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# **“THE GOLDEN THREAD”**

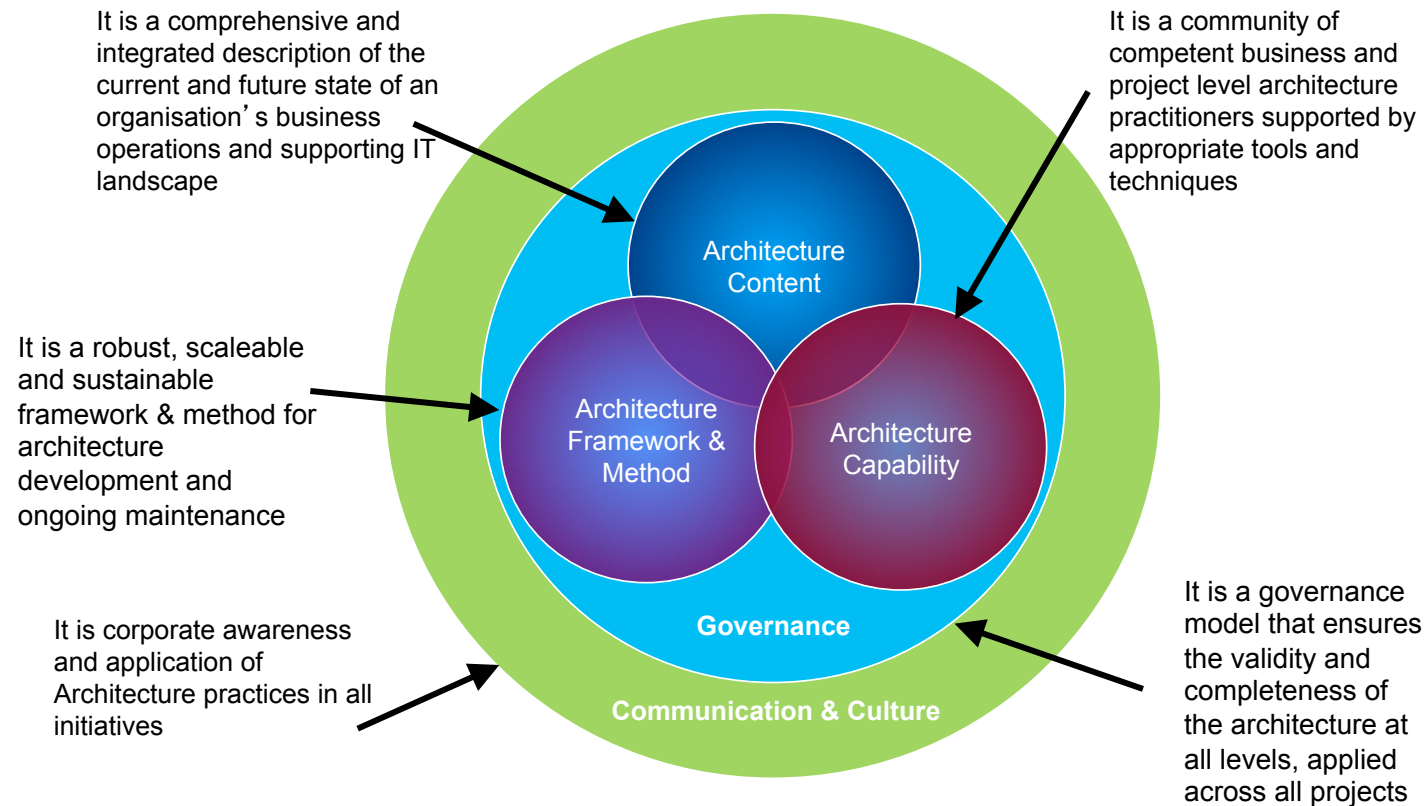
## **enabling end to end transparency**

David Lynam CIO AWE



# The Question ....

## What is Architecture? What do we need to do?



It is information about our Business  
Providing a basis for informed decision making



# The Value of Architecture

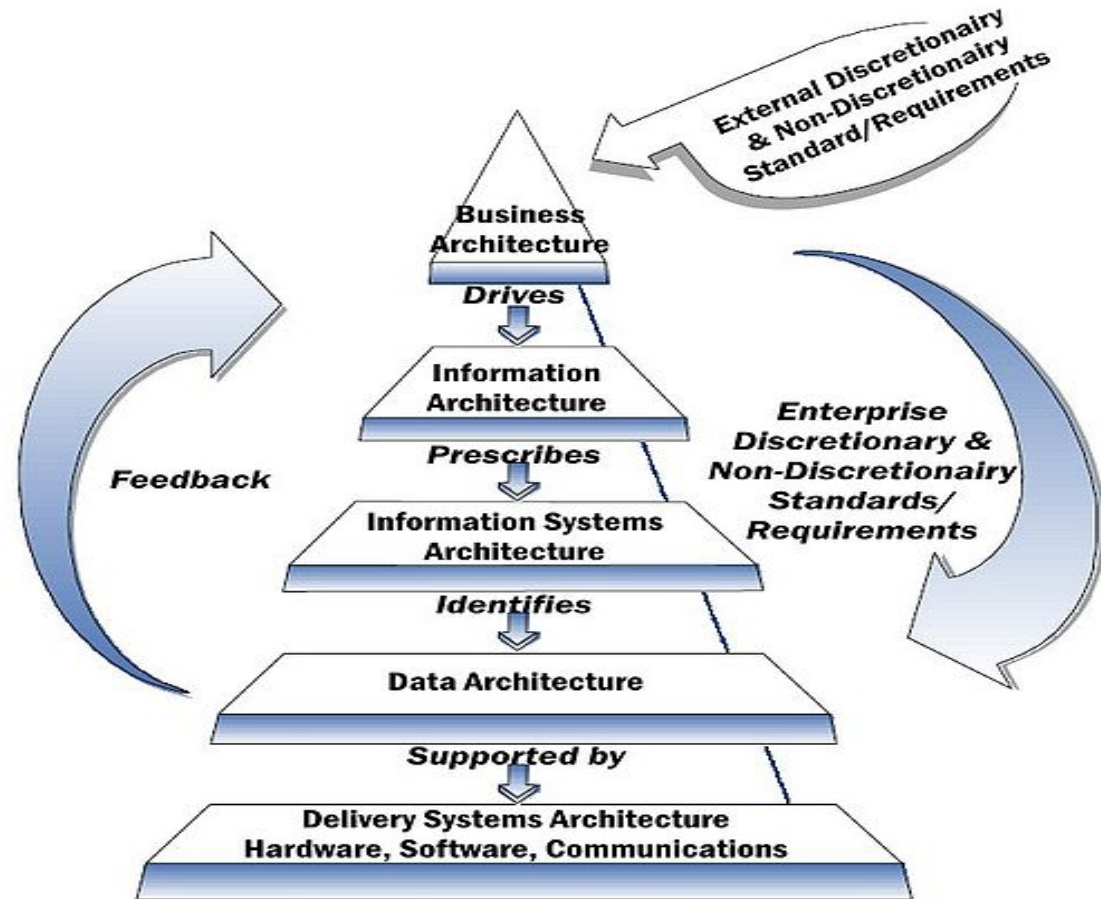
- Value of using an architecture framework
  - Understanding of the relationships within the Business
  - Informs control of the Business – allowing Innovation and Agility
  - Demonstration of control during change – Impact Understood
  - Foundation for the future – What about .....





# Architecture Model

## Business Architecture with a Golden Thread into the CIO Function



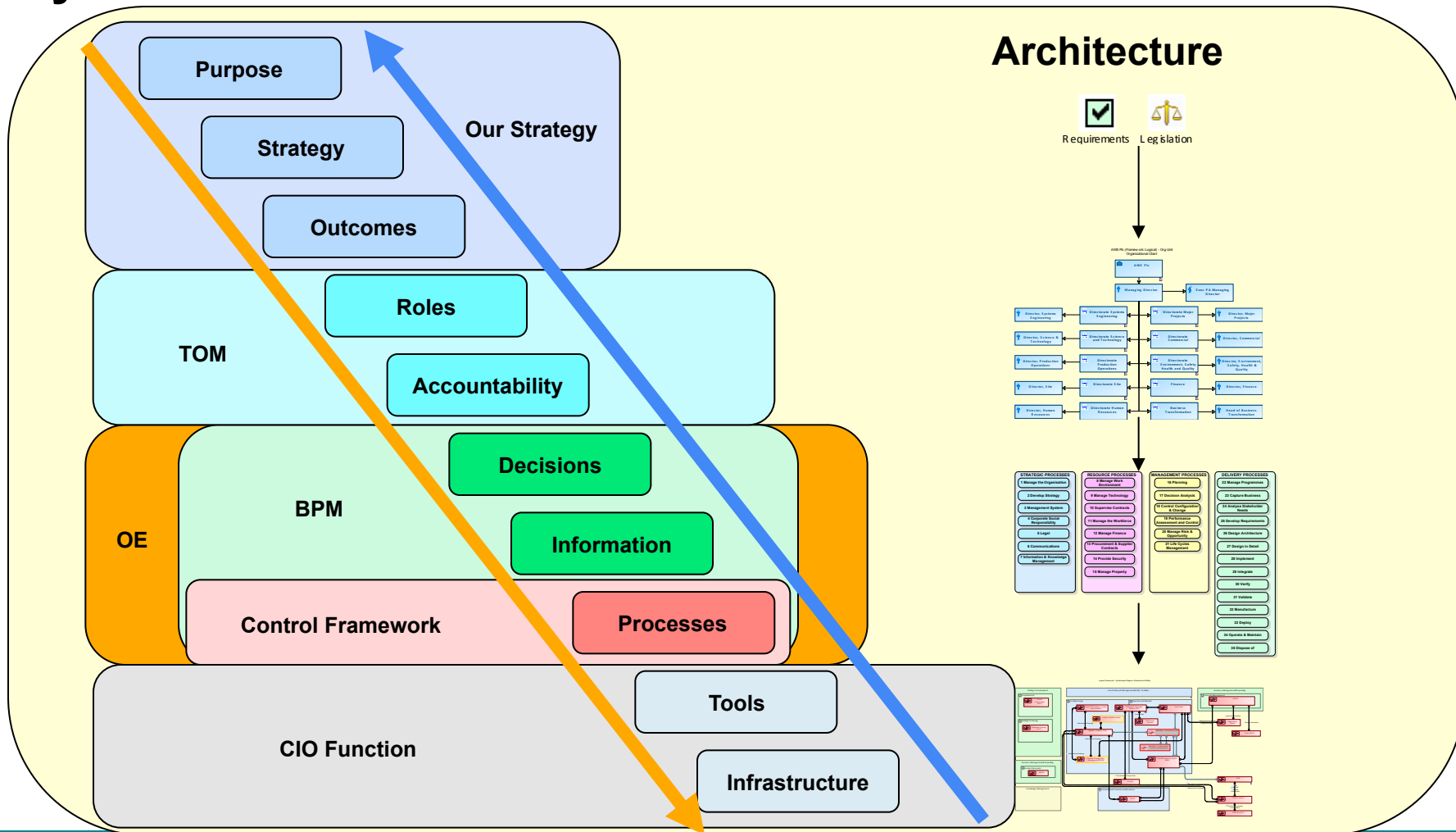


# Architecture Workstream- Strategic Intent

- Put in place a business architecture, that represents an integrated view of the business, in order to:
  - Use as a rigorous framework to assess the impact of proposed changes to processes, organisation, technology and information
  - Demonstrate systematically that making such changes will not lead to any compromises in control, safe or security
- Enable business line of sight to the CIO function to deliver flexible and agile Information services covering the risks and opportunities of our business, e.g. Product / Asset and Enterprise, allowing AWE to respond efficiently to changing information needs at all levels of the organisation, in order to:
  - Deliver the right information to the right people, at the right time and in the right form, to allow them to do their job
  - Allow Secure external collaboration where appropriate, with customers, regulators parent companies, suppliers and other partners



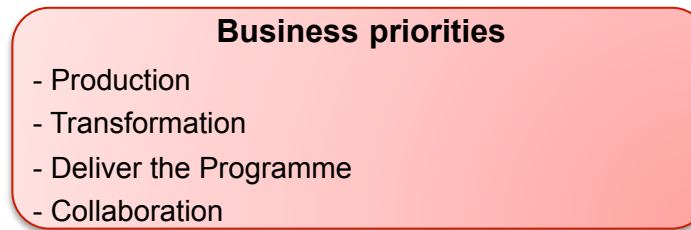
# We have TOM, CF, OE and BPM. Why do we also need Architecture?







# CIO Strategy on a page



Approach delivers solutions in response to business priorities

*A CIO function assisting the business to use information resources safely to achieve Our Strategy and goals*

Business priorities drive our strategic intent

## Strategic approach

- Executive-led governance of information services
- Architectural approach to design of information services
- Exploit and rapidly introduce essential information services on flexible infrastructure at point of business need to underpin production restart
- A multi-year, phased programme of work (not big bang)
- Turn information from a liability into an asset via information policy, tools, techniques and knowledge capture
- Alignment with the customer approach
- Common infrastructure services delivered and funded centrally, that just work
- Business services delivered by embedding (funded by functions / programmes)
- Multi-sourced environment and multiple layers of security

## Strategic Intent

- **Supporting production:** Business focused, architecturally-led provision of efficient, effective and safe information capabilities.
- **Transform** IT into a broad-ranging CIO function to support and deliver information services which enable a knowledge-working company
- **Enabling the programme:** Agile exploitation of our information capabilities to improve the delivery of the Programme through access to, and sharing of timely, accurate and trusted information
- **Collaboration:** Enable information to flow easily and safely between stakeholders, customers and teams, assured by security Defence in depth (Cyber defence)
- Own our destiny, business risk and integration, sourcing out commodity services

Strategic intent drives our approach

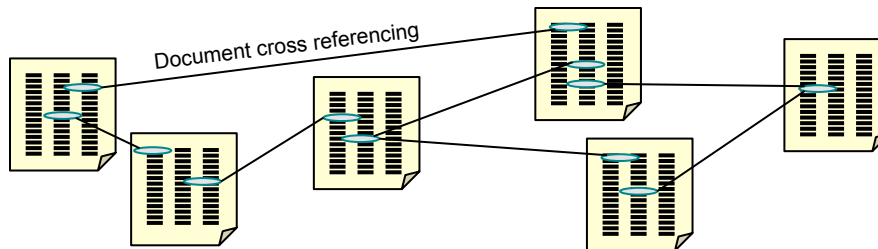




# So how is this different from what we do today?

## An Example of Architecture Modelling (GRC Example)

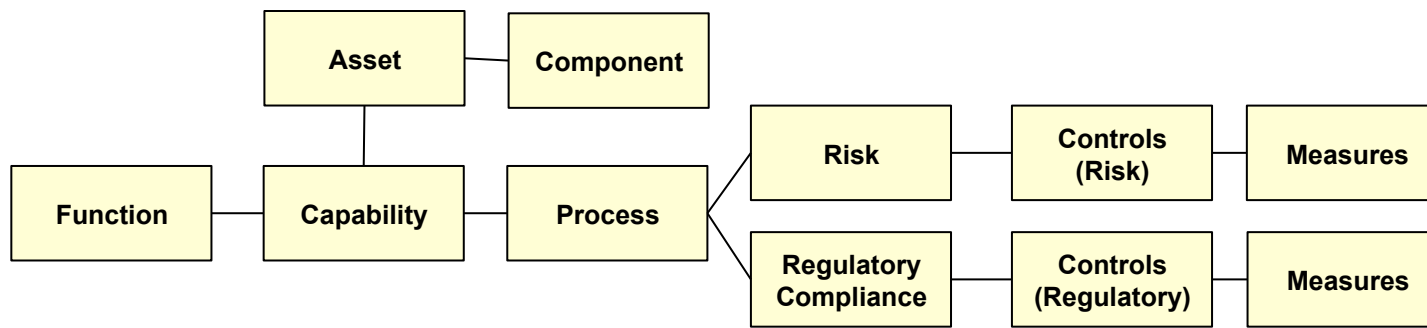
### Existing Document Centric View



- Current Focus is Document Version Control, NOT Enterprise Configuration Control
- Intensive Discovery to understand impact of Change
- Enterprise Change Impacts not obvious
- Accountability for Control is ambiguous

Using documents to define the relationships of the enterprise requires each document to be read to discover the relationships and to discover the next document to be read.

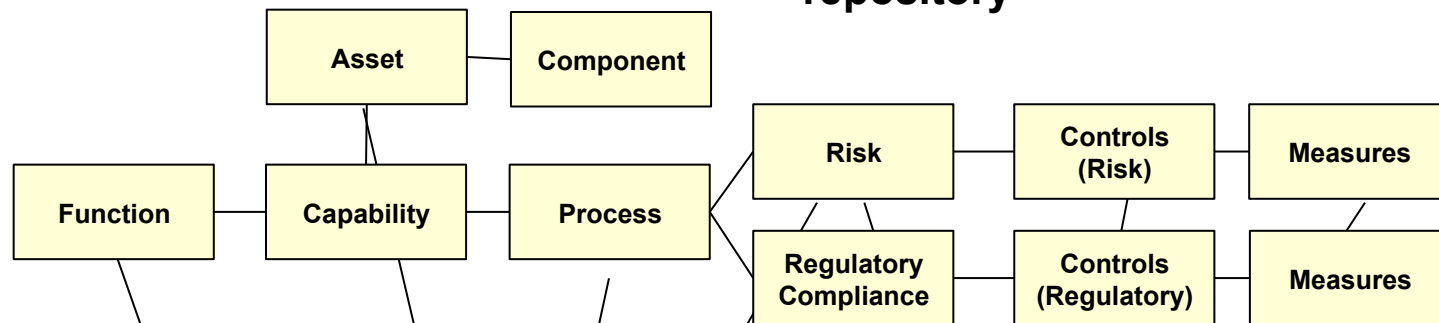
### Proposed Architecture Modelling View



Using a structured model to represent the relationships of the enterprise allows structured query to understand dependencies and impact of change through push button reporting

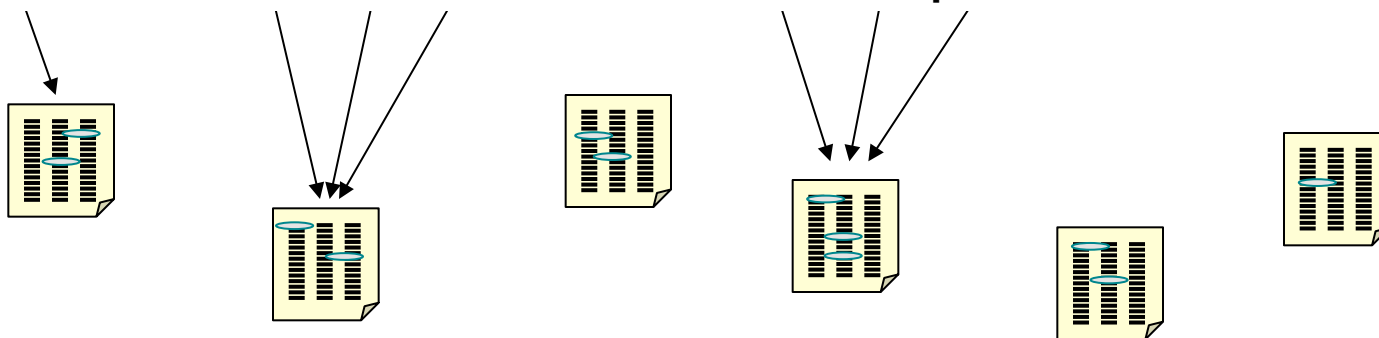
# What does that really mean? What is Different?

The data and relationships about the business are held in a structured format in a repository



The business is under configuration control

From which documents can be published

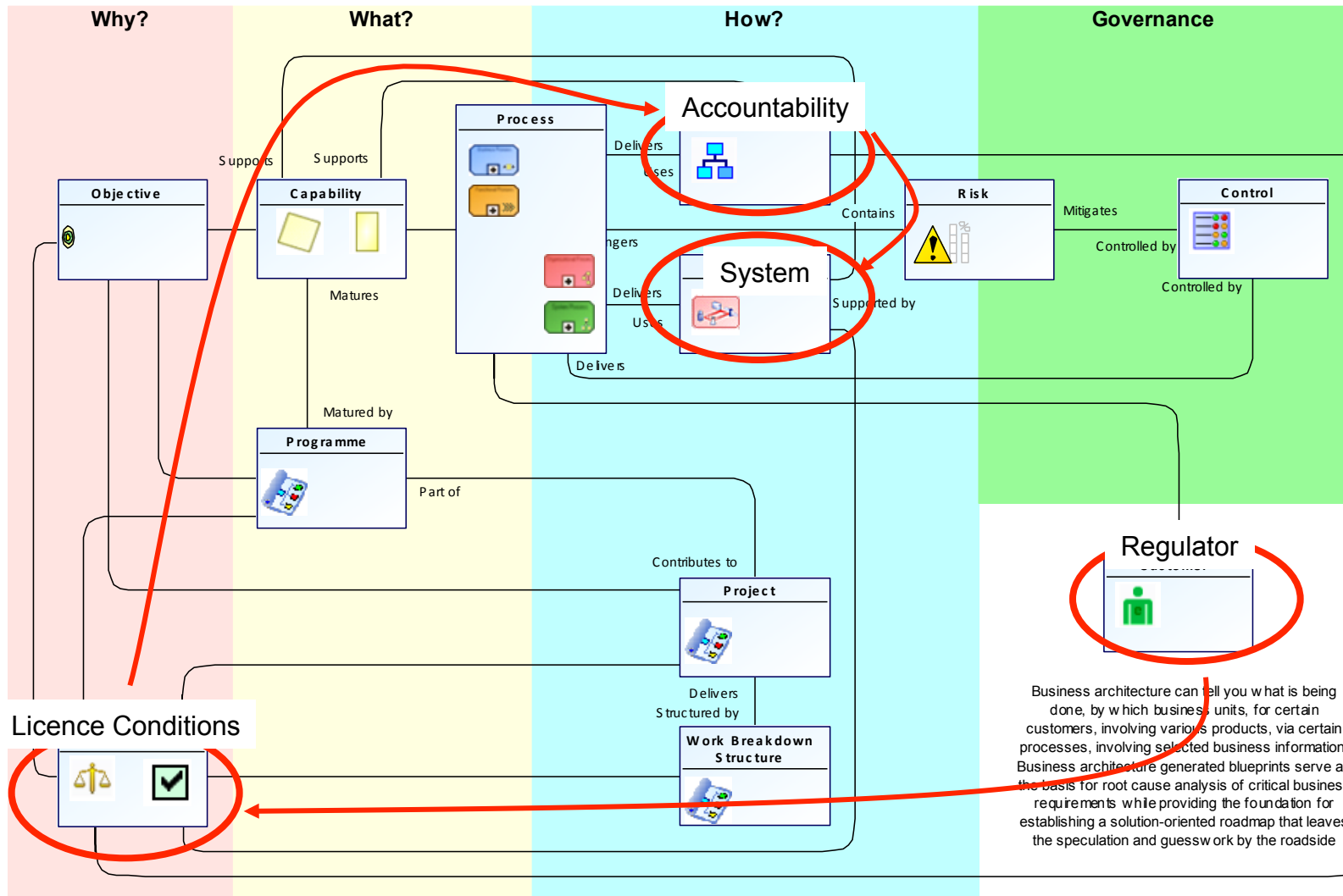


Documents are under version control



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## Proposed Architecture Modelling View Example Understanding Relationships



Business architecture can tell you what is being done, by which business units, for certain customers, involving various products, via certain processes, involving selected business information. Business architecture generated blueprints serve as the basis for root cause analysis of critical business requirements while providing the foundation for establishing a solution-oriented roadmap that leaves the speculation and guesswork by the roadside



# We can now also analyse the data

License Conditions for whom the accountable person is the Director of Site

This table lists the requirements (in columns) constraining the architecture items (in rows).

	LC02 Making of the Site Boundary	LC14 Safety Documentation	LC15 Periodic Review	LC16 Site Plan, Designs and Specifications	LC19 Construction or Installation of New Plant	LC20 Modification to the Design of Plant under Construction	LC21 Commissioning	LC22 Modification or Experiment on Existing Plant	LC23 Operating Rules	LC24 Operating Instructions	LC26 Control and Supervision of Operations	LC27 Safety Mechanisms, Devices and Circuits	LC28 Examination, Inspection, Maintenance and Testing	LC35 Decommissioning
Asset CAD Drawings - Facility and Equipment				✓	✓	✓		✓					✓	
Asset Management System (AMS)				✓	✓	✓		✓					✓	
Asset Portal				✓	✓	✓		✓					✓	
CAD Drawings Standalone				✓	✓	✓		✓					✓	
Electronic Drawing Office Management (EDOM)	✓			✓	✓	✓	✓	✓					✓	
Geographic Information Systems (GIS)	✓			✓	✓	✓	✓	✓					✓	
Meridian - In-Service FLM				✓	✓	✓	✓	✓					✓	✓
Meridian - Projects - FLM	✓			✓	✓	✓	✓	✓					✓	
ORBIT							✓	✓					✓	
Safe Systems Of Work (SSOW)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

License Conditions where the accountability is elsewhere in the organisation and the list of systems which fall under the control of AISC and which do not support a licence condition

The following objects have no relationship with the row items:

- ✓ LC01 Interpretation
- ✓ LC03 Restriction on Dealing with the Site
- ✓ LC04 Restrictions on Nuclear Matter on the Site
- ✓ LC05 Consignment of Nuclear Matter
- ✓ LC06 Documents, Records, Authorities and Certificates
- ✓ LC07 Incidents on the Site
- ✓ LC08 Warning Notices
- ✓ LC09 Instructions to Persons on the Site
- ✓ LC10 Training
- ✓ LC11 Emergency Arrangements
- ✓ LC12 Duly Authorised and Other Suitably Qualified and Experienced Persons
- ✓ LC13 Nuclear Safety Committee
- ✓ LC17 Quality Assurance
- ✓ LC18 Radiological Protection
- ✓ LC25 Operational Records
- ✓ LC29 Duty to Carry Out Tests and Inspections
- ✓ LC30 Periodic Shutdown
- ✓ LC31 Shutdown of Specific Operations
- ✓ LC32 Accumulation of Radioactive Waste
- ✓ LC33 Disposal of Radioactive Waste
- ✓ LC34 Leakage and Escape of Radioactive Material and Radioactive Waste
- ✓ LC36 Control of Organisational Change

The following objects have no relationship with the column items:

- ✗ eFacility

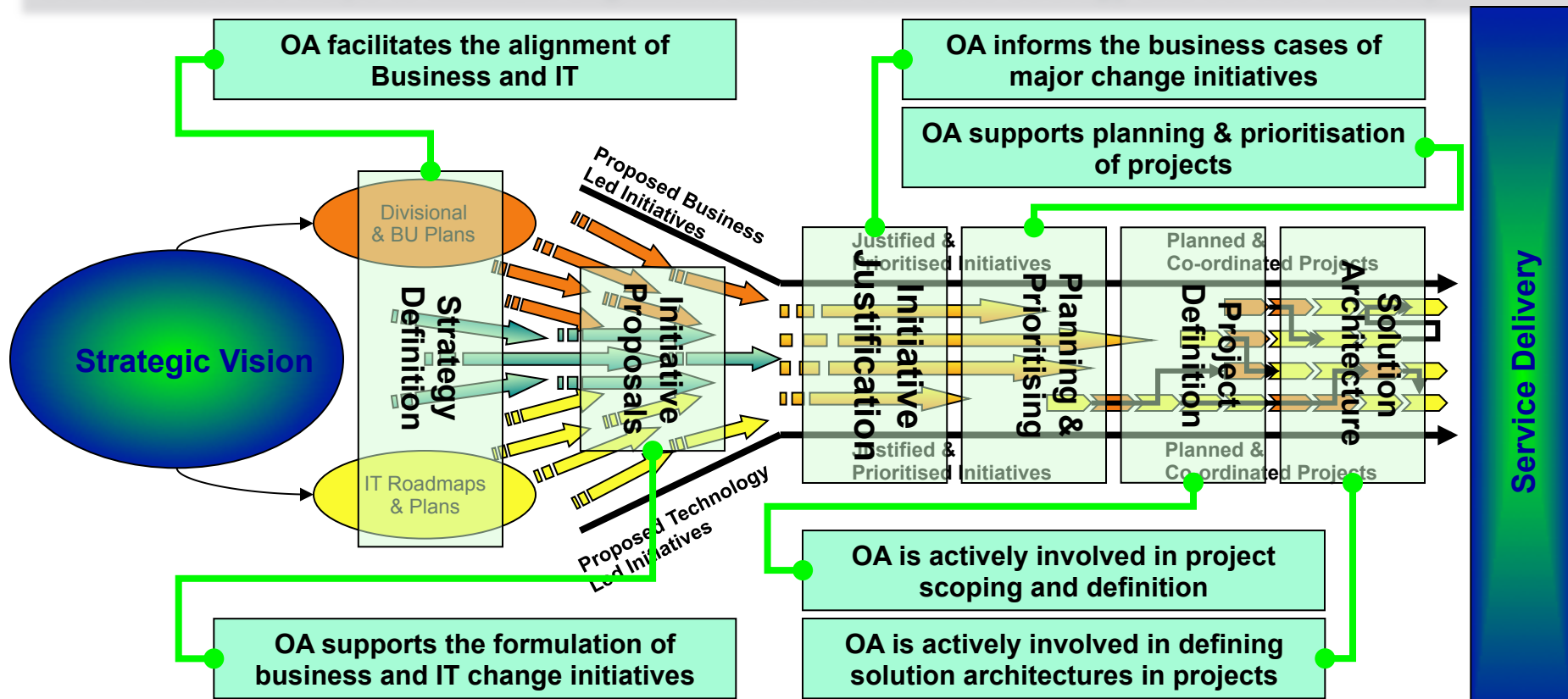
Enables impact analysis of changes to the technology



# Our Architecture in Action – Delivering the Strategy

supports business change from strategy to service management by ensuring alignment throughout

Our Architecture helps to maintain alignment between business strategy and service delivery

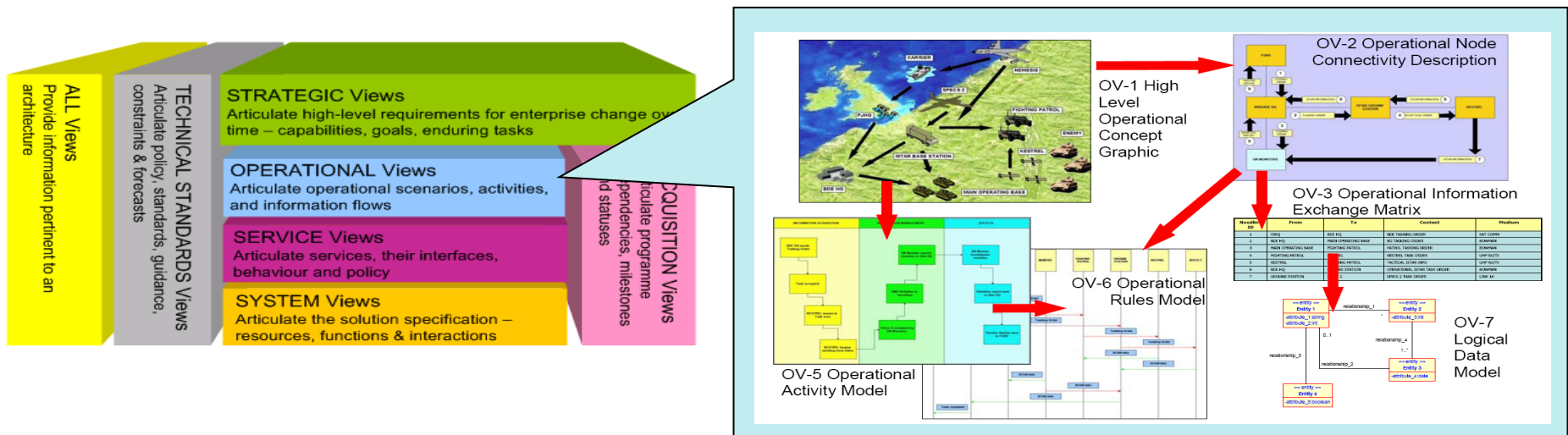


Our Architecture provides a framework and process for change that maintains clear focus on delivering the vision and value for the intended cost



# The Value for the Future Architecture Helps Understanding of Complexity

- Every architecture is intended to support decision-making, this one is no different
  - Viewpoints** address the needs of different stakeholders allowing different decisions to be made on the same underlying data
  - Views** (diagrams, tables etc.) within each viewpoint show details and are easier to understand
  - Architectural elements** are shared or linked between different views to produce an integrated architecture





# Questions