

Project Management

Session 2 - What is Project
Management?

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Last Session

What is a project?

- Characteristics: Temporary, Unique Product, Progressive Elaboration
- Operations vs. Projects
- Constraints of a Project
- Why Project Fail?

This Session

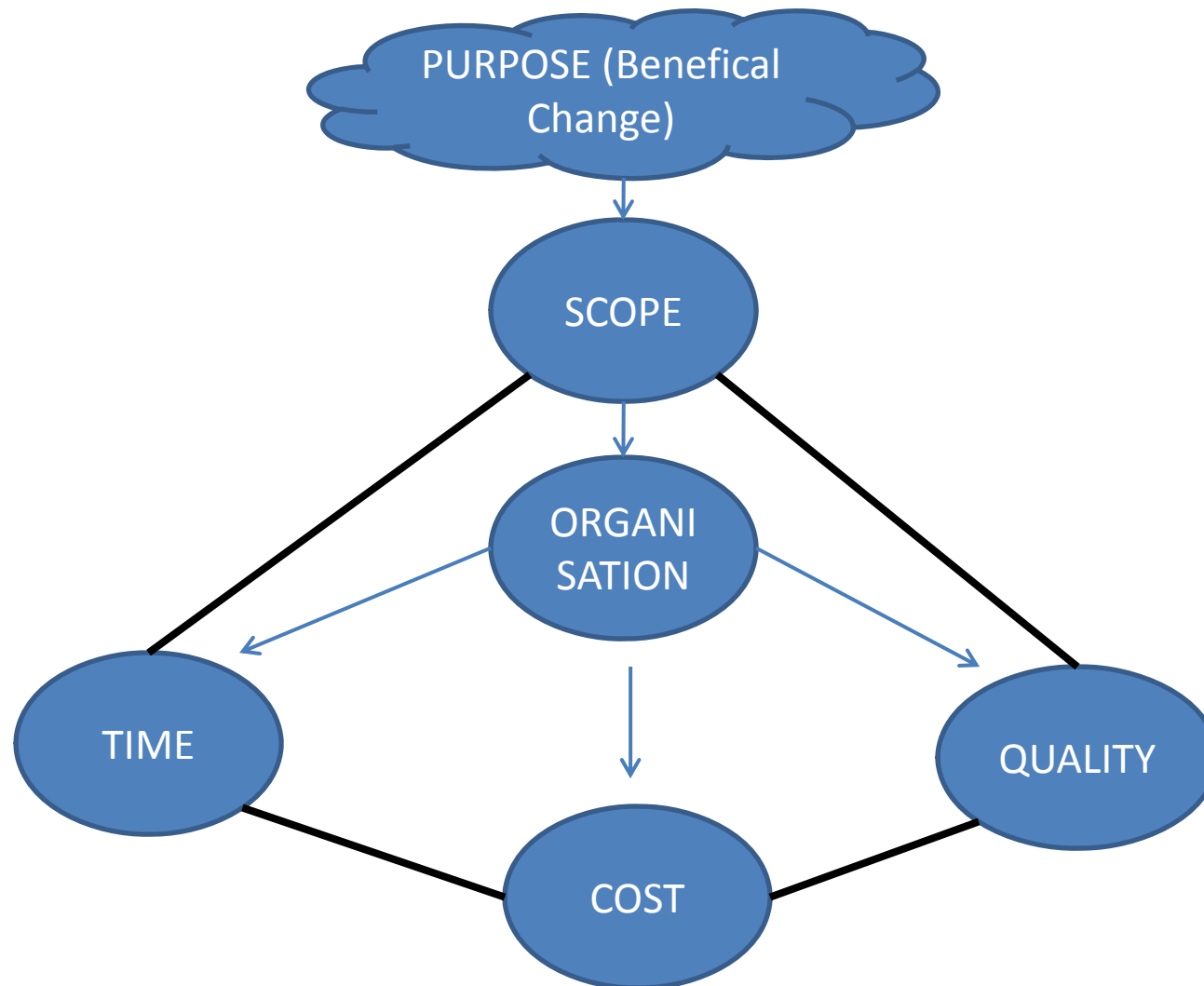
What is Project Management?

- What is Project Management?
- Stakeholder Management
- Organizing the Project

What is Project Management?

- “Project Management is the application of knowledge, skills, tools and techniques to project activities to meet project requirements. “ PMI (2000, pg. 6)

Turner (1999, pg. 8) Five Functions of Project-Based Management

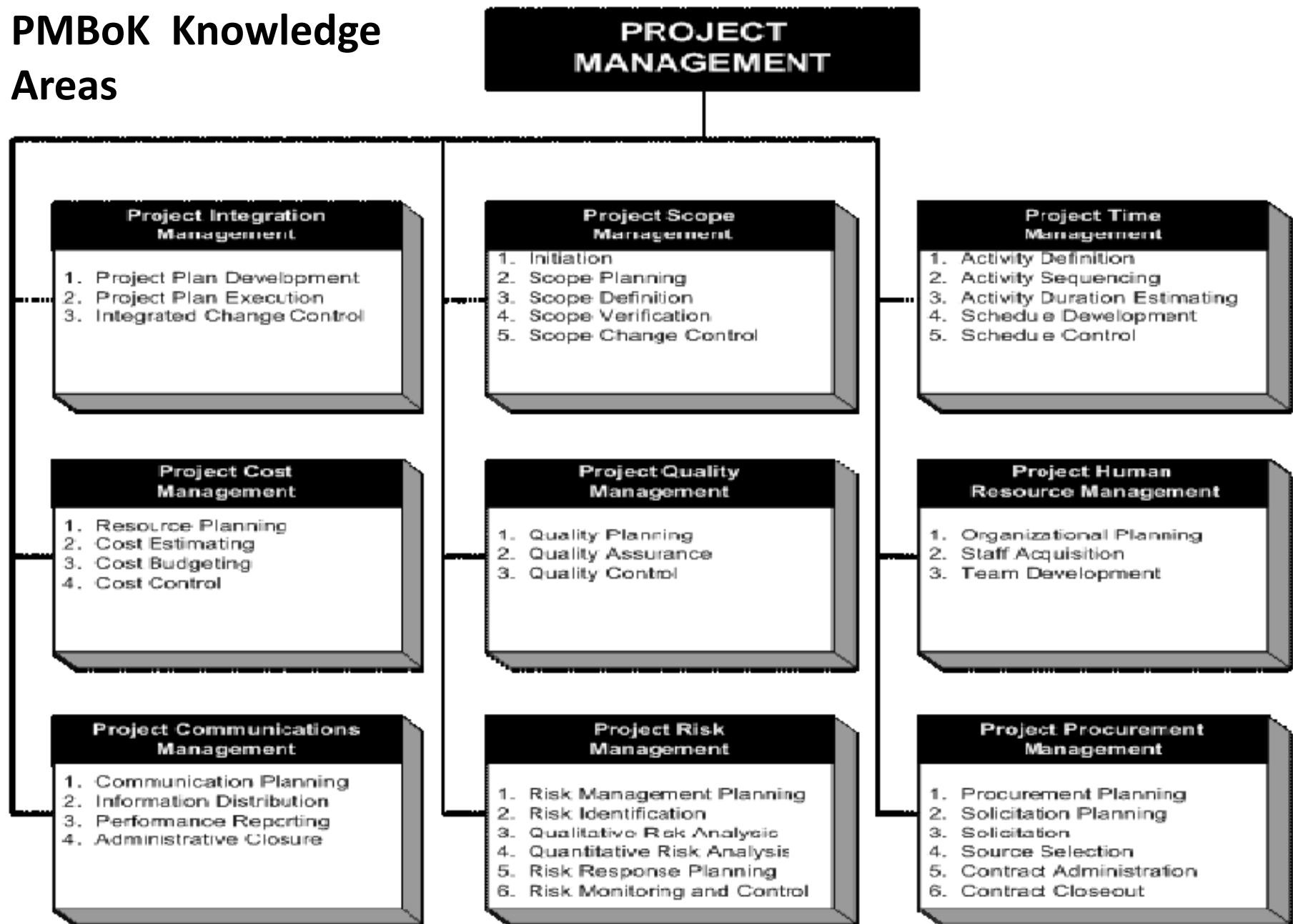


Nine Knowledge Areas

PMI (2000, pg. 7)

1. Project Integration
2. Project Scope Management
3. Project Time Management
4. Project Cost Management
5. Project Quality Management
6. Project Human Resource Management
7. Project Communications Management
8. Project Risk Management
9. Project Procurement Management

PMBok Knowledge Areas



Turner (1999, pg. 24) Tools and Techniques

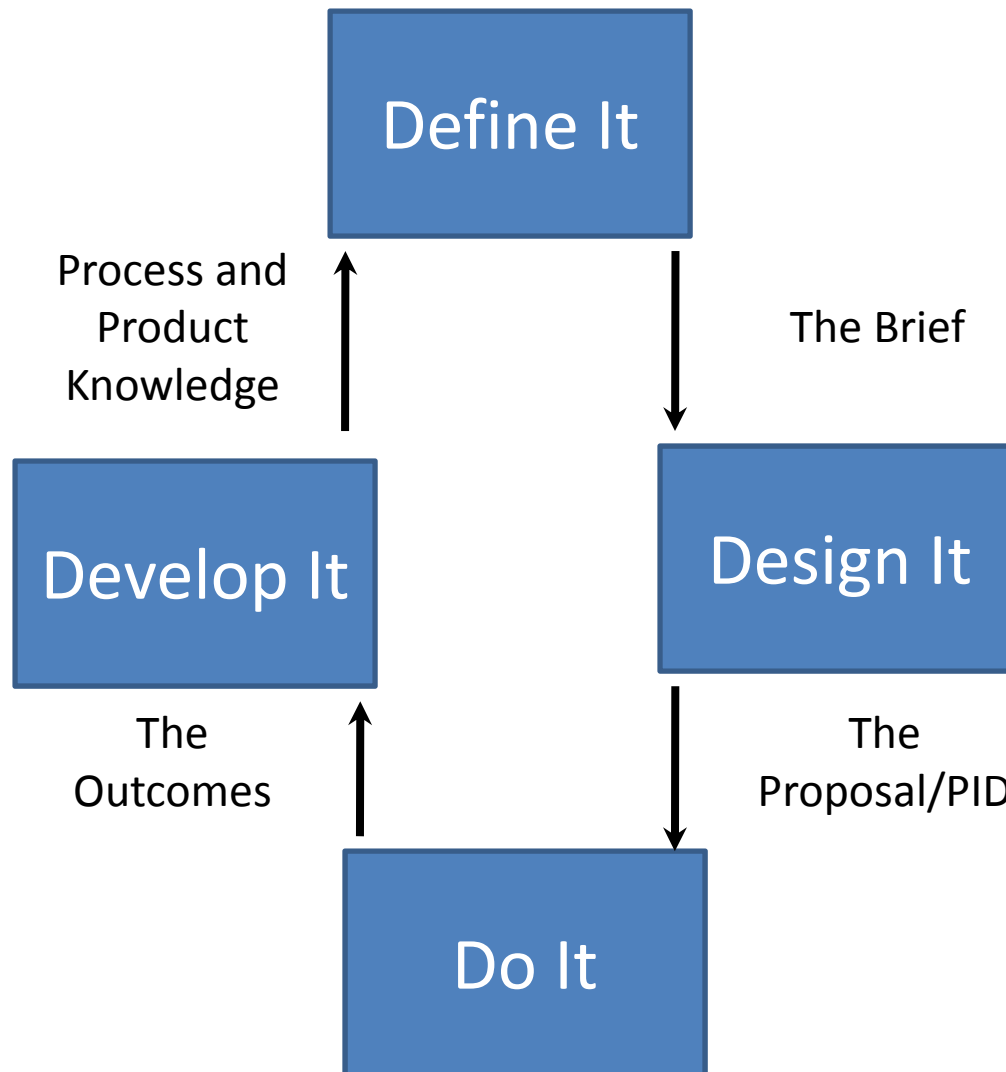
| Method | Techniques | Tools |
|-----------------------|--|---|
| Managing stakeholders | Stakeholder analysis | Stakeholder register Communication |
| Managing scope | Product breakdown Work breakdown Configuration management | Milestone plans Activity schedules |
| Managing organization | Organization breakdown | Responsibility charts |
| Managing quality | Quality assurance Quality control Configuration management | Quality plans Reviews and audits Procedures manuals |
| Managing cost | Cost control cube Earned value | Estimating techniques |
| Managing time | PERT/CPA | Networks/bar charts |
| Managing risk | Risk management | |
| Feasibility | Startup workshop | Definition report |
| Design | Definition workshop | Project manual |
| Execution | Baselining | Work-to-lists |
| Control | Forward-looking control | Turnaround documents S-curves |
| Close-out | | Checklists |

The Project Lifecycle

- The life cycle provides the basic framework for managing the project, regardless of the specific work involved.
- A project life cycle is the series of phases that a project passes through from its initiation to its closure
- The phases can be broken down by functional or partial objectives, intermediate results or deliverables, specific milestones within the overall scope of work

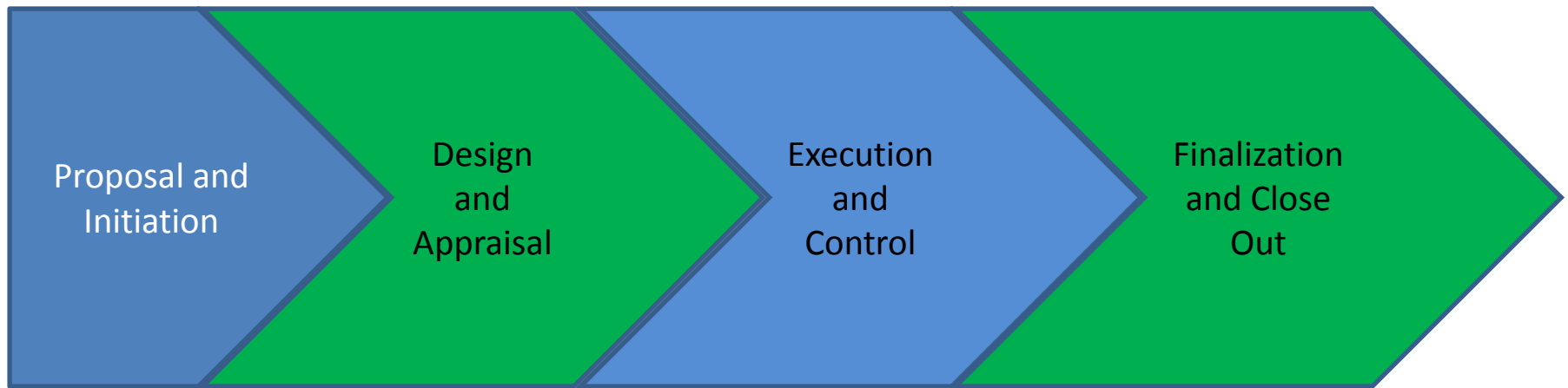
Project Lifecycle

Maylor (2010, pg 32) 4 D's



Project Lifecycle- 'from vision to reality'

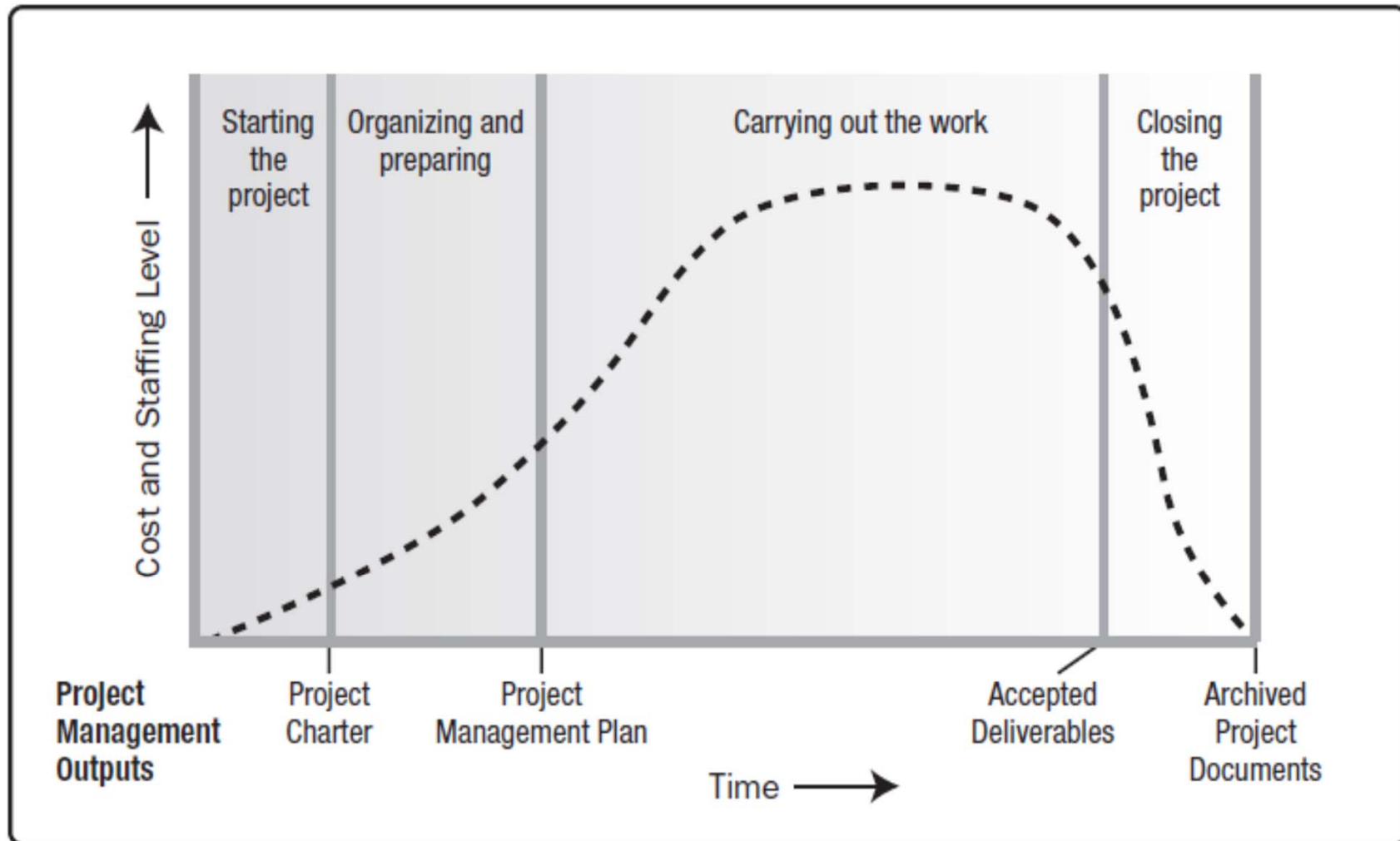
- Turner (1999, pg 11)



- “Project Management is the art and science of converting vision into reality” Jain (1995)

Staff and Cost Level Across the Lifecycle

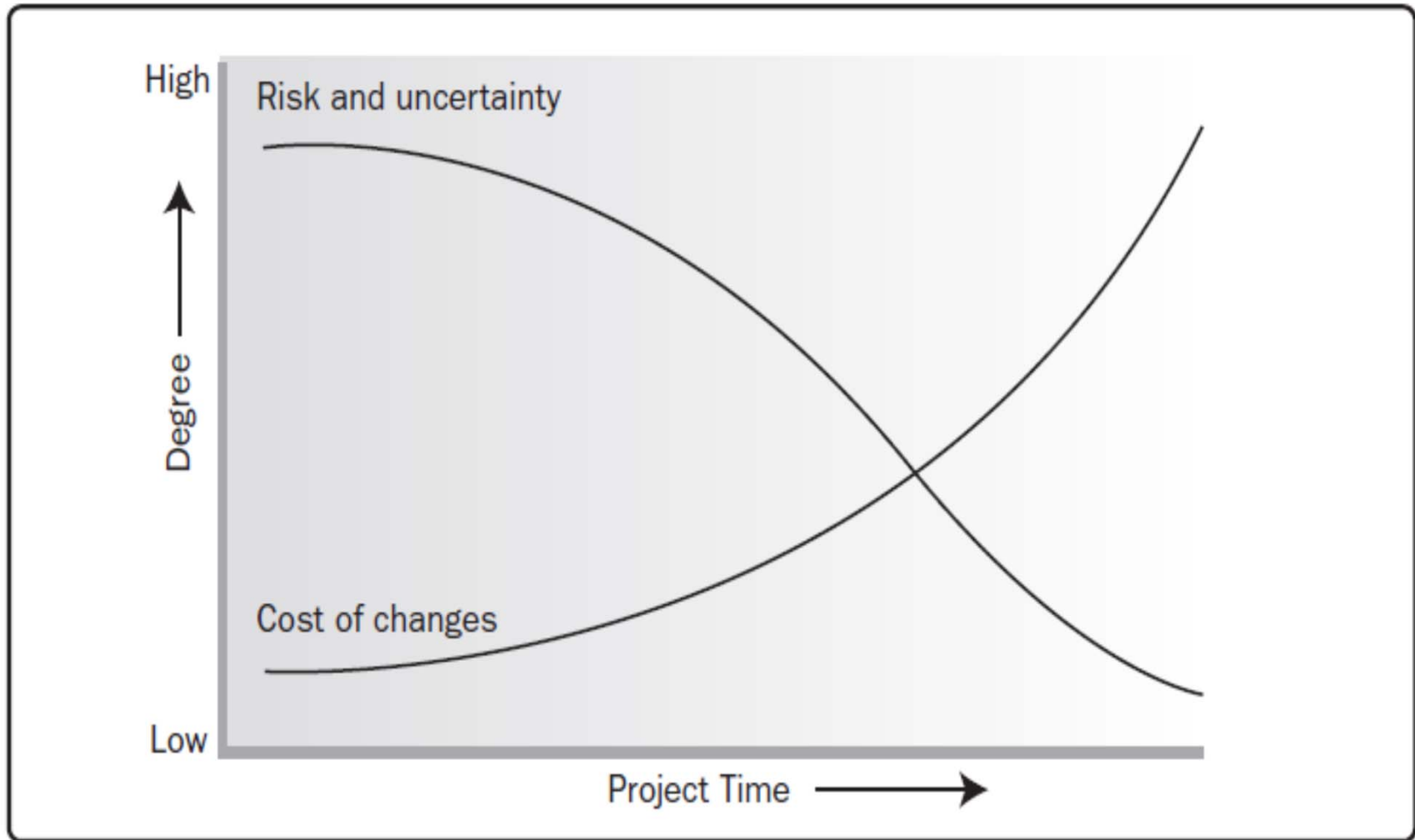
PMI (2013)



Lifecycle Characteristics

- **Resources-** consumption begins low during initiation, gains pace during planning, full throttle during execution
- **Predictability of outcome-** lowest at start, gets progressively higher as project continues
- **Opportunity to Influence-** (without increasing cost) highest at start but gets progressively lower

Risk and Cost of Making Changes over the Project Lifecycle PMI (2013)

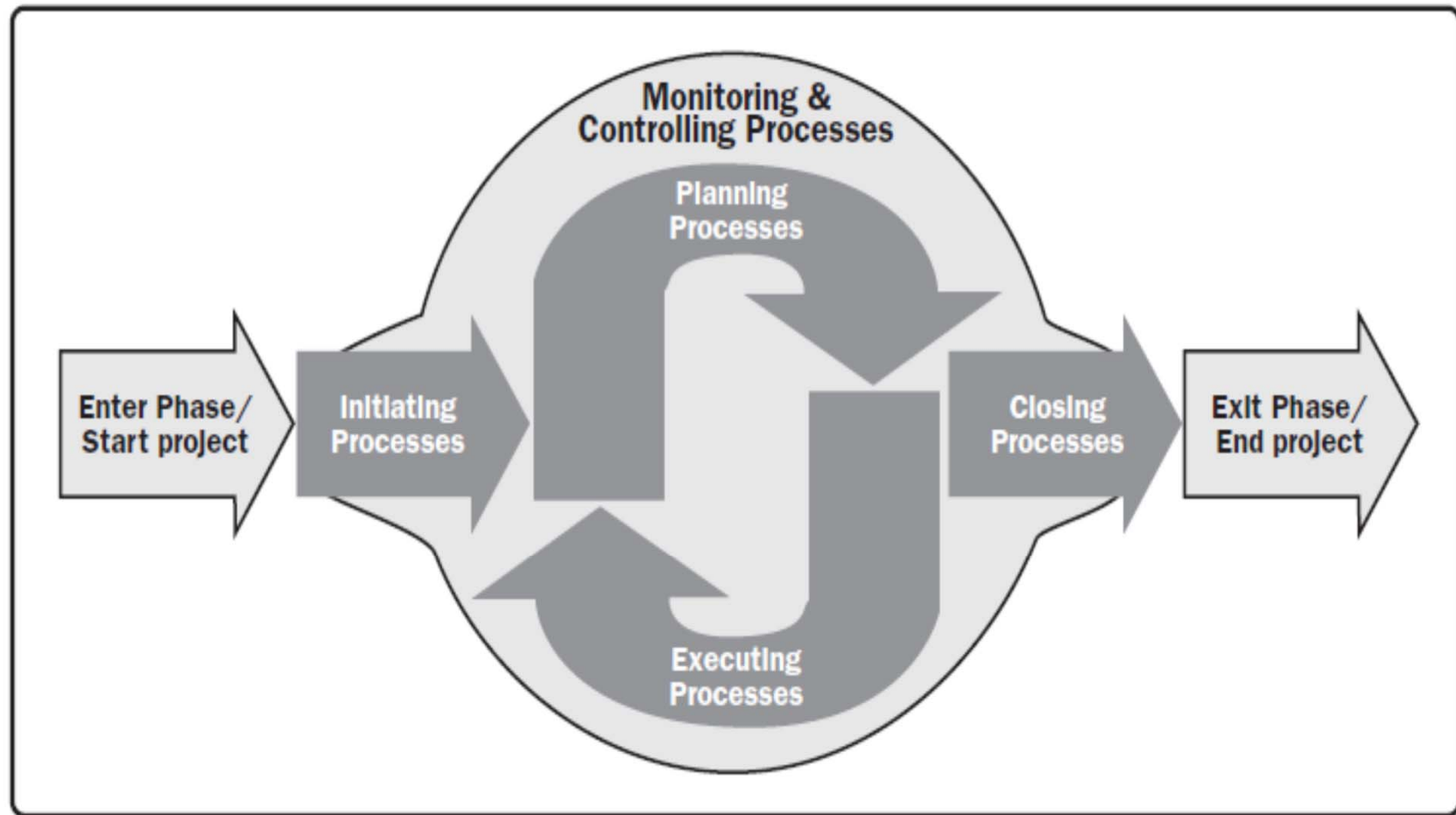


“The application of knowledge requires the effective management of the project management processes such as initiating, planning, executing, monitoring and controlling and closing” PMI (2013)

Project Management Processes

- Each process is characterized by its **inputs**, the **tools and techniques** that can be applied, and the resulting **outputs**
- These processes ensure the effective flow of the project throughout its life cycle
- These processes encompass the tools and techniques involved in applying the skills and capabilities described in the Knowledge Area

PMI Project Management Process Groups



See Handout 1 pg. 37 for Process Interaction

Initiation Process

- Initiating Process Group consists of those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase.
- The initial scope is defined
- Initial financial resources are committed post Feasibility Study
- Internal and external stakeholders who will interact and influence the overall outcome of the project are identified.
- The project manager will be selected.

- The project manager is given the authority to apply organizational resources to the subsequent project activities.
- When the **Project Definition Report** is approved, the project becomes officially authorized
- See Handout 1 pg. 28 for sample Project Definition Report
- The key purpose of this Process Group is to align the stakeholders' expectations with the project's purpose, give them visibility about the scope and objectives

Planning Process

- Planning Process Group consists of those processes performed to establish the total scope of the effort
- Define and refine the objectives,
- Develop the course of action required to attain those objectives
- Develop the **project management plan** and the project documents
- It will explore all aspects of the scope, time, cost, quality, communications, human resources, risks, procurements, and stakeholder engagement.

Executing Process

- Executing Process Group consists of those processes performed to **complete the work defined in the project management plan** to satisfy the project specifications
- Involves coordinating people and resources, managing stakeholder expectations

Monitoring and Control

- Monitoring and Controlling Process Group consists of those processes required **to track, review, and orchestrate the progress and performance of the project**
- It will identify any areas in which changes to the plan are required; and initiate the corresponding changes
- Project performance is measured and analyzed at regular intervals

It involves:

- Monitoring the ongoing project activities against the project plan and the baseline
- Recommending corrective or preventive action in anticipation of possible problems
- Controlling changes so only approved changes are implemented

See Handout 1 pg. 30-34

Closing

- Closing Process Group consists of those processes performed to conclude all activities
- Verifies that the defined processes are completed and formally establishes that the project is complete

The following will Occur:

- Obtain acceptance by the customer
- Conduct post-project review,
- Document lessons learned
- Apply appropriate updates to processes
- Archive all relevant project documents in the project management information system (PMIS) to be used as historical data
- Close out all procurement activities ensuring termination of all relevant agreements
- Perform team members' assessments and release project resources

| PHASE | KEY ISSUES | PROCESS | FUNDAMENTAL QUESTIONS | OUTPUTS |
|-------------------------|--|--|--|---|
| Proposal and Initiation | <ul style="list-style-type: none"> •Project Strategy • Goal Definition •Initial Estimates | <ul style="list-style-type: none"> •Develop proposals •Conduct Feasibility •Project Definition •Project Organization | <ul style="list-style-type: none"> •What is to be done? •Why is it to be done? | <ul style="list-style-type: none"> •Proposal •Project Definition Report •Feasibility Report •PID •Project Charter |
| Design | <ul style="list-style-type: none"> •Planning •Solution •Estimates •Contract s | <ul style="list-style-type: none"> •Develop Design •Scope Planning •Costing /Budgeting •Project Planning •Award Contract | <ul style="list-style-type: none"> •How it will be done? •Who will be involved? •When can it start and Finish | <ul style="list-style-type: none"> •Detailed Design • Project Budget/Estimates •Master Plan/Schedule •Contract Terms and Conditions |
| Execution and Control | <ul style="list-style-type: none"> •Doing Work/Progress •Control •Decision Making •Problem Solving | <ul style="list-style-type: none"> •Project Monitoring and Control •Risk Management •Quality Management •Change Control | <ul style="list-style-type: none"> •How should the project be managed on a day to day basis? | <ul style="list-style-type: none"> •Progress Reports •Change Documents •Project Board Meetings |
| Close Out | <ul style="list-style-type: none"> •Assessment of process •Outcomes of project •Evaluation | <ul style="list-style-type: none"> •Finish work •Transferring the Product •Commissioning •Disband Team •Project Audit •Terminate Contracts •Release Resources | <ul style="list-style-type: none"> •How can the process be continually improved? | <ul style="list-style-type: none"> •Sign Off •LLR •PIR |

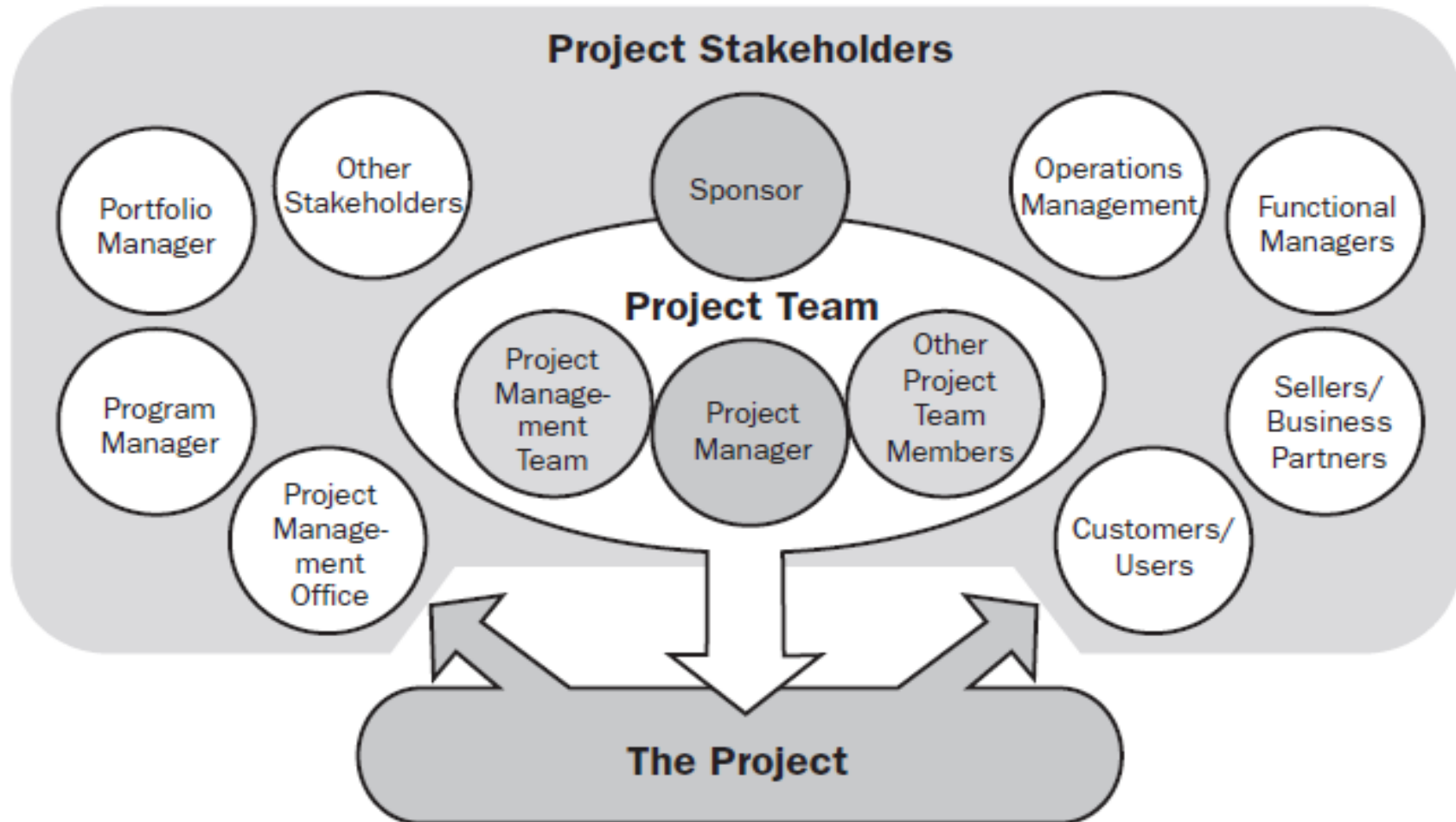
Stakeholder Management

- A Stakeholder is any individual, group or organization :
 - that shares a stake in the project
 - that can influence or be influenced by the project.
 - who have an interest in the project process or outcome
 - whose interest may be positively or negatively affected as a result of the execution and outcome
 - who are actively involved in the project

Categorization of Stakeholders

- Internal Stakeholders
 - Usually play a supportive role
 - Project Manager has some degree of authority and influence
 - Should be kept well informed about project's status
- External Stakeholders
 - May not be supportive but rather adverse
 - Not usually subject to the legal authority of the project manager
 - Information should be provided on a “need-to-know” basis
 - But keep communication channels open

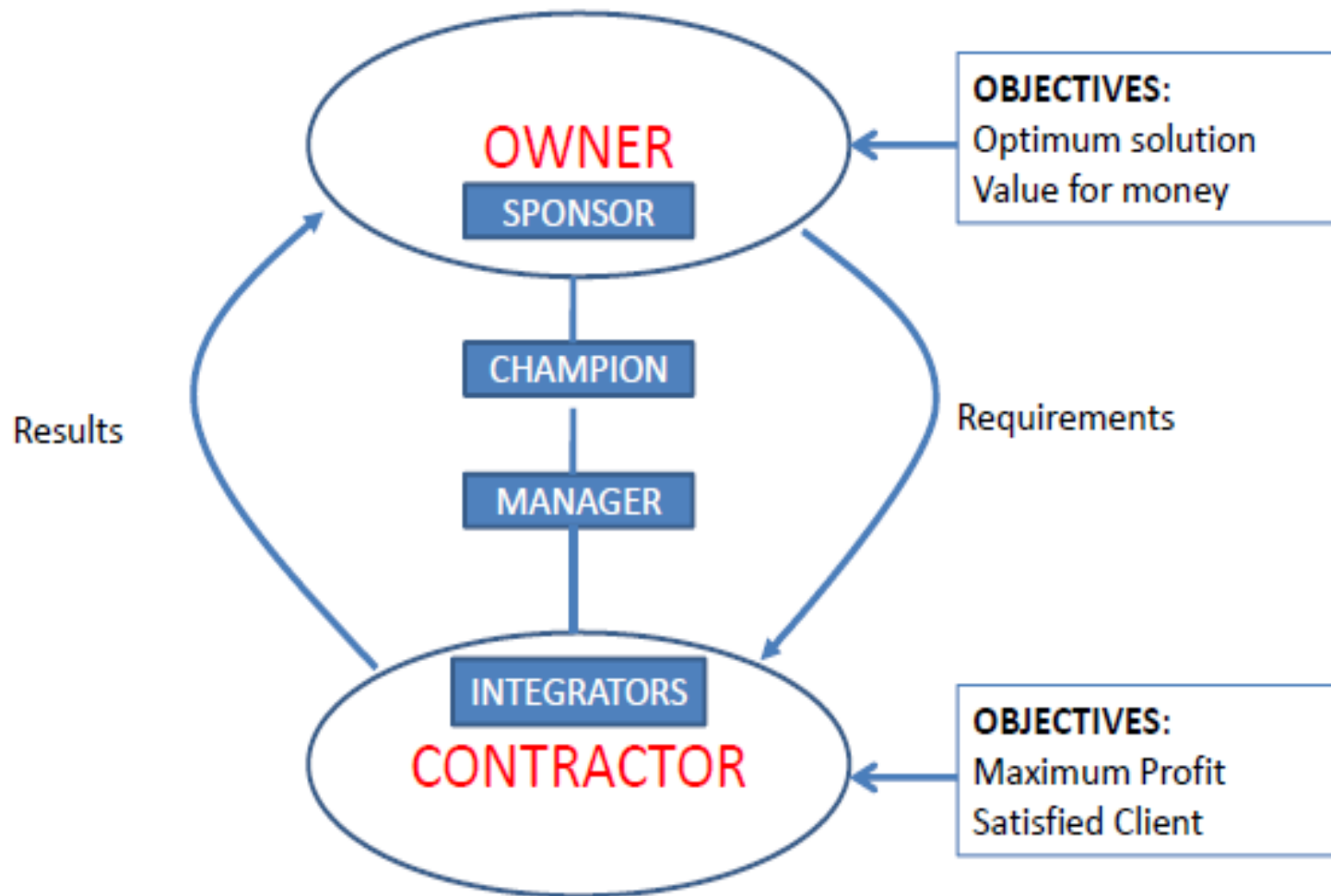
Relationship between Stakeholders and the Project



- These stakeholders require the project manager's attention throughout the project's life cycle, as well as planning to address any issues they may raise.
- The project manager should manage the influences of these various stakeholders in relation to the project requirements to ensure a successful outcome
- An important part of a project manager's responsibility is to manage stakeholder expectations, which can be difficult because stakeholders often have very different or conflicting objectives.

The Owner/Contractor Model

Turner (1999, pg.50)



Stakeholder Management

- S M assumes that success depends on taking into account the potential impact of project decisions on all stakeholders during the entire life of the project
- Project managers must consider how the achievements of the project's goals and objectives will affect or be affected by stakeholders

Therein lies the challenge

Stakeholder Management Process

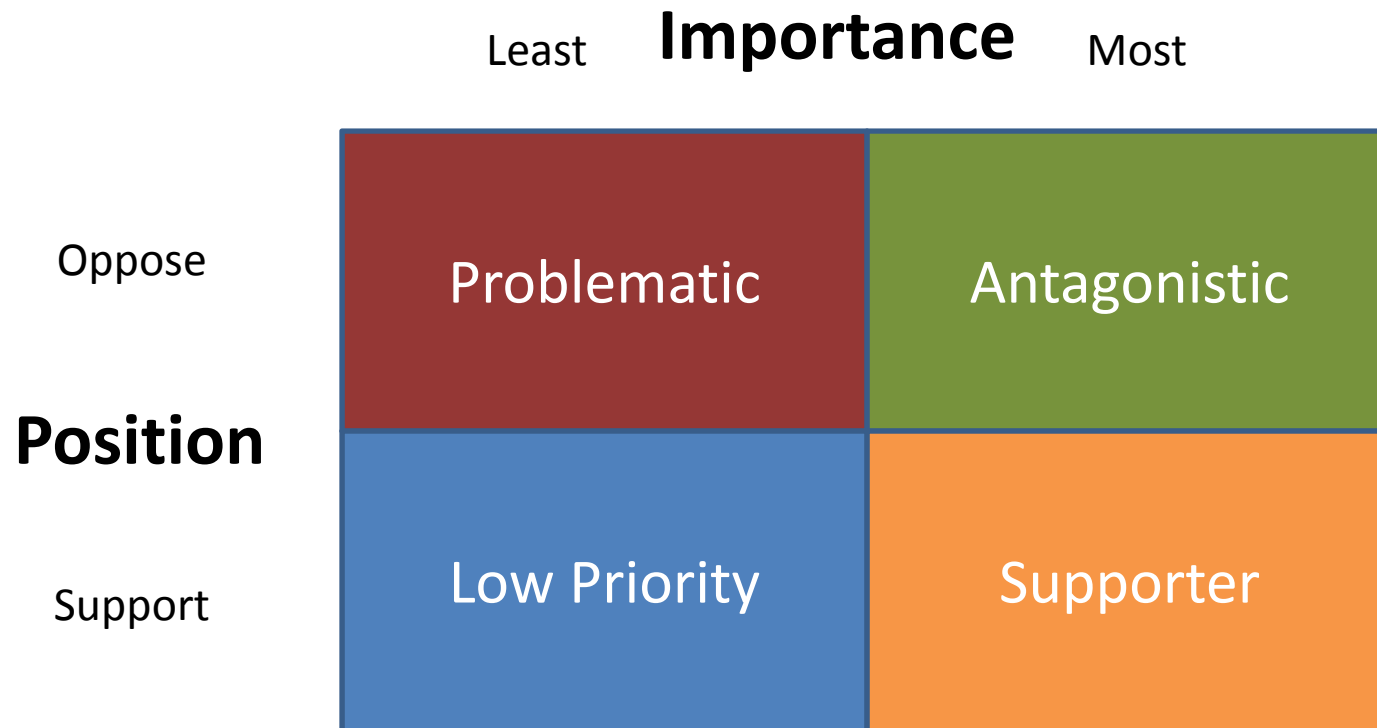
1. Identification of Stakeholders
2. Determine their requirements and influence
3. Predict their behaviour (gaze into a crystal ball)
4. Manage and influence those requirements and perspectives by implementing a strategy

Objective of Stakeholder Mgt

- To curtail stakeholder activities that might adversely affect the project
- To integrate stakeholder perspective into the project's formulation process
- To facilitate the project team's ability to take advantage of opportunities
- To encourage stakeholder support for project purposes

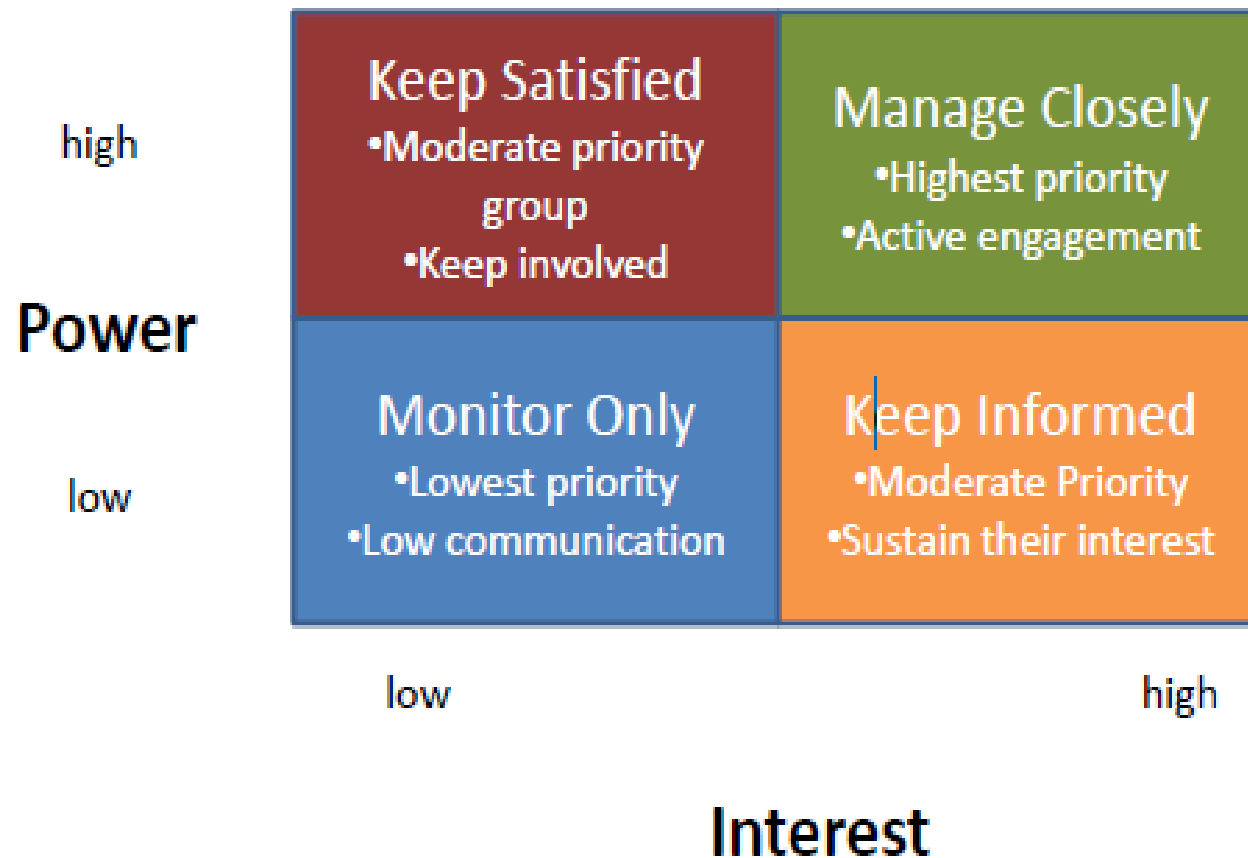
The Position/Importance Matrix

Nutt and Backoff (1992) and Bryson (1995)



Power : Interest Stakeholder Map

Maylor (2010,pg. 83)



Example Stakeholder Register

| Project: CRMO Rationalization Project Project Sponsor: Steve Kenny Project Manager: Rodney Turner | | | | | |
|--|--|--------------------|------------------|-----------------|---|
| <i>Stakeholder</i> | <i>Objectives</i> | <i>For/Against</i> | <i>Influence</i> | <i>Informed</i> | <i>Communication strategy</i> |
| Board | Expand operations Improved customer service Improved profitability | For | Hi | Must be | Regular briefing Explain solution and benefits |
| Operations managers | Improved customer service Excellent support | For | Med | Must be | Regular briefing Explain solution and benefits |
| Maintenance managers | Operation that works Maintain position and influence | For | Hi | Yes | Seek opinions Regular consultation Confirm solution with them |
| Maintenance staff | Ease of operation Maintain jobs | For | Med | Not at start | Briefings/company newspaper Consultation Explain solution |
| Operations staff | Support their work Minimum disruption | Ambivalent | Low | Not at start | Briefings/company newspaper Explain solution |
| Customers | Good service | For | Low | Not at start | Customer newsletters |
| Local community | Minimum disruption to environment | Ambivalent | Low | Low | Local newspaper advertisements |
| Author: JRT Date: 2 March Issue: A | | | | | |

For Alternative Style See Handout 1 pg. 22

Bottom Line

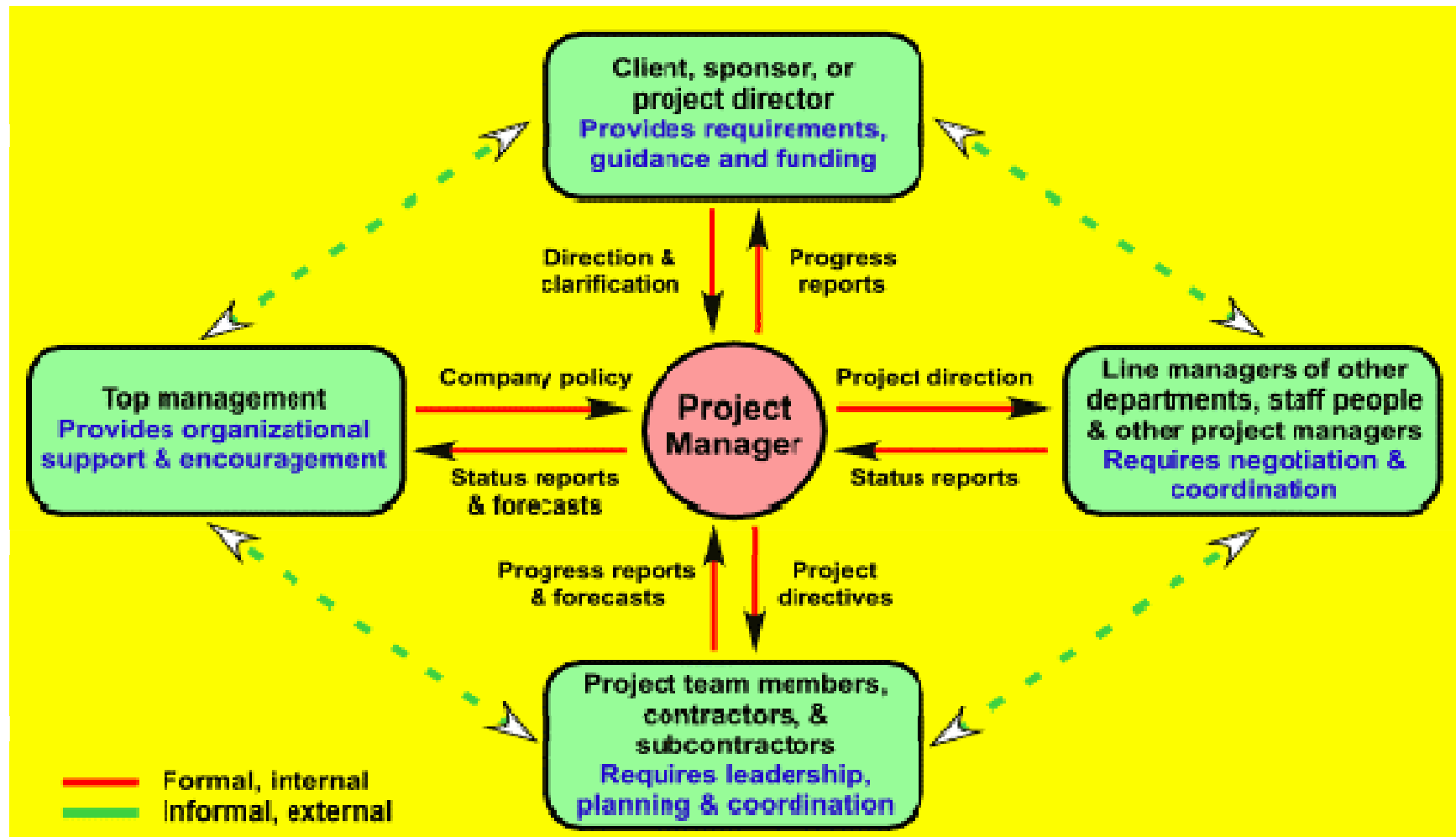
- Failing to recognize or cooperate with stakeholders whether supportive or adverse may well hinder a successful project outcome
- Stakeholder Mgt is thus a necessity, allowing the project manager to maintain better control

Establishing Communication Links as a Project Manager

- You will probably spend more than half your time talking to people
- It is your critical responsibility for maintaining all communication links within and outside to the project to ensure integration
- You must serve as a bridge to make sure that communication barriers do not occur
- You are probably the one person in a position to expedite communication linkages

'The key- Project Organization'

Project Manager as the Communication Link



Types of Communication

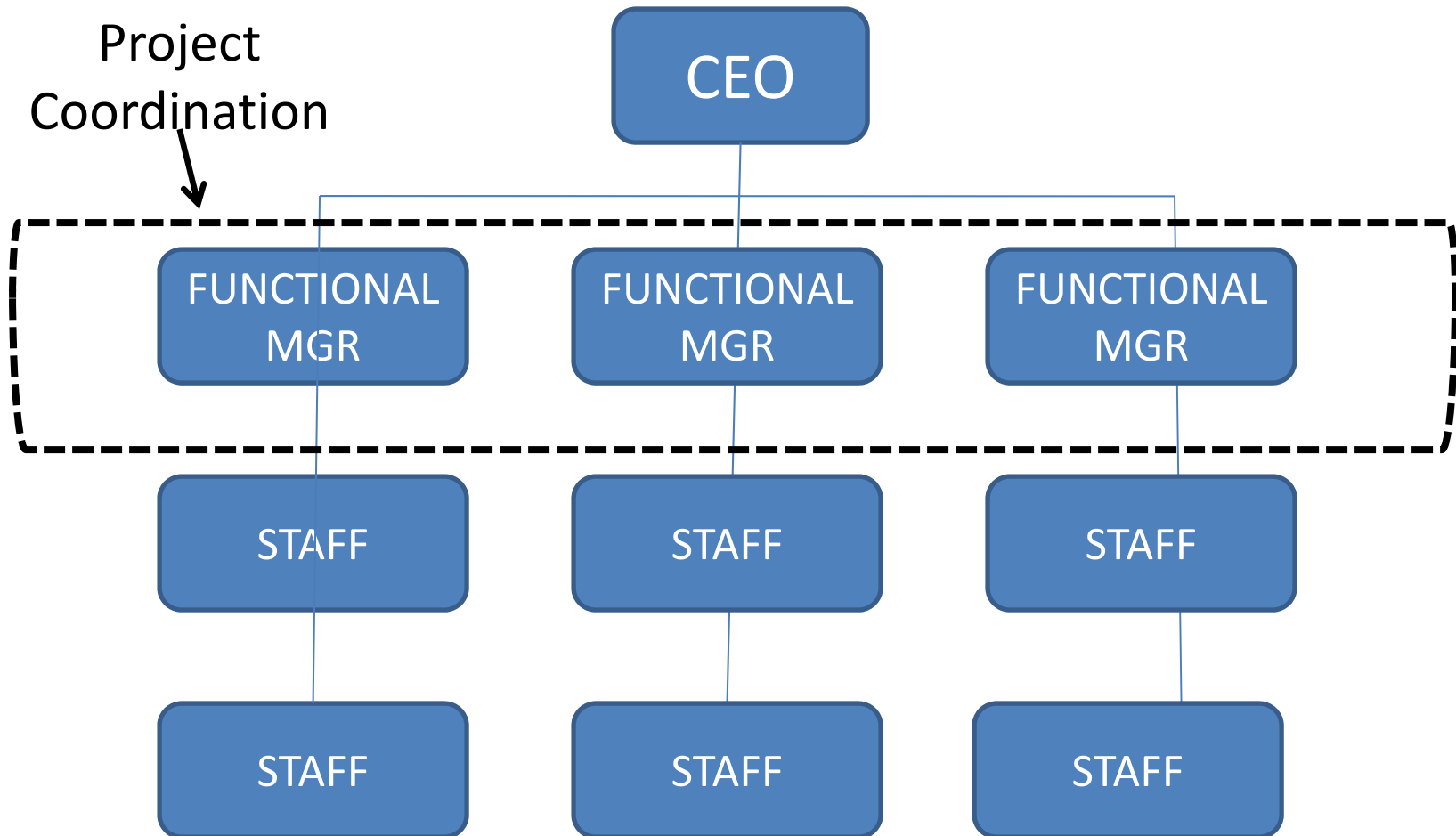
- Planned- stakeholder consultations, project kick-off, team meeting, project status reports, end of stage reports
- Unplanned- risk mitigation, change request, Exception Meetings

| Communication Type | Objective of Communication | Medium | Frequency | Audience | Owner | Deliverable |
|---------------------------------|--|--|-----------|---|-----------------|-----------------------------|
| Kickoff Meeting | Introduce the project team and the project. Review project objectives and management approach. | •Face to Face | Once | •Project Sponsor •Project Team •Stakeholders | Project Manager | •Agenda •Meeting Minutes |
| Project Team Meetings | Review status of the project with the team. | •Face to Face •Conference Call | As needed | •Project Team | Project Manager | •Agenda •Meeting Minutes |
| Monthly Project Status Meetings | Report on the status of the project to management. | •Face to Face presentation •Conference Call | Monthly | •PMO | Project Manager | |
| Project Status Reports | Report the status of the project including activities, progress, costs and issues. | •Face to Face presentation •Email | Weekly | •Customer •Project Sponsor •Project Team •Stakeholders | Project Manager | •Project Status Report |

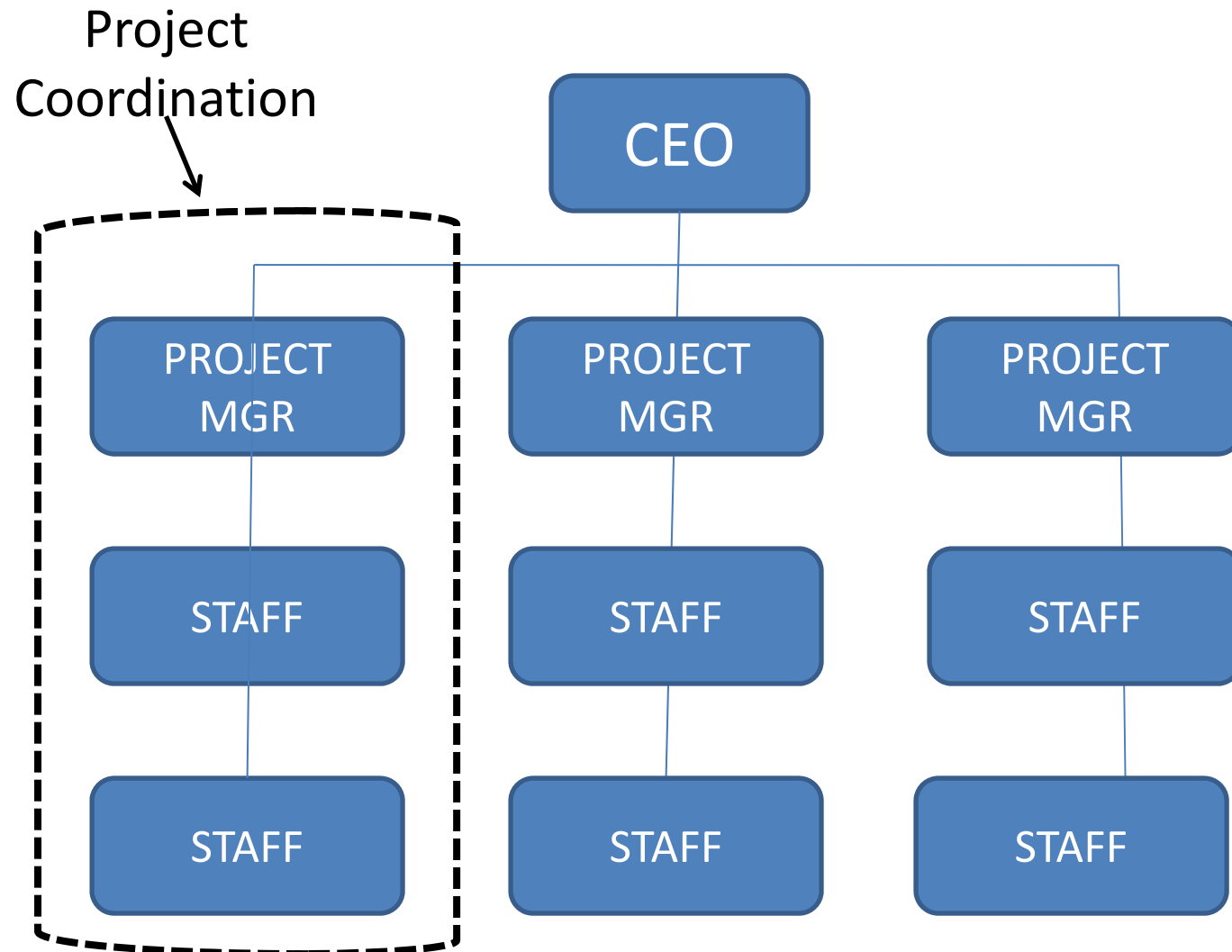
Project Organization

- “to marshal adequate resources (human, material and financial) of an appropriate type to undertake the work of the project, so as to deliver its objectives successfully “. Turner (1999, pg. 124)
- “is about structuring and integrating the internal environment through careful planning and organization design”. Gardiner (2005, pg.126)

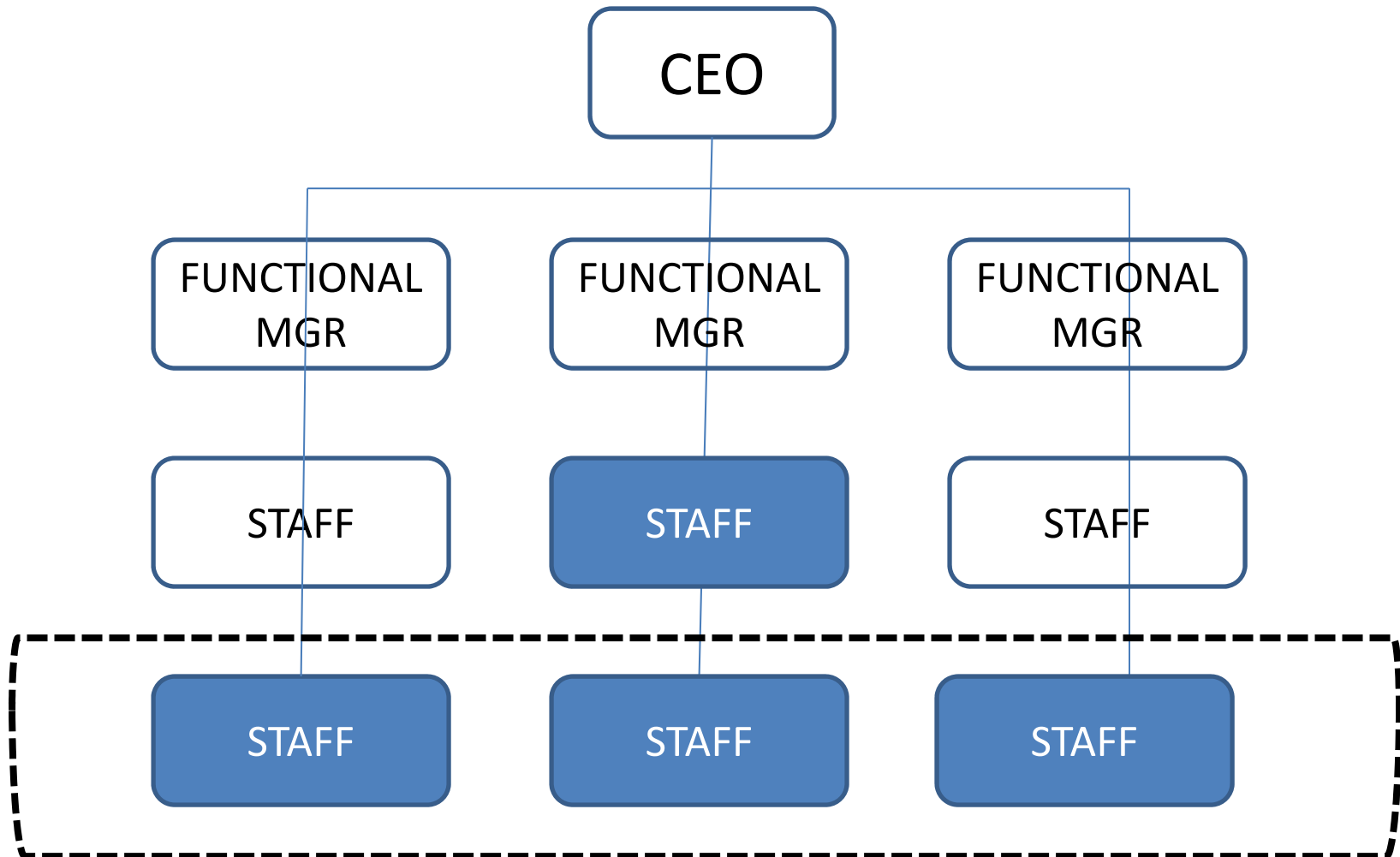
Functional/Traditional Structure



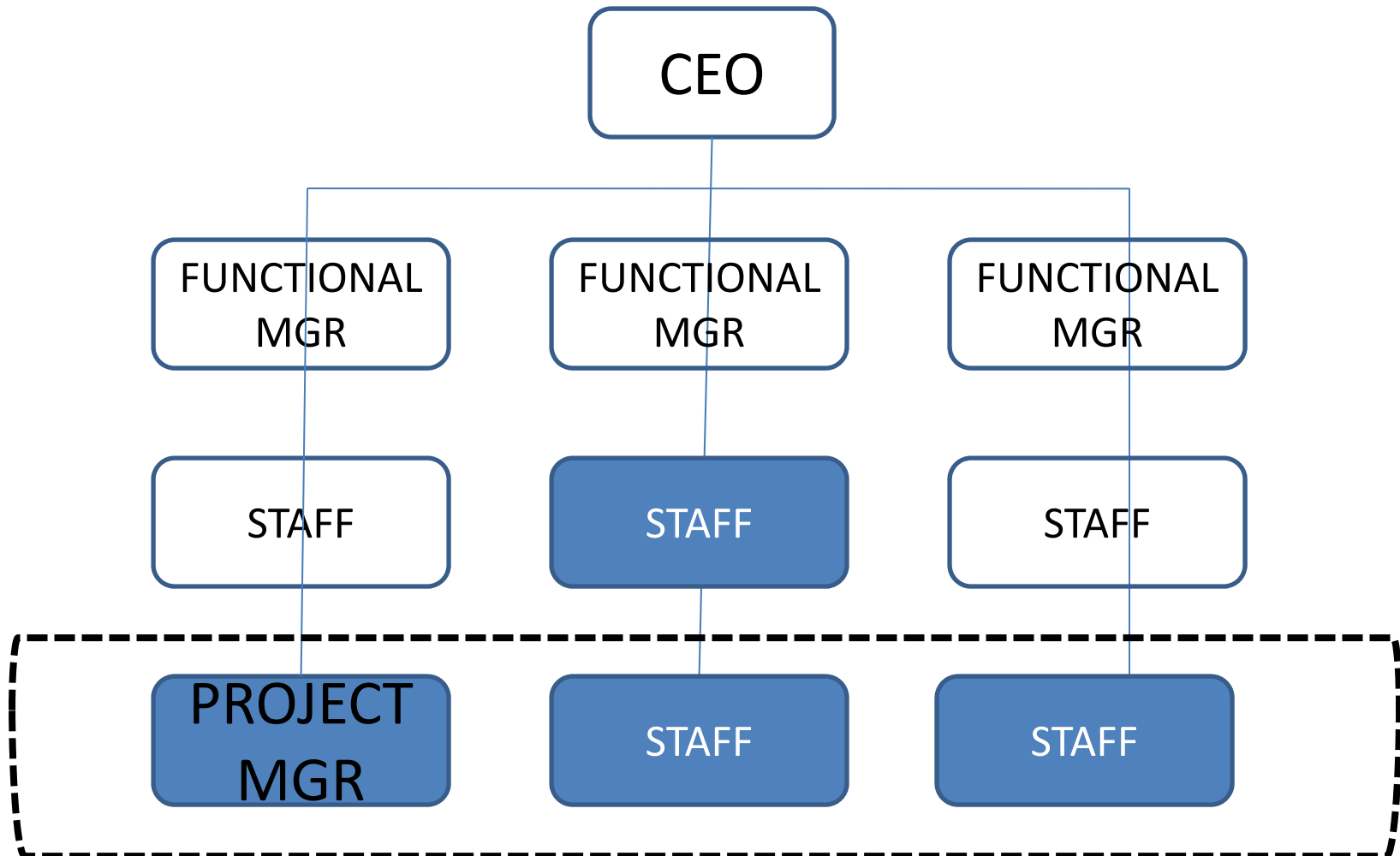
Projectized Structure



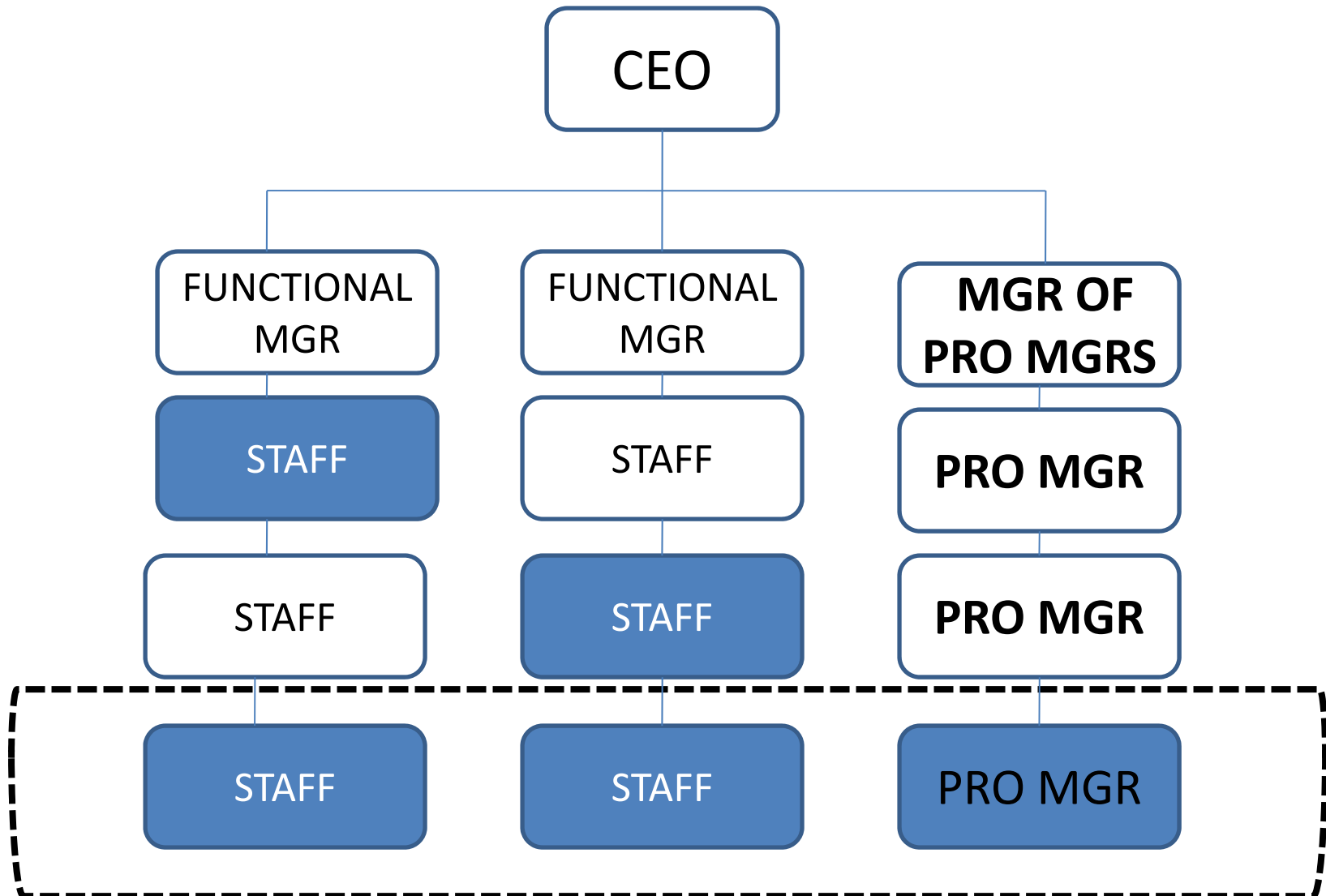
Weak Matrix



Balanced Matrix



Strong Matrix



| Project Characteristic s | Functional | Weak Matrix | Balanced Matrix | Strong Matrix | Projectised |
|--|----------------------------|----------------------------|-------------------------------|------------------------------|---------------------------|
| Pro Mgr's Authority | Little or None | Limited | Low to Moderate | Moderate to High | High to Total |
| % personnel | Virtually none | 0-25% | 15-60% | 50-95% | 85-100% |
| Pro Mgr's role | Part Time | Part Time | Full Time | Full Time | Full Time |
| Common Title for Pro Mgr's role | Project Coordinato r | Project Coordinat or | Project Mgr/Pro Officer | Project/Pr ogramme Mgr | Project/Prog ramme Mgr |
| Pro Mgt Admin Staff | Part Time | Part Time | Part Time | Full Time | Full Time |

Responsibility Charts

- Deliverables are shown as rows
- Organizational units are shown as columns
- Integration of Product Breakdown Structure (PBS), Work Breakdown Structure (WBS) and Organizational Breakdown Structure (OBS)
- See Handout 1 pg. 21 for sample

References

- PMI (2000), A Guide to the Project Management Body of Knowledge (PMBOK), 2000 edition, PMI Publications,
- Turner, J.R. (1999) The Handbook of Project-Based Management, 2nd edition, McGraw-Hill, London
- Cleland, D.I. (1988) Project Management Handbook, 2nd edition, Van Nostrand Reinhold, New York
- Lock, D. (2007) Project Management, 9th edition, Gower, England
- Maylor, H. (2005) Project Management, 3rd edition, Prentice Hall, England
- Gardiner, P. (2005) Project Management: A Strategic Planning Approach, 1st edition, MacMillan, New York