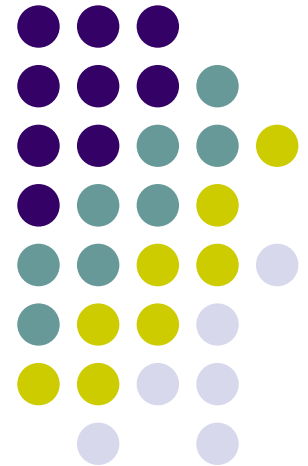


Developing IS/IT Strategy: The Starting Point

6





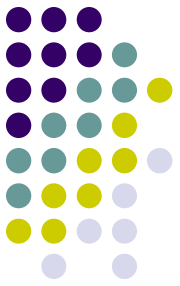
Strategic Management Maturity Model

Effectiveness
of strategic
decision making



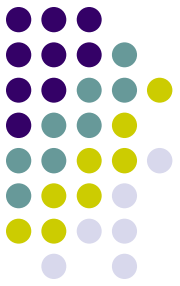
Adapted from Ward & Peppard, *Strategic Planning for Information Systems*, John Wiley & Sons 2002

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

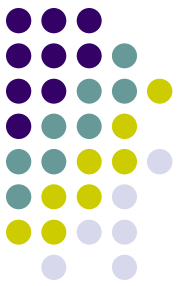


- Strategic thinking
 - Creative entrepreneurial insight into ways the enterprise could develop
- Strategic planning
 - Systematic, comprehensive analysis
- Opportunistic decision making
 - Effective reaction to unexpected threats and opportunities



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



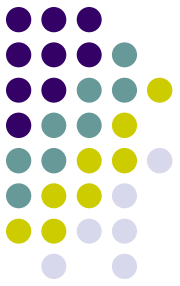
- Pressure Groups

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

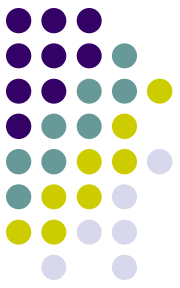
- Stakeholders

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

Business Strategy & Planning



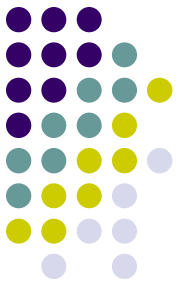
- Objectives
 - May be derived from Mission or Vision Statement
- Situation Analysis
 - Looking inside
 - Current strategy
 - Strengths & weaknesses
 - Looking outside
 - Competitors
 - External environment
- Future Strategies



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



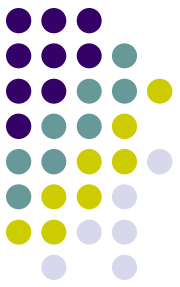
- In large businesses, strategy & planning may be subdivided by Strategic Business Units (SBUs)
 - A unit that sells a distinct set of products or services, serves a specific set of customers and competes with a well-defined set of competitors



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

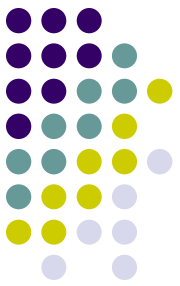


- Inside

- 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



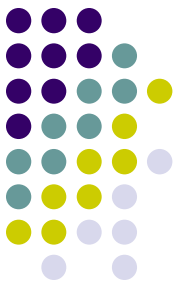
Future Strategies

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

Business Strategy Components



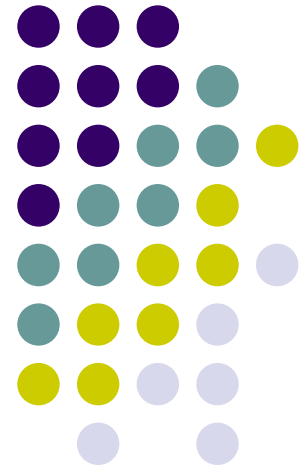
- Mission
- Vision
- Drivers
- Objectives
 - Key performance indicators
- Strategies
- Critical Success Factors
- Business area plans



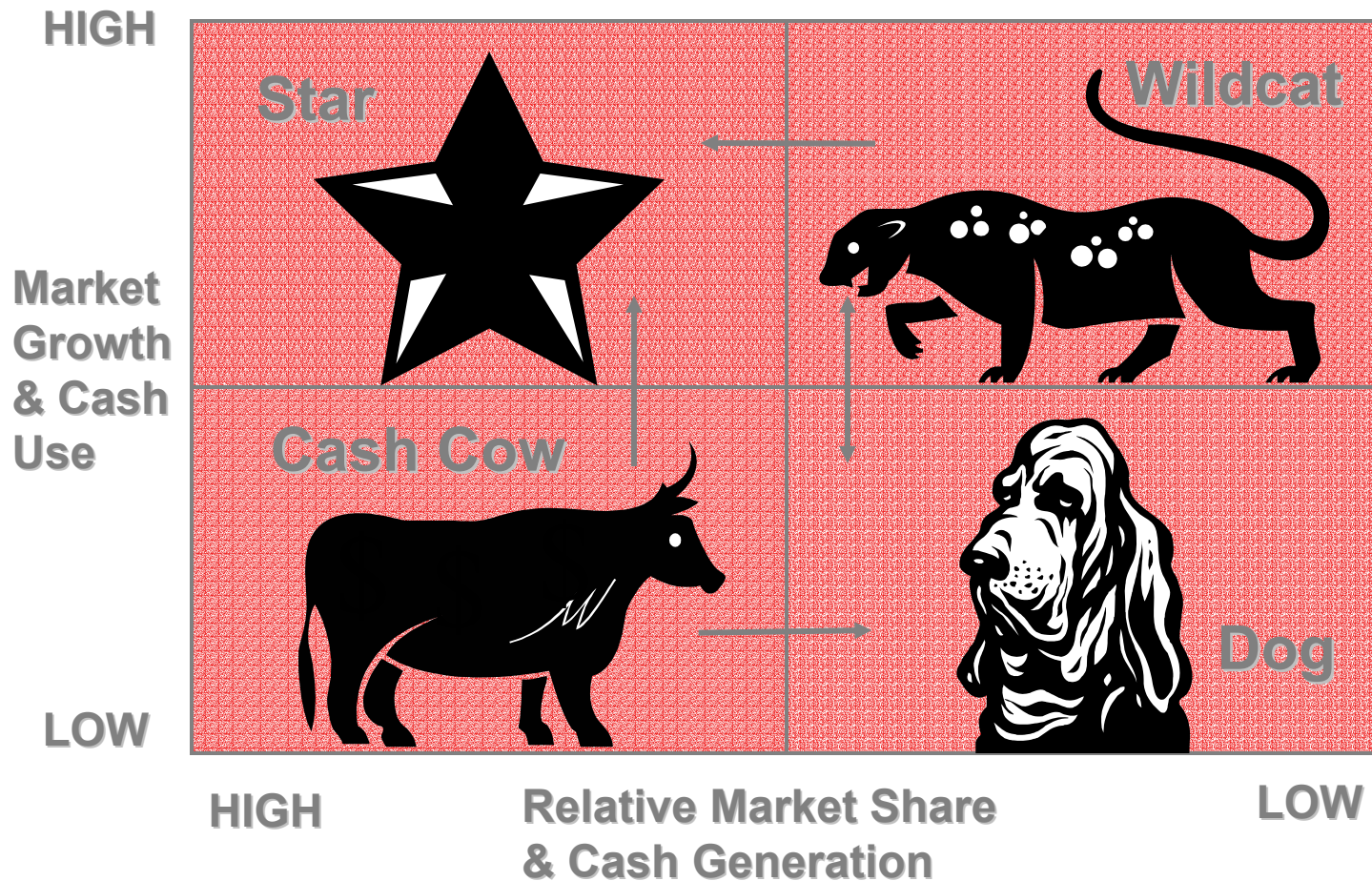
Identifying Strategy

- 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

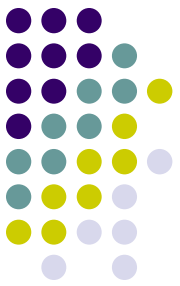
IT role in product portfolio map



Product Portfolio (Boston) Matrix



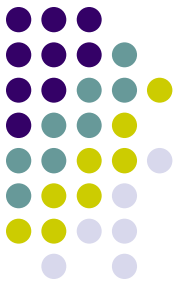
Adapted from Ward & Peppard, *Strategic Planning for Information Systems*, John Wiley & Sons 2002



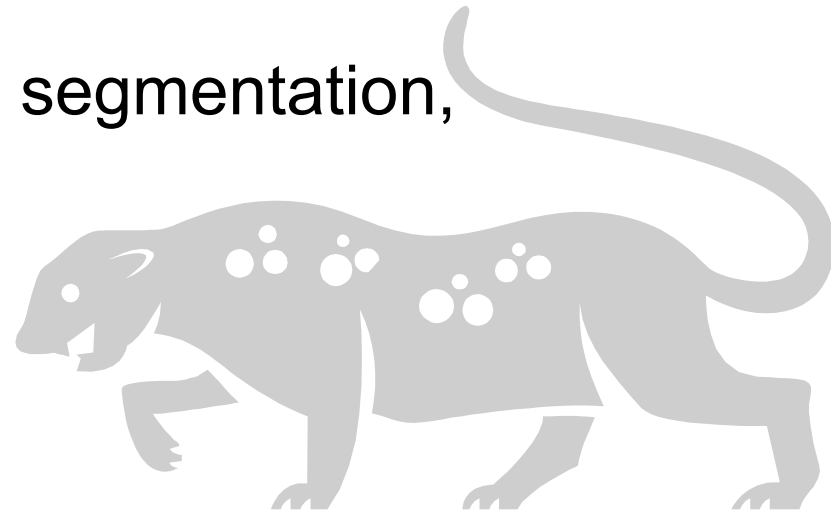
Product Portfolio Model

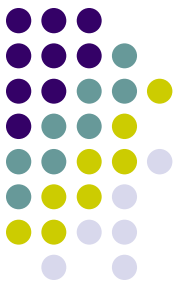
- Useful in Growth & Maturity stages of four stage product cycle
 - Emergence
 - Growth
 - Maturity
 - Decline

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



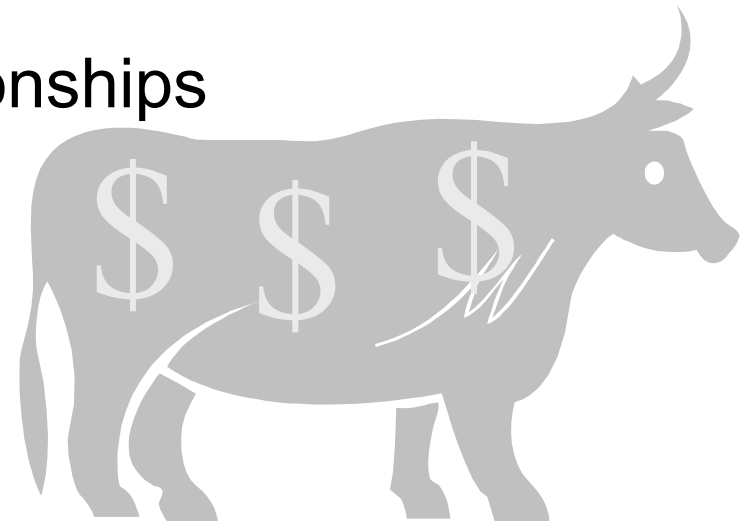


IT Support for Cash Cow Products

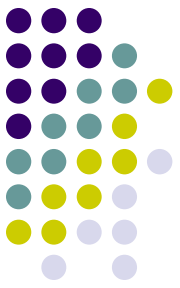
- High market share, low growth market
- Focus on:
 - Keeping costs low

and

 - Control of business relationships & activities



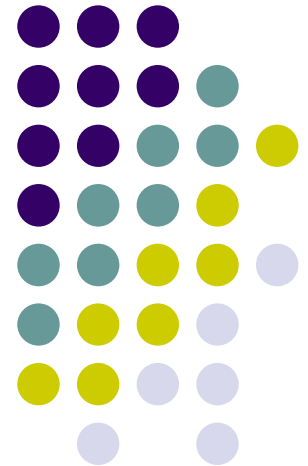
IT Support for 'Dawg' Products

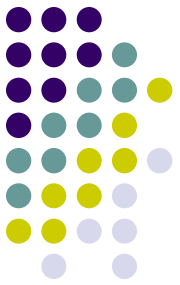


- Low market share, low growth market
- Focus on:
 - Reducing costs or securing customers to improve profit performance
 - Very little innovation as line may be discontinued

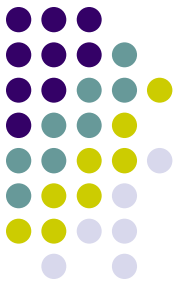


IT as enabler of strategy



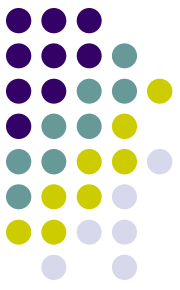


- Generic strategies



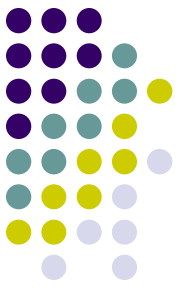
Generic Strategies

- 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



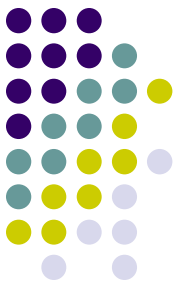
IS/IT changes the basis of competition

- 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



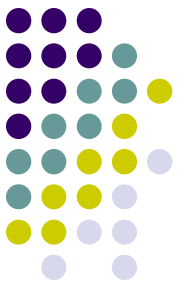
IS/IT changes supplier/customer relationship

- 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

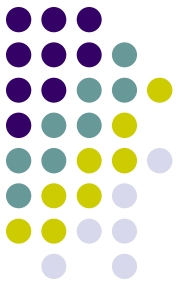
- IT to Optimise individual processes
- Monitoring & reporting systems
 - E.g.
 - Banking esp internet banking.
 - Logistics & warehousing



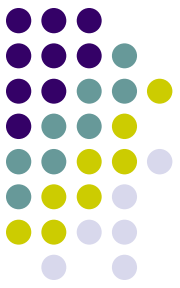
Product Differentiation/Niche

- 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

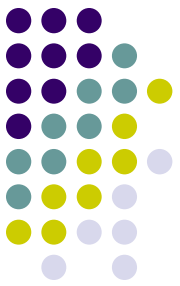


- IT Roles for each type of strategy
- Be low cost producer of product or service
 - Identify lowest cost approaches to direct activities
 - Minimize indirect/overhead expense
 - Provide detailed cost reporting to management
- Differentiate product or services from competitors in terms of value as perceived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



Industry Analysis

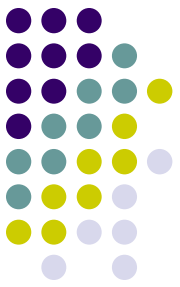
- How can IT affect nature & value of product or service and it's life cycle?
 - Electronic trading & financial services
 - Online publishing, especially journals
 - Life insurance policy types
 - Job recruitment



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



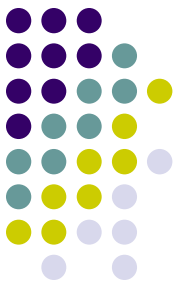
- How can IT affect the cost base of key processes or change the balance between flexibility & standardization?
 - Automated Line feeding
 - Automated material transfer
 - Automated warehousing/tracking
 - Document digitization & management

Approaches to IT Strategy Development

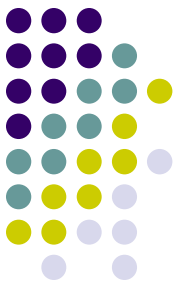


- Business Led
 - Carried out by IT specialists, based on current business strategy
- Method Driven
 - Uses techniques to identify IS needs by analyzing business processes
- Technological
 - IT professionals use analytical models and tools to produce IT plans (architectures)

Approaches to IT Strategy Development



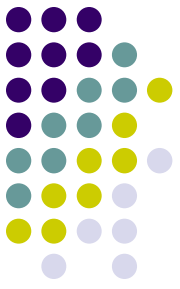
- Administrative
 - Establish IT capital & expense budgets to achieve IT goals, based on prioritized list
- Organizational
 - Develop themes for IT investment based on business consensus of how IT can help achieve business objectives
 - Agreed on by senior management team



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



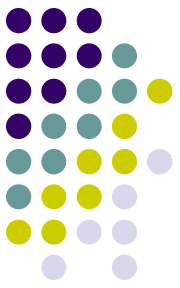
- Search for competitive advantage
- Broader scope for planning encompassing broad view of technology
- Unite emerging technologies with installed base
- Develop information, systems and technology to guide integration of new & existing systems & technology
- Shift away from traditional formal structured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

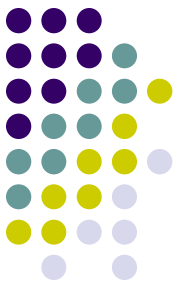
- Effectiveness of approach
- Relative worth
- Role & impact of IS strategy
- Performance of IS/IT plans
- Relative efficiency of the strategy process
- Adequacy of resources
- Strategic congruence

Success Dimensions for IT Strategy



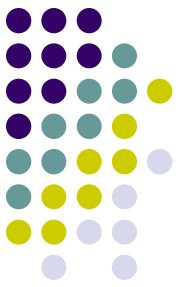
- Improve contribution of IT to organizational performance
- Align IT investment with business strategy
- Gain competitive advantage through IT deployment
- Identify new & higher payback applications
- Identify strategic applications

Success Dimensions for IT Strategy



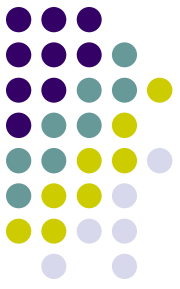
- Increase top-management commitment
- Improve communication with users
- Better forecast IT resource requirements
- Improve allocation of IT resources
- Develop an information architecture
- Increase visibility for IT in the organization

Stimuli for IT Strategy Development



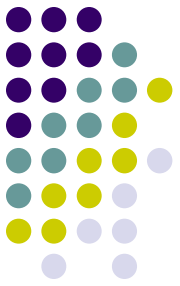
- External business factors
- External technology factors
 - May pose both threats & opportunities
- Internal business factors
 - Internal changes require new strategy
- Internal technical factors
 - Aging infrastructure
 - Improve process

Assess Current Internal Environment

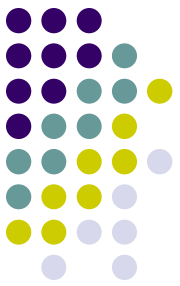


- Broad overview of business
 - Long term mission
 - Goals
 - Vision for future
 - Strategy
 - And more...
- Effectiveness of IT
- Current role of IT
- Views of IT held by management
- How IT strategies were developed in the past

IS/IT Strategy Distinction



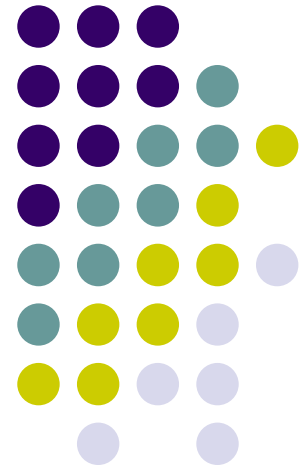
- IS strategy deals with *what to do with information*
- IT strategy designates *how technology is to be applied* in the delivery of information
- IS strategy drives IT strategy

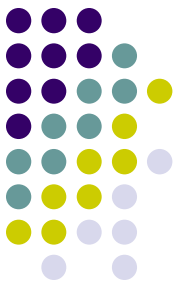


Business Unit Focus

- *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

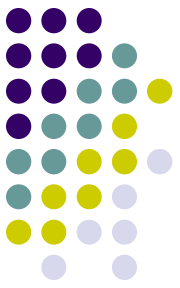




General Objectives

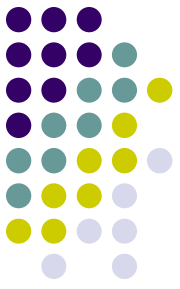
- Build a robust framework for long-term management of information, information systems and information technology and:
 - Identify current and future information needs for the organization that align business and IS/IT strategies, objectives and functions
 - Equip IS function to be responsive to fast-changing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

Strategy Formulation Overview

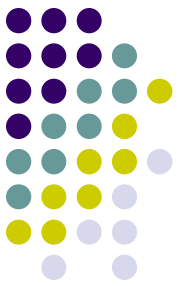


- Inputs:
 - External business factors
 - External technology factors
 - Internal business factors
 - Internal technical factors
- Outputs
 - IS/IT Management Strategy
 - Business IS Strategies
 - Application portfolios
 - Information architectures
 - By business units
 - IT Strategy

IT Strategy Process Deliverables



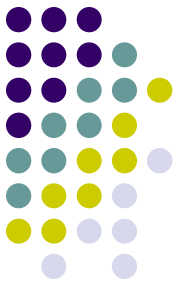
- Hard outputs documenting:
 - Current situation
 - Vision & rationale for what is being put in place
 - Information, technology, people, etc.
 - Plans for how it will be achieved
 - Milestones



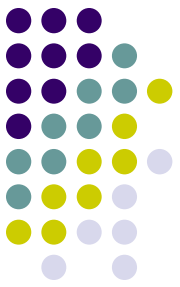
Structure of Deliverables

- 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

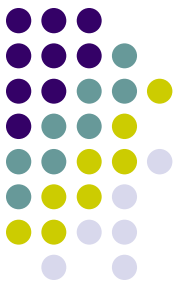


- Purpose
- Overview/summary of business strategy
- Arguments for
 - New opportunities
 - Critical improvement areas
- Summary of opportunities/problem issues
- Review of current application
- Future application portfolio
- Issues arising from strategy



Application Portfolio

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



IT Strategy Contents

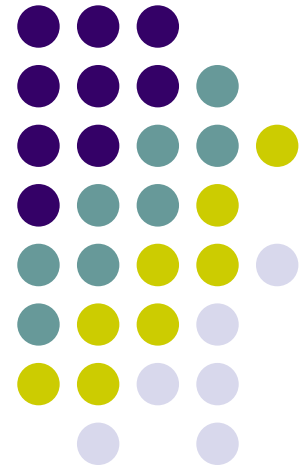
- Central IS functions
- Responsibilities of users
- Definition of how resources will acquired, managed & developed to meet IS needs
- Supply factors addressed:
 - Application portfolio management
 - Organization of IT
 - Resource management
 - Managing information resources
 - Managing application development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



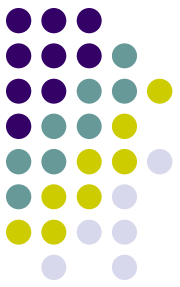
IT/IS Management Strategy Contents

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

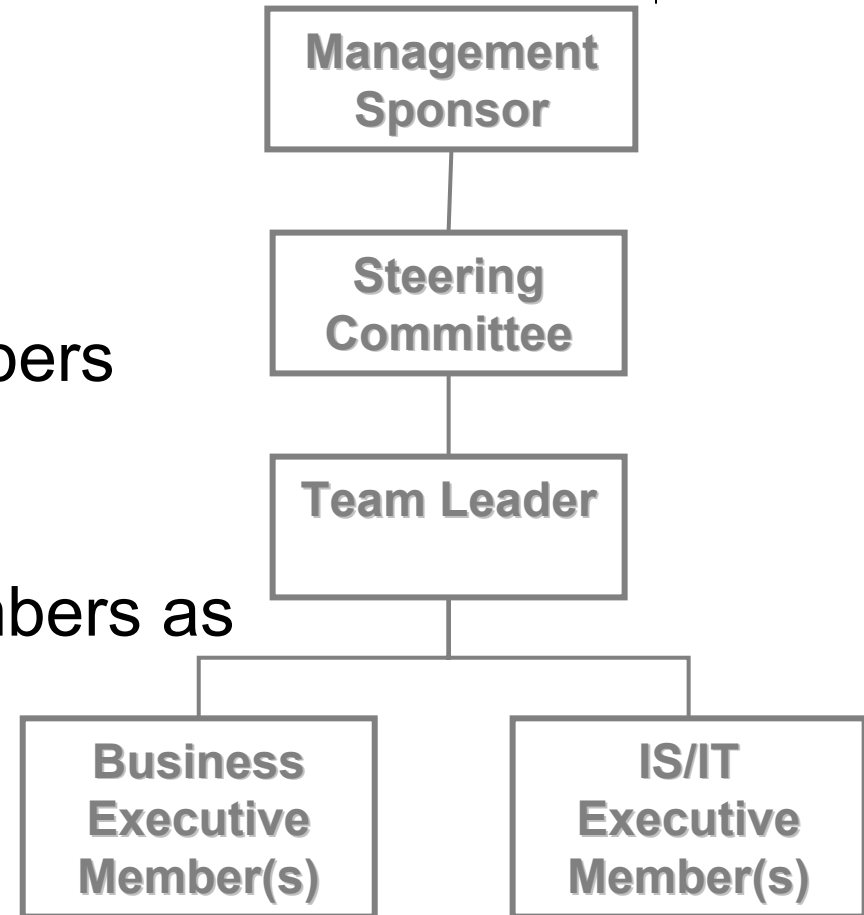
IS/IT plan development



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



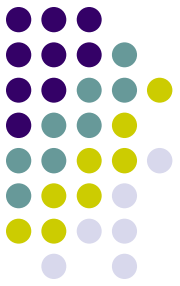
- Automated tools for modeling (computer-based)
- Dedicated room
- Conference space as necessary

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



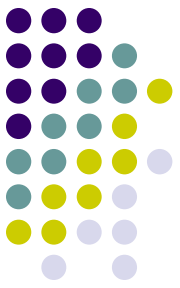
- Build in-depth understanding of
 - Business strategy
 - Business & technology environment
 - Current status of IT in the business

Determining IT Requirements



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

Determining IT Requirements Tasks



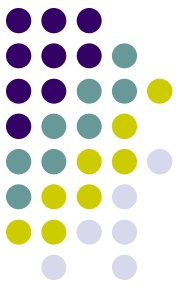
- Analyze business strategy
 - Current & expected future external business environment
 - Competitive strategy
 - Internal business environment
- Identify critical success factors
- Model logical activities & inherent information elements
- Evaluate effectiveness of current processes
- Identify & analyze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

Determining IT Requirements Tasks



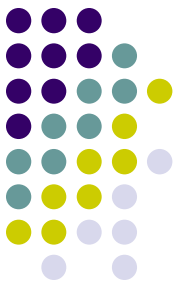
- Create conceptual architecture of how information use and processes might be improved
- Compile catalog of hardware & software in use & principal functions
- Evaluate current application portfolio
- Evaluate current IS/IT policies, organization, processes, services & capabilities

Business Model / IS Model

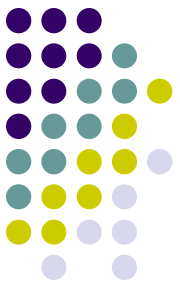


- Business processes
- Activities
- Key entities
- Process flow models or process dependency charts
- Hierarchical activity models / functional decomposition diagrams
- Entity relationship diagrams
- Data flow diagrams
- Activity/entity matrices

IS/IT Organization Assessment

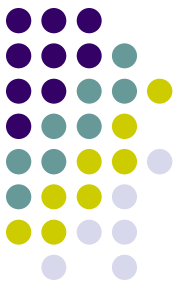


- IS function, structure & relationship with the business at all levels
- Organization for provision of IT resources & services
- Sourcing strategy for IT resources & services
- How IS/IT function is managed & reporting level in the organization
- IS/IT governance structure
- How business cases & budgets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