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

“How do you define innovation?”

- Automating Processes: 69%
- Reducing Costs: 68%
- Driving Revenue: 49%
- Creating New Products & Services: 48%

Source: CIO Magazine 2006
How Important is Innovation..?

More than 70% of respondents listed innovation as one of their company's top three priorities in 2006…
The Obstacles for Innovation...

Long Development Times were Identified as the Greatest Obstacle to Innovation

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

CHARTS: LAUREL DAUNIS-ALLEN/BW
The new Imperative is to Close the Gap between...

Development issues 60%...

...and Business issues 71%!
Enterprise Architecture

Closing the Gap Between Business and Development

Business Objectives + Customer Needs

Business...

...and Development

Product Development

Systems & SW Development

Application Development
Enterprise Architecture, Requirements Management and TOGAF

An Enterprise-wide Approach to Align Business and Development

Business Objectives + Customer Needs

Business...

Product Development

Systems & SW Development

Application Development

ALIGN

COMPLY

AUTOMATE

OPTIMIZE

MANAGE
Doing the Right Things
Value-Driven Solutions to Achieve Governance

Keeping organizations focused!

“Doing the Right Things”
Plan, Prioritise, Visualise, Decide

“Doing Things Right”
Define, Design, Develop, Deliver

Modelling the Business and Systems

Enterprise Architecture
Managing Assets & Change
Requirements

Establish and Maintain Focus

Model Driven Development
Requirements
Value-Driven Solutions to Achieve Governance

*Keeping organizations focused!*

- **“Doing the Right Things”**
  - Plan, Prioritise, Visualise, Decide

- **“Doing Things Right”**
  - Define, Design, Develop, Deliver

- Modelling the Business and Systems
  - Enterprise Architecture
  - Model Driven Development

- Establish and Maintain Focus
  - Requirements Portfolio
  - Requirements Traceability

- Managing Assets & Change

Return on Information (Doing the Right Thing)
Return on Investment (Doing things Right)
Components of TOGAF
TOGAF and SOA
Applications of Architecture
Enterprise Architecture

- IT Architecture
- Financial Controls
- Portfolio Mgmt.
- Communication
- Regulatory Compliance
- Process Execution
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

- Technology
- Process
- Application
- Organization
- Data
- Location
Business Process and SOA
IT Capability and Service Provision
Bridging Business and IT Divide

...with services

ALIGN

AUTOMATE

COMPLY

MANAGE

OPTIMIZE

Business Objectives + Required Capability

Product Development

Systems & SW Development

Application Development

Business... ...and Development

services
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 (6th and often overlooked)
  – Manages the meta data within the organization
Business Process

WARNING:
Only place a bid if you are serious about purchasing and prepared to enter into a legally binding agreement.

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 Activity Monitoring

Optimize
Model
Deploy
Execute
Simulate
Implement
Monitor

Process Lifecycle

Business Process Analysis

Business Process Management
Business Process Analysis using BPMN
Generate BPEL
WARNING: Only place a bid if you are serious about purchasing and prepared to enter into a legally binding agreement.
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

- Standards
- Enterprise Architecture
- Decision Support
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
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