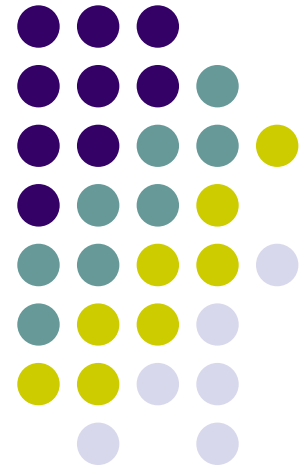


# Developing IS/IT Strategy: The Starting Point

# 6





# Strategic Management Maturity Model

Effectiveness  
of strategic  
decision making



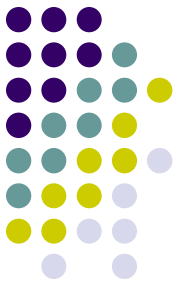
Adapted from Ward & Peppard, *Strategic Planning for Information Systems*, John Wiley & Sons 2002

# Strategy Defined



- An integrated set of actions aimed at increasing the long-term well-being and strength of the enterprise relative to competitors

# Strategic Processes

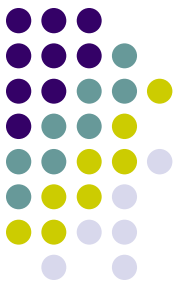


- Strategic thinking
  - Creative entrepreneurial insight into ways the enterprise could develop
- Strategic planning
  - Systematic, comprehensive analysis
- Opportunistic decision making
  - Effective reaction to unexpected threats and opportunities



# Factors in Strategic Management

- External environment
- Pressure groups and stakeholders
- Internal business strategy & planning



# External Environment

- P E S T
  - Political
  - Economic
  - Social
  - Technological
- Two more
  - Legal → Political
  - Ecological → Social



# Pressure Groups/Stakeholders

- Pressure Groups

- Shareholders
- Competitors
- Customers
- Suppliers
- Government
- Employees
- Unions
- The Public
- Financial Institutions
- The Media

- Stakeholders

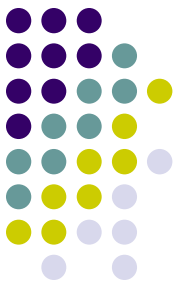
- Shareholders
- Competitors
- Customers
- Suppliers
- Government
- Employees
- Unions
- The Public
- Financial Institutions

# Business Strategy & Planning



- Objectives
  - May be derived from Mission or Vision Statement
- Situation Analysis
  - Looking inside
    - Current strategy
    - Strengths & weaknesses
  - Looking outside
    - Competitors
    - External environment
- Future Strategies

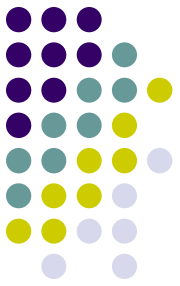




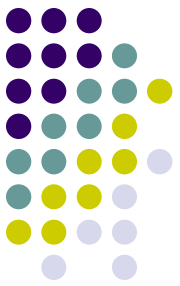
# Organisational Units

- A key issue of the planning process is to determine the scope
- Organisation as a whole
- Organisation can be broken into strategic business units

# Strategic Business Units



- In large businesses, strategy & planning may be subdivided by Strategic Business Units (SBUs)
  - A unit that sells a distinct set of products or services, serves a specific set of customers and competes with a well-defined set of competitors



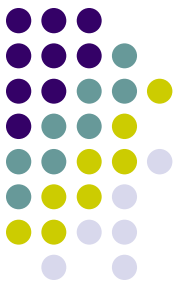
# Objective setting

- Measurable & attainable
- Probably *should* be set (or a least *revised*) after the Situation Analysis stage
- Typically short term (1 year) but may (should) be a long term component

# Situation Analysis



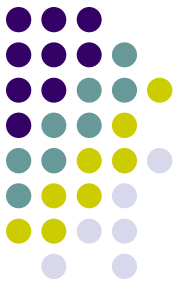
- Inside
  - Resources
  - Financial health
  - Employees & business competencies
  - Physical assets & technology
  - Research & development
  - Organizational culture
- Outside
  - Market segments & shares
  - Position in product lifecycles
  - Competitor strategy, strengths, weaknesses
  - Future competitive actions



# Future Strategies

- knowledge & intuition of those experienced in the business
- Scenario planning
- Outside experts
- Many based on product lifecycle or product maturity model

# Business Strategy Components



- Mission
- Vision
- Drivers
- Objectives
  - Key performance indicators
- Strategies
- Critical Success Factors
- Business area plans

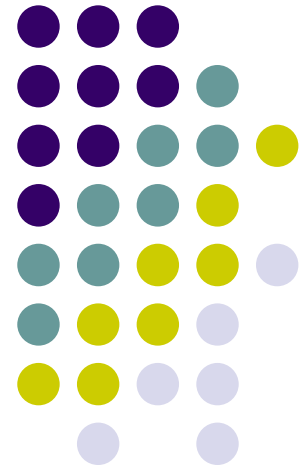


# Identifying Strategy

- Often, business strategies are not:
  - Recorded formally
  - Well constructed
  - Well communicated
- Identify through questioning, analysis & creative prompting
- May be no strategy at all and only bottom-line objectives

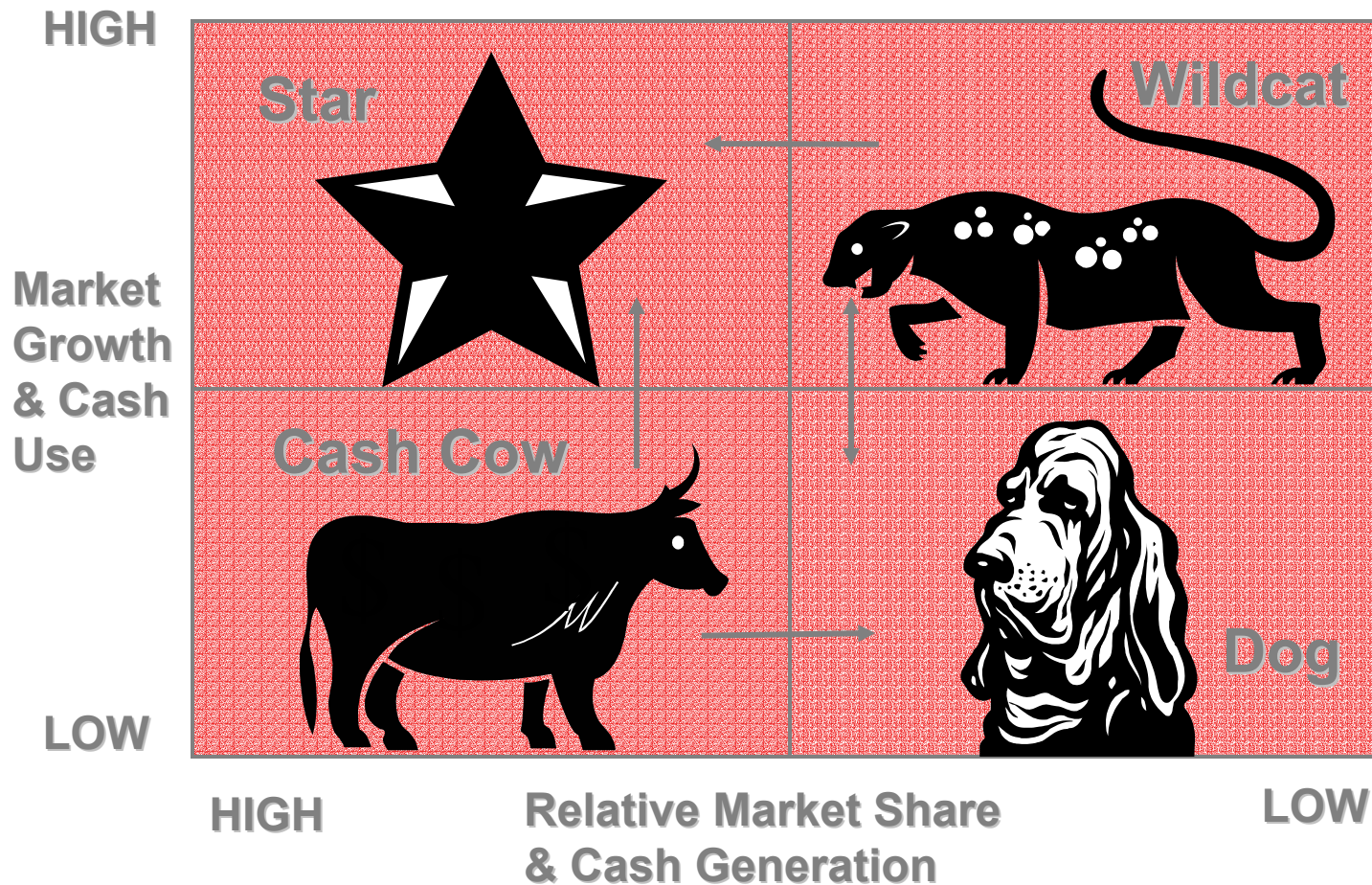
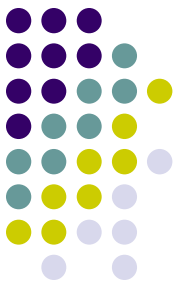
# IT role in product portfolio map

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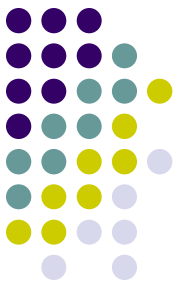




# Product Portfolio (Boston) Matrix



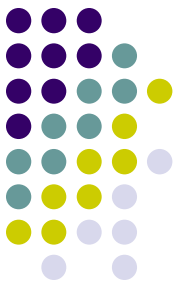
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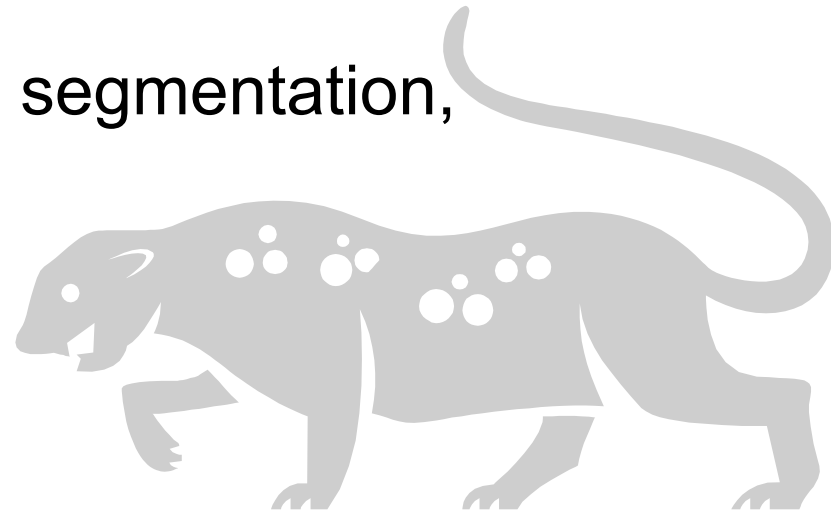
# Product Portfolio Model

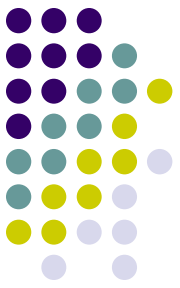
- Useful in Growth & Maturity stages of four stage product cycle
  - Emergence
  - Growth
  - Maturity
  - Decline

# IT Support for Wildcat Products



- Low market share, high growth market
- Focus on:
  - Product and/or process development
  - or**
  - Customer identification, segmentation, communication





# IT Support for Star Products

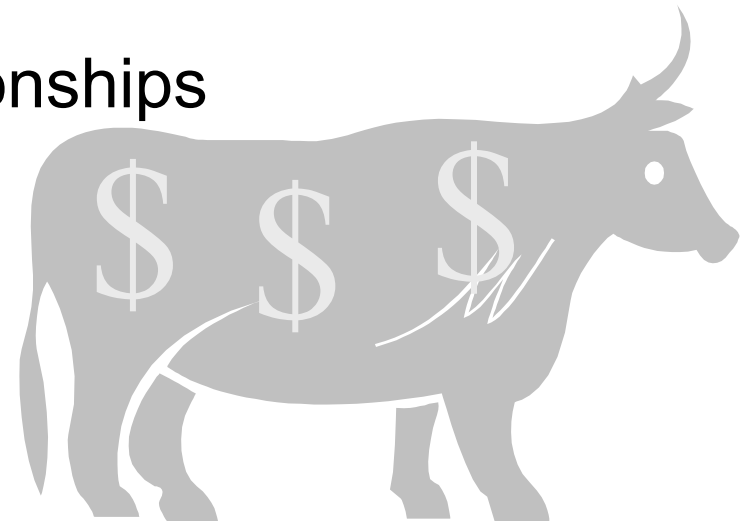
- High market share, high growth market
- Focus on:
  - Identifying customers & requirements  
*and/or*
  - Business innovation to meet market requirements & differentiate



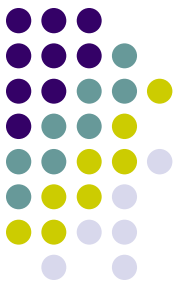


# IT Support for Cash Cow Products

- High market share, low growth market
- Focus on:
  - Keeping costs low
  - and*
  - Control of business relationships & activities



# IT Support for 'Dawg' Products

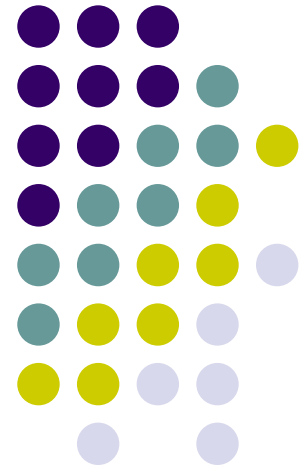


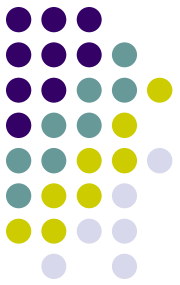
- Low market share, low growth market
- Focus on:
  - Reducing costs or securing customers to improve profit performance
  - Very little innovation as line may be discontinued



# IT as enabler of strategy

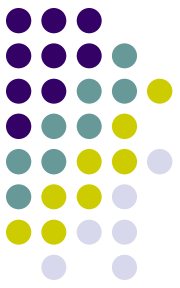
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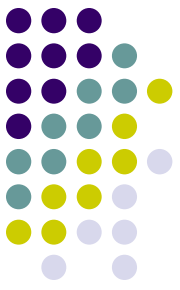
- Generic strategies





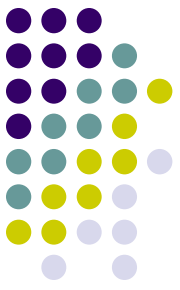
# Generic Strategies

- Cost leadership
- Product differentiation
- Niche marketing



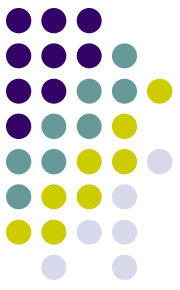
# *Competition*

- Price competition
  - Improve price/performance
- Product development
  - Differentiate products and services in distribution channel and to consumer
- Distribution and service critical
- Customer loyalty required
  - Get closer to the end consumer - understand the requirements



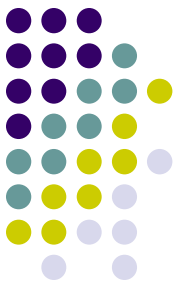
# IS/IT changes the basis of competition

- lower costs: optimise yield per aircraft
- differentiate service: reconfiguring aircraft due to demand
- niche/focus service into high yield sectors, e.g. business travel
- low cost/low price 'no frills' service with on-line direct booking bypassing agents
- by linking purchasing and remittance systems to reduce overheads of customer
- discount/volume packages to discourage piecemeal purchase



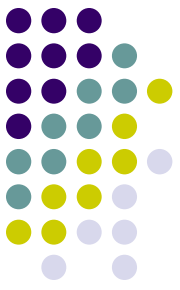
## IS/IT changes supplier/customer relationship

- agent is constantly aware of seat availability of competing airlines
- airline can readily promote unsold capacity via chosen agents or direct to customers via on-line booking with variable pricing based on sales patterns
- integrated travel package to high mileage business customers - bypassing agencies
- new routes/schedules to cater for demand



# Cost leadership

- IT to Optimise individual processes
- Monitoring & reporting systems
  - E.g.
    - Banking esp internet banking.
    - Logistics & warehousing



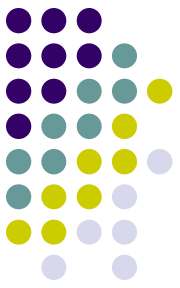
# Product Differentiation/Niche

- Focus on integrated IT
- R&D and innovation
  - E.g.
    - Dell computers - individually configured
    - McKessons – integrated stock management of customers
    - Amazon.com – reviews, profiles etc

# Long Term Success Strategy



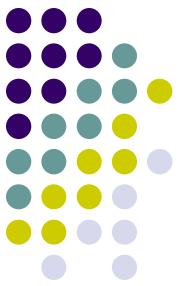
- IT Roles for each type of strategy
- Be low cost producer of product or service
  - Identify lowest cost approaches to direct activities
  - Minimize indirect/overhead expense
  - Provide detailed cost reporting to management
- Differentiate product or services from competitors in terms of value as perceived by customers
  - Enable new things to be done or existing things to be done better



# Industry Analysis

- How can IT affect nature & value of product or service and it's life cycle?
  - Electronic trading & financial services
  - Online publishing, especially journals
  - Life insurance policy types
  - Job recruitment

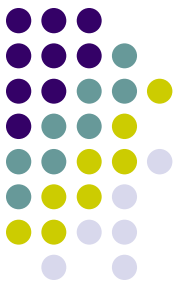




# Industry Analysis

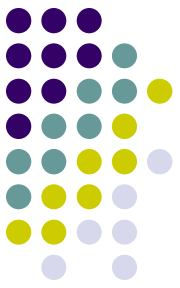
- How can IT affect demand, segment markets better, extend markets geographically, or provide new distribution channels?
  - Direct financial services
  - Customer personalization
  - Auctions & financial markets

# Industry Analysis



- How can IT affect the cost base of key processes or change the balance between flexibility & standardization?
  - Automated Line feeding
  - Automated material transfer
  - Automated warehousing/tracking
  - Document digitization & management

# Approaches to IT Strategy Development

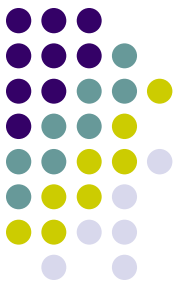


- Business Led
  - Carried out by IT specialists, based on current business strategy
- Method Driven
  - Uses techniques to identify IS needs by analyzing business processes
- Technological
  - IT professionals use analytical models and tools to produce IT plans (architectures)

# Approaches to IT Strategy Development



- Administrative
  - Establish IT capital & expense budgets to achieve IT goals, based on prioritized list
- Organizational
  - Develop themes for IT investment based on business consensus of how IT can help achieve business objectives
  - Agreed on by senior management team



# Failure Modes

- IT Strategies fail due to:
  - Failure to obtain top management support
  - Resource constraints
  - Incomplete implementation of strategy
  - Excessive time frames
  - Poor user-IT relationships

# Key Elements of IT Strategy Process



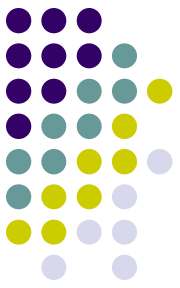
- Search for competitive advantage
- Broader scope for planning encompassing broad view of technology
- Unite emerging technologies with installed base
- Develop information, systems and technology to guide integration of new & existing systems & technology
- Shift away from traditional formal structured plans to flexible approaches

Sullivan, C.H., 'An evolutionary logic redefines strategic systems planning' *Information Strategy: The Executives Journal*, 1986



# Establishing Success Criteria

- Measuring success in the IT strategy process
  - Distinguish between objectives & implementation issues
- Most important factors to success
  - Extent of stakeholders resistance
  - Resources committed



# Measuring Success...

- Effectiveness of approach
- Relative worth
- Role & impact of IS strategy
- Performance of IS/IT plans
- Relative efficiency of the strategy process
- Adequacy of resources
- Strategic congruence

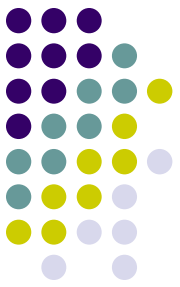


# Success Dimensions for IT Strategy



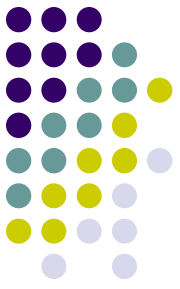
- Improve contribution of IT to organizational performance
- Align IT investment with business strategy
- Gain competitive advantage through IT deployment
- Identify new & higher payback applications
- Identify strategic applications

# Success Dimensions for IT Strategy



- Increase top-management commitment
- Improve communication with users
- Better forecast IT resource requirements
- Improve allocation of IT resources
- Develop an information architecture
- Increase visibility for IT in the organization

# Stimuli for IT Strategy Development



- External business factors
- External technology factors
  - May pose both threats & opportunities
- Internal business factors
  - Internal changes require new strategy
- Internal technical factors
  - Aging infrastructure
  - Improve process

# Assess Current Internal Environment



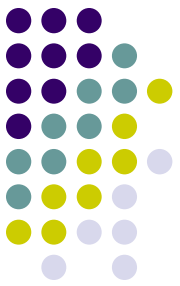
- Broad overview of business
  - Long term mission
  - Goals
  - Vision for future
  - Strategy
  - And more...
- Effectiveness of IT
- Current role of IT
- Views of IT held by management
- How IT strategies were developed in the past

# IS/IT Strategy Distinction



- IS strategy deals with *what to do with information*
- IT strategy designates *how technology is to be applied* in the delivery of information
- IS strategy drives IT strategy

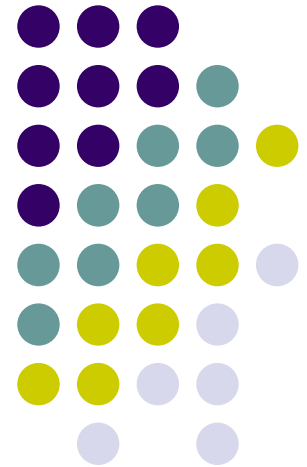
# Business Unit Focus

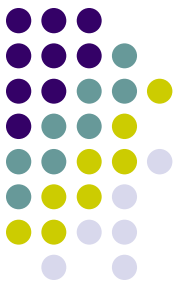


- *IS strategy* must be planned at a Strategic Business Unit level
  - Should be cross-referenced between units
- *IT strategy* more likely to be an enterprise level endeavour

# IS/IT Plan

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# General Objectives

- Build a robust framework for long-term management of information, information systems and information technology and:
  - Identify current and future information needs for the organization that align business and IS/IT strategies, objectives and functions
  - Equip IS function to be responsive to fast-changing business needs
  - Determine policies for management, creation, maintenance, control and accessibility of the corporate information resource

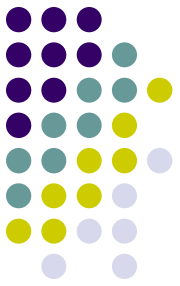


# Strategy Formulation Overview

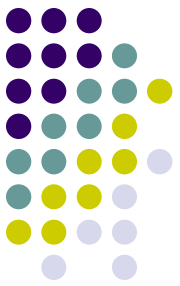


- Inputs:
  - External business factors
  - External technology factors
  - Internal business factors
  - Internal technical factors
- Outputs
  - IS/IT Management Strategy
  - Business IS Strategies
    - Application portfolios
    - Information architectures
    - By business units
  - IT Strategy

# IT Strategy Process Deliverables



- Hard outputs documenting:
  - Current situation
  - Vision & rationale for what is being put in place
    - Information, technology, people, etc.
  - Plans for how it will be achieved
    - Milestones



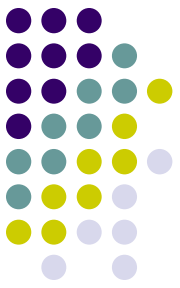
# Structure of Deliverables

- IS Strategy containing statements of demand
  - Probably separate for each SBU
- IT Strategy including supply elements
- IS/IT Management Strategy
- Executive Summary
  - Avoid if possible to force reading of entire strategy

# Contents of Strategy Documents

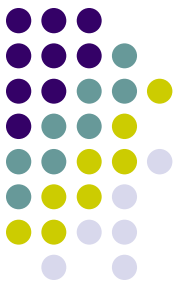


- Purpose
- Overview/summary of business strategy
- Arguments for
  - New opportunities
  - Critical improvement areas
- Summary of opportunities/problem issues
- Review of current application
- Future application portfolio
- Issues arising from strategy



# Application Portfolio

- Categorized in terms of role in supporting current & future business strategy:
  - Strategic
  - High potential
  - Key operational
  - Support



# IT Strategy Contents

- Central IS functions
- Responsibilities of users
- Definition of how resources will be acquired, managed & developed to meet IS needs
- Supply factors addressed:
  - Application portfolio management
  - Organization of IT
  - Resource management
  - Managing information resources
  - Managing application development
  - Managing technology & infrastructure

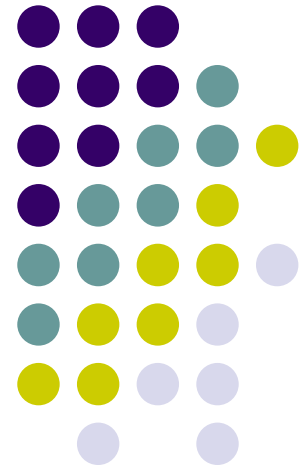


# IT/IS Management Strategy Contents

- Scope & rationale
- IS/IT function & organization
- Investment & prioritization policies
- Vendor policies
- Human impact policies
  - Includes education
- IT account policies
  - Costing & chargebacks

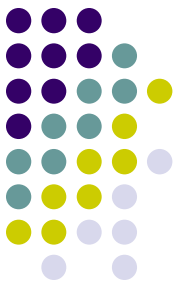
# IS/IT plan development

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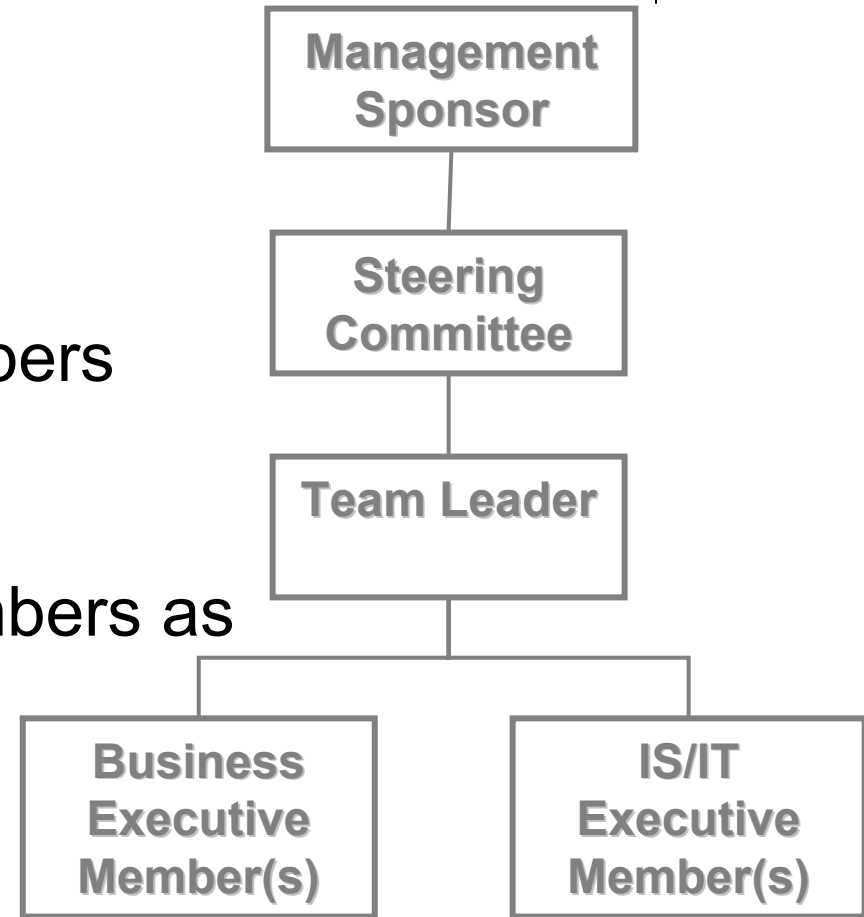




# Strategy Process Team Structure

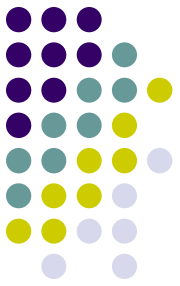


- Strategy Team Leader
  - Full-time job
  - Serious commitment
- Two other full-time members
  - Drawn from user and IT communities
- Additional part-time members as necessary



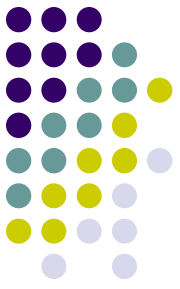
Adapted from Ward & Peppard, *Strategic Planning for Information Systems*, John Wiley & Sons 2002

# Strategy Process Team Needs



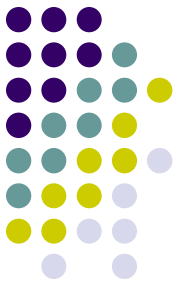
- Automated tools for modeling (computer-based)
- Dedicated room
- Conference space as necessary

# Business Process Reengineering



- Popular in businesses recently
- Move from traditional organizational model to process-oriented model
- Two key IT questions:
  - How can business processes be transformed using IT?
  - How can IT best support business processes?

# Understanding Current Situation



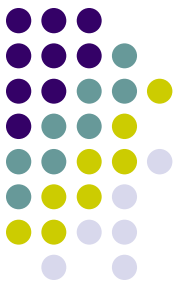
- Build in-depth understanding of
  - Business strategy
  - Business & technology environment
  - Current status of IT in the business

# Determining IT Requirements



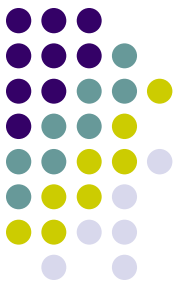
- Document Review
  - Business strategy
    - Statements of objectives
    - Key performance indicators
  - Annual plans
  - Budgets
  - Forecasts

# Determining IT Requirements Tasks



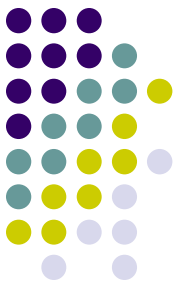
- Analyze business strategy
  - Current & expected future external business environment
  - Competitive strategy
  - Internal business environment
- Identify critical success factors
- Model logical activities & inherent information elements
- Evaluate effectiveness of current processes
- Identify & analyze internal & external value chains

# Determining IT Requirements Tasks



- Create conceptual architecture of how information use and processes might be improved
- Compile catalog of hardware & software in use & principal functions
- Evaluate current application portfolio
- Evaluate current IS/IT policies, organization, processes, services & capabilities

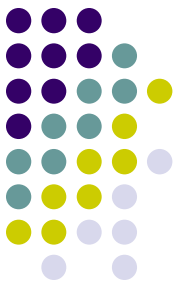
# Business Model / IS Model



- Business processes
- Activities
- Key entities
- Process flow models or process dependency charts
- Hierarchical activity models / functional decomposition diagrams
- Entity relationship diagrams
- Data flow diagrams
- Activity/entity matrices

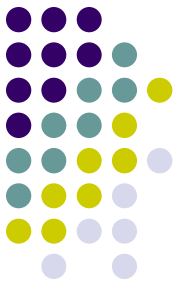


# IS/IT Organization Assessment



- IS function, structure & relationship with the business at all levels
- Organization for provision of IT resources & services
- Sourcing strategy for IT resources & services
- How IS/IT function is managed & reporting level in the organization
- IS/IT governance structure
- How business cases & budgets for IT are prepared, who does it & who approves

# Other IT Environment Items



- Current assets, resources & skills
- Methods and training provisions
  - Current planning and operations methods in use
- Role of IS/IT in the business
- External IS/IT environment



# Business View of IT/IS

- Consideration of how many business processes & functions are underpinned by systems
- Assessment of user satisfaction across entire range of IS/IT services
- Level of integration of systems & technologies
- Analysis of role and structure of IS/IT function in relation to organizational structure
- Level in management hierarchy of IS/IT responsibility