

# Enterprise Architecture and SOA: Where is the ROI?

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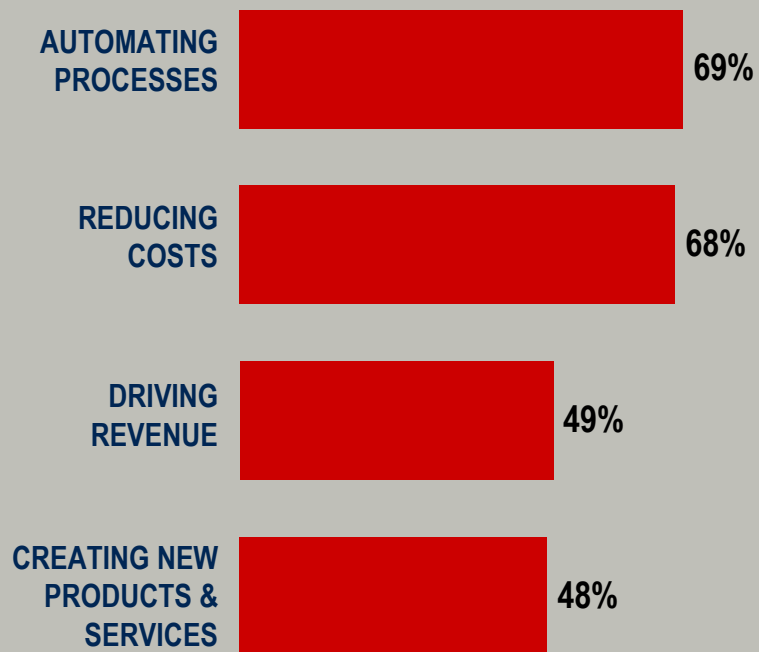
# Agenda

- Innovation
- Doing the right things
- Components of TOGAF
- Applications of Architecture
- Business Process and SOA
- ROI

# Innovation

## How do you Define Innovation?

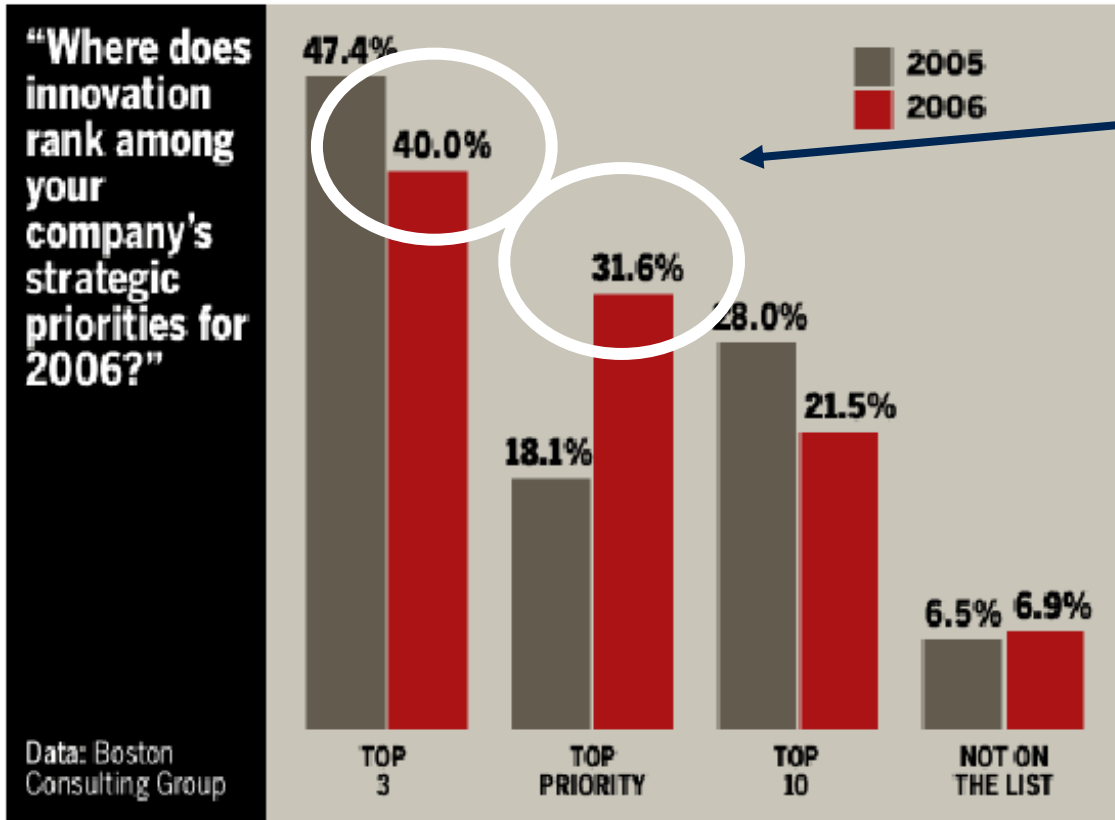
“How do you define innovation?”



Source: CIO Magazine 2006

***Innovation is doing something differently today – than you did it yesterday – with positive results!***

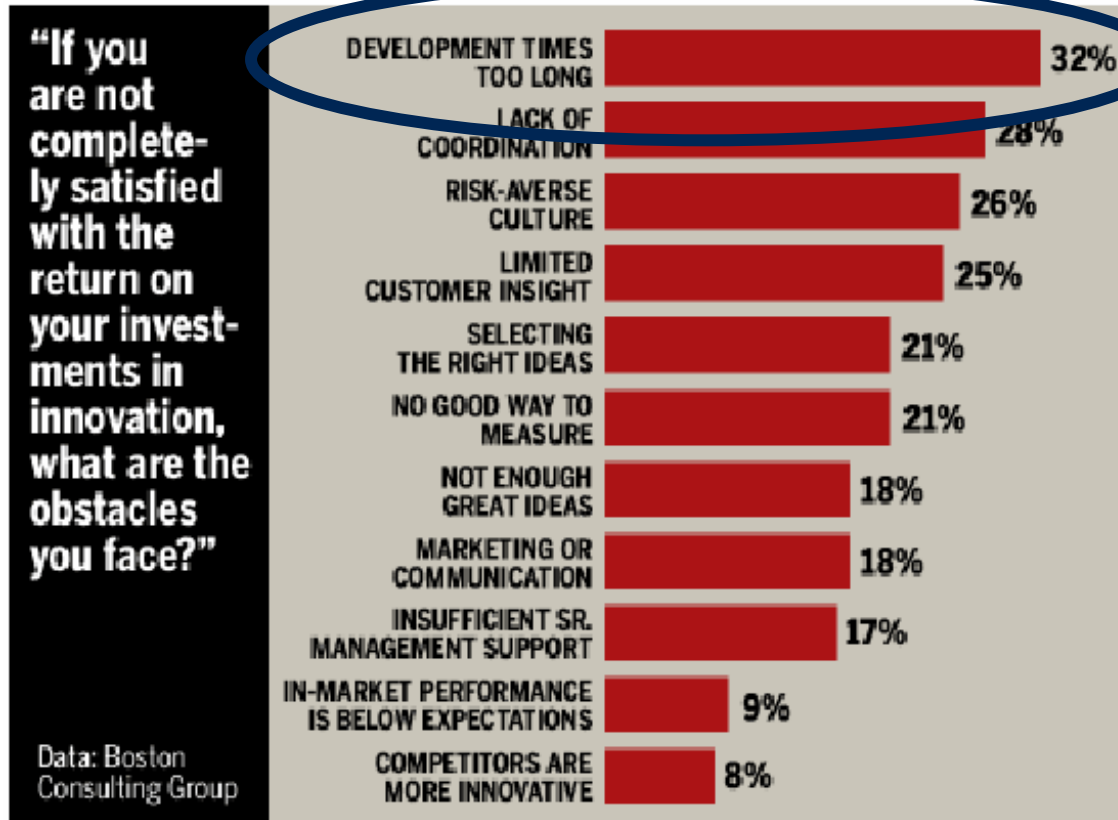
## How Important is Innovation..?



**More than 70%**  
of respondents  
listed innovation  
as one of their  
company's top  
three priorities in  
2006...

CHARTS: LAUREL DAUNIS-ALLEN/BW

## The Obstacles for Innovation..?

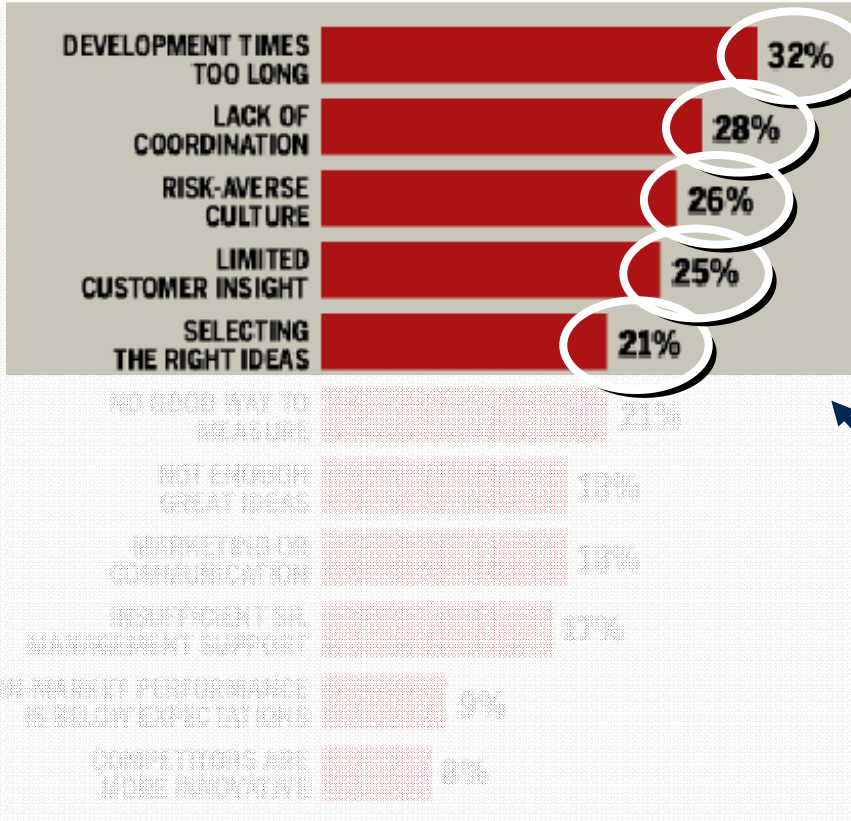


*...Long Development Times were Identified as the Greatest Obstacle to Innovation*

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The new Imperative is to Close the Gap between..!

If you are not completely satisfied with the return on your investment in innovation, what are the obstacles you face?



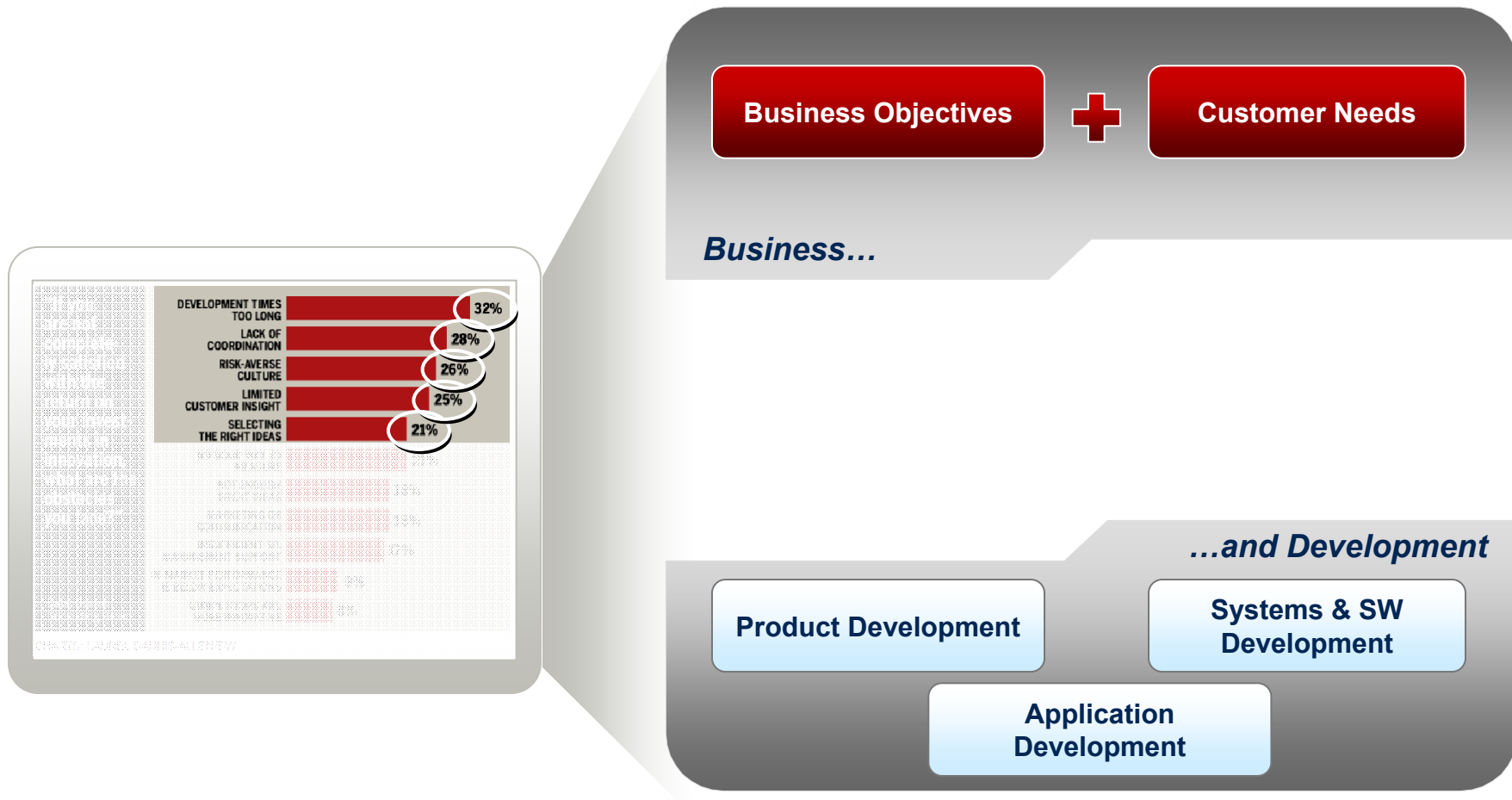
*Development issues 60%...*

*...and Business issues 71%!*

CHARTS: LAUREL DAUNIS-ALLEN/BW

# Enterprise Architecture

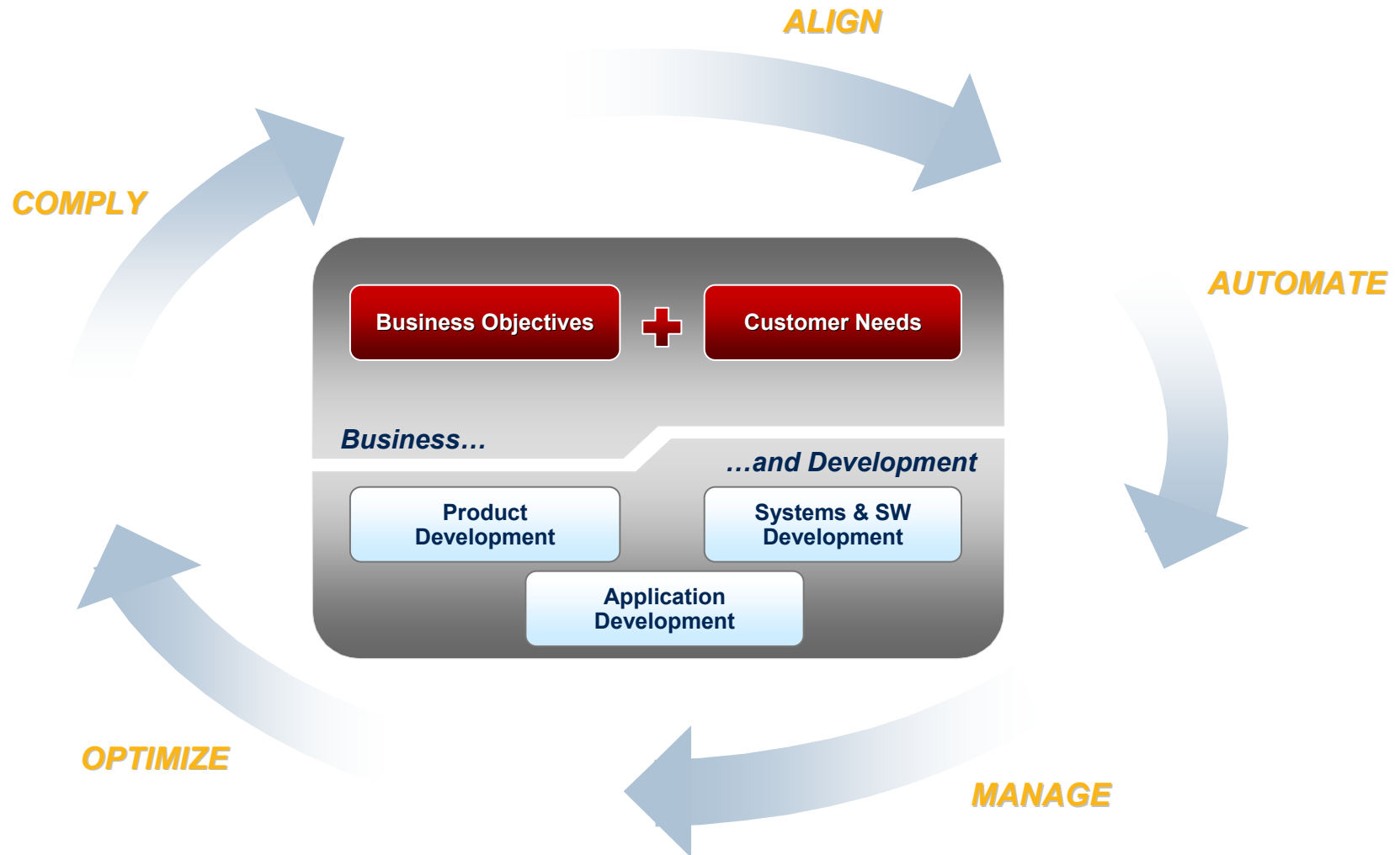
*Closing the Gap Between Business and Development*





# Enterprise Architecture, Requirements Management and TOGAF

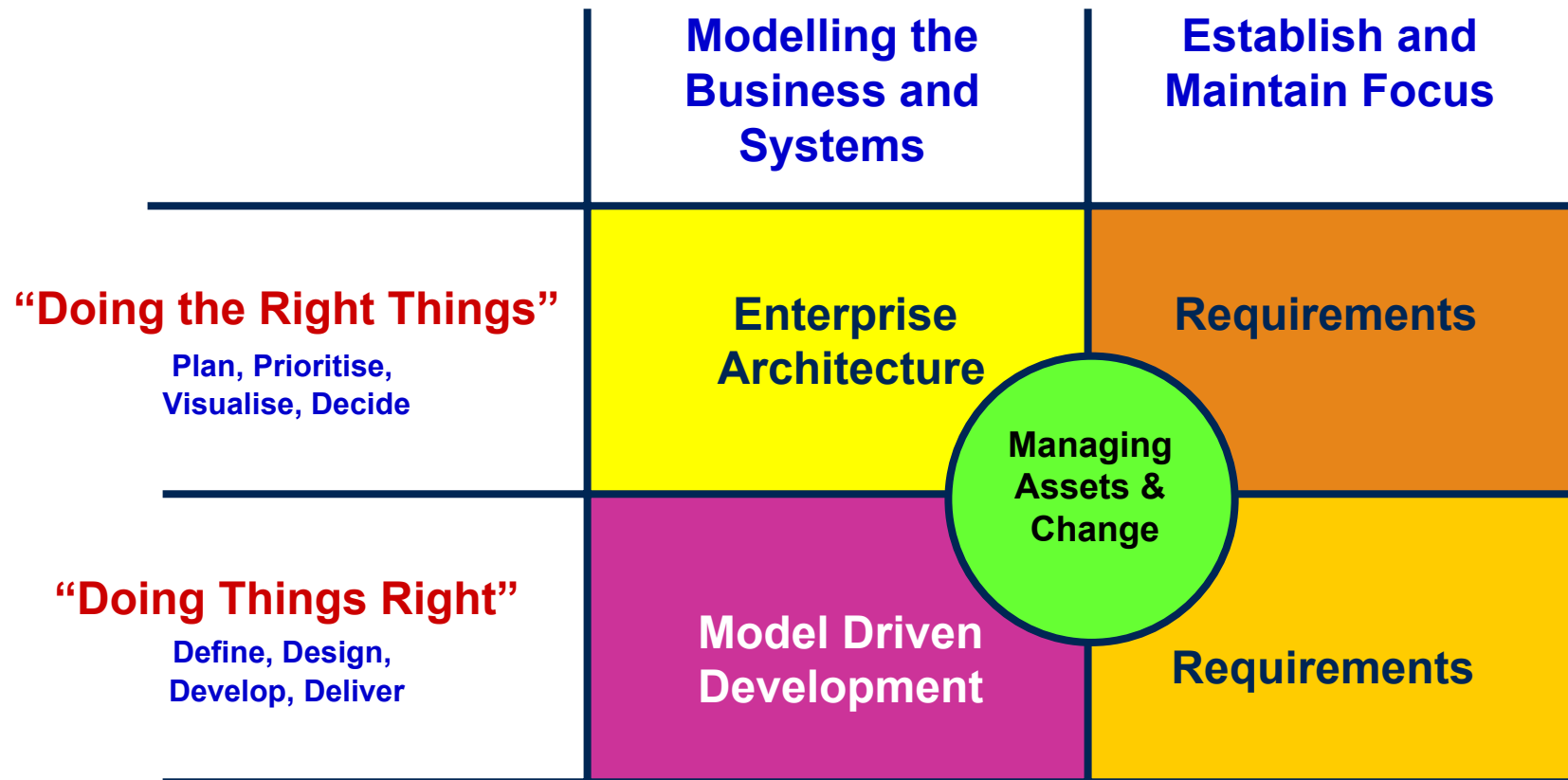
*An Enterprise-wide Approach to Align Business and Development*



# Doing the Right Things

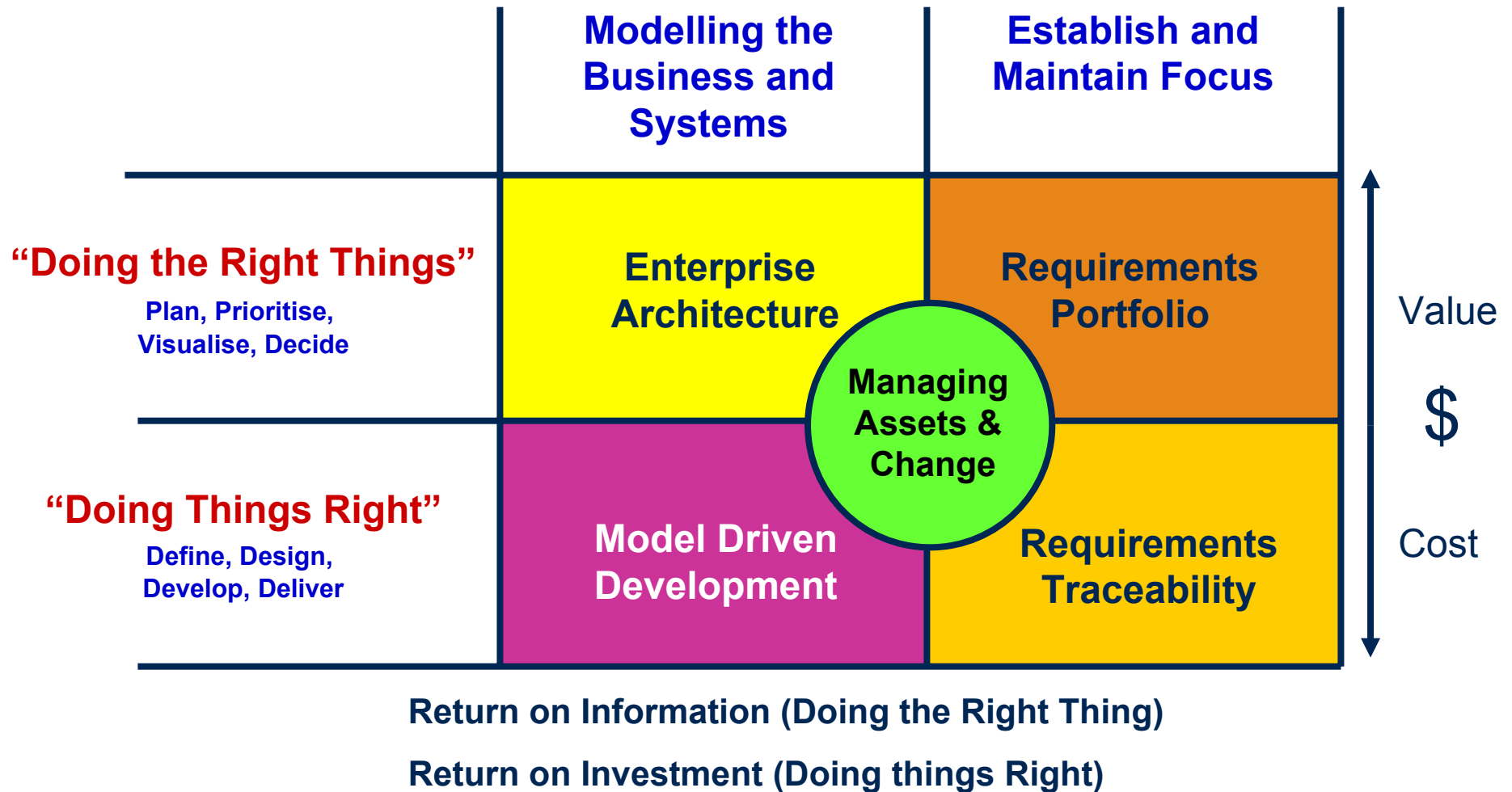
# Value-Driven Solutions to Achieve Governance

*Keeping organizations focused!*



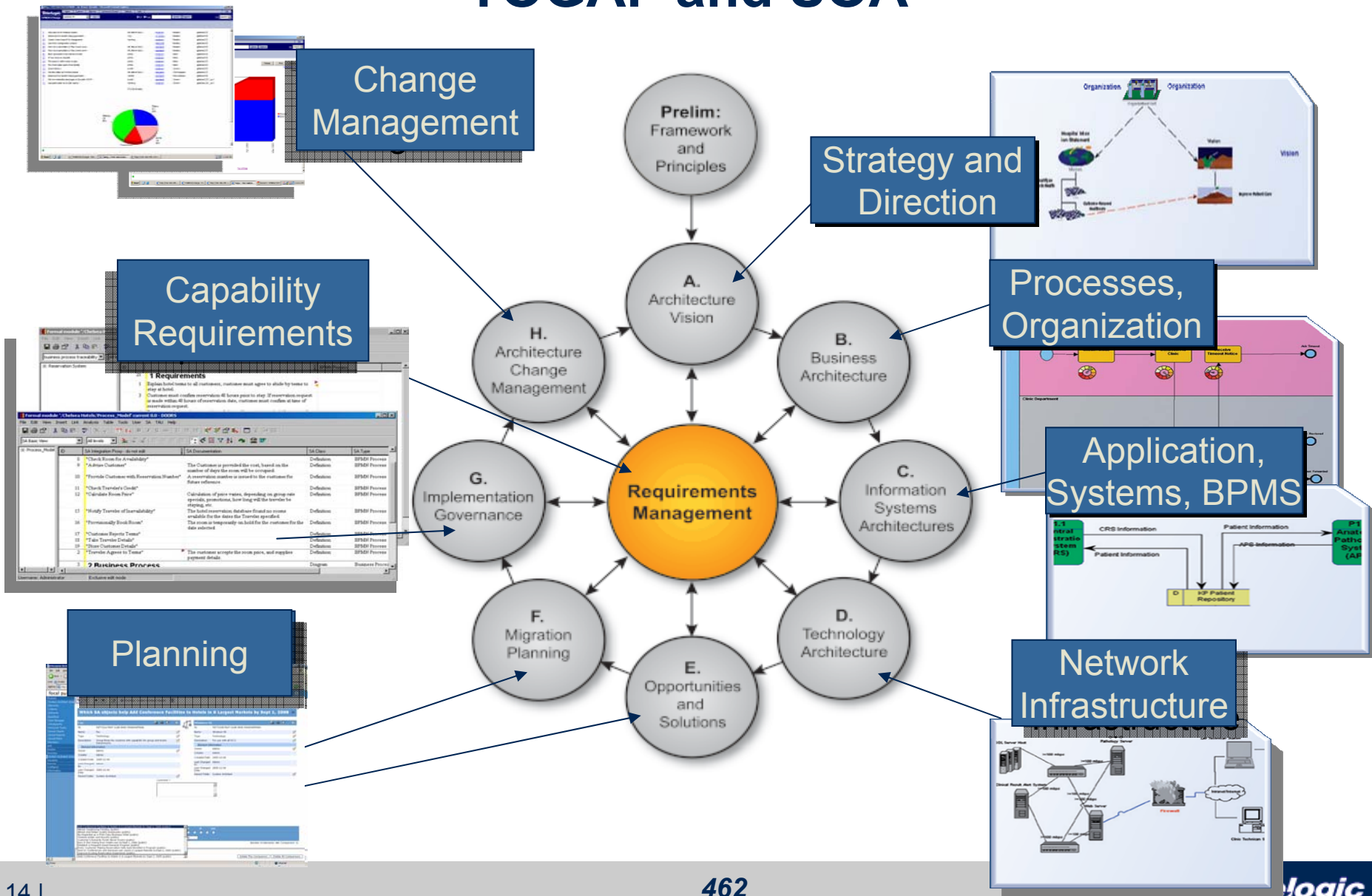
# Value-Driven Solutions to Achieve Governance

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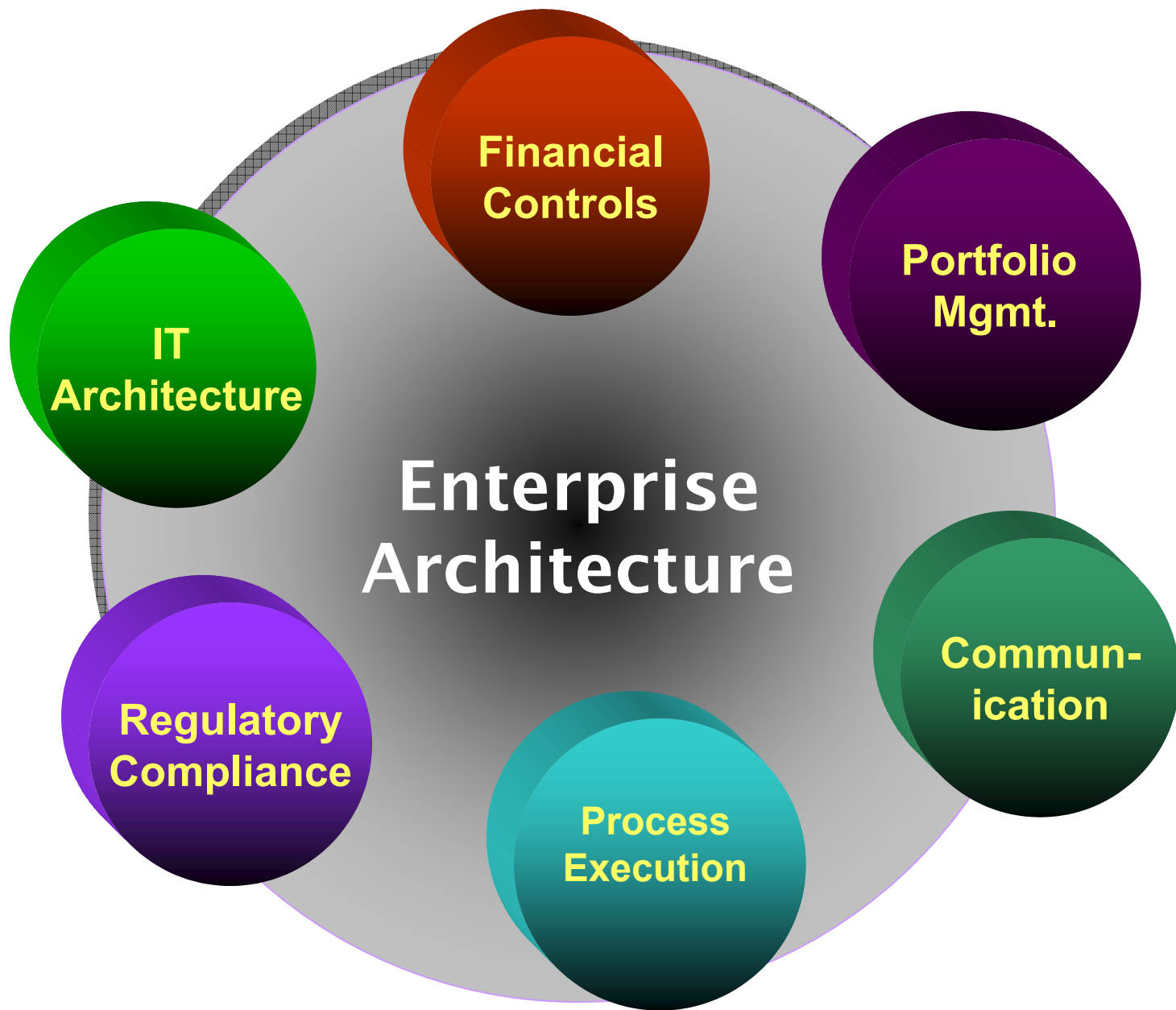


# Components of TOGAF

# TOGAF and SOA



# Applications of Architecture

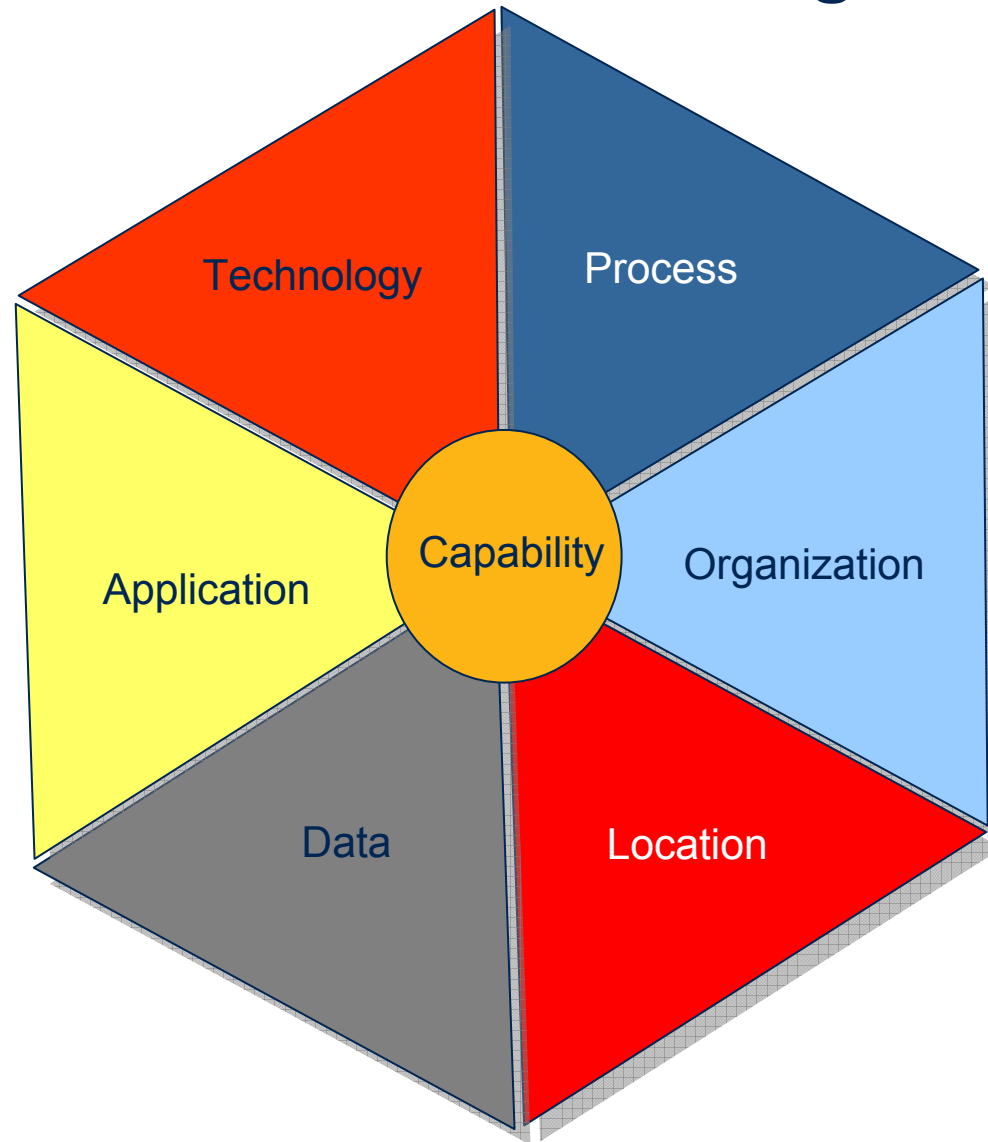




# Applications for Architecture

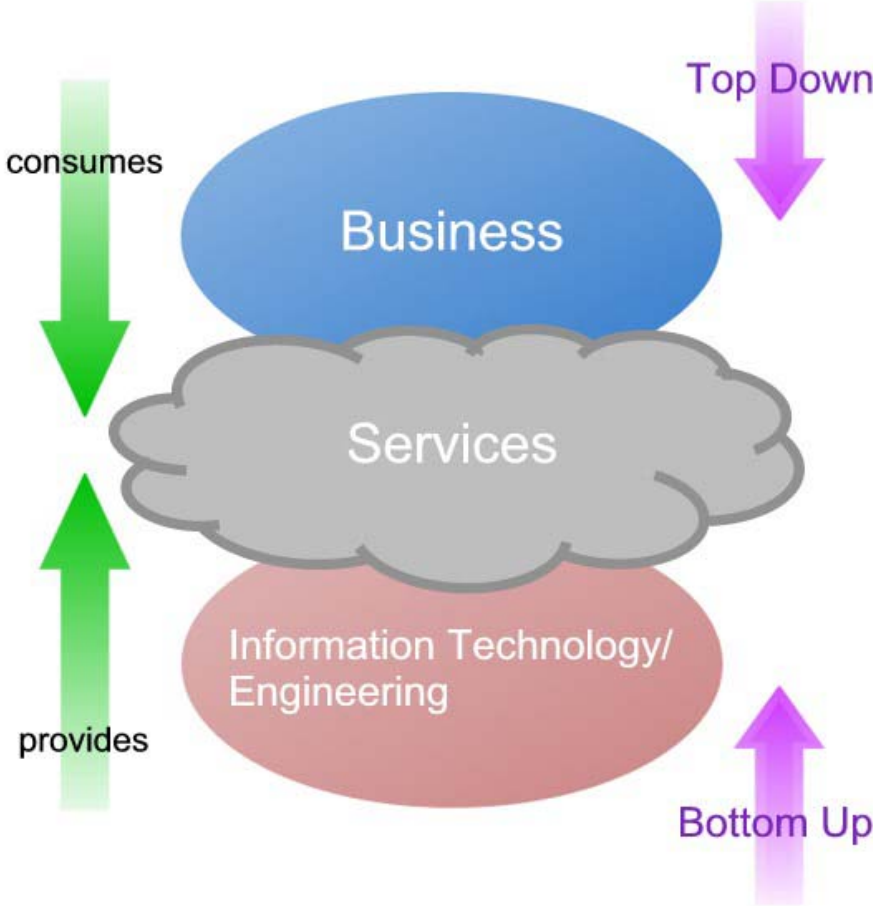
- **Financial Controls.** To gather information for financial requirements.
- **Portfolio Management.** To identify IT assets and their future value.
- **Regulatory Compliance.** To establish business cases for technology investments and automate reporting requirements.
- **Communication.** To establish a common vocabulary and share information in an understandable format.
- **Process Execution.** To configure an application and transfer the process knowledge directly into the application.
- **IT Architecture.** To provide an enterprise view of application, network, hardware, project and business continuity infrastructure and examine technologies such as Service-Oriented Architectures (SOAs).

# EA Domains of Change

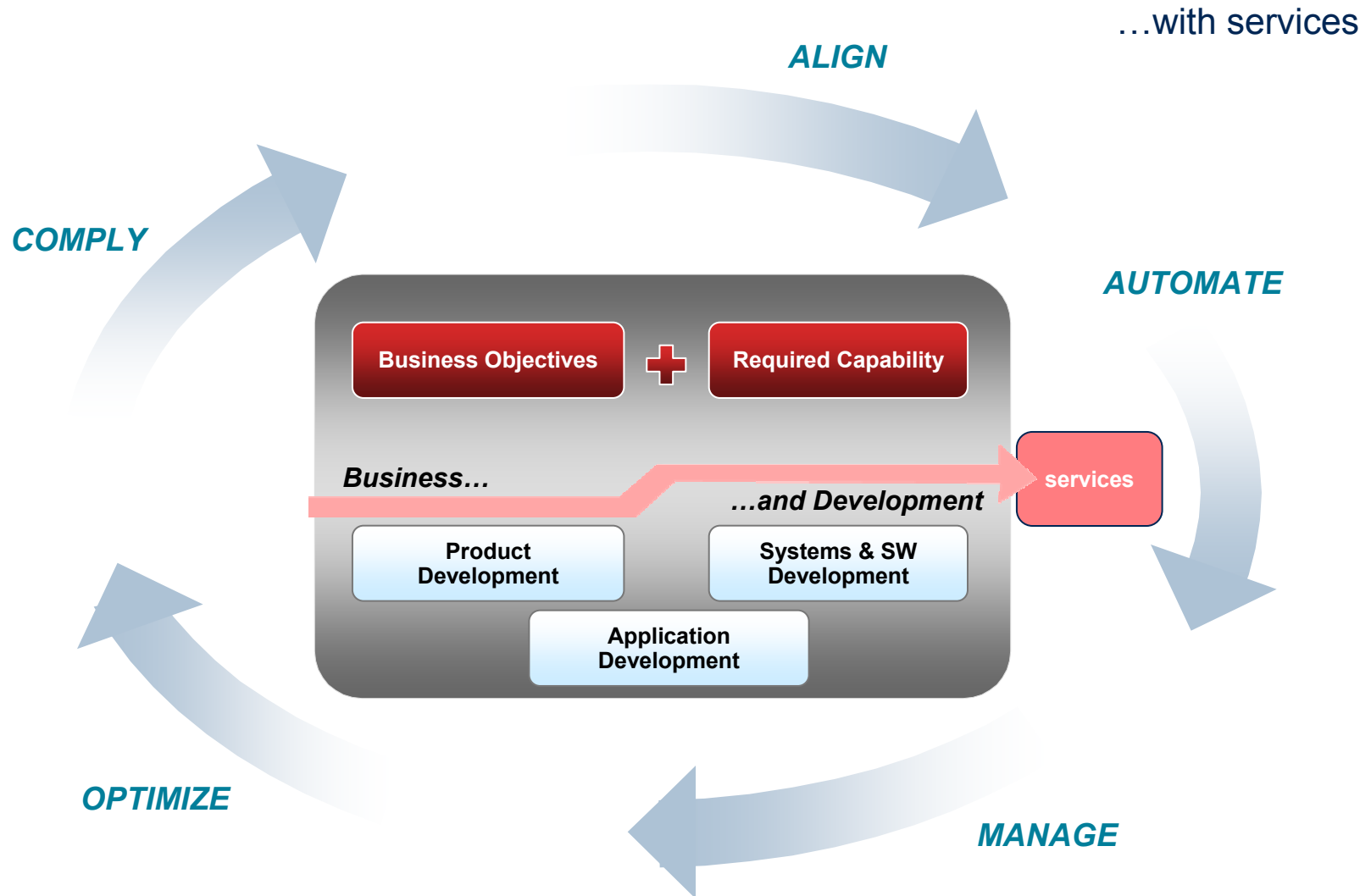


# Business Process and SOA

# IT Capability and Service Provision



# Bridging Business and IT Divide



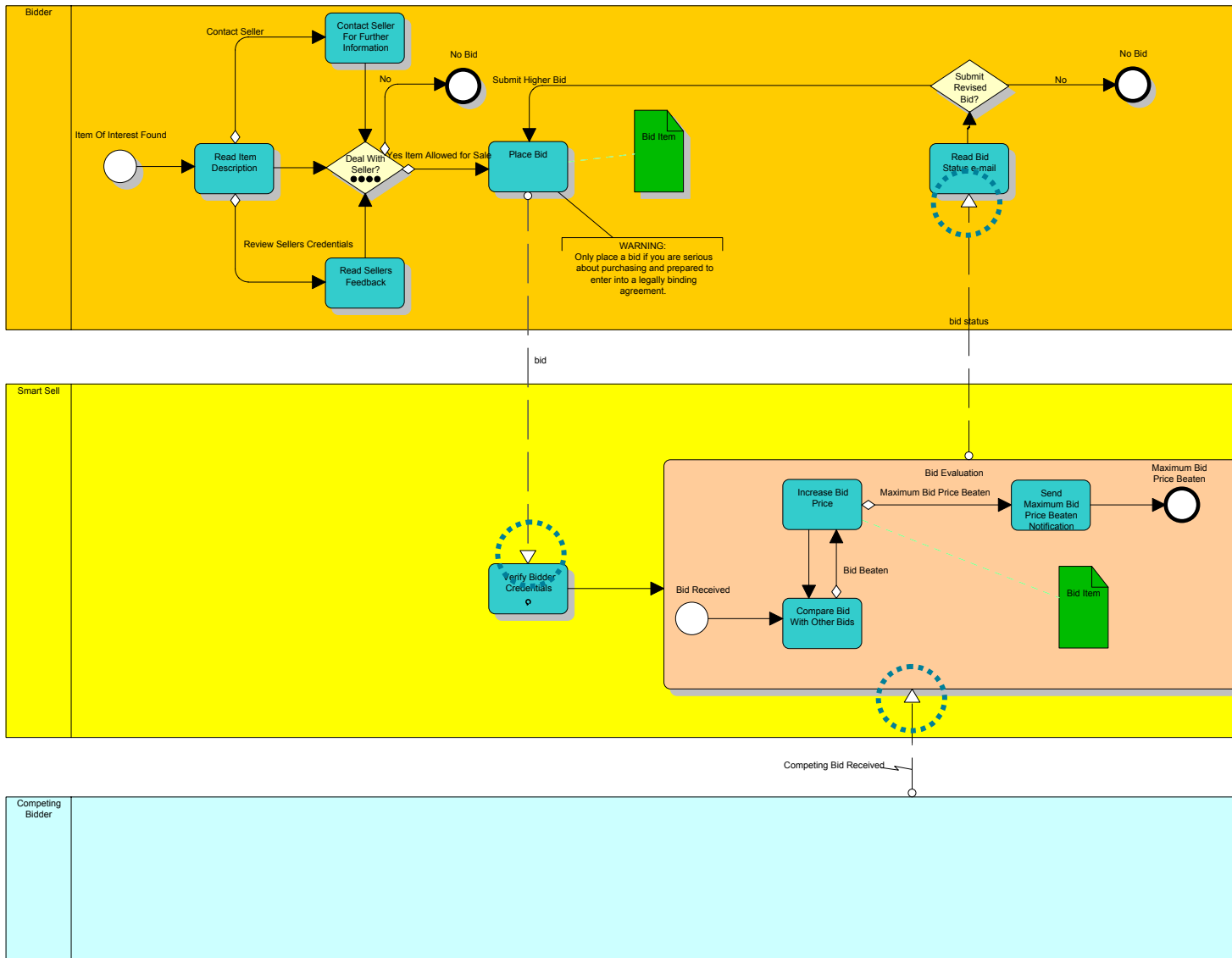
# 5 Roles in BPM

- Business Process Owner
  - Has funding
  - If processes cross organizational units then the process owner is usually a committee
- Business Process Architect
  - Process design and high level analysis
  - Domain expert for business area and understands emerging technology
  - May be a representative to EA group but lives in business not IT
- Business Process Analyst
  - Works with IT and the Process architect to implement processes (workflows)
  - Understands what UML is but doesn't use it
  - Business/IT Role

# 5 Roles in BPM

- Service Component Designer
  - Builds reusable services
  - Combining process with object modeling
  - Starts with BPA and ensures granularity to pass to more detailed design (often OO)
- Data Analyst/Information Architect
  - Information reuse and data flow modeling
  - Important part of process
    - Where does data go?, who consumes it?
- Repository Administrator (6<sup>th</sup> and often overlooked)
  - Manages the meta data within the organization

# Business Process



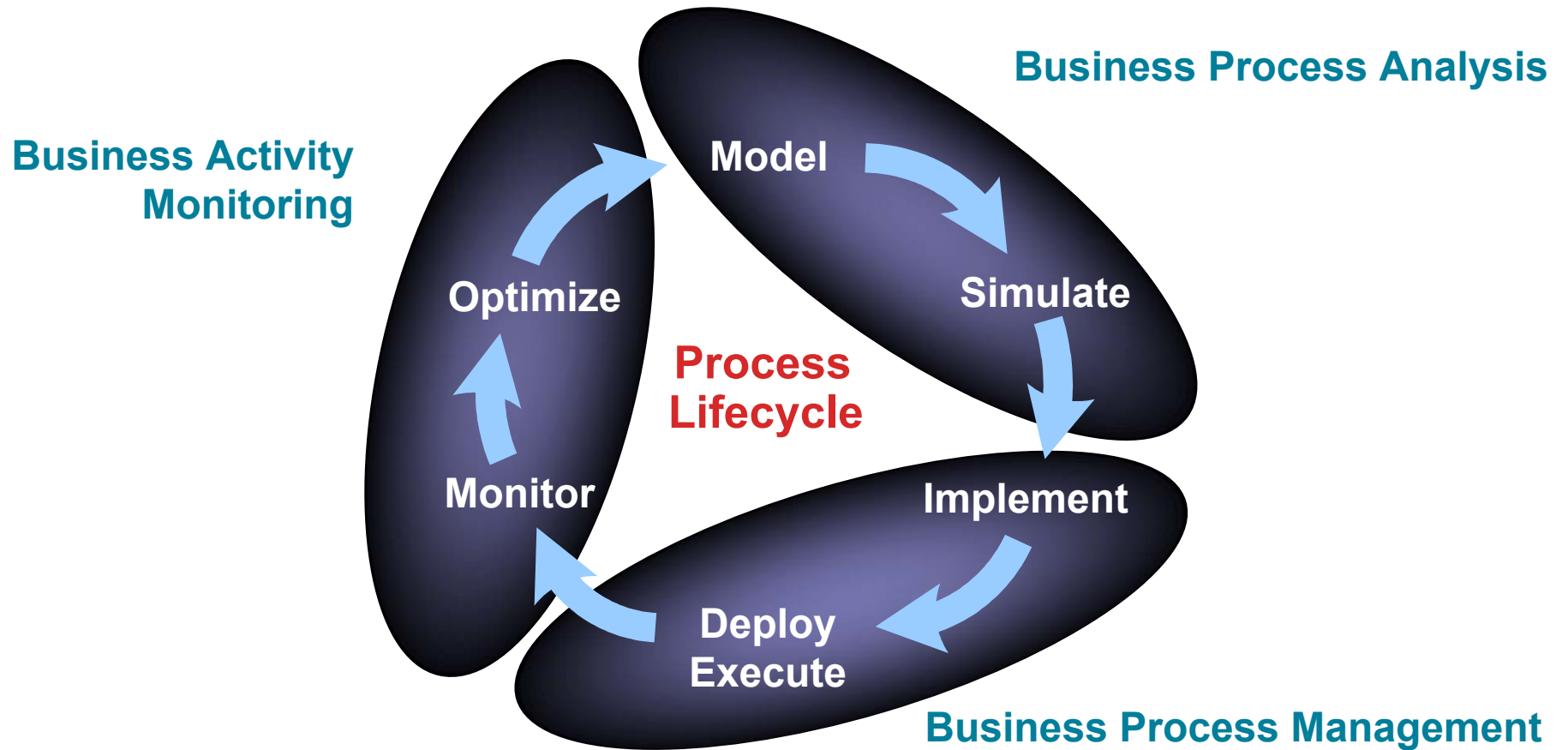
Service Level Agreement



# Business Process

- Business processes need to be understood and modified as the business evolves
- Process orchestration is key to a service oriented architecture
- Processes may or may not require automation
- They may have IT capability requirements
- Business Processes may be modeled with BPMN (Business Process Modeling Notation)
- BPMN provides SOA constructs such as messaging, web service support, participants, choreography
- BPMN models may be deployed into BPEL (Business process execution language) environments
- BPMN is designed for both the business analyst and the more technical user

# Business Process



# Business Process Analysis using BPMN

The screenshot displays a Business Process Simulator interface. The background shows a BPMN diagram with swimlanes for 'Customer' and 'Processing Centre'. The 'Customer' swimlane includes tasks like 'Require Loan', 'Complete Application Form', and 'Wait for Reply'. The 'Processing Centre' swimlane includes 'Recieve Loan Application', 'Enter Loan Customer Details', 'Update Case File', 'Decide Action', 'Reject Application', and 'Accept Application'.

Overlaid on the diagram is a 'Detailed Dashboard Results (180%)' window. The dashboard title is 'Detailed Results for : All'. It contains several sections:

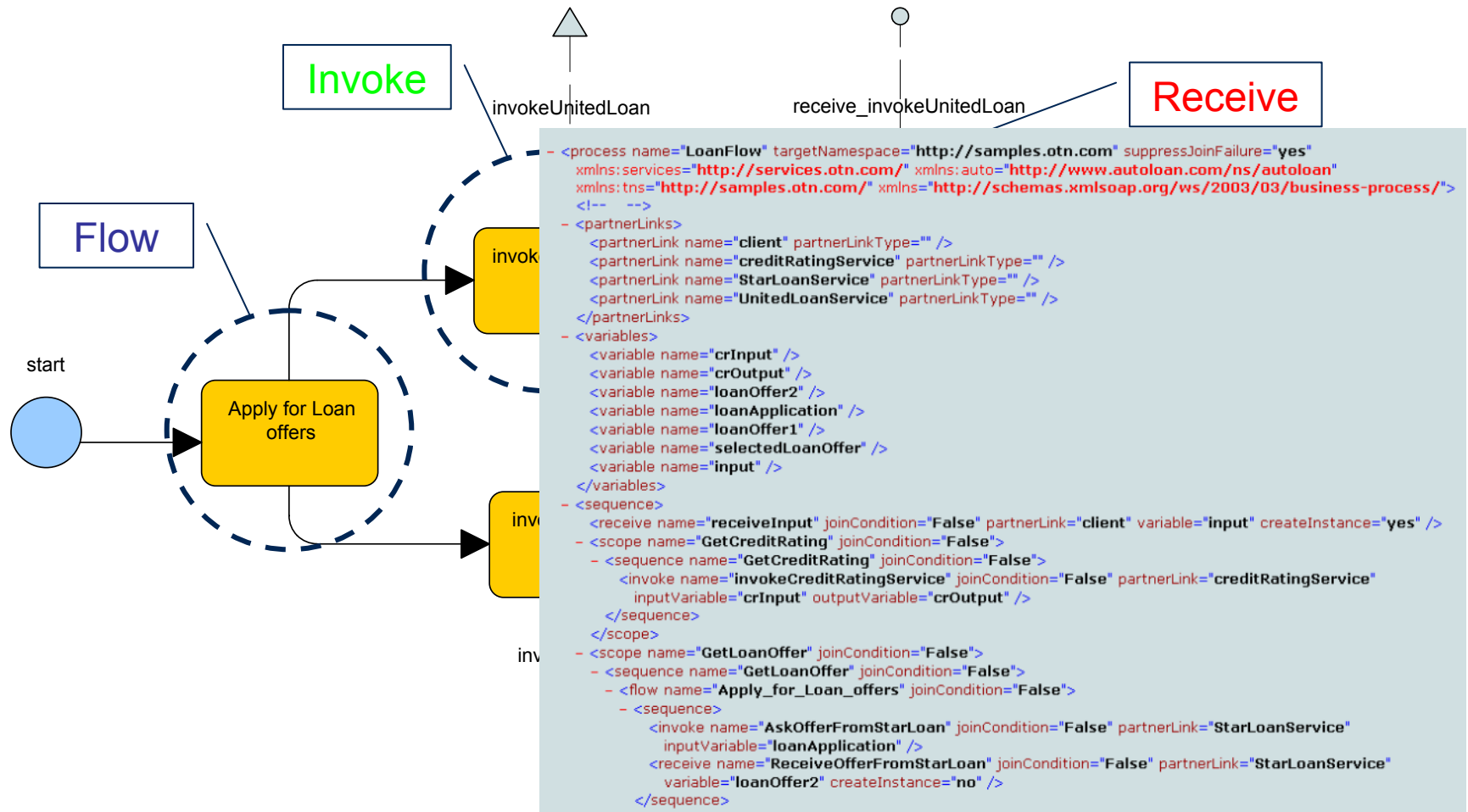
- PROFIT / LOSS STATEMENT:**

ALL COST/REVENUE FIGURES IN GBP	Fixed Values	Variable (by Qty)	Variable (by use)	Total
Revenues	0.00	2460.00		2460.00
Entity Costs	0.00	248.00		248.00
Activity Costs	0.00	0.00	307.00	307.00
Resource Costs	0.00	0.00	0.00	0.00
<b>TOTAL Costs</b>	<b>0.00</b>	<b>248.00</b>	<b>307.00</b>	<b>555.00</b>
- Entity Statistics:**

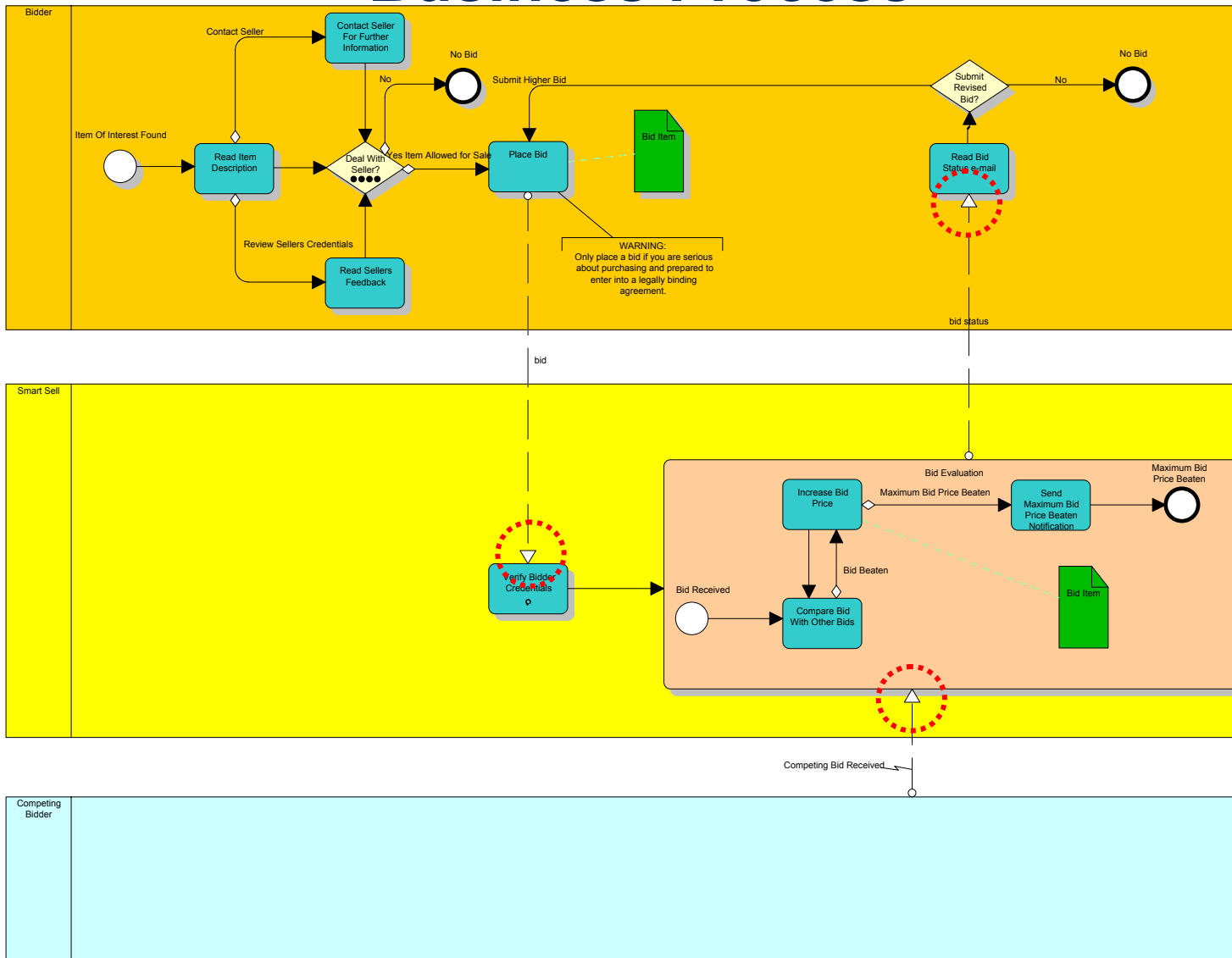
Object	Active Entities	Number Served	Number Rejected	Non Significant Results	Average Time	%within Service Target	Service Sigma Rating	Quality Sigma Rating	Average % Use
	247	123	0	0	2.04	0.00	0.00	6.00	0.0
	0	0	0	0	0.00	0.00	0.00	0.00	0.0
- Additional Reports:** Includes icons for Throughput, Activity Utilization, Resource Utilization, Costs Pie, Queue Stats, Service Levels, and 6 Sigma Chart.

At the bottom of the dashboard, a 'Time' window shows: 'Weeks 0', 'Days 2', 'Hours 13 Minutes 24'. The simulator's status bar at the very bottom indicates 'No Selection' and shows a value of 3664.03.

# Generate BPEL



# Business Process



# Business Process

- **Business Layer**
  - As seen from the perspective of the business user community
  - Business Analysts construct the business model views
- **Technical Layer**
  - Augmentation of the BPMN specification to support the generation of BPEL code in sufficient detail for direct execution
  - Undertaken by developers proficient in BPEL / WSDL / UDDI / SOAP / XLANG / XPath....
  - Relate business processes to the web services that they call including parameters/variables
  - Generate BPEL from models
- BPMN supports both layers

# Three Major BPA Opportunities within SOA and EA

1. Business Process Improvement - Through the redesign and optimization of human to human processes and workflows.
2. Business Process Agility - Through orchestrated workflows using coordinated process and information services. (SOA falls into this category)
3. New Composite Content - Driven solutions (with the possibility, if any, for process change) based on information agility and reuse. (also SOA)

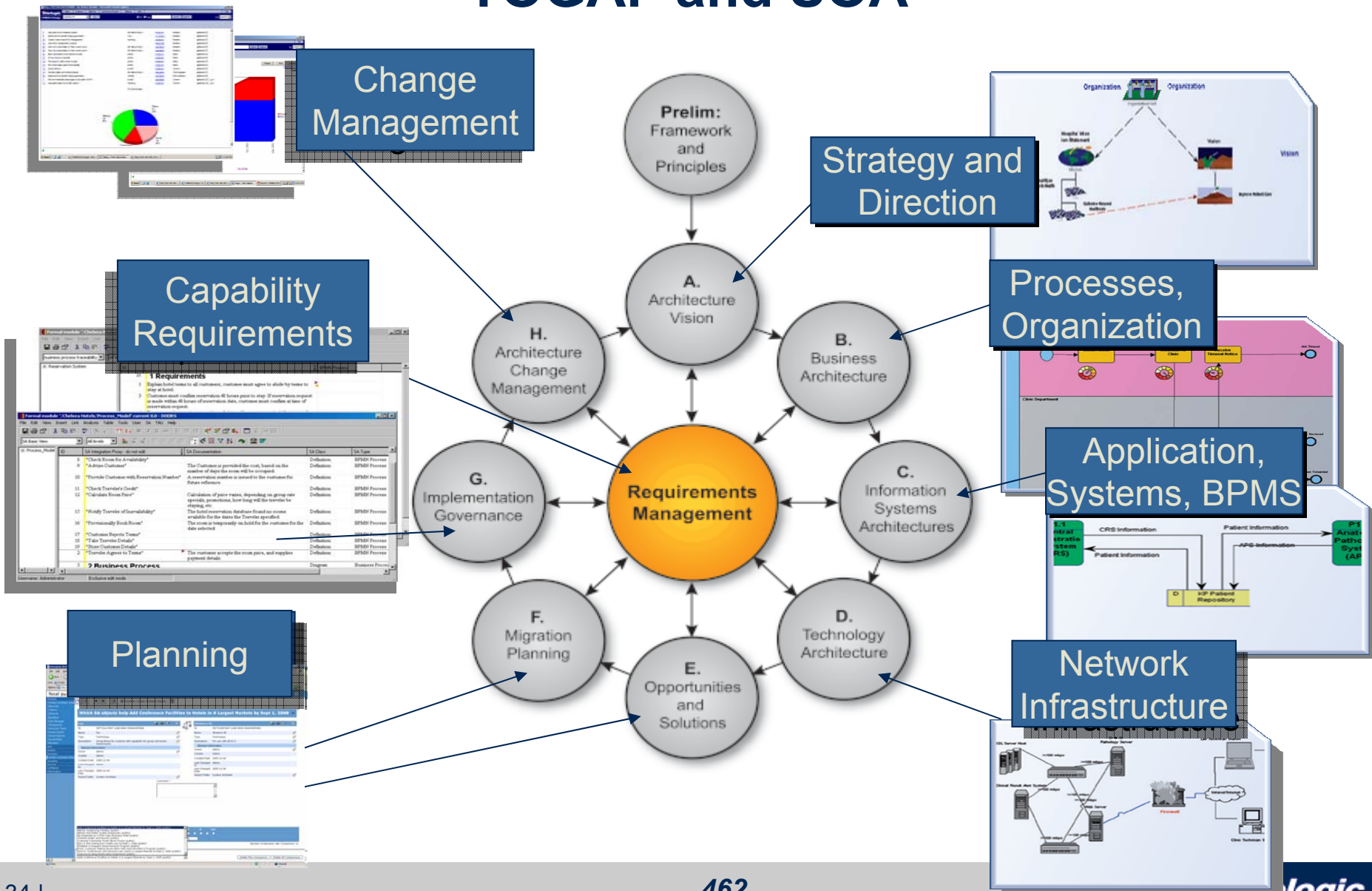
# ROI



# Today's World



# TOGAF and SOA



# Return on Information

What applications support our business objectives?

Which technology investments are inline with our capabilities?

## STRATEGIC



Which processes are impacted by a technology change?

How is my cost impacted by adding an additional services?

## OPERATIONAL



Which hardware support my most critical applications?

Which applications share the same common data?

## TECHNICAL

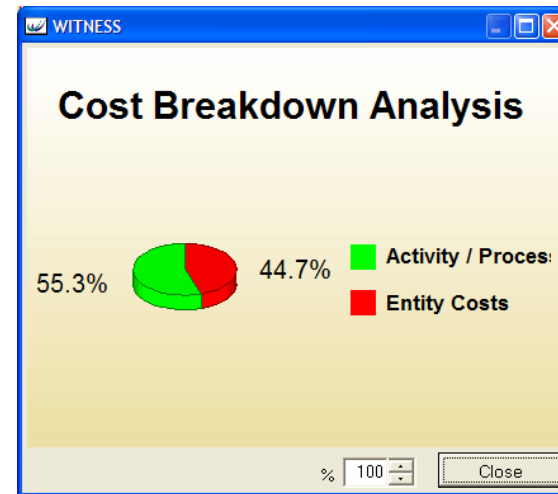


# Return on Information

- Communicable knowledge base
- Knowledge management
- Content re-use
- Ability to query information to provide business answers
- Faster decision making
- Better decisions
- Faster access to information
- Relates to Business Intelligence

# Return on Investment

- Costs directly saved from:
  - Application Portfolio Management
  - Execution and improvement of Business Processes
  - Improved information quality
  - Consistent technology decisions
  - More efficient organizational structure



Microsoft Excel - example spreadsheet.xls

Category	Technology Component	01/01/2006	01/06/2006	01/01/2007	01/06/2007	01/01/2008	01/06/2008
"Account Servicing"	Collections & Recoveries	Aida	Aida	Aida	Aida	Aida	Aida
	Complaints	Rigoletto	Rigoletto	Rigoletto	Rigoletto	Rigoletto	Rigoletto
		Tosca	Tosca	Tosca	Tosca	Tosca	Tosca
	Customer Contact Management	La Traviata	La Traviata	La Traviata	La Traviata	La Traviata	La Traviata
		Die Flederm	Die Flederm	Die Flederm	Die Flederm	Die Flederm	Die Flederm
	Customer Dialogue Definition	Carmen	Carmen	Carmen	Carmen	Carmen	Carmen
	Customer ESV	Otello	Otello	Otello	Otello	Otello	Otello
	Financial Exceptions	Falstaff	Falstaff	Falstaff	Falstaff	Falstaff	Falstaff
	Loyalty	La Boheme	La Boheme	La Boheme	La Boheme	La Boheme	La Boheme
		Macbeth	Macbeth	Macbeth	Macbeth	Macbeth	Macbeth
	Product Processing	The Magic	The Magic	The Magic	The Magic	The Magic	The Magic
"Change Management"	Product Configuration	Turando	Turando	Turando	Turando	Turando	Turando
		Tosca	Tosca	Tosca	Tosca	Tosca	Tosca
"Correspondence & fulfillment"	Correspondence (out-bound)	Rigoletto	Rigoletto	Rigoletto	Rigoletto	Rigoletto	Rigoletto
	Correspondence Capture	Carmen	Carmen	Carmen	Carmen	Carmen	Carmen
	Fulfillment	Otello	Otello	Otello	Otello	Otello	Otello
"Information management"	Customer Information	Turando	Turando	Turando	Turando	Turando	Turando
	Historical Information	La Traviata	La Traviata	La Traviata	La Traviata	La Traviata	La Traviata
"Operational management"	Operations Optimisation	Porgy And	Porgy And	Porgy And	Porgy And	Porgy And	Porgy And
		Falstaff	Falstaff	Falstaff	Falstaff	Falstaff	Falstaff
"Policy setting and business analytics"	Campaign Management	Rigoletto	Rigoletto	Rigoletto	Rigoletto	Rigoletto	Rigoletto

# Summary

- ROI
  - Return on Information – drives business value
  - Return on Investment – saves cost
- Business Process is a quick way for organizations to buy in to EA
- Enterprise Architecture requires Requirements
  - Governance and Control
  - Doing the Right Things
  - Doing things Right