

Common Sense Approaches for IT ExcellenceSM

Cisco Global Supply Chain Management

November 2008

Proposed agenda

Today

- Background on this class
- Introductions
- Your input
- IT failures and statistics
- Effectiveness vs efficiency
- End-to-end IT management overview
- Ensuring best use of IT spending
- Managing projects effectively

Tomorrow

- Building quality solutions: from requirements to solution identification to verification
- Preparing for effective support and maintenance
- Good practices in post-deployment operations
- Summing it up: where to go from here

Throughout the agenda: roles of IT and the business, and how the two can improve communication, collaboration, and results

Background on this class

- Created due to recognition that IT issues are thematic – same problems occur over and over and over
- No one in the organization has full context and information, particularly in complex organizations
- People often operate within functional and/or organizational “silos”
- Good communication often limited to “adjacencies” (people, roles, organizations)
- Quality of the decisions are limited based on context and communication
- Decisions occur everywhere: at every level and across activities
- Pareto’s law...not often applied to IT practices

Introductions

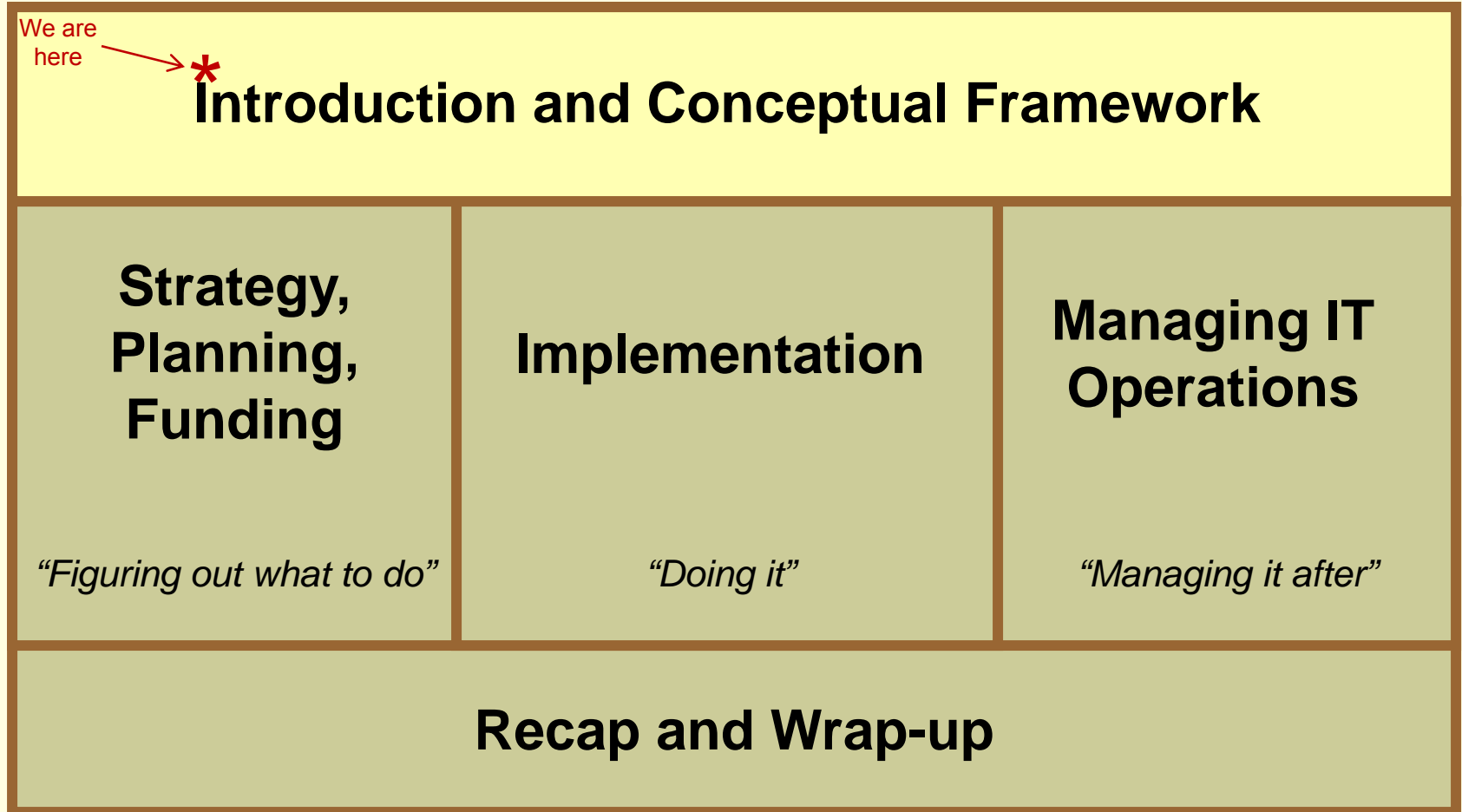
- Name
- IT or business?
- Specific function / role
- Interesting IT “story”
- What you want out of the class

Your input

Comment

- High overhead to make small changes; even small changes required to go through “releases”
- IT is underfunded
- Release process does not meet business goals – only benefits IT
- Business expects IT to own the Business Requirements Document
- Business also expects IT to own the testing; UAT not viewed as critical from Business perspective
- Business does not seem to want involvement with definition of test approach, scenarios, etc.
- IT’s version of status (red/yellow/green) does not seem to match Business’ view: IT thinks they can “recover” and always shows “green” until it is not
- Business wants to add requirements to the very last minute and puts pressure on IT to perform when the requirements have changed
- IT can come across negatively when questioning the business justification of a request. Typically seems to turn out to mean that they have a hard time supporting the request, not that they are questioning the need for the request
- “Us versus Them” mentality is deeply rooted in the organization. Need to get to a point where everyone is working to the same goals
- Need shared metrics that tie together Business and IT

Organization of the materials





IT Failure Areas and Statistics

Common issues, metrics, impact, etc.

Statistics on IT failures¹...

- Standish Group (1994): Landmark study
 - 53% exceed schedules and budgets
 - Average time overrun of 222% of plan
 - 31% of IT projects cancelled!
 - Only 42% deliver originally planned benefits

- KPMG: 87% of projects were 50% over budget

- Gartner Group (2001): 40% do not achieve goals

¹ All statistics on this slide courtesy of "The Executive's Guide to Information Technology, Baschab and Piot, 2007"

...and some comments

- Standish Group statistics are probably the most widely quoted – but validity is sometimes questioned
- ...however...
- Negative perceptions about IT organizations exist
- Antagonistic relationships between IT & biz abound
 - “Why can’t IT deliver what I need when I need it?”
 - “Those business users just don’t understand...”
- IT staff perceived to try to “out-jargon” business users
 - The two frequently cannot communicate effectively...
 - Why? Different frames of reference, different language...

¹ All statistics courtesy of “The Executive’s Guide to Information Technology, Baschab and Piot, 2007

Example real world issues ...

Project Execution

- Late, over budget, cancelled, missed goals
- Important IT projects that “forget” why they exist and **veer from goals**
- “**Never time to do it right, always time to do it over**” mentality
- Lack of clear, unambiguous, documented requirements that foot to goals

Planning and Resource Alignment

- **Poor decisions** on where to **allocate** scarce resources
- Projects formed around **unimportant** or less important goals
- Projects that **conflict** with stated **goals** and strategies
- **Wasted** time, money, staff resources on failed projects or projects that should have never been started
- **Mismatch** of IT **organization** structure, pipelines, skill-sets with business strategies and goals
- **Overemphasis** on **reactive** response versus **proactive** problem prevention

Example real world issues ...

Communication

- **Communication failures** everywhere:
 - IT and the business
 - Executive management and staff
 - IT and business and/or finance, e.g., relative to IT project valuation and budgets
- And, sometimes, outright **distrust** between business and IT, or between disparate IT groups “**Us** and **Them**” mentalities

Accountability

- **Accountability gaps** – if no one owns a problem, no one will solve it
 - Especially for larger companies and more complex organizations

*Bottom line
result*

“Customer” Experience and Perception

- Business users that complain that **IT does not deliver to their needs** – what they want, when they want it, how they want it

Efficiency versus Effectiveness : Definitions and examples

- Efficiency: *“Do the things right”*
 - Use best-practice methodologies for planning and implementing systems
 - Gather and report metrics on process efficiencies, and make improvements based on the results
 - Respond quickly to escalate, communicate, resolve issues
- Effectiveness: *“Do the right things”*
 - Choose the right projects to fund – reject the “wrong” ones
 - Put the right people on the team, at the right time commitment
 - Align skill-sets and installed base around the right technologies
 - Take proactive approaches in managing installed systems to keep them running and ensure they meet sizing needs

Discussion: IT efficiency and effectiveness

- What is the relative importance of each?
- Which tends to get more focus?
- When IT outcomes are not good – is it because the company needs a new set of jargon, methodology, fancy consultancy, or other “silver bullet”...?

Theories and guiding principles

Decision failures in IT practices tend to be “**on the seams**” – between IT and the business, between staff and management – frequently because **no one** in the organization understands the **full context of any business situation requiring IT**

As such, we will focus on the **areas of interaction** and **collaboration** between IT and the business, rather than activities only on one side

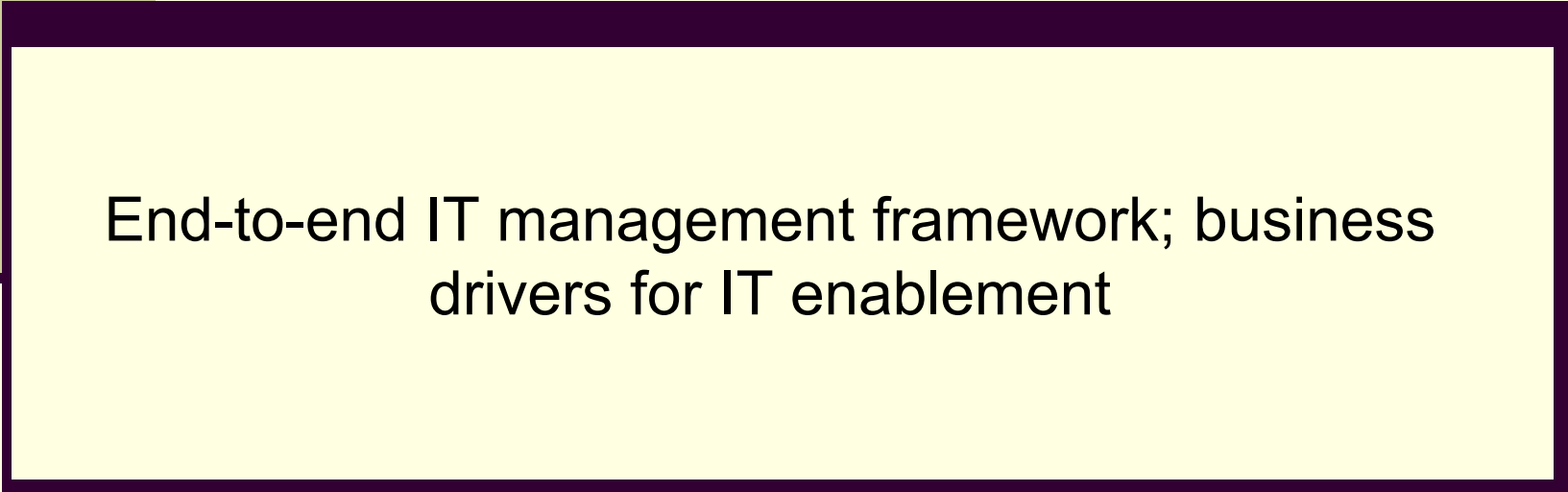
Success in IT practices is driven by **concepts**, not “**recipes**” – so we will look at conceptual frameworks rather than detailed methodologies

There is no silver bullet – but using common sense and getting out of “**silos**” – communicating, collaborating, coordinating – will improve the **outcomes**

Everyone here has relevant experience and knowledge to share... so please do contribute



Conceptual Framework



End-to-end IT management framework; business
drivers for IT enablement

IT Management Framework

Strategy, Planning, Funding

Implementation

Managing IT Operations

Goal

Ensure delivery to critical business needs and best use of IT resources

Ensure effective and efficient project execution and that projects meet intended goals

Ensure system resiliency (short- and long-term) and respond quickly to issues

Key Questions

- | | | |
|---|--|---|
| <ul style="list-style-type: none">• What are we trying to accomplish?• What do we need to do to accomplish those things?• What other attractive opportunities exist?• What resources (time, money, people, equipment) are required for each?• What resources do we have?• What are the best uses of our limited resources?• How shall we manage our activities? | <ul style="list-style-type: none">• What are the project's goals and target metrics?• What are the specific business requirements?• What will our business processes look like?• Who and what do we need?• How will we manage the project?• How will the solution be used? How will we verify the functionality?• Where do we get the data?• How will it interact with other systems?• How will it be supported? | <ul style="list-style-type: none">• How will we manage change?• Are we providing the support that is needed? Are our customers satisfied?• Are we still meeting business needs, or have they evolved?• Are we meeting SLA targets?• What are the key problems we're seeing? What do we need to do to address them?• Do we have the capacity to meet longer-term needs? What else is needed?• Are we keeping the systems up-to-date? |
|---|--|---|

Example business drivers

- Manage large volumes of information
 - E.g., amounts too large to manage with manual processes
- Enable new capabilities
 - E.g., new online sales channel: requires eCommerce capabilities
- Decrease cycle time
 - Improve business performance, e.g., turnaround time on orders, collections, support, etc.
 - Improve agility, e.g., responsiveness to changes in demand
 - Decrease costs, e.g., by reducing inventory needs
- Increase information visibility, communication, decision quality
 - Could improve agility and performance (synchronized behavior)
- Reduce manual efforts
 - E.g., manual versus system interfaces

These factors can be overlapping and difficult to evaluate independently of each other – project valuation for IT is complicated!

Industry-independent business framework

	Financial / Accounting Processes	Human Resources Processes	Industry-specific Processes	Information Systems Processes
Objective's:	Track and report money in/out and overall financial health	Manage employee information	Manage the industry-and company-specific operations	Manage systems used by the business
Example Processes:	<ul style="list-style-type: none"> Procure goods and services Maintain accounts payable and receivable Provide management reports Manage department budgets and costs Support quarterly and annual reports and filings 	<ul style="list-style-type: none"> Maintain salary histories Add employees Change employee statuses (for example, termination) Allocate wages and bonuses from pools of dollars Manage employee ratings Manage benefits 	<p><i>Goods companies:</i></p> <ul style="list-style-type: none"> Create goods Manage inventory Find customers Sell goods Deliver goods <p><i>Services companies:</i></p> <ul style="list-style-type: none"> Find customers Sell services Perform services Bill for work 	<ul style="list-style-type: none"> Create accounts / logins Manage access to devices and information Remove accounts Maintain systems Implement new systems Provide systems support Resolve issues

Example information needs by functional areas - not system needs!

**Not
exhaustive
lists!**

Financial / Accounting Processes

- How much money did we make?
- How much might be lost through returns? Bad debts?
- Who owes us money?
- To whom do we owe money?
- What do we report to the IRS? To the SEC?

Human Resources Processes

- What employees do we have?
- What are we paying them?
- Who are our most critical employees?
- What are we willing to pay in wages, bonuses, other incentives?

Industry-specific Processes

Information Systems Processes

- What systems do we have?
- Who uses them? For what?
- What does our business need? Are we delivering it?
- What do we need to meet future needs – functionality and capacity?
- Where are we spending our money?

Marketing & Sales

- Are we meeting sales targets?
- Where are we doing well? Not so well?
- Who are our customers?
- What are we forecasting for next year? Five years out?
- What do we need to do (products, marketing activities, etc.) to win?

Research & Development

- What products do we need to deliver?
- What new technologies or capabilities should we be investigating?
- What are the most critical priorities?
- What resources do we have? How can we best use them?
- What are our current customers saying?

Inventory Management & Logistics

- What suppliers are qualified?
- What parts do we need, from whom, when?
- Where should we keep inventory – raw, finished?
- Where are our customers?
- What are the long term forecasts?
- What are the regional operating costs?
- What are the best places for mfg & distrib. centers in the long-term?

Manufacturing & Quality

- What are the forecasted needs, by SKU?
- How will we meet those needs?
- What are the long-term forecasts?
- What steps do we need to take to meet long term capacity needs
- What suppliers and parts do we need?
- How will we ensure quality?

Service and Support

- Who are our customers?
- What do they have?
- What are the common issues they see?
- How can we make things better?
- What should we keep as spare parts inventory?
- How should we offer support services? At what price?

Strategy, planning, funding

Strategy defined

What is strategy anyway?

- “A careful **plan** or method; the art of **defining** or **employing plans or stratagems** toward a **goal**”
 - From Webster’s Universal Encyclopedic Dictionary, 2002
- Implicit in the definition of strategy is the **specification of a goal or goals** and the **plans to achieve them**
- Not all organizations have **explicit** IT strategies: some have an **implicit** strategy, and some have **no strategy**

Why bother with strategy?

- **Business drivers** and goals...
 - How would you best support those goals with IT enablement, if you did not understand and carefully consider those goals?
- **Limited resources:** money, people, and time...
 - Only so many things can get done – which ones are critical?
 - Even “wealthy” companies have bottleneck people and organizations
- **Measuring outcomes**...
 - How would you choose the appropriate measures if you did not know what was important to accomplish?

IT Management Framework

Strategy, Planning, Funding

Implementation

Managing IT Operations

Goal

Ensure delivery to critical business needs and best use of IT resources

Ensure effective and efficient project execution and that projects meet intended goals

Ensure system resiliency (short- and long-term) and respond quickly to issues

Key Questions

- What are we trying to accomplish?
- What do we need to do to accomplish those things?
- What other attractive opportunities exist?
- What resources (time, money, people, equipment) are required for each?
- What resources do we have?
- What are the best uses of our limited resources?
- How shall we manage our activities?

- What are the project's goals and target metrics?
- What are the specific business requirements?
- What will our business processes look like?
- Who and what do we need?
- How will we manage the project?
- How will the solution be used? How will we verify the functionality?
- Where do we get the data?
- How will it interact with other systems?
- How will it be supported?

- How will we manage change?
- Are we providing the support that is needed? Are our customers satisfied?
- Are we still meeting business needs, or have they evolved?
- Are we meeting SLA targets?
- What are the key problems we're seeing? What do we need to do to address them?
- Do we have the capacity to meet longer-term needs? What else is needed?
- Are we keeping the systems up-to-date?

What can happen without a coordinated IT strategy?

- Missed opportunities to support business goals...
- Project pipelines full of low-value-add projects...
- Looming critical issues that do not get addressed...
- Missed opportunities to exploit new technologies for competitive advantage...
- Late responses to changing technology and market conditions...
- Uncoordinated IT spending...
- Wasted money, time, resources...
- Other examples...?

Discussion: IT strategy in this organization

- IT folks: Do you know what business goals your organization is trying to accomplish?
- Business folks: Do you know how the IT strategy has been defined to accomplish those goals?
- IT: Do you know how your organization's IT activities relate to those goals and strategies?
- Either: What do you know about IT-specific goals?

Reminder: Effectiveness versus Efficiency

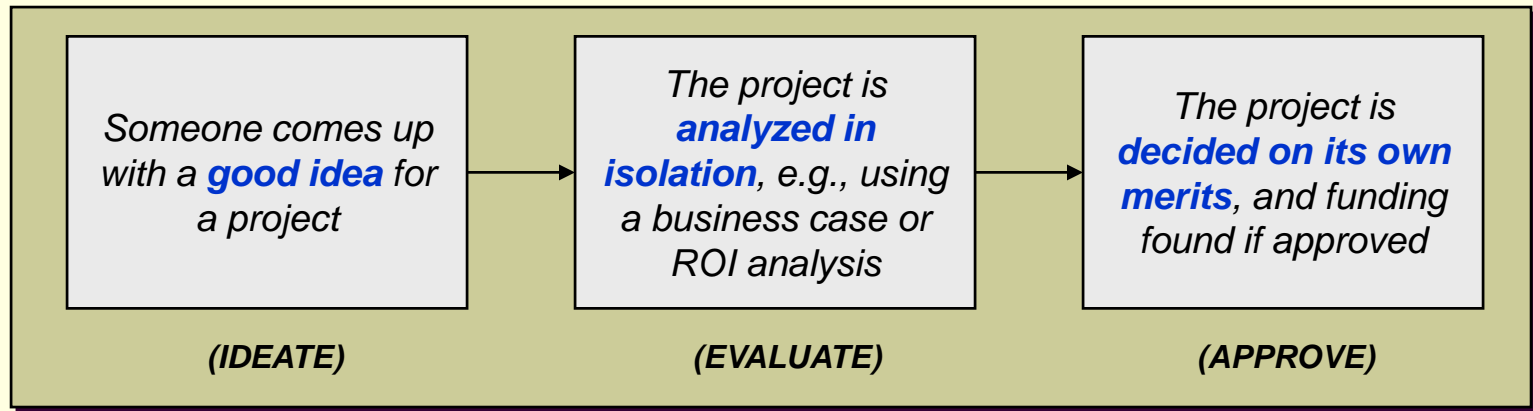
- “Do the right things” versus “Do the things right”...
- How do you know if you are “doing the right things”
- You need to know what those things are!
- If you don’t know what you are trying to accomplish, you may be making suboptimal IT spending decisions
 - Spending IT dollars in the “best” ways requires explicit or implicit IT strategy...
 - ...just as executing to a business strategy requires that you actually have a business strategy

Ensuring best allocation of IT dollars

- Assert strategy and goals to be accomplished
- Ensure strategy and goals are used to drive which projects are undertaken...
- ...and which proportion of the IT dollars should go to each
- Manage the portfolio of IT projects like an investment portfolio

Alternate approaches to IT project funding

A fairly “typical” approach on IT funding...



- What are the challenges in an approach like this?

Note: Good project ideas often crop up after periodic business/IT planning – cannot use a once-a-year process to make all project decisions... But, should still be viewed through the lens of

Periodic planning processes

Almost all companies have periodic planning processes...

...they vary in the degree to which they drive, or are influenced by, IT strategy or IT capabilities

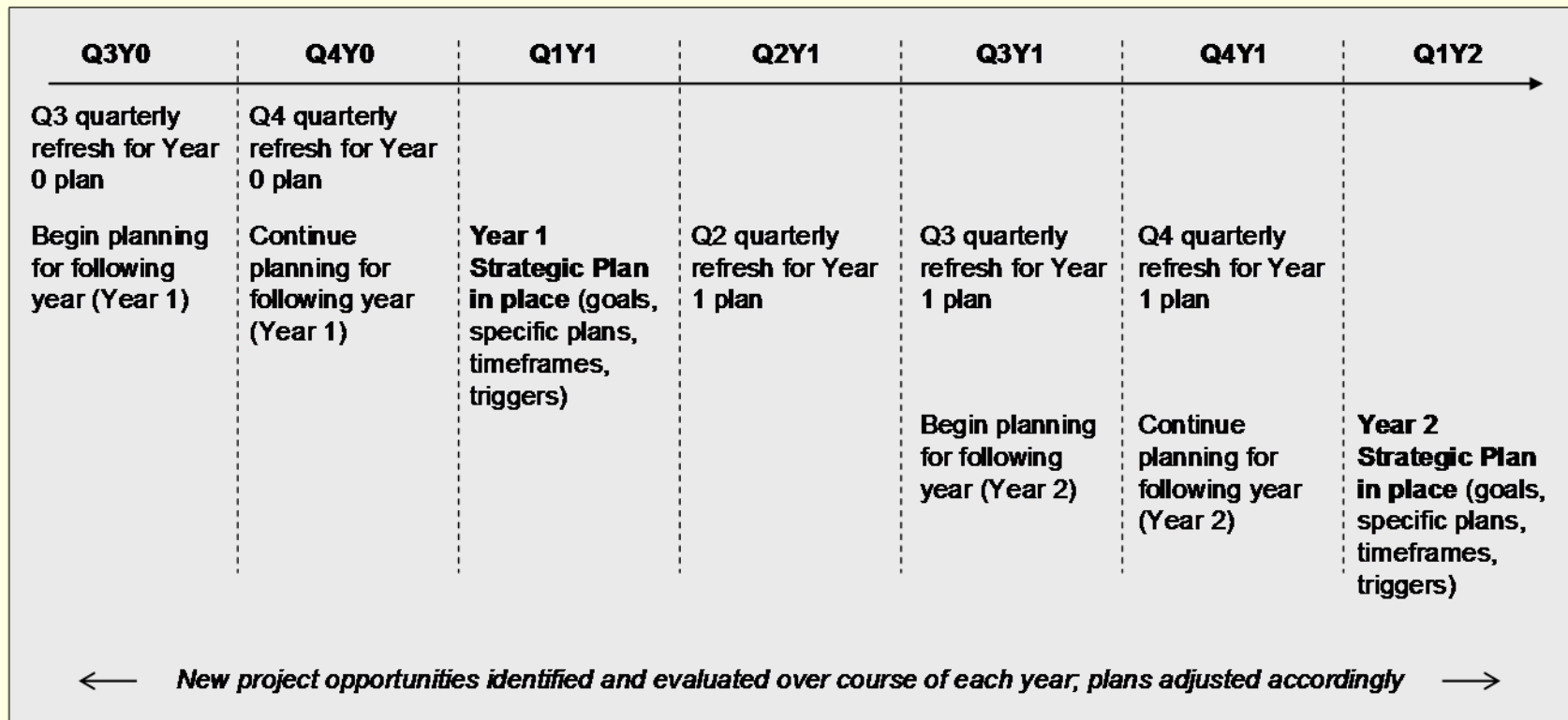



Example:

Annual fiscal planning cycle, with Quarterly “refresh” to revisit funding levels and allocations

Annual five-year business plan with short-term enabling requirements

Periodic planning processes





IT Strategy, Governance, Funding

Funding challenges

IT spending categories – Where does the money go?

	Projects	Maintenance and Support	Management and Oversight
Goal:	<i>Drive changes to systems and or processes to add capabilities, increase efficiencies, or improve outcomes</i>	<i>Keep systems and infrastructure operational</i>	<i>Ensure optimal results from IT organization</i>
Example activities:	<ul style="list-style-type: none"> ■ Upgrade system version ■ Implement a new business system ■ Add functionality to an operational system ■ Decommission and/or replace a legacy system ■ Upgrade infrastructure (network, hardware, operation system, etc.) ■ Solve major operational issues requiring focused initiatives 	<ul style="list-style-type: none"> ■ Perform planned maintenance functions (e.g., backup, patch application, performance tuning) ■ Solve system issues as identified (by users or automated means) ■ Provide help desk assistance to users ■ Provide minor functional improvements (e.g., new report) as needed 	<ul style="list-style-type: none"> ■ Determine strategy, goals, key activities ■ Drive changes (projects, process changes, etc.) ■ Measure results ■ Staff organization to meet needs ■ Guide, manage, incent, reward IT staff

By category and “driving” party

Example Activities

Driven by:


	<u>Projects</u>	<u>Maintenance and Support</u>
IT Organization	<ul style="list-style-type: none"> ■ Add new infrastructure, or update existing (network, hardware, OS, phone, etc.) ■ Upgrade hardware in a data center ■ Bring up or move data center ■ Implement significant patching or upgrades ■ Solve major operational issues requiring focused initiatives ■ Make architectural improvements ■ Upgrade business systems, when driven by IT reason (e.g., supportability) ■ Solve major recurring issues 	<ul style="list-style-type: none"> ■ Provide help desk support ■ Solve identified system issues ■ Backup systems ■ Maintain patch levels ■ Apply minor upgrades as needed ■ Monitor and fine-tune performance ■ Identify long-term capacity needs ■ Identify and resolve recurring issues (those not requiring formal project)
Business Organizations	<ul style="list-style-type: none"> ■ Implement a new business system ■ Upgrade a business system, when driven by business needs ■ Add new functionality or interfaces to existing systems ■ Decommission and/or replace legacy systems 	<ul style="list-style-type: none"> ■ Make changes to existing reports, fields, UI elements ■ Add new reports or fields ■ Make minor functional changes to existing systems ■ Improve performance, usability, stability (when achievable through “tuning” and minor changes)

Example funding pitfalls and impacts

Example Activities

	<u>Projects</u>	<u>Maintenance and Support</u>
IT Organization	<p>Long-run issues may arise if the business has significant control over project-level budgets, or IT organization has little project budget:</p> <ul style="list-style-type: none"> ■ Out-of-date infrastructure, architecture ■ Performance, stability, supportability issues ■ In the short-run, the business may not recognize the impact, and may even blame IT for the long-term outcome 	<p>Proactive activities are sometimes under-funded, for example:</p> <ul style="list-style-type: none"> ■ Ongoing performance monitoring and tuning ■ Performance/usage trending and capacity planning ■ Identification and resolution of recurrent issues ■ Maintenance of patch levels
Business Organizations	<p>Issues may arise if IT controls the budget for business system projects:</p> <ul style="list-style-type: none"> ■ Disconnects with business user needs, priorities, usage requirements ■ Wasted resources (time, money, people) on unimportant functionality ■ Hard-to-use systems ■ Un-met needs ■ “Shadow IT” 	<p>Issues may arise when functional maintenance is under-funded:</p> <ul style="list-style-type: none"> ■ The business may have trouble getting in incremental changes ■ Leading to back-log of un-met needs ■ Negative perception of IT responsiveness ■ “Shadow IT” ■ Unused systems – wasted money

Driven by:



IT Strategy, Governance, Funding

Project valuation

Types of approaches

- Quantitative
- Qualitative
- Probabilistic
- Scoring frameworks
- Business case analyses
- Scenario analysis
- Financial: ROI/NPV/DCF
- Risk/Reward analyses
- Cost/Benefit analyses

Not mutually exclusive... could have a probabilistic quantitative analysis, or a quantitative analysis using scenarios, or a quantitative analysis within a business case, and/or a risk/reward analysis presented in a business case, or...

Quantitative versus qualitative

- Quantitative = Calculated in some way
- Qualitative = Information gathered, viewed, discussed, analyzed – but not by number-crunching

- Which is better? It depends... how good is the data the analysis is founded upon?


- “Garbage in, garbage out”
 - Well known data => quantitative
 - Probabilistic => quantitative using probabilities
 - Completely unknown => qualitative
- Don't make precision greater than accuracy!

Choices:

- Predictable outcome:
Quantitative is a good fit
- Uncertain outcome:
Probabilistic quantitative analysis may work well, or scenario analysis
- Very unknown outcomes: May be better off with qualitative analysis – or a highly qualitative scoring framework
- Should include evaluation of alignment w/ strategies & goals

Characteristics of a good project valuation framework

- Considers alignment with business and technical strategy
- Carefully evaluates benefits of the project (costs reduced, revenue increased, ROI, or other methods)
- Fully considers the costs of the project (people, time, money, opportunities forgone, support costs post-deployment, etc)
- Considers the impact of doing the project on other efforts
 - E.g., Risk to or impact on other projects planned or in progress, to day-to-day operations, management team overseeing the project, etc.)
- Considers any other relevant, critical risks of the project
- CRITICAL: Ensures that **assumptions** driving the result or decision are documented and **reviewed** as part of the project valuation analysis
- CRITICAL: Ensures that the **quality** of the information used for the analysis is used to qualify the result
 - I.e., if the information is largely wild guesses, the estimates are viewed with in the context of the decision-making **as wild guesses**



IT Strategy, Governance, Funding

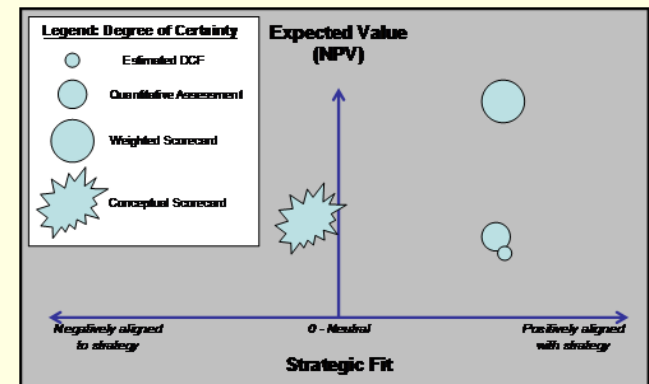
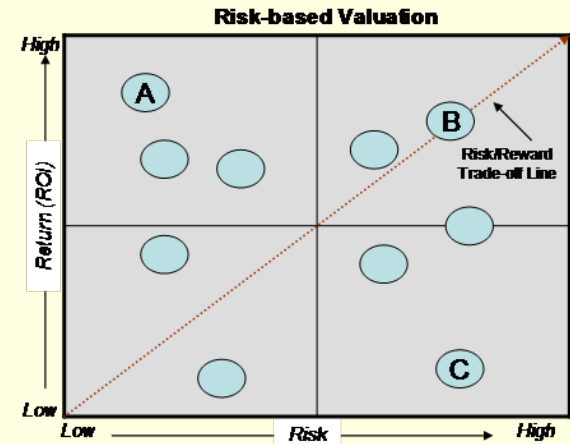
A lightweight treatment of portfolio approaches

Project pipelines and portfolios

- Pipeline = Collection of IT projects ideated and in process
- Ideally, good project accept/reject decisions are made before projects are commenced...
- ...and, projects are cancelled or redirected as needed at defined examination points in their maturity
- Portfolio management approach to projects goes beyond good decision-making on a project-by-project basis

Portfolio management

- A portfolio approach considers all projects together
- Generally includes concept of “risk”
 - Variation around expected outcomes
 - Could be explicit (top) or implicit to model (bottom)
- Like a financial investment portfolio
- Basic principles:
 - Higher-risk investments require higher rewards
 - Can reduce aggregate risk by diversifying investments
 - Each investment has opportunity cost – other ways to apply the money
 - Dollars go to the “best” investments



Applied to IT...

- Project opportunities not considered in isolation; contribution to “portfolio” of IT projects is considered
 - Enables better understanding of IT spending alignment to overarching IT and business strategies and goals
- Formal acknowledgement that project values are not always “correct” – each outcome is risky
 - Can enable better analysis of variation around expectations
- Can be used to diversify technology risk
 - E.g., competing standards
- May not be required for all projects – maybe projects above a set dollar amount
- “Risk” is difficult to quantify – but outcomes *are* probabilistic
- Not often managed effectively – even where “portfolio management” organizations exist

Common decision errors

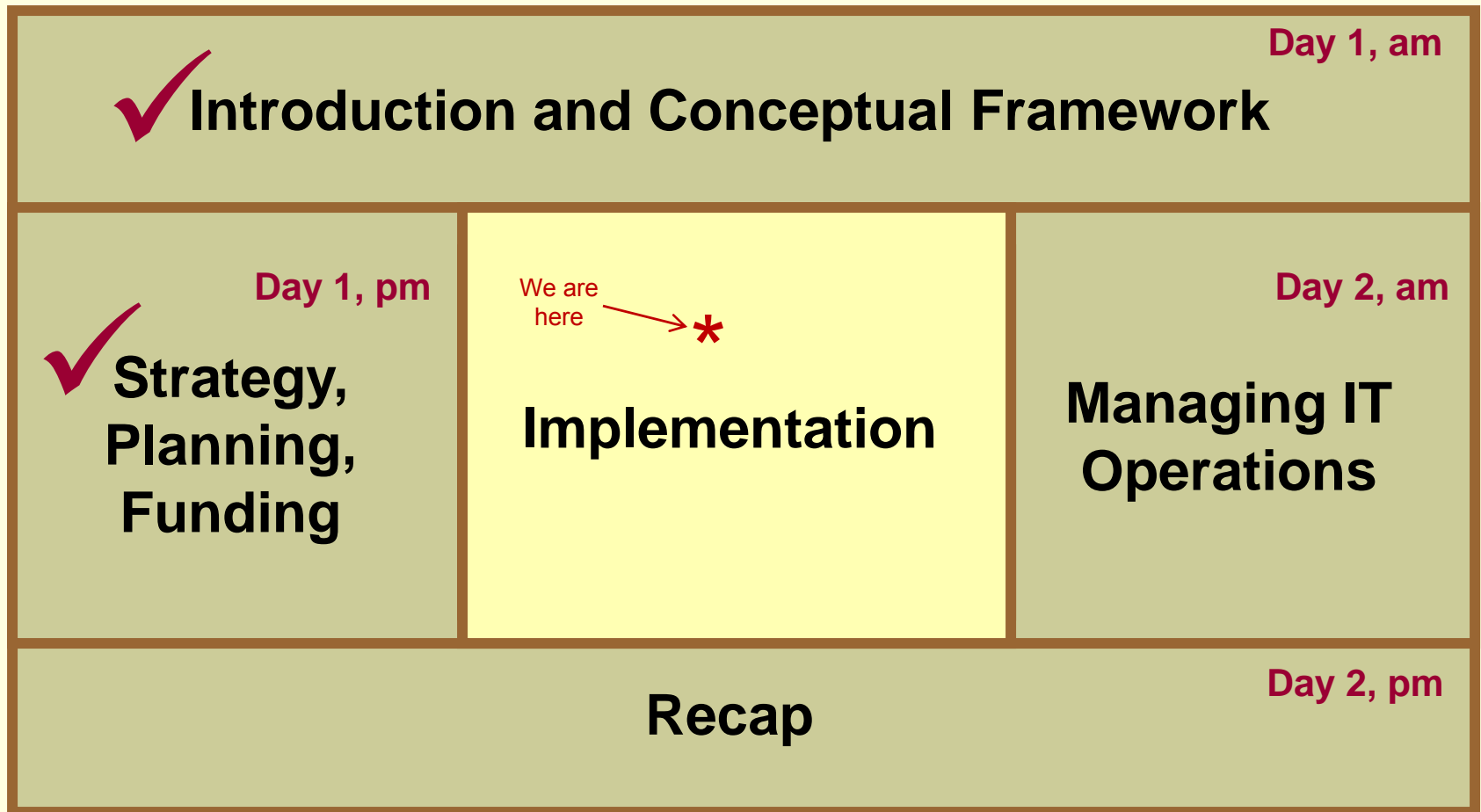
Valuation

- Missing and under-estimated costs (e.g., maintenance and support)
- Overestimated benefits
- Un-quantified benefits
- Undocumented assumptions
- Bad assumptions
- Probabilistic outcome – but “absolute” calculations of value
- Decommissioning / replacement / upgrade never considered
- Just plain lousy analyses
- Decisions made based on all of the above

Pipeline & Portfolio Management

- Not comparing against other options (opportunity costs)
- No checkpoint used to revisit decisions, make corrections
- No aggregate “investment portfolio” type view
- No way for executive team to know: “Are we spending money in the best places?”

Class organization



Business System Implementation

Introduction to Implementation: key issues,
generic “lifecycle”, activities overview

IT Management Framework

Strategy, Planning, Funding	Implementation	Managing IT Operations
<p>Goal</p> <p><i>Ensure delivery to critical business needs and best use of IT resources</i></p>	<p><i>Ensure effective and efficient project execution and that projects meet intended goals</i></p>	<p><i>Ensure system resiliency (short- and long-term) and respond quickly to issues</i></p>
<p>Key Questions</p> <ul style="list-style-type: none"> • What are we trying to accomplish? • What do we need to do to accomplish those things? • What other attractive opportunities exist? • What resources (time, money, people, equipment) are required for each? • What resources do we have? • What are the best uses of our limited resources? • How shall we manage our activities? 	<ul style="list-style-type: none"> • What are the project's goals and target metrics? • What are the specific business requirements? • What will our business processes look like? • Who and what do we need? • How will we manage the project? • How will the solution be used? How will we verify the functionality? • How will we implement it? • Where do we get the data? • How will it interact with other systems? • How will it be supported? 	<ul style="list-style-type: none"> • How will we manage change? • Are we providing the support that is needed? Are our customers satisfied? • Are we still meeting business needs, or have they evolved? • Are we meeting SLA targets? • What are the key problems we're seeing? What do we need to do to address them? • Do we have the capacity to meet longer-term needs? What else is needed? • Are we keeping the systems up-to-date?

Definitions and Caveats

- Not all IT projects are system implementations
 - E.g., process improvement initiatives
- Upgrades have most of the same activities and concerns as new system implementations
 - But, some upgrades are more complicated than others...
- Methodology / conceptual framework here applies to system implementation projects
- The other best practices and pitfalls apply whether the project is a system implementation or not
 - Team structure and sponsorship, managing third-party

Many of the most widely recognized issues in IT are related to project failures

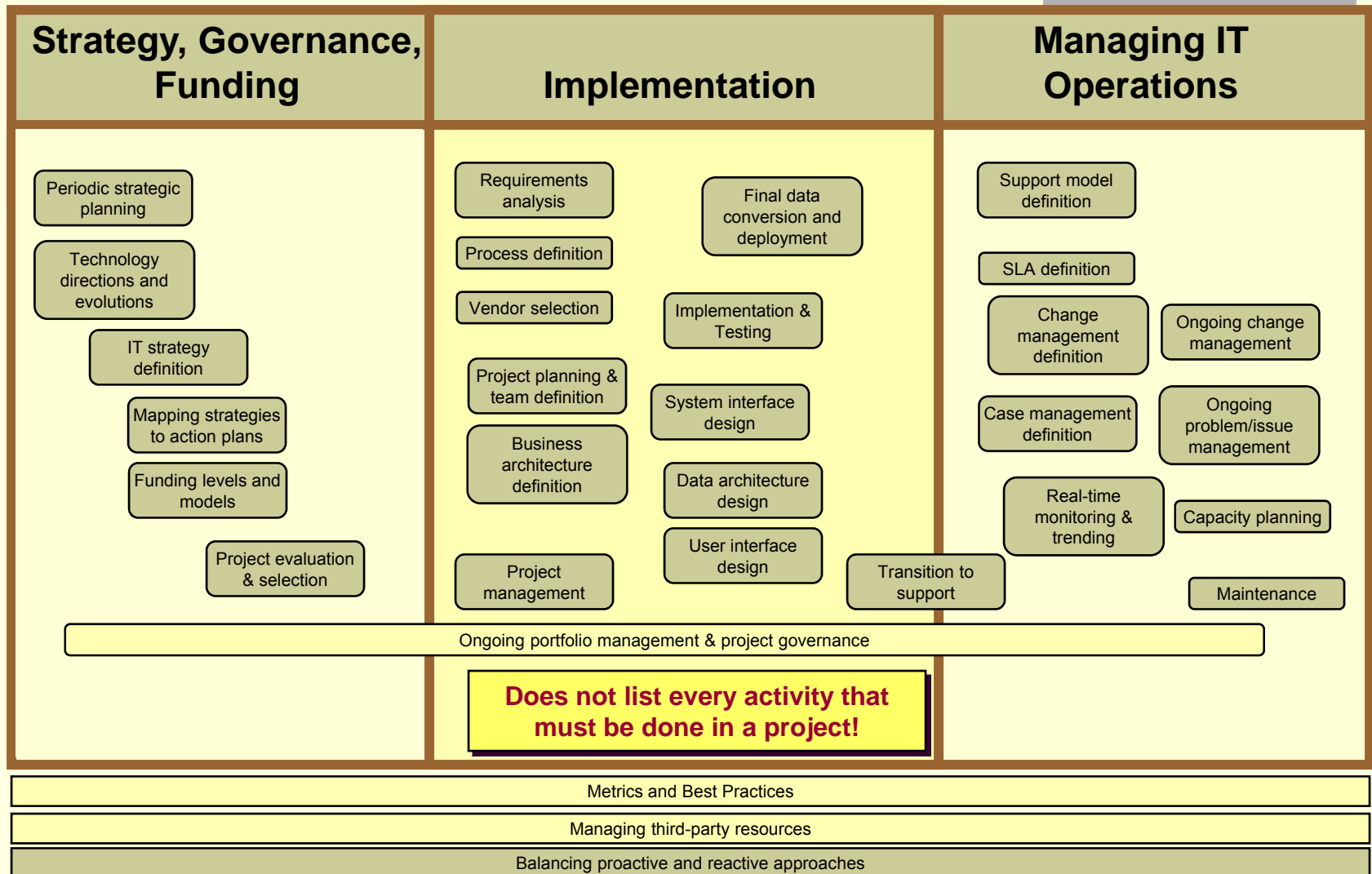
From Class #1... Issues related to IT system implementation projects

From Class #1	Comments on Applicability to System Implementation Projects
High failure rates for IT projects	Many causes for many types of failure
Late, over budget, cancelled, short of goals...	Usually related to lack of focus on goals, scope creep – sometimes estimation problems Cancelled: strategic or execution failures
Wasted time, money, staff resources on failed projects or projects that should have never been started	Strategic execution failure – funding projects that shouldn't exist. Or execution failures – just not set up for success
“Never time to do it right, always time to do it over” mentalities	Emphasis on time commitments over criteria and goals – time may be more visible to management
Important projects that “forget” why they exist	Failure in execution to goals ... scope creep
Business users that complain that IT does not deliver to their needs – what they want, when they want it, how they want it	Delivery problems (takes too long, over-allocated resources, scope creep, not set up for efficient execution,...)
Communication failures	Goals, requirements, usage, project state, decisions needed, actions needed,...

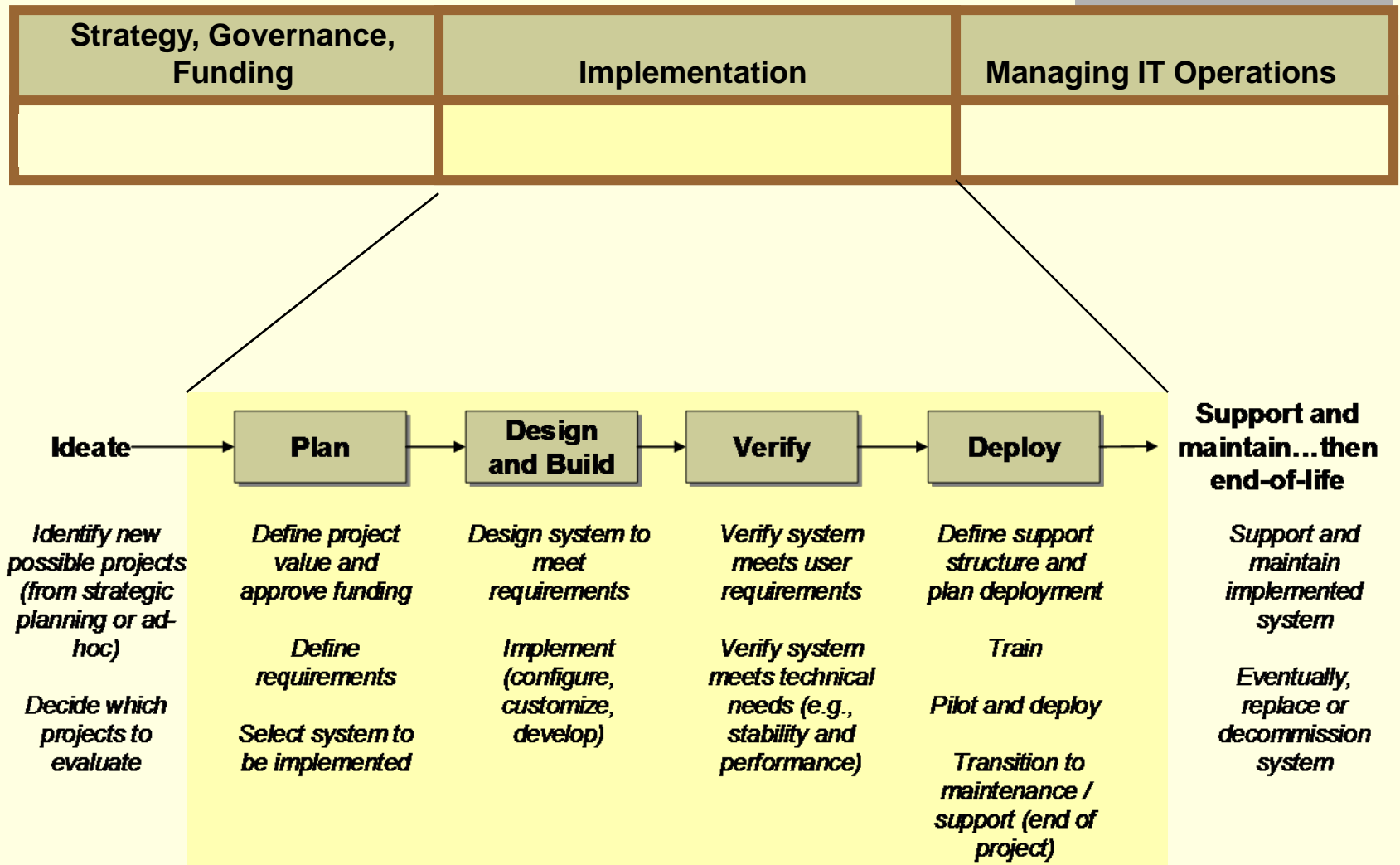
Some key problem areas

- Sponsorship, guidance, and oversight
- Execution processes, including reporting progress-to-goals, and decision and escalation processes
- Design of solution to meet business needs
- Transition to support
- Vendor management
- Decommissioning and/or replacement of legacy systems

Example Implementation activities



Generic, conceptual “lifecycle” methodology



Activities by Implementation phase

Examples

Plan	Design and Build	Verify	Deploy
<ul style="list-style-type: none">• Define goals & objectives, key requirements, success measures• Evaluate project value and secure initial funding• Develop RFP, including scenarios through which vendor evaluations will occur• Complete the analysis of candidate systems• Confirm system selection• Define project plan, key milestones, success measures, team structure, resource requirements (level and timing)• Secure funding for next phase	<ul style="list-style-type: none">• Define to-be business processes and system interaction• Design user interfaces and functional flows (may include prototypes, storyboards, screen designs, early prototypes, system-under-construction, etc.)• Design system interfaces (may include data flow definition, integration into cross-system storyboard flows, etc.)• Configure system to meet requirements (may be completed as iteration on above items)• If applicable, design plan to convert legacy data into new system and implement• Implement system interfaces• Test components of the system as configured (unit testing)• Evaluate project progress-to-goals and current value assessment, define plan for next phase, and secure funding	<ul style="list-style-type: none">• Test system to functional requirements and designs (system testing)• Test functionality, usability, completeness with user community (user acceptance and/or usability testing)• Test end-to-end process flows, including interfaces (end-to-end or flow testing)• Verify data conversion processes and tools• Verify performance and stability• Evaluate project progress-to-goals and current value assessment, define plan for next phase, and secure funding	<ul style="list-style-type: none">• Provide training• Implement and test support structure• Implement and verify production data conversion• Transition to production environment• Go-live• Provide close monitoring, high level of support, rapid response for immediate post-deployment period• Transition to normal operations, maintenance, and support

Organization of the rest of this section

- Project set-up and execution processes
 - Team set-up and sponsorship
 - Managing, tracking, reporting to goals
 - Decision, action, escalation processes
- Translating needs to solutions
 - “Requirements analysis”
 - “User-centeredness”
 - Validation / verification
- Summarized critical success factors (“CSFs”) and common pitfalls
- Transition to support – segue to next class topic

Business System Implementation

Setting up project teams for success:
Sponsorship, teams, execution processes,
decision processes

Key enablers for project success ("Critical Success Factors", or "CSFs")

- Right project – Alignment of funding with priorities
- Right requirements – Aligned with to-be-measured project goals (more on requirements → solutions tomorrow)
- Strong sponsorship
- Clear definition of team roles, commitments, accountability
- Effective means for tracking and reporting progress
- Effective means for tracking and resolving actions and issues
- Clear decision-making and escalation processes
- Expectation of accountability – by all parties
- Funding and timing that is appropriate for the project

We will talk more about how each of these!

Alignment of CSFs

Team Structure

- **Strong sponsorship**
- **Clear definition of team, roles, expectations, commitments, accountability**

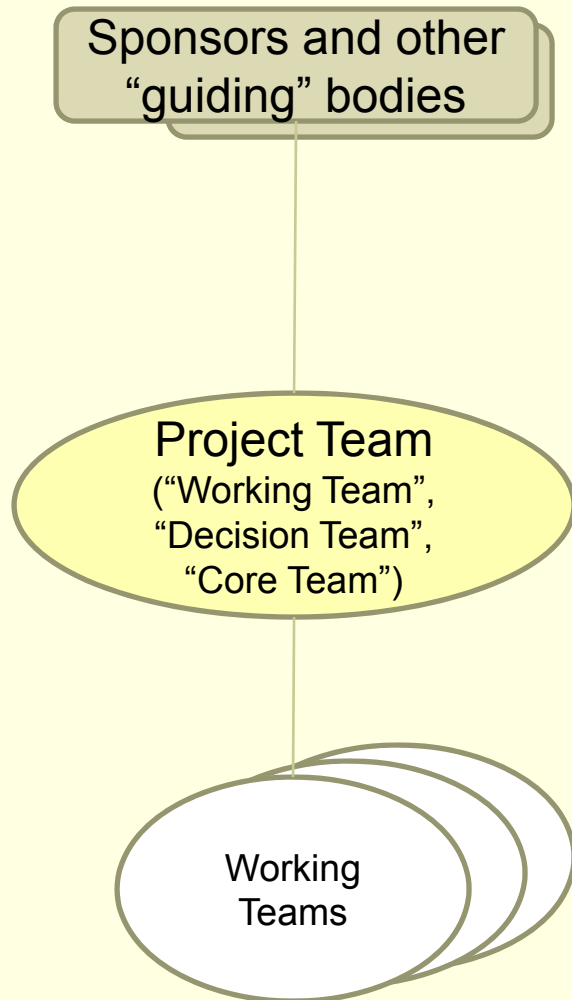
- **Effective means for tracking and resolving actions and issues**
- **Clear decision-making and escalation processes**
- **Expectation of accountability – by all parties**
- **Team participation expectations that are met or escalated**

Management Processes

- **Effective means for tracking and reporting progress**
- **Funding and timing that is appropriate for the project**

Central elements require cohesiveness of team structure with management processes

Team structure and roles



- Has authority to make significant decisions (financial, organizational, directional)
- Provides team with directional feedback and input
- Responds to issues and possible solutions presented by the project team, making "calls" when requested
- Helps team navigate organizational hierarchy and resolve thorny cross-organization issues
- Provides "air cover" for the project team

- This is an "action" team!
- Enabled to drive the project to success – do not need permission for every decision
- Ideally, most project decisions can be made here
- May escalate thorny issues or decisions through management chain or sponsors

- Focused on specific sub-areas of the project
- Includes team members at a lower participation level than the core Project Team, such as subject matter experts
- Usually multiple working teams; may be additional hierarchy beyond this level for complex projects

Roles definition, commitment, accountability

- Effective execution requires clarity around team member roles, expectations, and commitments
- Example issues if roles/commitments are not defined & agreed:
 - Key person not available at the participation level needed
 - Team members that think they are “representing” their organization versus being “accountable” for specific team deliverables or results
 - Lack of clarity around relationship between different “Lead” roles (e.g., IT PM and business PM)
 - Team members are not clear as to what is expected of them

Example

Team Member	Role	Accountability	Commitment Level
Person #1	Project Leader	Overall success of the project; managing escalations; ensuring decisions made and recorded; tracking actions to closure; reporting progress; managing sponsor relationship,...	50%
...

Project set-up activities

- Sponsor enrollment / commitment
- Executive reporting means
 - Plan/schedule & status (red/green/yellow)
 - Plan-to-budget (depending)
 - Deviation from commitments, escalations, decisions needed
- Stakeholder communications
 - Stakeholder analysis: Who needs to know what when
- Project planning: Phasing, Milestones, Deliverables
 - Don't forget to include business process work and usage on the plan, if applicable for the project
 - Plus, all the usual: Requirements, Design, Build, Test,...
- Logistics: Meetings, Logs, Notes, File Locations, etc.

Tracking decisions, actions, and issues

- “PM 101” type activity set – but often not well handled
 - Often considered “administrative” but critical to PM work
 - Lazy note-taking means important items get lost; conversely, “jotting down everything” dilutes important actions in noise
- Decisions Log:
 - Without one, same decisions / discussions get revisited over and over again – and people forget prior agreements
 - **What** decision, **When** made, **Who** was in the room
- Action Log:
 - **Who**, **what**, **when**, and... who has responsibility for following up – nagging – if no one does, actions do not get closed
- Issues and risks:
 - What, probability, mitigation plan, owner, date, escalation plan
 - Issues here: no mitigation plan, or escalation after date