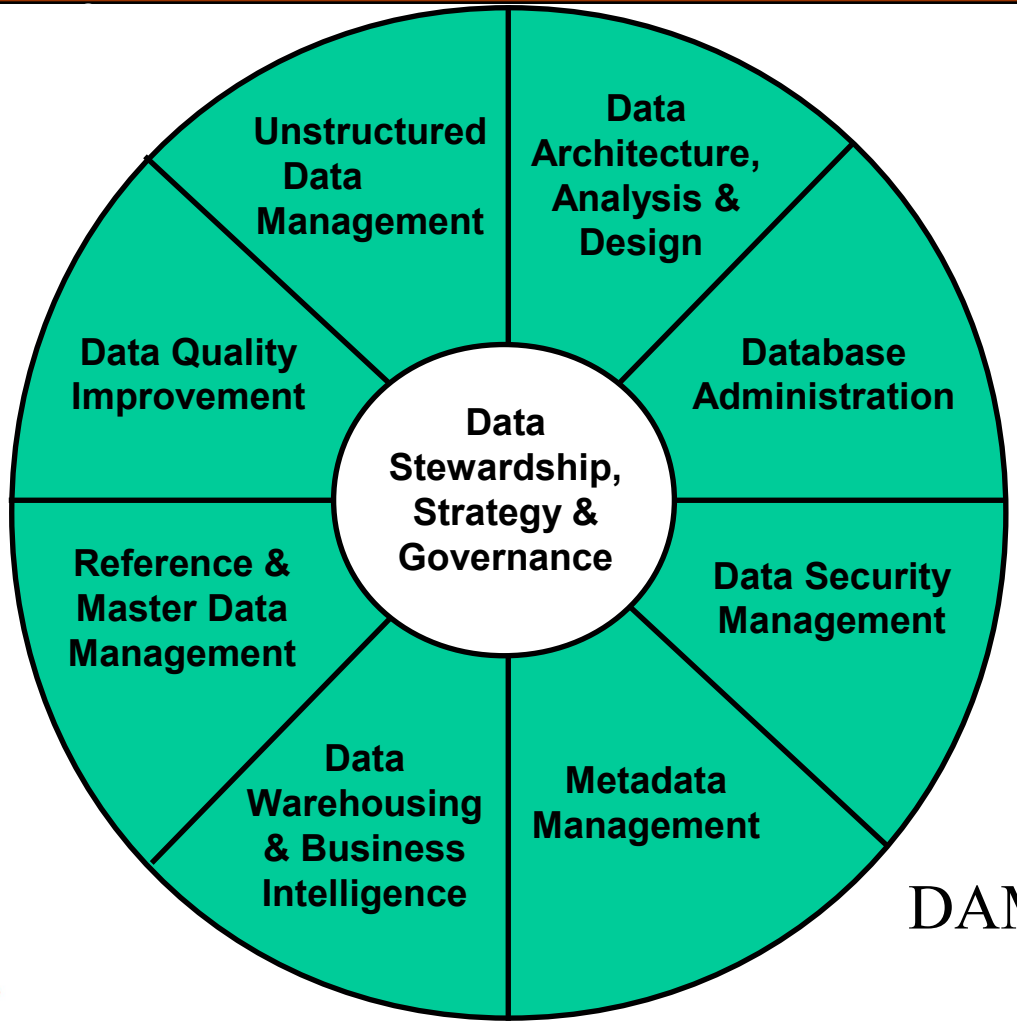
Some areas of risk

- Enterprise wide reporting
- Application / Software Outsourcing
- Non-compliance to industry standards and stakeholders expectations
  - Likely to badly reflect on the department
  - Could affect data interchanges between agencies

Introducing tools to support the business

- Tools introduced: Data Modelling, BPM, RQM
  - Outcome: No continuity
- Tools existed:
  - Silo approach. No integration. Seldom traceability
- Integrated tool introduced
  - No mandate to use in architecture / methodology
- Business seldom involved

Data Management



DAMA-DMBOKv2

Metadata Management

- Metadata
  - information necessary to **manage the information resource** as a **business asset.**

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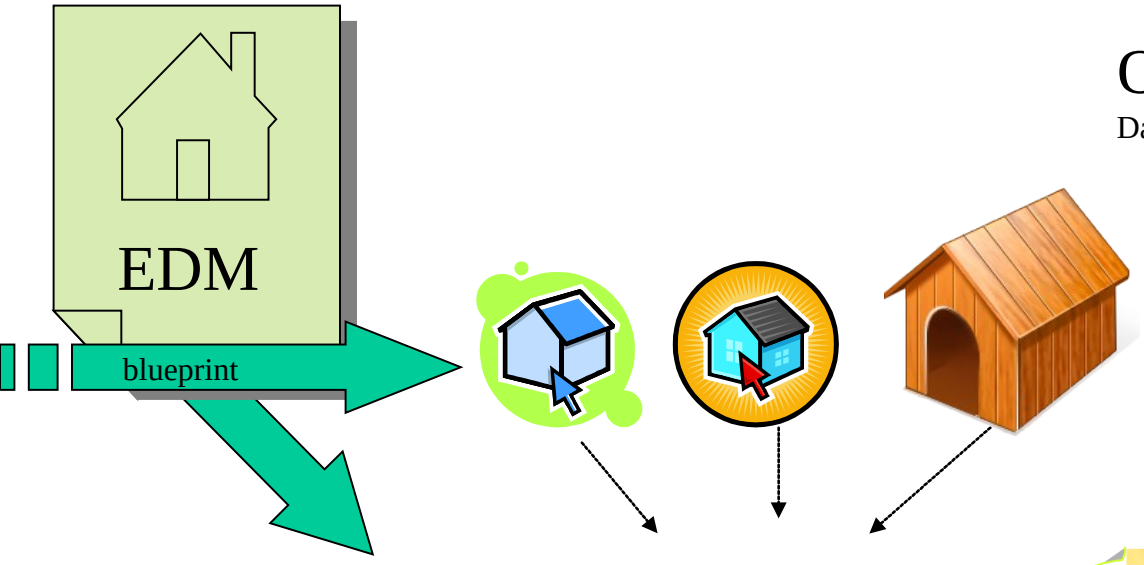
Defining Enterprise Data Modelling

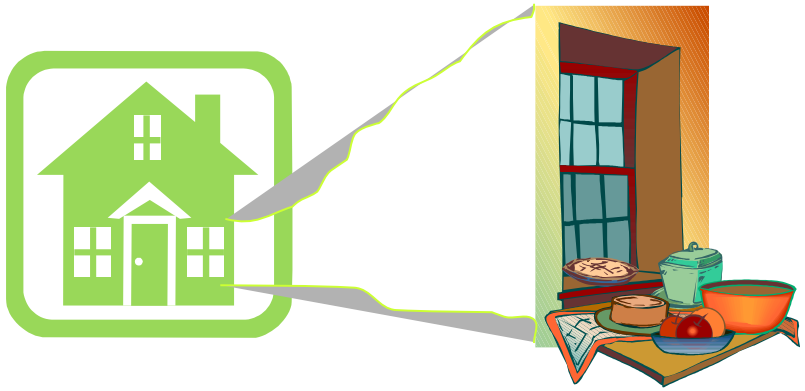
- The development of a **common consistent view** and **understanding of data elements and their relationships across the enterprise**

EDM: Blueprint to data housing



Operational Environment

Data is housed in a variety of stores



Enterprise Reporting Environment

Serving information via windows to a comprehensive housing complex

v1-2010

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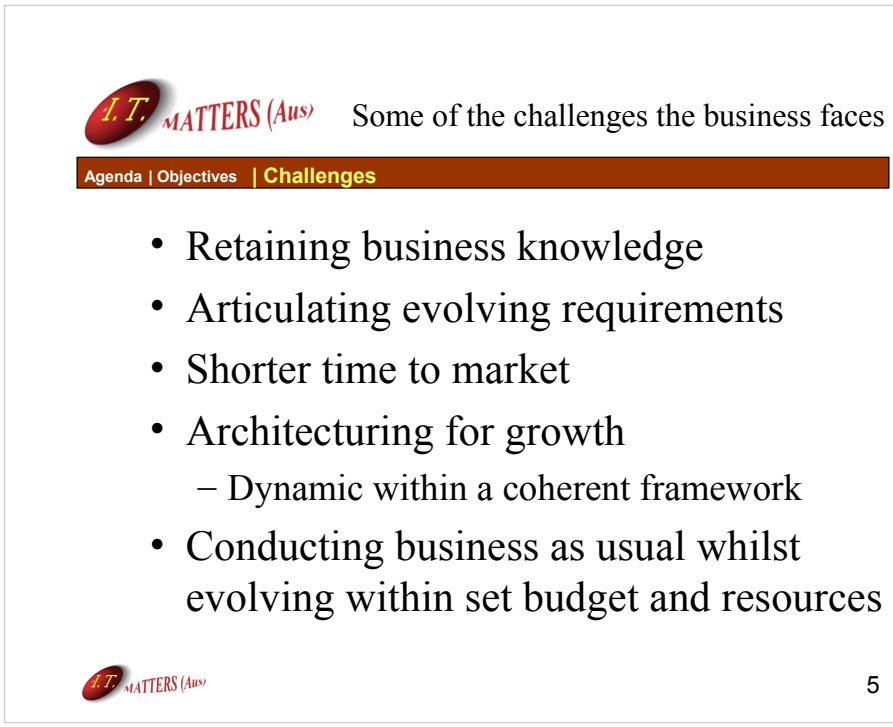

•**Retaining business knowledge**
With the high turnover of staff it is difficult to retain business knowledge unless such is very well documented

• **Articulating evolving requirements** so IT staff can understand and implement.
This requires a common vocabulary, a combination of business and analytical skill and a high level of flexibility in the solution and approach to delivery - eg 3 months iteration approach, service based delivery, process based delivery.

•**Shorter time to market:** Taking system delivery in required business timeframes - or face losing market share

•**Architecturing for growth**: Establishing architectural services to oversee business, information, and infrastructure, and choosing an IT solution which will enable growth within a coherent framework

•Pressure to evolve whilst conducting **business as usual**.

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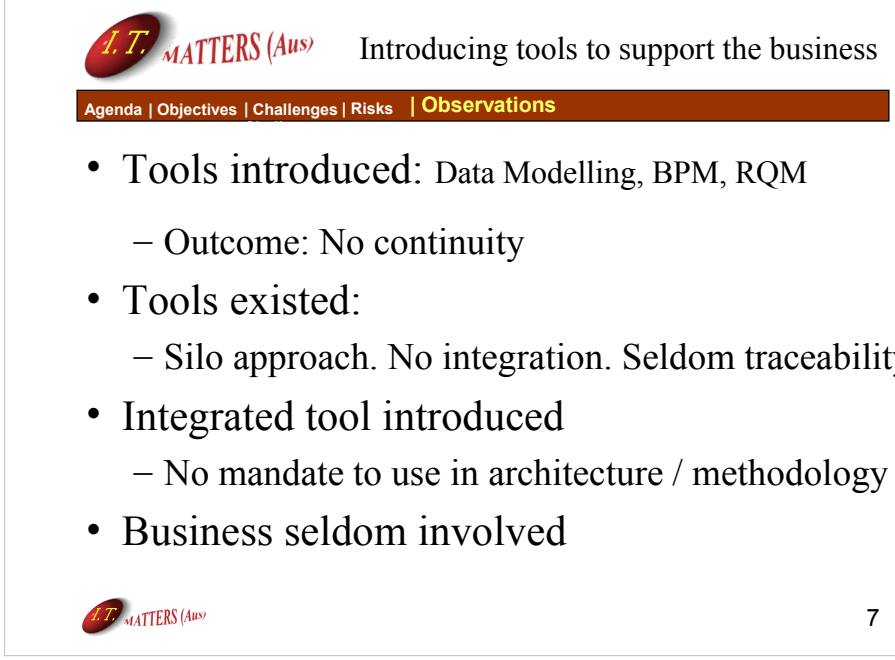


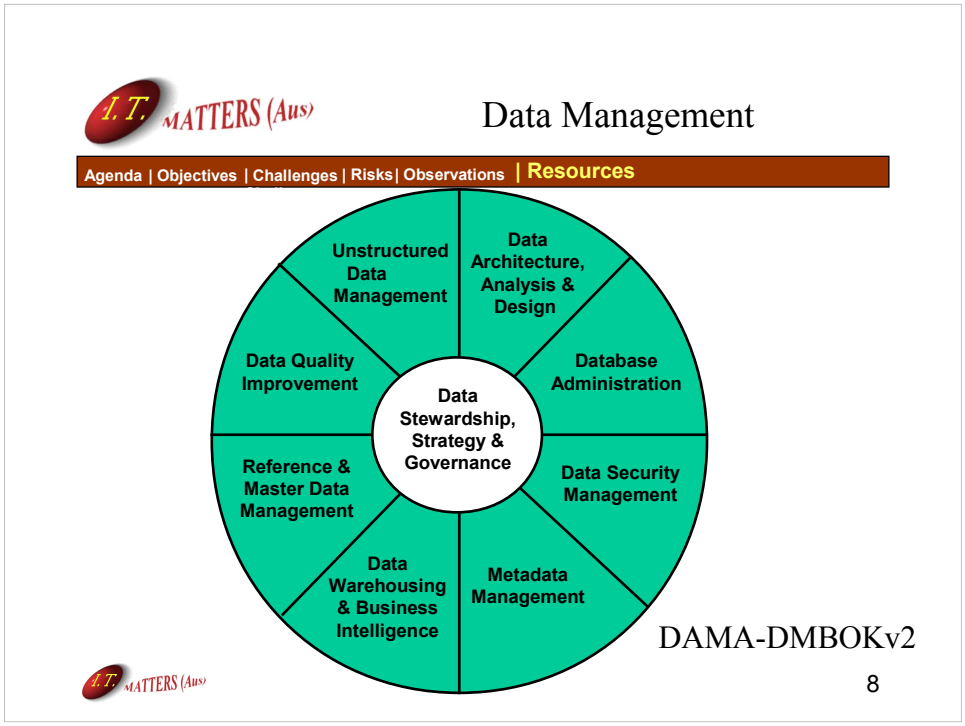
Some of the scenarios we are faced with -

• **Scenario 1: Data Modelling tool introduced**
Outcome: mainly used by consultant -; appreciation of tool value not properly sold; handover to IT staff not properly resourced. No continuity.

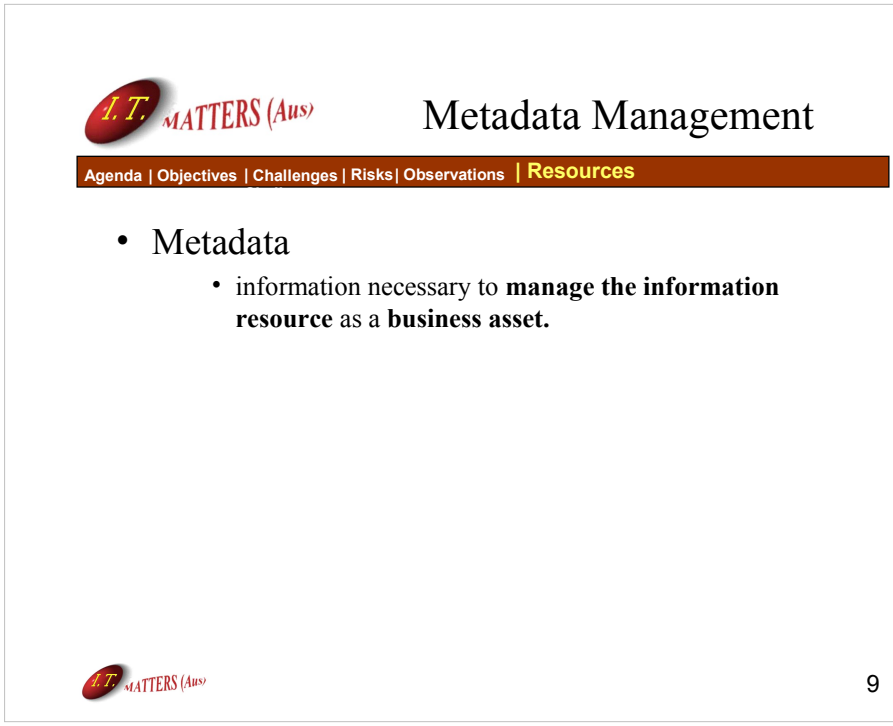
• **Scenario 2: Requirements tool introduced**
Outcome**:** staff properly trained - mainly contractors - Lack of discipline, skills from users - or was the interface plainly inadequatefor the type of users it is targetting; not used properly, abandoned. No continuity.

• **Scenario 3: Existence of many tools inc. BPM and Data Modelling**
Outcome: No integration. Silo approach. No traceability.

• **Scenario 4: Integrated tool introduced.**
but No architectural services. or not mandated to integrate in application delivery framework.
Outcome: No continuity.



Forrester defines Information Architecture as:
A framework providing a structured description of an enterprise's information assets and the relationship of those assets to business processes, business management, and IT systems.
(Simplying Information Architecture
Alex Cullen - September 9 2005)



•IT community struggling with jargon

Definitions do matter but we, IT professionals, need to learn to put them in plain business terms.

Example - what would make more sense when defining metadata to try and convince a person in business of the value of capturing such.

Metadata is data about data or

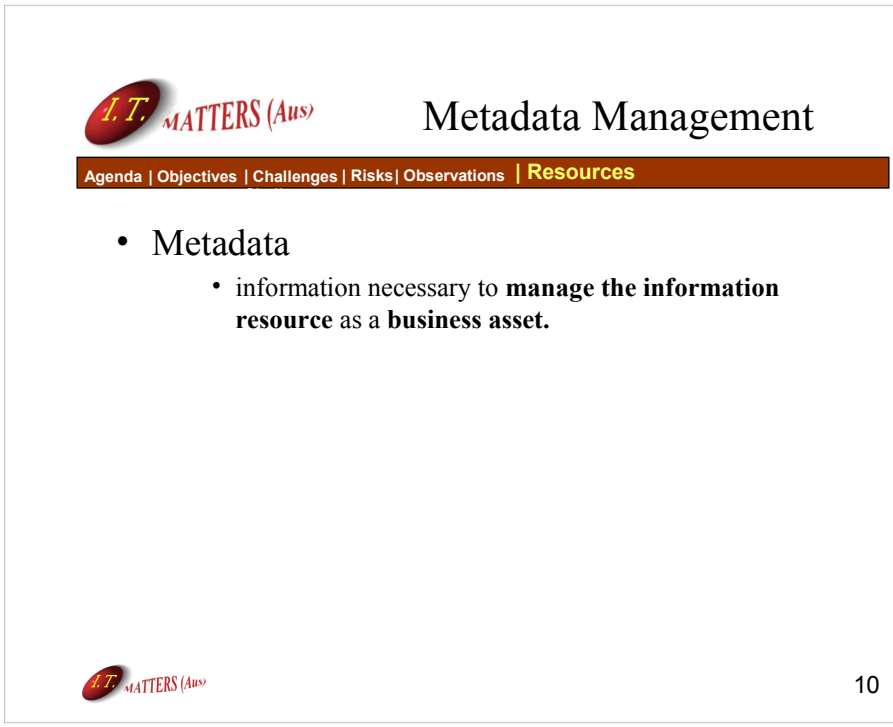
Metadata is the information necessary to **manage the information resource** as a **business asset.**

Metadata is contextual. The **context** defines what the metadata is and what the 'real' data is. (in a nutshell, for the minds able to consider abstraction, all that which exists **one level or more abstracted** from what you consider as real.)

Example:

•To the librarian, the book - ie the actual text in the document - is real. And the book specifications including author, and subject are the book's metadata.

•If building a library management system, the Librarian's metadata is the modeller's real data. So author, subject, and even the text is considered real and being modelled as the basis to a database.



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