



# PMBOK® Guide – Chapter 2 Project Life Cycle & Organization

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## The Project Life Cycle

- Collection of sequential or overlapping project phases
- Name and number of project phases varies depending on
  - Management and Control needs of organization
  - Nature of project
  - Area of application
- A life cycle can be documented with a methodology
- Deliverables and activities take place in between
- Life cycle as the basic framework for project

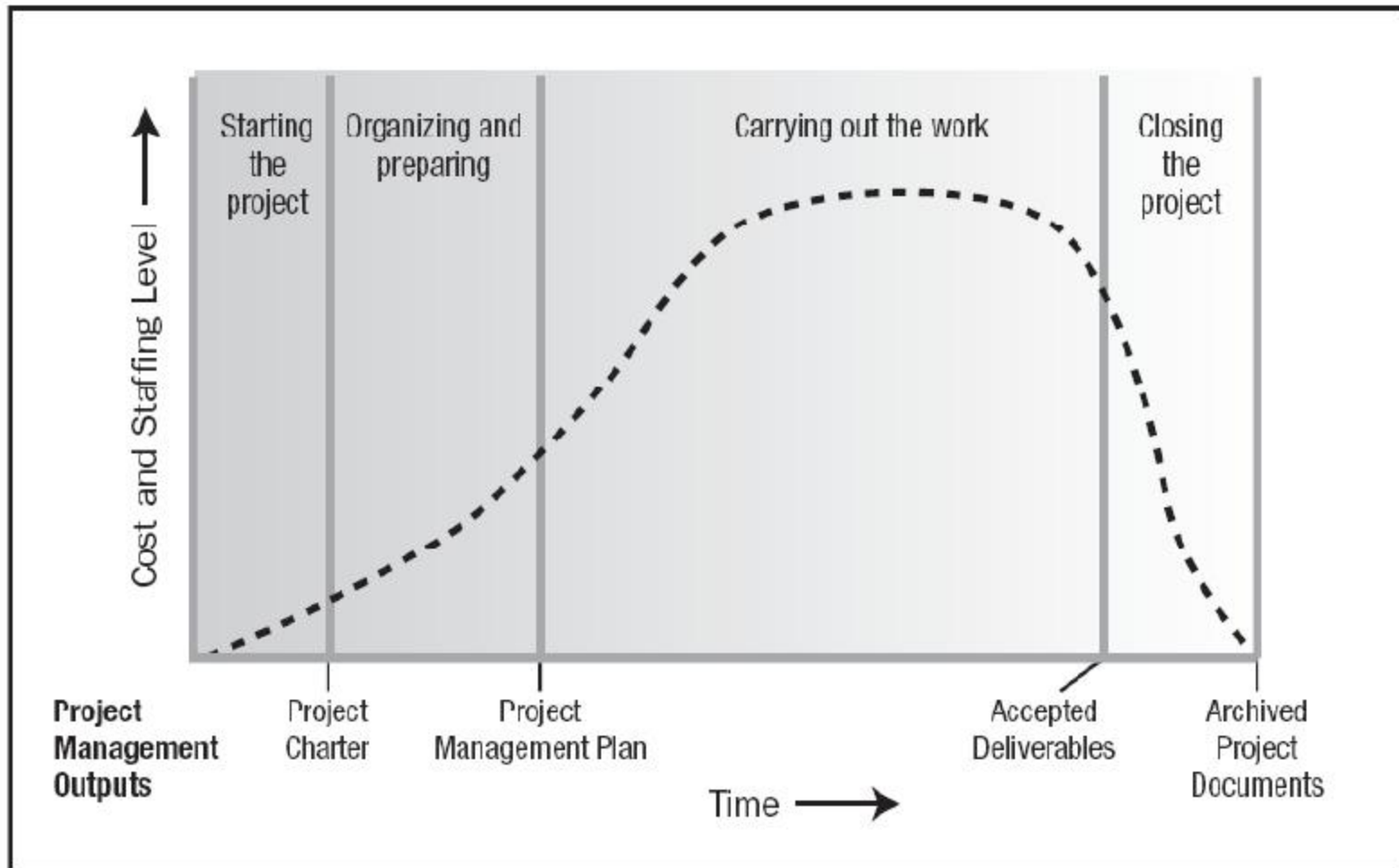
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## Characteristics of the Project Life Cycle

- All projects can be mapped to the following life cycle structure:
  - Starting the project
  - Organizing and preparing
  - Carrying out the project work
  - Close the project

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## Characteristics of the Project Life Cycle



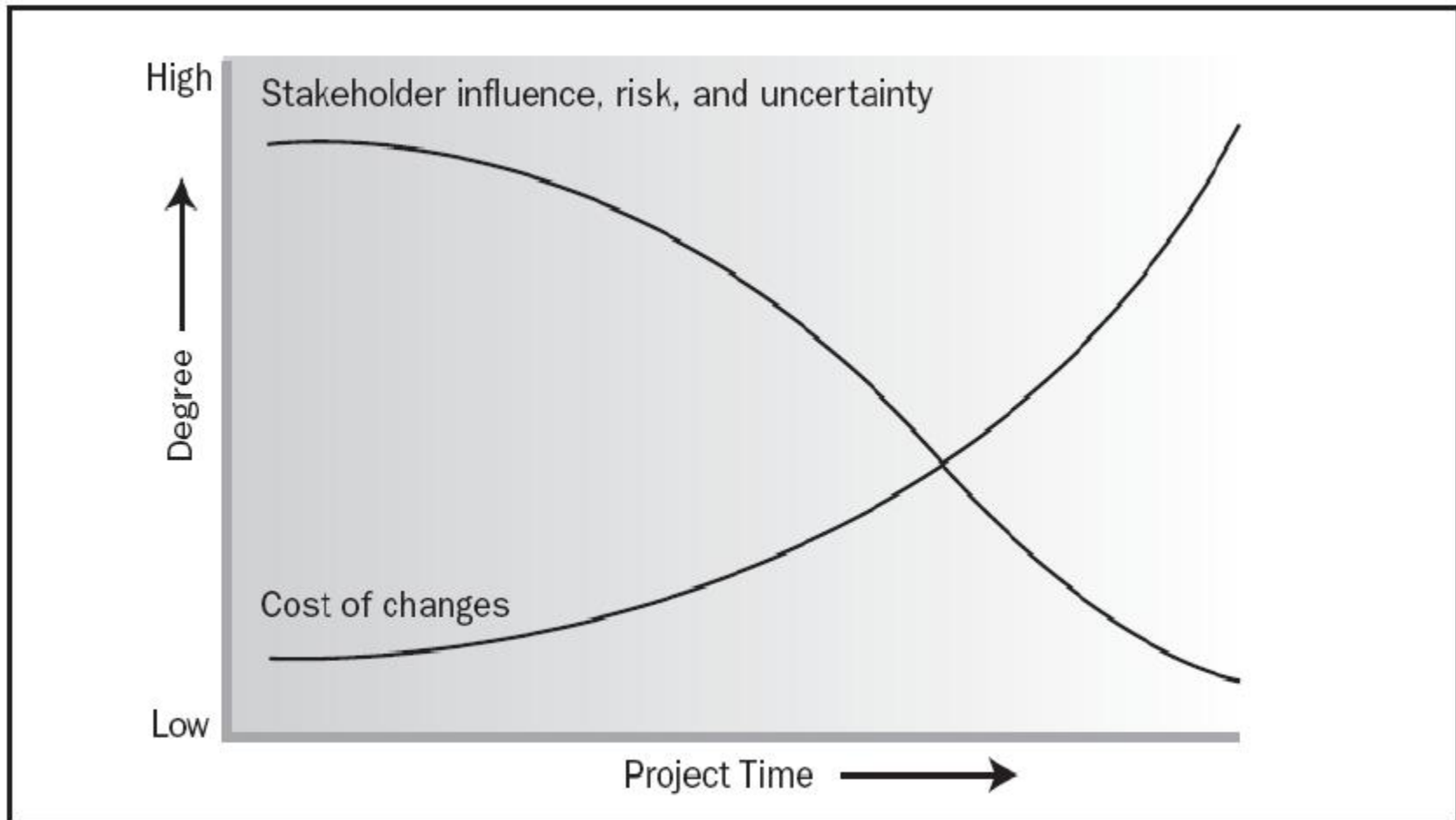
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## Characteristics of the Project Life Cycle

- Cost and staffing levels are low at start, peak as work carried out, drop rapidly when project close
- Stakeholder influences, risk, and uncertainty are greatest at the start of the project. Decrease over project life cycle
- Ability to influence project's product with impacting cost is highest at project start, decrease towards completion

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## Project Variables vs. Time



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## Product vs. Project Life Cycle Relationships

- Product life cycle
  - Sequential, non-overlapping phases
  - Product retirement as the last phase
- Project life cycle
  - Can be in one or more phases of product
  - Objective can be product, service or result
- One product may consists of many projects
- Oversight of all projects by a higher authority could impact success

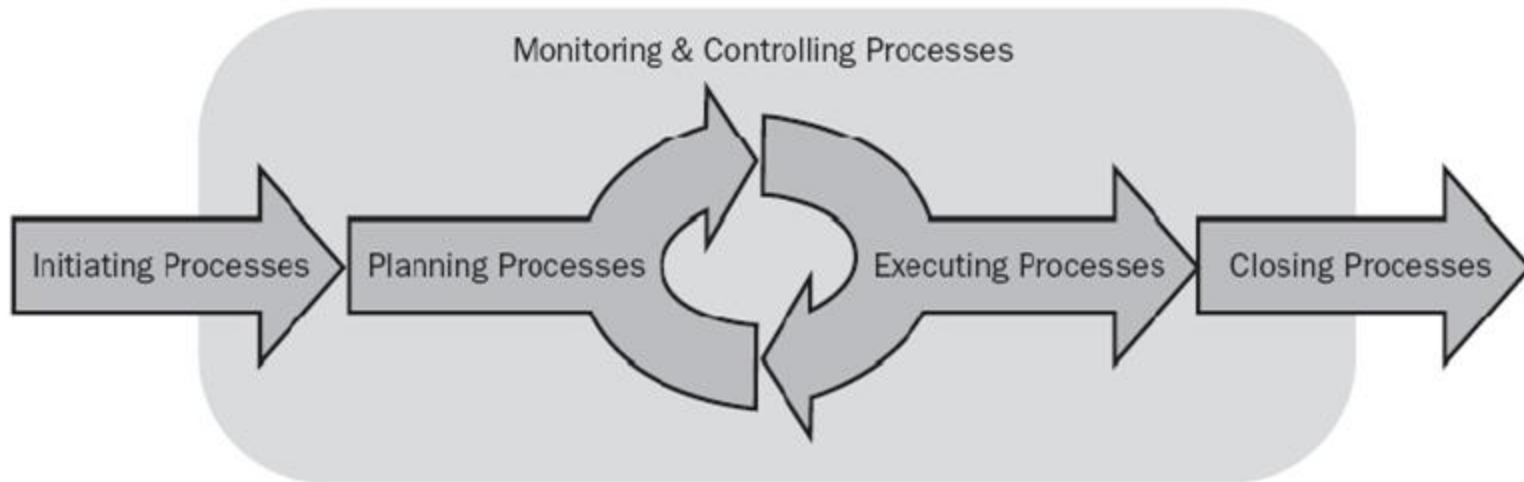
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## Project Phases

- Divisions within project where extra control is needed
- Project phases are typically sequentially but can overlap in some situations
- The high level nature of project phases makes them an element of the project life cycle
-

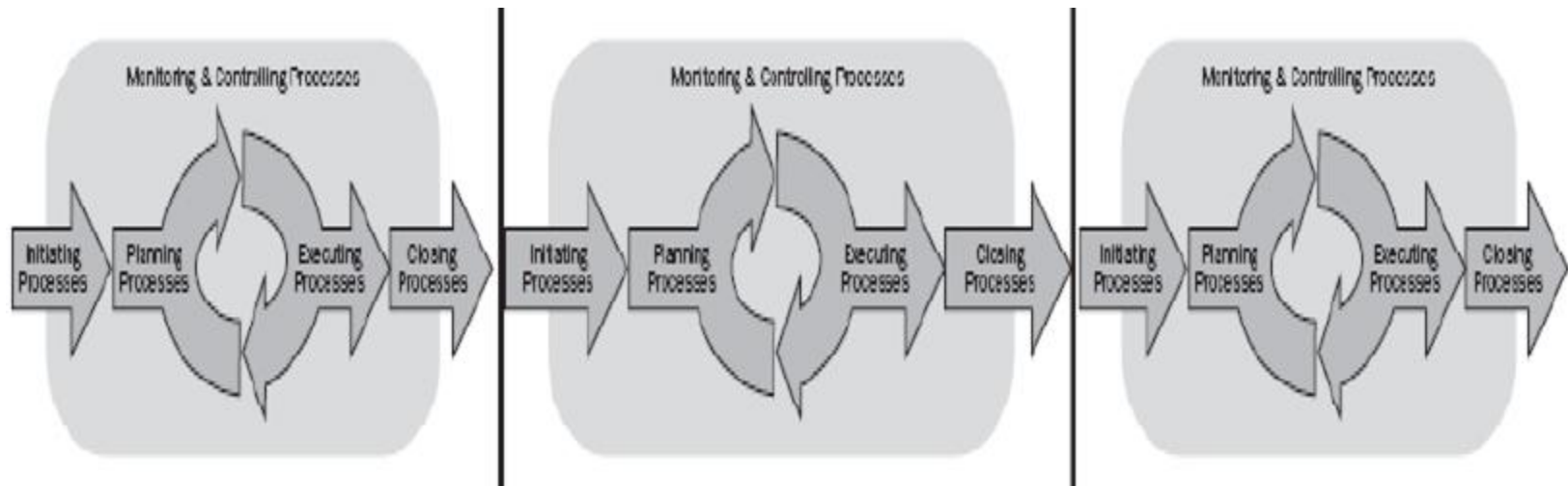
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## Single Phase Project



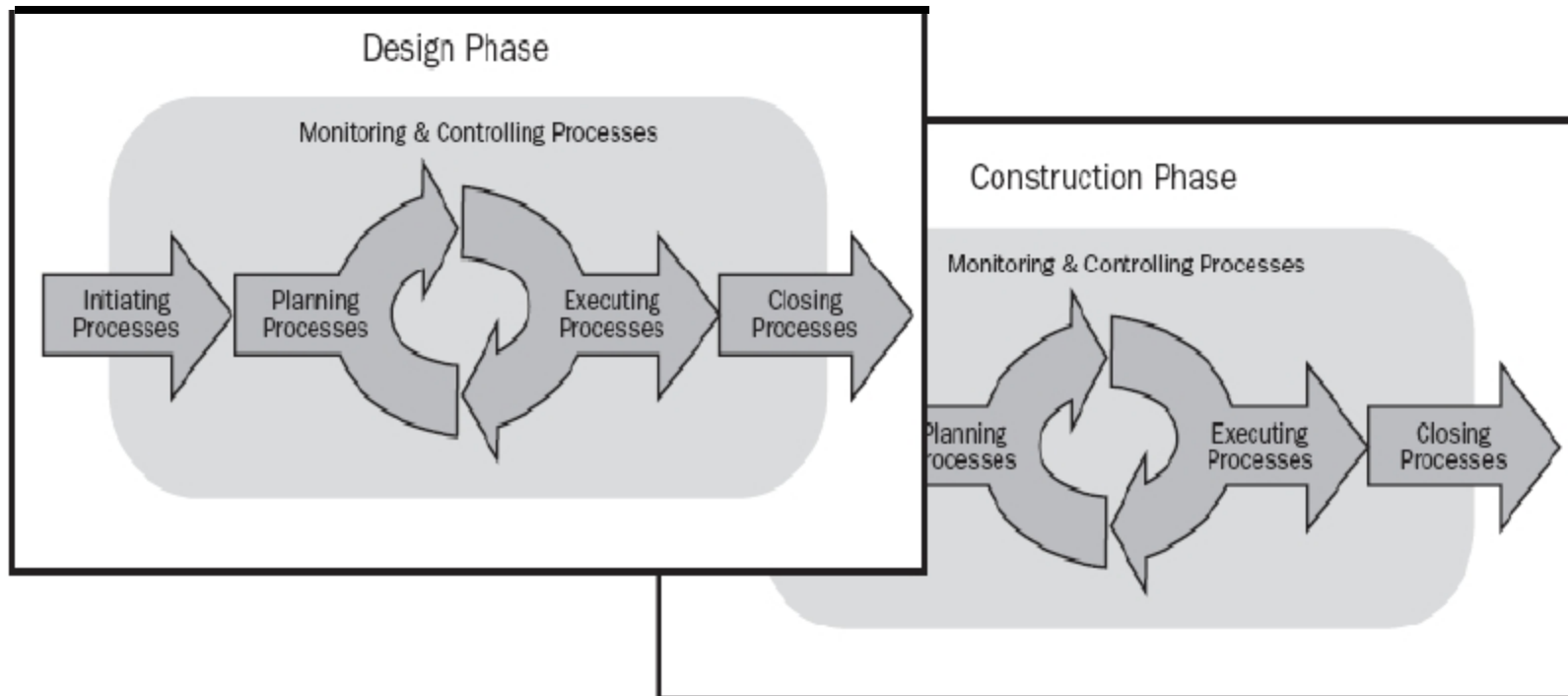
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## A Sequential Three-Phase Project



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## An Overlapping Two-Phase Project



## Project vs. Operational Work

- Similar characteristics
  - Performed by individuals
  - Limited by constraints
  - Planned, executed, monitored and controlled
  - Performed to achieve organizational objectives or strategic plans
- Operations: ongoing and produce repetitive products, services or results
- Projects: temporary, unique and have an end

# Project vs. Operational Work

- Operations work supports the business environment where projects are executed
- Amount of resources supplied from operations will vary from project to project
- Deliverables of project may modify or contribute to the existing operations work

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## Stakeholders

- Stakeholders are persons or organizations who are actively involved in the project or whose interests may be positively or negatively affected by the performance or completion of the project.

### Example:

- Customers
- Sponsors
- Performing organization
- Public

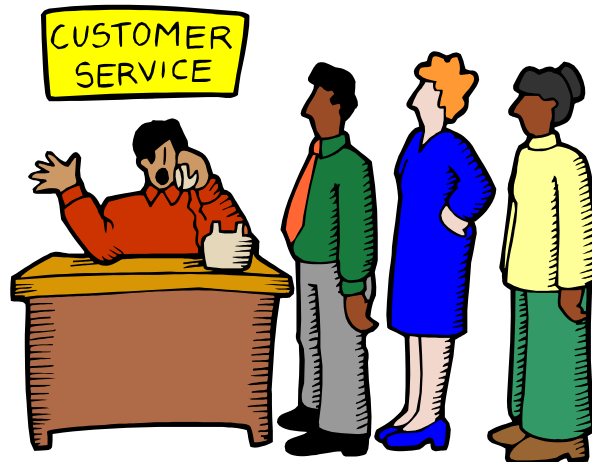


## Stakeholders

- Persons or Organizations
  - Actively involved in the project
  - Interests affect **positively/negatively** on the project/deliverables/team members
  - Both internal and external
  - Management of conflicting stakeholders interests
- Stakeholder Management

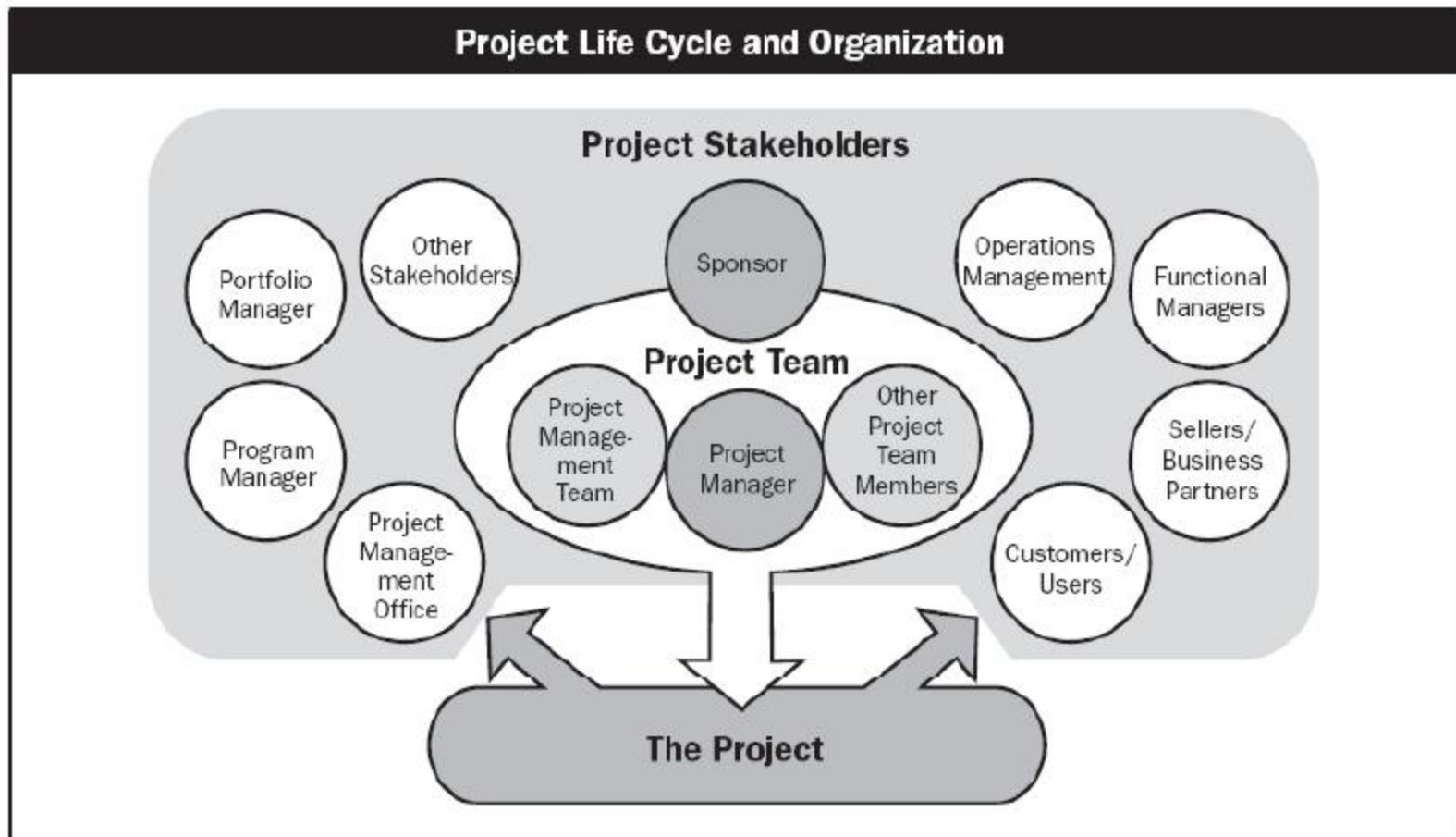
## Customer

- In general, all conflicts on the project should be resolved in favor of the customer
- Ensure close communication with customer to meet their needs and expectations
- Success is in the eyes of the customer



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## Stakeholders and Project



## Organizational Influences on Project Management

### Organizational Cultures and Styles

- Shared visions, values, norms, beliefs, and expectations
- Policies, methods, and procedures
- View of authority relationships
- Work ethic and work hours

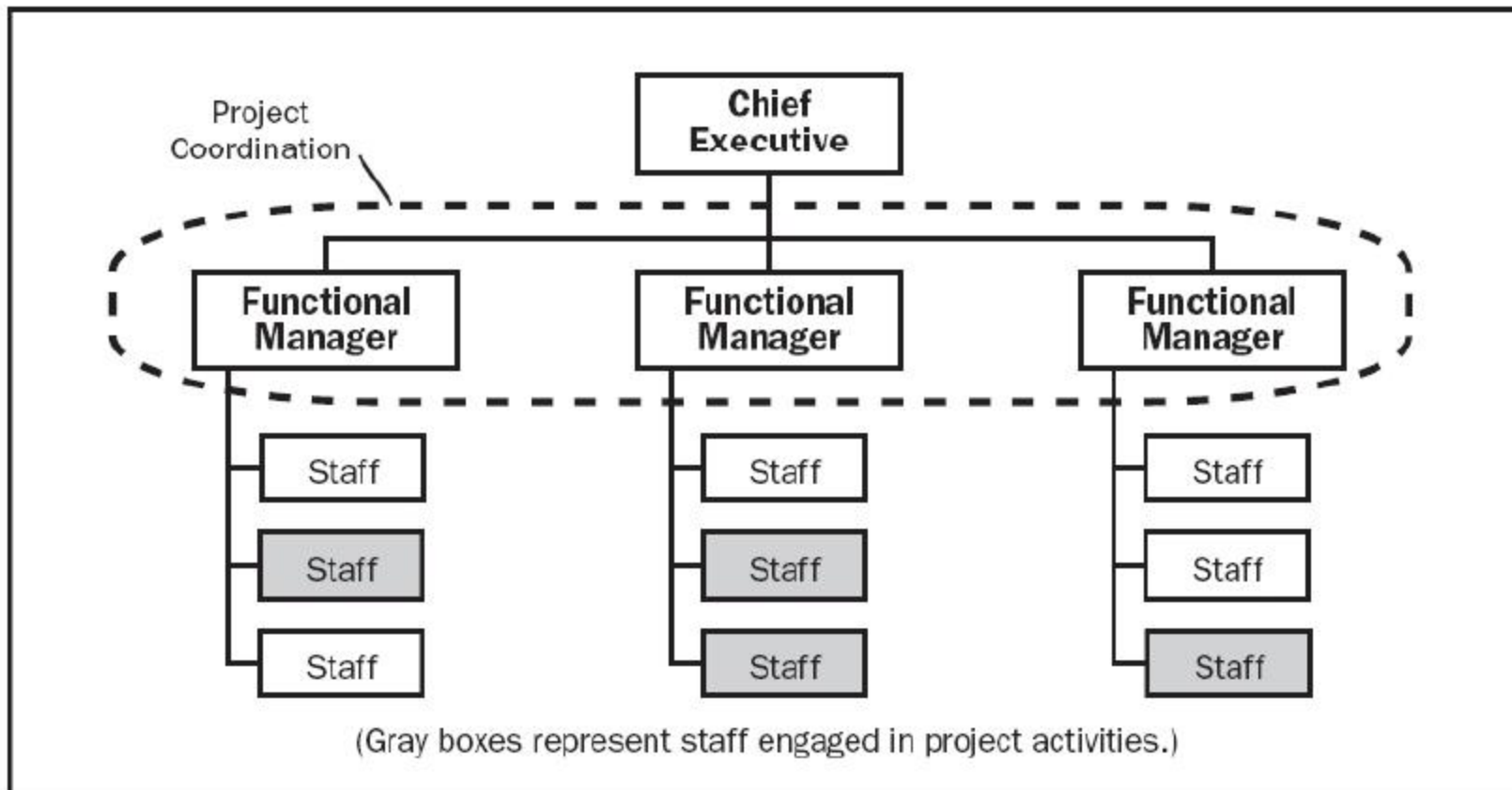


## Organizational Structure

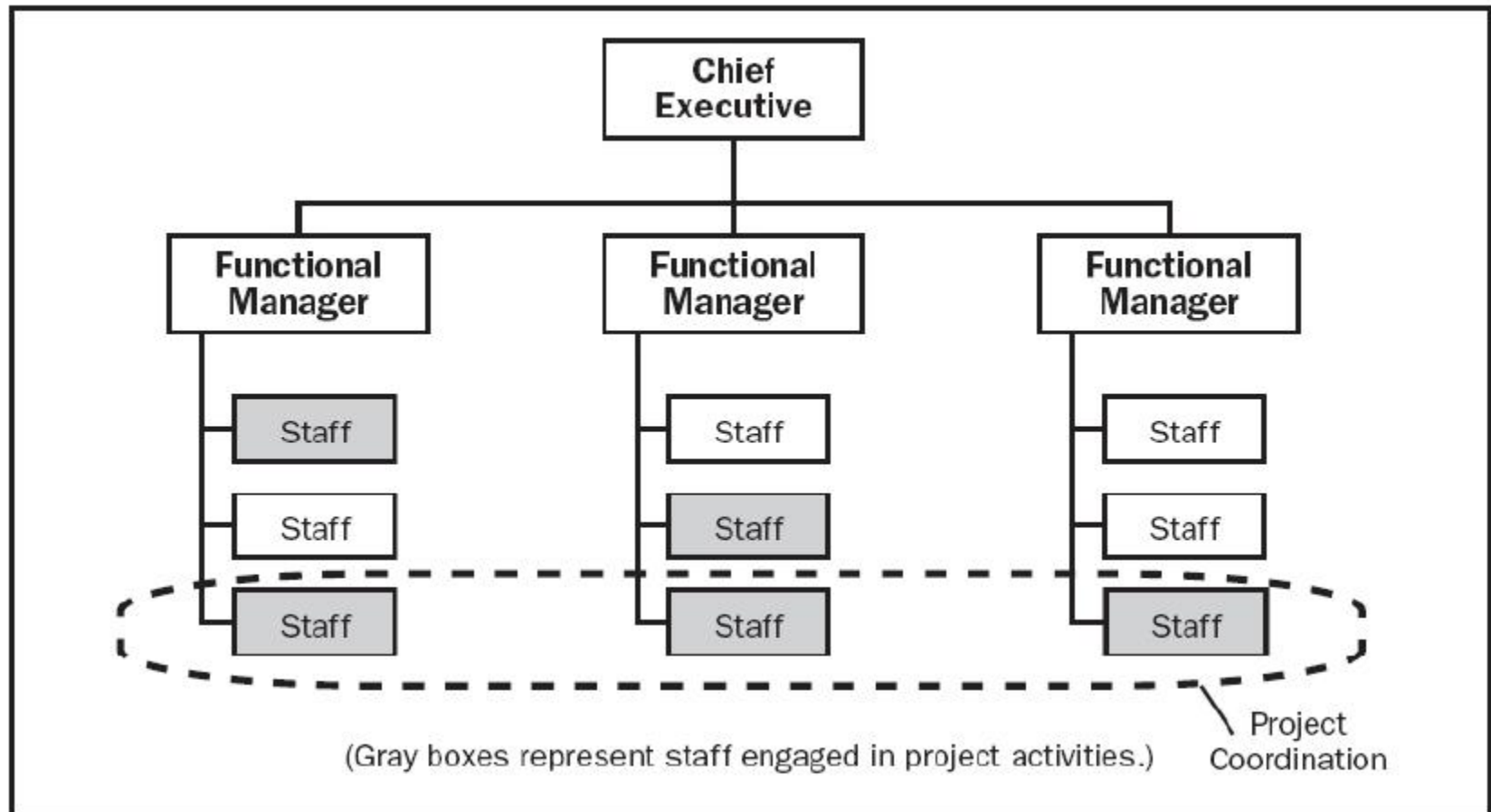
### 4 basic organizational structures

- **Functional:** Each employee has one clear superior; grouped by specialty; independent of other department
- **Matrix:** mixed between functional and project structures; employee often report to two or more bosses
- **Projectized:** Most or all resources are involved in project work
- **Composite:** Involve some or all structures at various levels

## Functional Organization

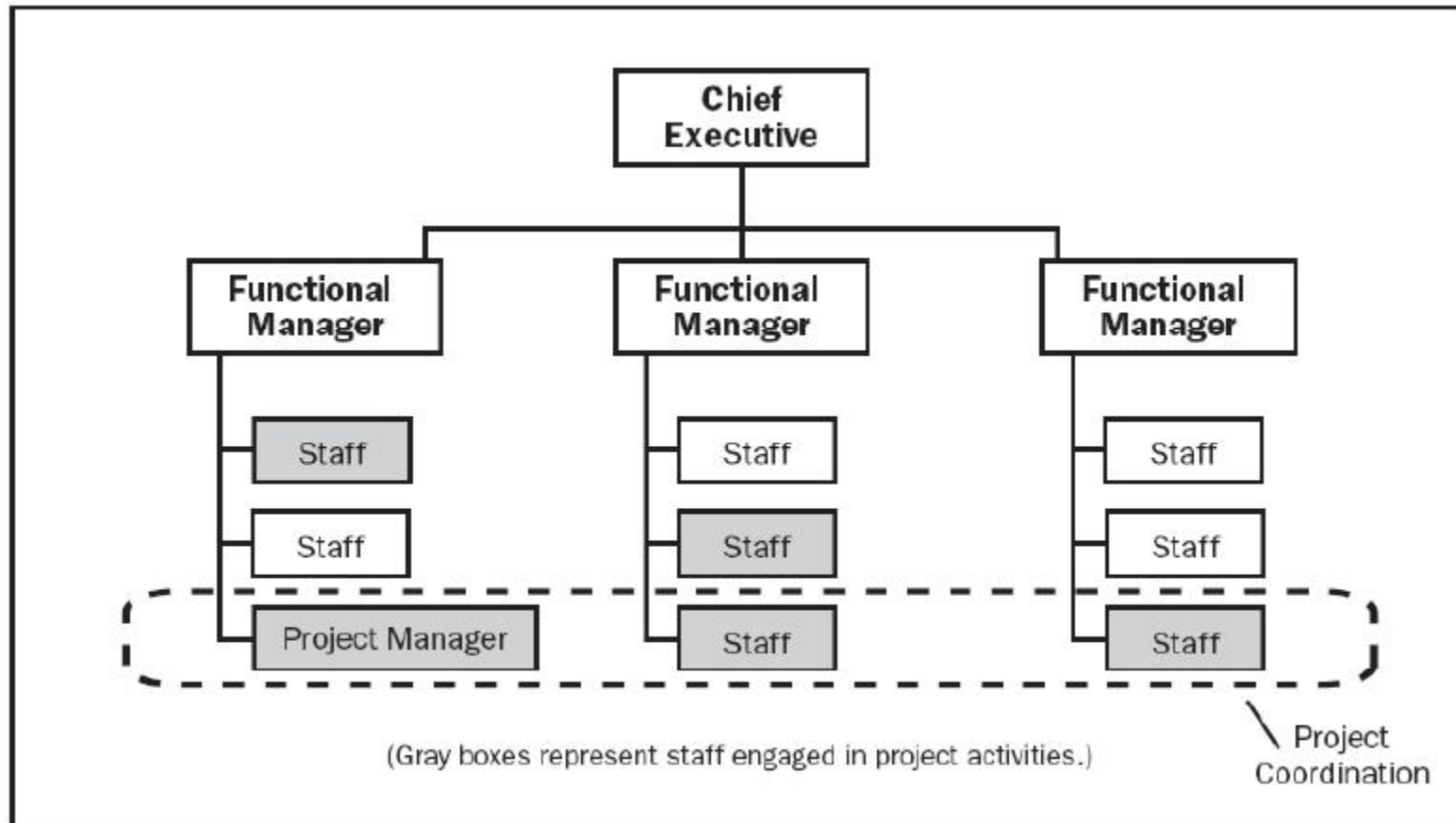


## Weak Matrix Organization

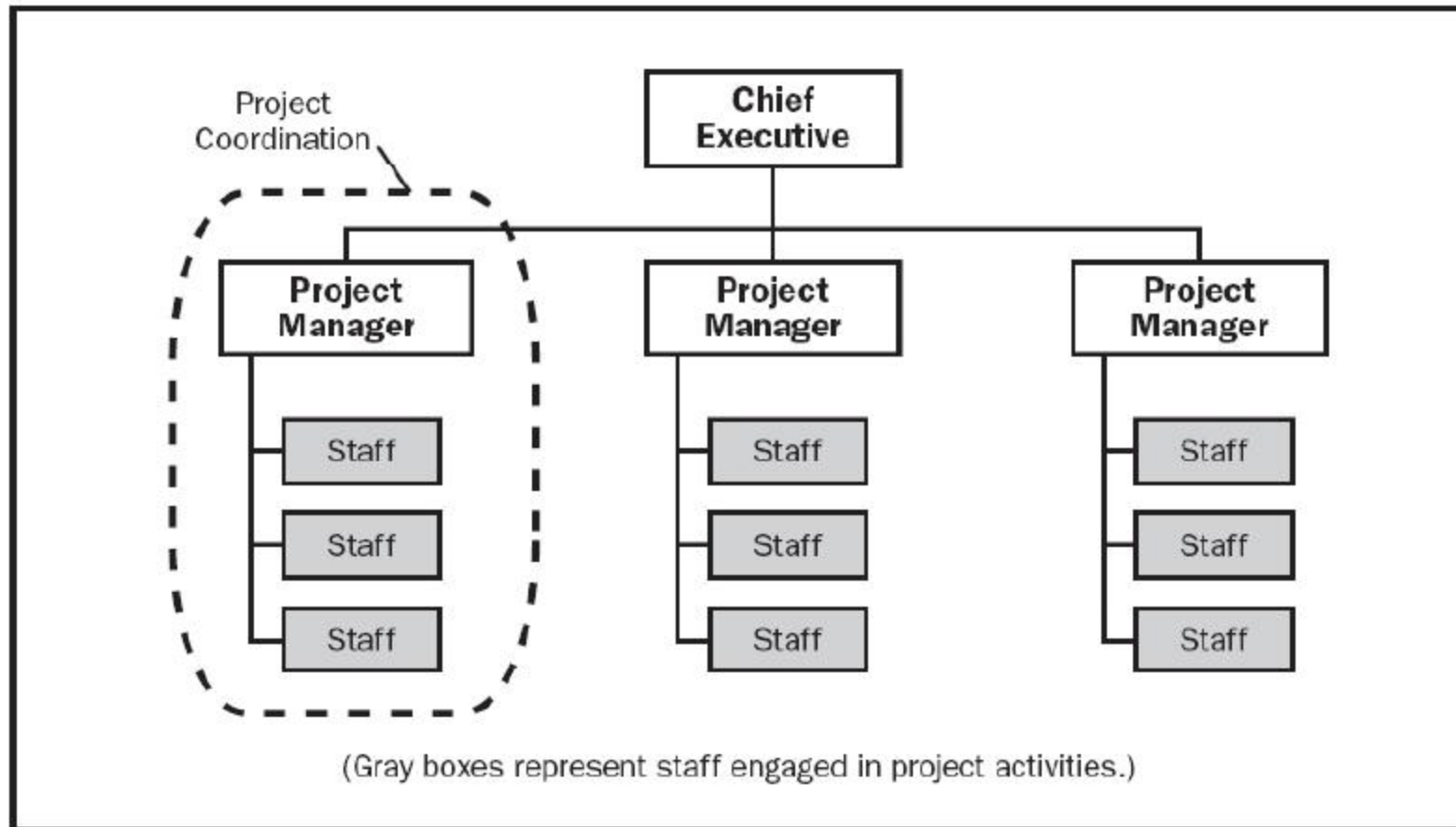


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## Balanced Matrix Organization



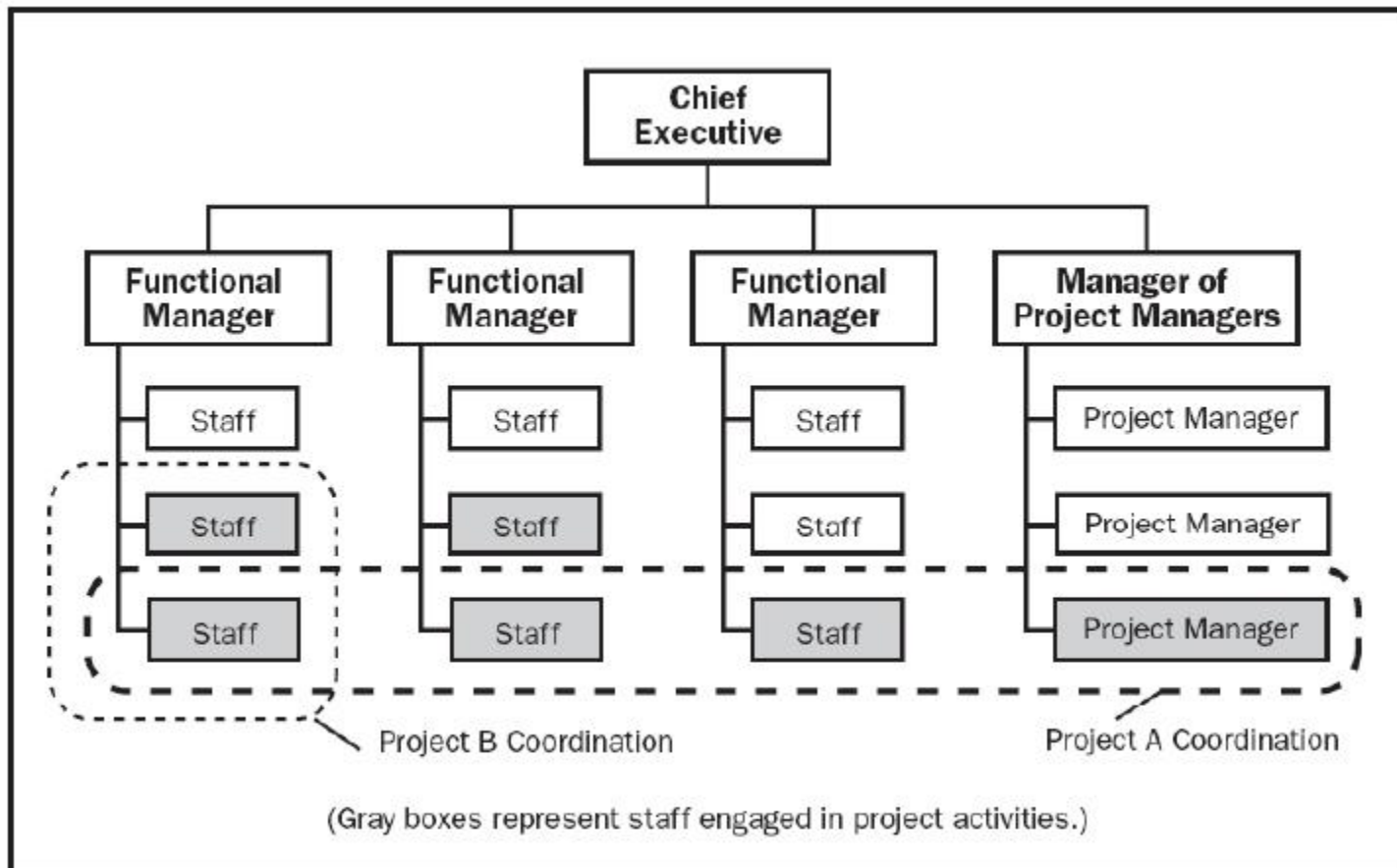
## Projectized Organization



**NB: Team members are usually co-located**

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## Composite Organization



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	Functional	Weak Matrix	Balanced Matrix	Strong Matrix	Projectized
<b>Authority of project manager</b>	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
<b>Resource availability</b>	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
<b>Who controls the project budget</b>	Functional Manager	Functional Manager	Mixed	Project Manager	Project Manager
<b>Project manager's Role</b>	Part-time	Part-time	Full-time	Full-time	Full-time
<b>Project Management Administrative Staff</b>	Part-time	Part-time	Part-time	Full-time	Full-time
<b>Advantages</b>	Easiest management of specialists	Project Manager gets some authority to manage the project	Project Manager and Functional Manager share the responsibility of the project	Project Manager gets more authority to assign resources and manage the project	Project Manager has full authority to staff and manage the project
<b>Disadvantages</b>	Staff focus more on functional work instead of project	Conflict between Functional Manager and Project Manager	Extensive policies and processes	Higher potential for conflict	Project Manager holds all accountability for the outcome of project. Team need to find a new home when project ends

## Organizational Process Assets

- Organizational process assets include any or all process related assets, from any or all of the organizations involved in the project that can be used to influence the project's success.
  - Plans, policies, procedures, and guidelines
  - Organizational knowledge bases (lessons learned, historical information)
  - Completed schedules, risk data, earned value data
  - Updated by project team members
  - Two categories: Processes and Procedures & Corporate Knowledge Base

## Processes and Procedures

- Standards, policies
- Standardized guidelines, work instructions, evaluation criteria
- Templates (eg. Risk, wbs, schedule)
- Guideline for tailoring standards
- Organization communication requirements
- Guideline for project closure
- Financial controls procedures
- Issue and defect management procedures
- Change control procedures
- Risk control procedures
- Procedures for prioritizing, approving, and issuing work authorizations

# Corporate Knowledge Base

- Process measurement databases
- Project files (scope, cost, schedule, constraints, calendar, risks, response actions, risk impact)
- Historical information, lessons learned knowledge bases
- Issue and defect management databases
- Configuration management knowledge bases
- Financial databases (labor hours, incurred costs, budget)

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