#1 Project Management

Introduction

PMBOK 6 Ed- DEI-

A
ABC
1+1

The Project Management Framework

- Chapter 1 –Introduction

Chapter 2 –Project Life Cycle and Organization

Chapter 3 –Project Management Process for a Project

What is project?

"Temporary endeavor undertaken to create a unique, product, service, or result.

Project Attributes

- **unique purpose**
- **No repitition**
- **Temporary**
- **progressive elaboration**
- Requires **resources**
- **Knowledge**
- **Skill and competency**
- **customer or sponsor**
- **Uncertainty**
- **teamwork**

The **opposite** is operational work

Example

project

- Producing a News letter
- Writing and publishing a book
- Implementing a LAN
- Hiring a sales man
- Arrange for a conference
- Opening for a new shop
- Producing the annual report

operational

- Responding to customers requests
- Writing a letter to a Prospect
- Hooking up a Printer to a computer
- Meeting with an employee
- Attending a conference
- Opening the shop
- Writing a progress update memo

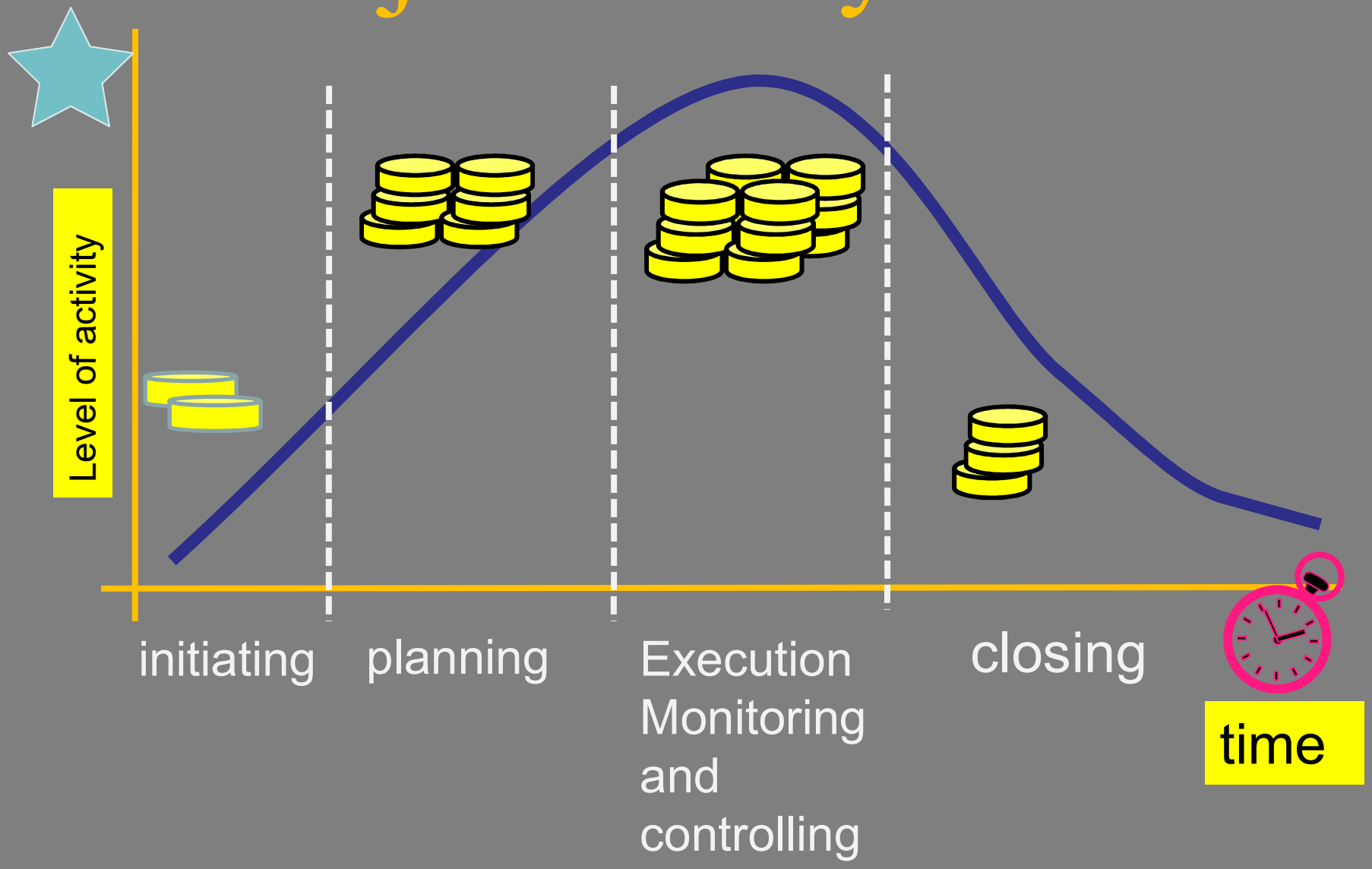
What is Project Management?

knowledge, skills, tools and technique to project activities to meet project requirements

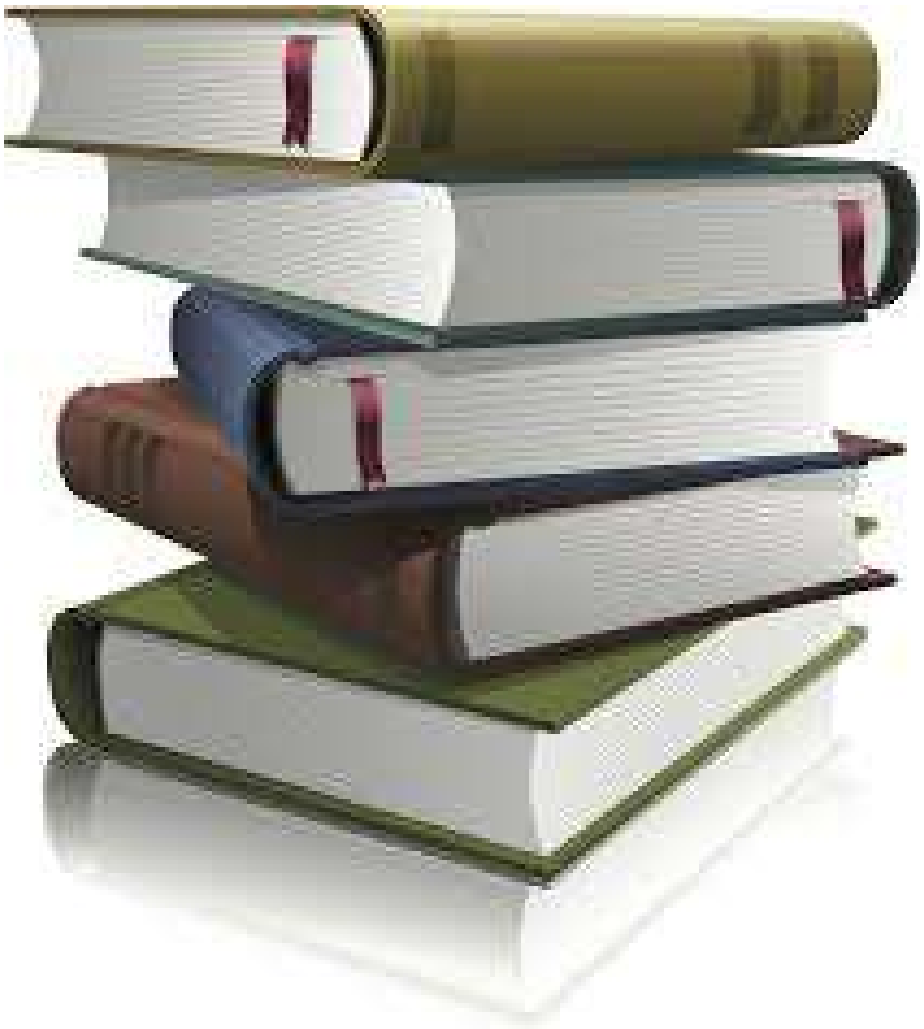
When we need it?

In every single phase of **project life cycle**

Project life cycle



What is PMBOK?



A standard

Guidelines

A good practices

A common vocabulary

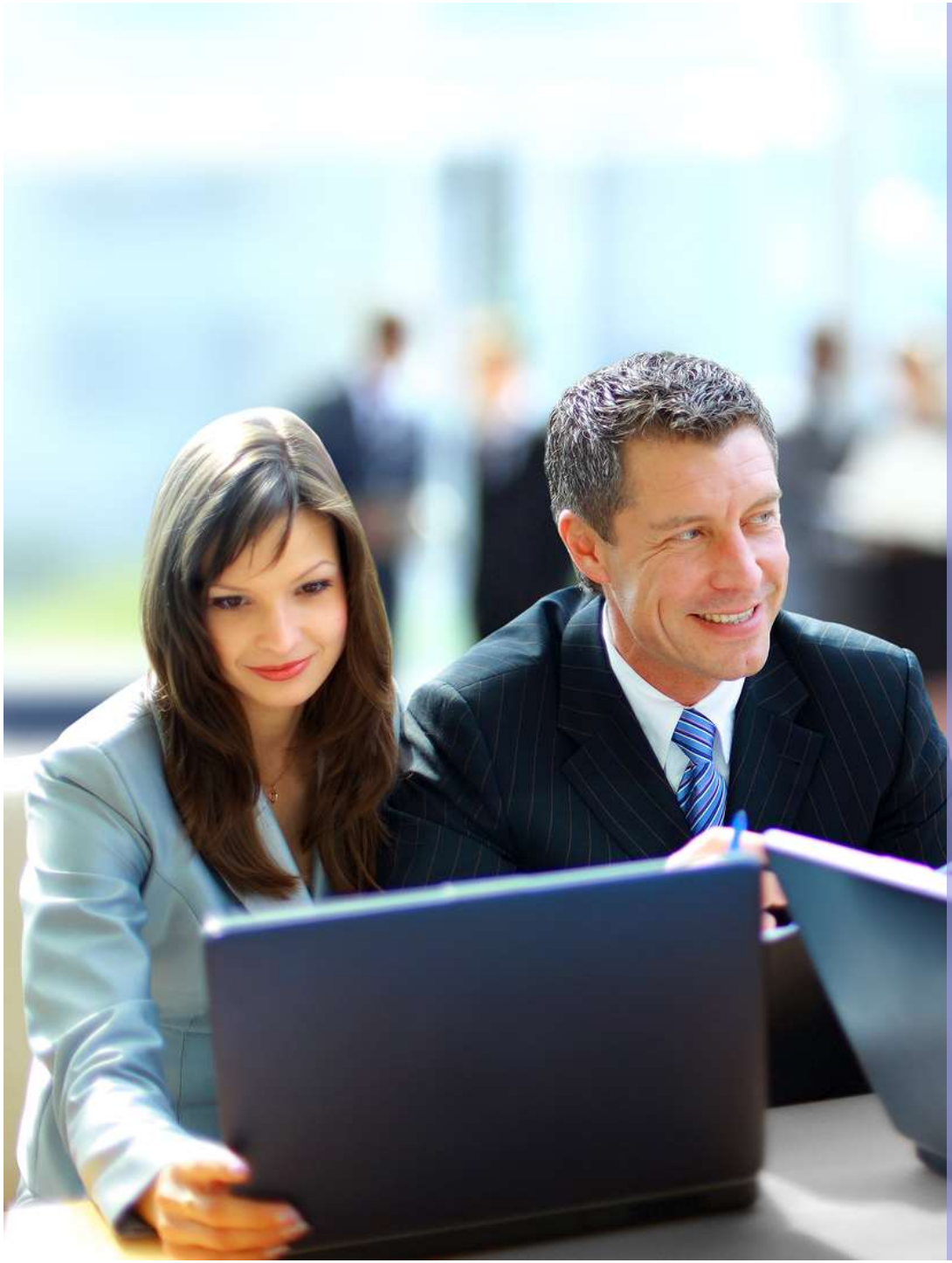
A reference

Code of Ethics and Professional Conduct

Requirement for PMP certification

The Advantages of Using Formal Project Management

"Better control of **financial, physical, and human resources"**



“Better control of **customer relation**”

“Shorter development time Higher productivity”

Lower Cost
High profit

Higher

Quality

&

Reliability

Better internal coordination and less stress

Managing Project

Project leader

The Project Manager is the person responsible for accomplishing the project objectives.

Managing Project

Requirements.

Clear and achievable objectives.

Balancing quality, scope, time and cost.

the specifications, plans, and approach

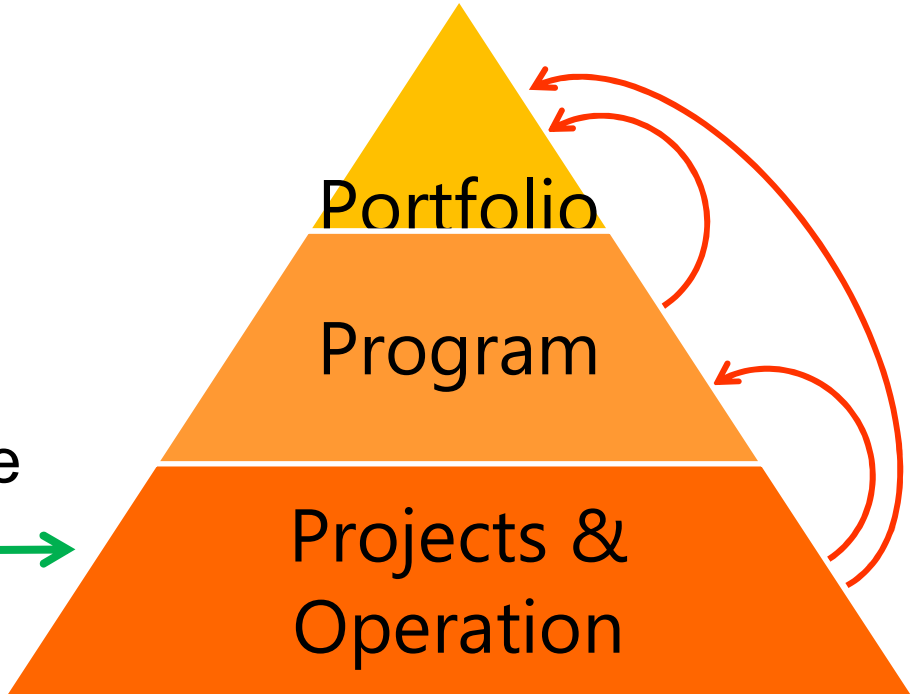
expectations of stakeholders.

Relationships Among Project Management, Program Management and Portfolio Management

- Project Management
- Program Management
- Portfolio Management

- Project Management Office

PMO

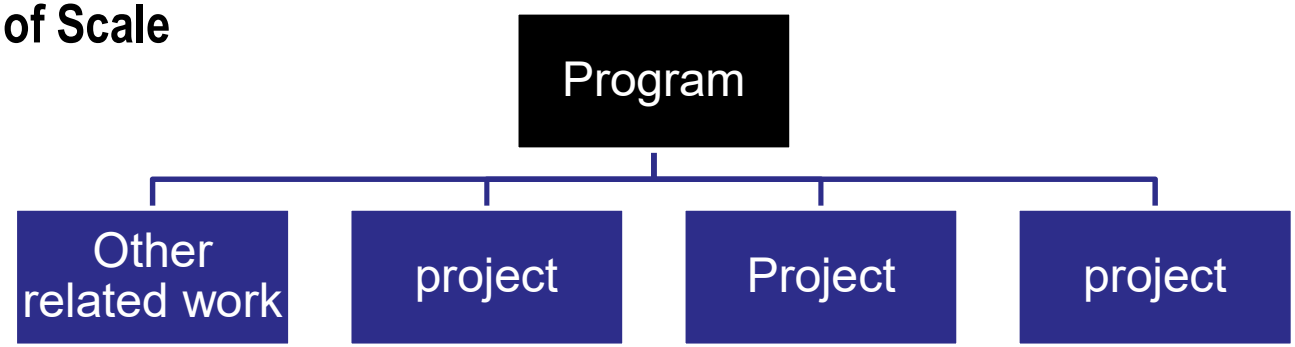


WHAT IS A PROGRAM?

A program is:

- "**a group of related projects managed** in a coordinated way to obtain benefits and control not available from managing them individually."

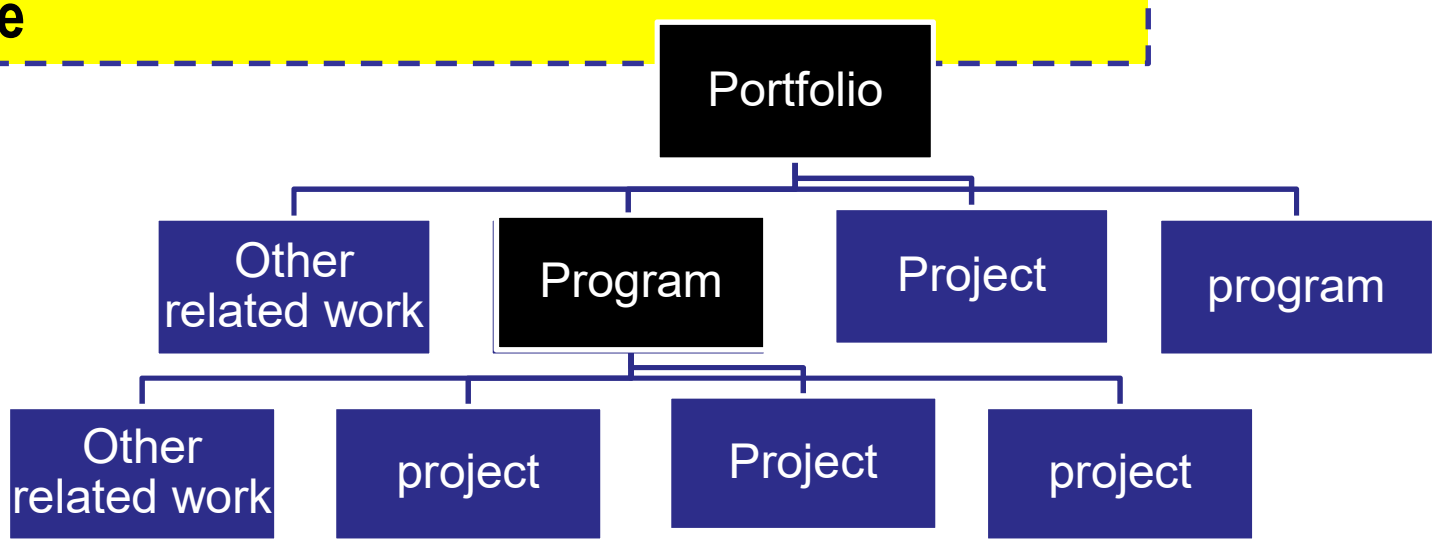
- ADVANTAGES
  - **Decreased risk**
  - **Economies of Scale**



PORTFOLIOS AND PORTFOLIO

- A portfolio is a **collection of projects or programs and other work**

Make wise **investment decisions**
by helping to **select and analyze projects** from **a strategic perspective**



SUBPROJECTS

- Projects are frequently **divided** into **more manageable** components or subprojects.

- Subproject are often ***contracted to an external enterprise or to another functional*** unit in the performing organization.

PMO
PROJECT MANAGEMENT OFFICE

"A department that centralizes the management of projects"

Support

Provide policies, methodology, template, lesson learned

Controlling

Give guidance how to manage project, training, ensure compliance

Directive

Provide project manager for various project. High level control over project

3 Roles of PMO

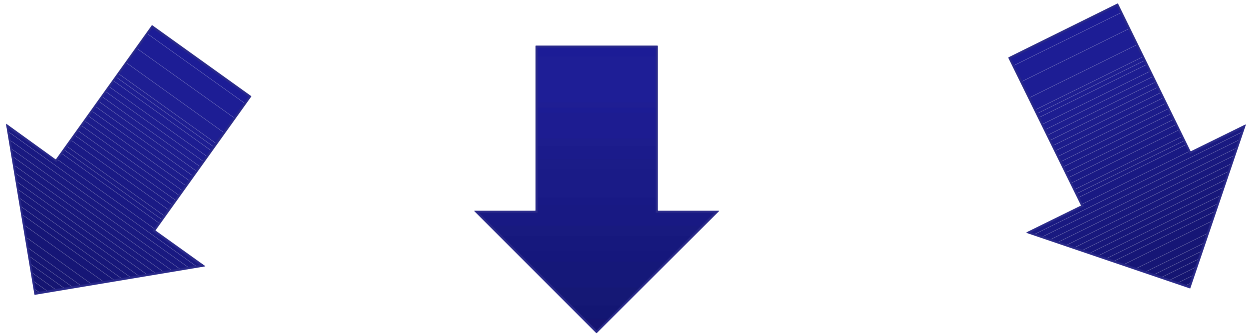
FUNCTION OF PMO

- **Manage the interdependencies among project, program and portfolio**
- Help provide resources, project templates
- **Recommend the termination of projects**
- **Coaching, mentoring, training and oversight**
- **Monitoring compliance** via project audits .
- Developing and managing project **organizational process assets**
- **Co coordinating communication**

FUNCTION OF PMO

- Provide guidance and project governance
- Have representative of CCB
- Help gather lesson learned
- Be a stakeholder

Organizational structure



Functional

Matrix

Projectized

Project Expediter and Coordinator

Project Expediter

- acts primarily as a **staff assistant**
- as **communications coordinator**.
- cannot personally make or **enforce decisions.**

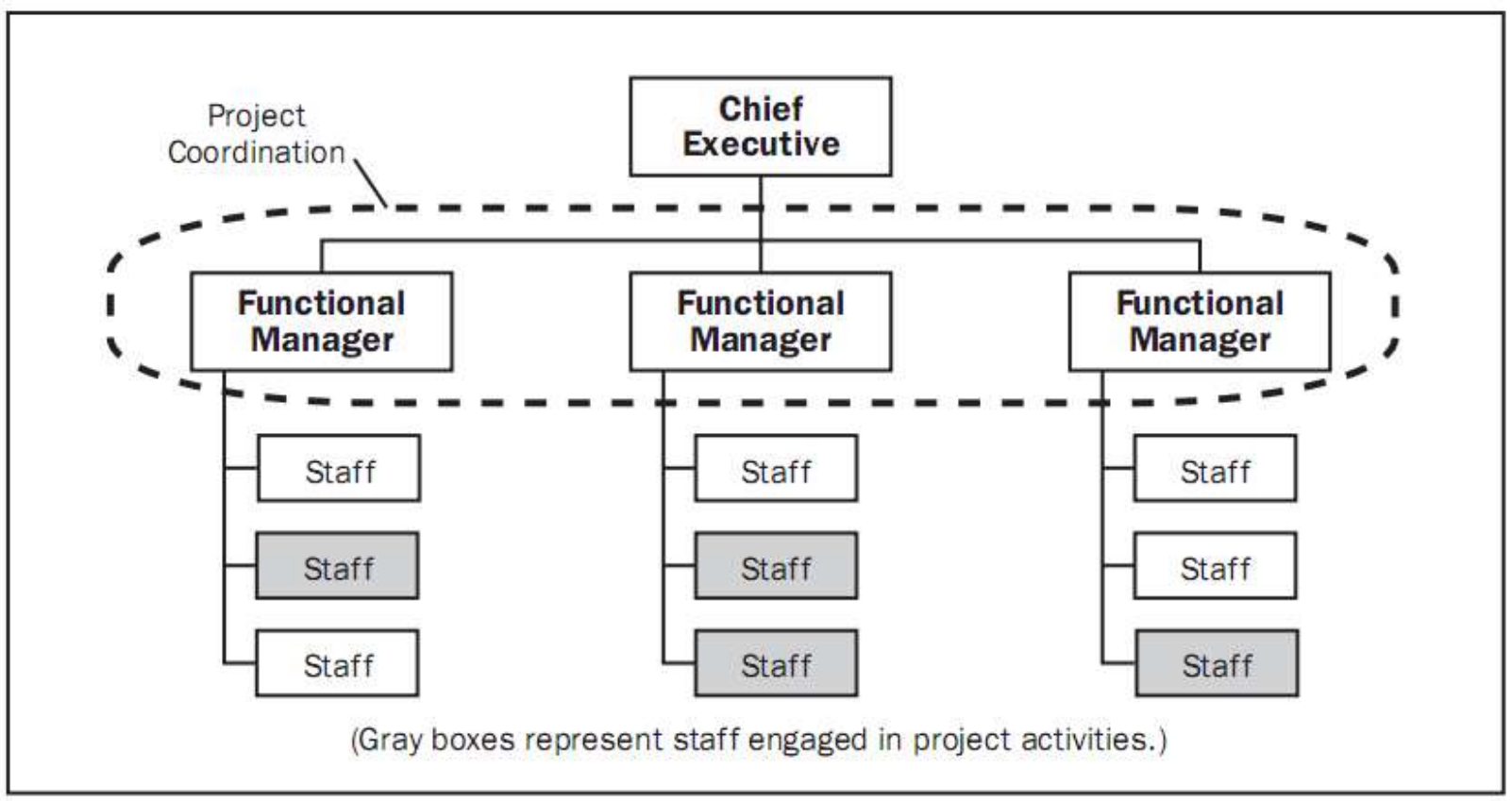
Project Coordinator

has some power to **make decisions**

Has some **authority**

reports to a **higher-level manager**

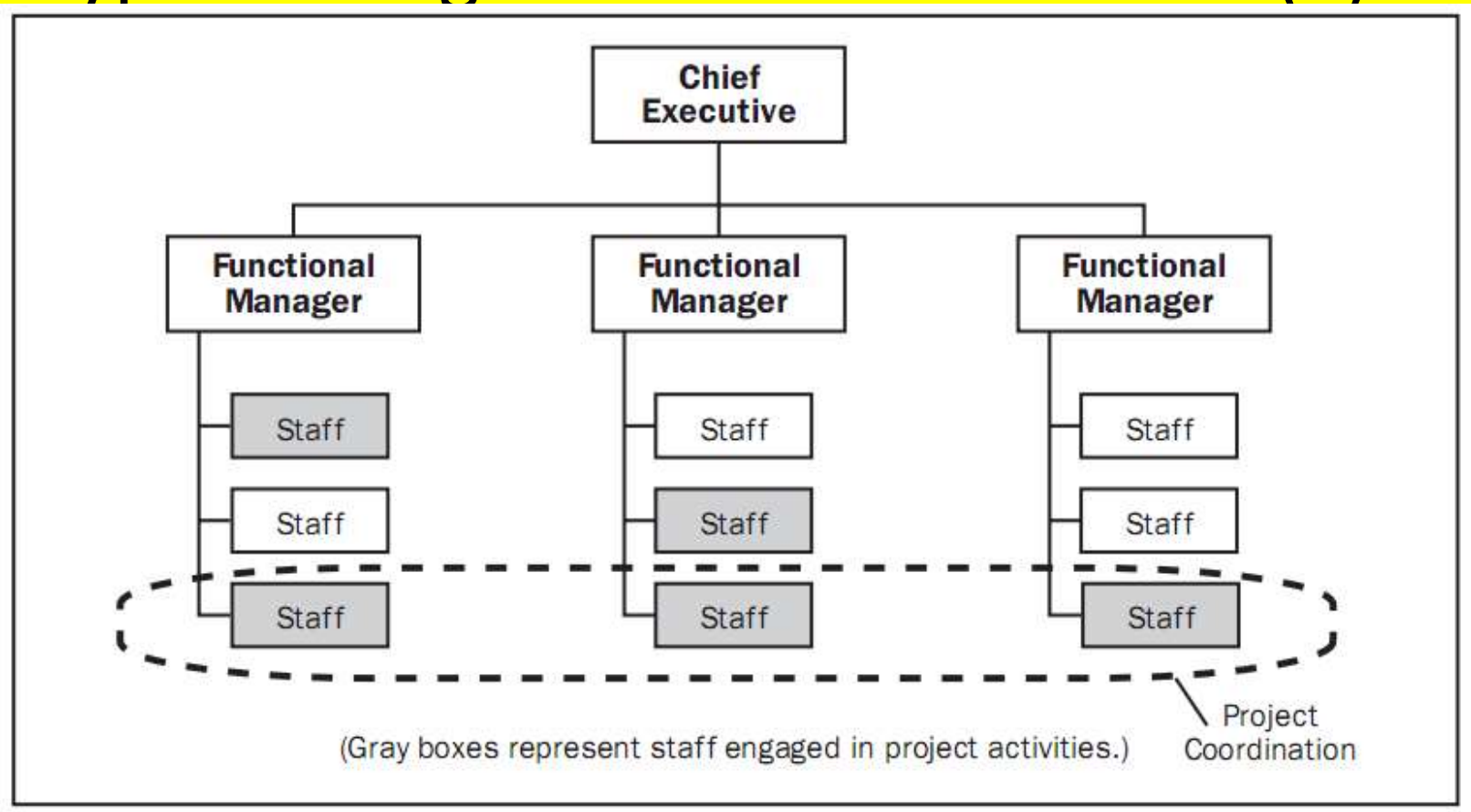
Types of Organizational Structures (1)



Functional

- Organization is grouped by areas of specialization
- Project generally occur within a single department

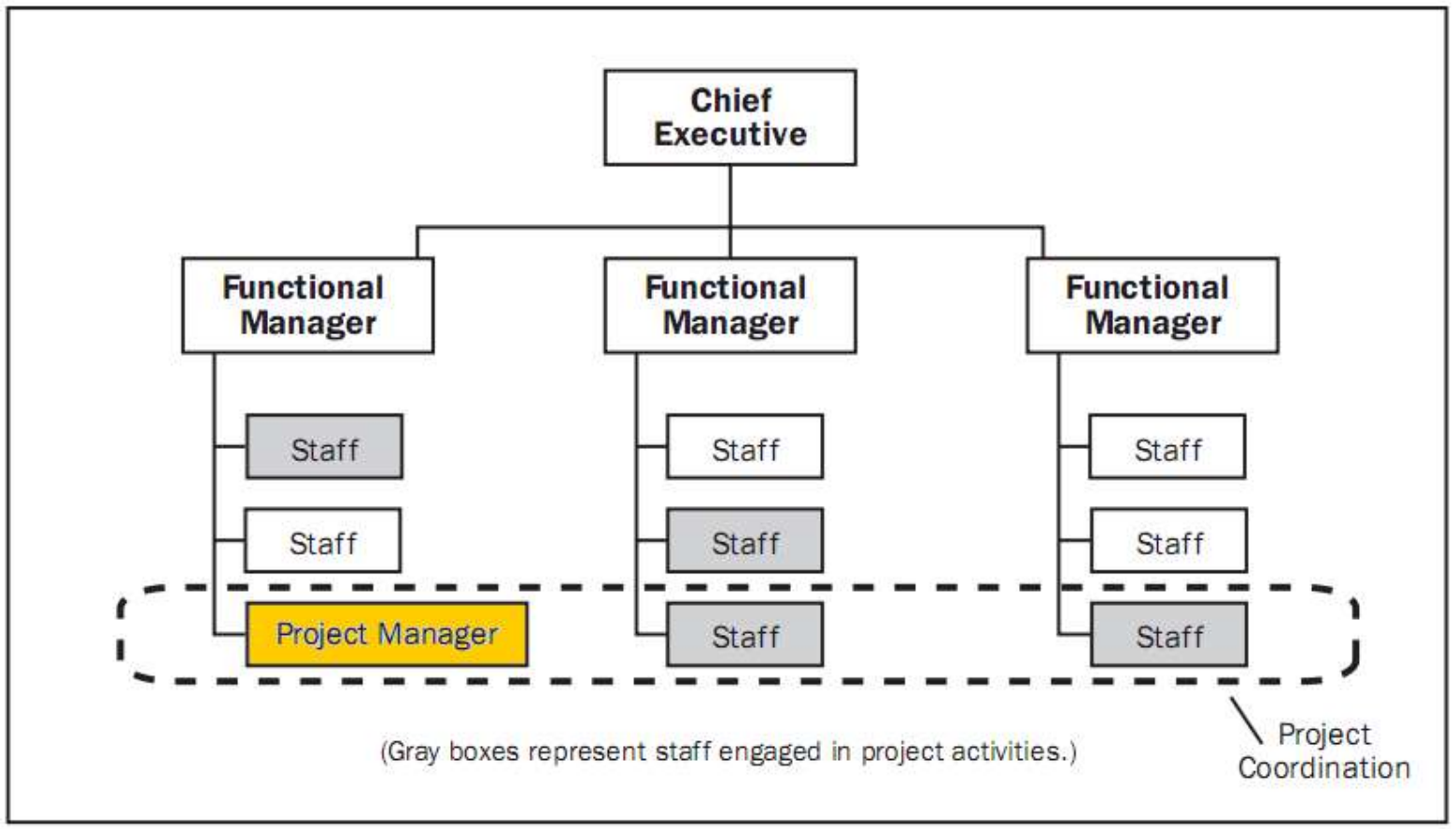
Types of Organizational Structures (2)



Weak Matrix

- Power rest with the functional manager
- Power of project manager = **coordinator** or **expediter**

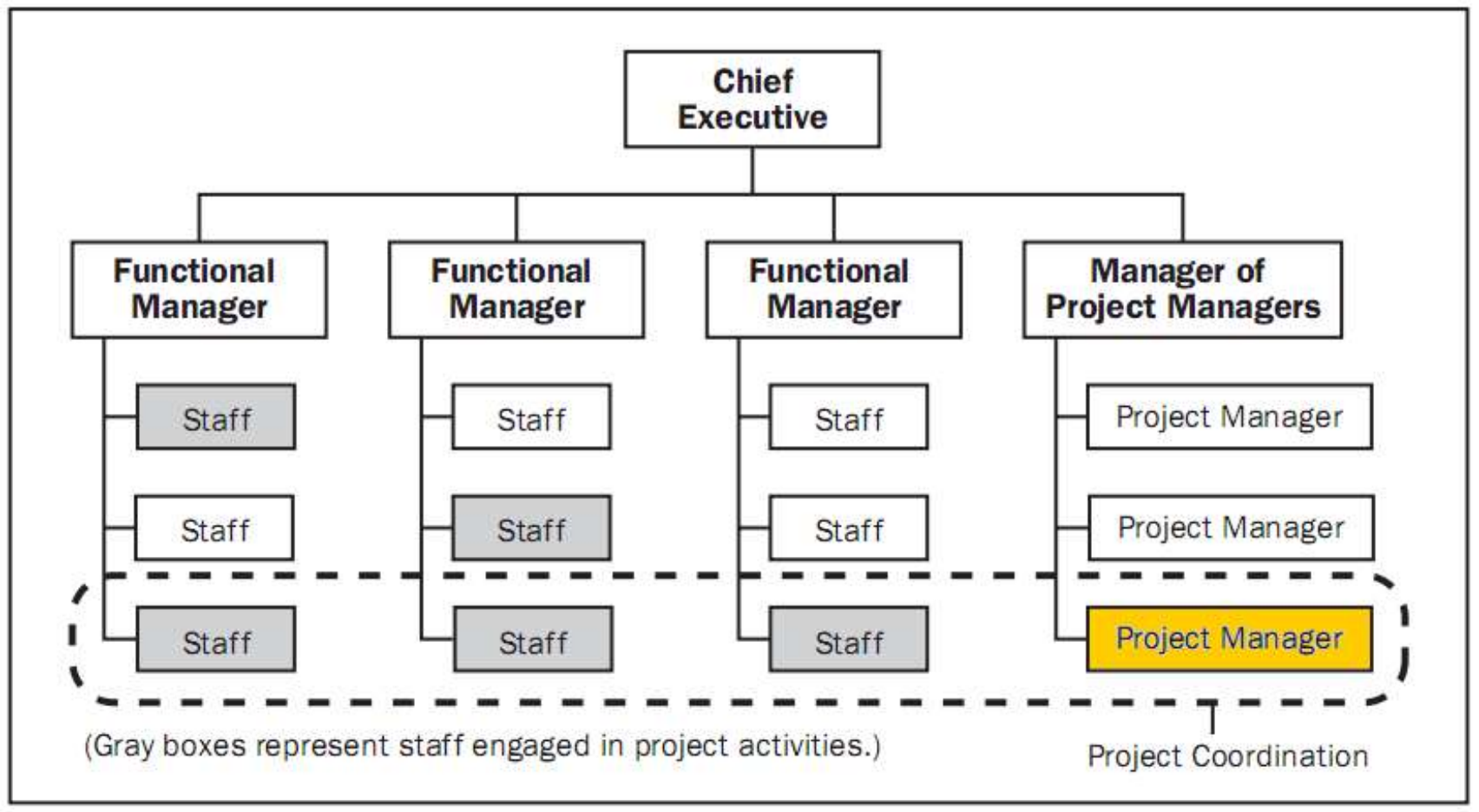
Types of Organizational Structures (2)



Balanced Matrix

- **Power is shared** between the project manager and the functional manager (almost full time PM)

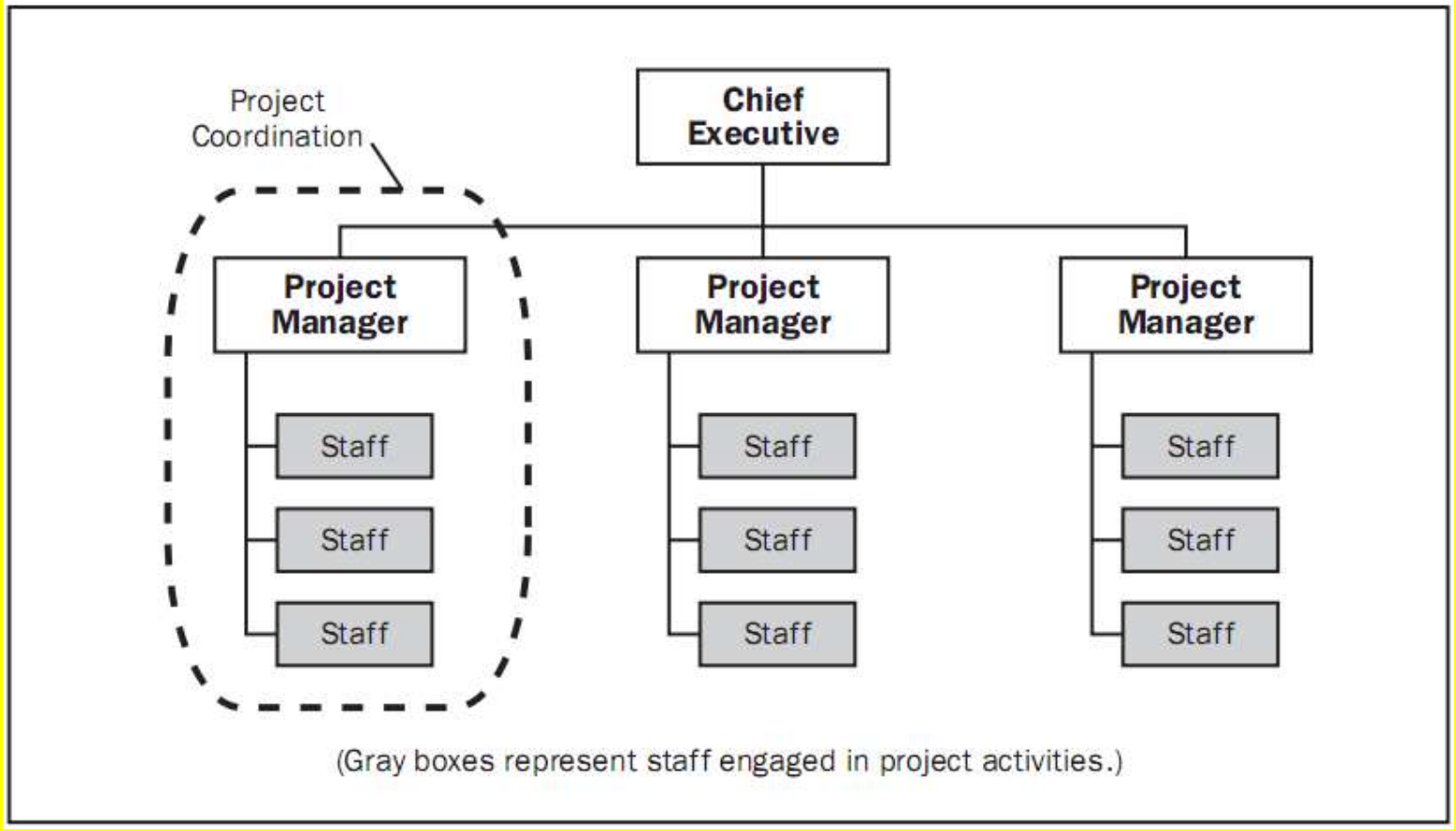
Types of Organizational Structures (3)



Strong Matrix

- Power rest with **the project manager (full time PM and Staff)**

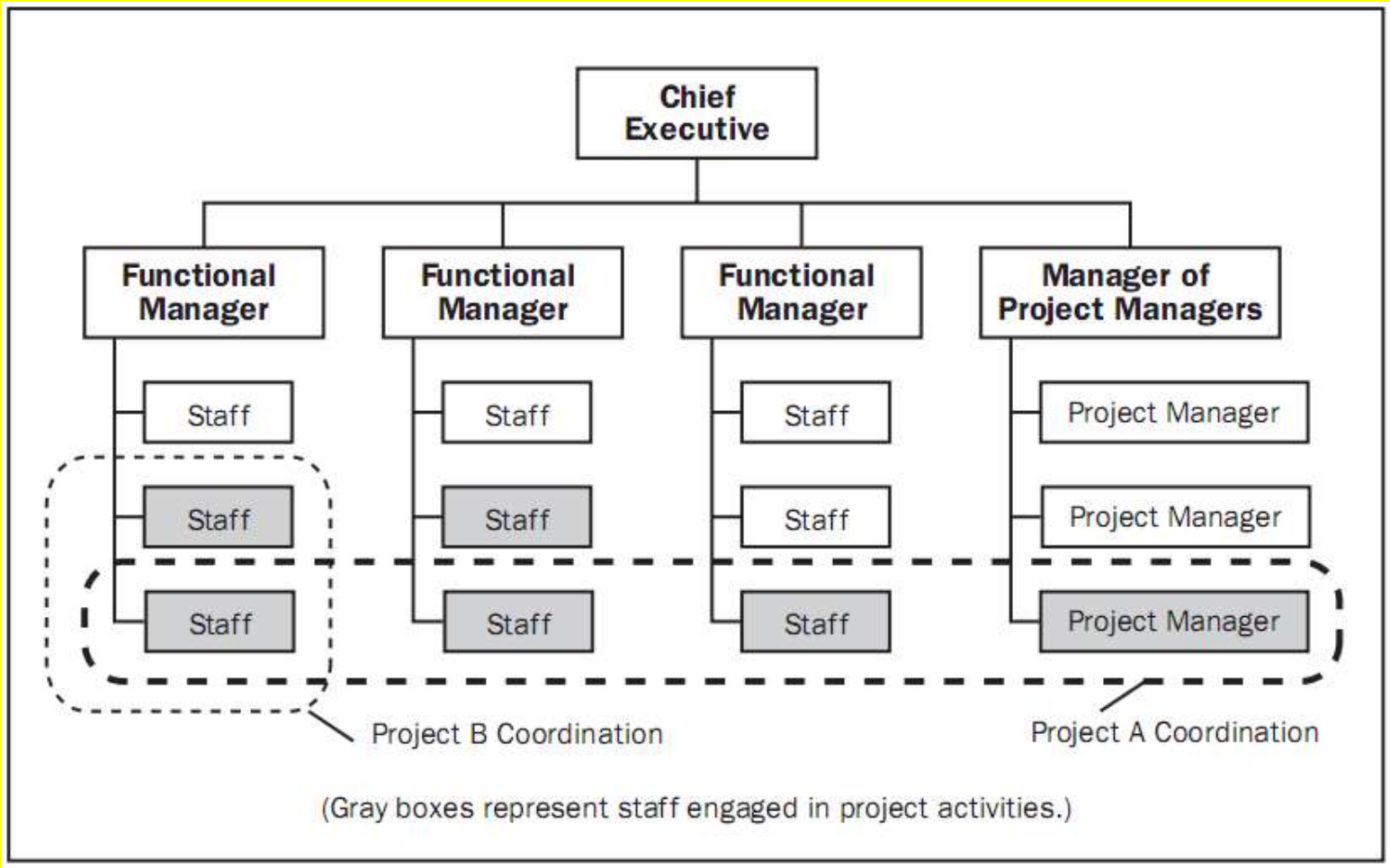
Types of Organizational Structures (1)



Projectized

- Entire company is organized by projects
- Personnel are assigned and **report to a project manager**

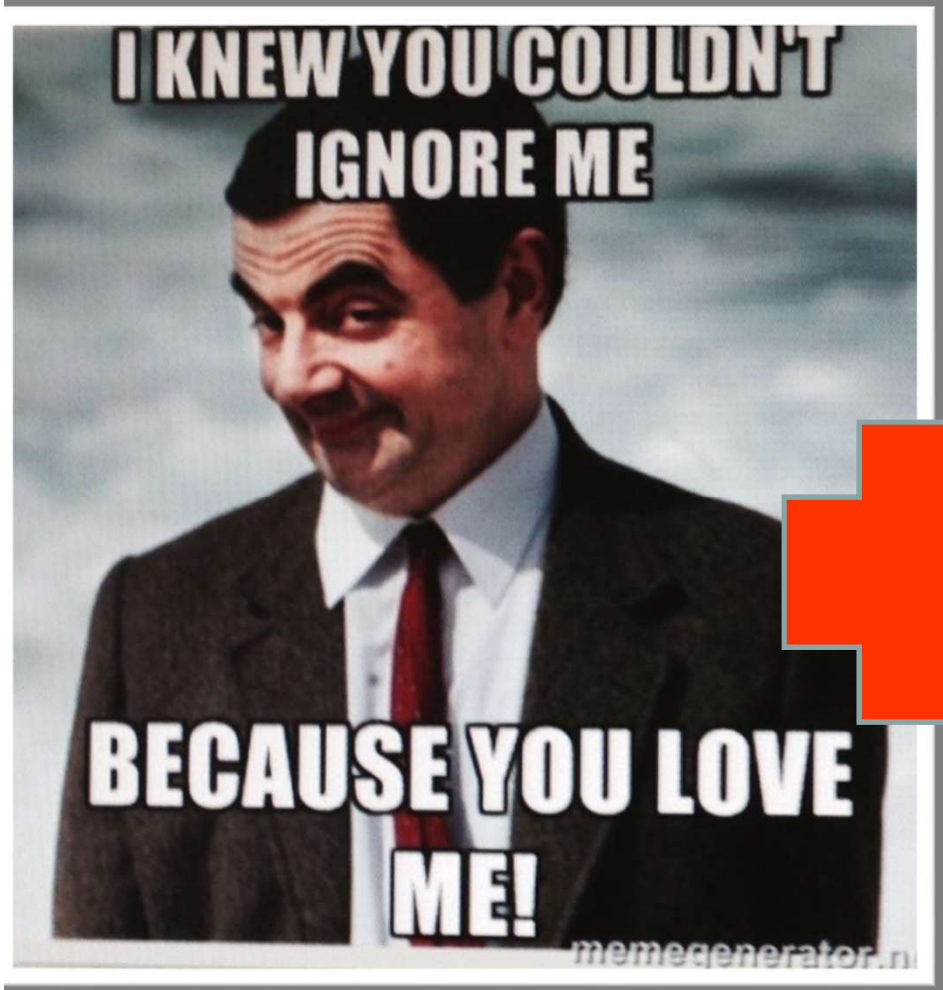
Types of Organizational Structures (3)

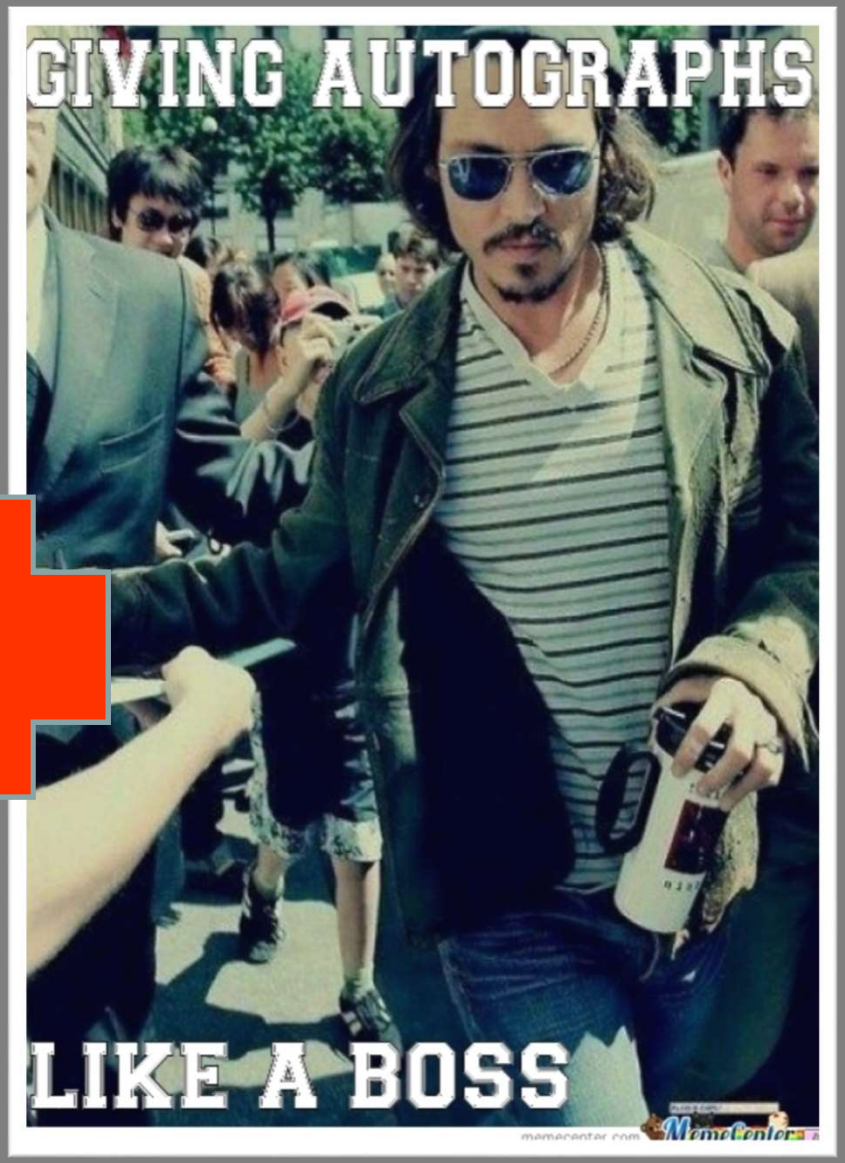


- Composite = Functional + Projectized

Organizational Structure

Organization Structure / Project Characteristics	Functional	Matrix			Projectized
		Weak Matrix	Balanced Matrix	Strong Matrix	
Project Manager's Authority	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Resource Availability	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Who controls the project budget	Functional Manager	Functional Manager	Mixed	Project Manager	Project Manager
Project Manager's Role	Part-time	Part-time	Full-time	Full-time	Full-time
Project Management Administrative Staff	Part-time	Part-time	Part-time	Full-time	Full-time





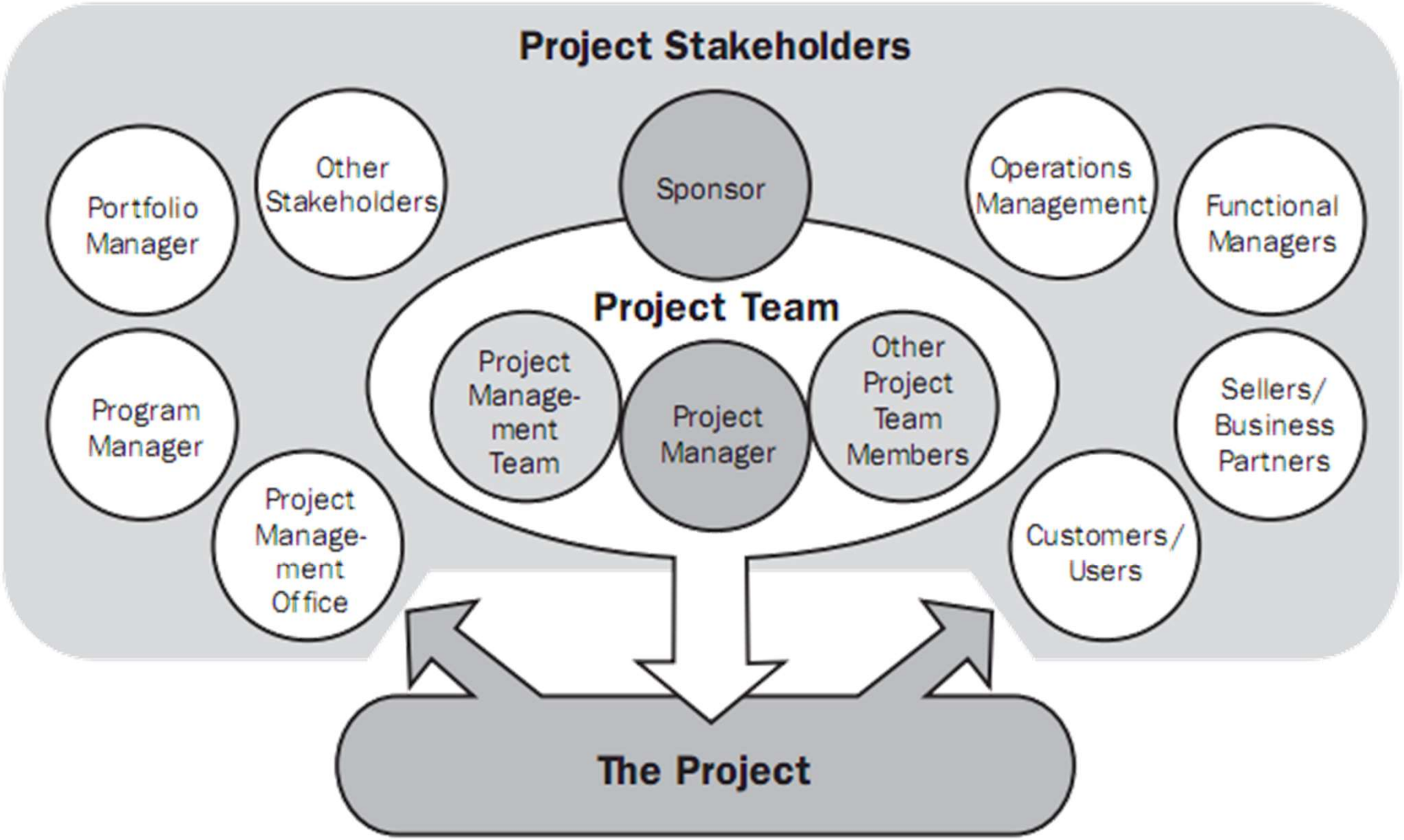
STAKEHOLDER

Who are the Stakeholders?

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

- **levels of responsibility and authority** and **can change** over the project life cycle

Stakeholders



Exercise!

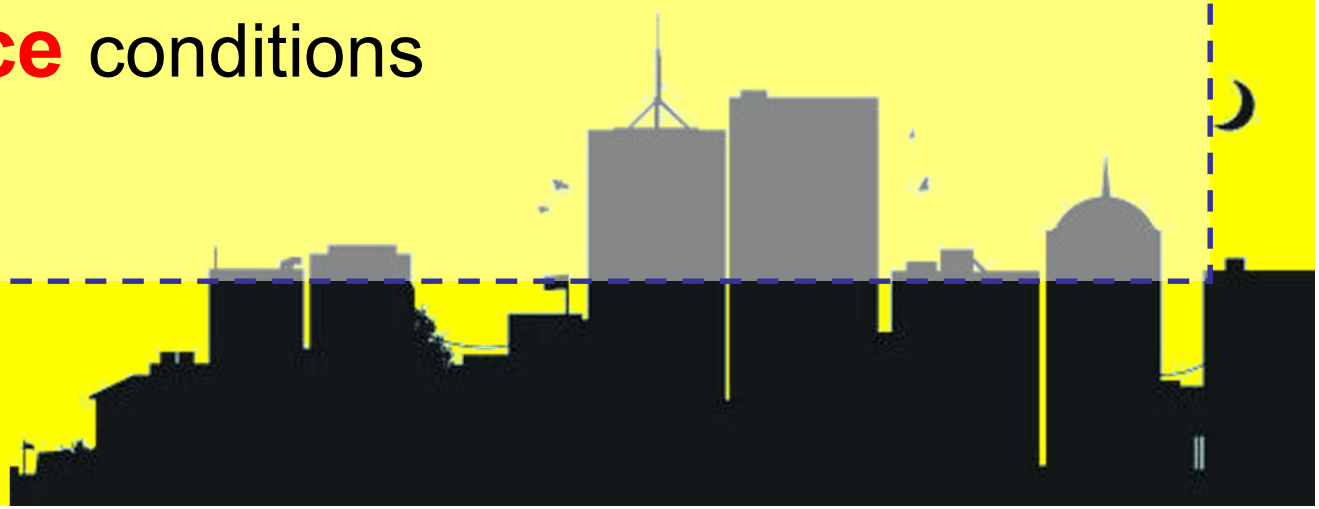
- Describe the role of :
  - Project manager
  - Project sponsor
  - Project team
  - Project management team
  - Portfolio manager
  - Program manager

Enterprise Environmental Factors

- Refer **external** environmental factors that surround or influence a project's success
- As an input in almost all project management process
- May **enhance or constrain** project management options
- May have **positive or negative influence** on the outcome

EEF EXAMPLES

- ✓ Organizational culture, structure, and processes
- ✓ **Government** or industry standards
- ✓ Infrastructure
- ✓ Existing human resources
- ✓ Personnel administration
- ✓ Company work authorization systems
- ✓ **Marketplace** conditions



EEF EXAMPLES

- ✓ Stakeholder risk tolerances
- ✓ **Political climate**
- ✓ Organization's established communications channels
- ✓ Commercial databases
- ✓ Project management information

Organizational Process Assets

Processes & Procedures

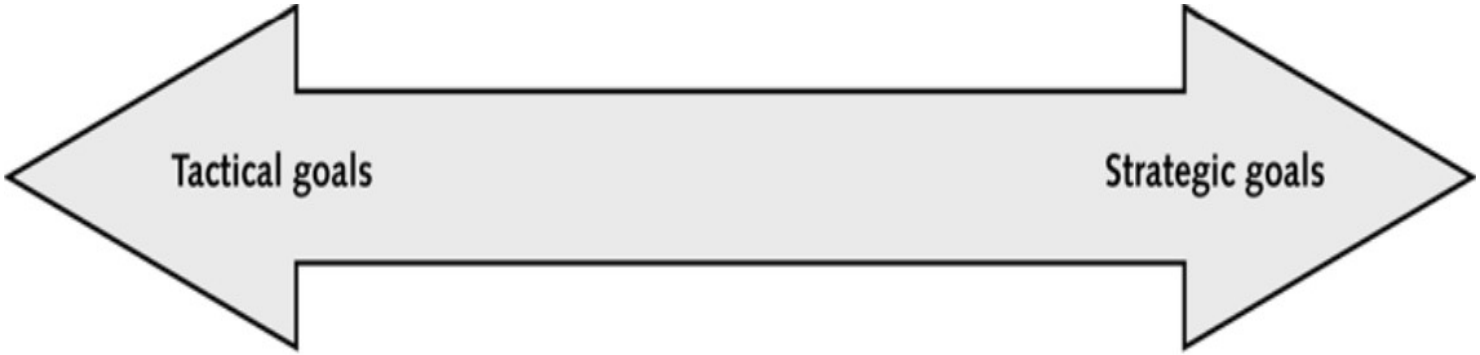
- Organizational standard processes such as standards, policies
- Standardized guidelines, work instruction, proposal evaluation criteria, and performance measurement criteria
- Templates
- Financial control **procedures**
- Procedures for prioritizing, approving, and issuing **work authorization**
- Etc.

Organizational Process Assets

Corporate Knowledge Base

- Process measurement databases
- Project files
- Historical information & lesson learned knowledge bases
- Issue and defect management databases
- Configuration management knowledge bases

Project Management Compared to Project Portfolio Management



Project management
- Are we carrying out projects well?
- Are projects on time and on budget?
- Do project stakeholders know what they should be doing?

Project portfolio management
- Are we working on the right projects?
- Are we investing in the right areas?
- Do we have the right resources to be competitve?

Comparative Overview

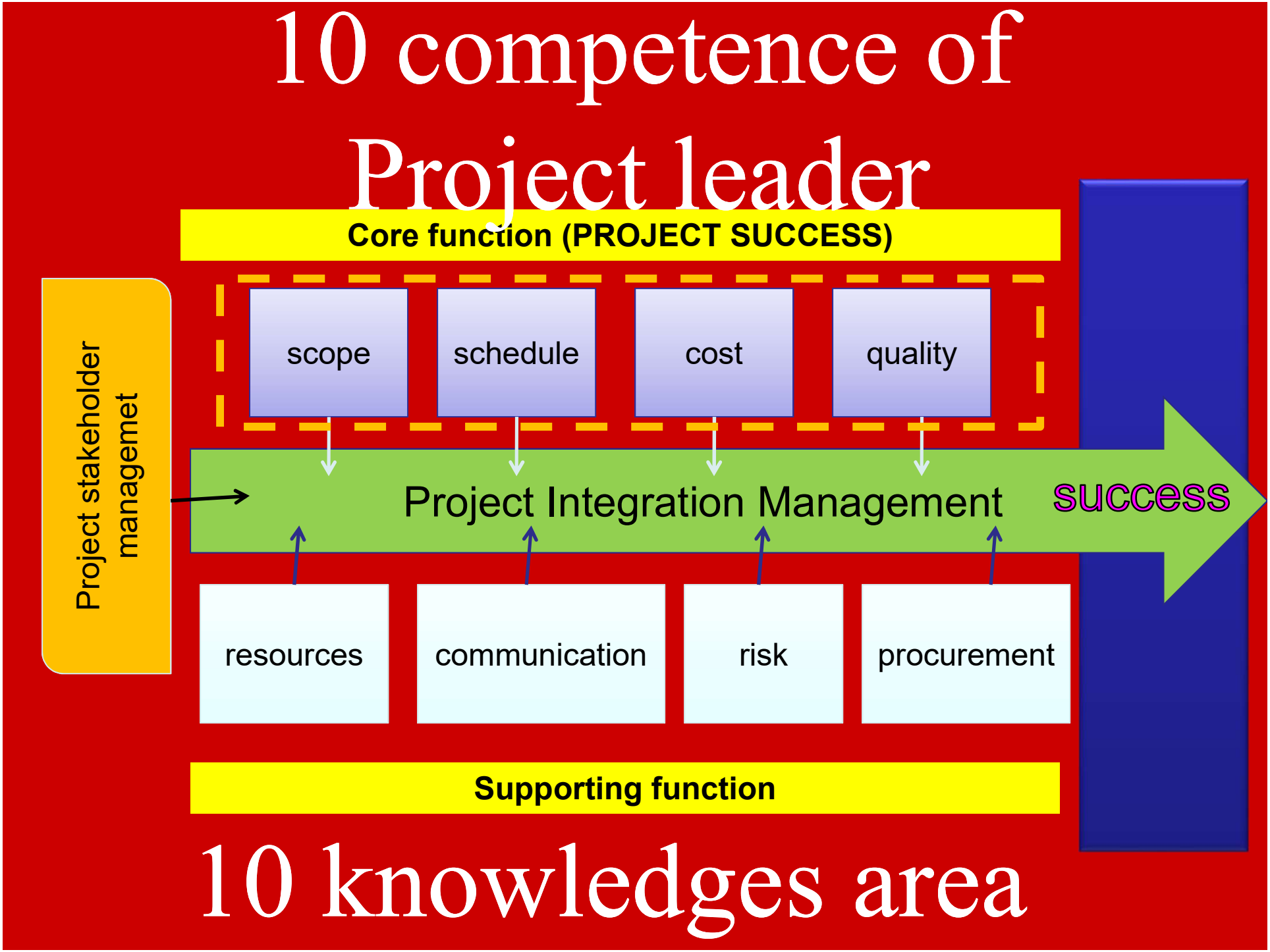
	PROJECTS	PROGRAMS	PORTFOLIOS
Scope	Projects have defined objectives. Scope is progressively elaborated throughout the project life cycle.	Programs have a larger scope and provide more significant benefits.	Portfolios have a business scope that changes with the strategic goals of the organization.
Change	Project managers expect change and implement processes to keep change managed and controlled.	The program manager must expect change from both inside and outside the program and be prepared to manage it.	Portfolio managers continually monitor changes in the broad environment.
Planning	Project managers progressively elaborate high-level information into detailed plans throughout the project life cycle.	Program managers develop the overall program plan and create high-level plans to guide detailed planning at the component level.	Portfolio managers create and maintain necessary processes and communication relative to the aggregate portfolio.
Management	Project managers manage the project team to meet the project objectives.	Program managers manage the program staff and the project managers; they provide vision and overall leadership.	Portfolio managers may manage or coordinate portfolio management staff.
Success	Success is measured by product and project quality, timeliness, budget compliance, and degree of customer satisfaction.	Success is measured by the degree to which the program satisfies the needs and benefits for which it was undertaken.	Success is measured in terms of aggregate performance of portfolio components.
Monitoring	Project managers monitor and control the work of producing the products, services or results that the project was undertaken to produce.	Program managers monitor the progress of program components to ensure the overall goals, schedules, budget, and benefits of the program will be met.	Portfolio managers monitor aggregate performance and value indicators.

Role of a Project Manager

- The Project Manager is the person **responsible for accomplishing** the project objectives.
- Project managers strive to **meet the triple constraint** by balancing project scope, time, and cost goals
- Depending on the organization structure , a project manager may **report** to functional manager.
- In other cases project manager may be one of the several project managers who report to a portfolio or program manager that is ultimately responsible for enterprise wide projects . In this type of structure, the project manager works closely with the portfolio or program manager to achieve the project objectives

Project Manager
is a Person who thinks nine women
can deliver a baby in One month
malikruman / 9GAG

10 competence of Project leader



10 knowledges area

Defining and controlling

what work is or is not

included

SCOPE

schedule

estimating **how long it will take to complete the work**, developing an acceptable **project schedule**, and ensuring

COST

preparing and managing the budget for the project

MINIMIZE THE VARIANCE !

QUALITY
"Ensures that **the project will satisfy the stated or implied needs** "

"Making effective use of the resources involved with the project"

COMMUNICATION

Generating, collecting, disseminating, and storing project information.

RISK

Identifying, analyzing, and responding to risks

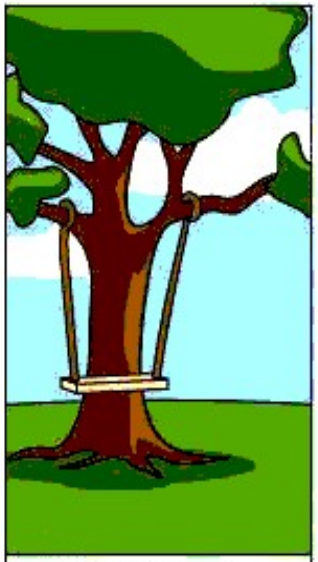
Acquiring or procuring goods and services for a project from outside
PROCUREMENT

STAKEHOLDER
“the communciation in between projects’ stakeholder is effectively established”

INTEGRATION

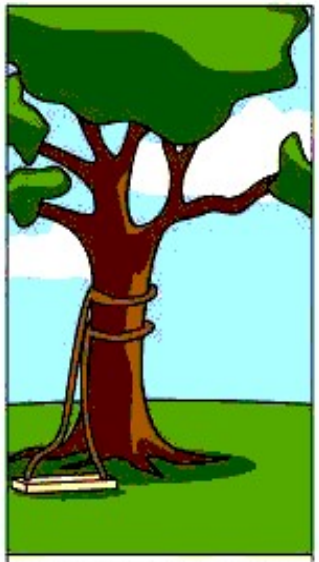
"Manage the main process
and connect nine aspects"

How the customer explained it



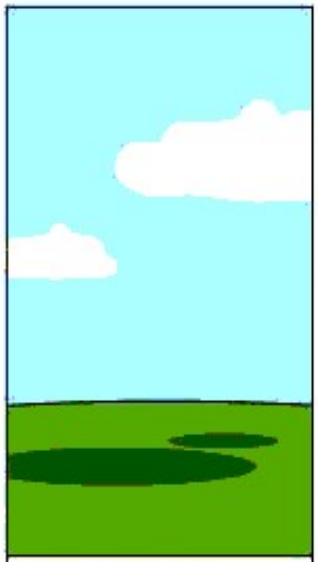
How the Project Leader understood it

How the Analyst designed it

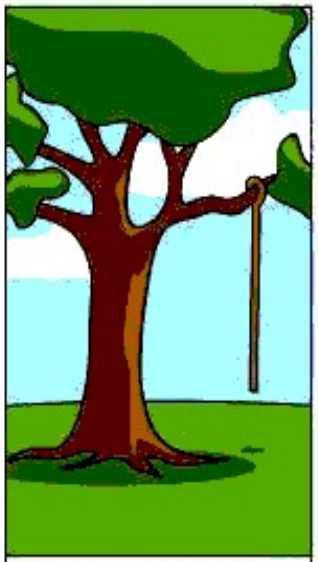


How the Programmer wrote it

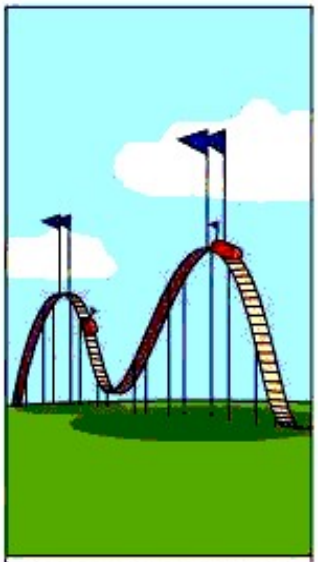
How the Business Consultant described it



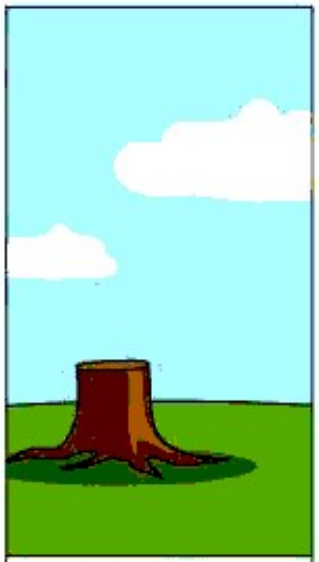
How the project was documented



What operations installed



How the customer was billed

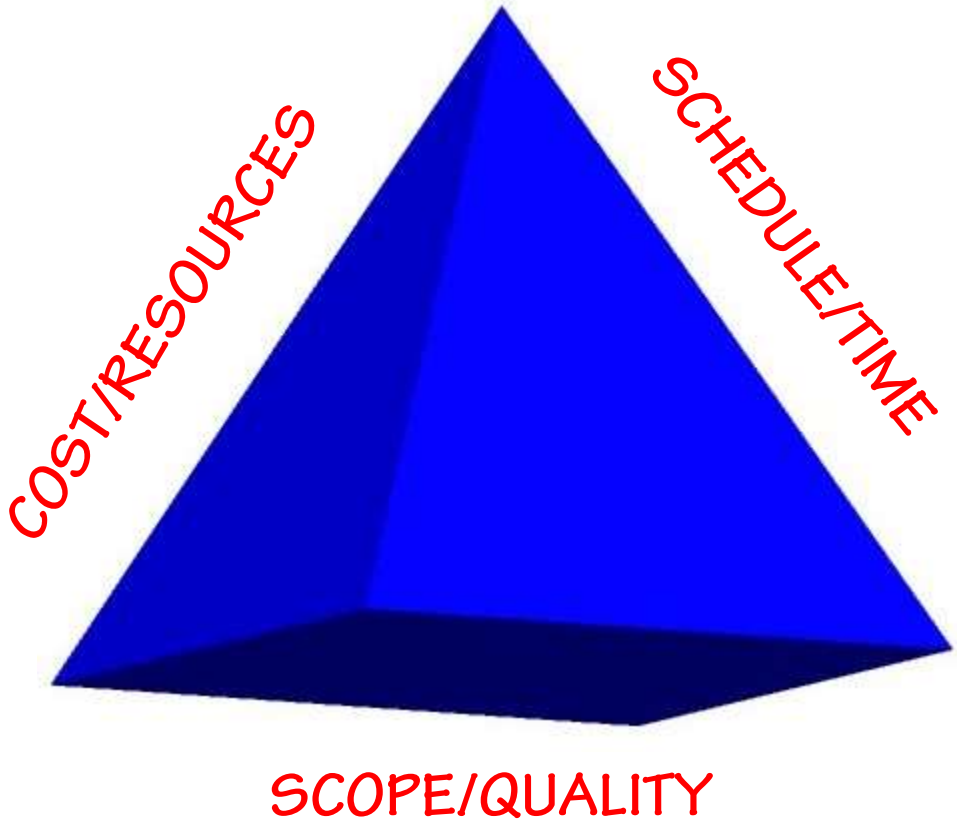


How it was supported

What the customer really needed

Project constraints

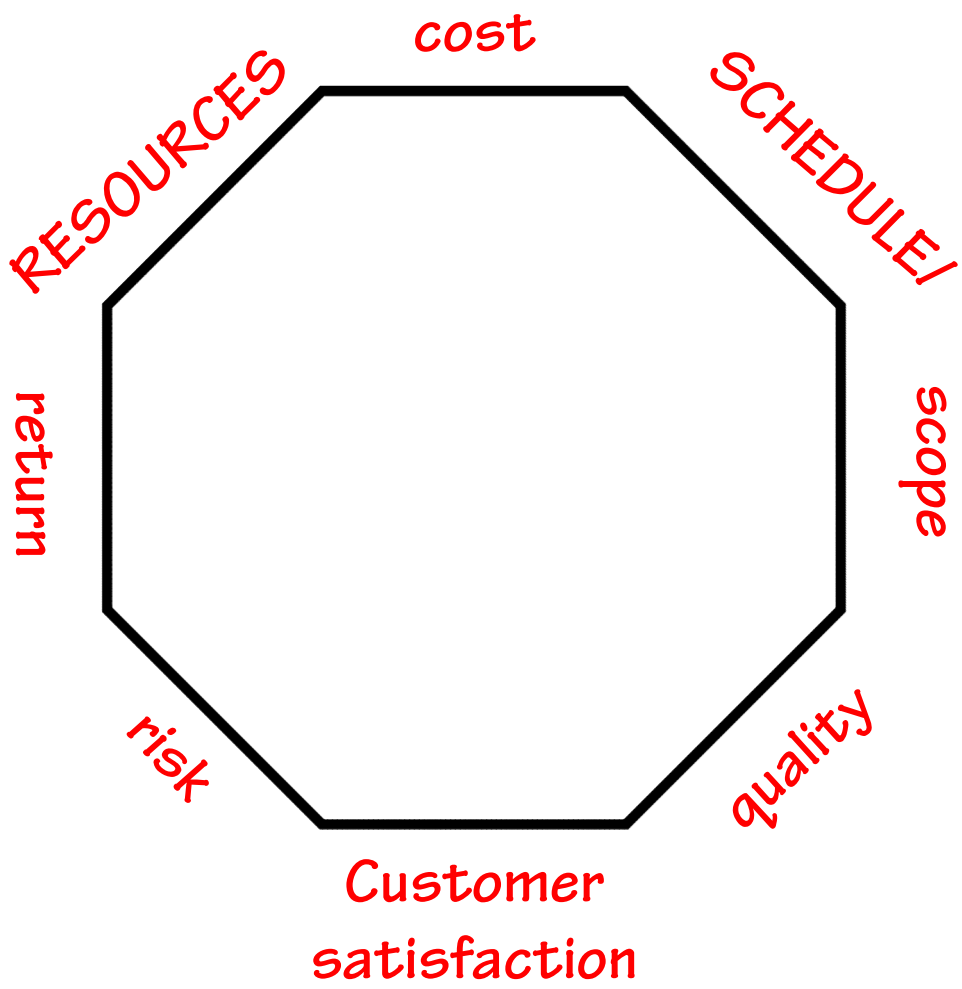
The Triple Constraint
or
The Trade-off Triangle



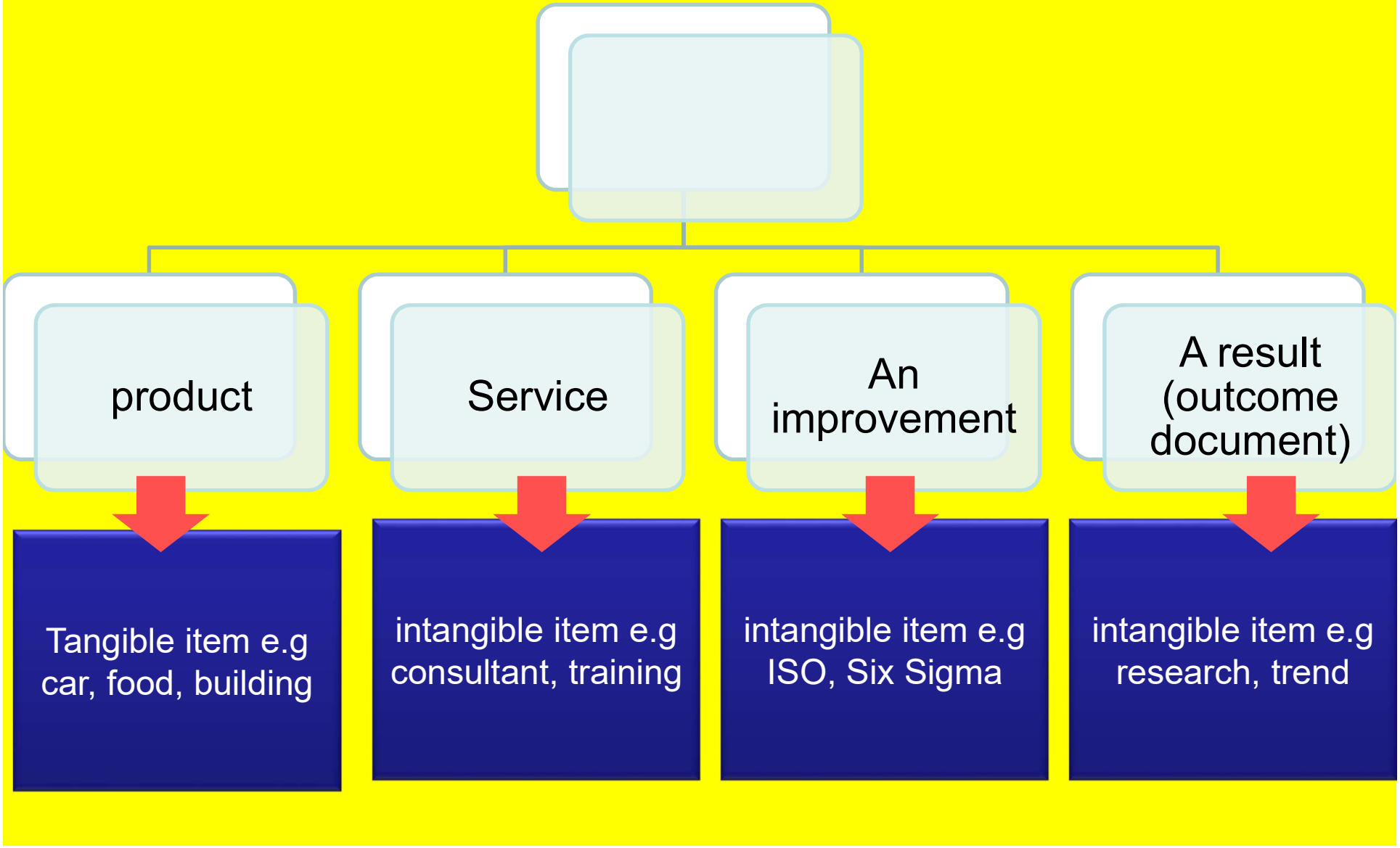
Projects are means of

"Achieving organization's strategic plan"

Project constraints



Project


product
Service
An improvement
A result (outcome document)
Tangible item e.g car, food, building
intangible item e.g consultant, training
intangible item e.g ISO, Six Sigma
intangible item e.g research, trend

SOURCE OF PROJECT

#1

MARKET DEMAND

#2

BUSINESS NEED

SOURCE OF PROJECT

#3

CUSTOMER REQUEST

#4

TECNOLOGICAL

SOURCE OF PROJECT

#5

LEGAL

#6

ECOLOGICAL

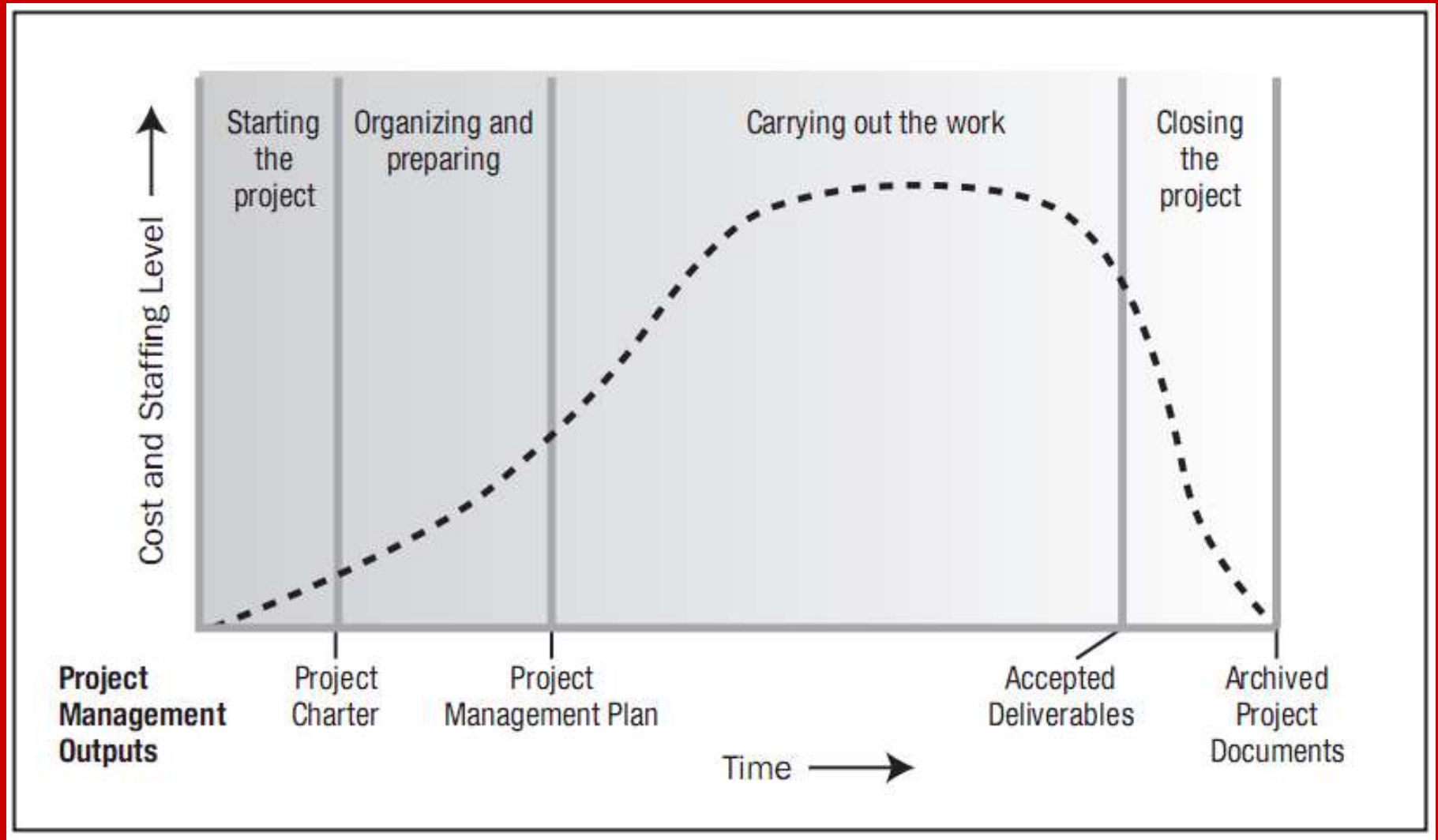
SOURCE OF PROJECT

#7

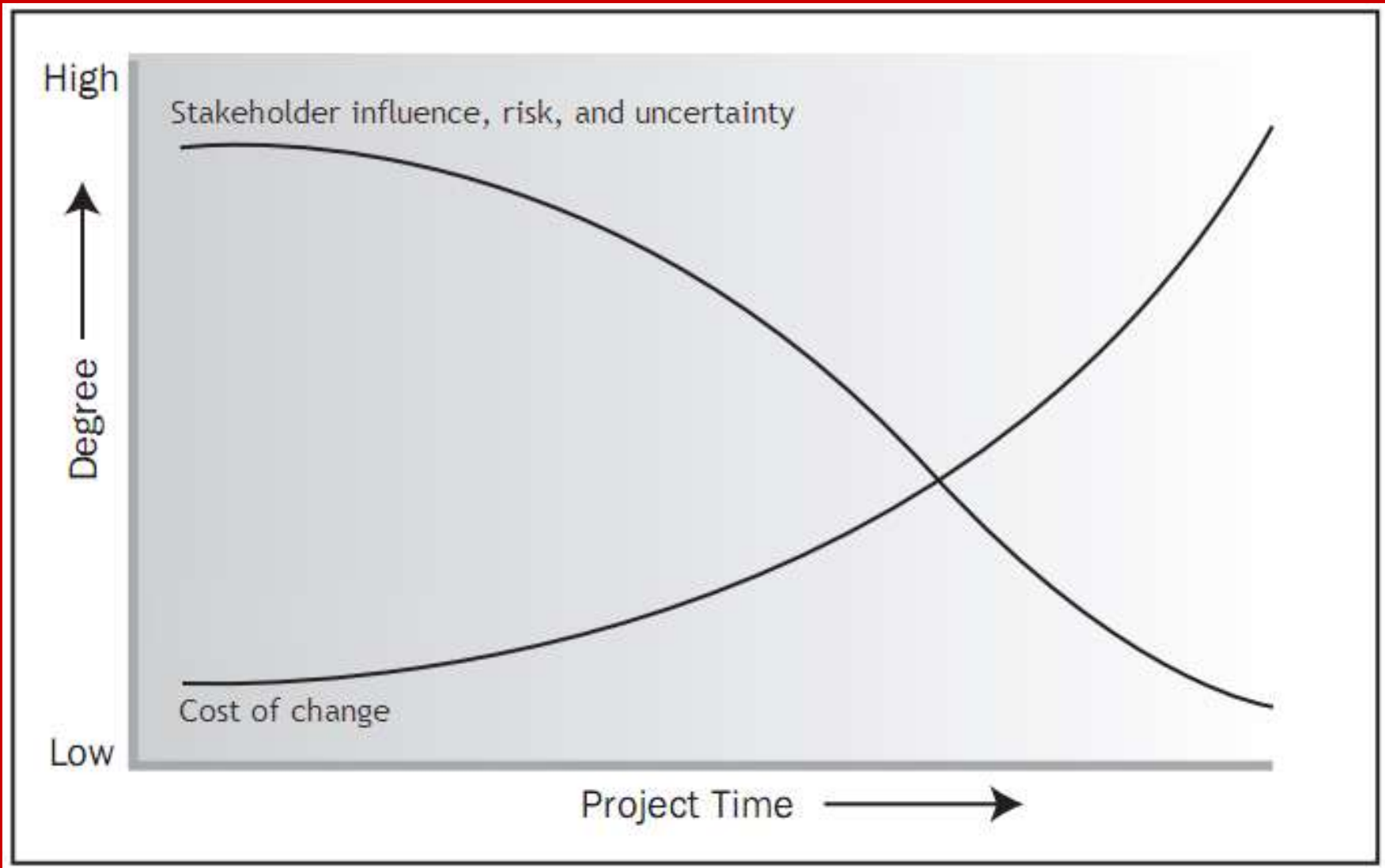
SOCIAL NEED

1-2-3 – Introduction

Characteristics of Project Life Cycle



Characteristics of Project Life Cycle



Project life cycle (PLC)

Plan-driven	Change-driven	hybrid

Plan Driven PLC

- It has predictive developmental stages—waterfall/traditional stage
- Require scope, schedule, cost to be determined in early project
- E.g construction project

Change Driven PLC

- Use iterative, incremental, adaptive (agile) developmental life cycle
- Prioritizing requirement into iteration, focus to create a prototype
- E.g software developement

Hybrid Development

Combination of predictive and iterative life cycle

Predictive style→manage the project requirement that well defined

Iterative→manage the project requirement that less clear

What work will be performed in each phase?

PROJECT LIFE CYCLE

PROJECT LIFE CYCLE

- What deliverables will be produced and when?

Deliverable

A deliverable is **a product or service produced or provided** as part of a project

- Who is involved in each phase?
- IDENTIFY STAFF
- IDENTIFY STAKHOLDER
- ROLES AND RESPONSIBILITY

PROJECT LIFE CYCLE

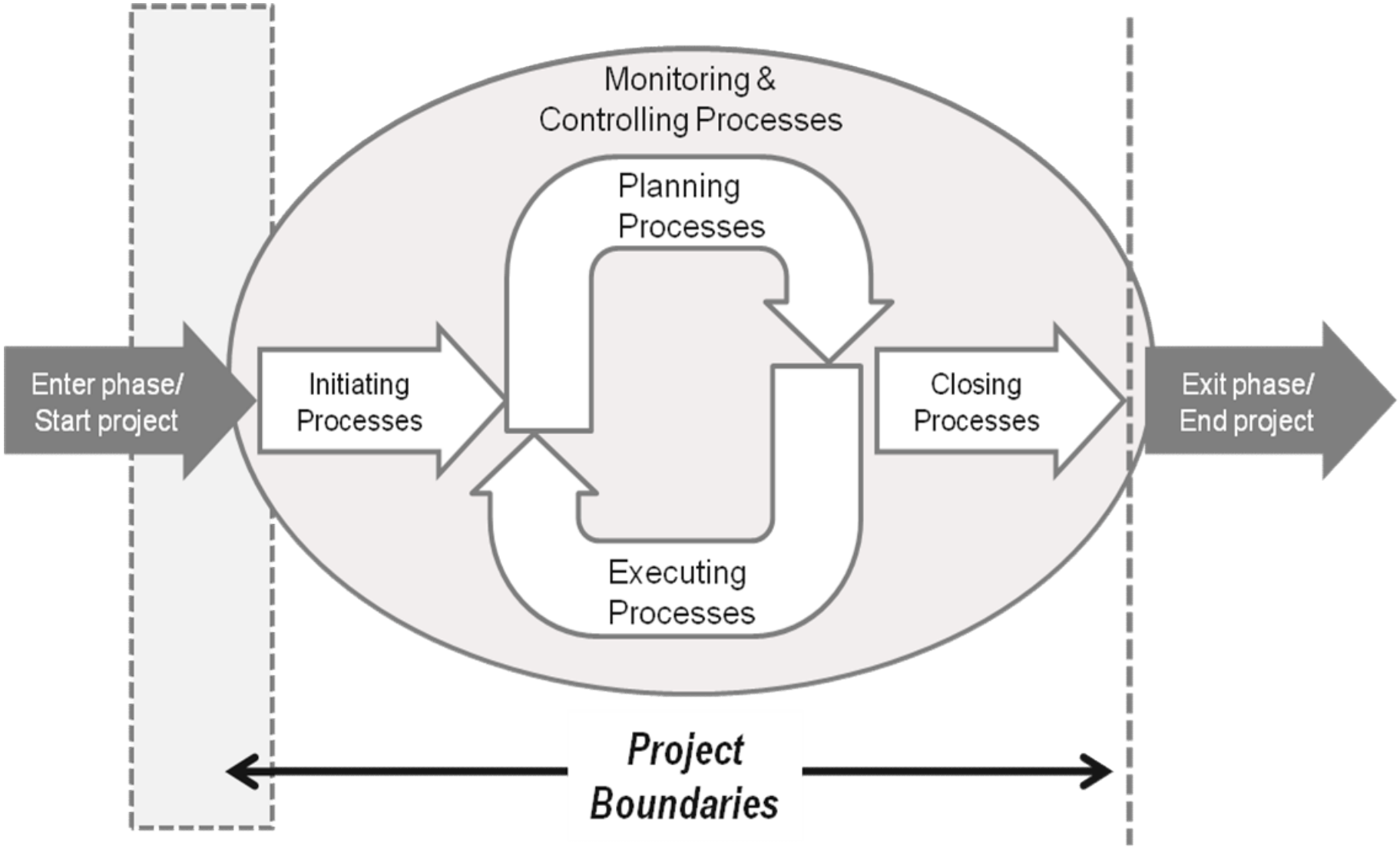
How management will control and approve work produced in each phase?

#3 Project management

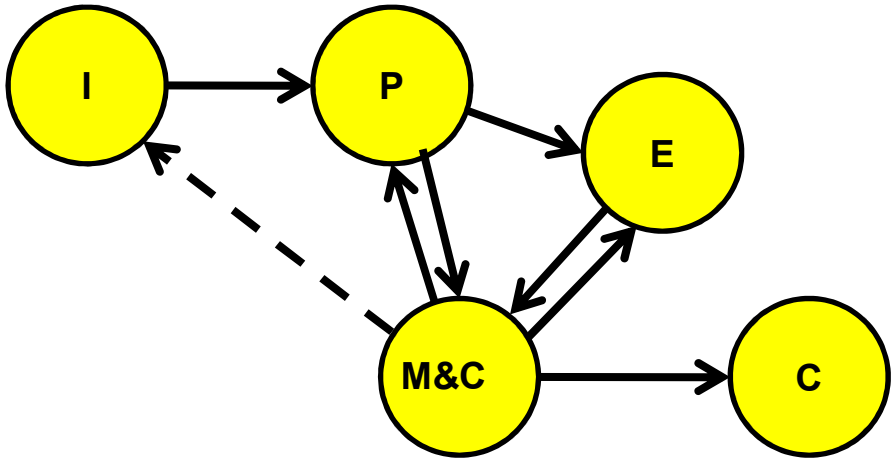
process

1-2-3 – Introduction

Project Management Process



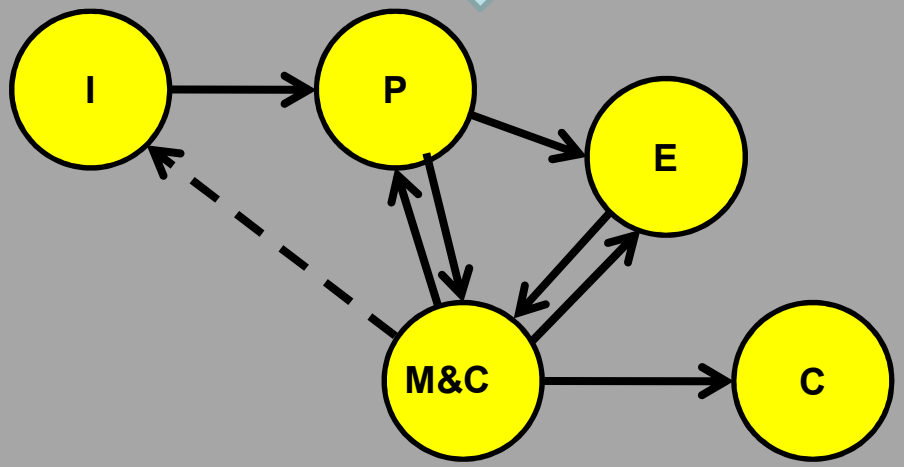
Project Management Process Interaction



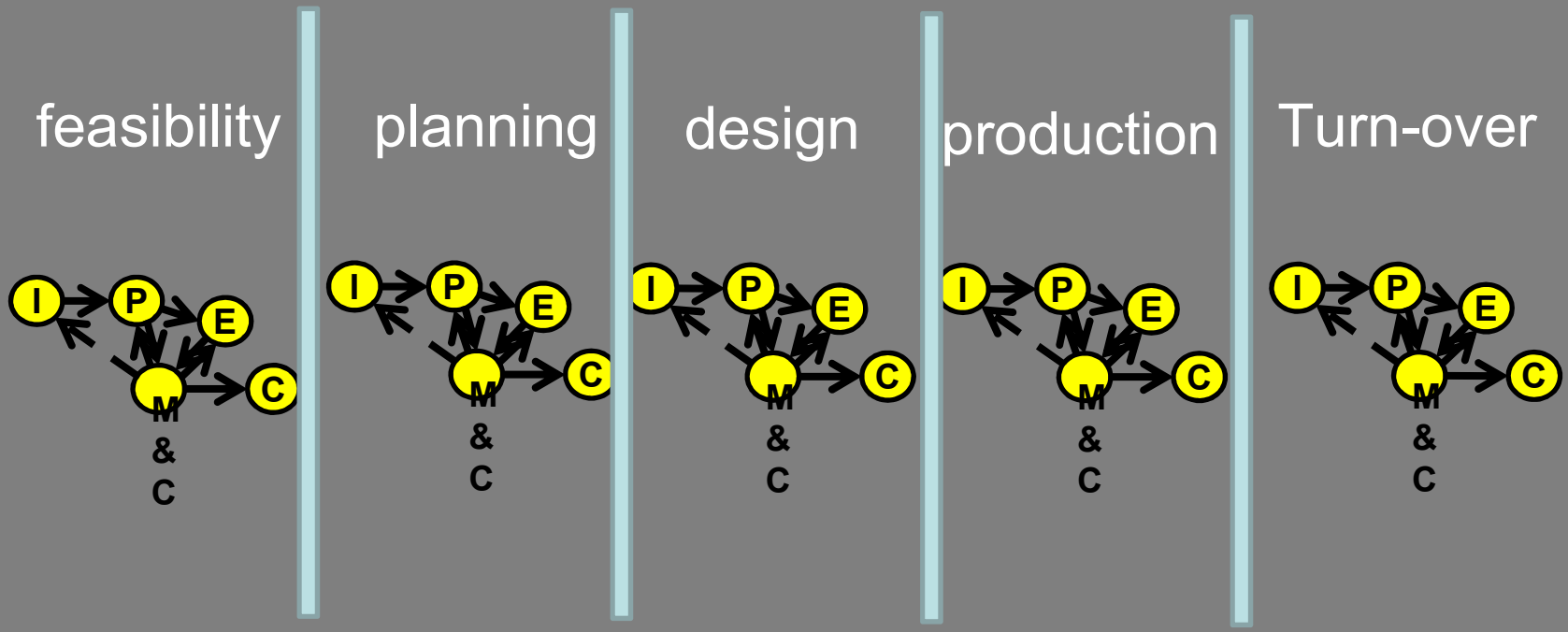
- Project management processes are represented as discrete elements with well-defined interface

Project life cycle may be different but project management process always the same!

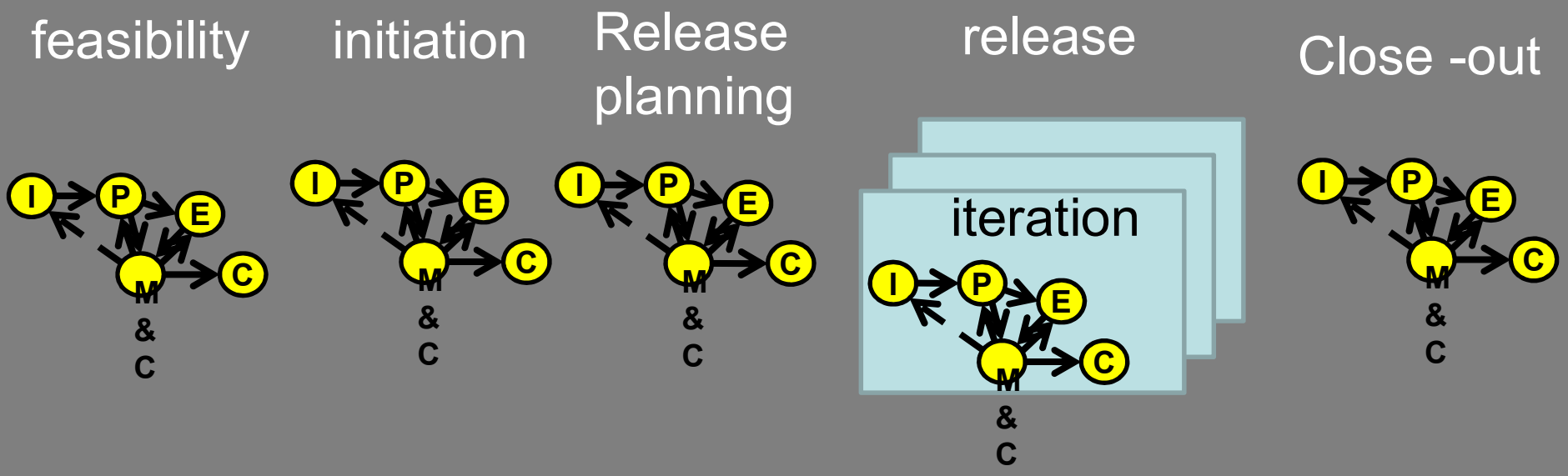
Research design code test transition



Small project with predictive life cycle

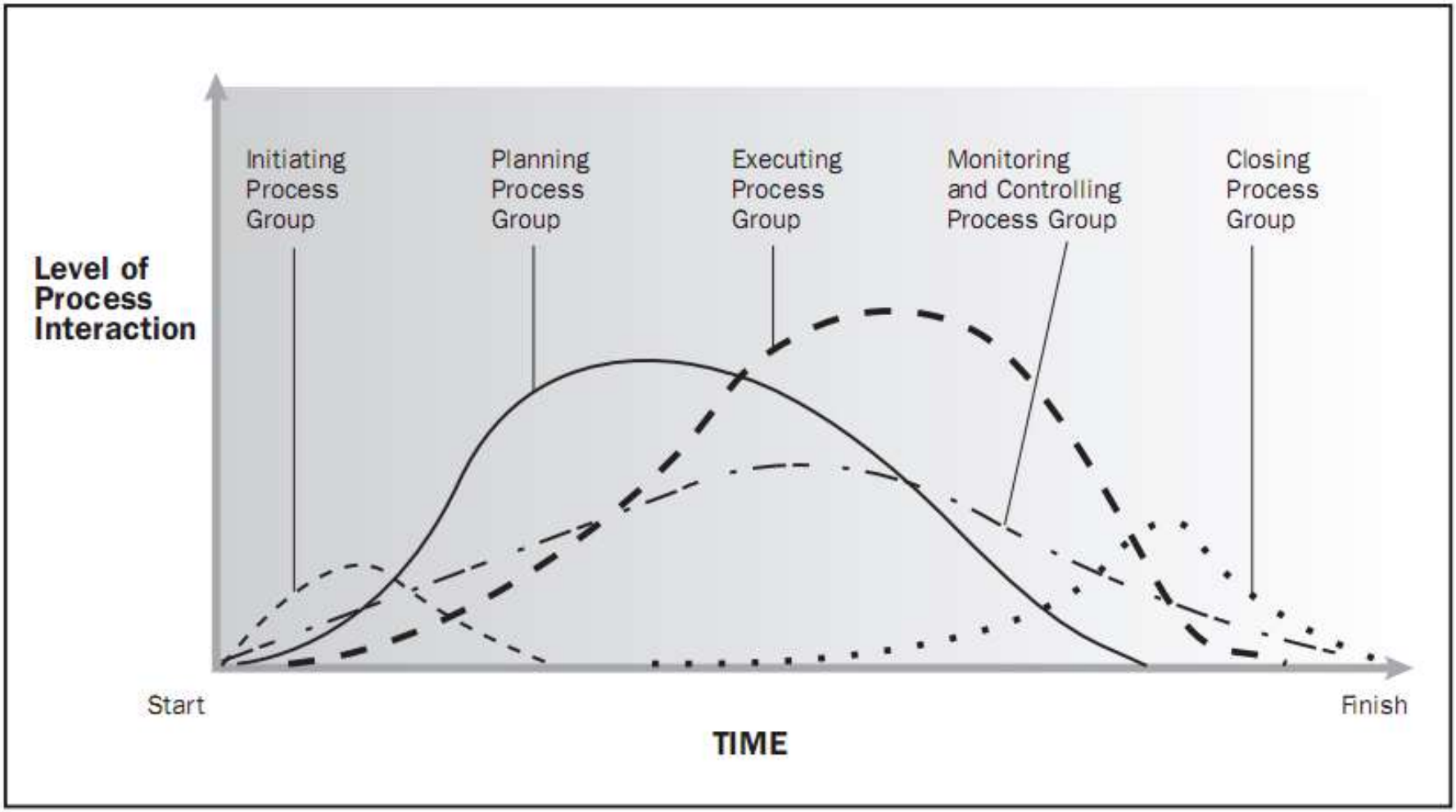


large project with predictive life cycle with phase gates (indicated by the vertical bar)



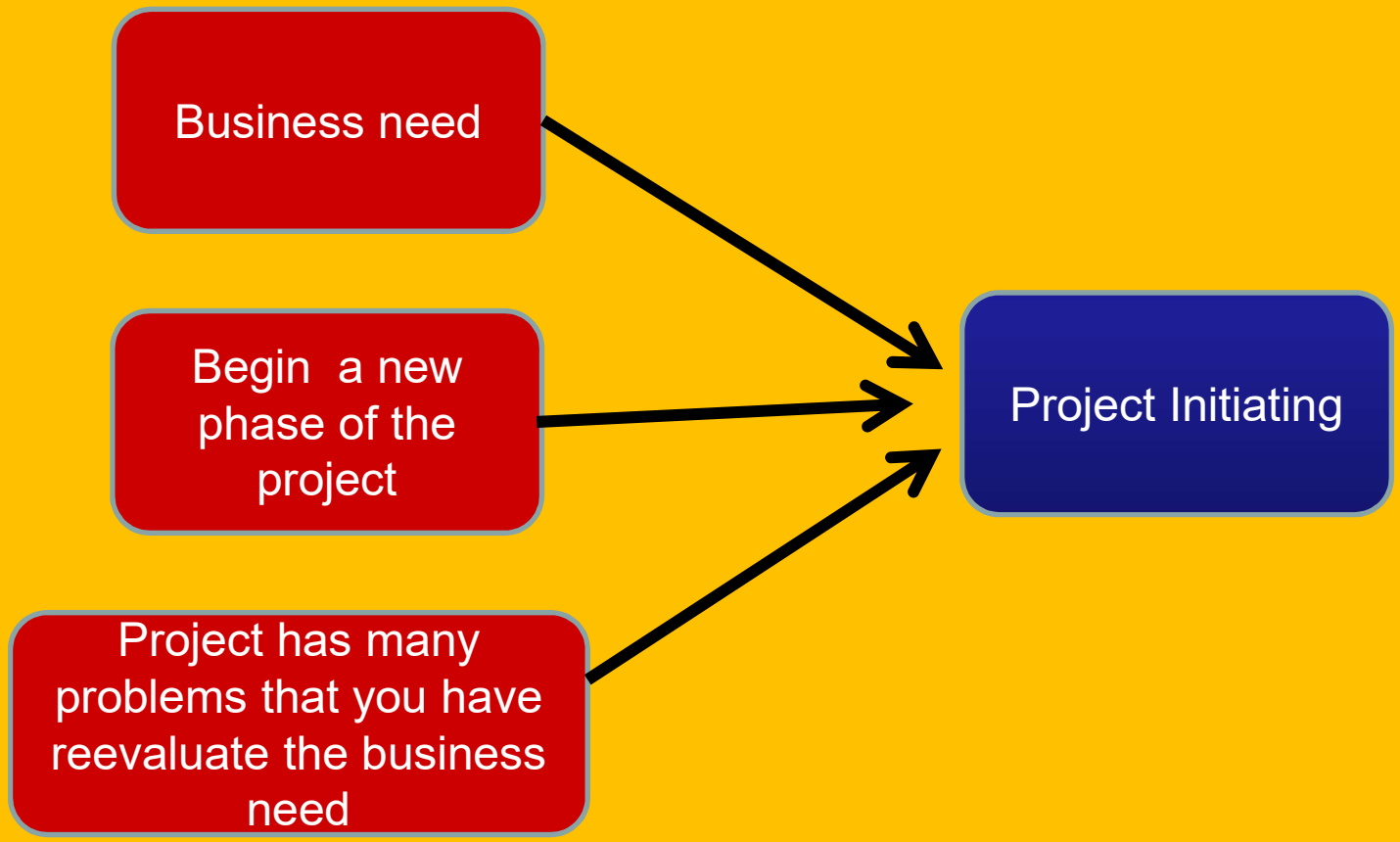
Large project with an adaptive life cycle

Process Interaction

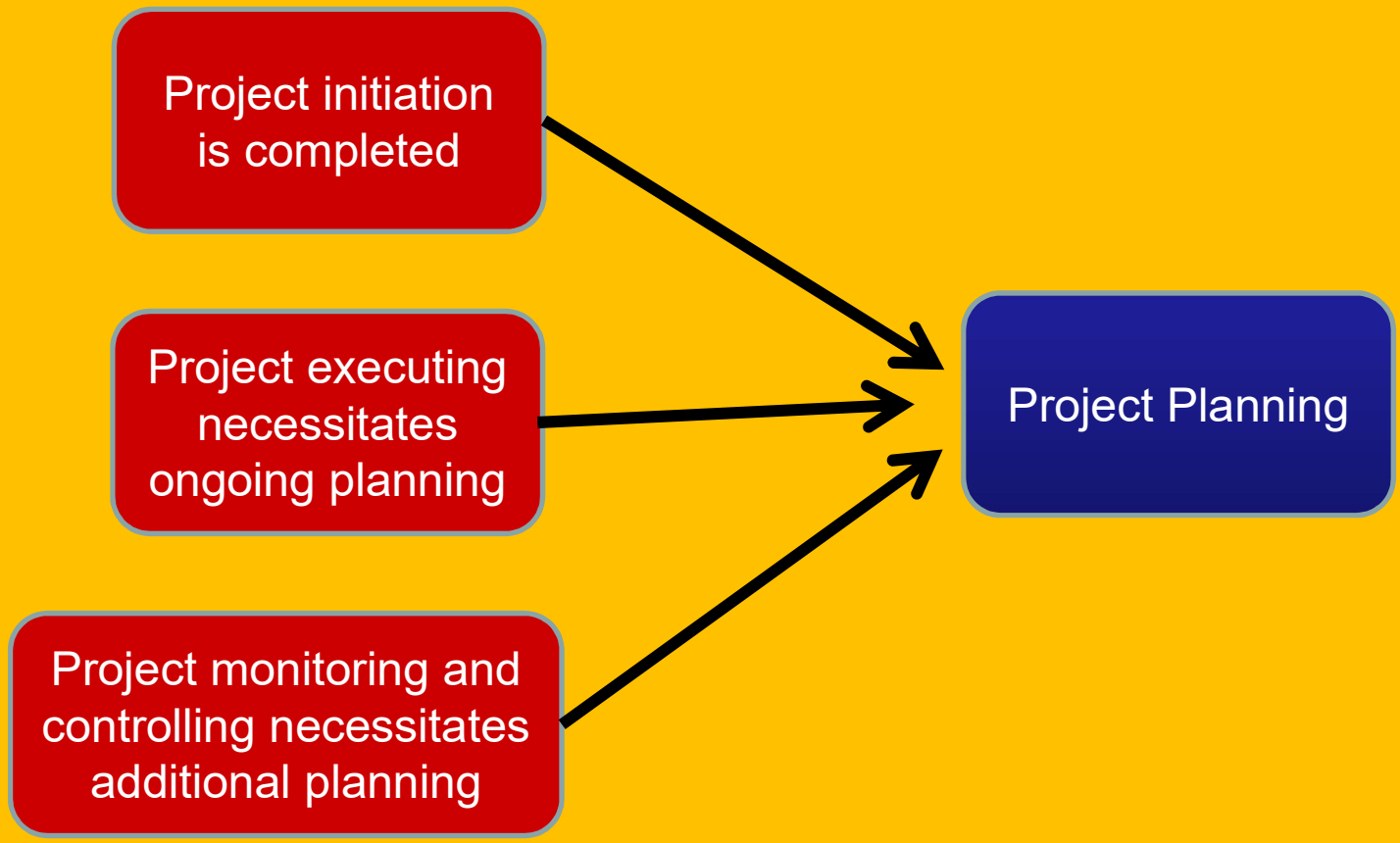


- In practice, they overlap and interact

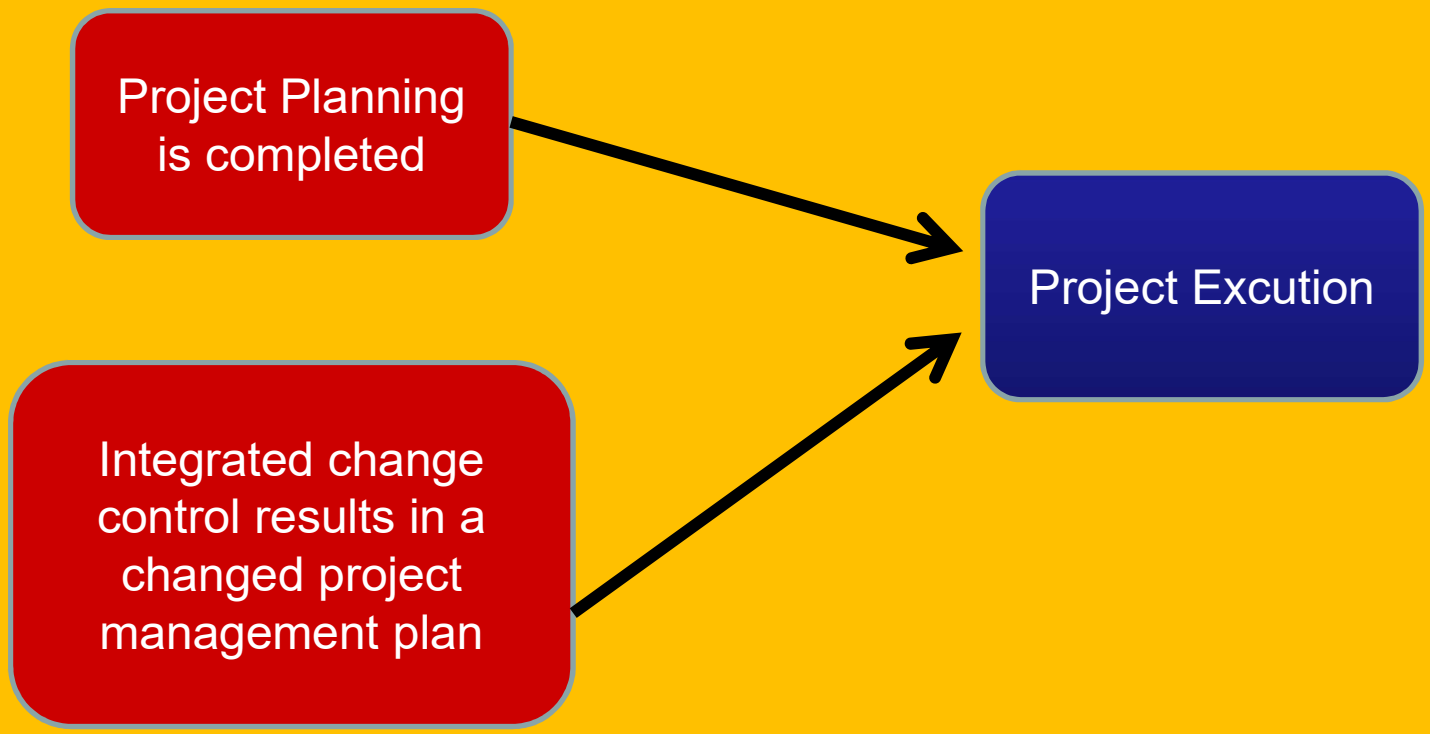
Reason for entering project initiation



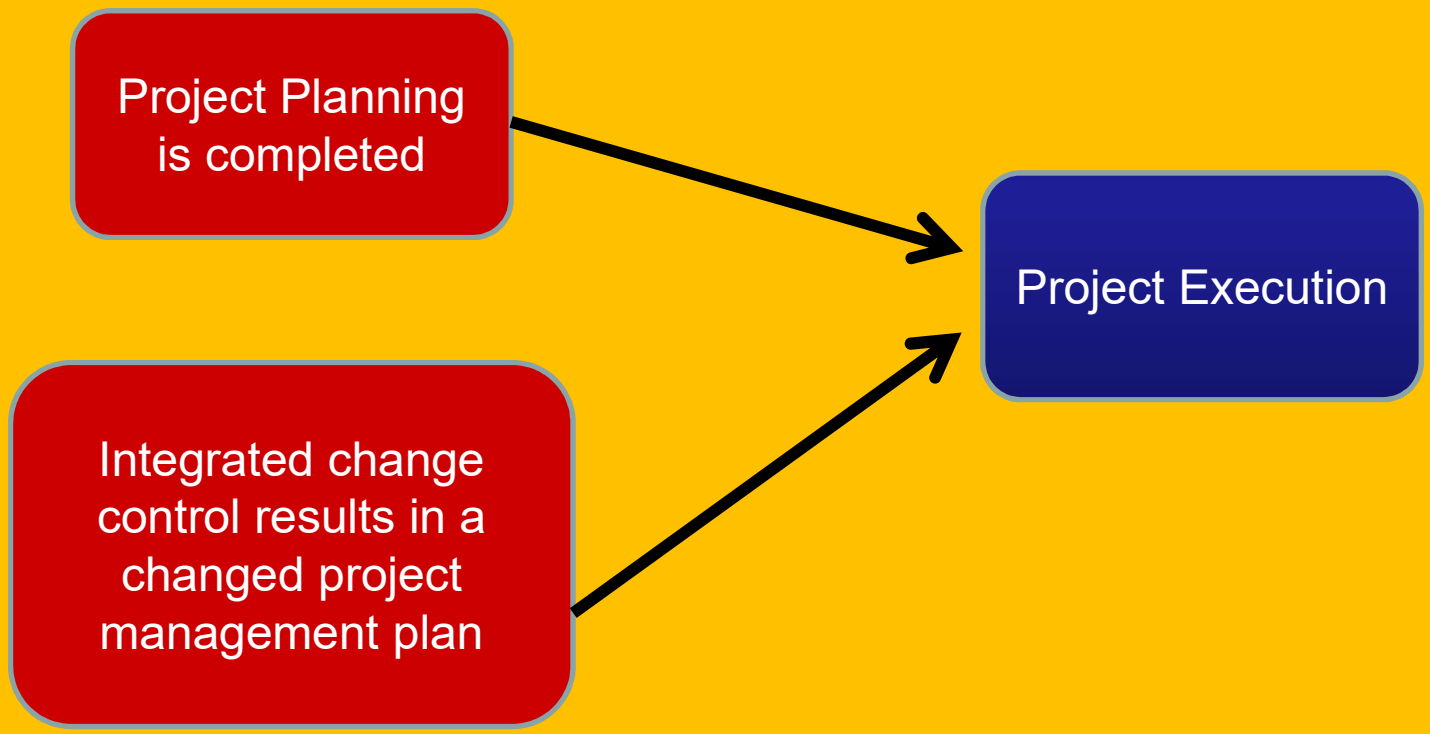
Reason for entering project planning



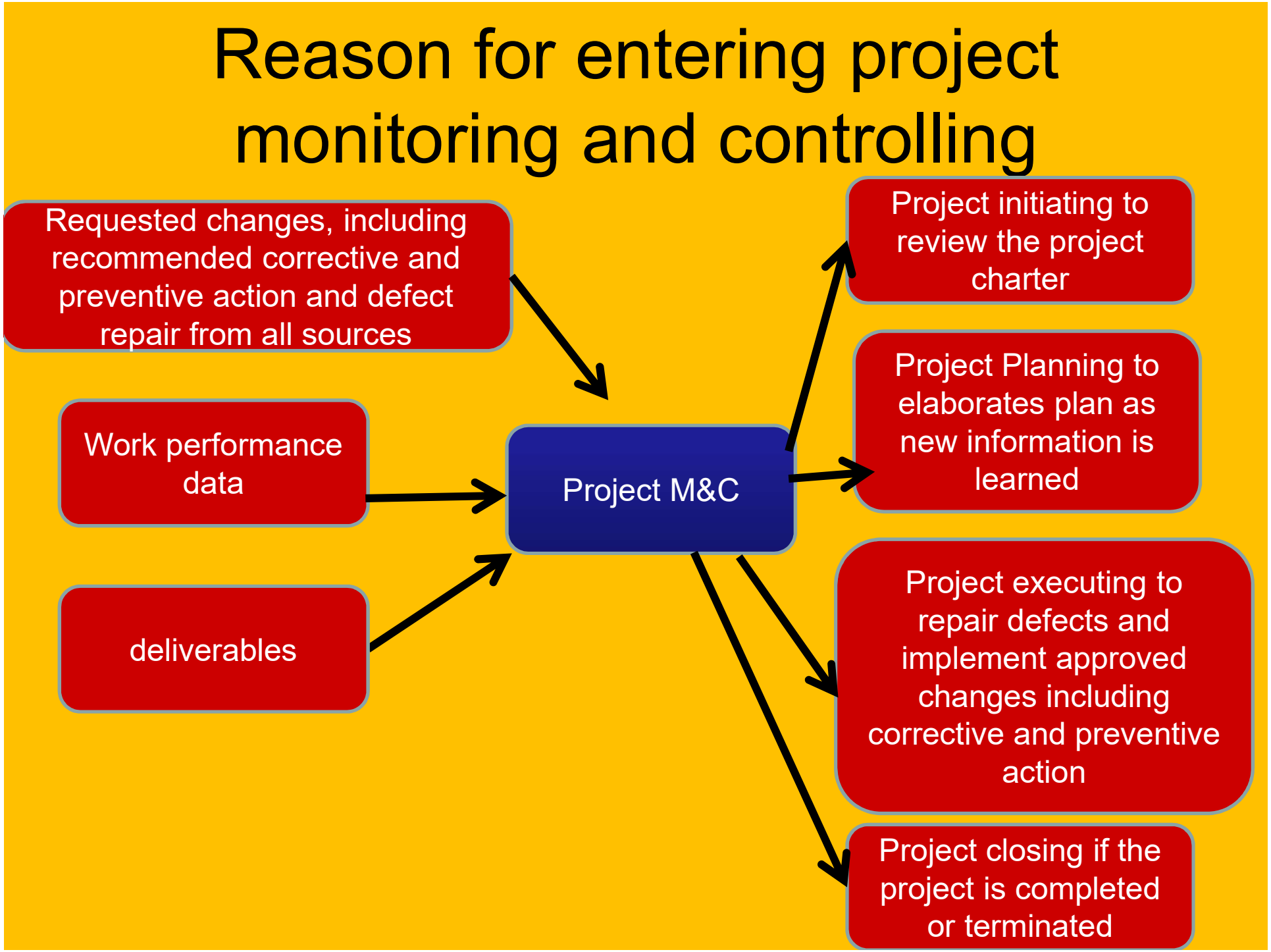
Reason for entering project exection



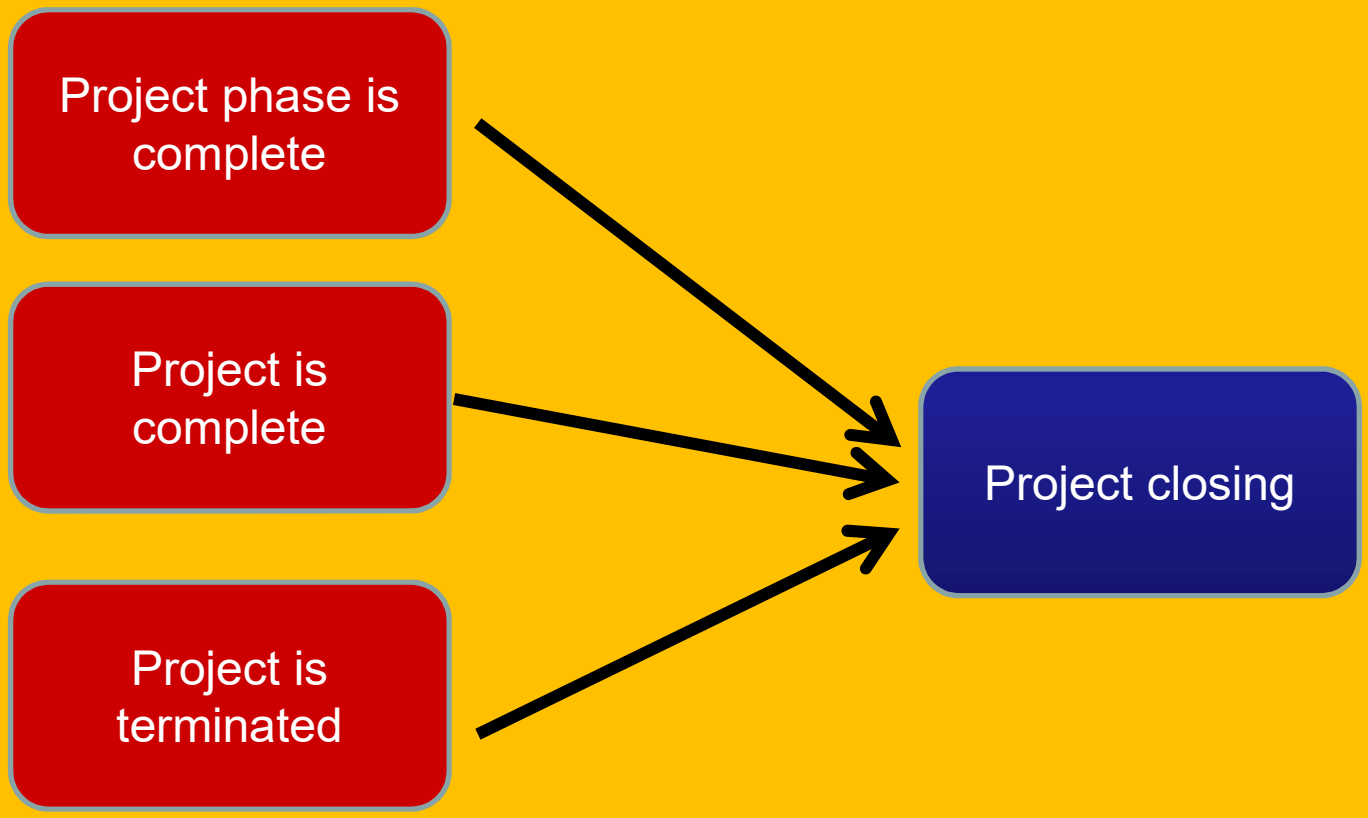
Reason for entering project execution



Reason for entering project monitoring and controlling



Reason for entering project closing



Next topic:
Project Integration Management

Thank You