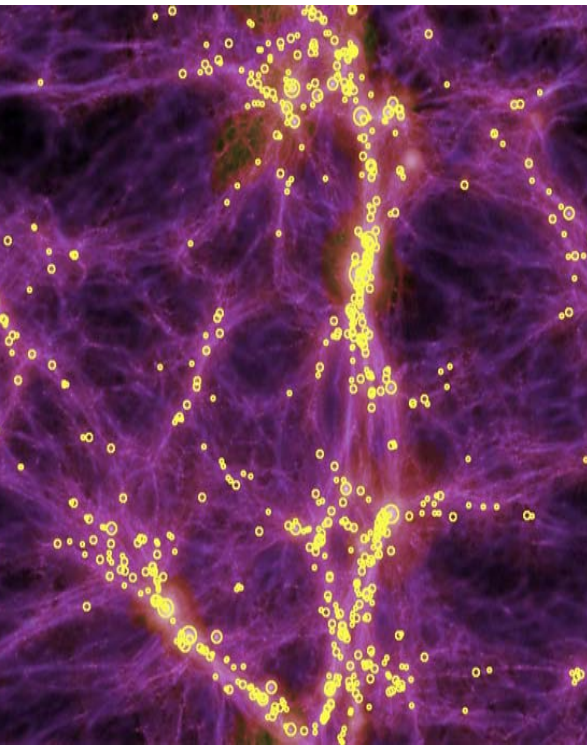


The Central Role of Business Analysis in Enterprise Architecture

presentation to the

IIBA Western Cape Chapter
Nov 2007

by Graham McLeod



inspired!
IT ● Consulting ● Training ● Research ● Tools



Coverage

- *Background (myself and Inspired)*
- *Enterprise Architecture*
- *Components of EA*
- *Business Architecture*
- *Business Process Architecture*
- *Business Process Engineering*
- *Requirements Definition*
- *Impact into other EA dimensions*
 - ▶ *Information*
 - ▶ *Applications*
 - ▶ *Technology*
- *Scoping Initiatives*
- *Examples and Case Studies*
- *Discussion*
- *References and Further Info*



What is an Enterprise Architecture?

1. A map of the forest

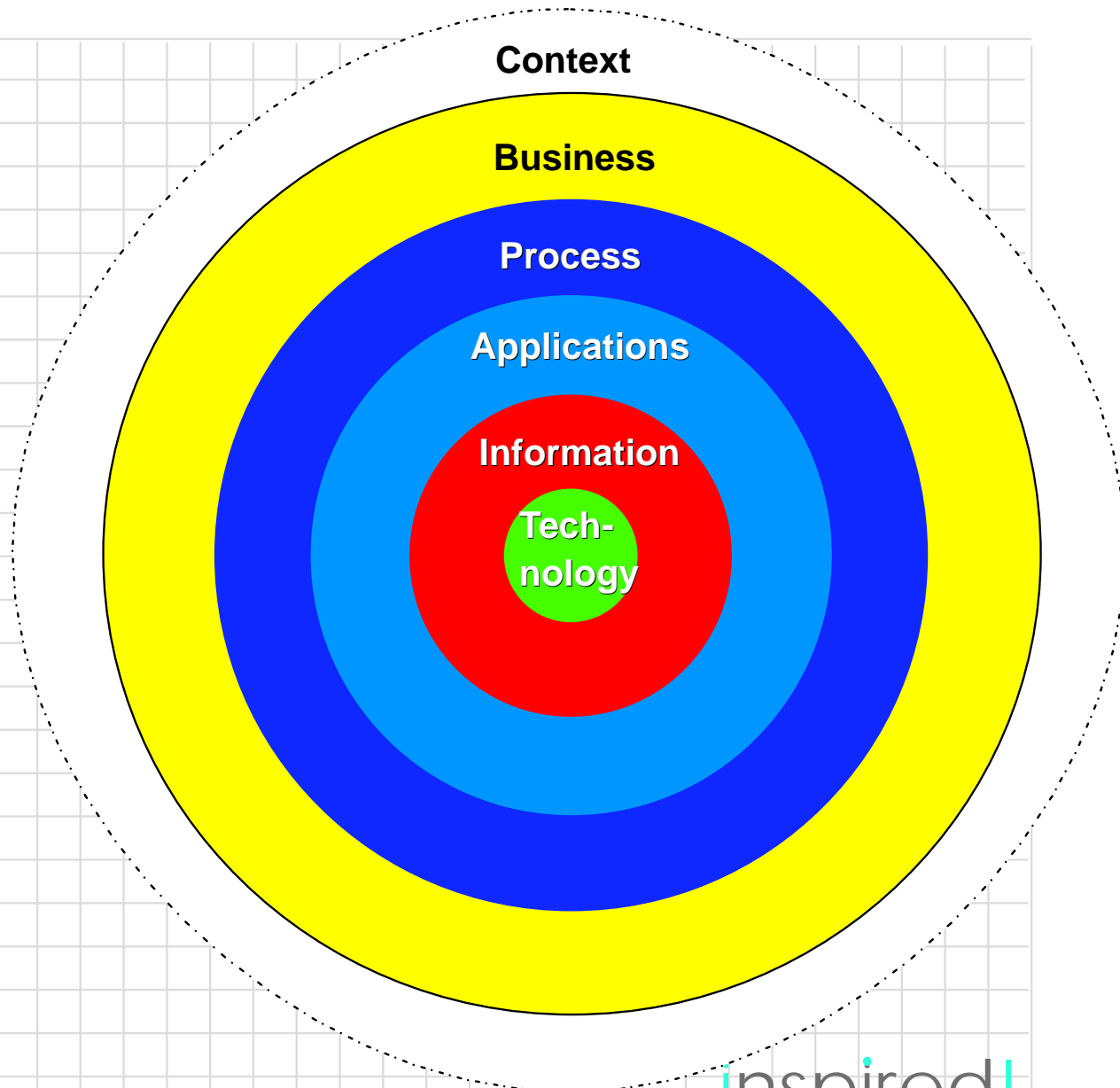
- What have we got?
- How good is it?
- Redundancies
- Gaps
- Risks

2. Blue Print

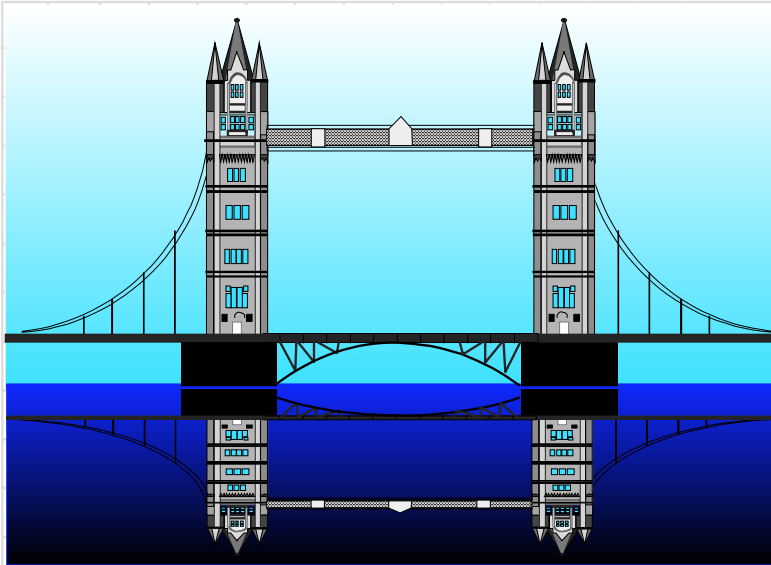
- ▶ High Level Conceptual Design
- ▶ Covers whole business/enterprise
- ▶ A current "best plan"
- ▶ Guides acquisition and implementation choices

3. Policies, Procedures and Processes

- Whereby Strategy and Vision are transformed into Designs and Initiatives to realise them



Why We Need Enterprise Architecture









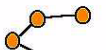
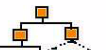


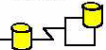
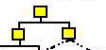

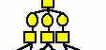

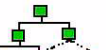

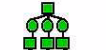






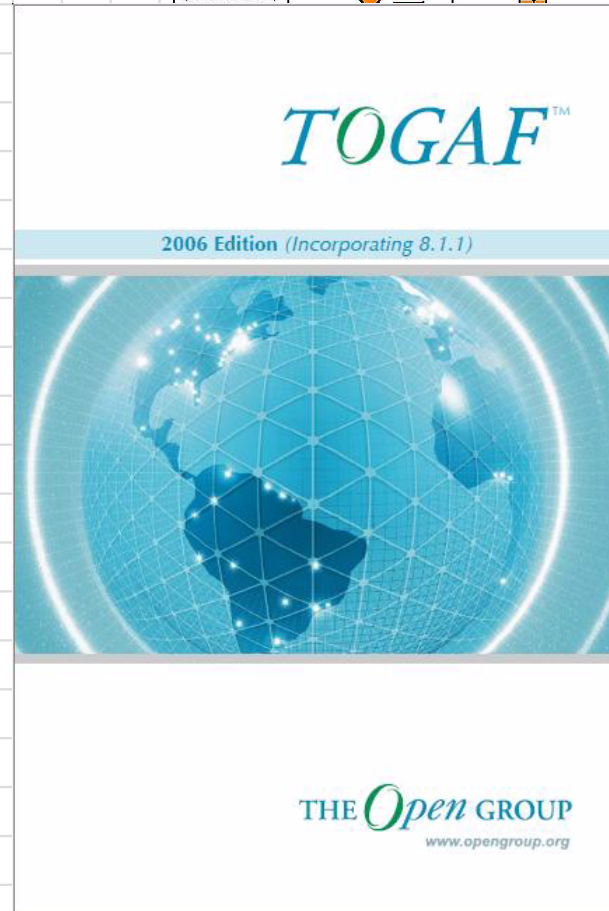
- Improve business **benefit** derived from I.T.
- **Reduce costs** associated with I.T.
- Reduce **risk**
- Enable desirable **business changes**, pursuit of opportunities
- **Shorten lead times** to realizing benefits
- **Exploit emerging technologies** which can provide strategic advantage
- Provide framework for **decision making** and practice within development, technology purchase and operations
- Basis for **good governance**
- If your company is listing and needs to be **SOX** compliant
- If you want **budget** in the US Federal Govt.

EA Frameworks and Methods

- Zachman
- FEAF
- IAF
- DODAF/C4ISR
- TOGAF
- Inspired
- Related:
 - ▶ COBIT
 - ▶ ITIL

ENTERPRISE ARCHITECTURE - A FRAMEWORK™

	DATA <i>What</i>	FUNCTION <i>How</i>	NETWORK <i>Where</i>	PEOPLE <i>Who</i>	TIME <i>When</i>	MOTIVATION <i>Why</i>	
SCOPE (CONTEXTUAL)	List of Things Important to the Business 	List of Processes the Business Performs 	List of Locations in which the Business Operates 	List of Organisms Important to the Business 	List of Events Significant to the Business 	List of Business Goals/Strat 	SCOPE (CONTEXTUAL)
<i>Planner</i>	ENTITY = Class of Business Thing	Function = Class of Business Process	Node = Major Business Location	People = Major Organizations	Time = Major Business Event	Ends/Means = Major Bus. Goal/Critical Success Factor	<i>Planner</i>
ENTERPRISE MODEL (CONCEPTUAL)	e.g. Semantic Model 	e.g. Business Process Model 	e.g. Logistics Network 	e.g. Work Flow Model 	e.g. Master Schedule 	e.g. Business Plan 	ENTERPRISE MODEL (CONCEPTUAL)
	Link = Business Linkage	Link = Business Process	Node = Business Location	People = Organization Unit	Time = Business Event	End = Business Objective	<i>Owner</i>
	e.g. "Distributed System Architecture" 		e.g. Human Interface Architecture 	e.g. Processing Structure 	e.g. Business Rule Model 		SYSTEM MODEL (LOGICAL)
	Node = LS Function (Processor Structure) Link = Line Characteristics		People = Role	Time = System Event Cycle - Processing Cycle	End = Structural Assertion		<i>Designer</i>
	e.g. "System Architecture" 		e.g. Presentation Architecture 	e.g. Control Structure 	e.g. Rule Design 		TECHNOLOGY CONSTRAINED MODEL (PHYSICAL)
	Node = Hardware/System Software		People = User	Time = Execute Cycle - Component Cycle	End = Condition		<i>Builder</i>
	Link = Line Specifications		Work = Screen Format	e.g. Timing Definition 	Means = Action		DETAILED REPRESENTATIONS (OUT-OF-CONTEXT)
	e.g. "Network Architecture" 		e.g. Security Architecture 		e.g. Rule Specification 		<i>Sub-Contractor</i>
	Node = Addresses		People = Identity	Time = Interrupt Cycle - Instance Cycle	End = Sub-condition		
	Link = Protocols		Work = Job		Means = Step		FUNCTIONING ENTERPRISE
	e.g. NETWORK		e.g. ORGANIZATION		e.g. SCHEDULE		

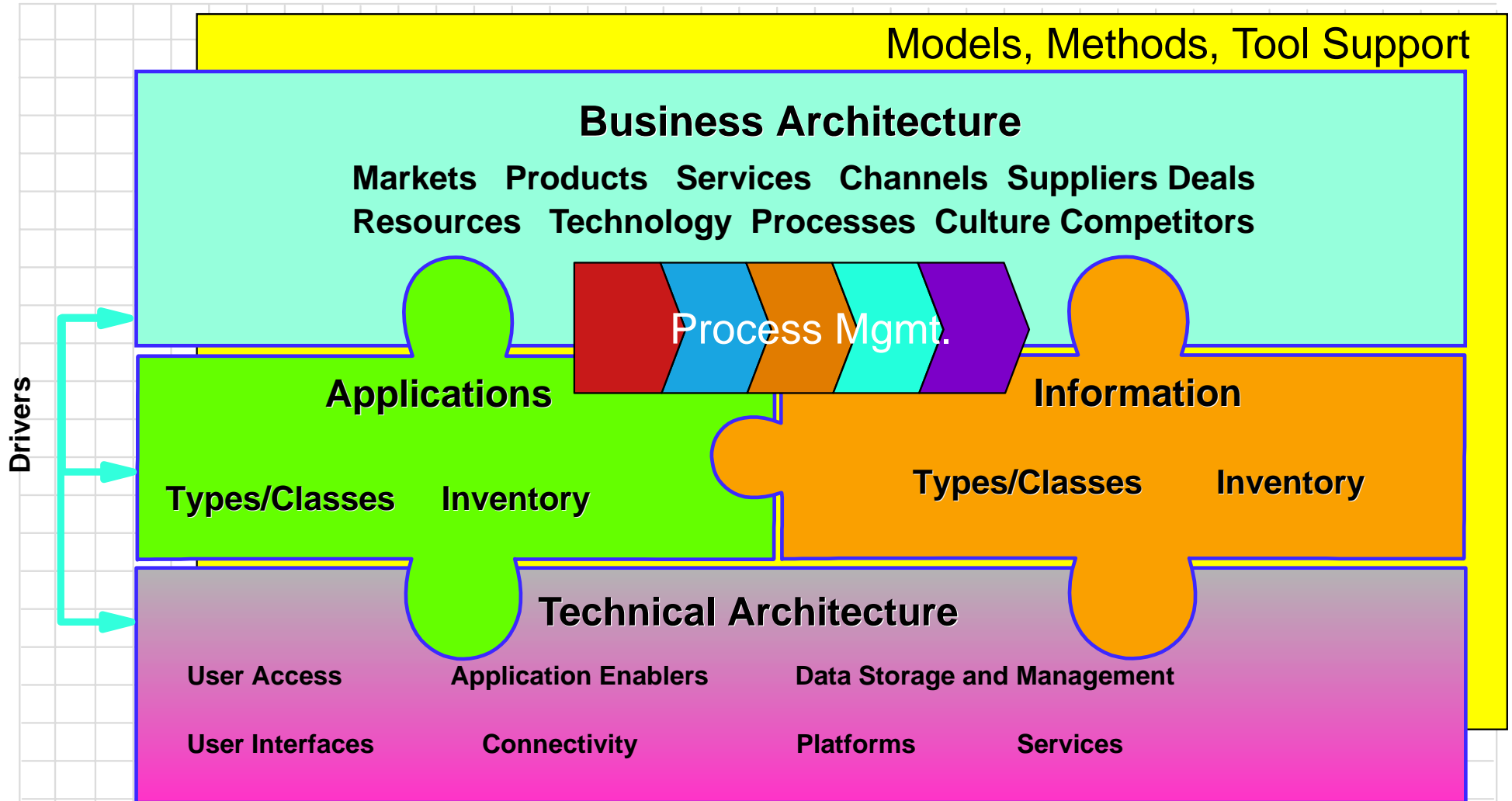


TOGAF™
2006 Edition (Incorporating 8.1.1)

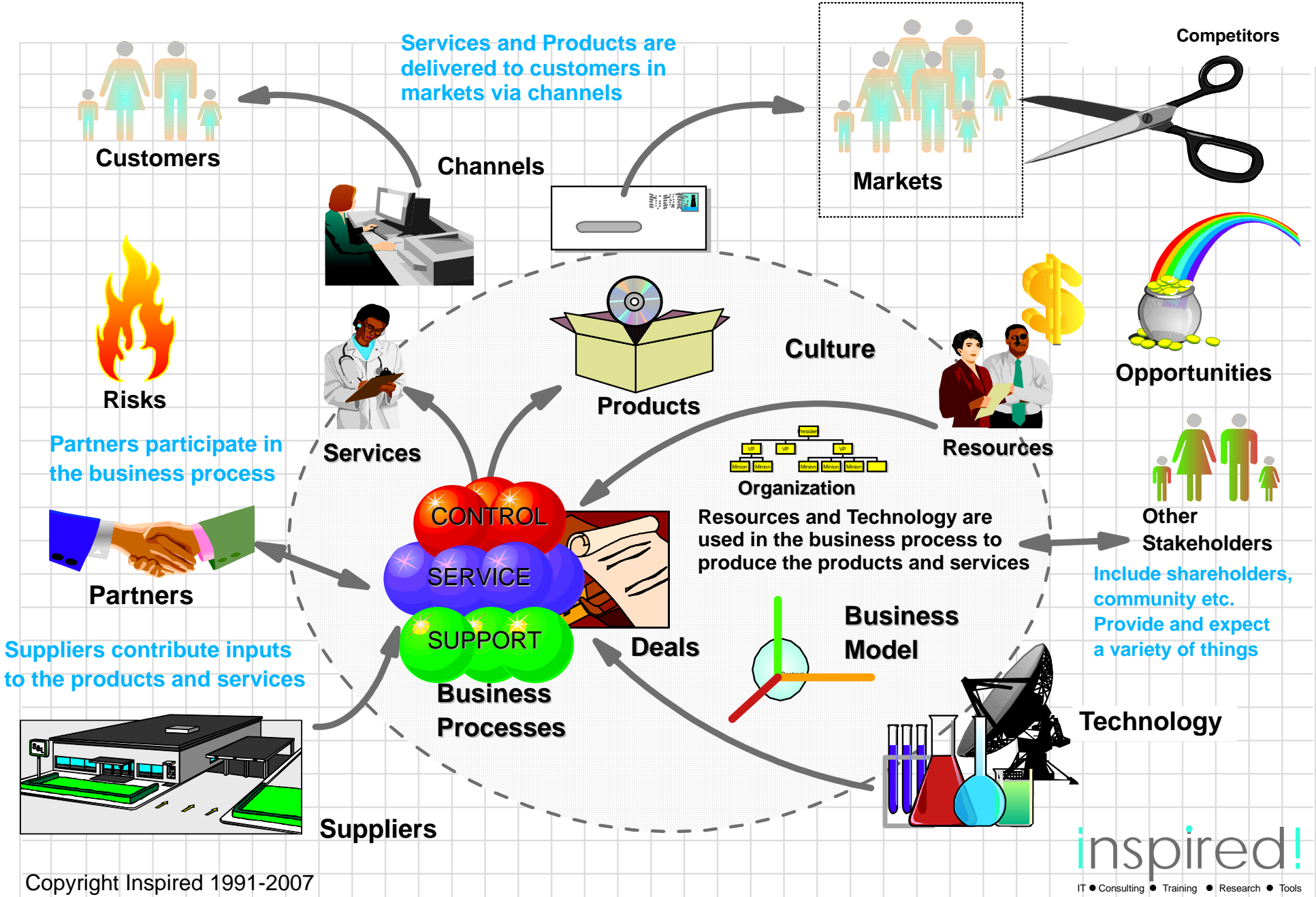
THE Open GROUP
www.opengroup.org

-(810) 231-0531

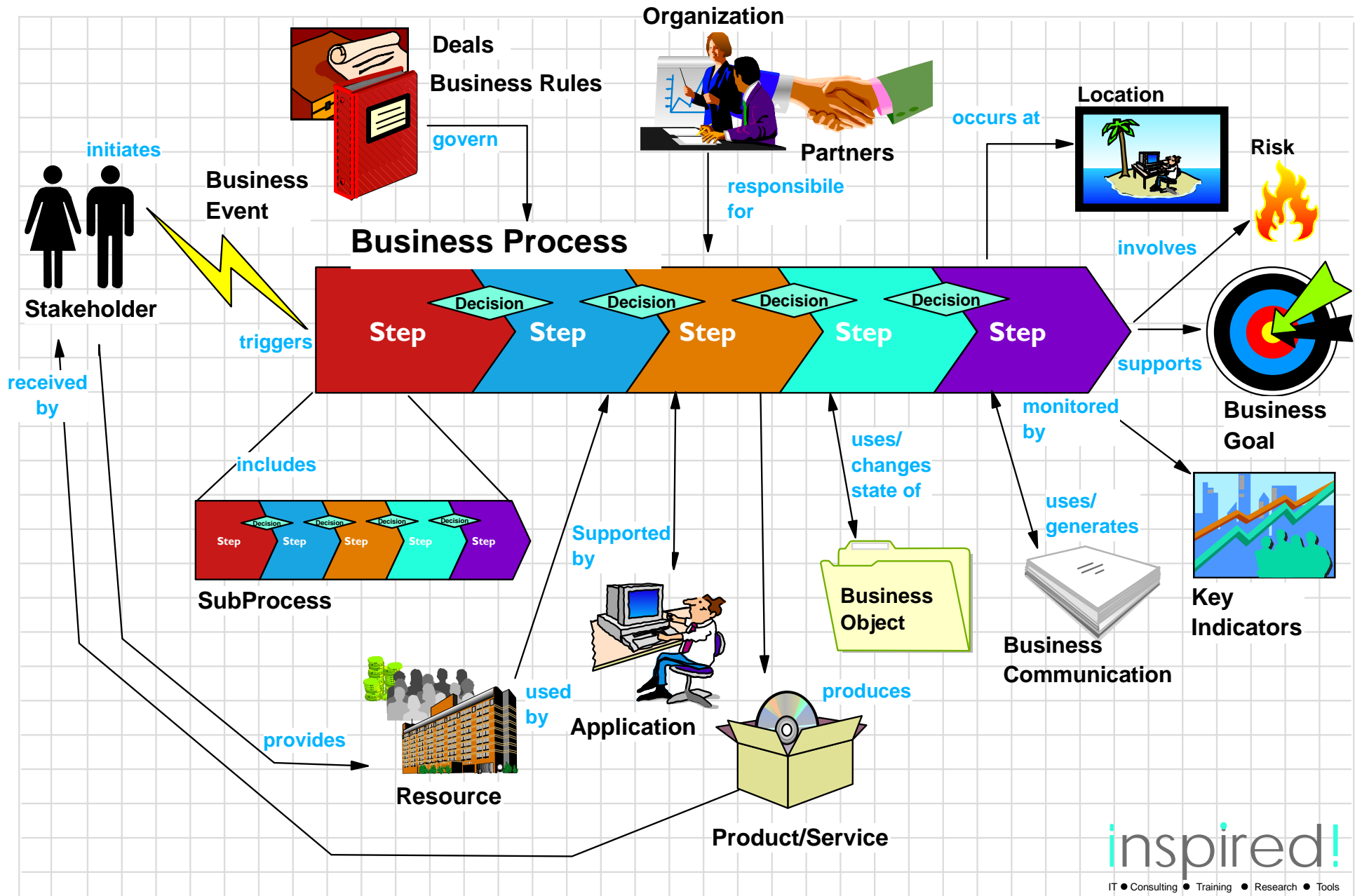
The Inspired Frameworks



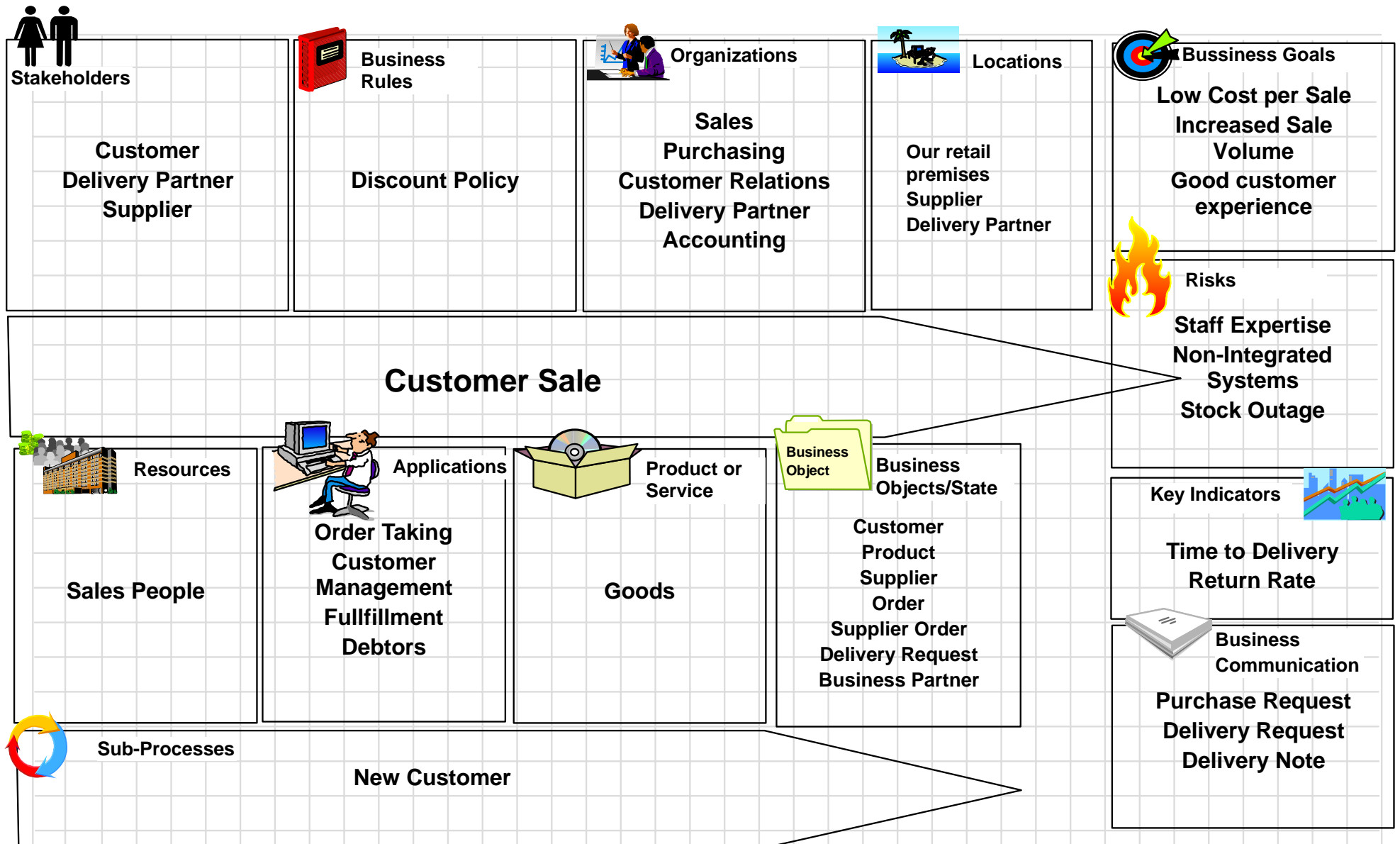
Business Architecture



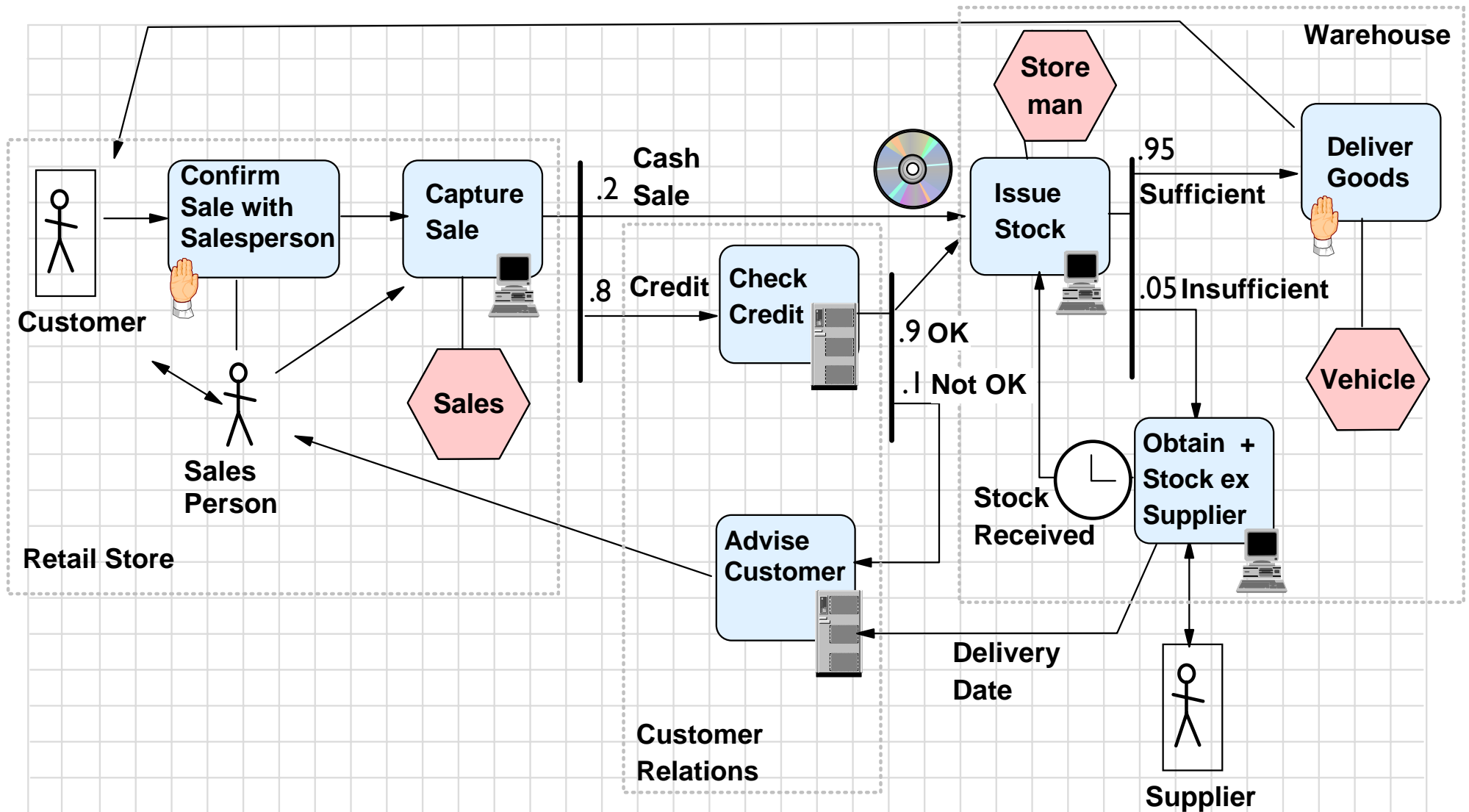
Business Process Architecture



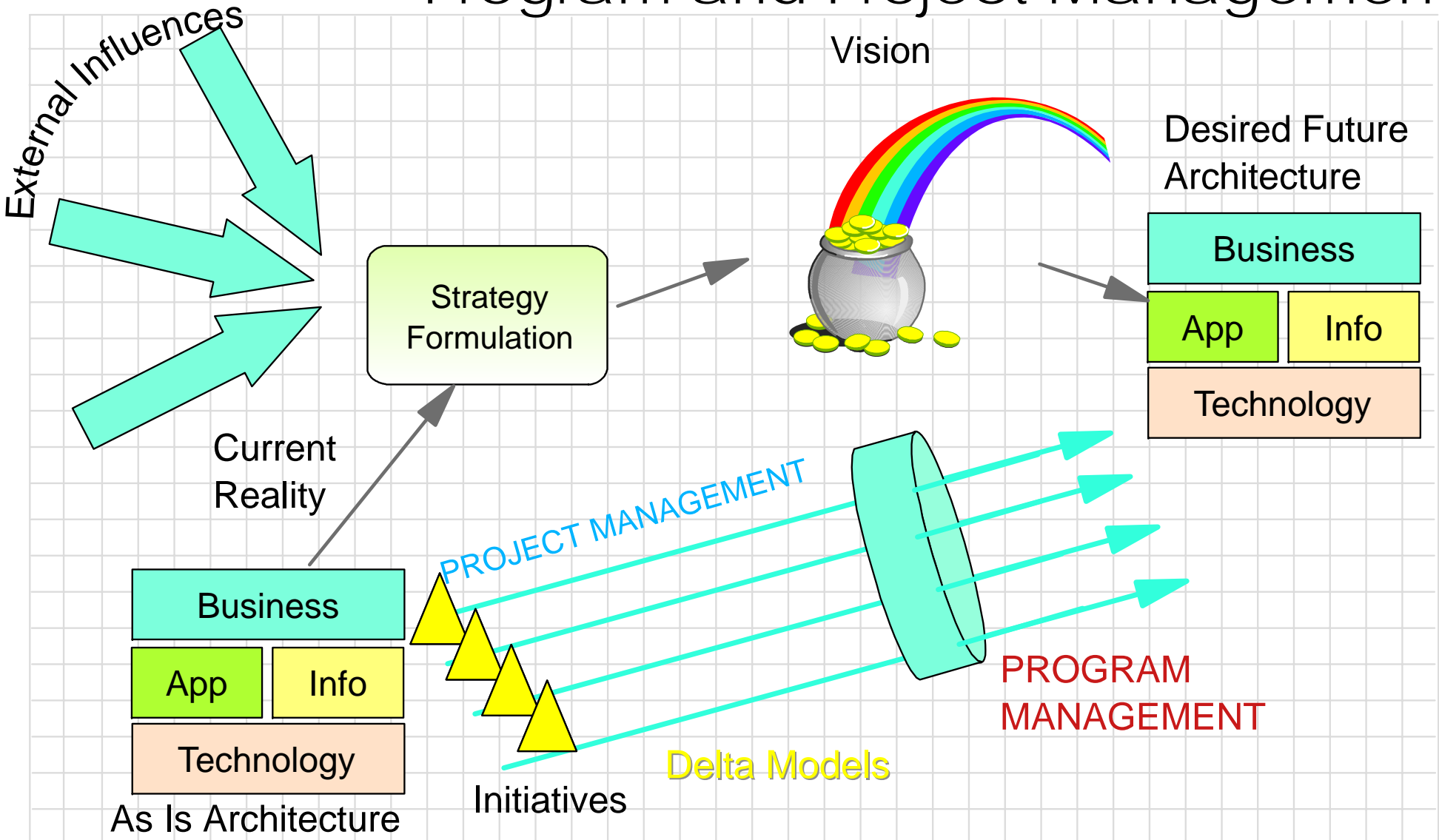
Process Architecture Example



Business Process Model

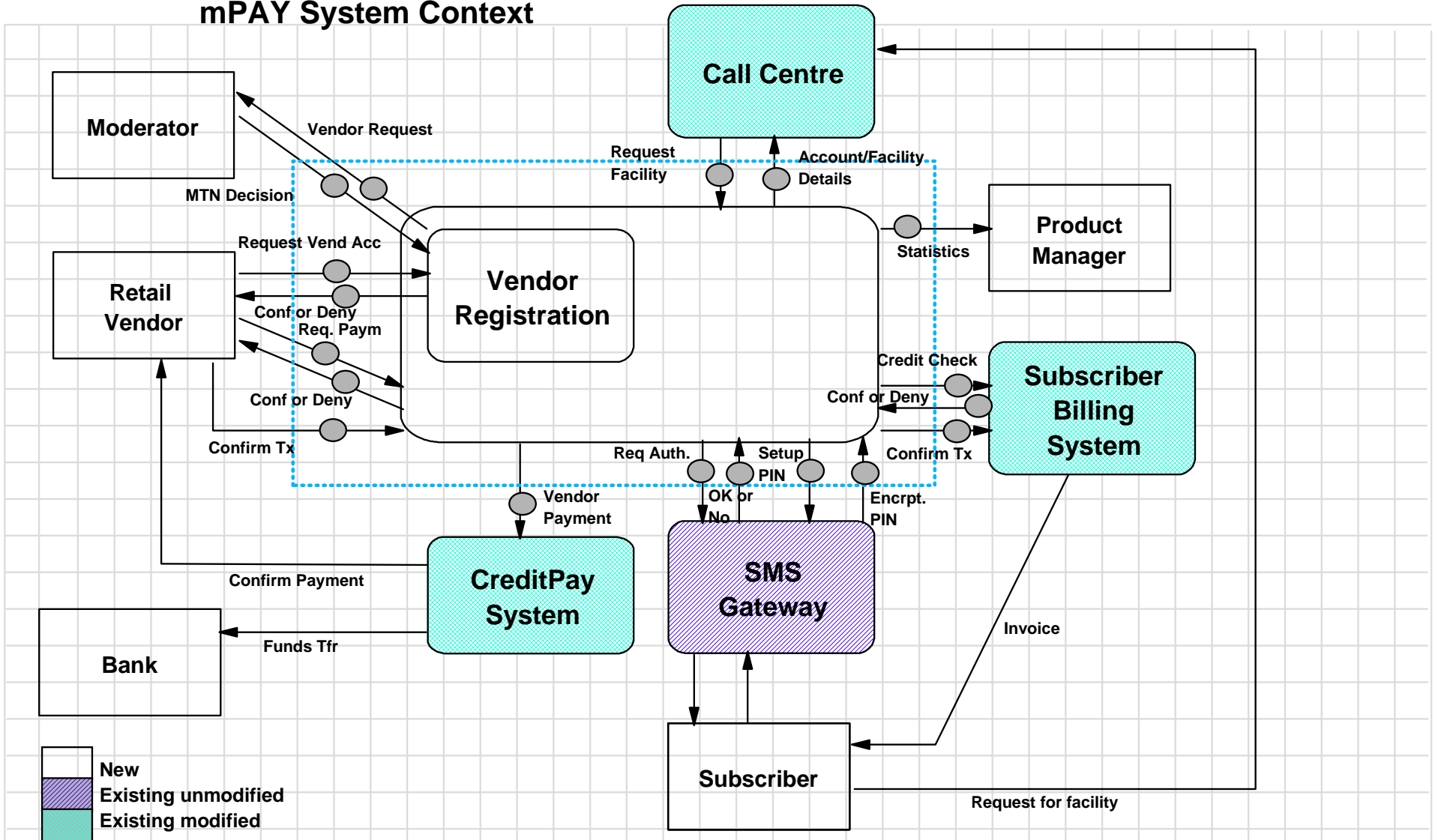


Relationship between Strategy, Architecture, Program and Project Management



Project Delta Example

mPAY System Context



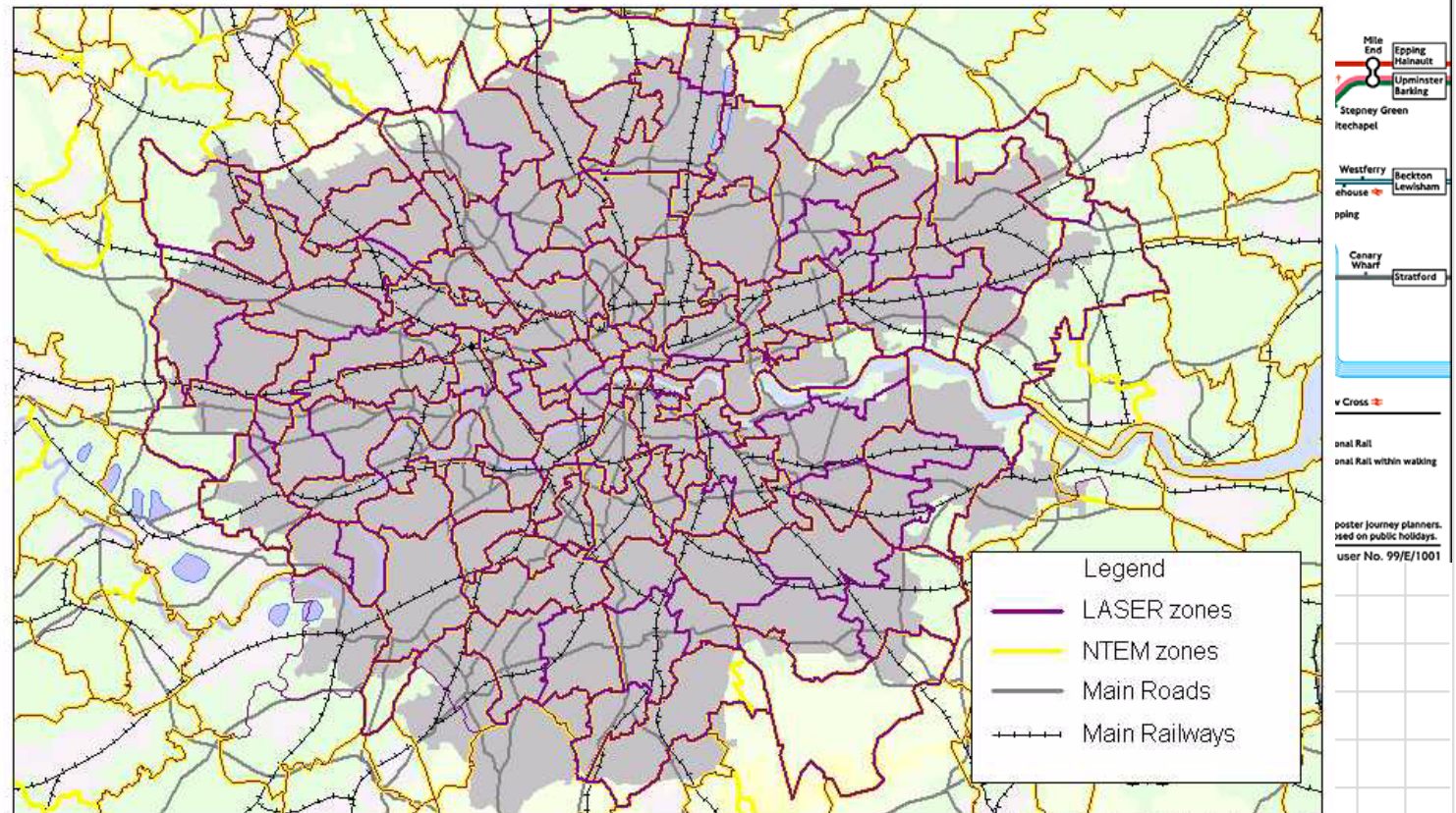
BA Plays Major Role in

- Shaping the business approach
 - ▶ Evaluating environmental impacts and imperatives
 - ▶ Focussing effort of analysis
 - ▶ Defining Desirable Scenarios
 - ▶ Envisioning Future Processes
 - ▶ Creating new relationships
- Defining Requirements
 - ▶ Functional Requirements
 - ▶ Process Requirements
 - ▶ Organization/Job Design
 - ▶ Business Rules
 - ▶ Information Requirements
 - ▶ Scoping of Information Systems, Change Initiatives, Projects

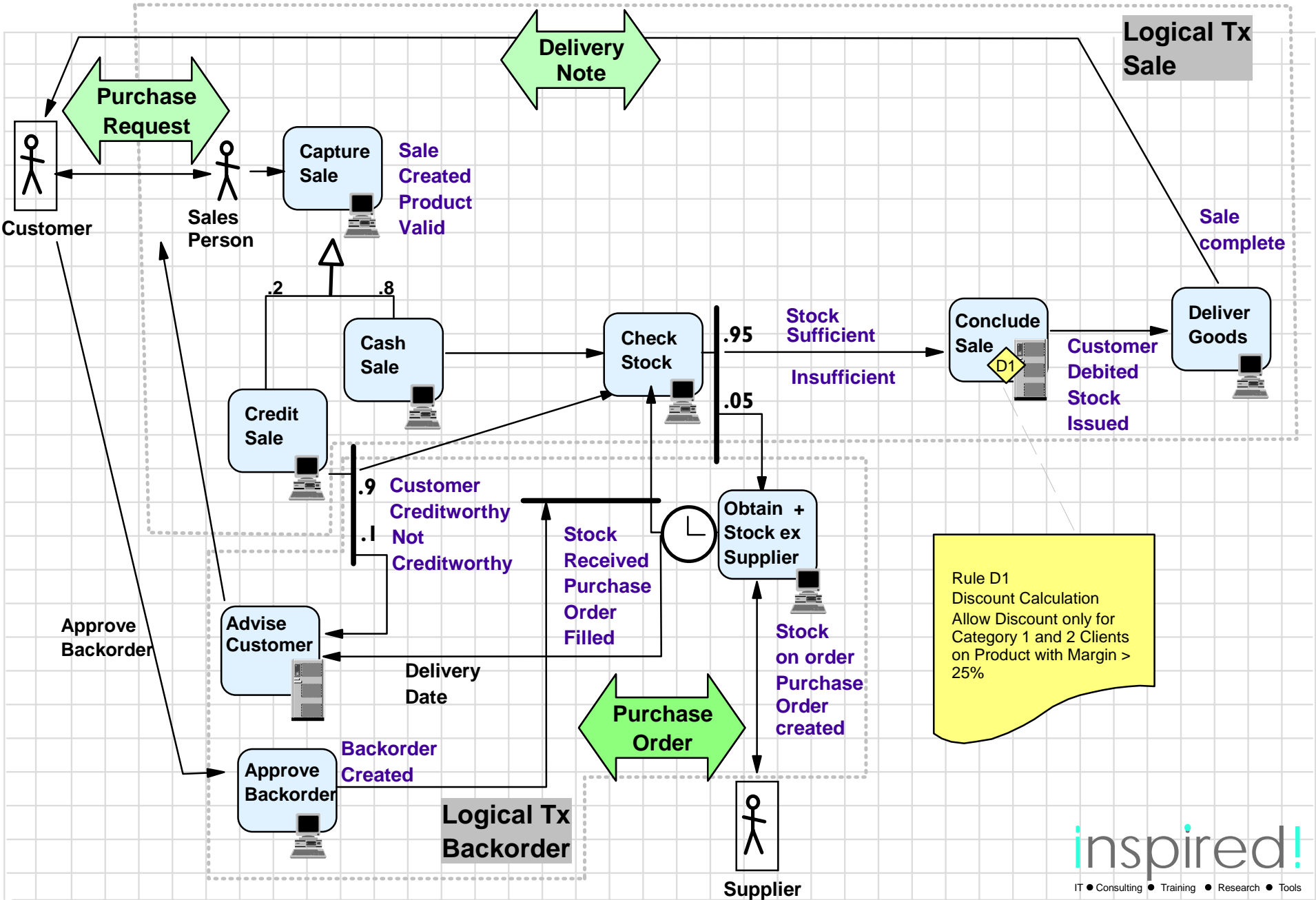


Layers of Models

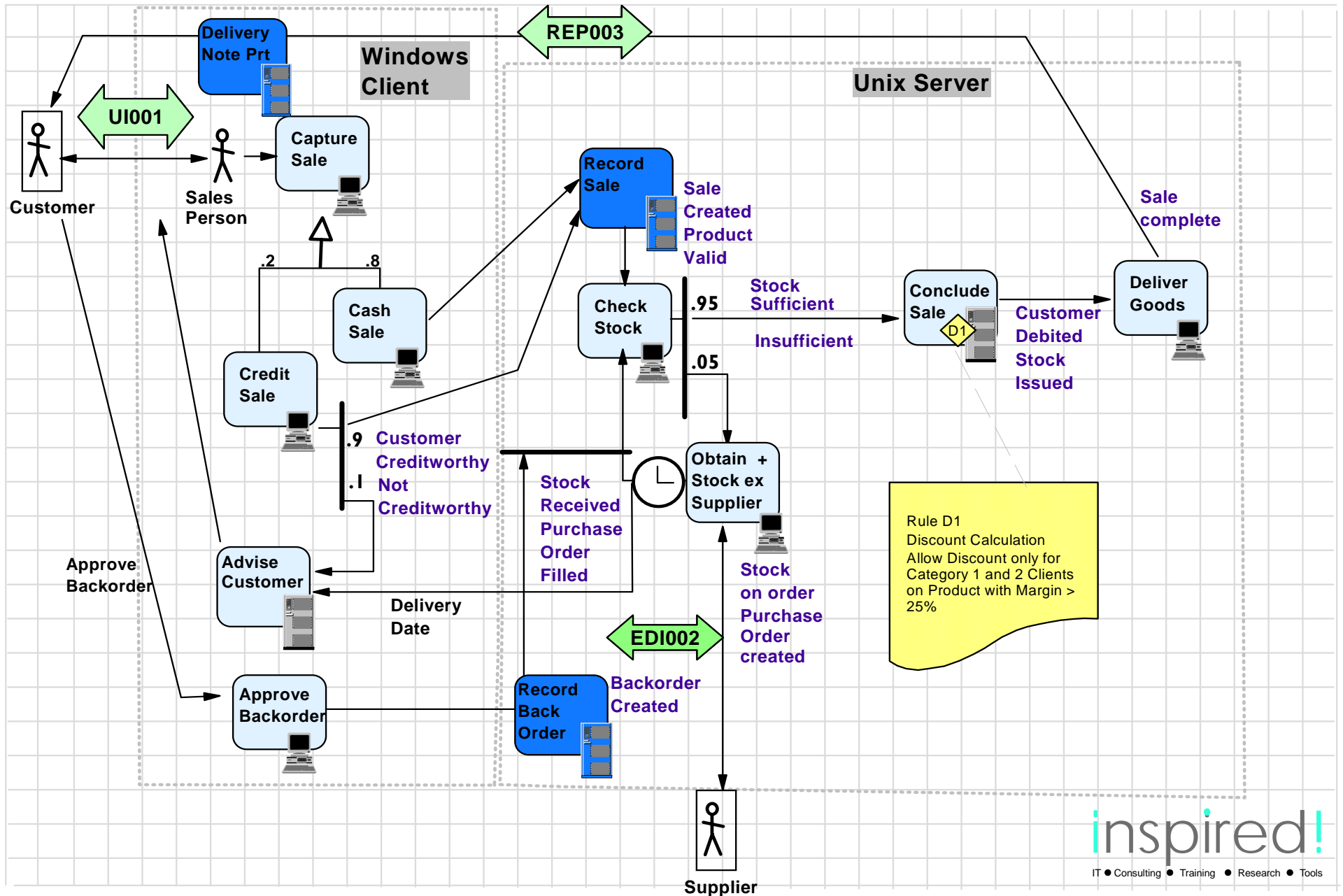
- Conceptual
- Logical
- Solution Architecture
- Physical



Example: System Level Model



Example: Design Level Model



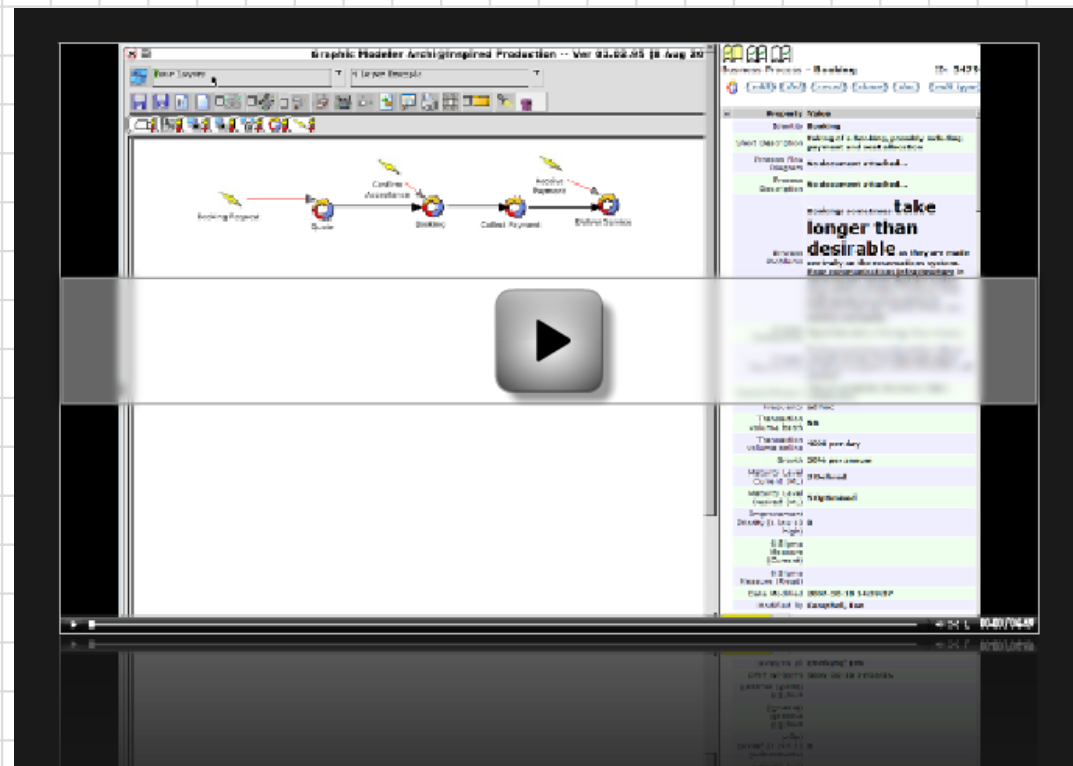
Clear Linkage from Business

- Goals and Events to
 - ▶ Business Services
 - ▶ System Services
 - ▶ Technology Services and Infrastructure
 - ▶ Information Services
 - Requirements Traceability
 - Governance Traceability
 - Impact Analysis
-
- BA needs a high level of Domain Knowledge
 - ▶ viz. Assurance vs Banking vs Retail...
 - ▶ Certainly a requirement for international positions

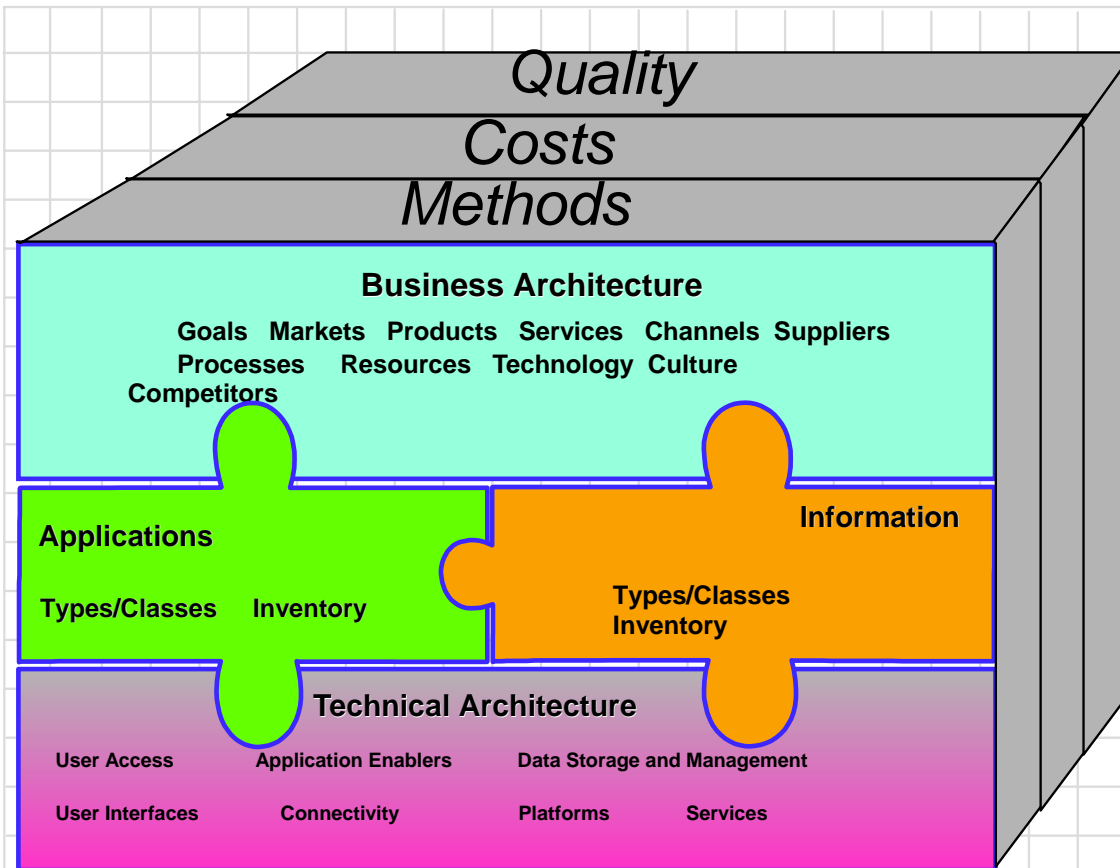


4 Layer Model Example

- Short video clip illustrating modeling from the business dimension, thru process, down to application and technology



Third Dimension



Models can be enhanced with additional dimensions of

→ Methods, Process, Deliverables

→ Costs

→ Metrics and Quality

The above can reflect both

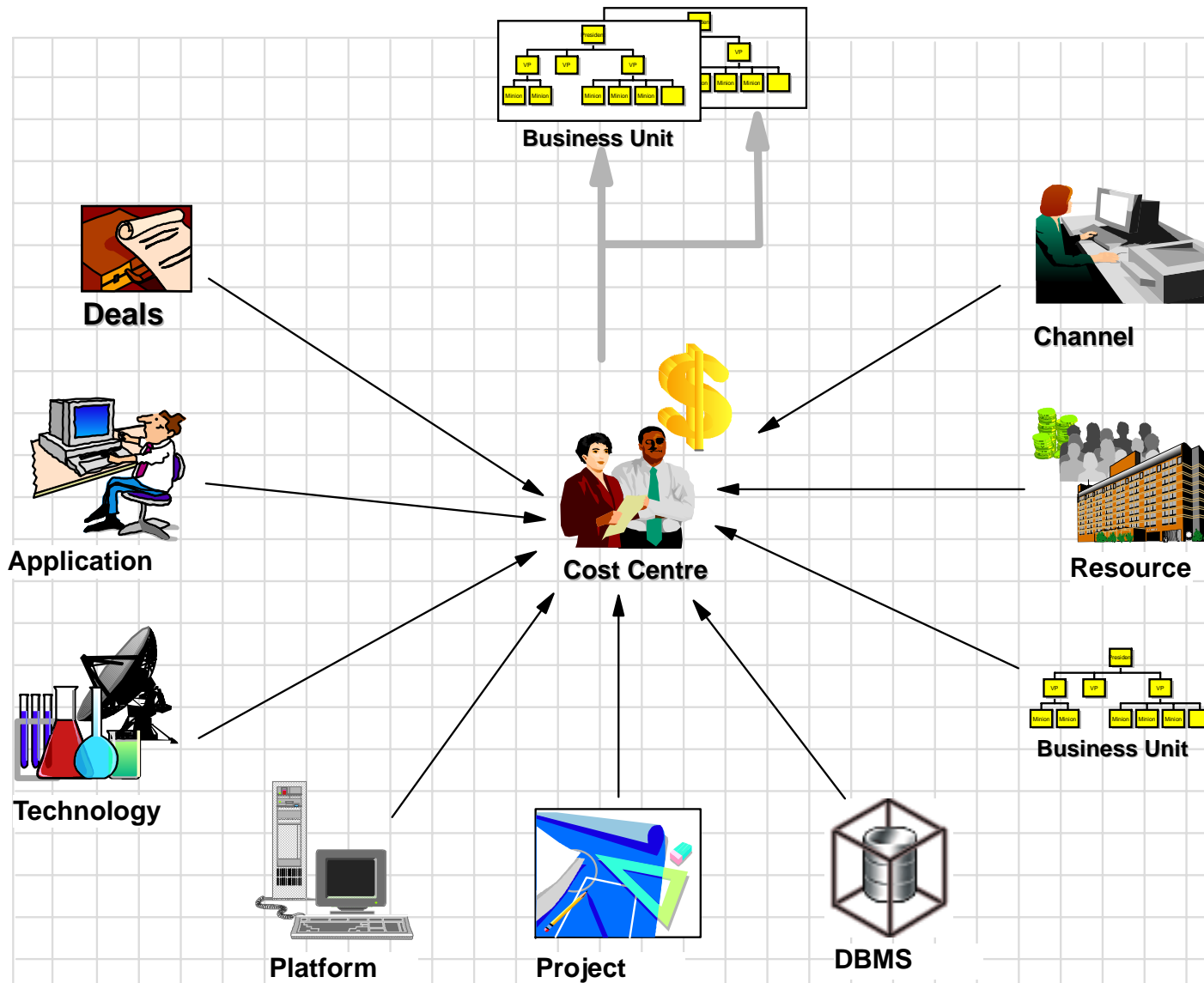
→ Current Position

→ Benchmarks from Industry/Competitors

→ Goals

TIMING and **RISK** can also be brought into the picture..

Enhancing the Models - Cost Perspective

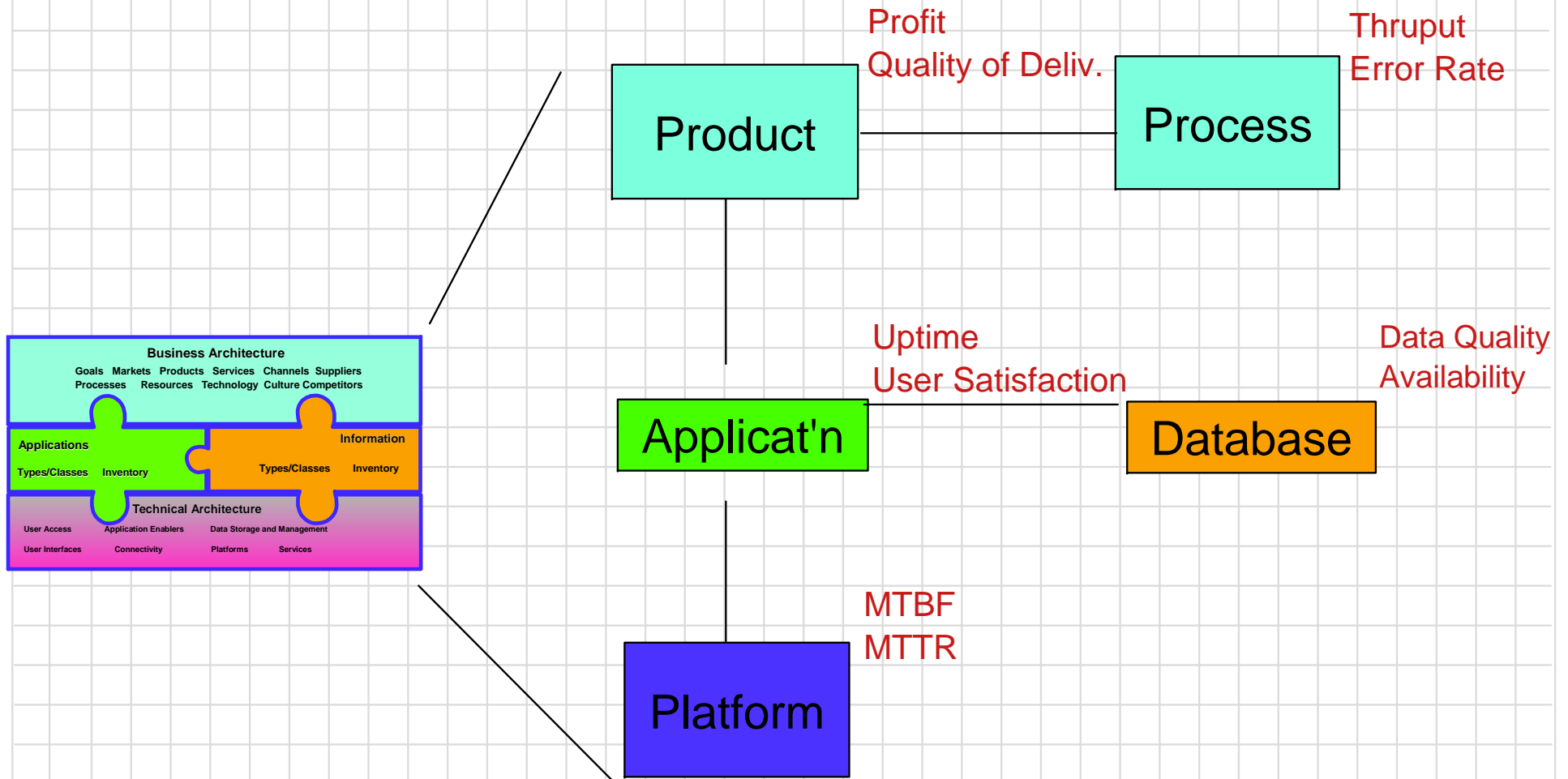


Turns out that most of the cost elements are already in the architecture models!

We need to add attributes to individual items to record the various relevant costs; then implement a mechanism to accumulate them. This adds a model element for Cost Centre. Costs accumulated there can, in turn, be apportioned across business units.

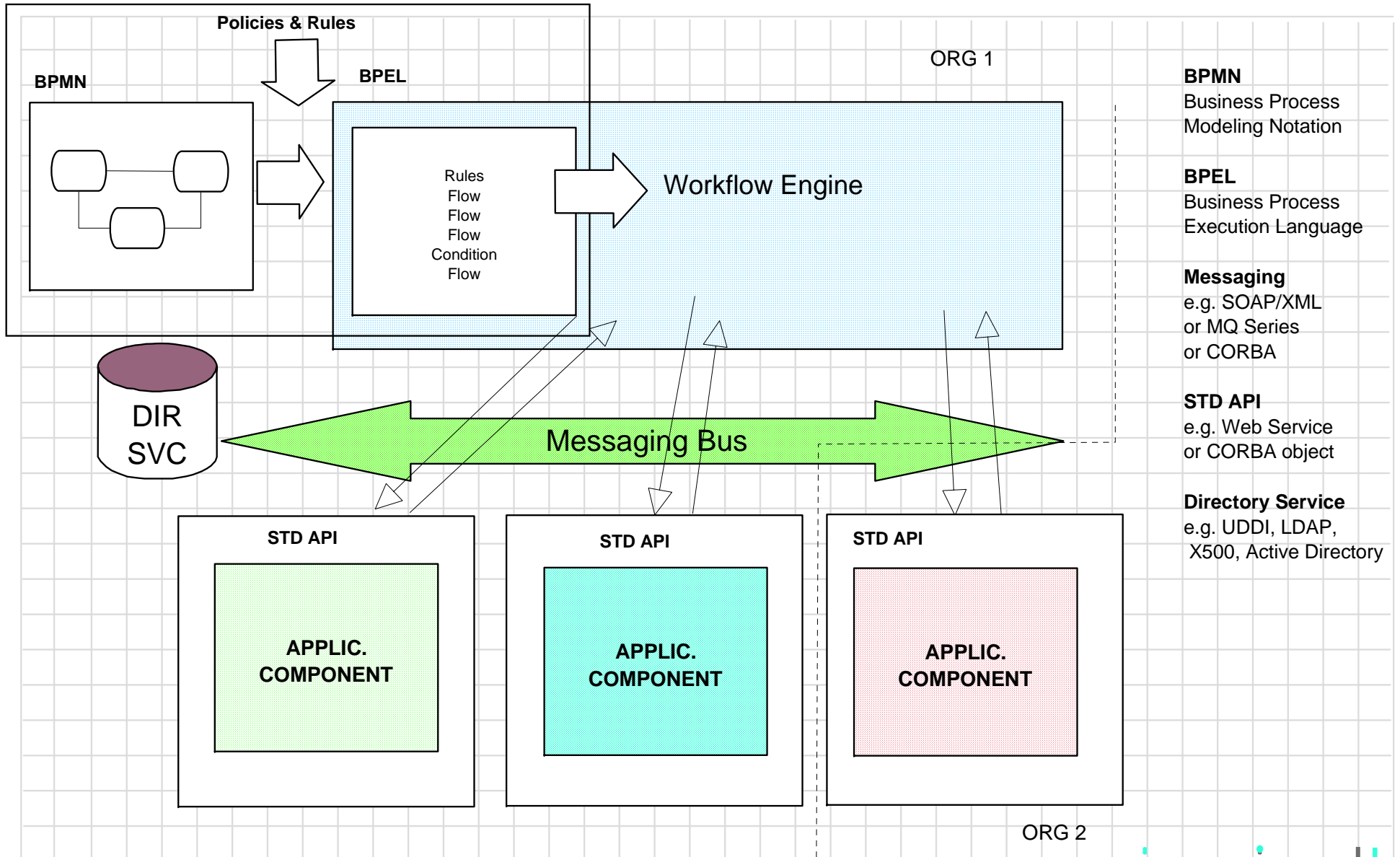
This is a flexible approach that allows various cost categories to be monitored - various models can be simultaneously implemented

Architectures and Process Management Enable Quality Improvement



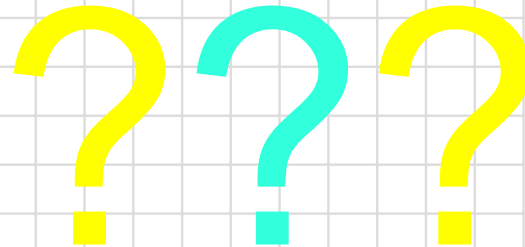
Standards for Interorganizational Systems

Modeling Tool



Conclusion & Discussion

- Very large overlap between Business Analysis and EA scope
- Also between required skill sets..
- BA's have a very central role to play in EA
- EA role is a career growth path for analysts, particularly in the Business and Process Architecture dimensions



References and Futher Info

- Archi Collaborative Enterprise Modeling Tool: <http://www.inspired.org>
- BPMN: <http://www.bpmi.org> <http://www.omg.org>
- Cover page image of development of universe simulation:
T. Di Matteo, J. Colberg, V. Springel, L. Hernquist & D. Sijacki, "Direct Cosmological Simulations of the Growth of Black Holes and Galaxies," *Astrophysical Journal*, 2007 (forthcoming).
- General EA Coverage: (Extensive site!) <http://www.enterprise-architecture.info/>
- Inspired Enterprise Architecture Frameworks: <http://www.inspired.org>
- TOGAF - Open Group: <http://www.opengroup.org>
- Zachman - ZIFA: <http://www.zifa.com>

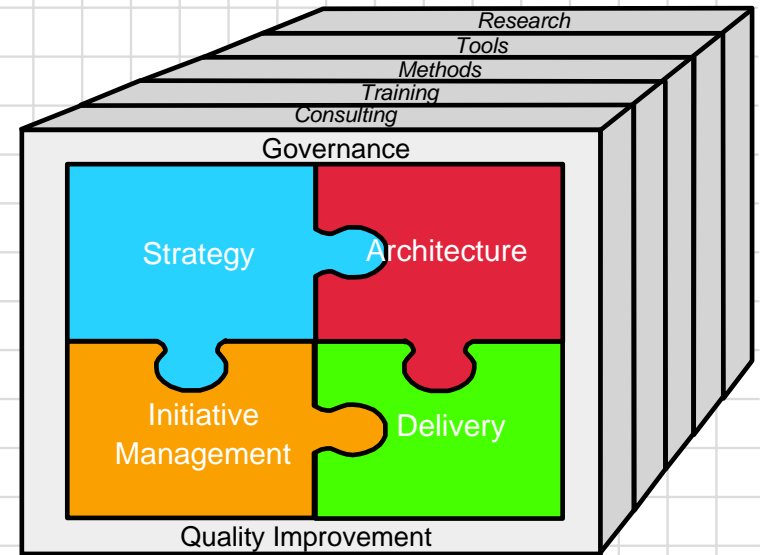
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- Inspired
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- Established 1991: Consulting, Training and Research
- Small but highly skilled I.T. consulting house
- Cape Based, UK and Spain
- Blue Chip clients in
 - ▶ Assurance, Finance
 - ▶ Retail
 - ▶ Telecomms
 - ▶ Software/IT
 - ▶ Government and Education
 - ▶ Media
 - ▶ Healthcare
- Deep Expertise In
 - ▶ Linking Business and IT Strategy
 - ▶ Enterprise Architectures
 - ▶ Process Improvement
 - ▶ Project and Program Management
 - ▶ System Delivery Methods and Techniques
 - ▶ Repository/Knowledge Management
 - ▶ e-Commerce, CRM, Knowledge Management, Web Services, SOA, TOGAF
- Independent of vendors, but richly networked



Archi Collaborative Enterprise Engineering Tool

Benefits of Collaboration

- ✓ Involvement of more perspectives and subject experts
- ✓ Higher quality input and models
- ✓ Distribution of effort and greater total effort applied
- ✓ Reduction of time to produce results
- ✓ Higher awareness and buy in of all relevant parts of the organization => higher architectural compliance
- ✓ Greater agility



