Carnegie Mellon
Graduate School of Industrial Administration

IT Strategy

Case Study of a Recent Client Experience

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ATKEARNEY

Today's discussion...

- Background of Company
- Company IT Overview
- Cause for Action
- IT Strategy Approach
- Application Architecture
- Technical Architecture
- Establish the IT Program Office
- Organizational Effectiveness and IT Alignment
- Summary

Background of company

Company A announced their intended merger with Company B in 1999

Company A

- Began in 1909 as a partnership between an innovative chemist and a businessman
- Pioneering work in leather tanning
- Best known for expertise in acrylic chemistry
- Essential component to detergents, diapers, cell phones, industrial coatings, and more
- 50 manufacturing, research, and technical facilities worldwide
- Sales in 100 countries, totaling $4 billion annually

Company B

- 1848, founding
- Largest and most recognized business for a particular consumer product
- Major supplier of basic inorganic chemicals derived from salt
- Essential ingredients in CDs, newspapers, magnetic tapes, sports equipment, and more
- 36 mining and processing facilities, 68 chemical manufacturing, research, and technical facilities worldwide
- Sales total $2.5 billion annually

The focus of the integration was to quickly achieve operational synergies while combining the organizations to support top line revenue growth

Achieve Business Value Goals as Quickly as Possible

- Achieve $200 million of savings within 12-18 months (running rate by 2001)
  - Ensure customer retention
  - Corporate Center rationalization
  - Administrative overhead reduction
  - Sourcing/Procurement savings
  - Product line and operations rationalization
  - Manufacturing productivity and supply chain improvements
  - Reduction in technology costs

- Drive the short-term value
- Exceed the market's expectations

Integrate the Organizations as Seamlessly as Possible

- Develop and communicate a shared strategic agenda
- Define organization structures, key business processes and technology platform/architecture
- Select leaders and staff positions
- Develop metrics and budgets
- Integrate the business

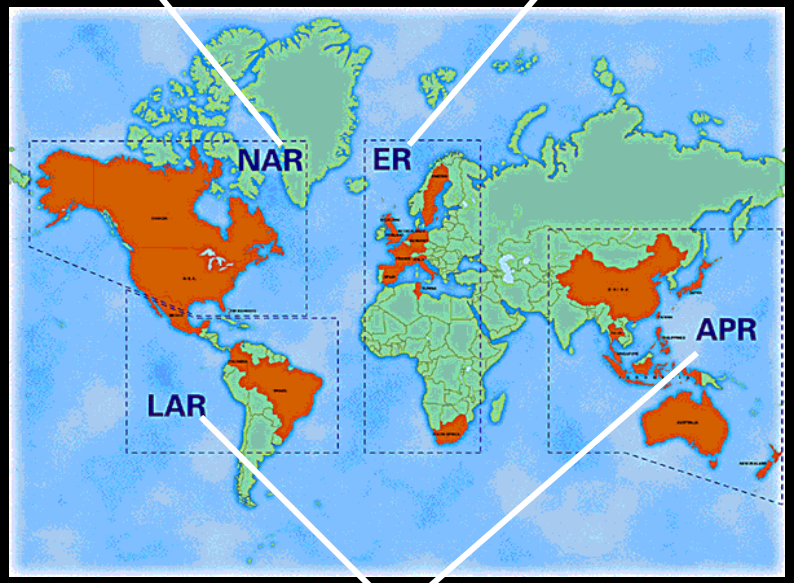
- Integrate day-to-day operations
- Position for the future growth

A.T. Kearney was asked to structure, drive and manage the entire integration process for what would become one of the largest specialty chemical companies

While the potential source of the synergies were somewhat clear, smooth and timely integration of the two companies was less assured

North American Region Operations
60% of sales
60 manufacturing facilities
230 distribution sites(1)

European Region Operations:
30% of sales
40 manufacturing facilities
60 distribution sites



Latin America and Asia-Pacific Region Operations:
10% of sales
20 manufacturing facilities
10 distribution sites

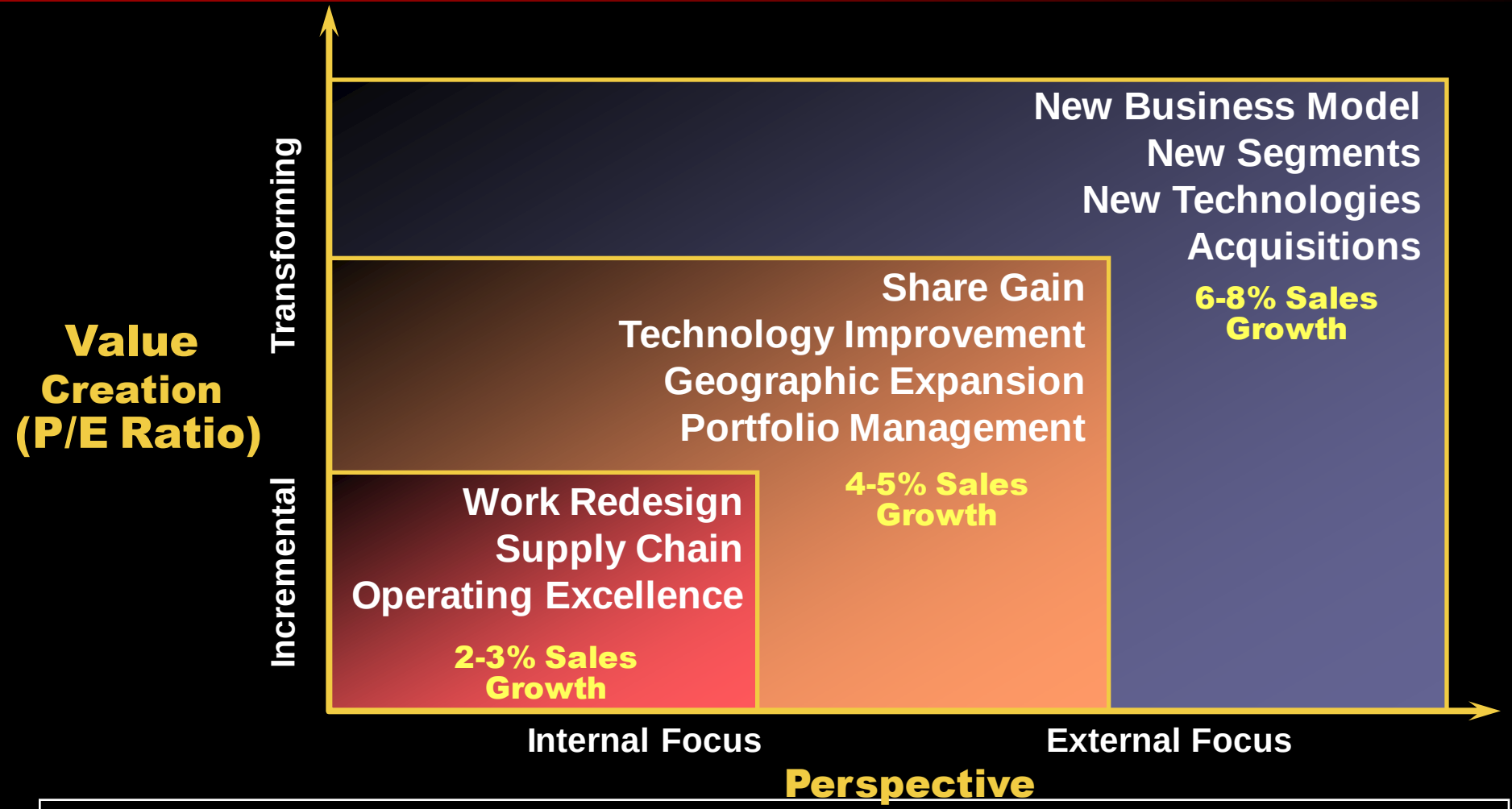
Challenges

- Some manufacturing processes and technologies were incompatible between the two companies
- Combining two companies with both direct product overlap
- Acquiring company was more of a "intermediates producer" and the acquired company was more of a "formulator"
- Significant facilities consolidation opportunities
- Distribution consolidation and improvement required changing the business model and the mindset
  - Standard lead times
  - Standard service levels
- Significant customer overlap
- Significant EH&S issues needed to be addressed, competing away scarce capital resources

After an accelerated integration program, the merger was deemed a success by the CEO as well as the analyst community

- "By the end of 3Q, the new company had achieved cost reductions of $100MM on an annualized basis, three months ahead of schedule." — *Morgan Stanley Dean Witter*
- "Already, the company has achieved a $100MM annual run rate in cost savings ahead of schedule…" — *Janney Montgomery Scott*
- "The integration process is running smoothly and in fact better than expected achieving a $100 MM lower run rate…" — *J.P. Morgan Securities*
- "The integration efforts continue to track ahead of plan…" — *Deutsche Banc Alex Brown*
- "Considering the steep increase in raw material costs, the new company was able to meet expectations with its rapid integration of the acquired company's operations…" — *Brown Brothers Harriman*

Following the integration, the CEO's Agenda is to double the rate of growth while maintaining high levels of profitability



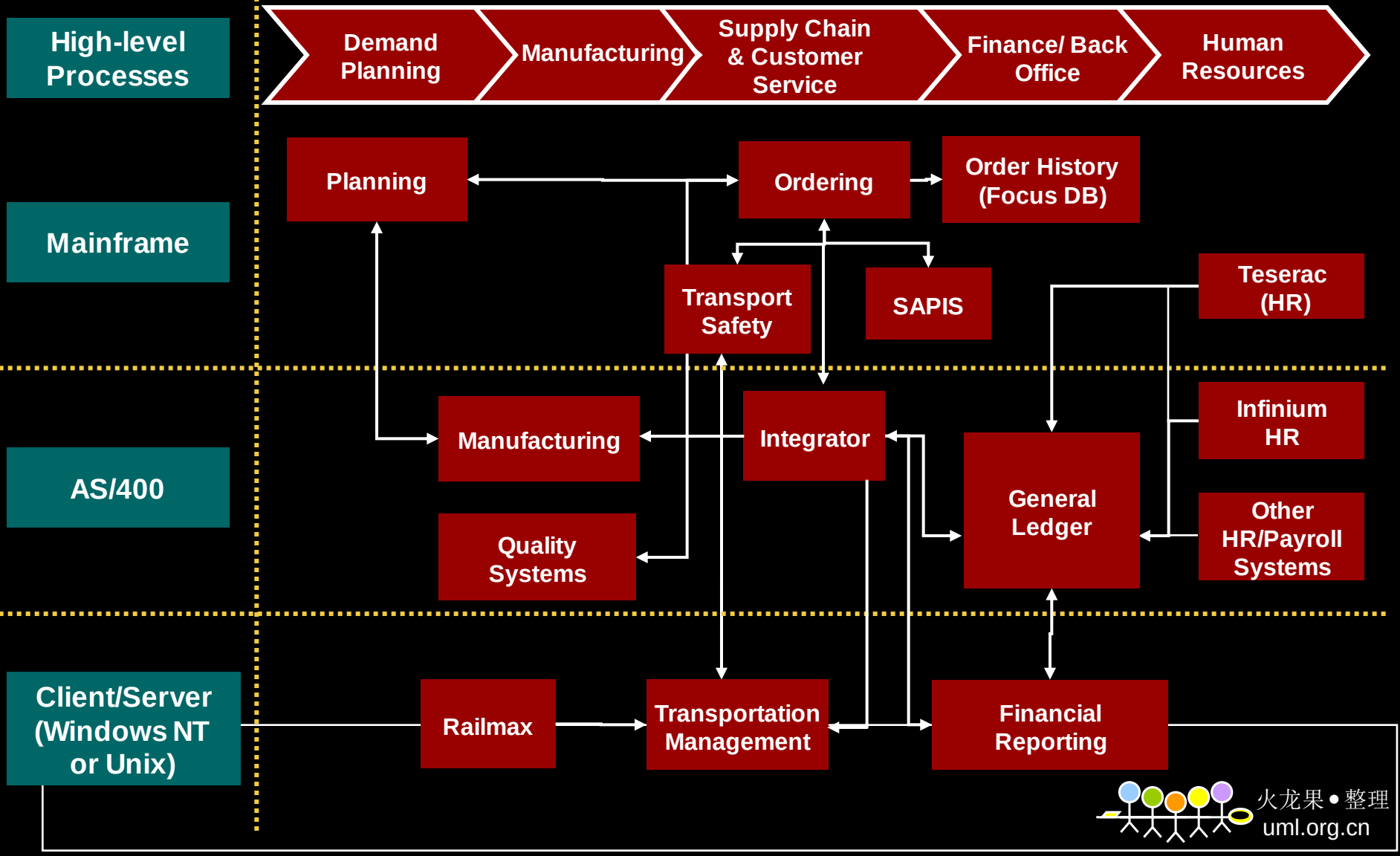
Cost improvement, customer service and retention and e-business have been identified as key areas of focus

NewCo's business strategy will place additional demands on the entire organization

Strategic Imperative	Target Capabilities
Growth / Agility	◆ Rapid assimilation of acquisitions with limited additional financial staff ◆ Global shared services ◆ IT provides a strategic advantage in support of growth initiatives
Cost Improvement	◆ Global processes and metrics ◆ Interim information on sales, profitability and cost of operation ◆ Automation of routine processes and transactions ◆ Financial staff is aligned with the business
Customer Service & Retention	◆ Continuous launch of service offerings that cannot be easily matched by competitors ◆ Quality built into an automated processes ◆ Humans manage the relationship not transactions
e-Business	◆ Integrated supply chain network (S&OP process) across multiple enterprises ◆ Inventory commitment using production, sales and balances ◆ Ability to reach customers globally without a local presence

Company IT Overview

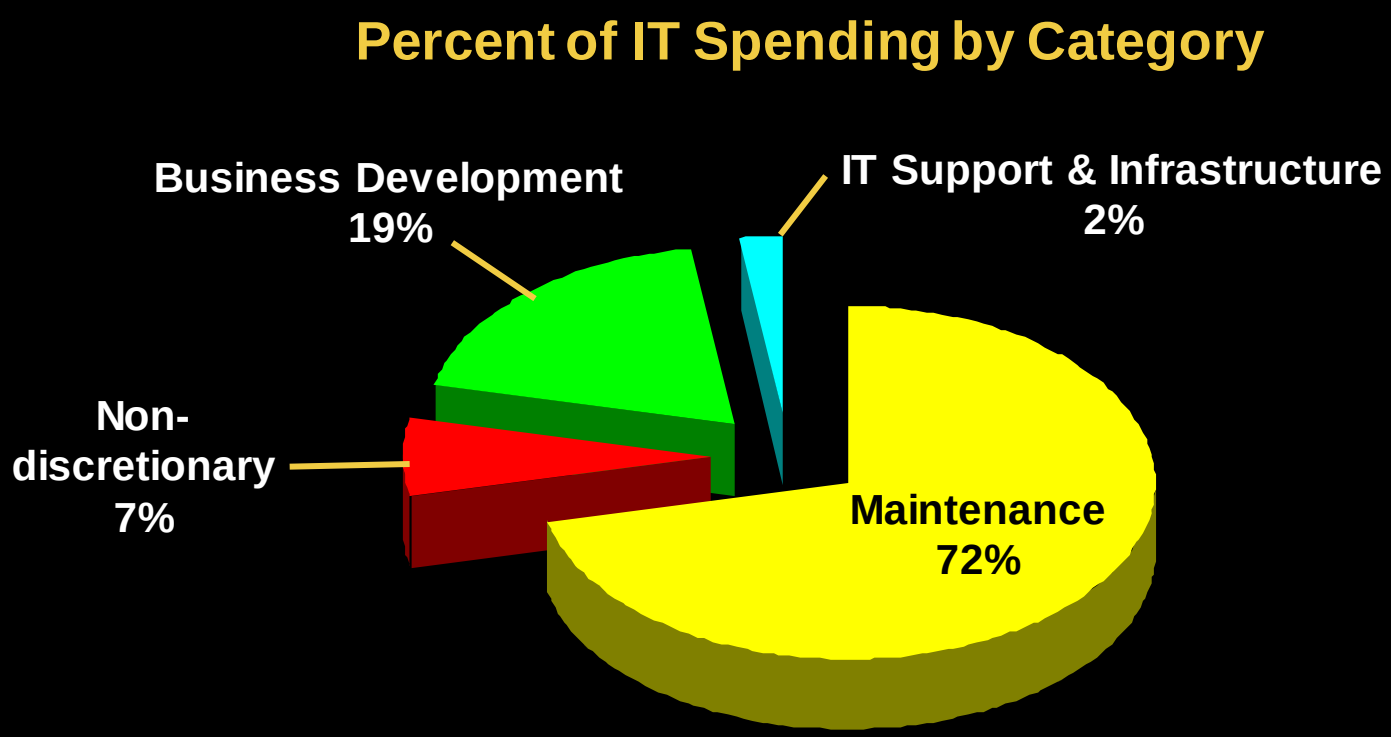
Current transactional systems are complex, reside on multiple platforms and are integrated through a network of interfaces



Intrinsic manual processes result in a high cost effort that cannot support the speed of today's e-business environment

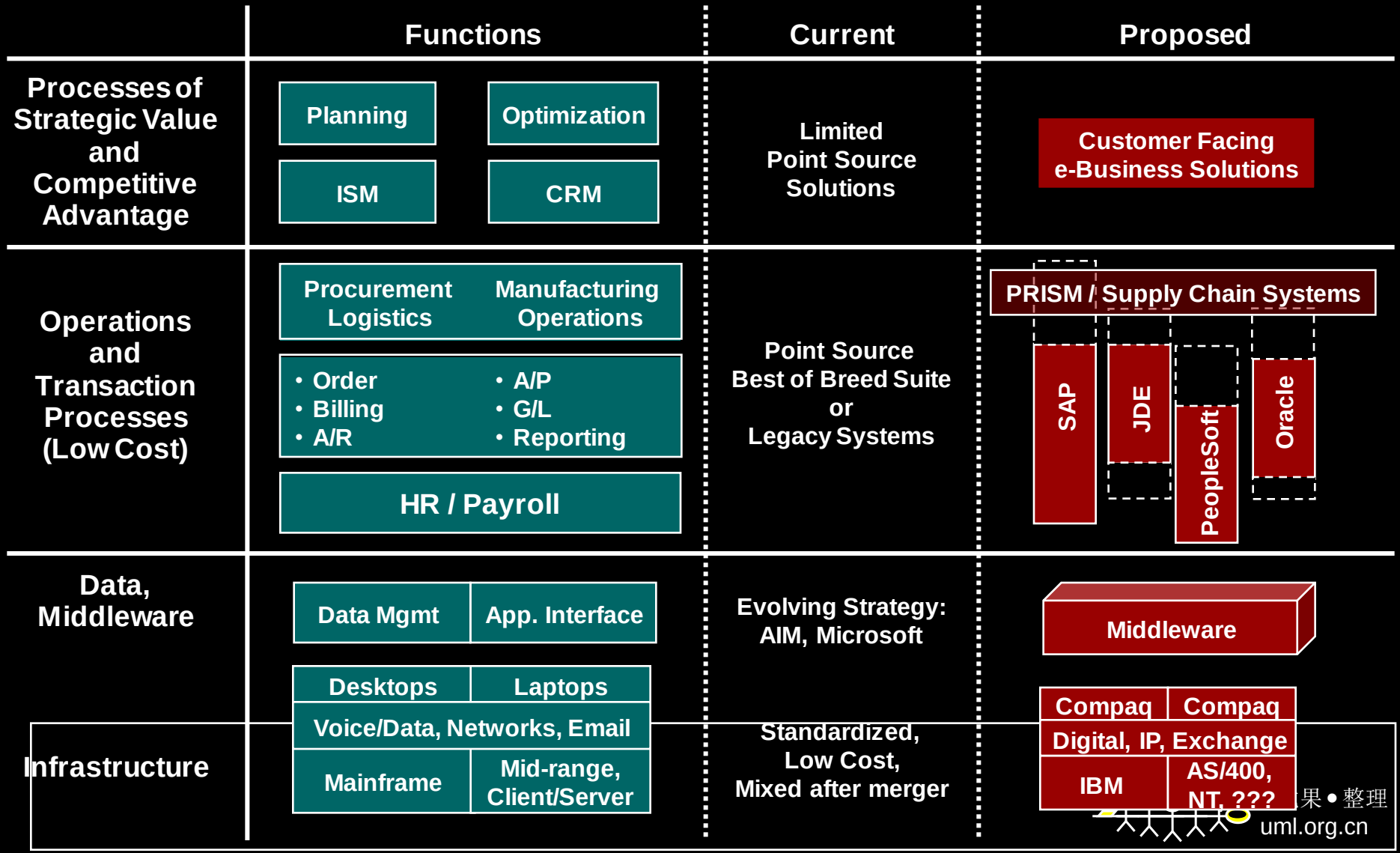
Strategic Imperative	Observed Key Theme
Growth / Agility	◆ Lack of automation prohibits additional workforce leverage ◆ Systems are running out of physical capacity ◆ Incremental improvement mindset limits strategic development
Cost Improvement	◆ Focus is on reconciling balances and correcting errors and not root cause error prevention ◆ Processes (especially billing) are manually intensive ◆ Global processes are desirable but difficult to implement consistently ◆ Transaction systems are becoming increasingly difficult to maintain
Customer Service and Retention	◆ Special customer requirements and services (e.g.SOMI) are implemented but at a relatively high cost ◆ Inspection of errors protects/ masks the customer from errors inherent in the system
e-Business	◆ Manual intervention presents a barrier ◆ Business information is not easily assimilated ◆ Quality of global customer information is suspect

Roughly 72% of the IT budget is spent on maintaining current service levels and infrastructure



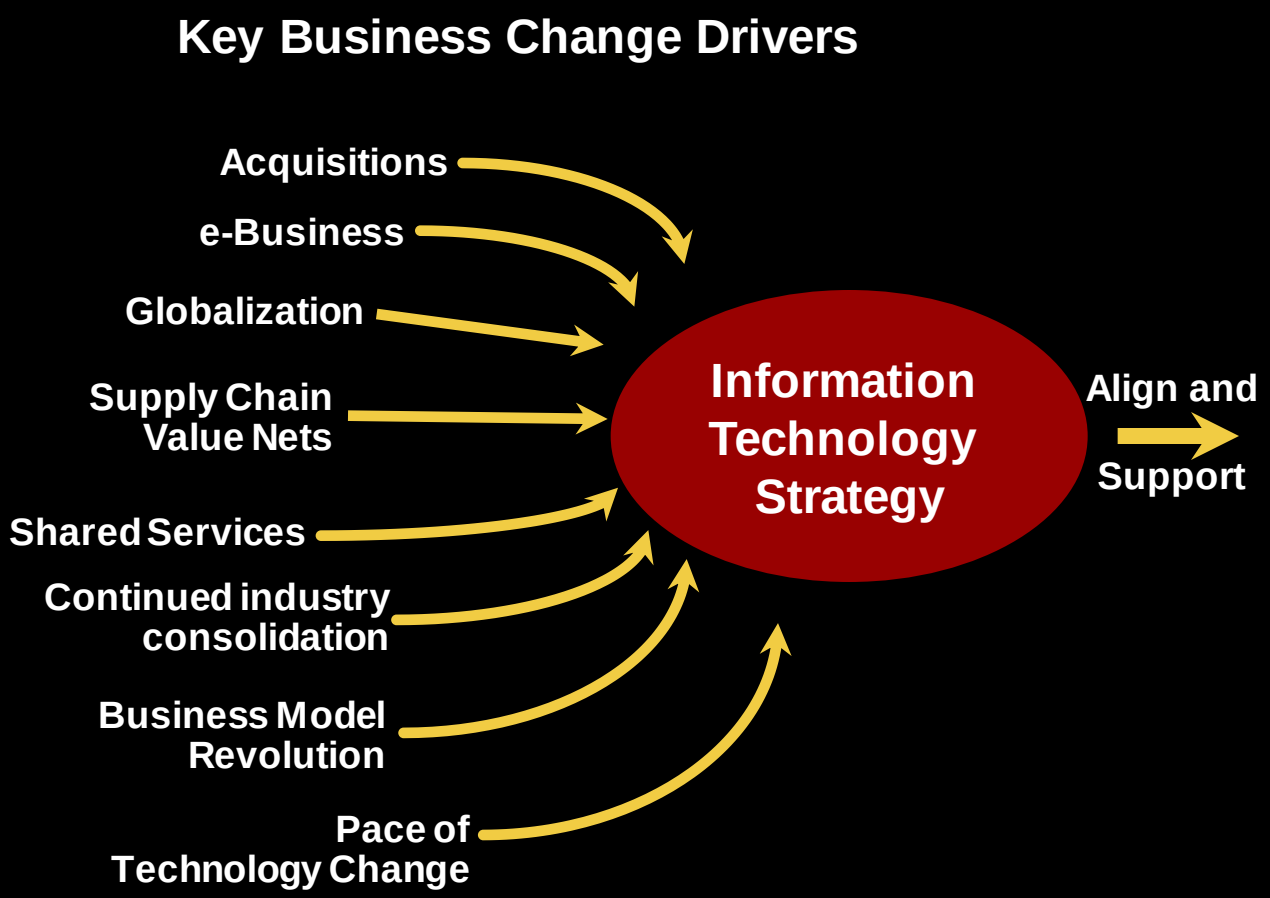
To maximize business value, we need to shift the spending from maintenance to business development and long term IT support and infrastructure

A future vision of the enterprise architecture must seamlessly and efficiently integrate core business processes in an e-business environment



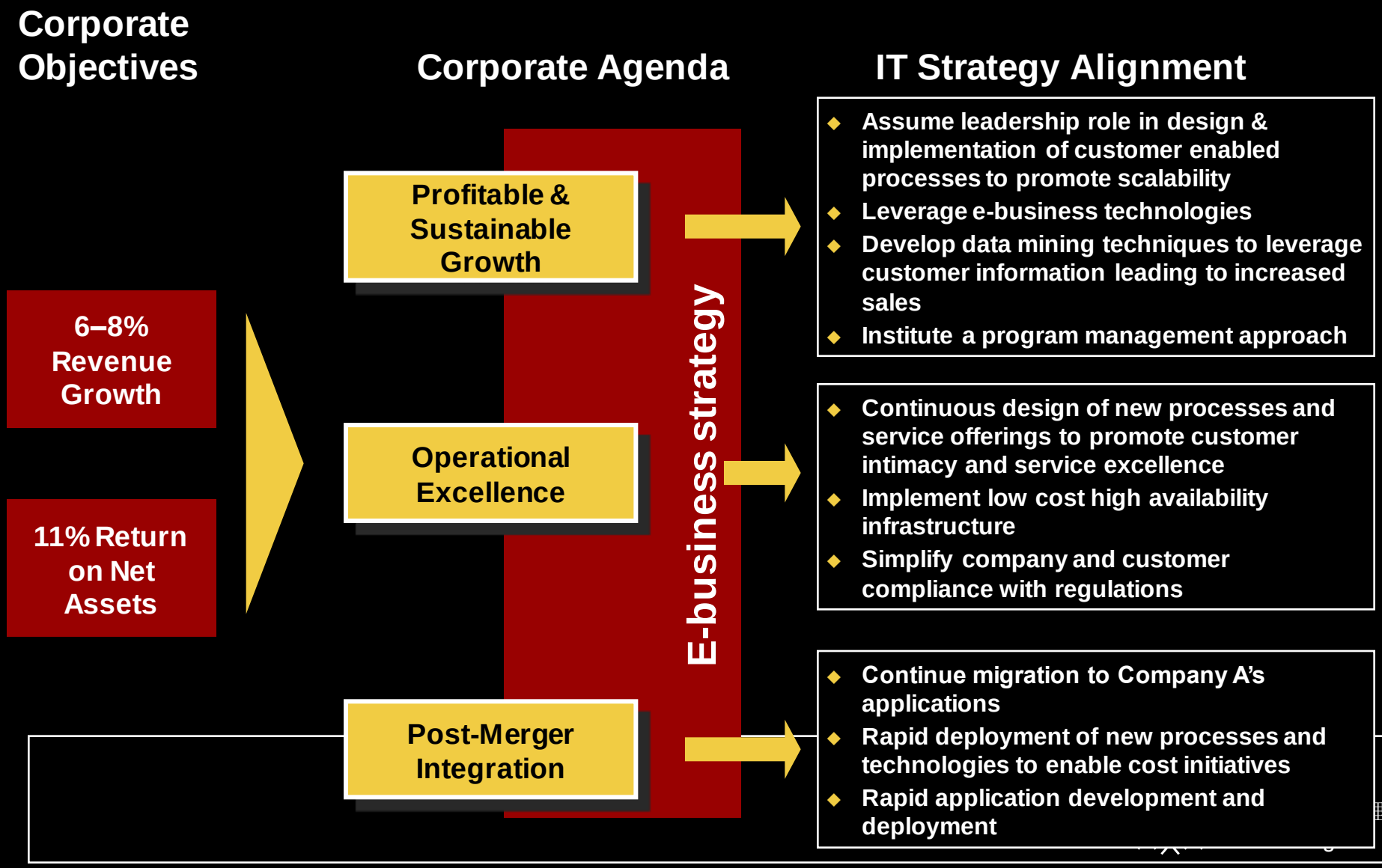
Cause for Action

An updated IT strategy is necessary to align the organization and its service offerings to business unit requirements and operating models

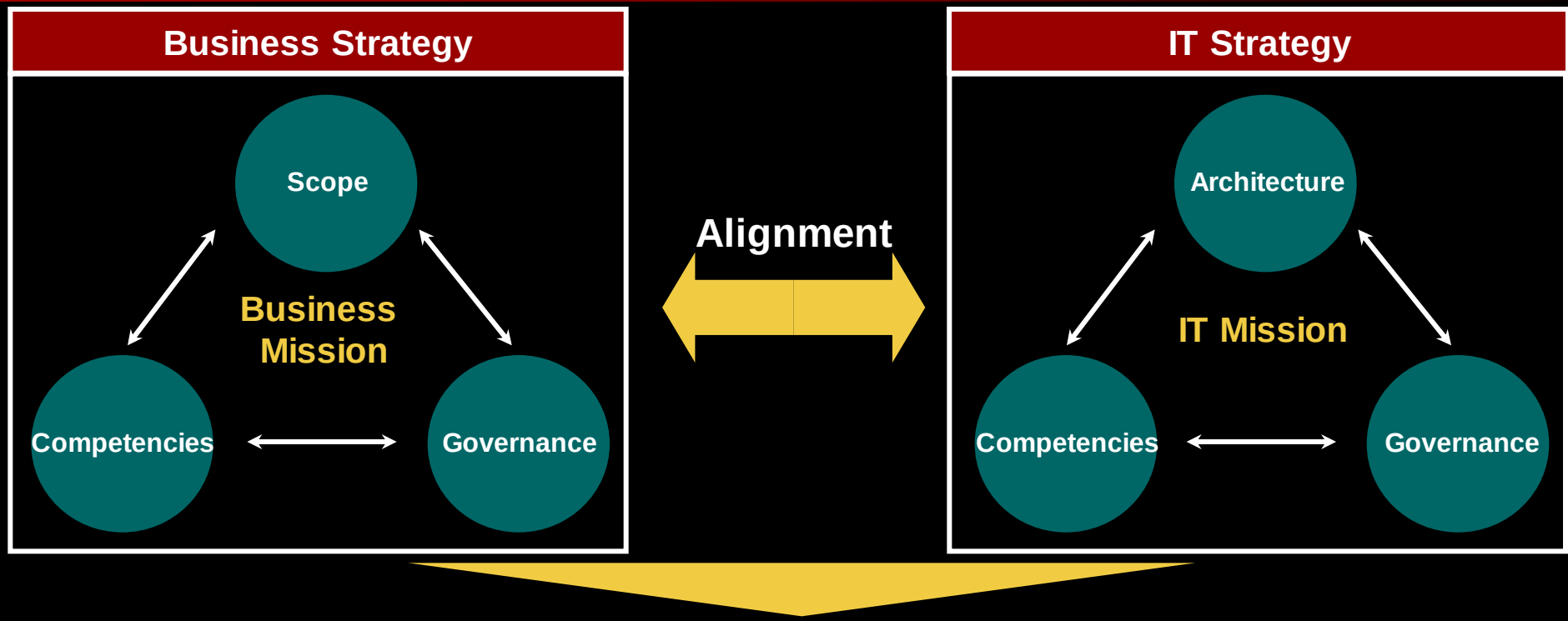


Information technology must reinvent itself to develop capabilities that deliver substantial business value at the pace of today's business environment

Linking the strategy to the CEO agenda reinforces IT's commitment to be a high value service partner



The IT strategy aligns with business strategies to define matching priorities, complementary capabilities, and compatible organization dynamics

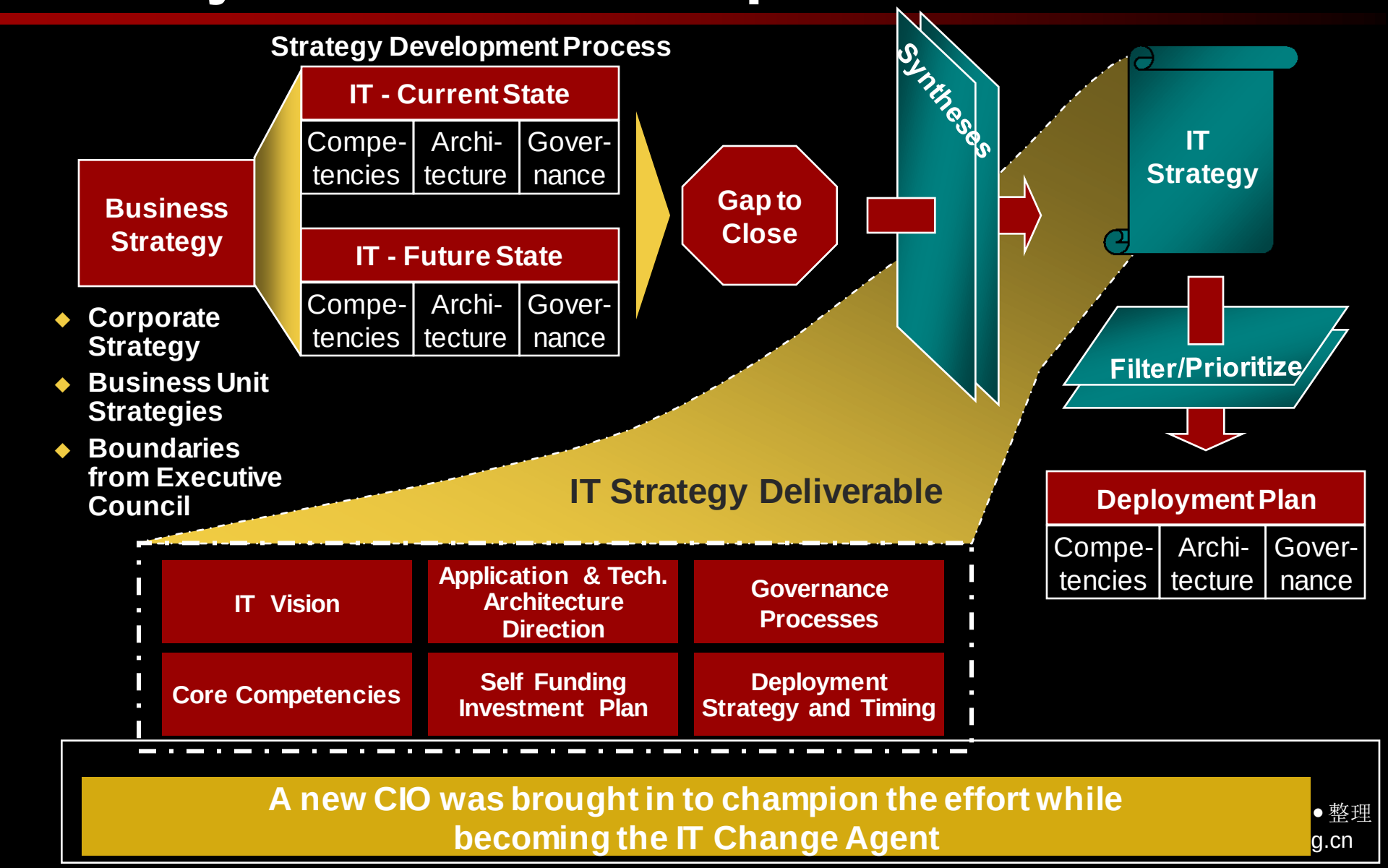


IT Strategy Outcomes

- Align the IT organization to meet business unit requirements of the new Company
- Develop and communicate the application and technical architecture direction
- Replace the current technical "roadmap" with a comprehensive and specific deployment flight plan depicting timing for replacing applications and technologies and implementing process/ service changes
- Implement a program management process to determine IT investment priorities & set IT direction

IT Strategy Approach

The IT Strategy is comprised of an IT vision, strategy and deployment plan that will enable rapid delivery of cost effective IT products and services



A set of guiding principles will allow us to "rethink" the current way of doing business as we progress our strategy development process

- The applications and technical infrastructure must be aligned with business strategies and create substantial shareholder value
  - IT will focus its energy on competencies that are results driven and add significant business value
  - Our goal should be to deliver project results in half the time and half the cost (time to market is essential)
  - IT budget will be owned and driven by the business for discretionary projects
- The organization will adopt a virtual and collaborative approach to address business problems
- The future state will drive our strategy design; how we do things today may influence our future — but there are no sacred cows
- We must provide significant growth opportunities for our people to attract and retain a highly skilled and motivated staff
- We will share clear, unified communications at every level led by IT Leadership Team

Four parallel workstreams will contribute to development of the IT vision, strategy and deployment plan

Organizational Effectiveness and IT Alignment

- How should the organization be aligned to the businesses?
- What competencies should be developed to meet the challenges of today's business climate?

Establish the IT Program Office

- What process is required to prioritize and manage the IT portfolio?
- How should IT best involve senior management and the broader organization in the IT process?

IT Strategy Project

Application Architecture

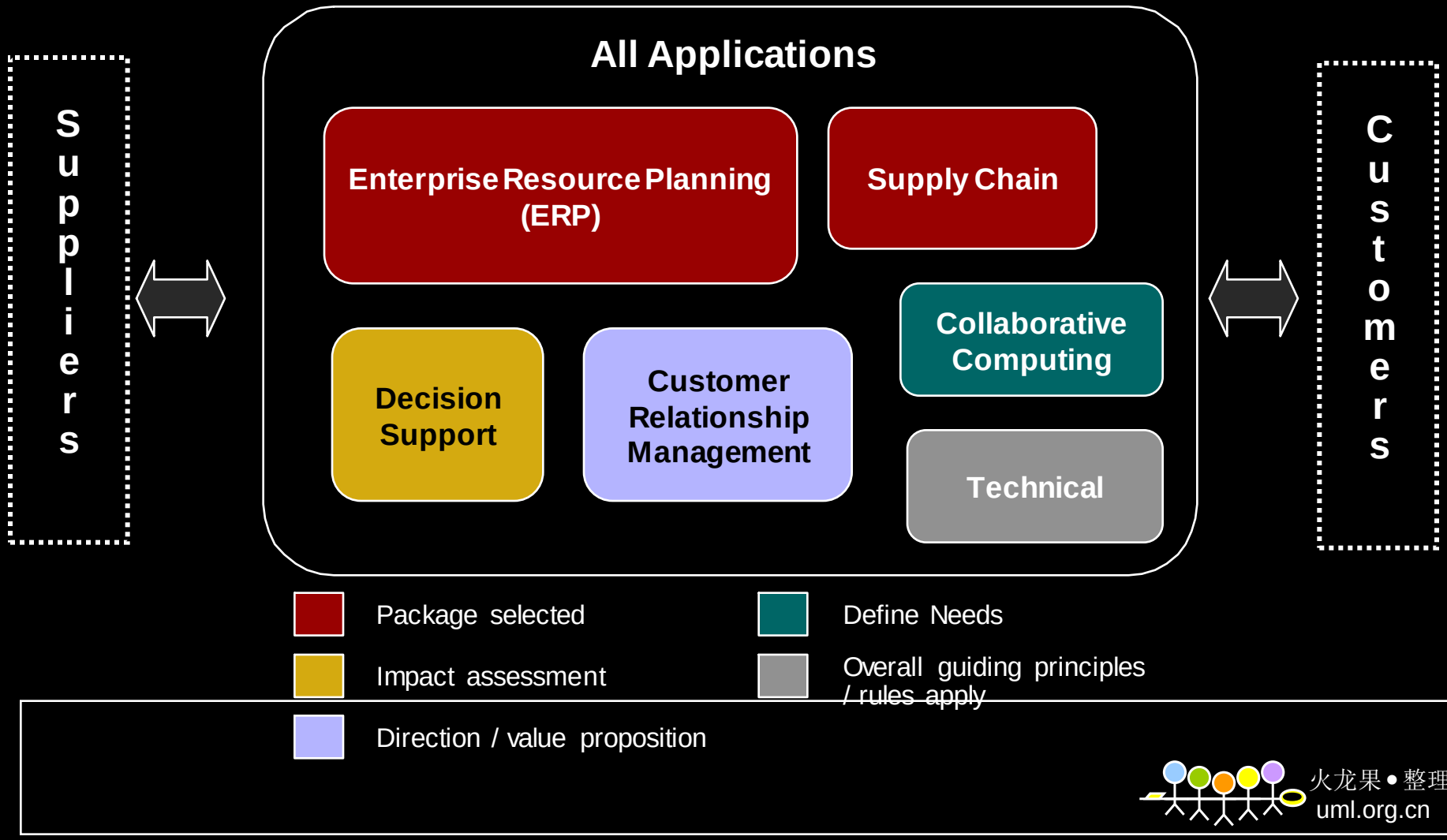
- What specific application suite will best meet transaction processing requirements?

Technical Architecture

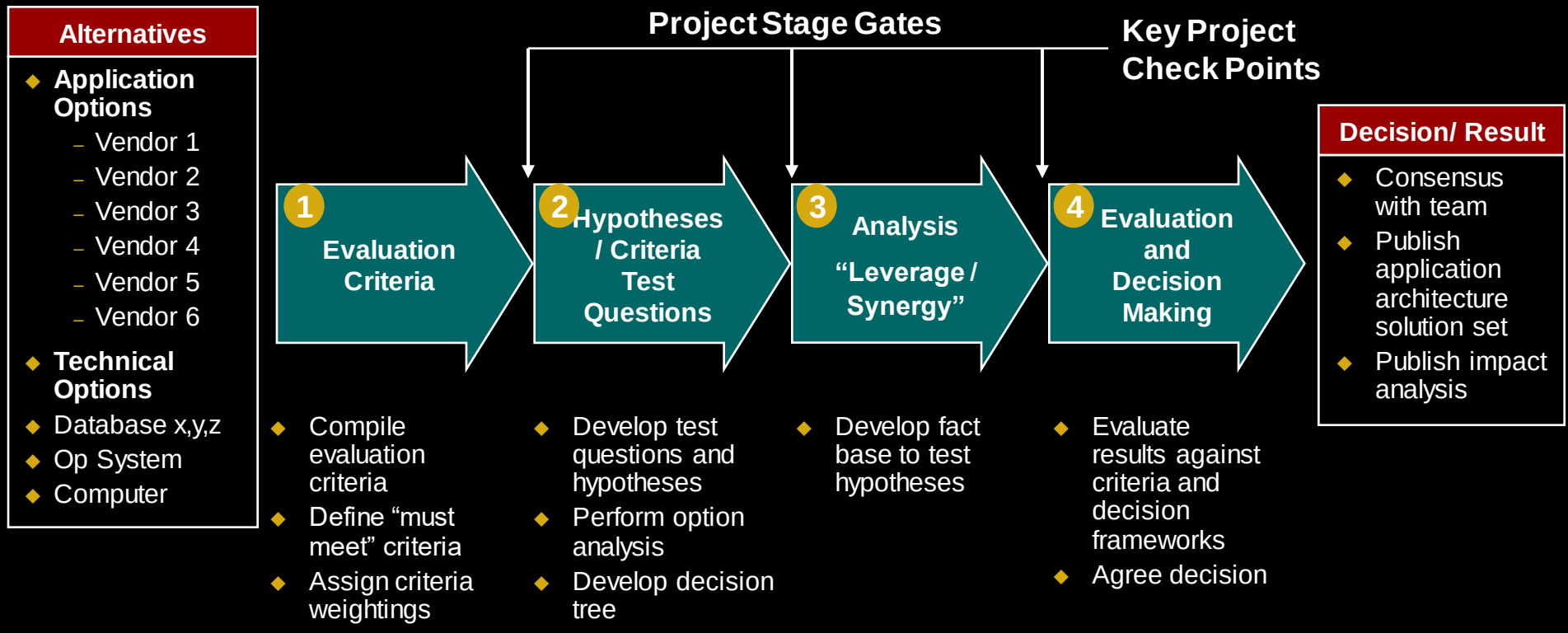
- What platform(s) is most effective for the chosen application suite?
- How should we support the company's e-business requirements?

Application Architecture

The applications architecture will result in an ERP "backbone" vendor selection and provide guidance and direction for all other applications



The application architecture team is following a structured analysis process that test vendor solutions against our decision criteria



The vendors will be evaluated against four pre-defined dimensions, each of which will be weighted by business stakeholders

Strategic

- Growth, agility
- Customer service and retention
- E-business
- Cost containment
- Vendor and product strategy

Functional Requirements

- Supports process manufacturing
- Order to cash
- Financial
- Reporting
- Processing sequence
- Ease of use

Technical Environment

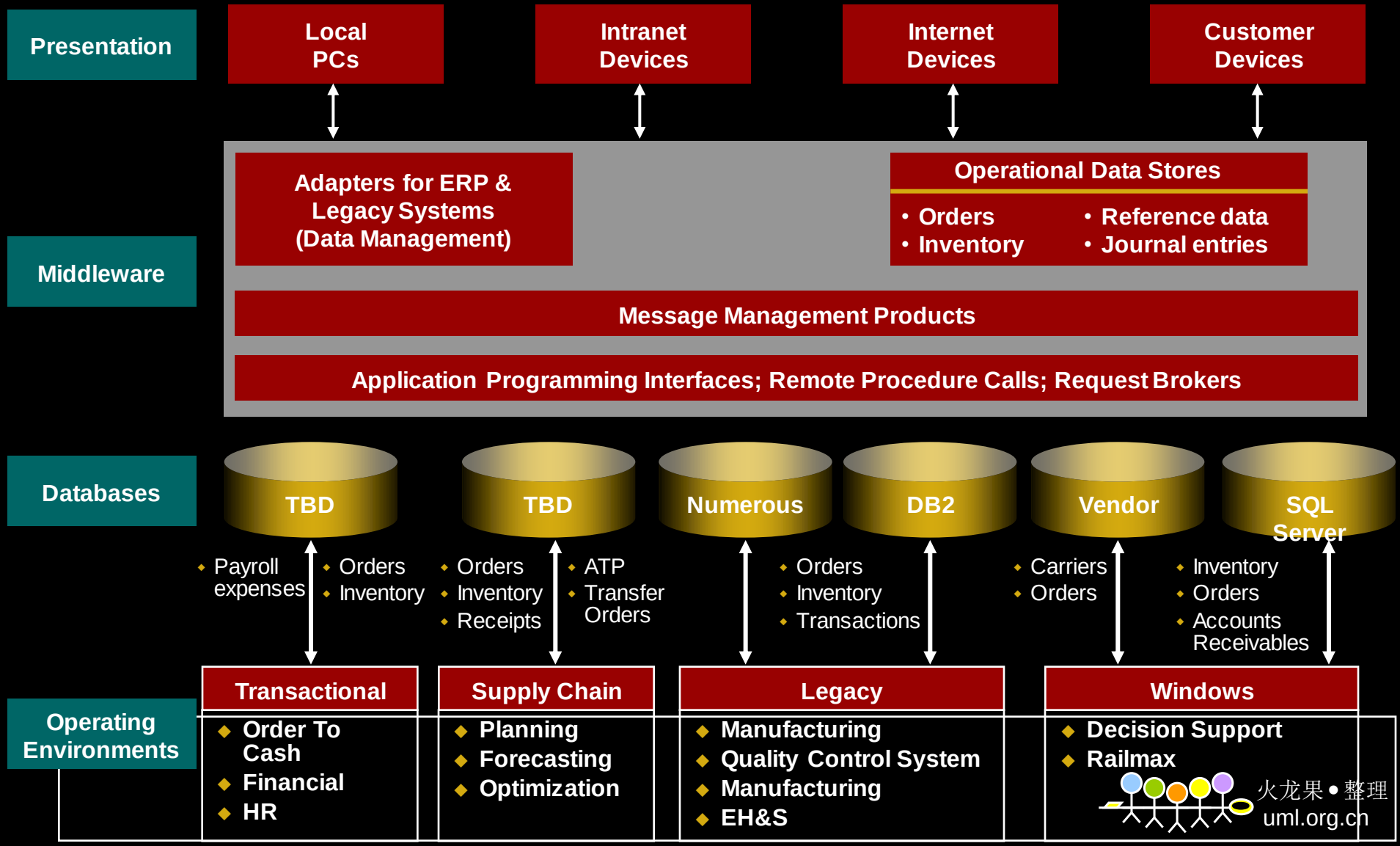
- Technical architecture
- Administration services
- Interfaces
- Documentation and vendor support

Investment / Viability

- Software and hardware costs
- Bolt-on and interfaces costs
- Implementation and conversion costs
- Training costs
- Financial status
- Organizational strength
- Vendor commitment
- Embedded base / References
- Market position
- Customer support
- Training
- Cultural fit
- Implementation resources
- Implementation Risk

Technical Architecture

The technical architecture workstream will develop a comprehensive environment to take advantage of new technologies and value added applications...



… to maximize the information exchange internally and externally

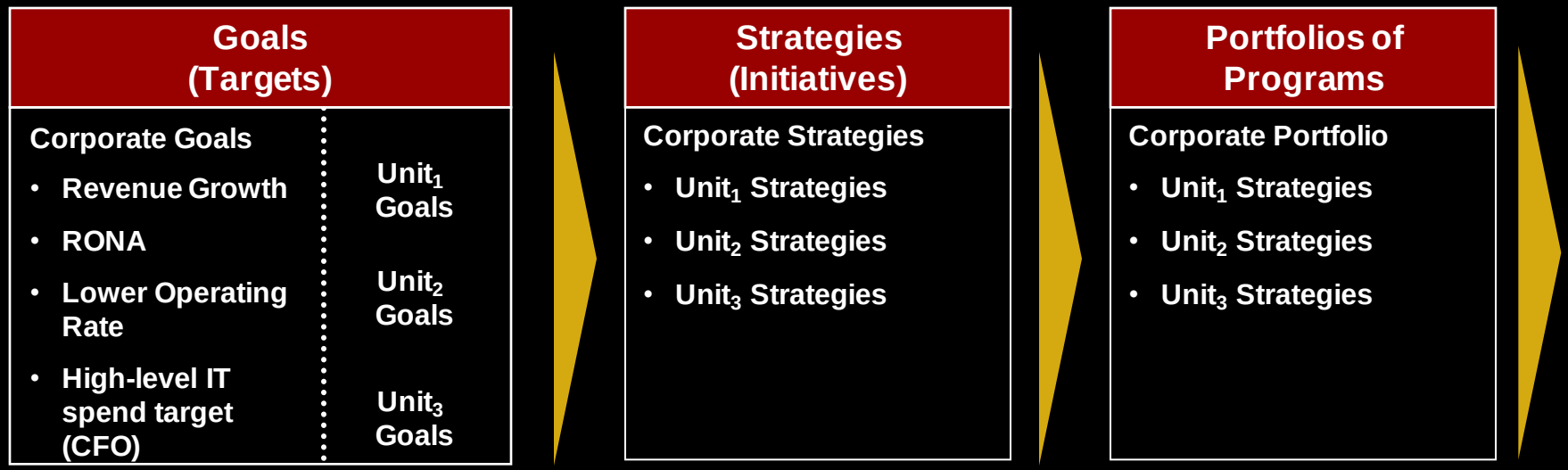
Key Issues	Deliverables
◆ What is the most viable technical platform(s) for the new Application portfolio? ◆ What is the optimal middleware solution: ERP vendor-supplied, third party or both? ◆ How much do ERP and middleware solutions minimize the effort of developing / maintaining interfaces? ◆ Does the new technical direction adequately address standardization of data across the enterprise? ◆ Will the new technical direction align with existing decision support and emerging e-business strategies? ◆ What impact do these architecture decisions have on current technical skills and competencies? ◆ What new developer tools and platforms will be required to support this technical strategy?	**ERP Technical Architecture Roadmap** ◆ Outlines the hardware operating system and database platform selected for implementing ERP solutions **Middleware Tool Strategy** ◆ Defines the conceptual middleware solution and details the middleware product(s) required to implement the strategy **Decision Support Strategy** ◆ Defines the technical solution required to satisfy business requirements and leverage new related technologies and the company's IT strategy **Cost Saving Opportunities** ◆ Details cost savings in IT infrastructure costs and defines the impact on the structure of IT Infrastructure and Support

Establish the IT Program Office

The program office workstream will establish processes for portfolio management, governance, communications and program/project management

Components	Portfolio Management	Governance	Communication	Program and Project Management
Objective	Create a framework for managing and allocating funds and resources	Develop critical rules of engagement with roles and responsibilities to govern IT	Define communication audiences and what they need to know	Create "workbooks" that outline Project and Program management processes
Areas of Focus	◆ Define and deploy a common portfolio management framework ◆ Develop metrics for the IT portfolio ◆ Develop a procedure for funds and resource allocation ◆ Integrate project approval procedures with Governance ◆ Revise 2000 budget	◆ Involve business representatives ◆ Perform day-to-day resource allocation ◆ Program and project management ◆ Integrate with capital planning and annual budgeting ◆ Develop Vision Statement	◆ Determine audiences, communication vehicles, timing ◆ Develop a plan ◆ Develop a program to expand executive awareness of IT initiatives and issues ◆ Communicate to all areas and geographies	◆ Define metrics ◆ Review and adopt tools ◆ Establish quality reviews ◆ Manage risk, scope and budget ◆ Manage issues ◆ Track benefits ◆ Develop frameworks and checklists

The portfolio management process starts with the overall corporate goals translating into portfolios of programs



Starting Points for IT Spend by Unit

Executive Council / CFO;
Last Year's Spend;
CIO / Guidance Team Adjustments

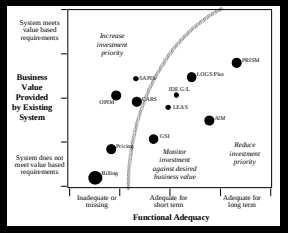
Then the portfolios are assessed by corporate, unit and guidance team

Corporate (Mandated) Level Portfolio Processes

CIO, ITLT

Develop "Proposals" → **Portfolio Mgmt. / Discussion** → **Draft Portfolio**

Program Proposal One
Program Proposal Two
Program Proposal Three



Programs to pursue

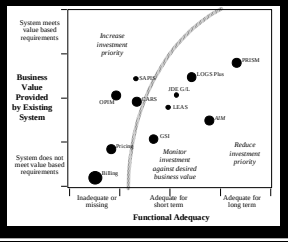
Programs to hold

Unit Level Portfolio Processes

Unit Leadership

Develop "Proposals" → **Portfolio Mgmt. / Discussion** → **Draft Portfolio**

Program Proposal One
Program Proposal Two
Program Proposal Three



Programs to pursue

Programs to hold

Overall Portfolio

Guidance Team

"Rationalize" Portfolios - Look for:

- Synergies
- Timing
- Resource / Cost Constraints

Corporate

Unit$_2$

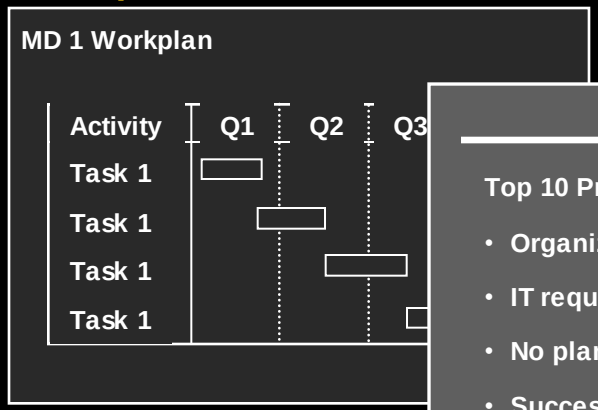
Unit$_1$

Portfolios will be reassessed quarterly

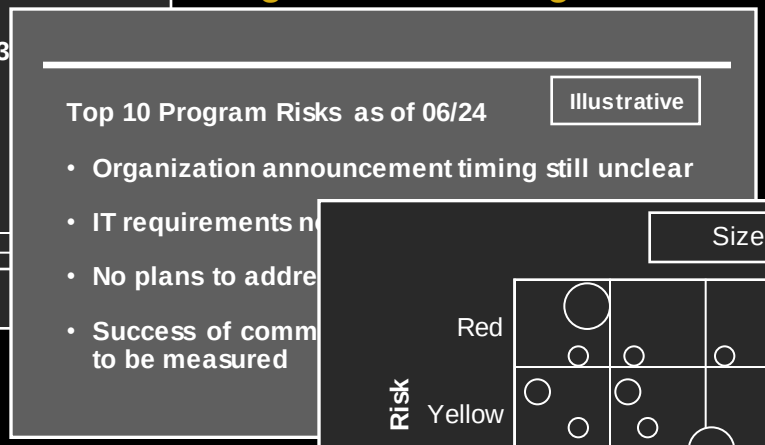
Once portfolio decisions are made, detailed program planning and tracking processes will follow

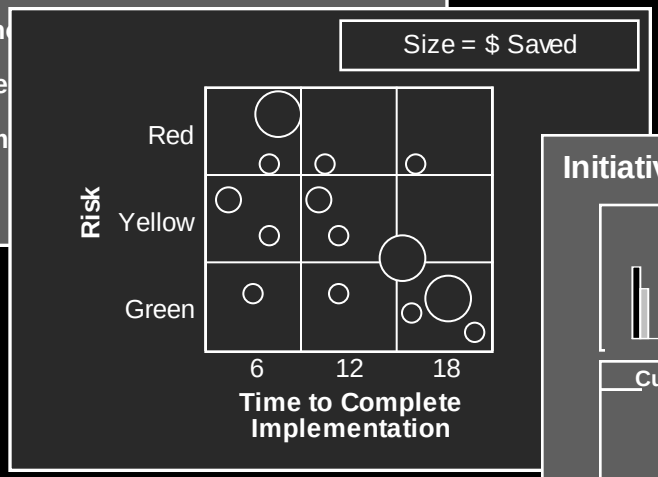
Implementation

Workplan

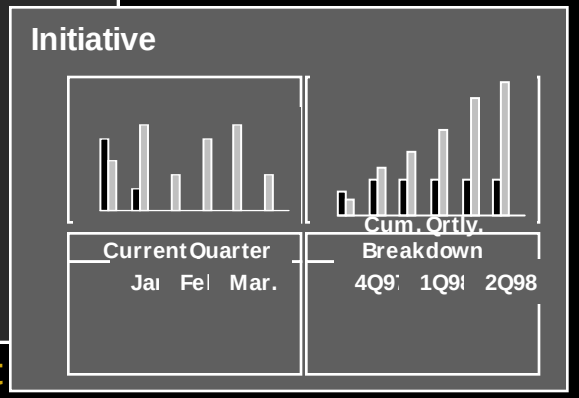


Program Risk Management





Initiative Status Management

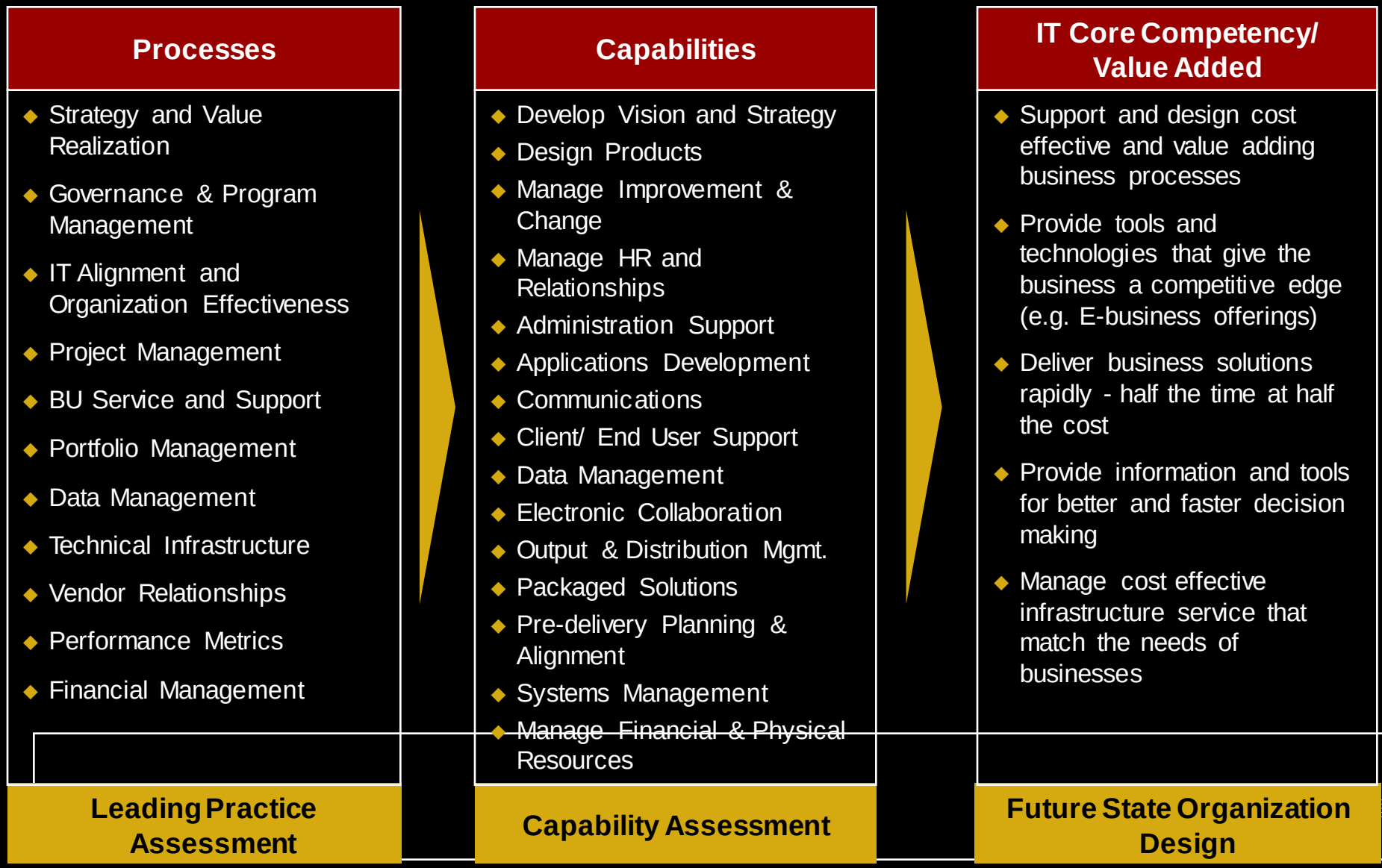


Program Achievement

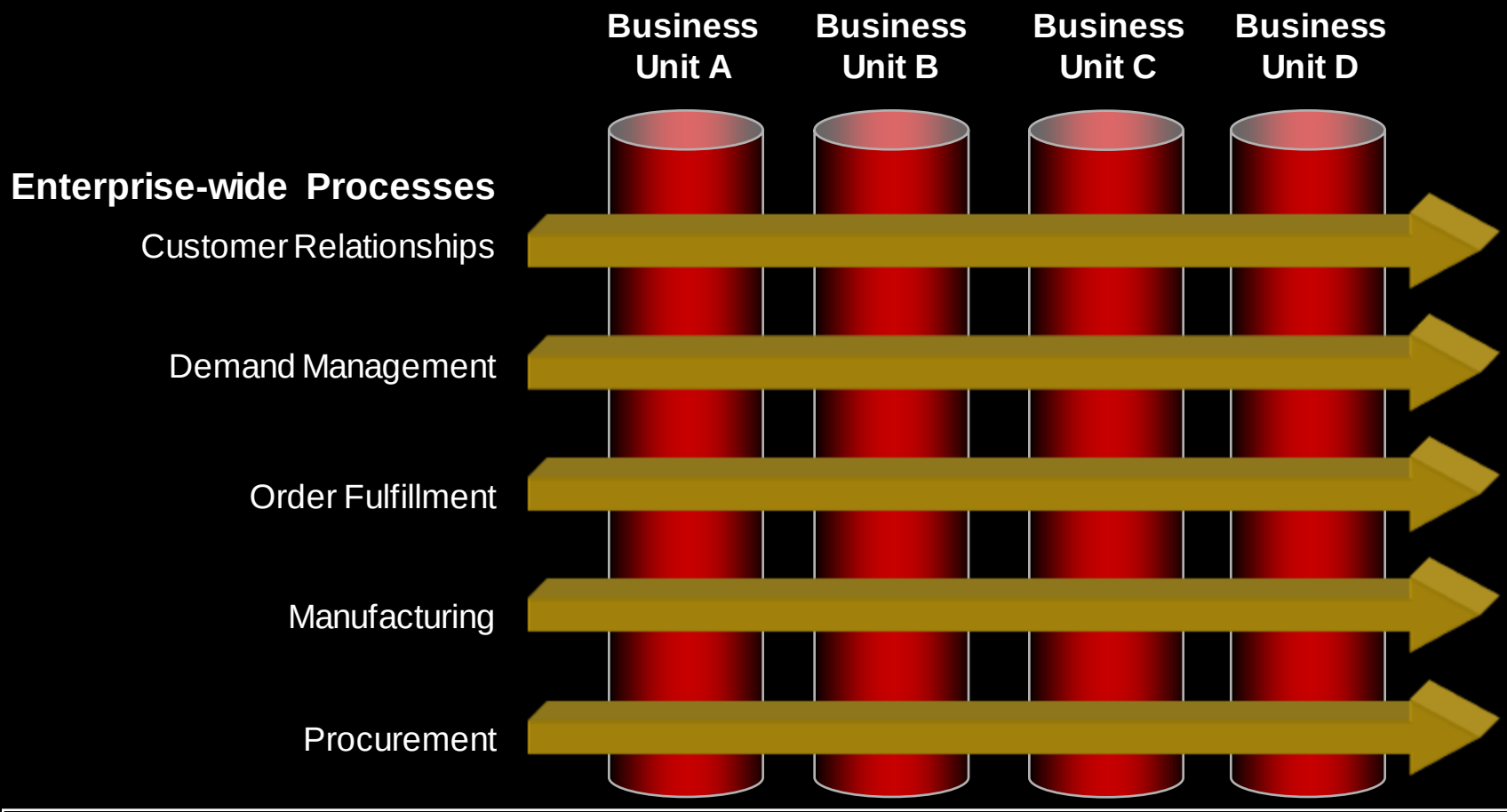
Communication

Organizational Effectiveness and IT Alignment

A value-based organization is designed around core competencies, which consist of processes and capabilities that deliver value to the business



The IT organization model represents the means for delivering services and solutions



Summary

Implementation of the IT plan will provide substantial bottom line benefits while enabling the company to achieve its strategic imperatives

Strategic Imperative	Tangible Benefits	Intangible Benefits
Growth/Agility	◆ Increase revenue from existing and new customers ◆ Quicker realization of Return on Investment for future acquisitions	◆ Lower incremental cost to serve the next customer ◆ Product releases will increase scalability and technical innovation
Cost Improvement	◆ Reduce functional and business costs ◆ Decrease IT support costs ◆ Increase accuracy of invoices	◆ Implement Class A MRP II practices more rapidly and with reduced infrastructure costs
Customer Service and Retention	◆ Improve customer retention – Customized service – Accurate and up-to-date order information – Decrease order cycle times	◆ Access to global customer information for more effective pricing ◆ Support an integrated Customer Relationship Management strategy
E-business	◆ Decrease administration costs due to self service nature of web-based systems	◆ Provide an infrastructure for deploying the company's e-business strategy ◆ Improve access to e-communities and global customers