Grant Thornton

Dallas IIA Chapter / ISACA N. Texas Chapter
Auditing Project Management Controls

January 7, 2010

Table of Contents

Contents

David Dominguez – Manager, Grant Thornton, LLP

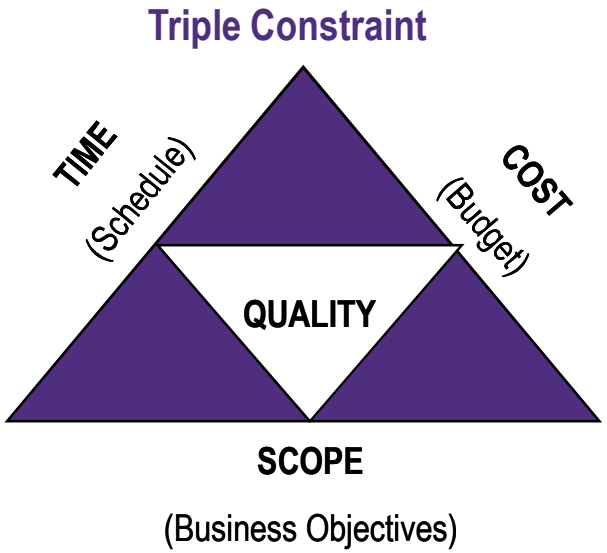
Manager in the Dallas Business Advisory Services practice of ***Grant Thornton, LLP***. Fifteen years of technology experience, including management of several global efforts including implementations of corporate financial applications, rollout of large scale development efforts, SOX S404 I/T internal audits, and implementation of several I/T business process and controls.

Before joining Grant Thornton, David served as senior manager for an international telecom software company directly responsible for several I/T business services including program management, internal I/T 404 audit, PeopleSoft application management, development and support, desktop management, change management, business continuity, and solutions delivery.

Project Management Overview

Project management initiatives are fraught with risks as evidenced by facts* from surveys of CIO's

- 63% of projects have schedule delays
- 49% of projects exceed budget
- 45% of projects do not meet business objectives
- 23% of all projects FAIL



Source: Research by the Standish Group International Inc., as reported in *Computerworld*, Feb. 17, 2005.

What constitutes where a project is a success or a failure?

- Has the project satisfied the business requirements of the stakeholders?

(Executive Management, Leadership Team, End-Users, Internal Audit)

- Were the deliverables produced on time and within budget?

How do stakeholders know? Tracking, initial baseline, tracking?

- Do the business owners 'perceive' the project to be successful?

Initial expectations? Charter, Requirements?

- Has the project delivered the business value promised at the beginning?

ROI, Cost vs. Actual, Cost Tracking, Change Management

The successful project manager is one who focuses on project risks which in turn arise from uncertainty.

Risk & Issue Tracking and Management

What is a Project Management Office (PMO)?

PMO is the department or group that defines and maintains the standards of process, related to project management, within the organization.

Additional Project Facts:

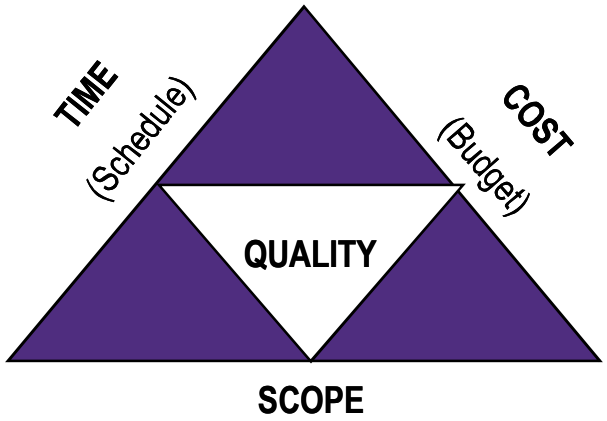
- 32% fail due to inadequate project management implementation
- 20% fail due to lack of proper communication
- 17% fail due to unfamiliarity and complexity of scope
- 69% fail due to lack and/or improper implementation of project management methodologies

PMO Value Proposition: The PMO is established to manage project management standards in order to minimize risk of project failures.

The PMO balances schedules, budgets, and performance to achieve program objectives and business requirements.

- Coordinate multiple project dependencies
- Proactive issue and risk management
- Reduced project schedule slippage
- Accurate project estimating and planning

Triple Constraint



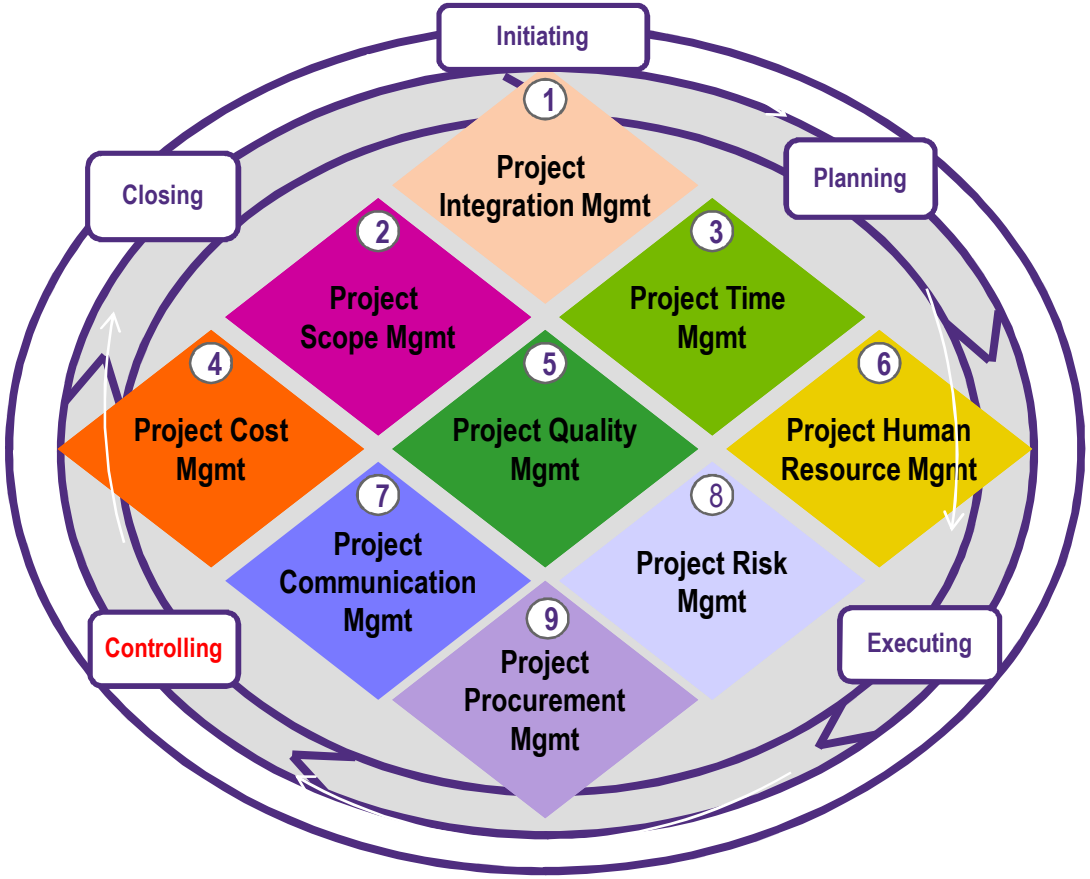
(Business Objectives)

- Timely and insightful performance metrics
- Effective resource management
- Delivery within budget
- Maximized consulting investment

- Targeted communication between project teams and business units
- Repeatable standards, processes and tools
- Conduct quality assurance reviews

PMI's PMBOK 9 Knowledge Areas and 5 Base Process Groups

Framework for successful technology initiatives.



The **PMI PMBOK** is a basic reference for those interested in or already working in the project management profession.

Project Management Processes to Process Groups and Knowledge Areas

Planning
- Project Plan Development

Executing
- Project Plan Execution

Controlling
- Integrated Change Control

Initiating
- Initiation

Planning
- Scope Planning
- Scope Definition
- Create WBS

Controlling
- Scope Verification
- Scope Change Control

Planning
- Activity Definition
- Activity Sequencing
- Activity Duration Estimating
- Activity Resource Estimating
- Schedule Development

Controlling
- Schedule Control

PMBOK 9 Knowledge Areas and sub-areas

Planning
- Resource Planning
- Cost Estimating
- Cost Budgeting

Controlling
- Cost Control

Planning
- Quality Planning

Executing
- Quality Assurance

Controlling
- Quality Control

Planning
- Organizational Planning
- Staff Acquisition

Executing
- Team Development

PMBOK 9 Knowledge Areas and sub-areas

Planning
- Communications Planning

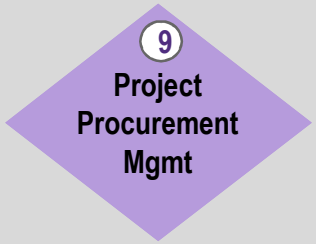
Executing
- Information Distribution

Controlling
- Performance Reporting

Closing
- Administrative Closure

Planning
- Risk Management Planning
- Risk Identification
- Qualitative Risk Analysis
- Quantitative Risk Analysis
- Risk Response Planning

Controlling
- Risk Monitoring and Control



Planning
- Procurement Planning
- Solicitation Planning

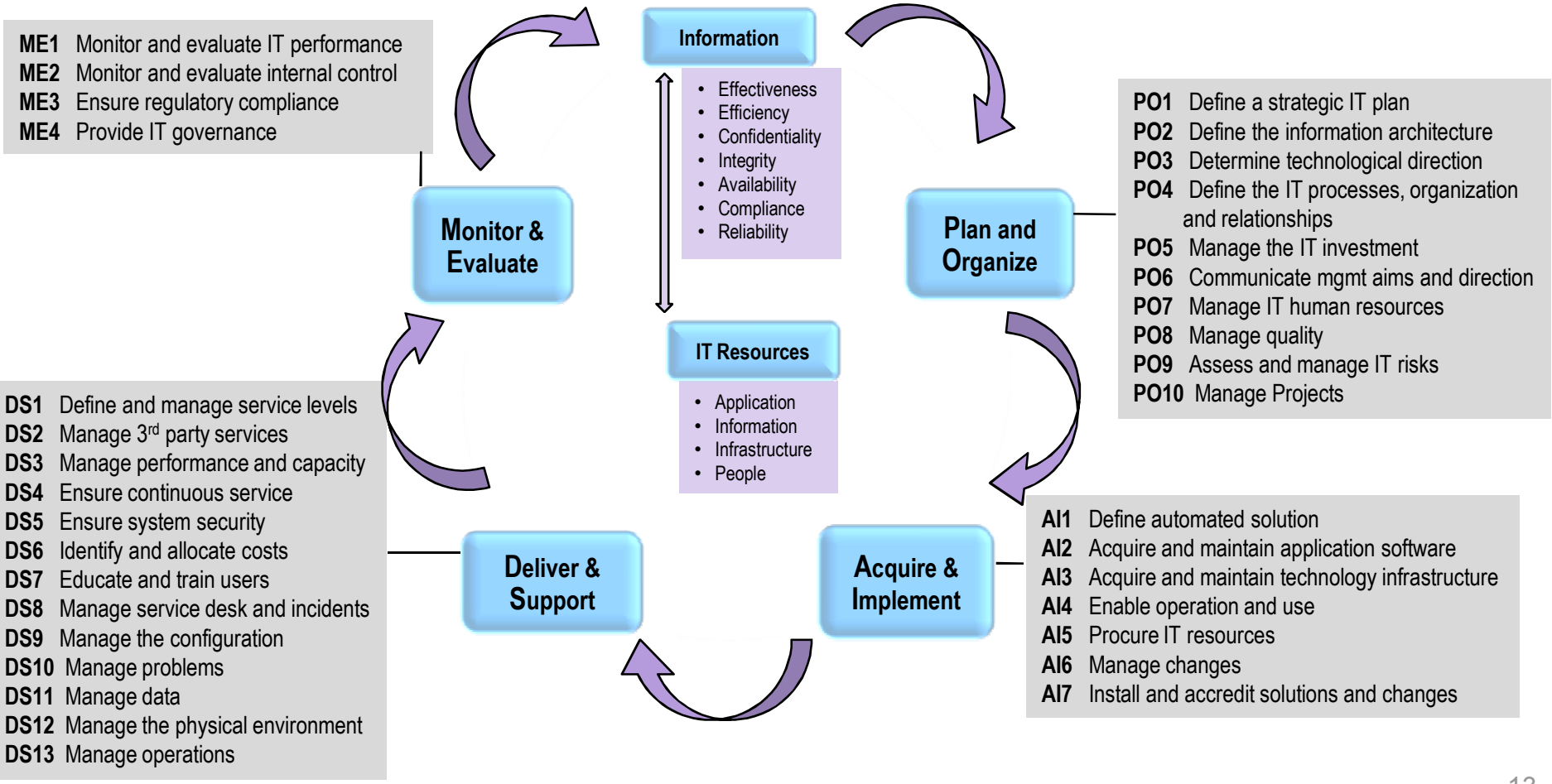
Executing
- Request Sellers Response
- Select Sellers
- Contract Administration

Closing
- Contract Closure

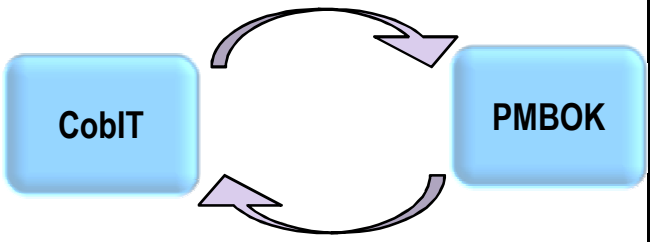
Aligning PMBOK to CobIT Standards

CobIT identifies the I/T processes that should exist to ensure that I/T is aligned with and supports the business in an effective manner.

CobIT I/T Processes within the Four Domains



Overlap of CobIT and PMBOK

Overlap of CobIT and PMBOK		
CobIT identifies the I/T processes that should exist to ensure that I/T is aligned with and supports the business in an effective manner. CobIT and its supporting publications identify control objectives, techniques and practices commonly required for each processes.	**Controls Required for IT Projects**  **Project Management Best Practices**	PMBOK identifies the best practice process for project management, together with the knowledge and techniques required for those processes to be effective.

Aligning CobIT to PMBOK

Plan and Organize

CobIT IT Processes

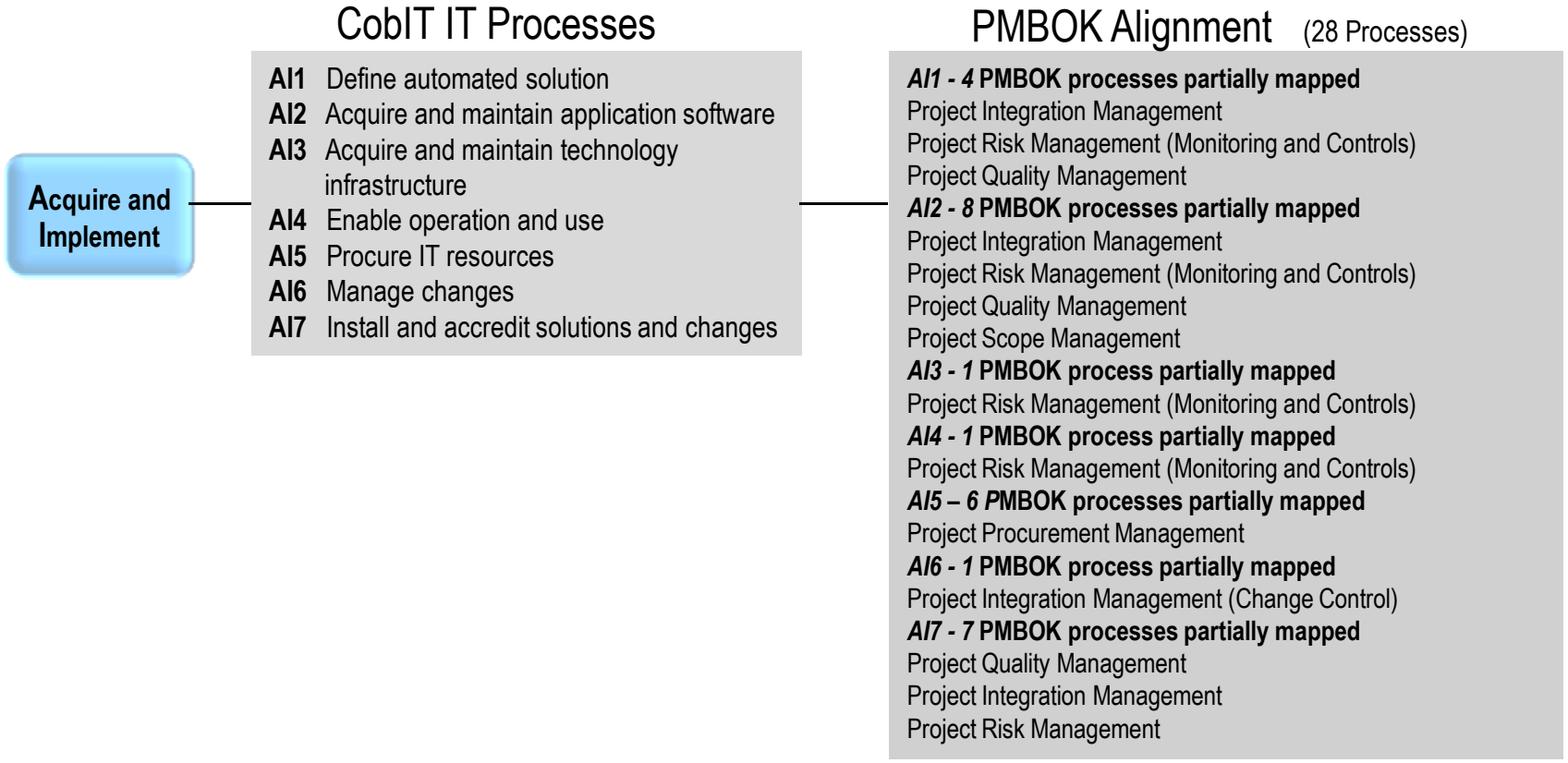
PO1 Define a strategic IT plan
PO2 Define the information architecture
PO3 Determine technological direction
PO4 Define the IT processes, organization and relationships
PO5 Manage the IT investment
PO6 Communicate mgmt aims and direction
PO7 Manage IT human resources
PO8 Manage quality
PO9 Assess and manage IT risks
PO10 Manage Projects

PMBOK Alignment (55 Processes)

***PO1* - 1 section of PMBOK**
Portfolio Mgmt
***PO2* - No control objectives are covered by PMBOK**
***PO3* - No control objectives are covered by PMBOK**
***PO4* - 3 PMBOK processes partially mapped**
Project Human Resource Management
***PO5* - 4 PMBOK processes partially mapped**
Project Cost Management
Project Procurement Management
***PO6* - 2 PMBOK processes partially mapped**
Communication Management
Project Risk Management
***PO7* - 5 PMBOK processes partially mapped**
Human Resource Management
Project Time Management
Project Cost Management)
***PO8* - 3 PMBOK processes partially mapped**
Project Quality Management
***PO9* - 7 PMBOK processes partially mapped**
Project Risk Management
Communication Management
***PO10* - 31 PMBOK processes are fully mapped**
Aligned to all 9 PMBOK Knowledge Areas

Reference: IT Governance Institute: Mapping of PMBOK with CobIT 4.0

Aligning CobIT to PMBOK



Reference: IT Governance Institute: Mapping of PMBOK with CobIT 4.0

Aligning CobIT to PMBOK

Deliver and Support

CobIT IT Processes

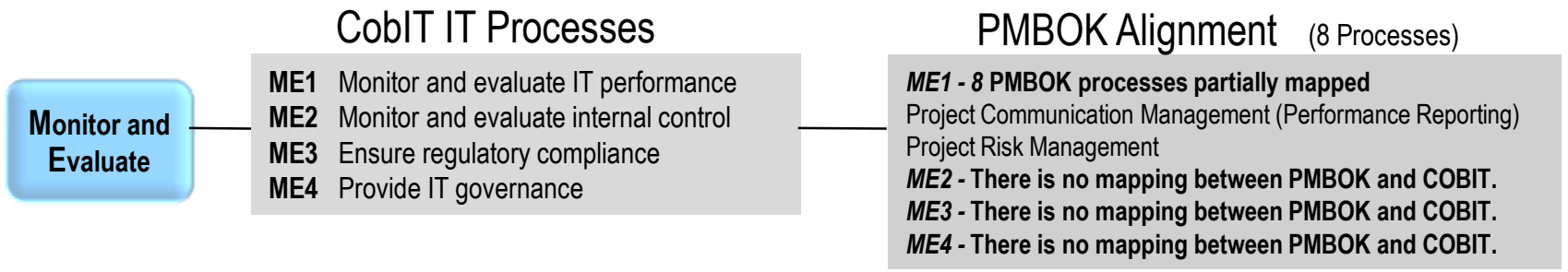
DS1 Define and manage service levels
DS2 Manage 3rd party services
DS3 Manage performance and capacity
DS4 Ensure continuous service
DS5 Ensure system security
DS6 Identify and allocate costs
DS7 Educate and train users
DS8 Manage service desk and incidents
DS9 Manage the configuration
DS10 Manage problems
DS11 Manage data
DS12 Manage the physical environment
DS13 Manage operations

PMBOK Alignment (14 Processes)

***DS1 - 1* PMBOK process partially mapped**
Project Integration Management (service agreements)
***DS2 - 4* PMBOK processes mapped**
Project Procurement Management
***DS3* - No control objectives are covered by PMBOK**
DS4 - 1 PMBOK process partially mapped
Project Integration Management (IT Continuity)
***DS5 - 1* PMBOK process partially mapped**
Project Integration Management (IT Security Plan)
***DS6 - 1* PMBOK process partially mapped**
Project Cost Management
***DS7 - 1* PMBOK process partially mapped**
Project Human Resource Management (Team Development)
***DS8* - No control objectives are covered by PMBOK**
***DS9 - 2* PMBOK process partially mapped**
Project Scope Management
Project Risk Management
***DS10 - 1* PMBOK process partially mapped**
Project Time / Scope Management (Change Control)
***DS11 - 1* PMBOK process partially mapped**
Project Scope Management
***DS12 - 1* PMBOK process partially mapped**
Project Time / Scope Management (Change Control)
***DS13* -No control objectives are covered by PMBOK**

Reference: IT Governance Institute: Mapping of PMBOK with CobIT 4.0

Aligning CobIT to PMBOK



Reference: IT Governance Institute: Mapping of PMBOK with CobIT 4.0

Project Management Audit Recommendations

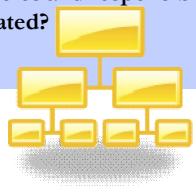
Use a structured approach when reviewing project management controls.

1 Interviews

Conduct interviews with all levels to ensure the project business need, requirements and scope is properly aligned from initial concept to actual execution. Includes Executive Management, Steering Committee, Project Team, Project Manager, and End-Users

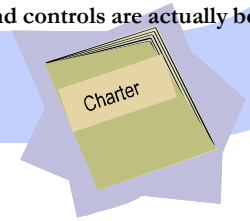
2 Governance Structure

Review the organizational and governance structure of the project. Is the project properly represented for its review and execution? Have proper roles and responsibilities been identified and communicated?



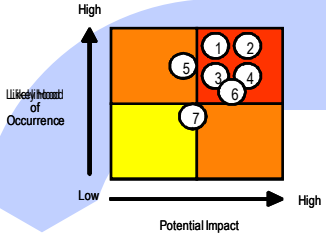
3 Documentation Review

Review project documentation to ensure the initial design of project documentation and controls are actually being executed and reviewed.



4 Risks Assessment

Be sure that controls are designed into the system. Focus on risks that have the highest impact and likelihood to occur.



5 Observations

Captured preliminary observations related to the current state of the project . Confirm your findings prior to reporting.

Beginning with a review of the Governance process is important as it sets the foundation for how the project is managed and viewed by the organization.

Project Governance Key Components:

- Executive management commitment and support
- Active formal steering committee and project sponsor
- Business process leader representation on the steering committee
- Clear project charter that identifies scope and objectives
- A Program Management Office to manage the project

The Governance assessment plan should include review of the governance structure (roles & responsibilities), the program charter (requirements), business case (financials and timeline) and project plan.

GOVERNANCE

Activities	Reviewed Deliverables
Review Governance Structure	Roles & Responsibilities
Review Governance Charter	Charter / Requirements / Playbook
Review Business Case	Business Case with ROI
Review Project Plan	Master Project Plan
Review Risk Plan	Risk and Issue Response Plan
Attend Governance steering committee meetings	Meeting Notes & Action Items
Monitor progress against plan	Periodic Team and Steering Committee Meetings
Post implementation review	QA Assessments and Lessons Learned

Clearly defined and agreed upon roles and responsibilities ensure accountability and contribute to an effective and efficient project.

Group	General Roles and Responsibilities
Program Steering Committee	• **Holds project decision making responsibility** • **Sets resources and priorities** • **Handles issue resolution and barrier removal** • **Participates in bi-weekly updates and key milestone meetings/takes follow up action**
Executive Sponsor	• **Champions project importance** • **Escalates Issues**
Risk Management	• **Monitor and manage program and project risks**
Program Management Office	• **Builds and manages detailed project plan** • **Coordinates with all stakeholders** • **Facilitates resource assignment** • **Develops and delivers status reports/communications**
Business Process Redesign Teams	• **Detail and benchmark current business processes and related information flows** • **Develop new business processes** • **Report on status and/or issues**

Clearly defined and agreed upon roles and responsibilities ensure accountability and contribute to an effective and efficient project.
(continued)

Group	General Roles and Responsibilities
Technology Implementation Teams	• Identify network, hardware and operating system requirements • Install and configure hardware infrastructure, network and system • Develop, install and setup applications • Setup Development, Test and Production Environment • Migrate environments from Development, Test and to Production • Report on status and/or issues
Applications Configuration and Implementation Teams	• Develop system applications (modules) based on business process and requirements • Install and configure application databases • Provide application expertise and insight/knowledge sharing • Migrate data from existing applications
Systems Interfaces Team	• Design, develop and implement interfaces
Security and Controls Team	• Identify and design business and technology controls
Quality and Change Control Team	• Reviews Quality Assessment documentation • Review and approve project changes • Work with Executive Sponsor to ensure project quality

Analyze project execution to ensure that initial baseline expectations have been developed and that these expectations are being managed and achieved.

Project Management Execution

- Has the team identified critical path tasks?
- Have project stakeholders completed a review of key deliverables and milestones?
- Is the project being managed from the plan?
- Is a structured development methodology been utilized?
- Is progress tracked against milestones?
- Are issues and changes being identified and tracked to resolution?
- Are estimates to complete realistic?

Assessment of the "Project Management" process should focus on the project plan, key deliverables, milestones and timeline.

Project Plan Key Components:

- A detailed project plan should be current, monitored and have critical and key milestones identified
- Requirements for each major process area should be documented, reviewed and approved by the business organization
- Take into account the “Triple Constraint” (Scope, Cost, Time)
- Plan should take into account resources day-to-day activities outside the project
- A phased roll out strategy is recommended
- A contingency plan should be included in the plan

The initial step in the system development life cycle assessment focuses on how requirements are defined and how changes are managed.

Requirements and Change Management

- Are business process flows and key business requirements documented, referenced, and validated during the software development cycle?
- Are the appropriate controls built into the system to meet financial statement control objectives?
- Are process flows available to document how data moves throughout the system?
- Are changes to the project being managed?
- Are controls in place to prevent scope creep?
- Are users involved in acceptance testing?

Business requirements are the foundation for all testing. The review should ensure that business functionality, conversion and interfaces have been tested rigorously and that the business organizations have signed-off before the new system is moved to production.

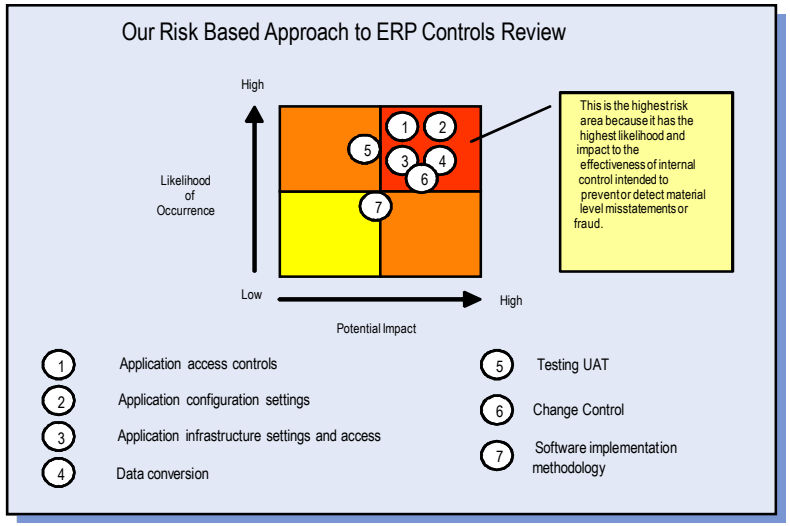
Testing Key Components

- Align initial requirements to the testing plan to confirm all system functionality is properly tested
- Test script development should be reviewed and approved by the business
- Test scripts should include conversion and interface testing, reconciliation and user sign-off

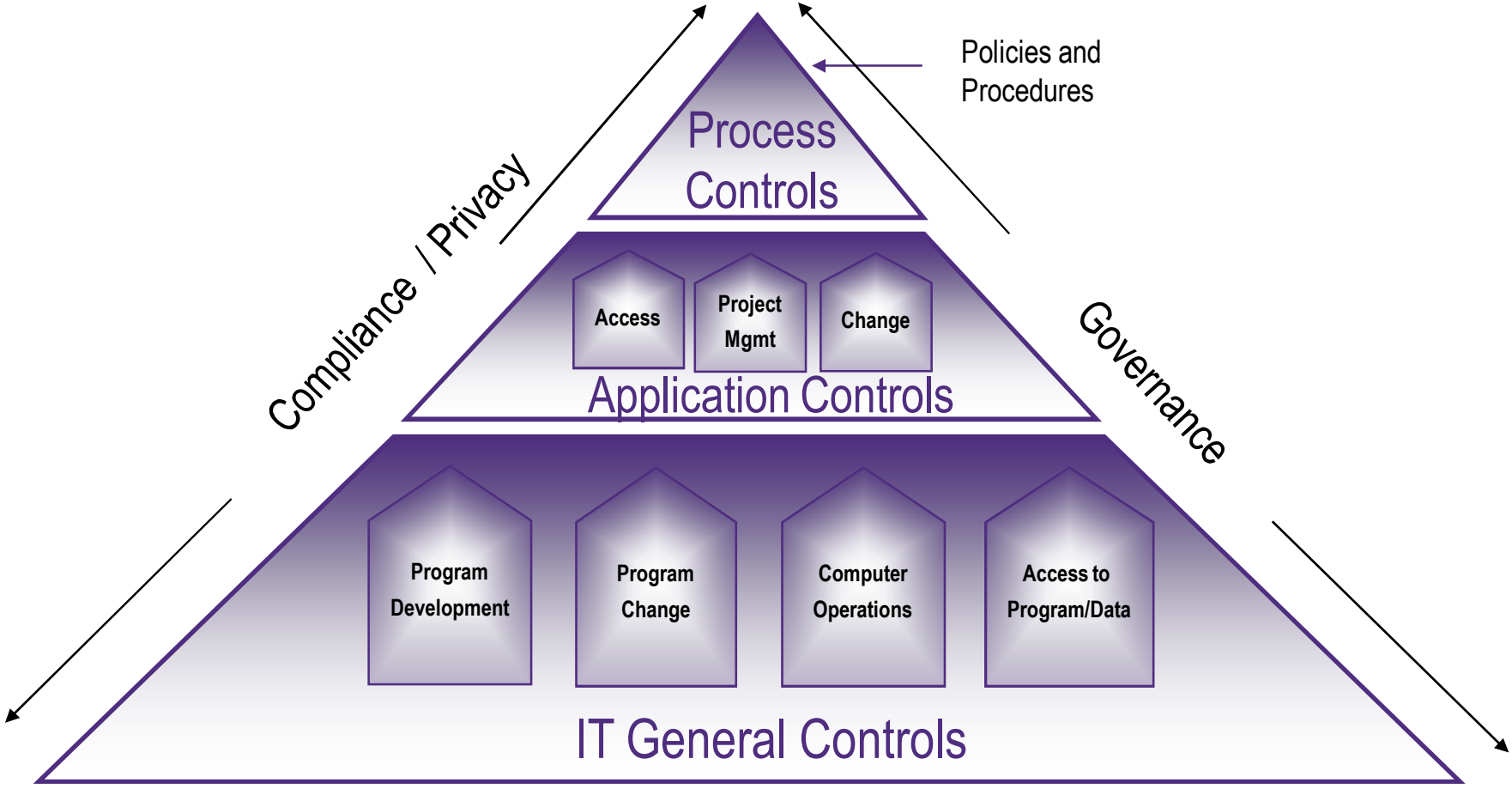
Be sure that application controls are designed into the system. Use a risk based approach to design and implementation controls related to application and related systems and business processes. Focus on risks that have the highest impact and likelihood to occur.

The risk approach should address the following key risk areas.

- Application Security Risks
- Financial Control Risks
- Application Control Risks
- General Computer Control Risks (Infrastructure)
- Data Conversion Risks
- Interface Risks



Be sure that Security and Controls are designed into the system. Security and Controls should focus on aligning existing controls and implementing new controls for new solution implementations.



Question ?