Data Quality & Governance
EEA Asset Information Managers' Forum

Aurora
ENERGY

13 June 2024

Personal background Jeroen Hoexum

- 2021-now: Aurora Energy, Information & Intelligence Manager
- 2019-2021: ASB Bank, Senior Manager Digital & Data Risk
- 2010-2016: Haarlem City Council, Chief Data Officer
- 1999-2010 & 2016-2019: PwC, Director Data Assurance

What is Data Governance?
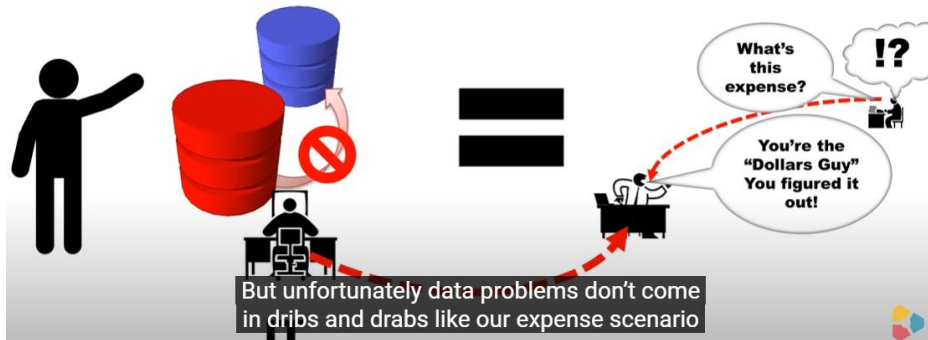
Watch the video

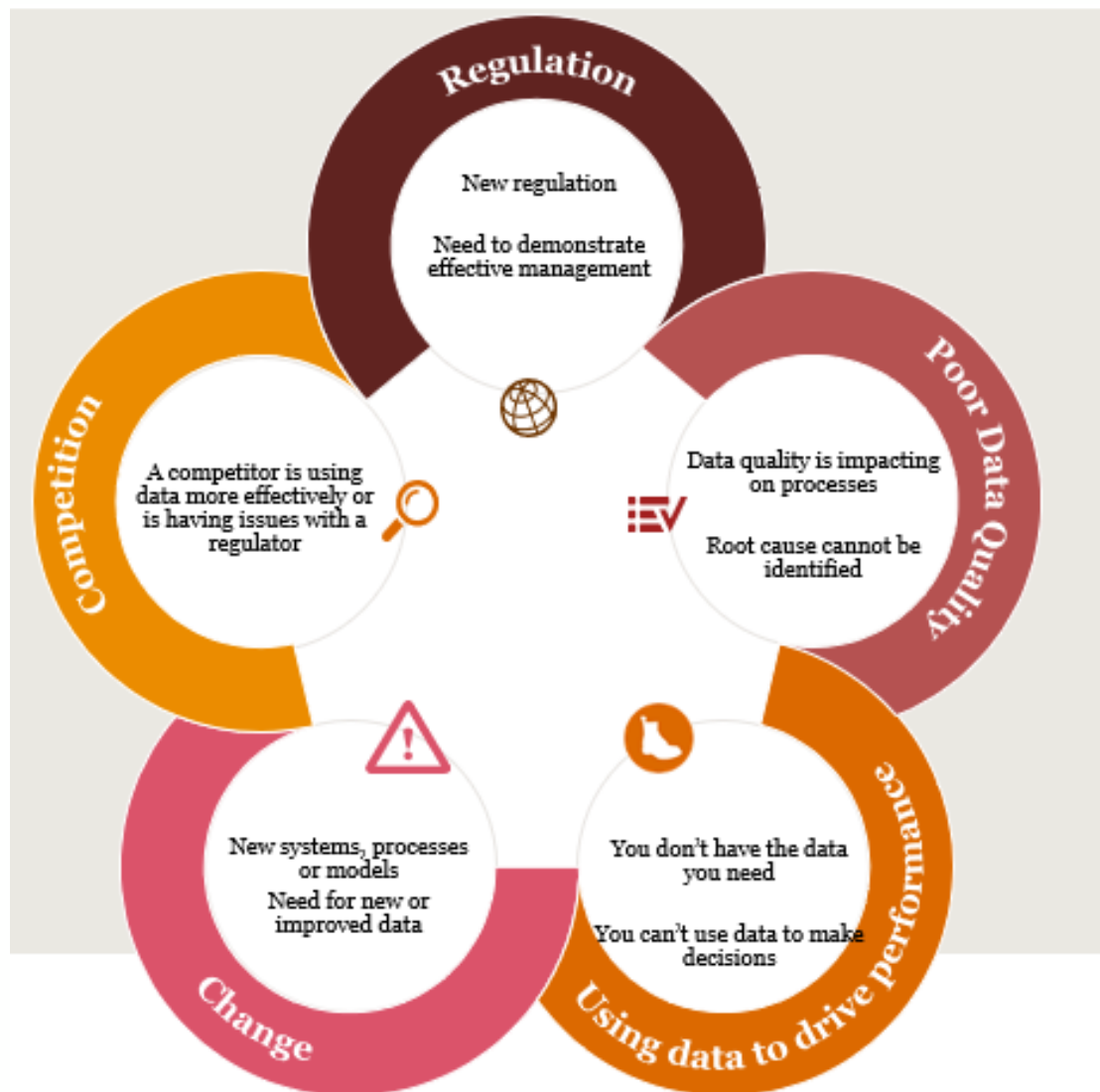## Why My Wife Loves Data Governance

Paul Boal – Practice Lead

What is <u>data governance</u> supposed to be about?

Data governance encompasses the people, processes, and information technology required to create a consistent and proper handling of an organization's data across the business enterprise.

Commitment

Data governance is not a project or a program or an isolated capability.

Data governance is part of how an organization chooses to conduct operations and decision making on a day to day basis.

Commitment

Marriage does not end with the vows in a wedding ceremony, a reception, and a honeymoon.

Marriage requires the ongoing daily choice of a couple to remain committed to one another.

The challenges are clear, but who is responsible?

Data Governance Maturity Models

Level	Level name		Level description	
	DAMA-DMBOK2	**DCAM® 2.2**	**DAMA-DMBOK2**	**DCAM® 2.2**
Level 0	No capability	Non initiated	No organized data management practices or formal enterprise processes for managing data	Ad-hoc data management (performed by heroes)
Level 1	Initial/Ad Hoc	Conceptual	• Little or no governance • Limited tool set • Roles defined within silos • Controls applied inconsistently • Data quality issues not addresses	Initial planning activities (white board sessions)
Level 2	Repeatable	Developmental	• Emerging governance • Introduction of a consistent tool set • Some roles and processes defined • Growing awareness of impact of data quality issues	Engagement underway (stakeholders being recruited and initial discussions about roles, responsibilities, standards and processes)
Level 3	Defined	Defined	• Data viewed as an organizational enabler • Scalable processes and tools • Reduction in manual processes • Process outcomes are more predictable	Data management capabilities established and verified by stakeholders (roles and responsibilities structured, policy and standards implemented, glossaries and identifiers established, sustainable funding)
Level 4	Managed	Achieved	• Centralized planning and governance • Management of risks related to data • Data Management performance metrics • Measurable improvements in data quality	Data management capabilities adopted and compliance enforced (sanctioned by executive management, activity coordinated, adherence audited, strategic funding)
Level 5	Optimization	Enhanced	• Highly predictable processes • Reduced risk • Well understood metrics to manage data quality and process quality	Data management capabilities fully integrated into operations (continuous improvement)

PwC's Enterprise Data Governance Framework

Basis for scope conversations, which should take into account: current culture, vision that aligns with mission and objectives, strategic questions that should be answered with data and identification of Critical Data Elements
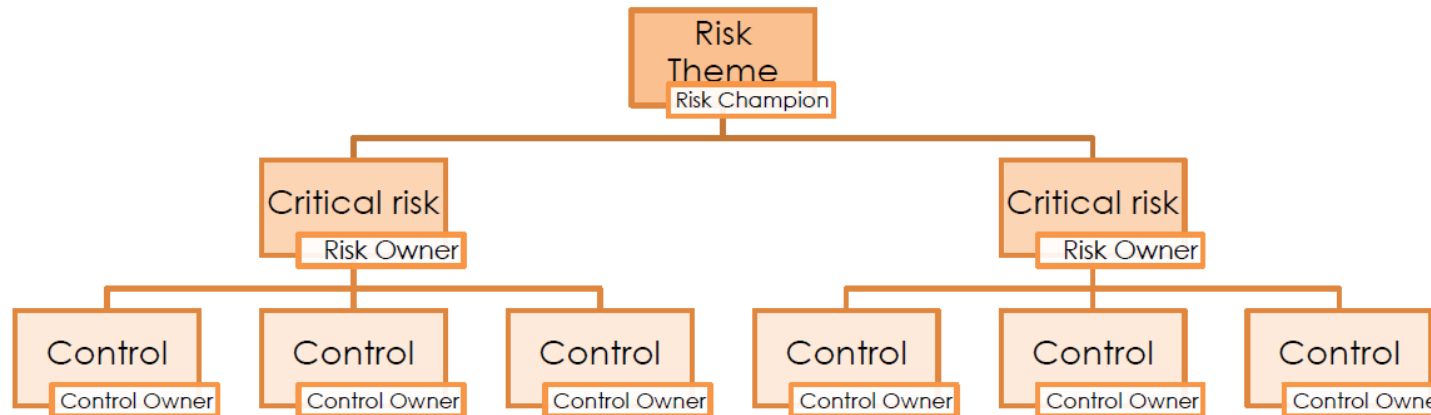
Picture on the sheet not shared, please reach out if you would like more detailed information

The accountability question

Through good Data Governance we can ensure access (availability, usability) and trust (integrity and security) of the data in enterprise systems.

Principles: Risk might be centralized ('Our data is not accurate or complete resulting in poor quality reporting and decision making'), while Control Owners for individual data sets will be across the business.
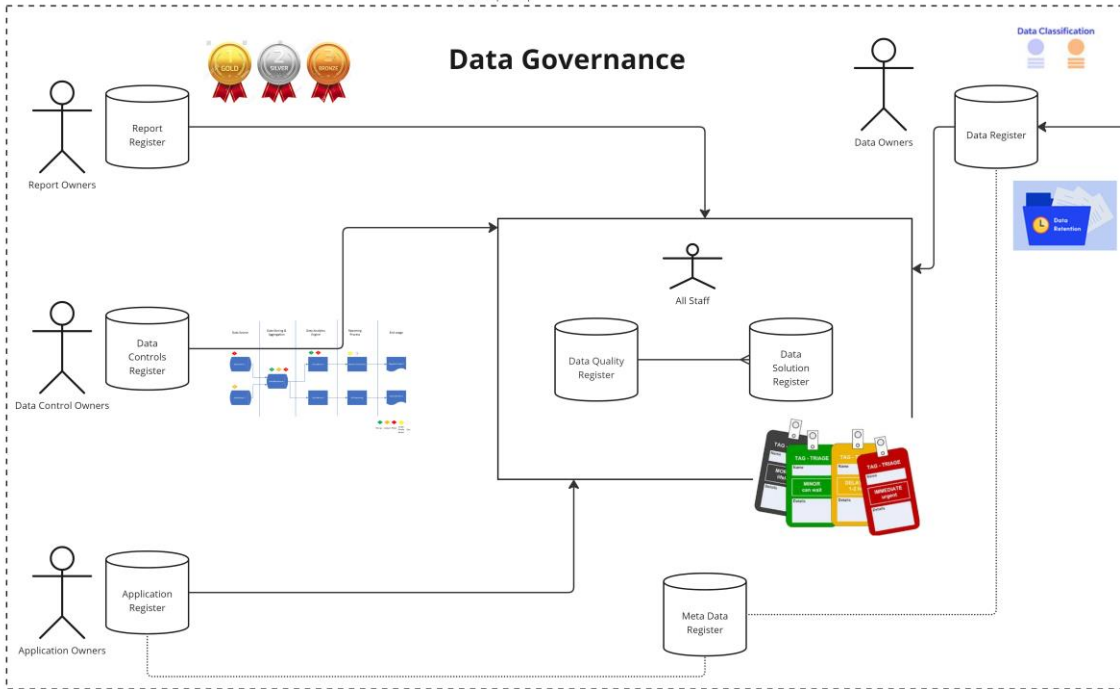
Prioritisation: Risk based
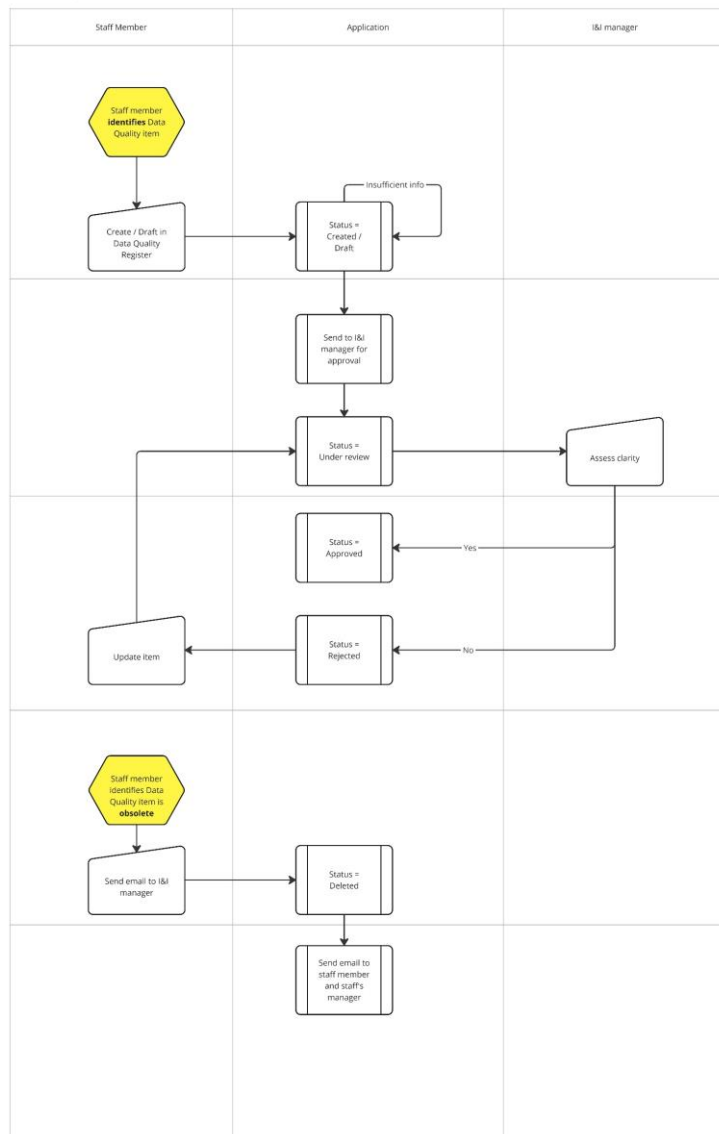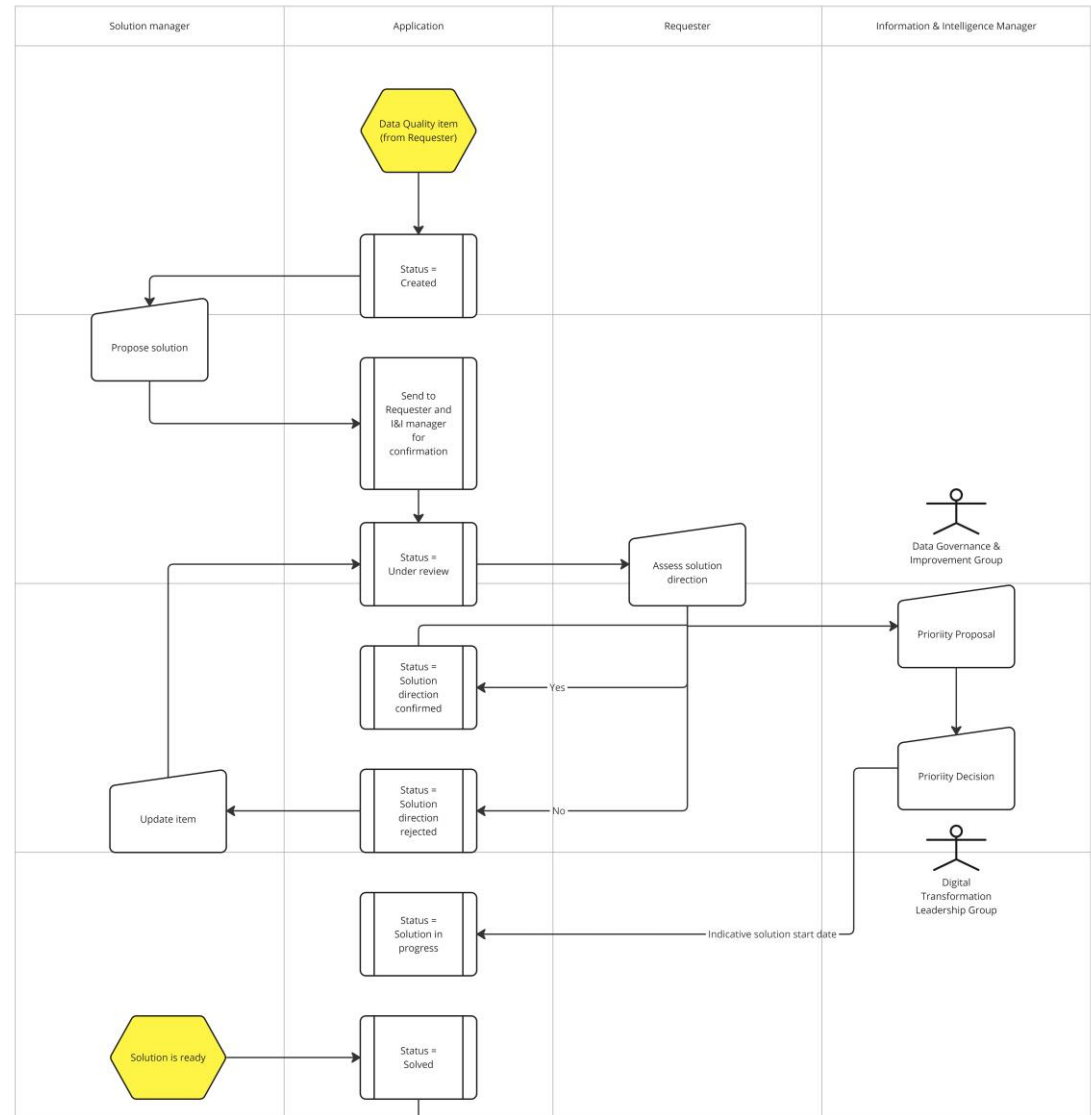
Data Quality & Governance Roadmap

Business Intelligence
- BI library constructed and ownership appointed for Power BI reports
- Information Delivery established and delivered in alignment with business priorities
- Owners have produced documentation
- Owners are consulted around (proposed) changes
- Several Data Quality reports are available, e.g. around GIS and Outage database

Establish Data Governance
- Appoint Data Ownership across the business:
- Assess highest level Data Lineage
- Assess quality BAU data capture standard
- Identify Data Quality measures as Control and prioritise in line with their risk/criticality
- Ensure Data Privacy and Data Retention by working with business to implement sensitivity labels
- Define initiatives to improve Data Quality & governance gaps

Process Flow

Data Strategy → **Business Intelligence** → **Scope Data Governance** → **Establish Data Governance** → **Embed Data Governance**

Data Strategy
- Data Strategy approval
- Data Improvement Identification Group established with representatives across the business

Scope Data Governance
- Determine scope
  Proposal: start with data that ends up in Gold reports & Personal Data
- Write data BAU policies & procedures
- Introduce Data Quality register
- Determine industry data model (IEC 61968)

Embed Data Governance
- Change Management advised by Data Stewardship based on impact analysis determined by Data Lineage
- Determine need for data audits

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Scope Data Governance Tool

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Illustration key processes

Data Quality Process

Staff Member	Application	I&I manager

Staff member **identifies** Data Quality item

Create / Draft in Data Quality Register

Status = Created / Draft

Insufficient info

Send to I&I manager for approval

Status = Under review

Assess clarity

Status = Approved — Yes

Status = Rejected — No

Update item

Staff member identifies Data Quality item is **obsolete**

Send email to I&I manager

Status = Deleted

Send email to staff member and staff's manager

Data Solution Process

Solution manager	Application	Requester	Information & Intelligence Manager

Data Quality item (from Requester)

Status = Created

Propose solution

Send to Requester and I&I manager for confirmation

Status = Under review

Assess solution direction

Data Governance & Improvement Group

Priority Proposal

Status = Solution direction confirmed — Yes

Priority Decision

Status = Solution direction rejected — No

Update item

Digital Transformation Leadership Group

Status = Solution in progress — Indicative solution start date

Solution is ready

Status = Solved

Gold/silver/bronze apply for the end-to-end data processes leading into a report (visible on the report)

Regulatory reporting

The following areas are satisfactory:

- Controls (which indirectly includes Data Quality)
- Data Access
- Data Security

Executive level decision making

The following areas are satisfactory:

- Data Quality (which indirectly includes Data Ownership)
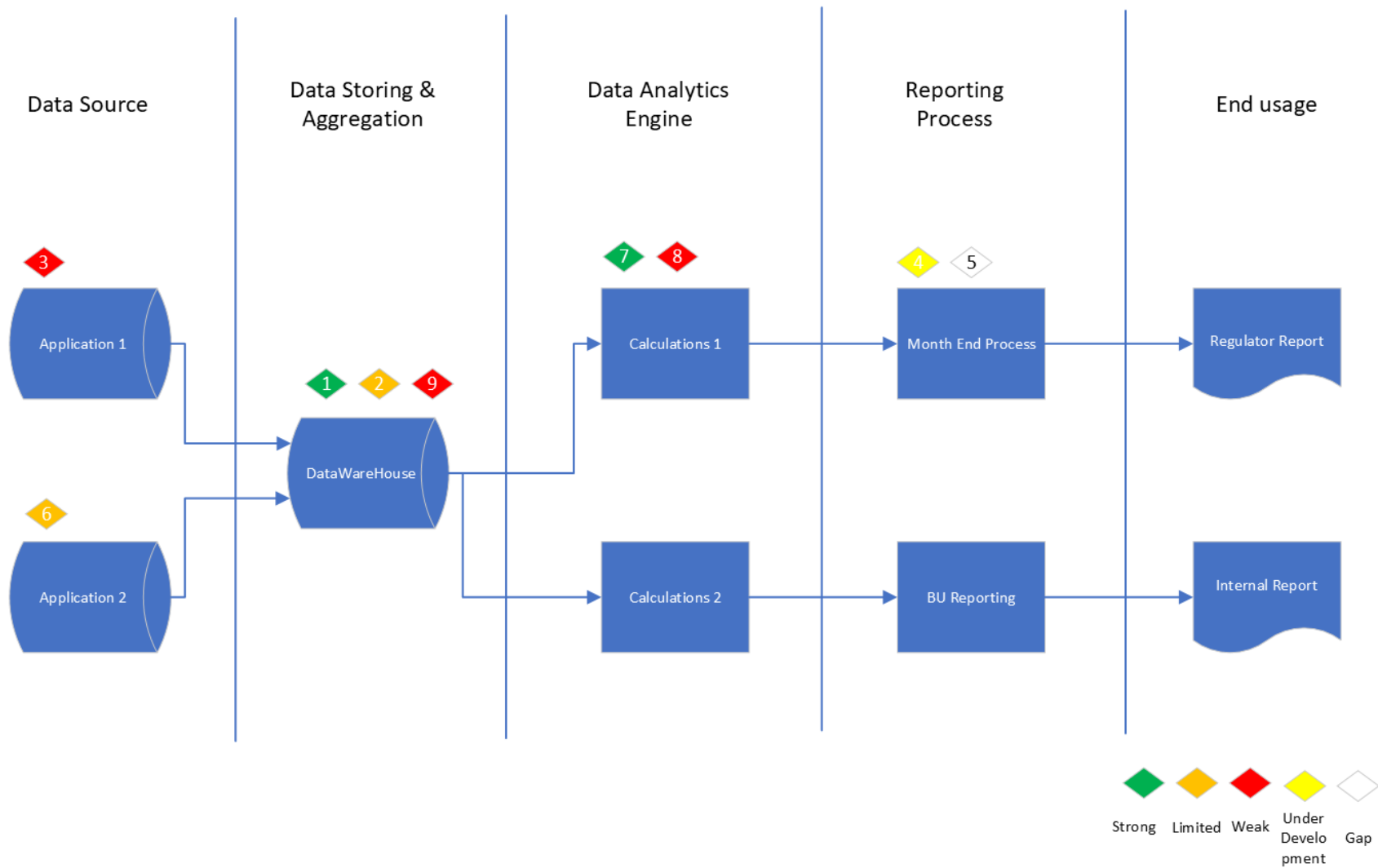
Operational use

The following areas are satisfactory:

- Data Ownership

This should not be used by senior management or the executive for commercial decision making

Data Quality
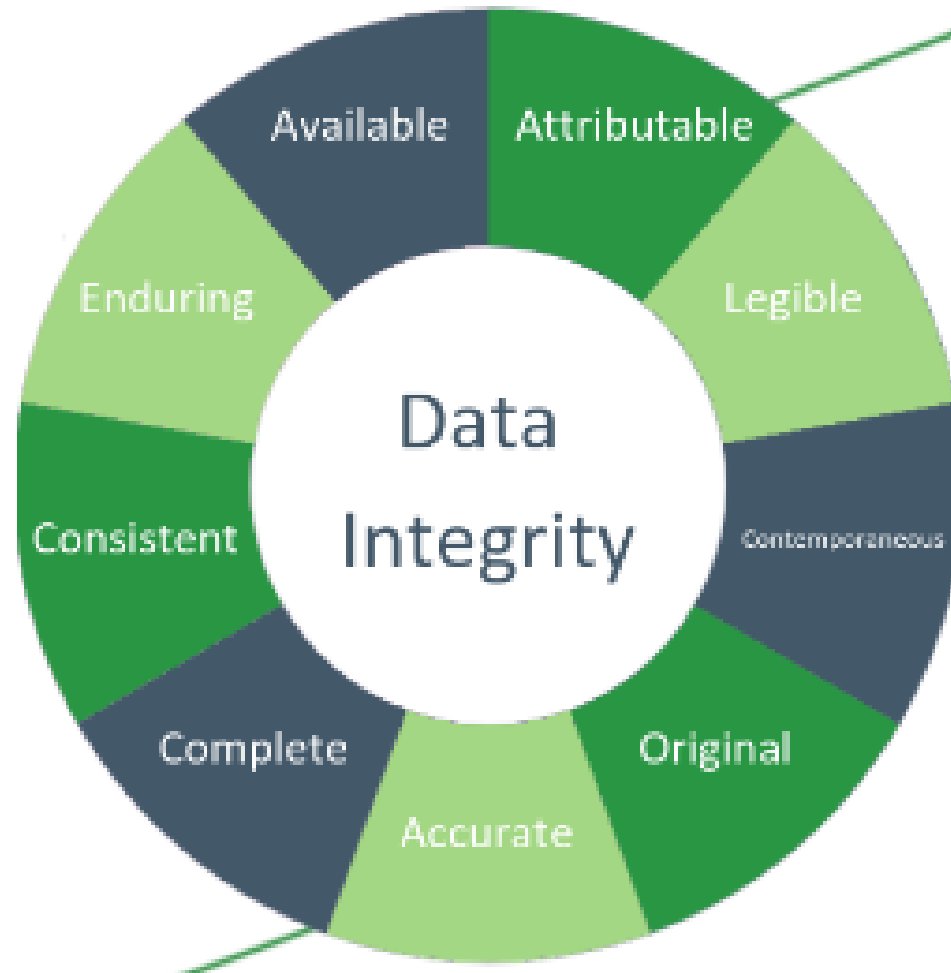
Data Lineage including Controls

How could these Data Controls look like?

Sheet not shared, please reach out if you would like more detailed information

Common Data Model (IEC 61968) – or do we make it ISO 55013?

Supports standardisation & harmonisation

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Network Operation ↔ IEC 61968 Compliant Interface Architecture

Records & Assets Management ↔ Customer Account Management

Operational Planning & Organisation ↔ Retail

Maintenance & Construction ↔ Supply Chain and Logistics

Network Extension Planning ↔ Financial

Customer Support ↔ Premises

Meter Reading & Control ↔ Human Resources

Energy Mgt. & Trading
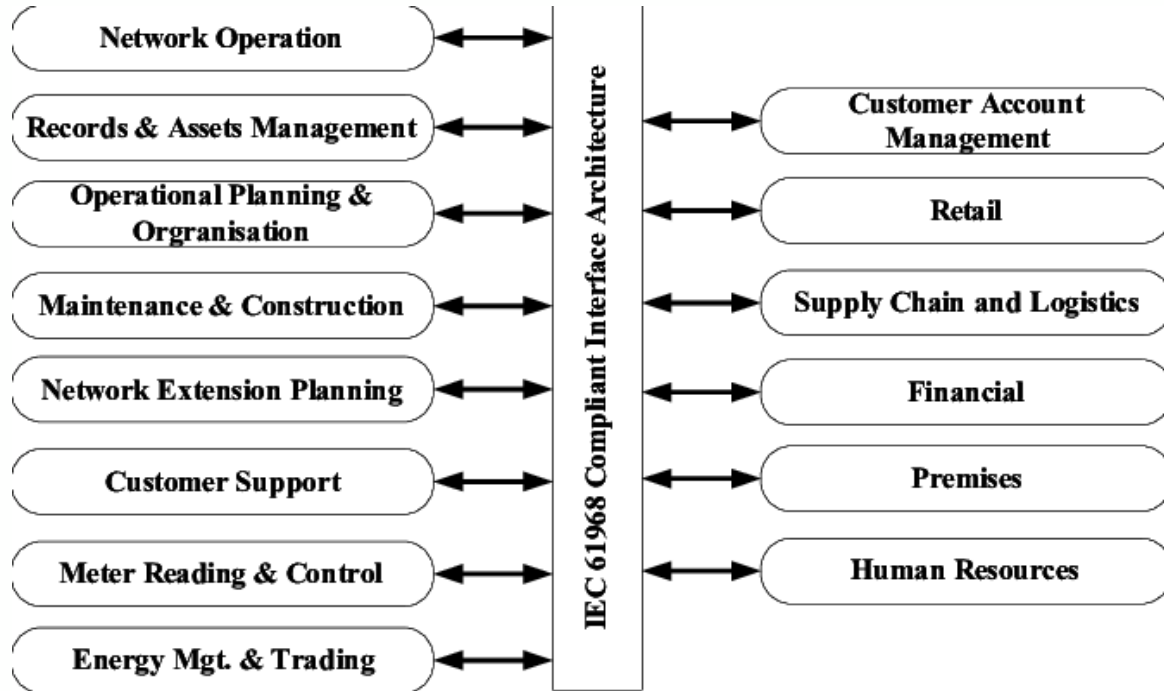
Data Ownership

NON-INVASIVE DATA GOVERNANCE

The Path of Least Resistance and Greatest Success

ROBERT S. SEINER
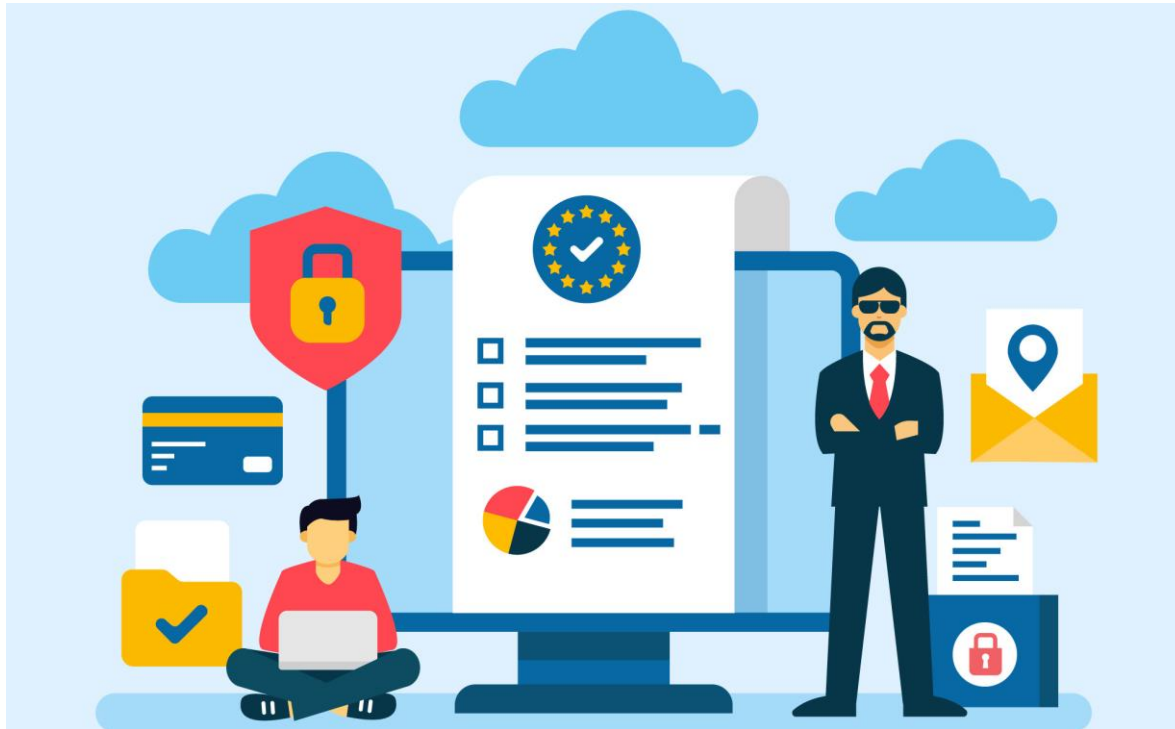
Define / appoint further ownership / stewardship across the business:

- Data Owner (in alignment with Common Data Model)
  Business Only
  - Report Owner (=View Owner = Customised Object Owner)
    Split Business & Technical
  - System Owner
    Split Business & Technical

Data Privacy & Retention
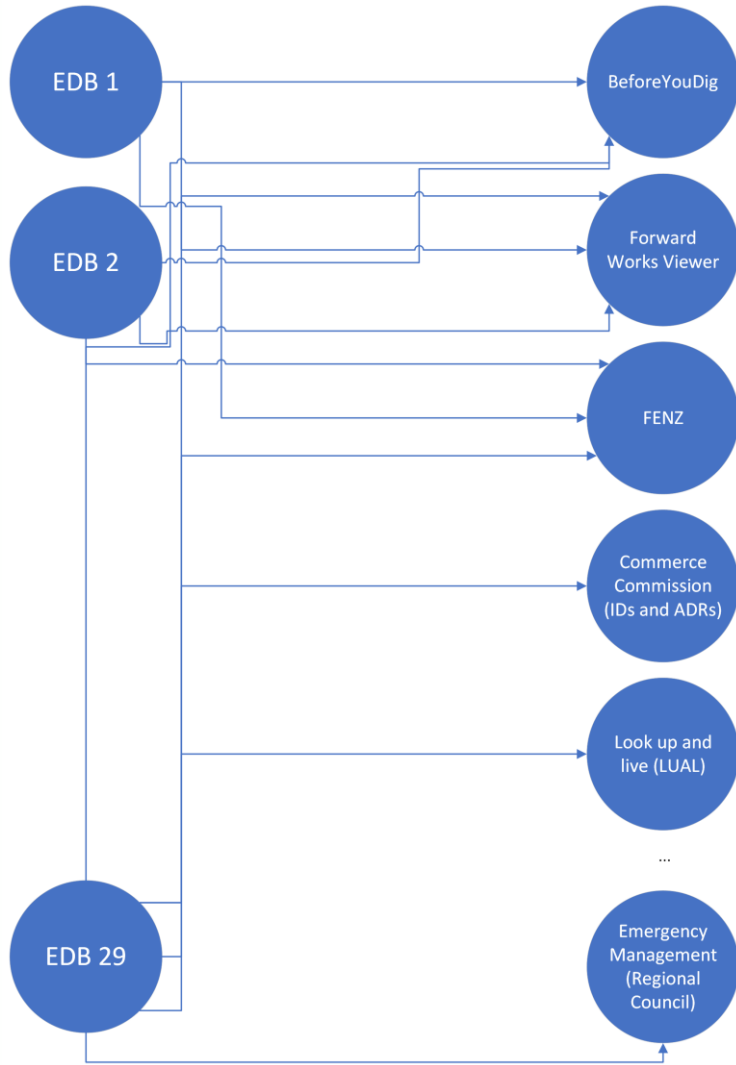
Key benefits Data Governance tool

1. Data Quality issues can be made transparent and can be solved following a triage system
2. DTLG gets the ability to prioritise data quality issues (based on Data Governance Groups advice)
3. Reports (with owners & associated controls) get current Report Rating (Gold, Silver, Bronze) and actionable plans towards desired Report Rating
4. Applications get owners & associated controls
5. Data Owner gets insight in where their data elements reside (applications, reports) in alignment with industry standards
6. Privacy (personal data) and retention can be better managed
7. Change Advisory Board can start better assess by application of Impact Analysis
8. The organisation becomes more agile (by alignment to industry data models)
9. Clear action on 1 (low risk) finding from the audit report

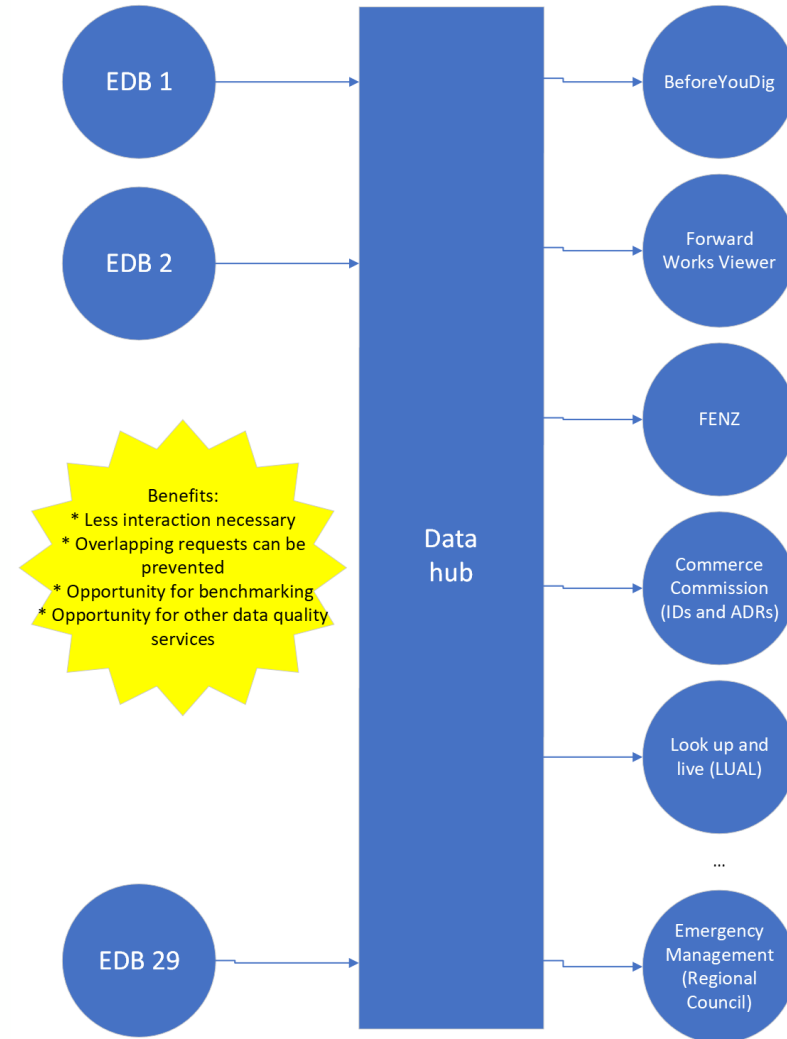We recommend that management:

- Establishes a governance process around asset data validation. The purpose of this is to validate the accuracy and integrity of the asset data through data profiling and quality checks.

My (data governance) view on industry-wide data sharing: how to accomplish > 86% data efficiency reduction?

Current process

My view

EDB 1
EDB 2
EDB 29

BeforeYouDig
Forward Works Viewer
FENZ
Commerce Commission (IDs and ADRs)
Look up and live (LUAL)
...
Emergency Management (Regional Council)

Data hub

Benefits:
* Less interaction necessary
* Overlapping requests can be prevented
* Opportunity for benchmarking
* Opportunity for other data quality services

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Follow up conversation Data Hub

1. At the end of the forum, I have committed (without being compensated for my hours) to creating a high-level business case for the Data Hub initiative that will include a funding model.

2. EEA committed to bringing this business case to the EEA Board for their advice/decision.

3. My plan is to draft up this business case in July 2024 and ask for feedback/review from 'coalition of the willing'.

4. During the forum, I already got some names who would like to be part of the 'coalition of the willing'.

5. If you want to be part of the 'coalition of the willing' please let me know before the end of June 2024.

Questions/discussion?

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