

INNOVATION VALUE INSTITUTE

– Creating IT Enabled Business Innovation, 2 July 2007

**Enterprise Architecture as Strategy:
Creating a Foundation for Business Execution**

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CISR Research 2002–2007

Managing the IT Resource

- What the CEO wants from IT
- The Future of the IT Organization
- IT Governance in Top Performing Firms
- Enterprise Architecture as Strategy
- IT Portfolio Investment Benchmarks & Links to Firm Performance
- Reducing IT-Related Risk

IT and Business Strategy

- Business Models and IT Investment and Capabilities
- IT-Enabling Business Innovation and Transformation
- How IT Can Enhance Business Agility

Managing Across Boundaries

- Effective Governance of Outsourcing
- Building Effective Relationships Between Business & IT Leaders
- Effective Distributed Collaboration
- Effective IT Engagement Inside and Outside the Firm

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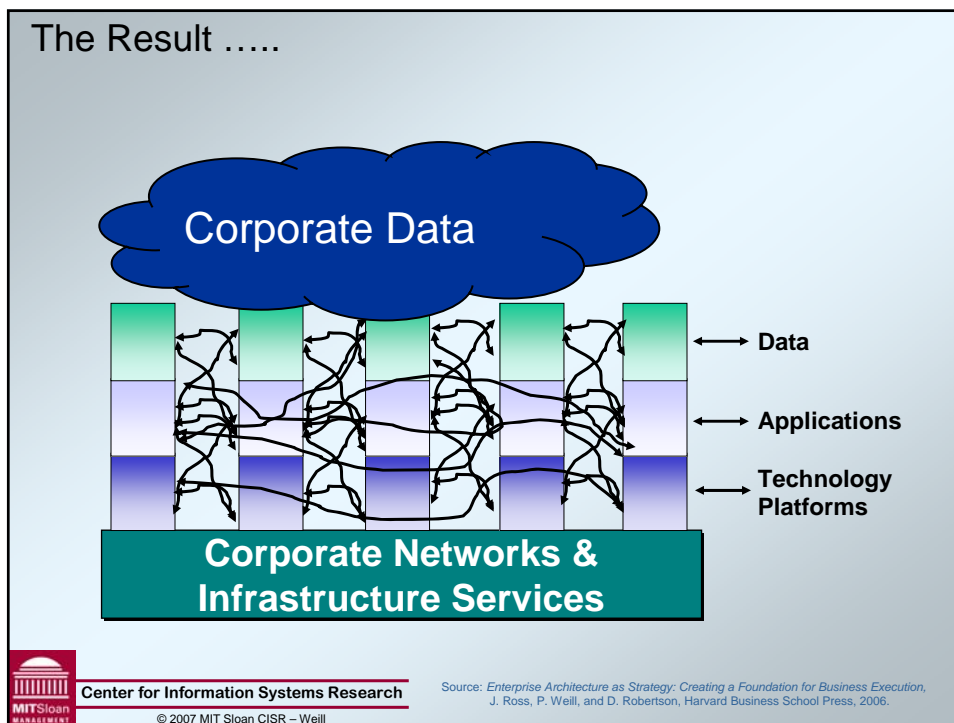
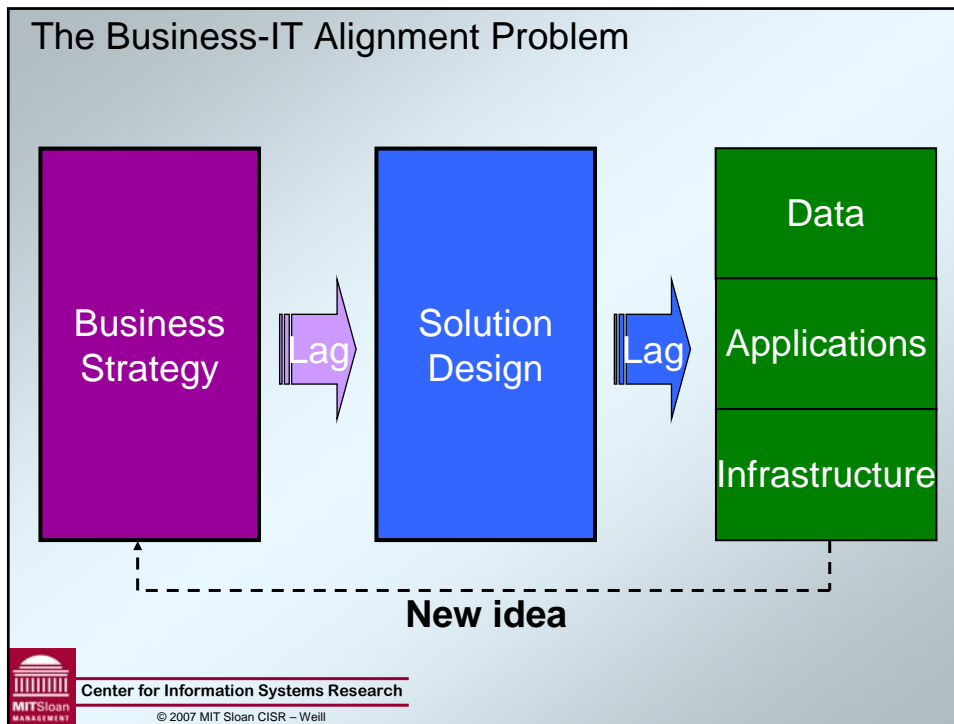
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Agenda

- The Operating Model as an Alternative to Business Strategy Alignment
- Designing a Digitized Foundation for Strategy Execution
- Case Studies
- The Four Stages of Enterprise Architecture Maturity
 - IT investment patterns and capabilities
 - Strategic implications of IT
 - Organizational learning about IT
- Reinforcing Organization Learning with Governance
- Recommendations and Next Steps



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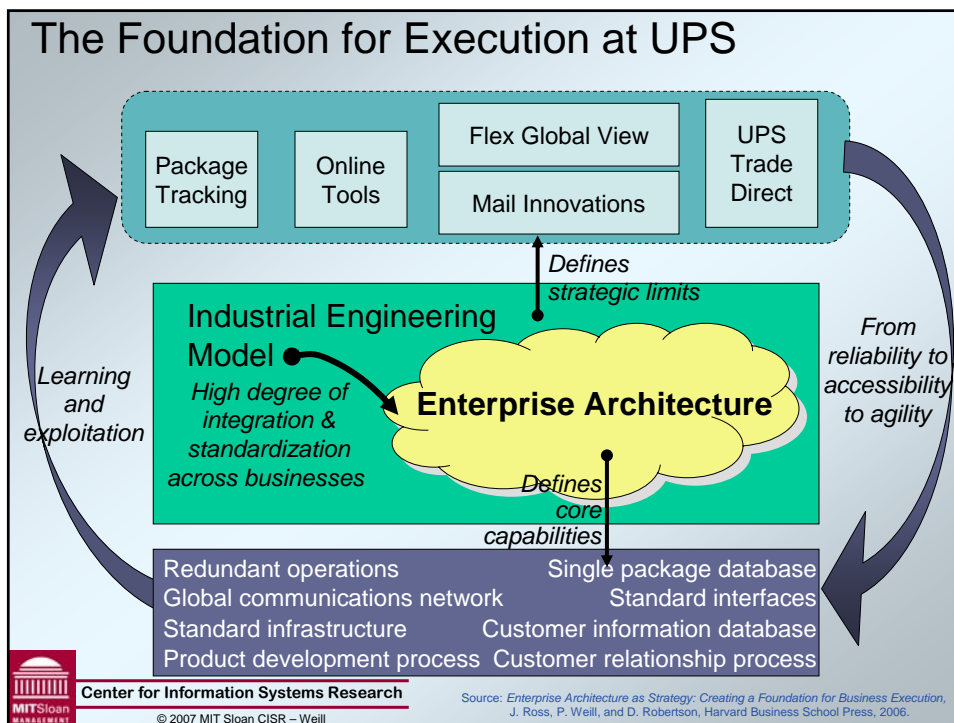
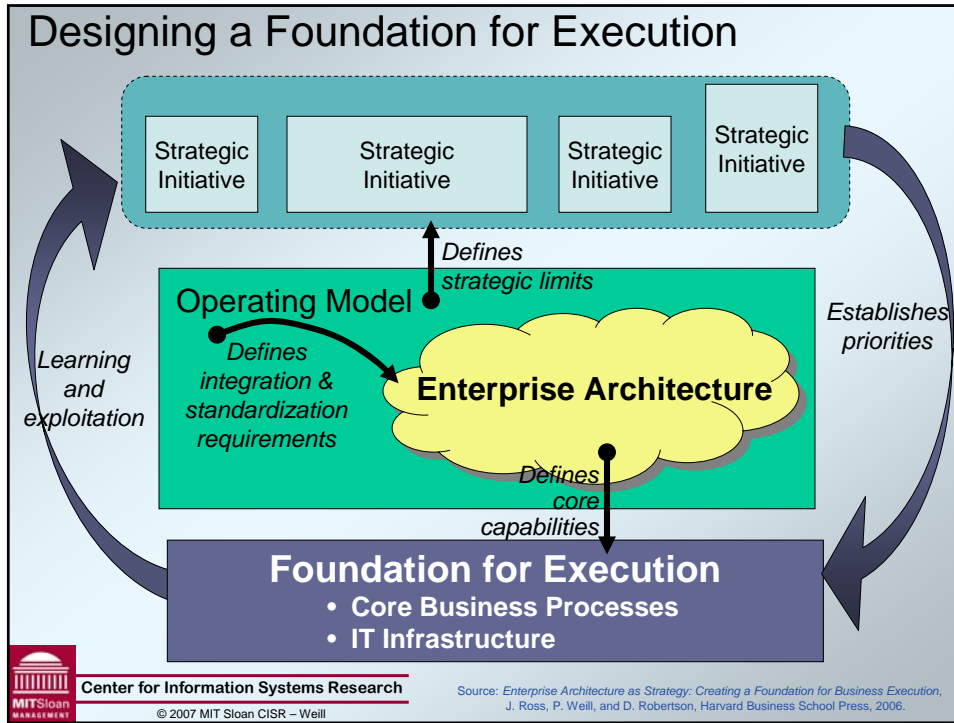
Key Concepts

- **What is important for a company**
Operating Model: *The desired level of business process integration and business process standardization for delivering goods and services to customers.*
- **How to get there**
Enterprise Architecture: *The organizing logic for key business process and IT capabilities reflecting the integration and standardization requirements of the firm's operating model.*
IT Governance: decision rights and accountability for effective use of IT.
- **The Asset**
Foundation for Execution: *IT infrastructure and digitized business processes automating a company's core capabilities*
- **The Result**
Better Performance: *More agility, high profits, lower IT risk, more satisfied senior management*



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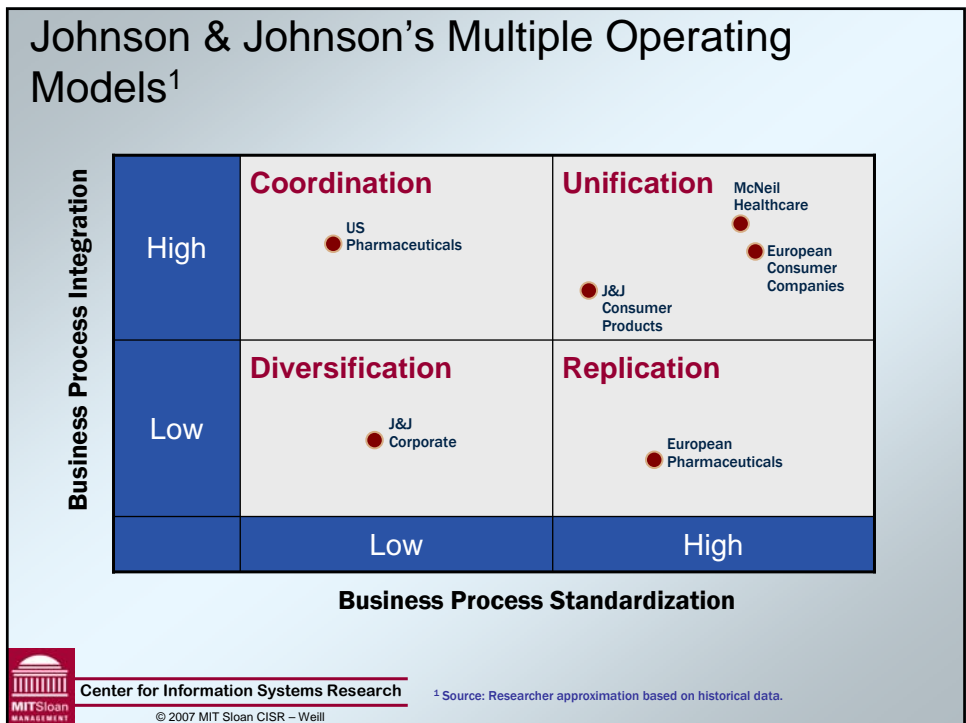
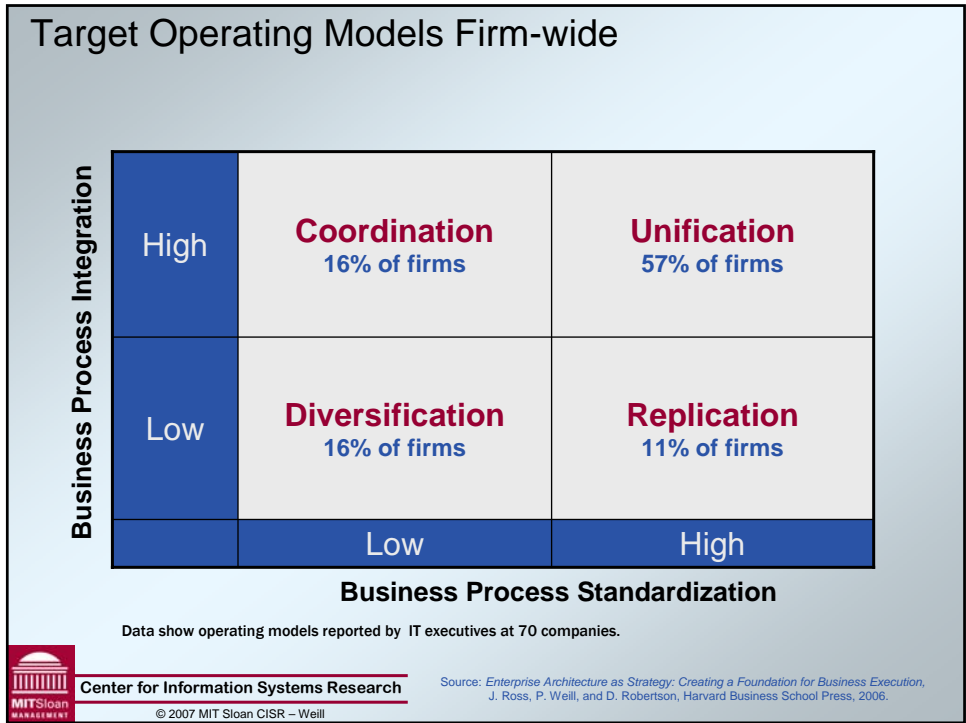


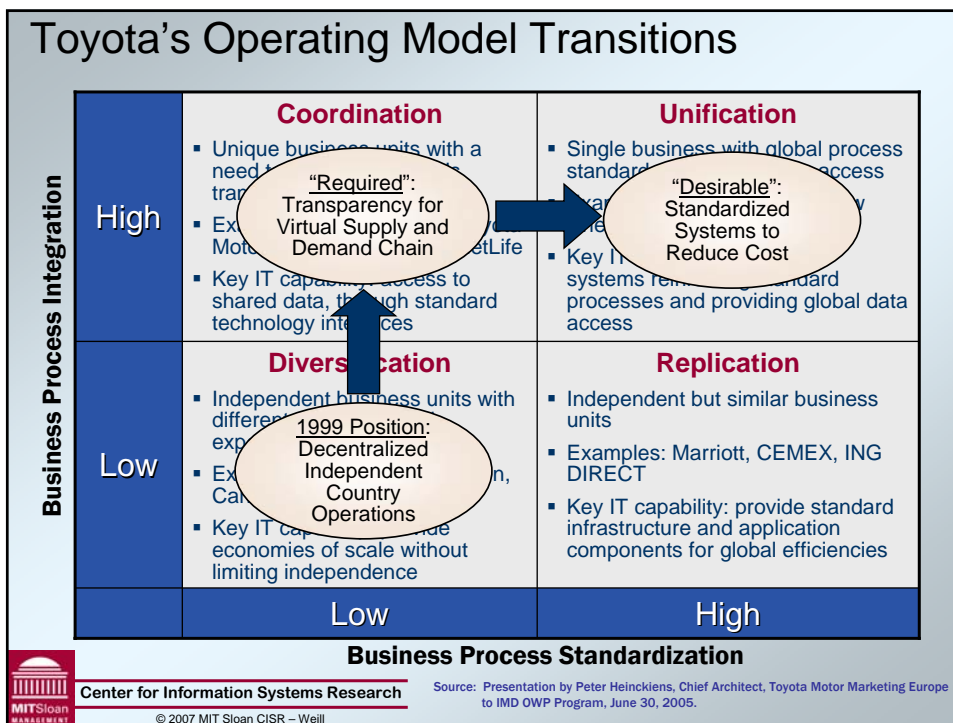
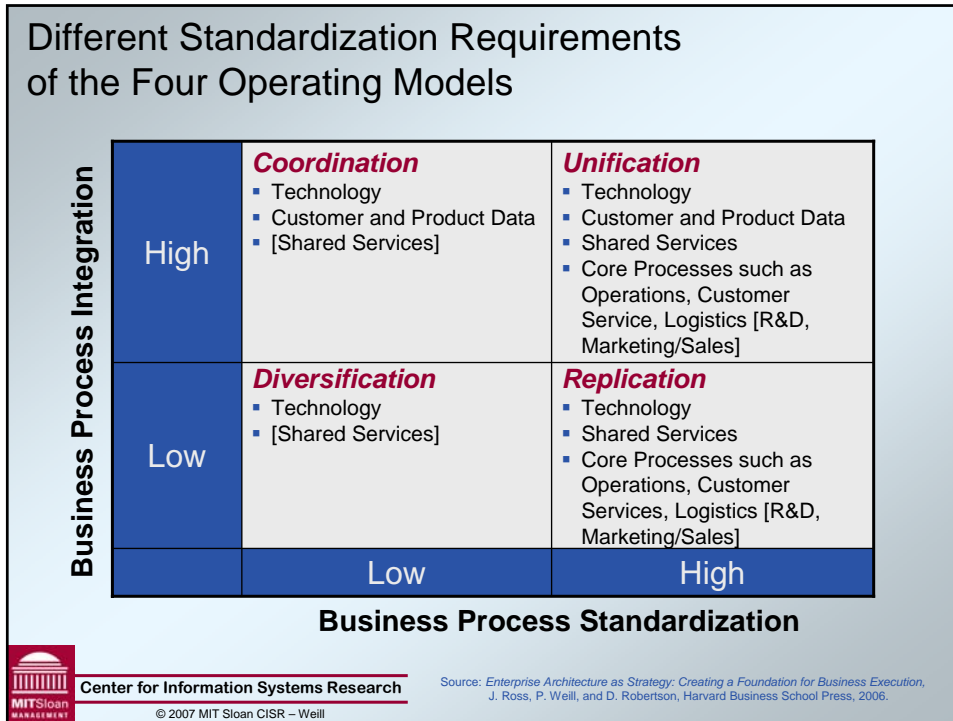
Pick One of Four Operating Models - how do you want to grow

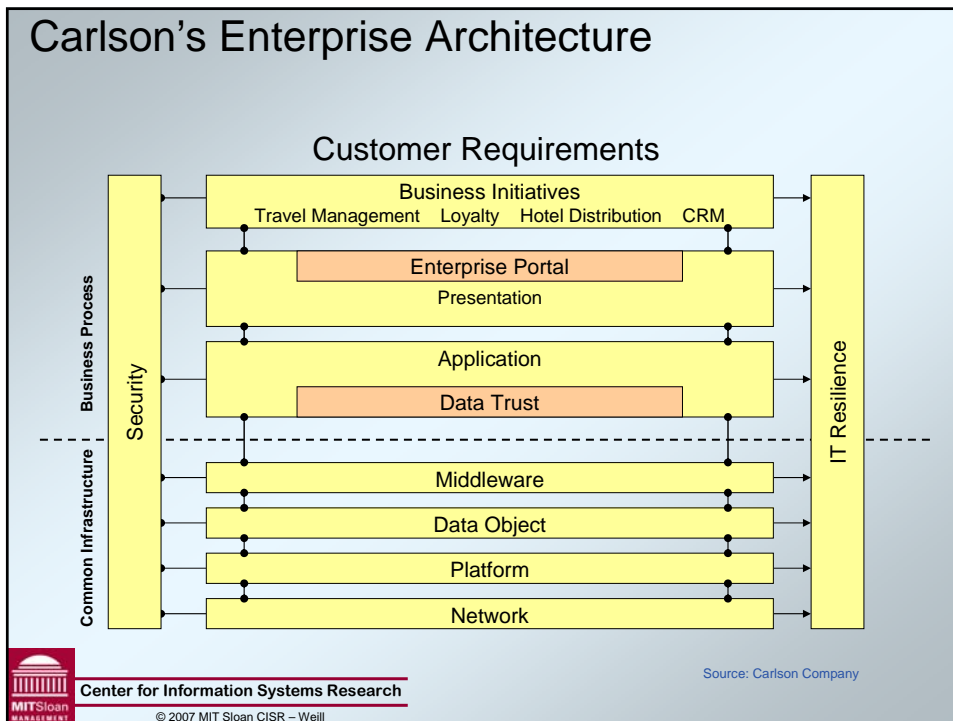
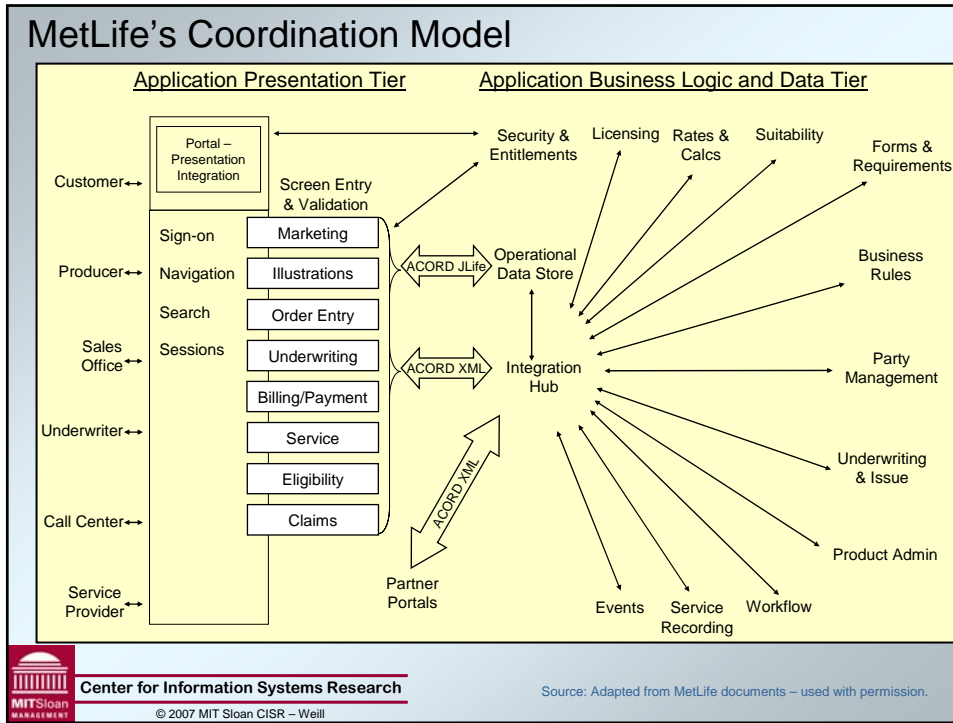
Business Process Integration	High	<p>Coordination</p> <ul style="list-style-type: none"> Unique business units with a need to know each other's transactions Examples: Merrill Lynch, Toyota Motor Marketing Europe, MetLife Key IT capability: access to shared data, through standard technology interfaces 	<p>Unification</p> <ul style="list-style-type: none"> Single business with global process standards and global data access Examples: Delta Air Lines, Dow Chemical, Pepsi Americas Key IT capability: enterprise systems reinforcing standard processes and providing global data access
	Low	<p>Diversification</p> <ul style="list-style-type: none"> Independent business units with different customers and expertise Examples: Johnson & Johnson, Carlson Companies, GE Key IT capability: provide economies of scale without limiting independence 	<p>Replication</p> <ul style="list-style-type: none"> Independent but similar business units Examples: Marriott, CEMEX, ING DIRECT Key IT capability: provide standard infrastructure and application components for global efficiencies
		Low	High
Business Process Standardization			

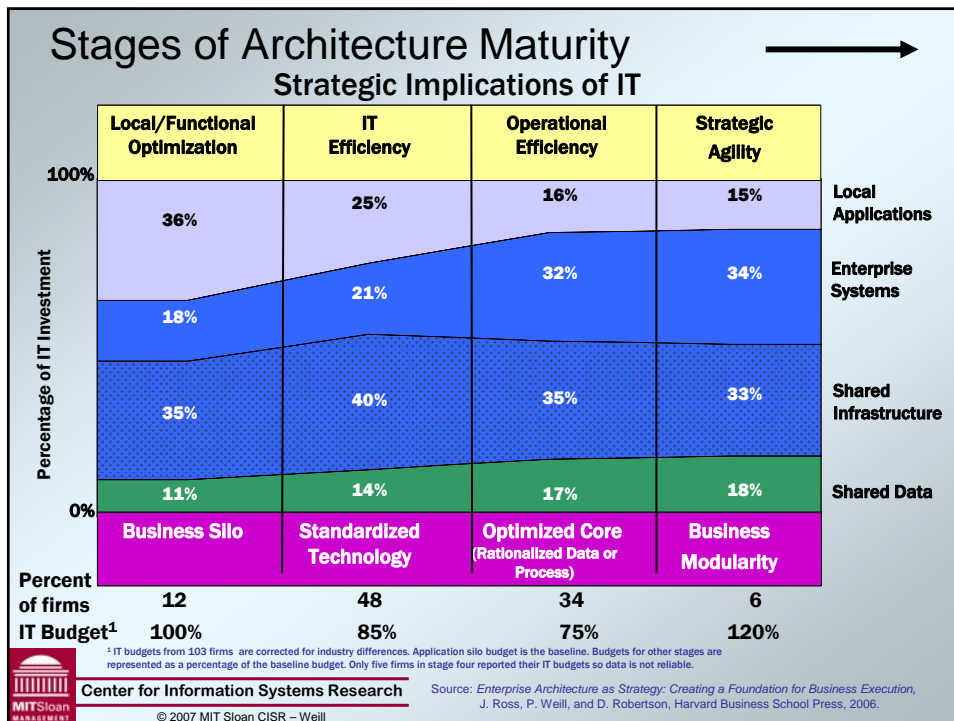
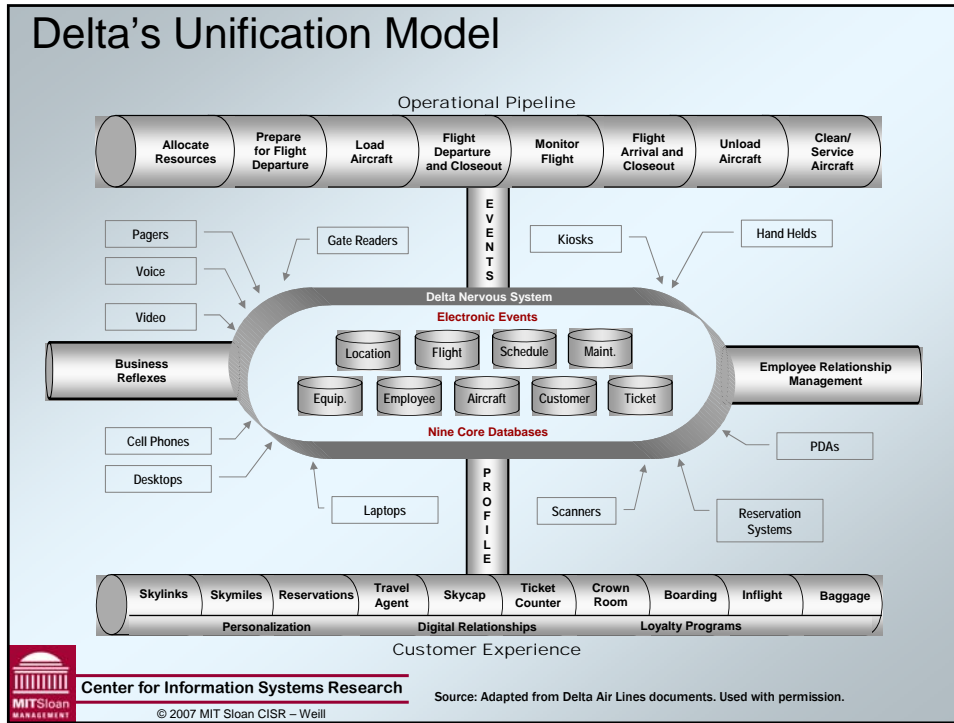

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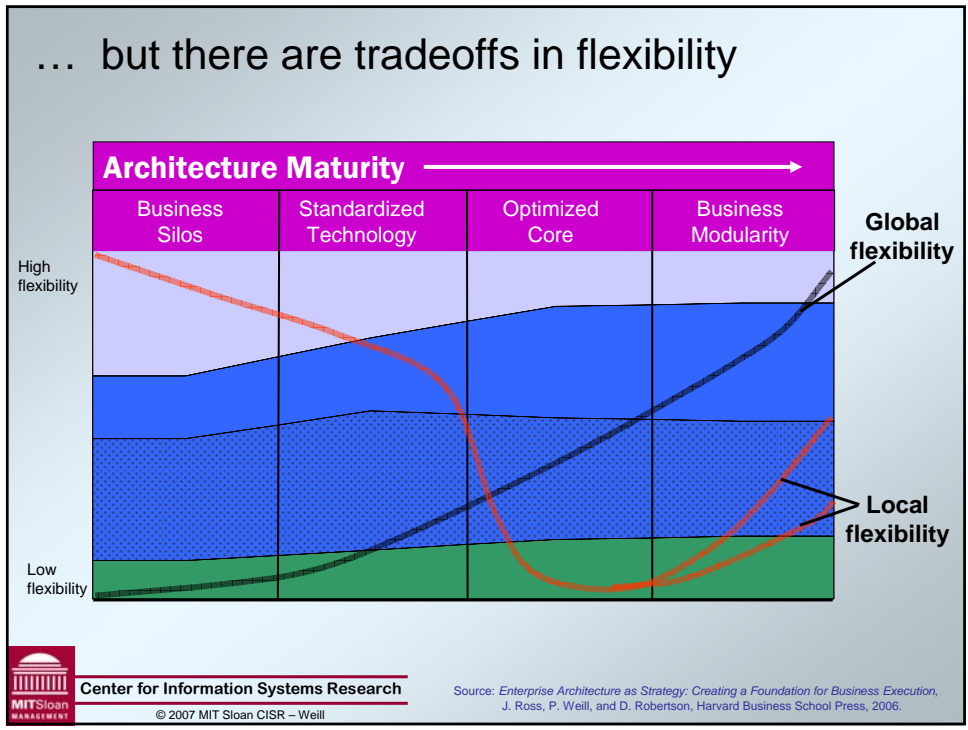
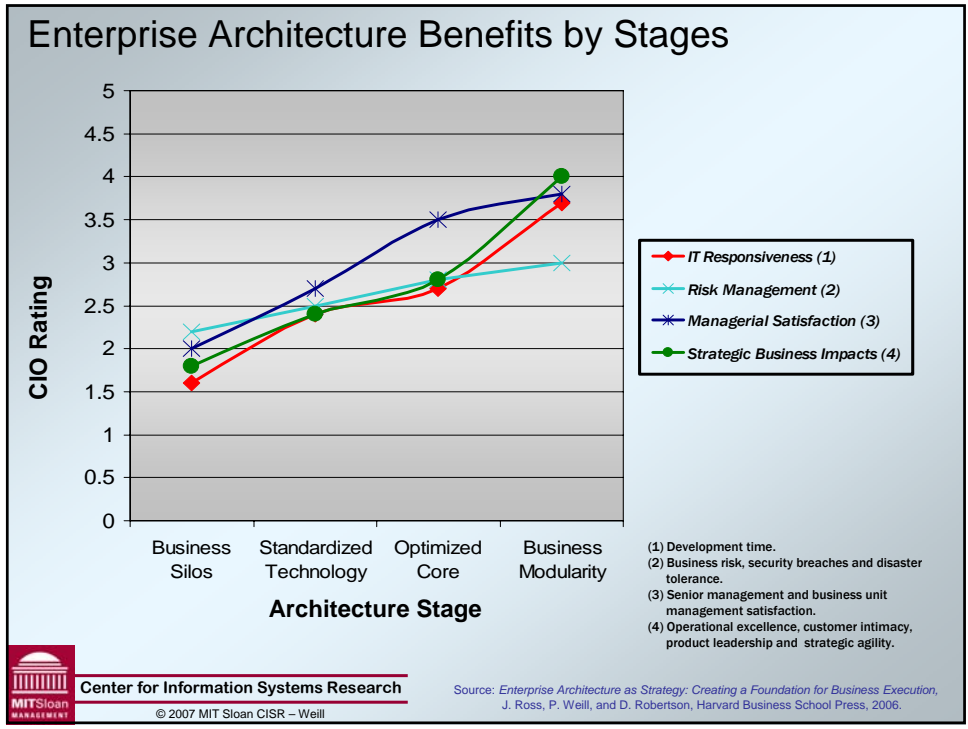
Source: *Enterprise Architecture as Strategy: Creating a Foundation for Business Execution*, J. Ross, P. Weill, and D. Robertson, Harvard Business School Press, 2006.
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ING DIRECT: Business Efficiency Agility

- ING DIRECT, a subsidiary of the Dutch financial services giant, ING, was founded in 1997 as a telephone bank in Canada.
- Second fastest growing company in history, ING DIRECT is a direct-to-customer operation, offering simple banking products to 13 million customers of 9 country bank organizations.
- The #1 direct bank (in terms of retail funds entrusted) in every one of the 9 countries in which it operates.
- Each of ING DIRECT's country-based businesses operates autonomously, but they share a common set of standardized technical infrastructure components, as well as a set of standardized business service groupings (e.g., customer relationship services, common business services, channel access services).
- Standardized services has reduced operational costs to only 0.43% of assets, as compared to 2.5% for a typical full-service bank.
- Business efficiency agility allows the company to offer higher savings rates and lower-cost loans than other banks.

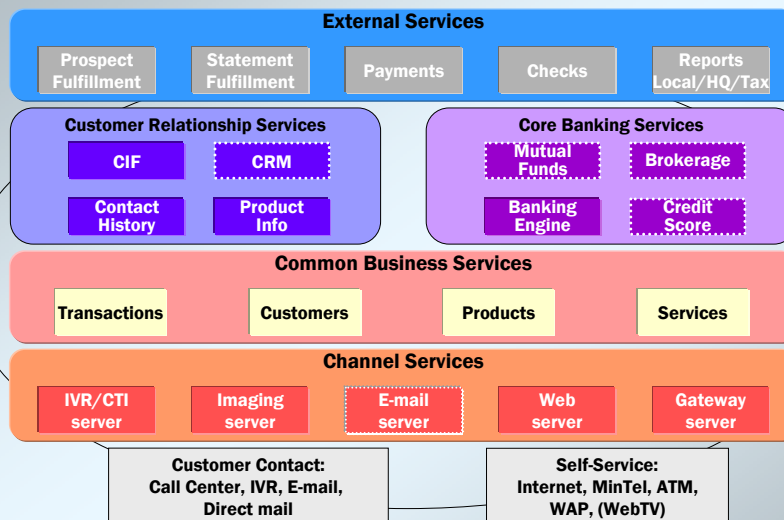


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Source: D. Robertson, "ING Direct: The IT Challenge (A) and (B)," working paper, IMD, 2003 and J. Ross, P. Weill, and D. Robertson, *Enterprise Architecture as Strategy: Creating a Foundation for Business Execution*, HBS Publishing, 2006.

ING Direct – a Modular Business Model



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Source: Robertson, D. "ING Direct: The IT Challenge (B)", 2003, IMD-3-1345. Used with permission.

Learning Requirements of the Architecture Stages

Stage Name	Business Silos	Standardized Technology	Optimized Core	Business Modularity
IT Capability	Local IT applications	Shared technical platforms	Enterprise-wide hardwired processes or databases	Plug & play business process modules
Business Objectives	ROI of local business initiatives	Reduced IT costs	Cost and quality of business operations	Speed to market; Strategic agility
Funding Priorities	Individual applications	Shared infrastructure services	Enterprise applications and data stores	Reusable business process components
Key Management Capability	Technology-enabled change management	Design and update of standards; funding shared services	Core enterprise process definition and measurement	Management of reusable business processes
Who Defines Applications	Local business leaders	IT & business unit leaders	Senior management and process leaders	IT, business and industry leaders
Key IT Governance Issues	Measure and communicate value	Establish local/regional/global responsibilities	Align project priorities with architecture objectives	Define, source & fund business modules

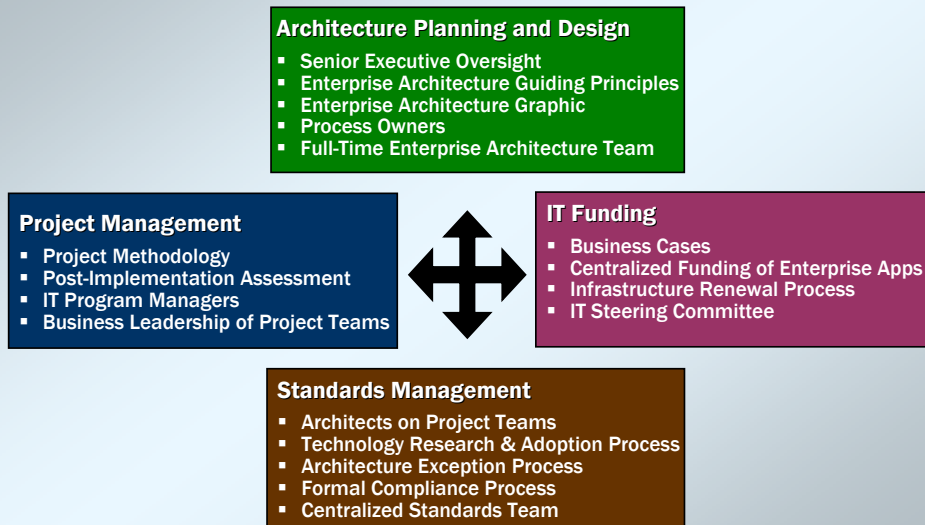


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Source: *Enterprise Architecture as Strategy: Creating a Foundation for Business Execution*, J. Ross, P. Weill, and D. Robertson, Harvard Business School Press, 2006.

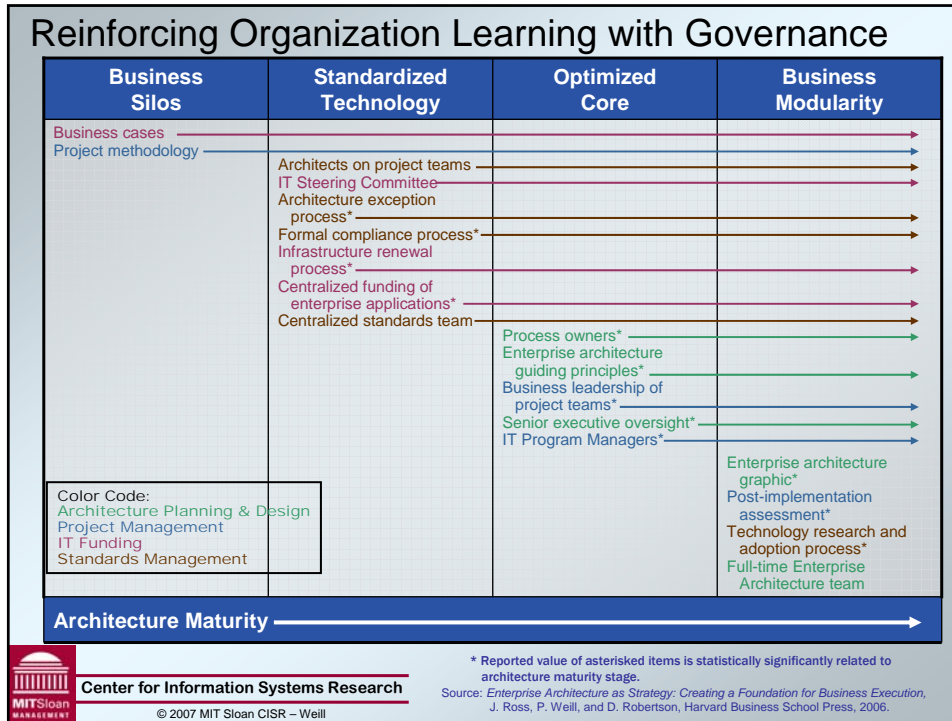
Four Critical Architecture Competencies



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Management practices within each practice set are statistically significantly correlated with each other. All four competencies are significantly correlated with architecture benefits.




How to Succeed with Enterprise Architecture

- **Governance institutionalizes learning.**
Light weight governance helps firms not re-learn the same lesson
- **Make tough choices.**
Enterprise architecture enables and constrains business strategy by creating a stable platform for business execution. Management must specify how to operate.
- **Build capabilities, not solutions.**
This is the only way to avoid silos and create a powerful foundation for execution.
- **Do not skip stages.**
Generating value from architecture investments is a learning process. Aggressive investment in IT capabilities can be slow to generate a return.
- **Allow time for learning.**
Introduce key management practices and don't give up on them.
- **There is no substitute for strong senior management leadership.**
Firms getting strategic business benefits from an operating model have senior business leaders who are actively involved in its design, management and implementation.




What's Next?


Stage Name	Business Silos	Standardized Technology	Optimized Core	Business Modularity	Dynamic Venturing
Business Objectives	ROI of local business initiatives	Reduced IT costs	Cost and quality of business operations	Speed to market; Strategic agility	ROI of new business ventures
IT Capability	Local IT applications	Shared technical platforms	Enterprise-wide hardwired processes or databases	Plug & play business process modules	Seamless merging with partners' systems
Key Management Capability	Technology-enabled change management	Design & update of standards; funding shared services	Core enterprise process definition and measurement	Management of reusable business processes	Create self-contained business components
Who Defines Applications	Local business leaders	IT & business unit leaders	Senior management and process leaders	IT, business and industry leaders	IT, business & industry leaders & partners
Key IT Governance Issues	Measure and communicate value	Establish local/regional/global responsibilities	Align project priorities with architecture objectives	Define, source & fund business modules	Joint venture, partnership governance
Strategic Implications	Local Optimization	IT Efficiency	Operational Efficiency	Strategic Agility	Rapid Reconfiguration


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Source: *Enterprise Architecture as Strategy: Creating a Foundation for Business Execution*, J. Ross, P. Weill, and D. Robertson, Harvard Business School Press, 2006.
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Characteristics of the Four Operating Models			
Business Process Integration	High	<p>Coordination</p> <ul style="list-style-type: none"> ▪ Shared customers, products or suppliers ▪ Impact on other business unit transactions ▪ Operationally unique business units or functions ▪ Autonomous business management ▪ Business unit control over business process design ▪ Shared customer/supplier/product data ▪ Consensus processes for designing IT infrastructure services; IT application decisions are made in business units 	<p>Unification</p> <ul style="list-style-type: none"> ▪ Customers and suppliers may be local or global ▪ Globally integrated business processes often with support of enterprise systems ▪ Business units with similar or overlapping operations ▪ Centralized management often applying functional/process/business unit matrices ▪ High-level process owners design standardized process ▪ Centrally mandated databases ▪ IT decisions made centrally
	Low	<p>Diversification</p> <ul style="list-style-type: none"> ▪ Few, if any, shared customers or suppliers ▪ Independent transactions ▪ Operationally unique business units ▪ Autonomous business management ▪ Business unit control over business process design ▪ Few data standards across business units ▪ Most IT decisions made within business units. 	<p>Replication</p> <ul style="list-style-type: none"> ▪ Few, if any, shared customers ▪ Independent transactions aggregated at a high level ▪ Operationally similar business units ▪ Autonomous business unit leaders with limited discretion over processes ▪ Centralized (or federal) control over business process design ▪ Standardized data definitions but data locally owned with some aggregation at corporate ▪ Centrally mandated IT services
		Low	High
Business Process Standardization			
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