

Introduction to Enterprise Architecture

From Business Strategy to agile Enterprise Solutions

Tim Hahn
IBM Distinguished Engineer, SWG Rational

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Session: 2767



SHARE in Boston

Acknowledgments

- Jim Amsden - provided the bulk of the content for this presentation

Agenda

- Challenges IT Organizations are Facing
- Overview of Enterprise Architecture
- Making Enterprise Architecture Actionable
- IBM Support for Architecture Management

Businesses are facing unprecedented challenges

*Shifts from Operational
to Strategic IT*

Differentiation

*Transparency, Regulatory
Compliance*

Globalization

IT Saturation

*Business
transformations*

*Regulatory
mandates*

Market shifts

Execute with
reduced risk
and cost
Deliver

Achieve
precision in
desired business
outcomes
Govern

Seize
business
opportunities
Plan

*Continual customer
innovation*

*Business
Continuity
Management*

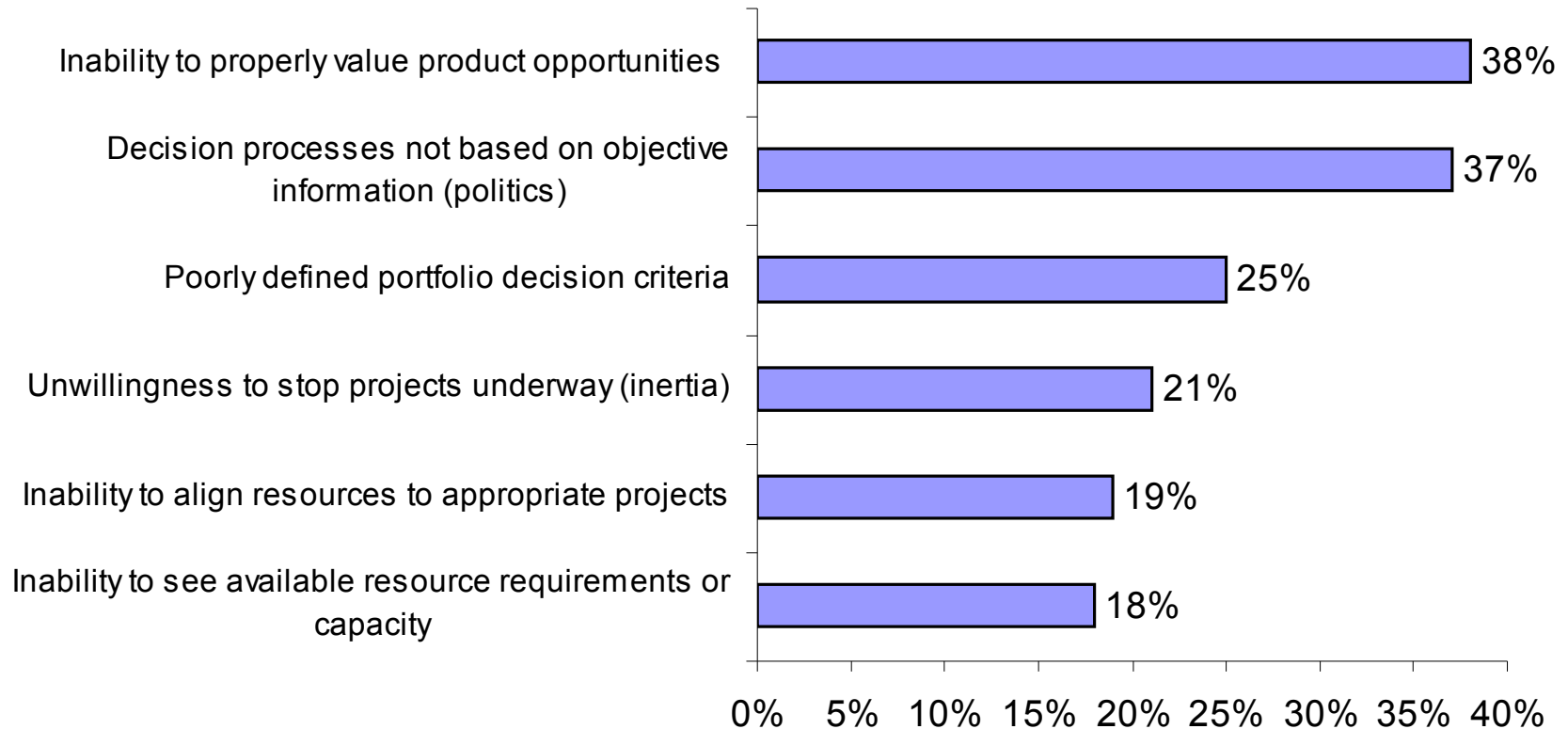
*Mergers and
Acquisitions*



We need a better way to successfully respond to these business challenges

Effective Project Planning & Governance can be elusive

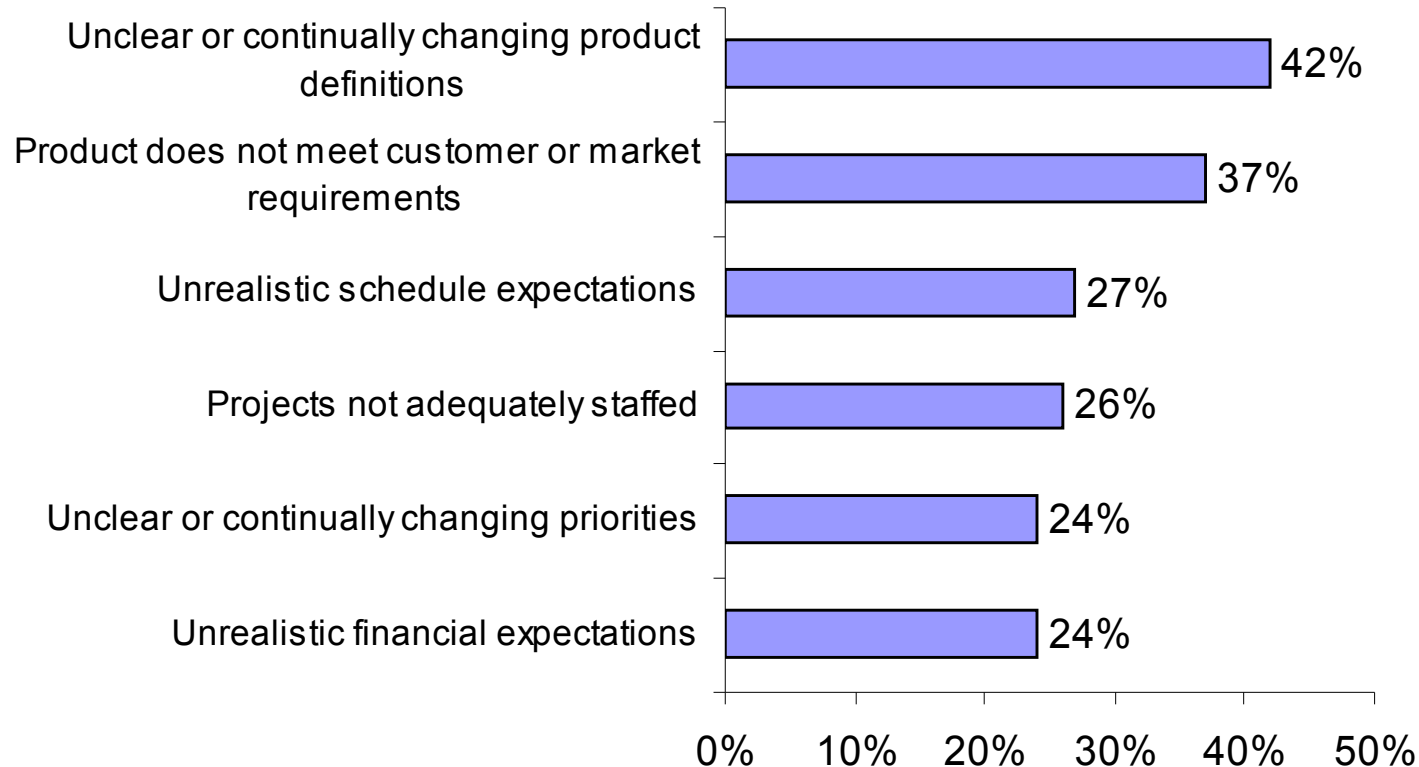
Objective criteria are needed to effectively evaluate opportunities, drive project plans, and govern solution delivery



Source: AberdeenGroup, August 2006

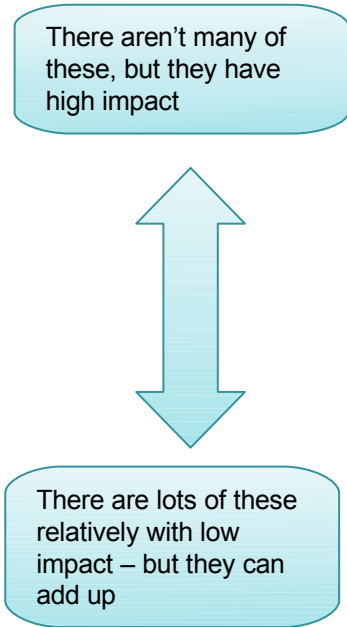
Project failures impact the bottom line

Self-inflicted problems with are the leading causes of poor delivery



These influencers are driving customers to embrace EA

- Align IT implementation with the needs of the business
- Enable Enterprise Planning and Governance
- Promote Reuse and Integration for more predictable solutions
- Efficiently manage change to the IT portfolio



Level	Scope	Detail	Impact	Audience
Enterprise Architecture	Agency/ Organization	Low	Strategic Outcomes	All Stakeholders
Segment Architecture	Line of Business	Medium	Business Outcomes	Business Owners
Solution Architecture	Function/ Process	High	Operational Outcomes	Users and Developers

From US OMB 2006 FEA Practice Guidance

What is Enterprise Architecture?

IBM:

*“The **Enterprise Architecture** discipline defines and maintains the architecture models, governance, and transition initiatives needed to effectively co-ordinate semi-autonomous groups towards common business and/or IT goals”¹*

Gartner
:

*“**Enterprise architecture** is the process of translating business vision and strategy into effective enterprise change by creating, communicating and improving the key principles and models that describe the enterprise's future state and enable its evolution.”²*

TOGAF:

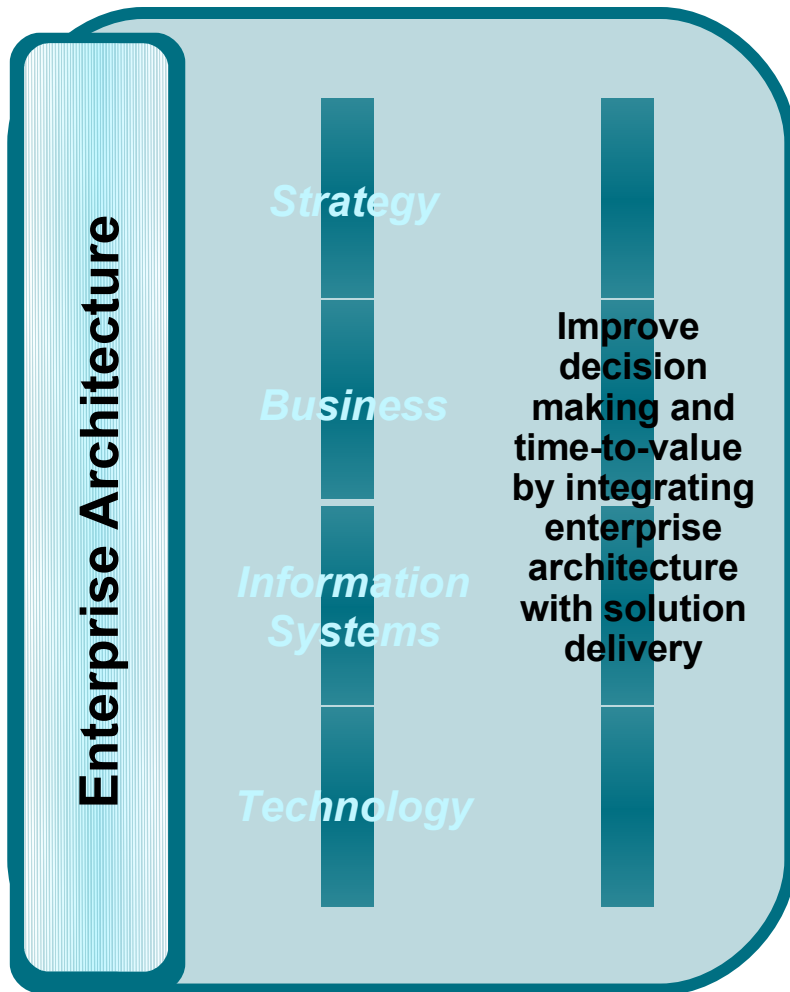
*“**Enterprise architecture** is the description of an enterprise as a system in terms of its components, their inter-relationships, and principles and guidelines governing the design and its evolution*

1. *Enterprise Architecture in the era of On-Demand*, IBM Academy of Technology Study, October 2004
2. Short form, *Gartner Defines the term 'Enterprise Architecture'*, Anne Lapkin, Gartner, July 12, 2006

Architecture Management Can Help Address Business Challenges



Methods for capturing, analyzing, and communicating actionable information



Timely accurate business intelligence and communication across all levels



Greater efficiency and less overhead in capturing consolidated view of business architecture, process integration and lifecycle assets



Greater agility and collaboration with tighter traceability, automation and reuse of delivery practices

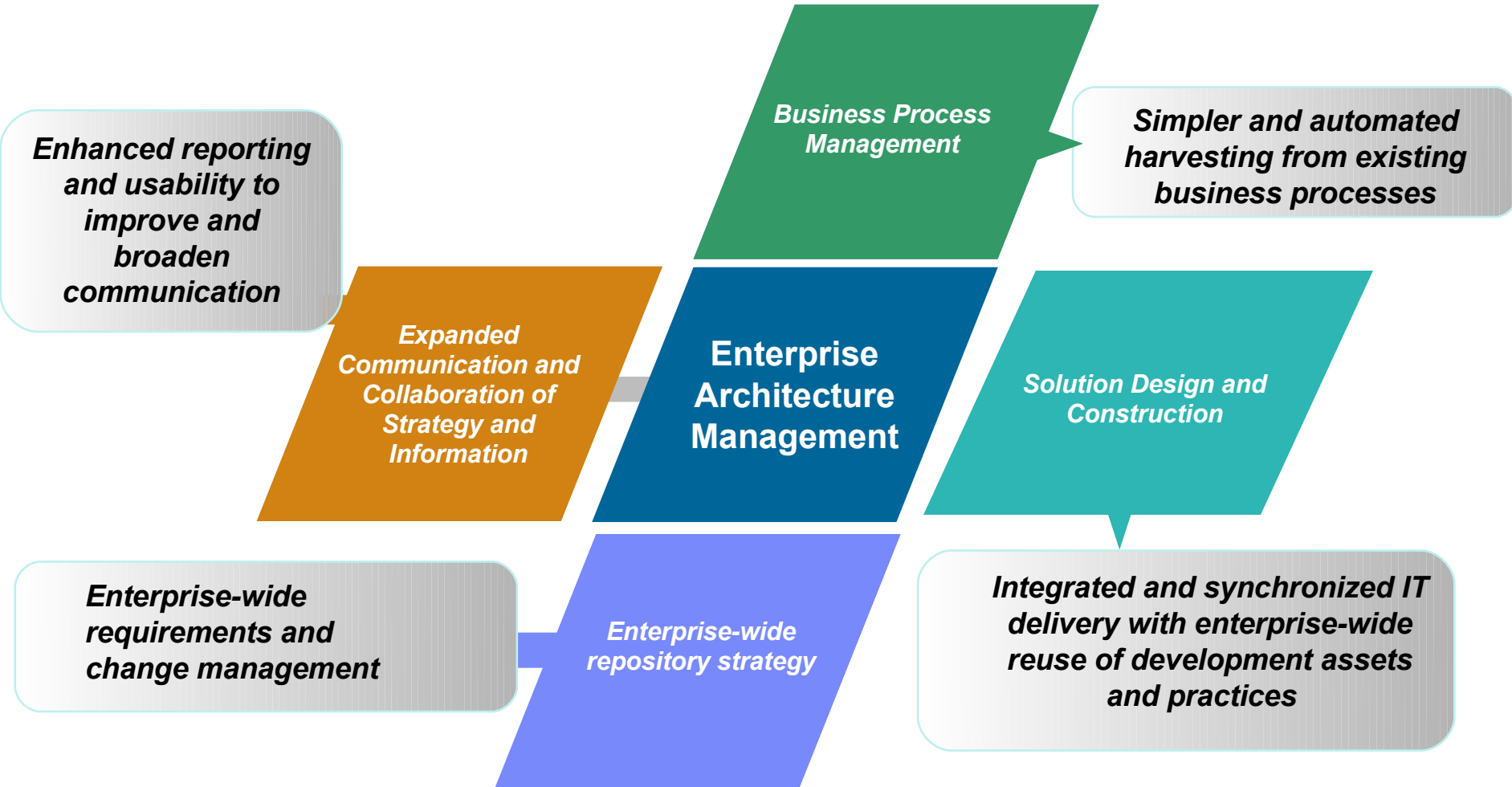


Effective enterprise transformation that harnesses change and delivers higher return on existing investments

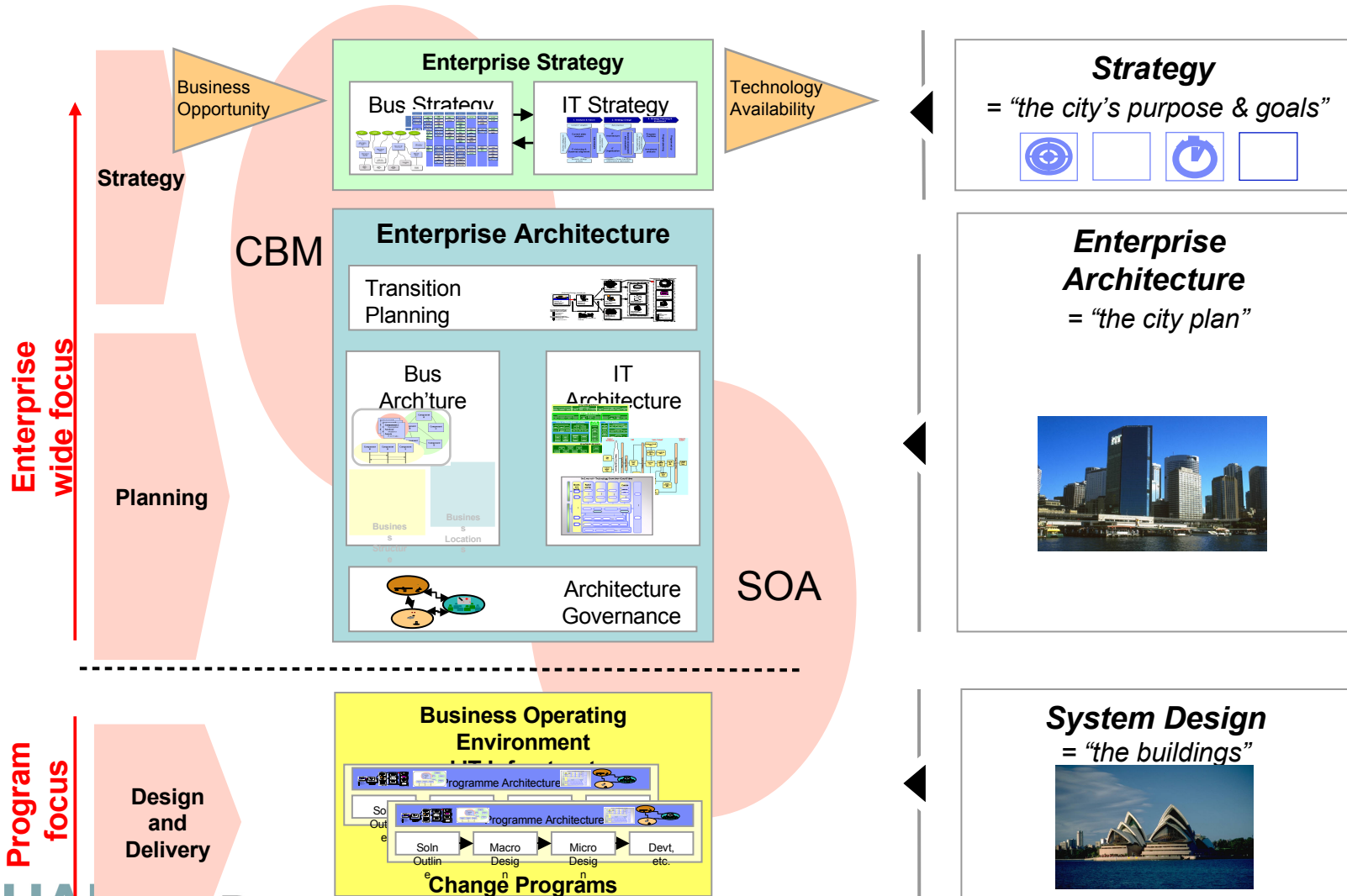


Enterprise Architecture Management solutions

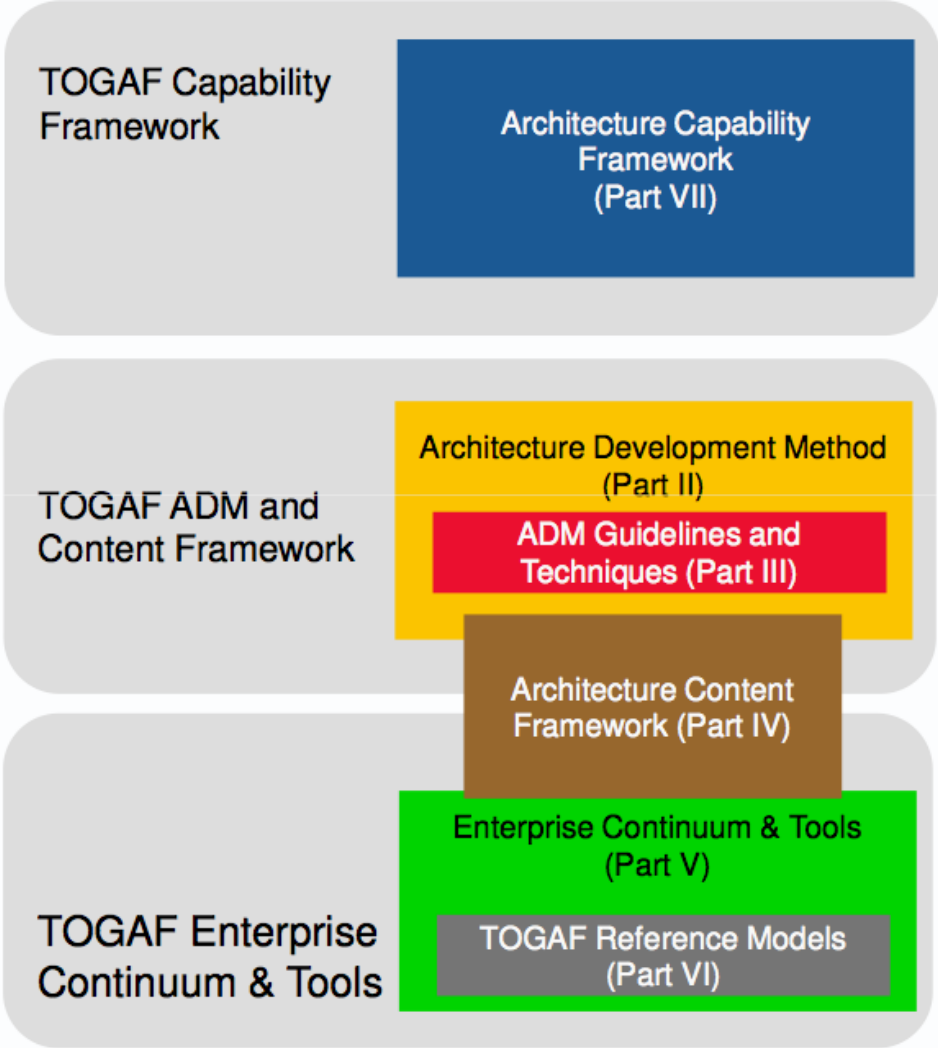
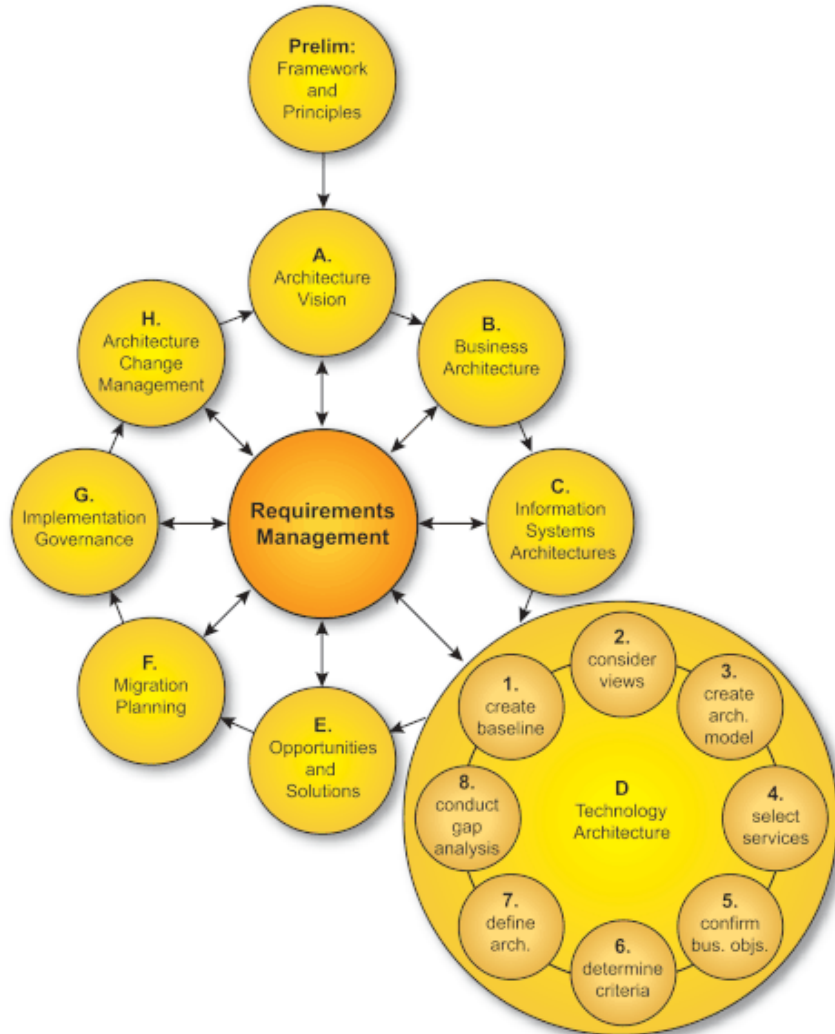
Enable business agility and innovation that help realize the full potential of EA



EA is the planning function between strategy formulation and delivery (Doing the right things)...



TOGAF 9 – Defines a Standard Architecture Development Method



The architects' planning models guide designing and implementing the system – distinguishing two purposes for architecture's two value propositions...

The things which describe the way something specific is going to be thought about or done – usually has some sense of requirements, and can in some way be tested as meeting those requirements.

Showing how we wish to structure our systems meet specific business goals

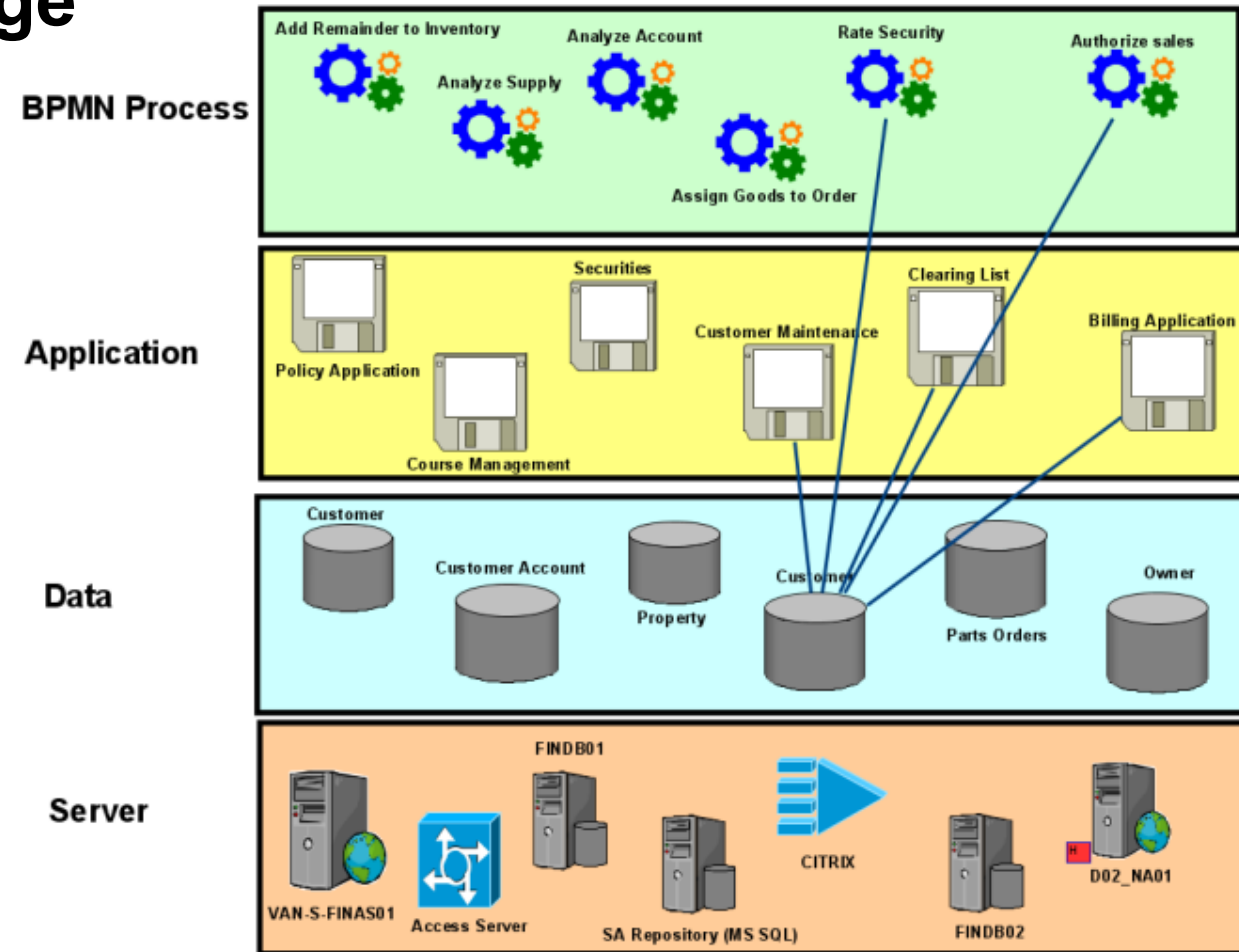
Showing how a build centric architect intends to structure the solutions they're creating to solve specific sets of requirements

Architecture	Systems Models	Guidance for Systems
<p>Planning Purpose #1: “things which help plan and organise work”</p>	<p>Models for Planning</p>	<p>Architecture building blocks, Usage principles, Reference models and patterns</p>
<p>Building Purpose #2: “things focused on building or implementing solutions”</p>	<p>Models for Building</p>	

The things that capture “best practice” and provide knowledge on the standard approaches and mechanisms which are to be used.

Both “models” and “guidance” are generally finer grained and more detailed for “building than for “planning”

Visualize the enterprise and the impact of change

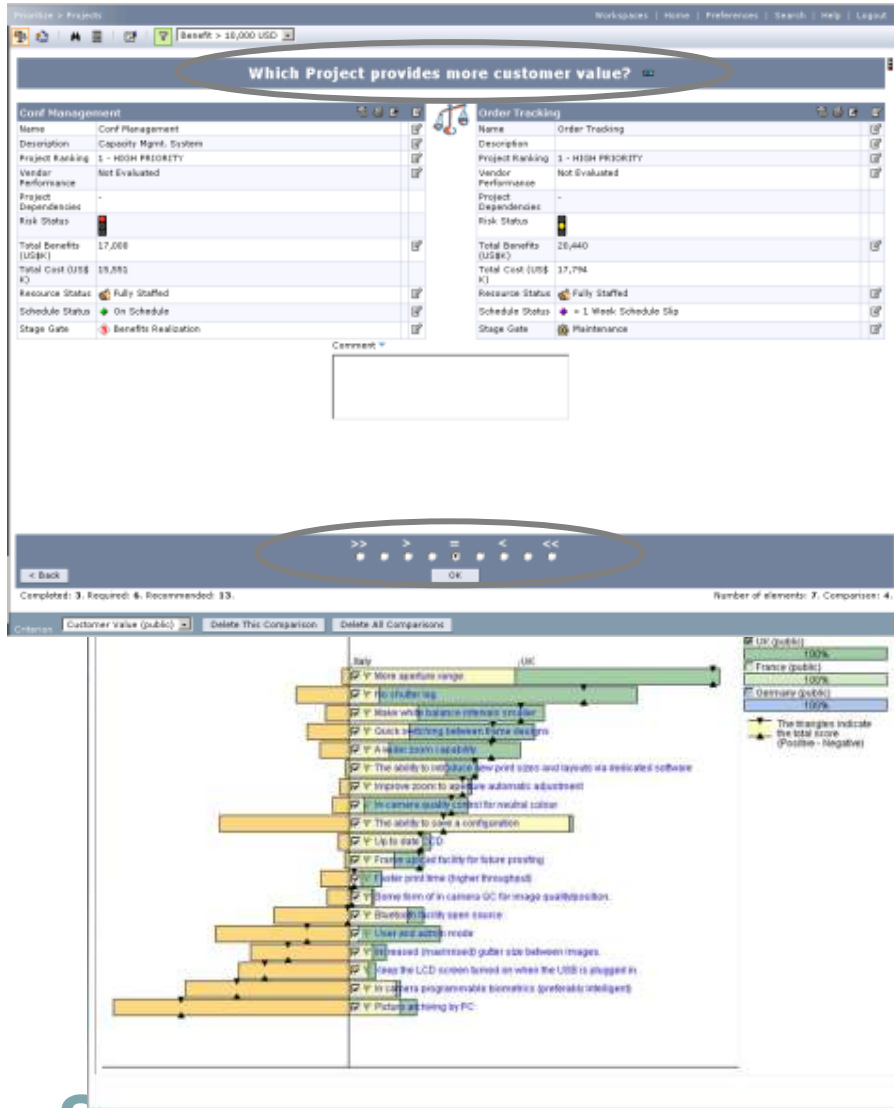


Understand enterprise strategies and their implementation
Understand how infrastructure changes impact the business
Understand projects' dependencies and impacts on the organization

Evaluate different opportunities and solutions



v6.4 Rational Focal Point

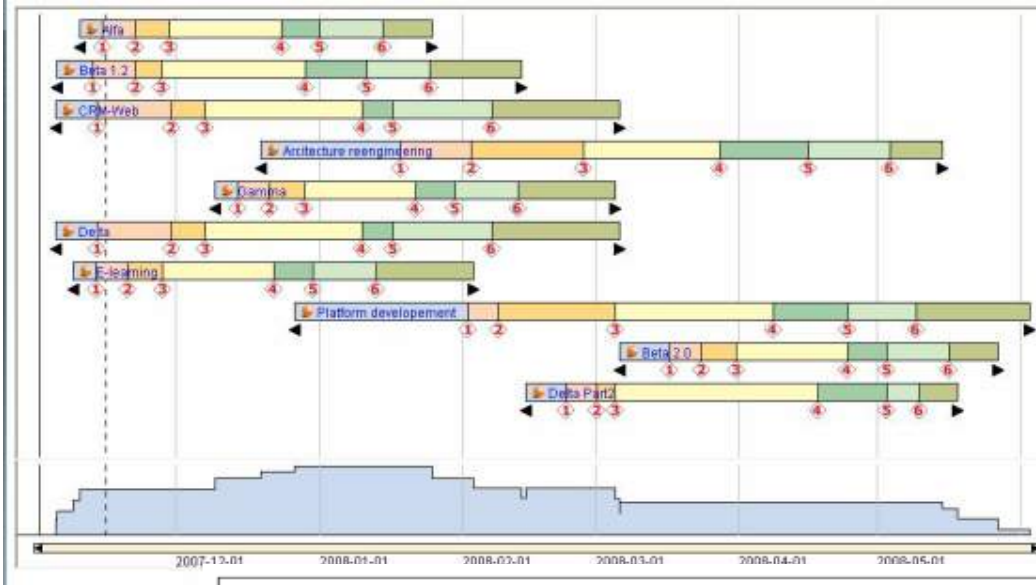


- § Financial management of project portfolio
 - ▶ Assess relative importance of strategic objectives
 - ▶ Perform cost/benefit analysis, weight user importance against factors such as cost, development times, and resources available
 - ▶ Choose projects that achieve business objectives, with highest value, in the shortest time, with the least risk
 - ▶ Govern and manage to keep on track for objectives, budget and schedule

"Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted"

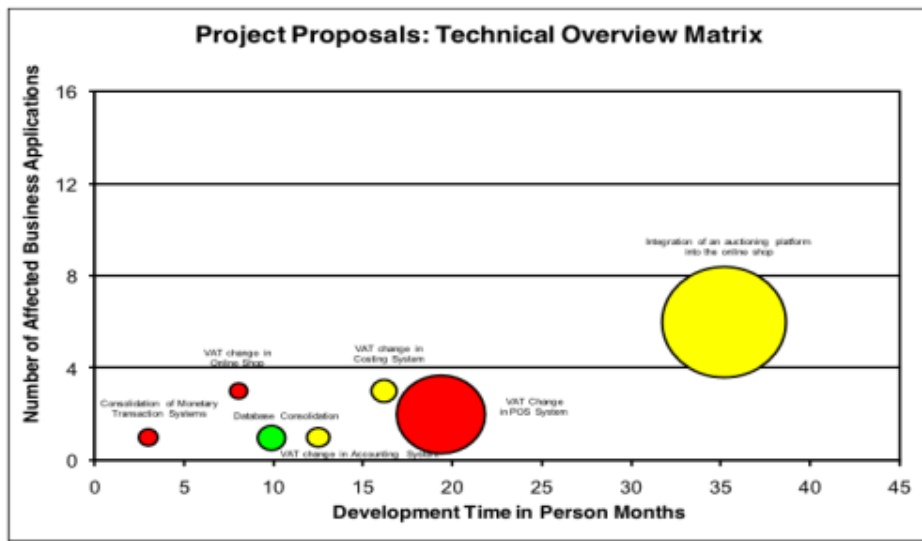
- Albert Einstein

Project and resource management



v6.4 Rational Focal Point

- § IT Roadmaps and Project Analysis:
 - Scope transformation, consolidation, and deployment efforts
 - Identify and control resources
 - Control costs and quality
 - Projects remain aligned with business goals throughout their execution.

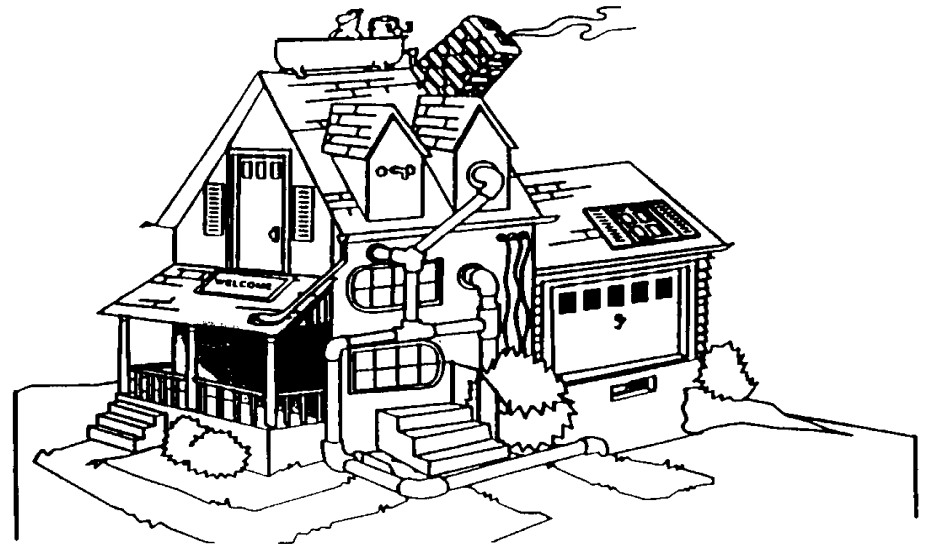


When strategic planning and deployed solution don't quite match...

- Strategy: *“We’re going to have the finest bathroom!”*
- Planning: *“It’ll cost this much, and give us all we need”*
- Design: *“It’ll look like this – let’s go build it”*
- Development: *“Here you are...”*
- Deployment: *“...Bingo! Oh dear...”*



- Architecture: *“understanding the parts within the whole”*
- Enterprise Architecture: *architecture of the enterprise*
- Understanding the enterprise’s architecture leads to better planning and better delivery



To be actionable, the EA must be:

- **Contextual**
 - Driven by the business motivation, strategy, priorities, scope time horizon, domain, etc.
- **Collaborative**
 - Available to and accessible by all stakeholders to get participation and commitment
- **Connected**
 - Line of sight linking business motivation and strategy ↔ business architecture ↔ IS architecture ↔ Technical Architecture ↔ Project Portfolio with governance, life-cycle management and business performance management
- **Consumable**
 - Can be understood from different stakeholder perspectives and viewpoints as required for their understanding and buy-in

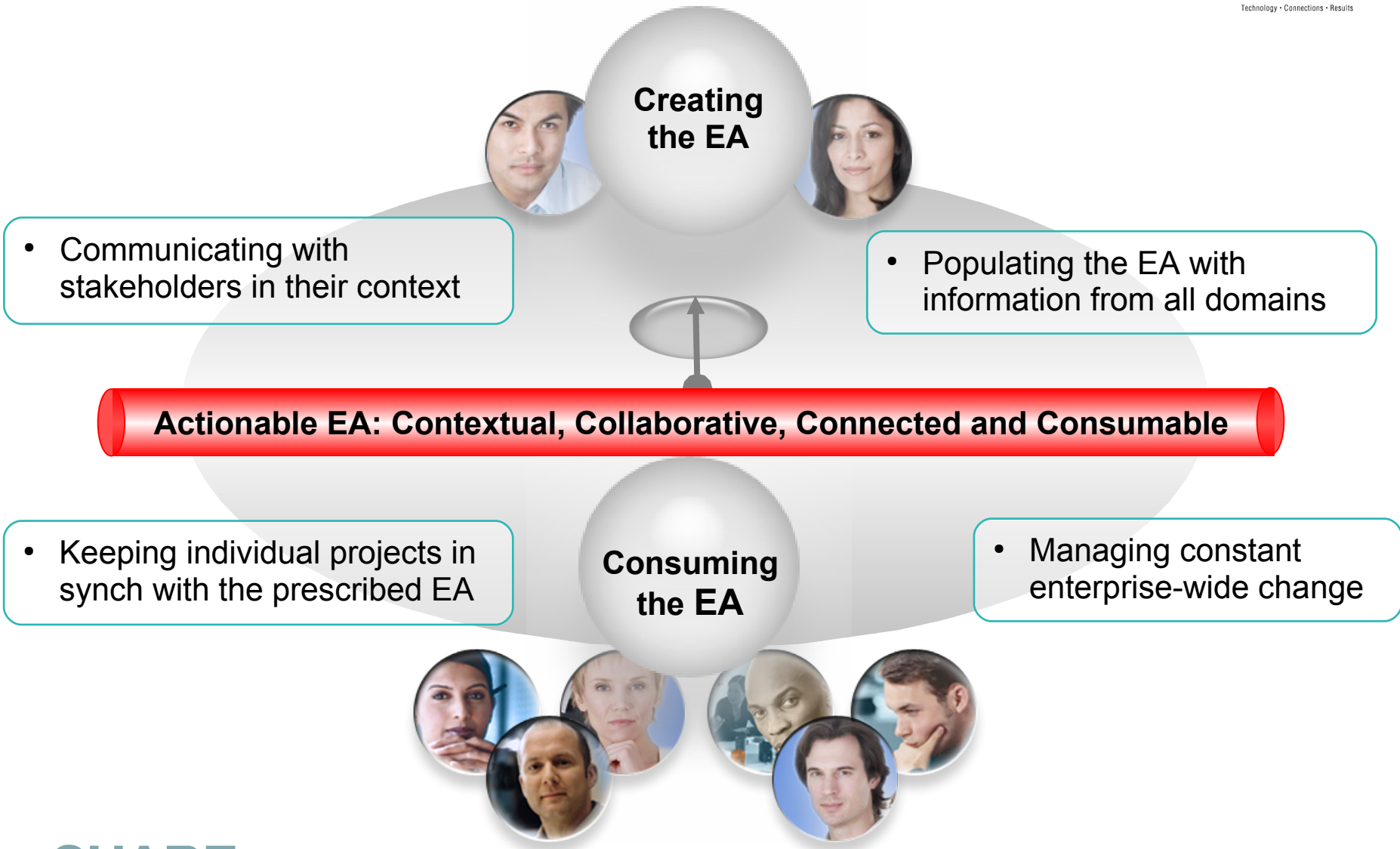
* Neil Ward-Dutton

Actionable Enterprise Architecture can avoid lots of pitfalls

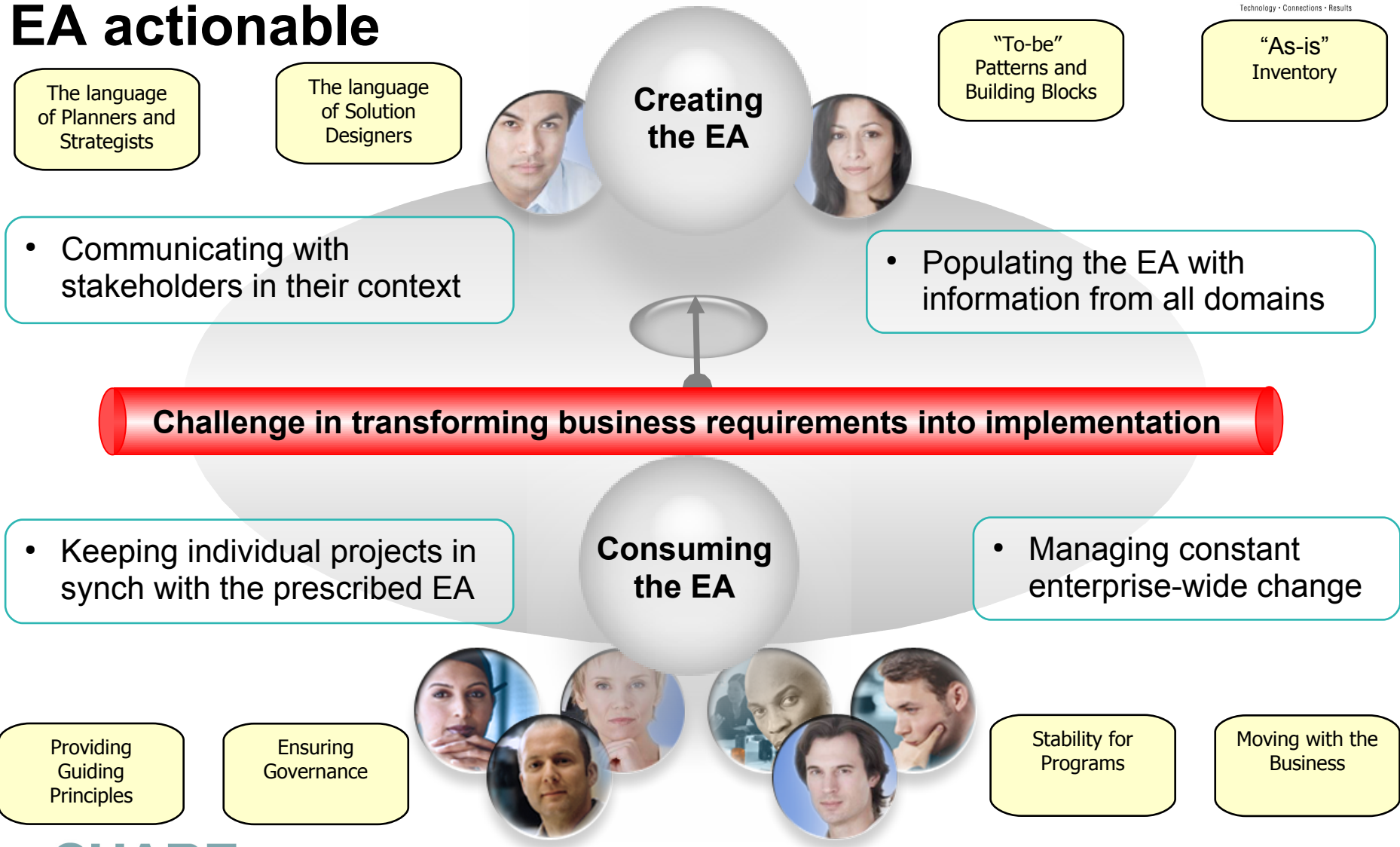
- Silos of people, process and projects creating barriers that prevent collaboration
- Each project provides its own solution architecture emphasizing local over global optimization
- Overlapping, redundant solutions leading to poor interoperability, less agility, and increased costs
- Confused priorities, overworked resources, decreased performance and resistance to change
- Periodic large and costly reorganizations and re-architectures leading to higher risk
- Increased enterprise liabilities rather than assets
- Ivory Tower syndrome: sucking information into EA models that have little business effect
- Reactive rather than proactive business planning
- IT projects that aren't completed or fail to meet business needs

Inefficient IT inhibits business innovation, agility and integration resulting in decreased performance and increased risk

Making the EA Actionable



We know there are challenges to making the EA actionable



Making EA more actionable means making more productive use of our architectural information

One language of architecture

Creating the EA

"as is" and "to be"

- Enhanced reporting and usability to improve communication

- Simpler and automated harvesting from all enterprise resources

Integrated business & implementation requirements

- Integrated IT delivery enabling reuse of assets and practices

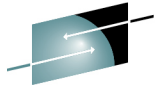
Consuming the EA

- Governance with enterprise wide change management and best practices measurement

Integrated tooling

Version control and publication management

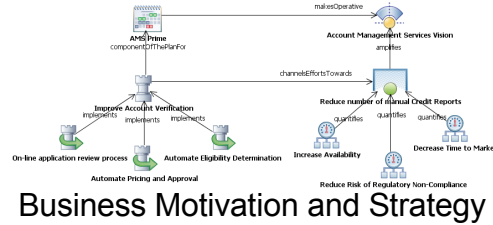
IBM Rational offers capabilities to make EA actionable



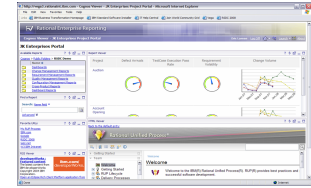
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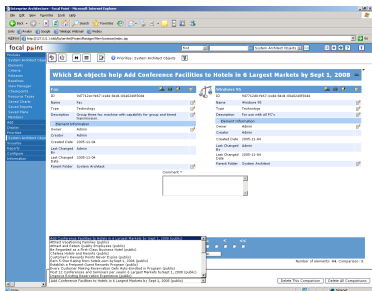
Measured Capability Improvement Framework



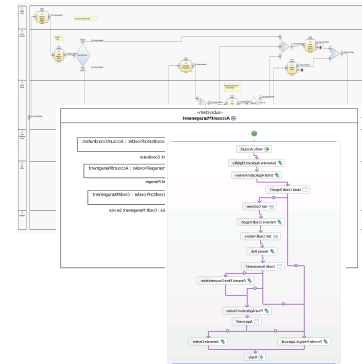
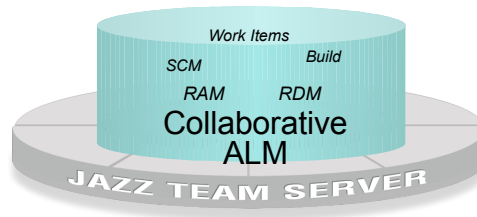
Business Motivation and Strategy



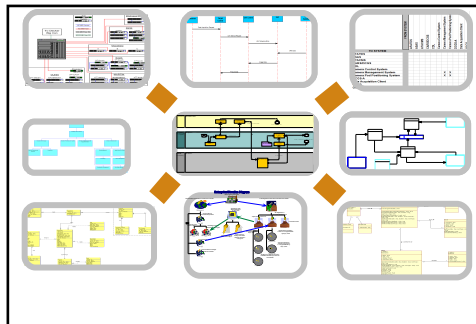
Measurement and Reporting



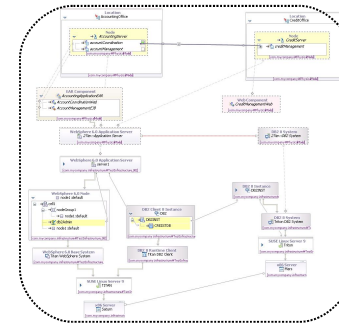
Project and IT Portfolio Management



Solution Delivery

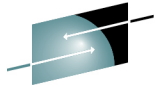


Enterprise Architecture

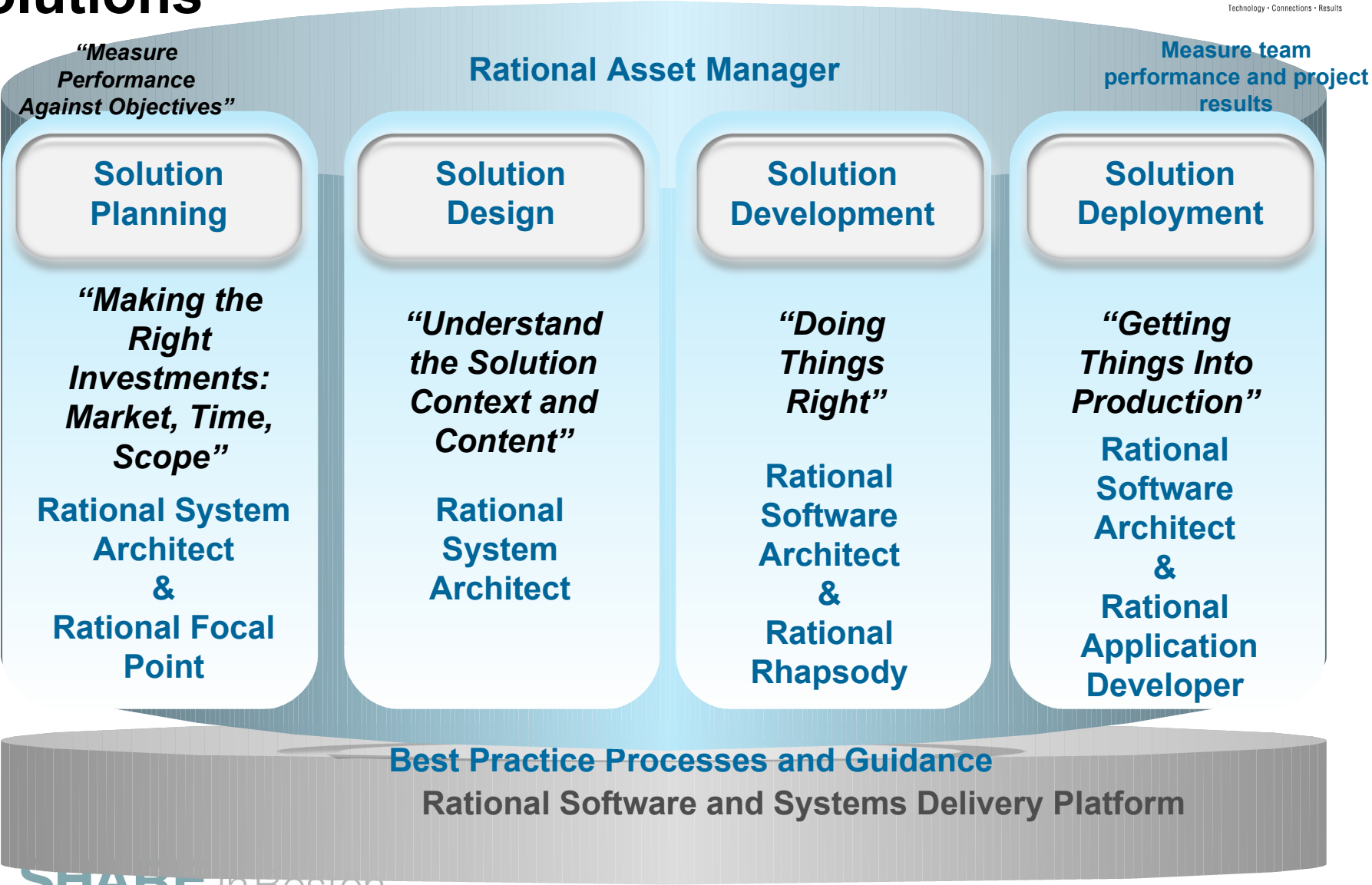


Operational Modeling

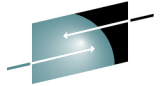
IBM's modular, flexible, open and integrated solutions



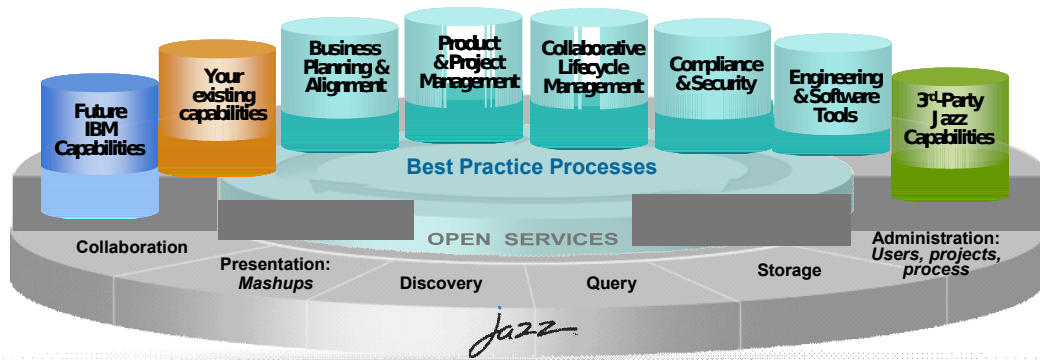
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Jazz is the foundation for collaborative architecture management



SHARE



A platform for transforming how people work together to deliver greater value and performance from their systems and software investments.

Jazz is...

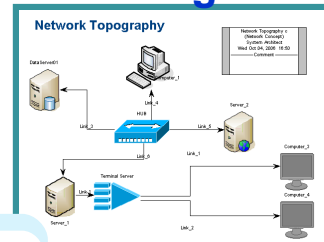
- The foundation of systems and software delivery
- A scalable, extensible team collaboration platform
- An open integration architecture enabling mashups and non-Jazz products to participate
- A community at Jazz.net where Jazz products are built
- An evolution of our portfolio over time

Broad themes for the future

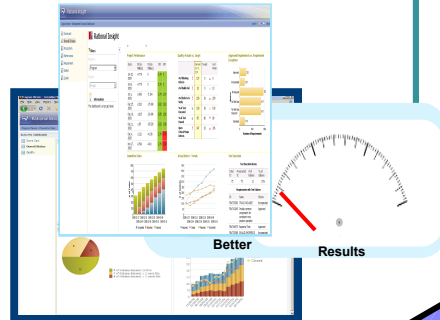
Planning
Scenarios



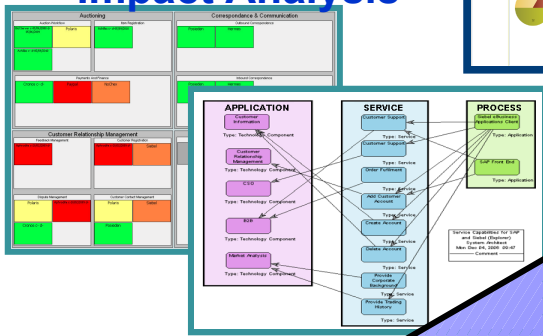
Mining IT



Analytics

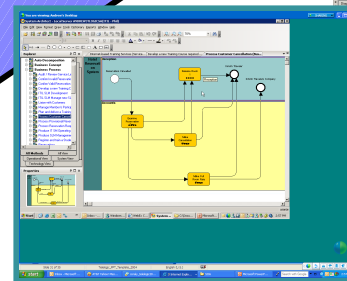


Impact Analysis

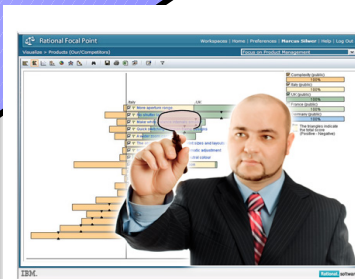


Asset Mgmt

Solution
Delivery



BP Integration

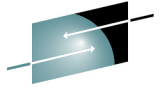


Decision
Making

Start Date	End Date	Start	End	Name	Start Date	End Date	Start	End	Name
4/15/2008	4/15/2008	10:00 AM	11:00 AM	John Doe	4/15/2008	4/15/2008	10:00 AM	11:00 AM	John Doe
4/15/2008	4/15/2008	11:00 AM	12:00 PM	Jane Smith	4/15/2008	4/15/2008	11:00 AM	12:00 PM	Jane Smith
4/15/2008	4/15/2008	12:00 PM	1:00 PM	John Doe	4/15/2008	4/15/2008	12:00 PM	1:00 PM	John Doe
4/15/2008	4/15/2008	1:00 PM	2:00 PM	Jane Smith	4/15/2008	4/15/2008	1:00 PM	2:00 PM	Jane Smith
4/15/2008	4/15/2008	2:00 PM	3:00 PM	John Doe	4/15/2008	4/15/2008	2:00 PM	3:00 PM	John Doe
4/15/2008	4/15/2008	3:00 PM	4:00 PM	Jane Smith	4/15/2008	4/15/2008	3:00 PM	4:00 PM	Jane Smith
4/15/2008	4/15/2008	4:00 PM	5:00 PM	John Doe	4/15/2008	4/15/2008	4:00 PM	5:00 PM	John Doe
4/15/2008	4/15/2008	5:00 PM	6:00 PM	Jane Smith	4/15/2008	4/15/2008	5:00 PM	6:00 PM	Jane Smith

Web Services

Note: This does not show delivery order



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Thank
YOU

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