Royal University of Phnom Penh

IT Project Management

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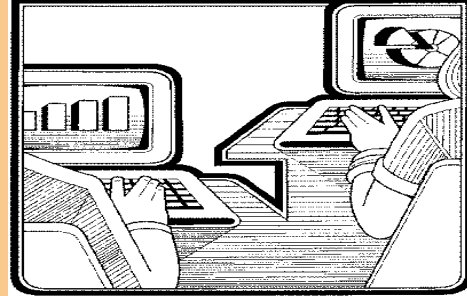
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Chapter 2 Project Organization and Process Management

Learning Objectives

1. **Introduction to Organization**
2. **Organization Structures**
3. **Identification of Primary Process & Knowledge Areas**
4. **Describe the types of organizational structures ,managers can design, and explain why they choose one structure over another.**
5. **The 5- PM Process and its detail**

What is an Organization?

An organization is a collection of people working together in a coordinated and structured fashion to achieve one or more goals.
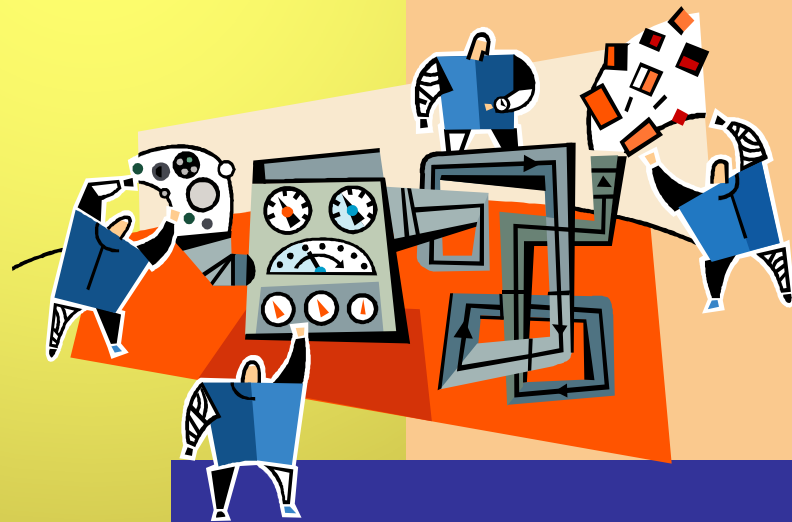
Understanding Organizations

❖ The System approach requires that project managers always view their projects in the context of the lager organization.

❖ It is also important for project managers to develop a better understanding of people as well as organization.

Understanding Organizations

PMs must learnt to work within all four organizational frames.

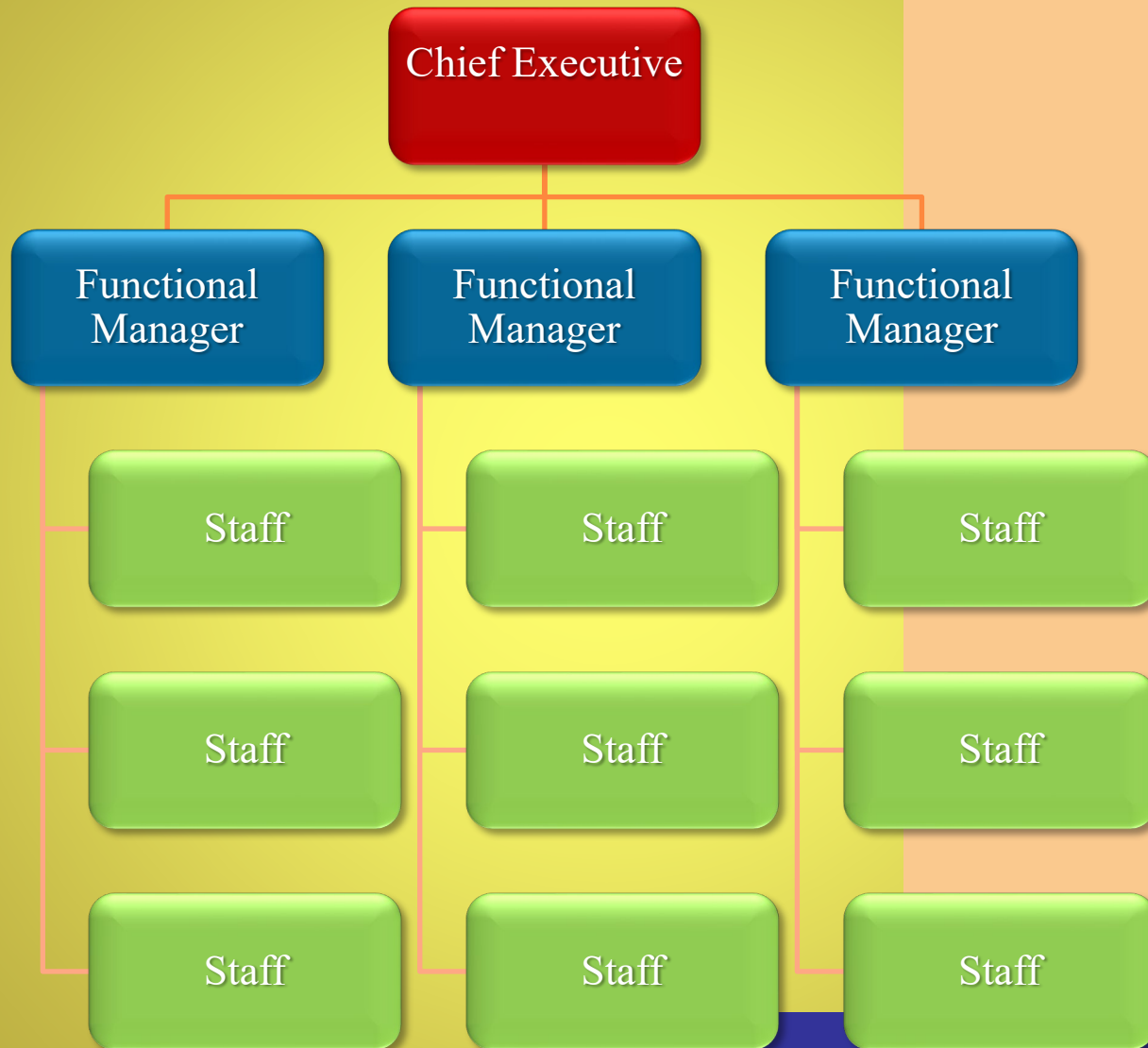|	
Structural frame: Focuses on roles and responsibilities, coordination and control. Organizational charts help define this frame.	**Human resources frame:** Focuses on providing harmony between needs of the organization and needs of people.
Political frame: Assumes organizations are coalitions composed of varied individuals and interest groups. Conflict and power are key issues.	**Symbolic frame:** Focuses on symbols and meanings related to events. Culture is important.

Understanding Organizations

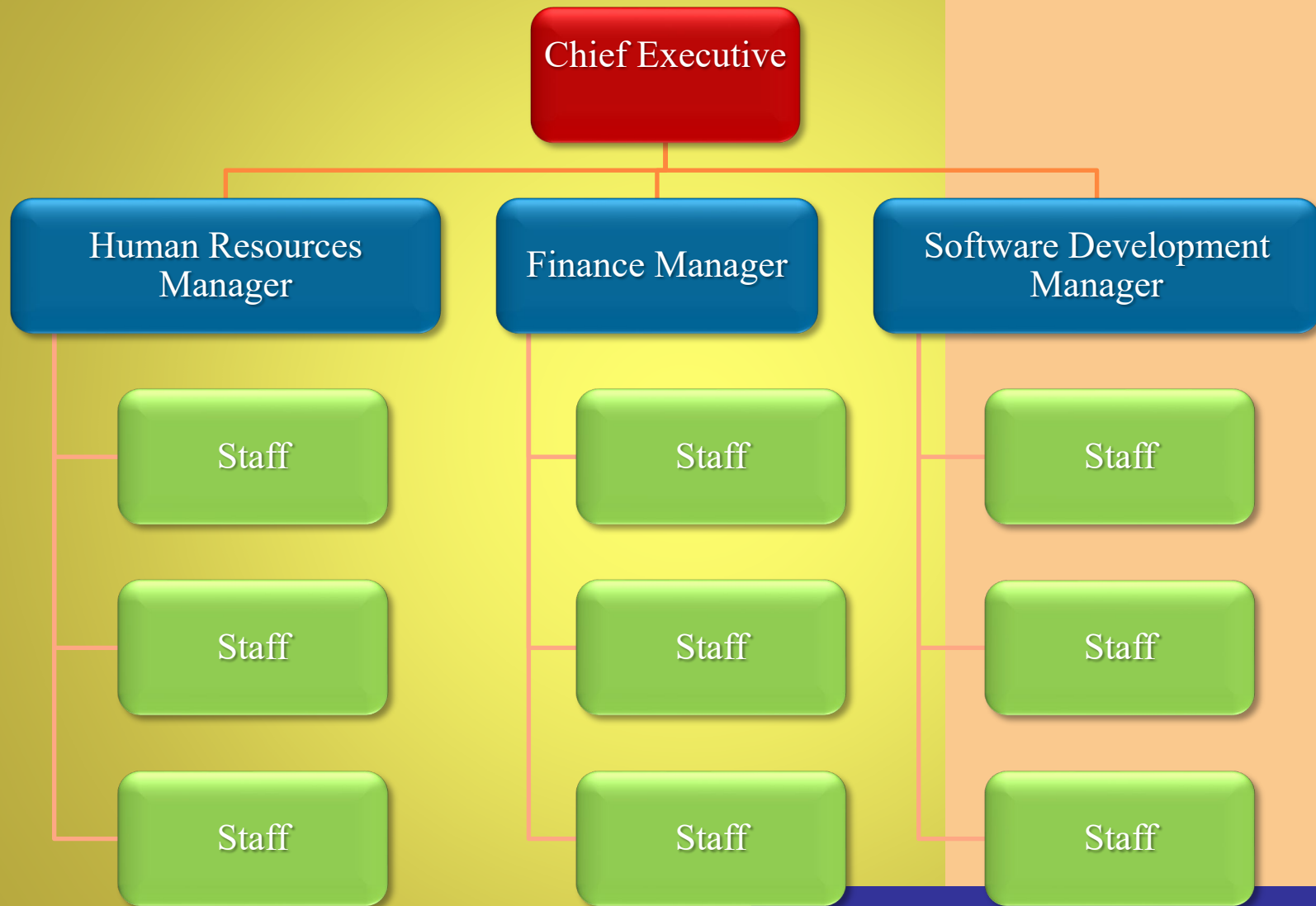| Question	Frame if answer is Yes	Frame if answer is No
Are individual commitment and motivation essential to success?	Human Resource, Symbolic	Structural, Political
Is the technical quality of the decision important?	Structural	Human Resource, Political, Symbolic
Are there high levels of ambiguity and uncertainty?	Political, Symbolic	Structural, Human Resource
Are conflict and scarce resources significant?	Political, Symbolic	Structural, Human Resource
Are you working from the bottom up?	**Political**	Structural, Human Resource, Symbolic

The way an organization or department is structured often constrains the availability of resources and determines what level of authority a project manager has on a project.

Functional Organization

```
                    ┌─────────────────┐
                    │ Chief Executive │
                    └─────────────────┘
          ┌─────────────────┼─────────────────┐
   ┌────────────┐    ┌────────────┐    ┌────────────┐
   │ Functional │    │ Functional │    │ Functional │
   │  Manager   │    │  Manager   │    │  Manager   │
   └────────────┘    └────────────┘    └────────────┘
         │                 │                 │
     ┌───────┐         ┌───────┐         ┌───────┐
     │ Staff │         │ Staff │         │ Staff │
     └───────┘         └───────┘         └───────┘
     ┌───────┐         ┌───────┐         ┌───────┐
     │ Staff │         │ Staff │         │ Staff │
     └───────┘         └───────┘         └───────┘
     ┌───────┐         ┌───────┐         ┌───────┐
     │ Staff │         │ Staff │         │ Staff │
     └───────┘         └───────┘         └───────┘
```

Functional Organization

Chief Executive

Human Resources Manager — Finance Manager — Software Development Manager

Staff, Staff, Staff (Human Resources)
Staff, Staff, Staff (Finance)
Staff, Staff, Staff (Software Development)

Functional Organization

1 Project Manager's Authority

The Project Manager has little or no authority in a functional organization due to the following:
1. Staff members report directly to Functional Managers
2. A strict chain of command exists
3. Corporate culture dictates that you follow the functional hierarchy

2 Resource Availability

The availability of resources is determined by the Functional Manager allowing little to no influence from Project Managers.
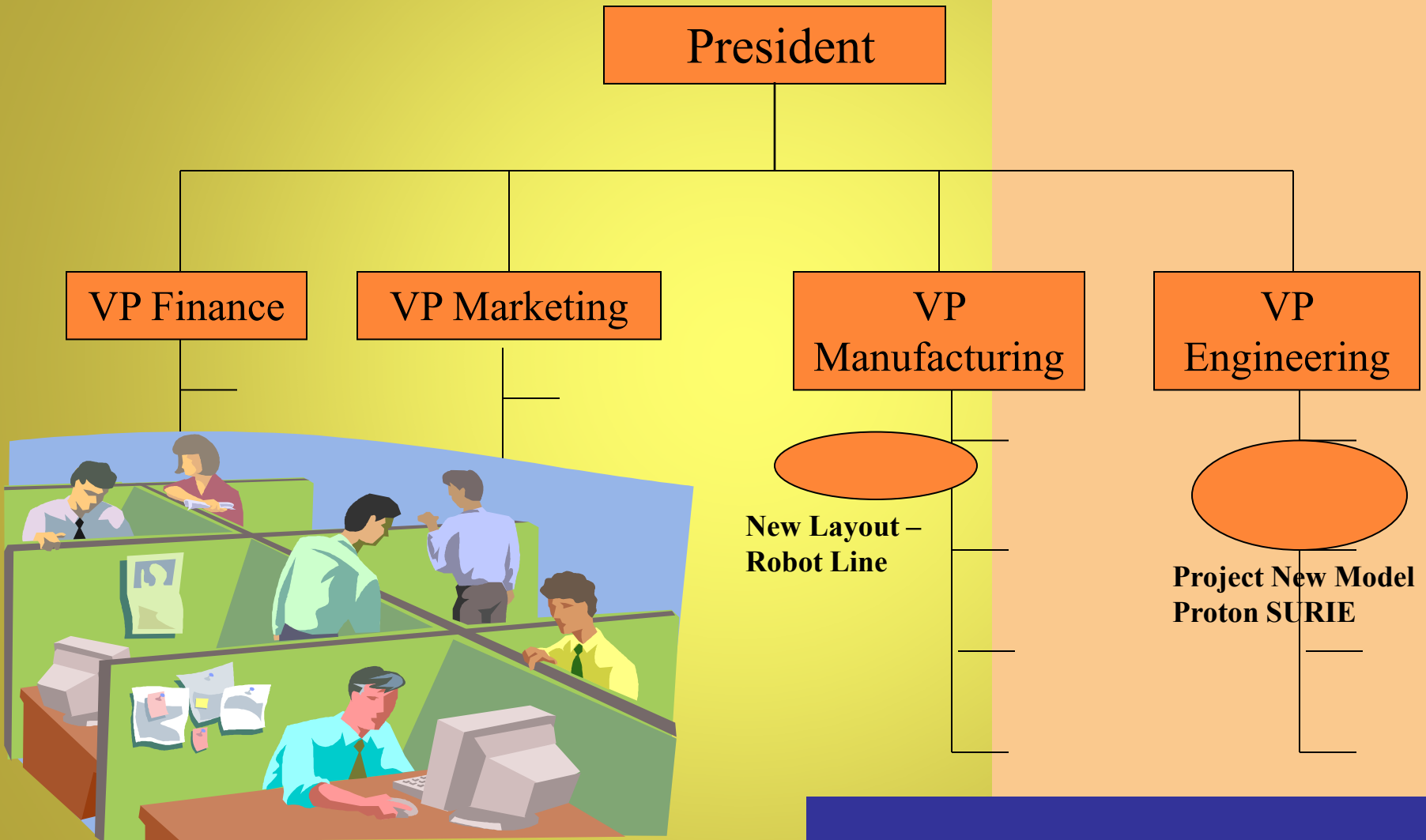
Competition for resources is fierce.

3 Control of Budget

Functional Managers control the budget to a project.

The Functional Manager is responsible for resources performance reviews, and their career opportunities lie within the functional department- not within the project team.

Functional Organization

President

VP Finance

VP Marketing

VP Manufacturing

VP Engineering

New Layout – Robot Line

Project New Model Proton SURIE

Functional Structure

An organizational structure composed of all the departments that an organization requires to produce its goods or services.

Advantages of Functional Structure

➢ **Encourages learning from others doing similar jobs.**

➢ **Easy for managers to monitor and evaluate workers.**

➢ **Allows managers to create the set of functions they need in order to scan and monitor the competitive environment**

Major Advantages of Functional Organization

❖ **Maximum flexibility in the use of staff**

❖ **Individual experts can be utilized by many different projects**

❖ **Specialist in the division can be grouped to share knowledge and experience**

❖ **Functional division serves as a base of technological continuity**

❖ **Functional division contains normal of advancement**

Disadvantage of Functional Structure

❖ **Difficult for departments to communicate with others.**

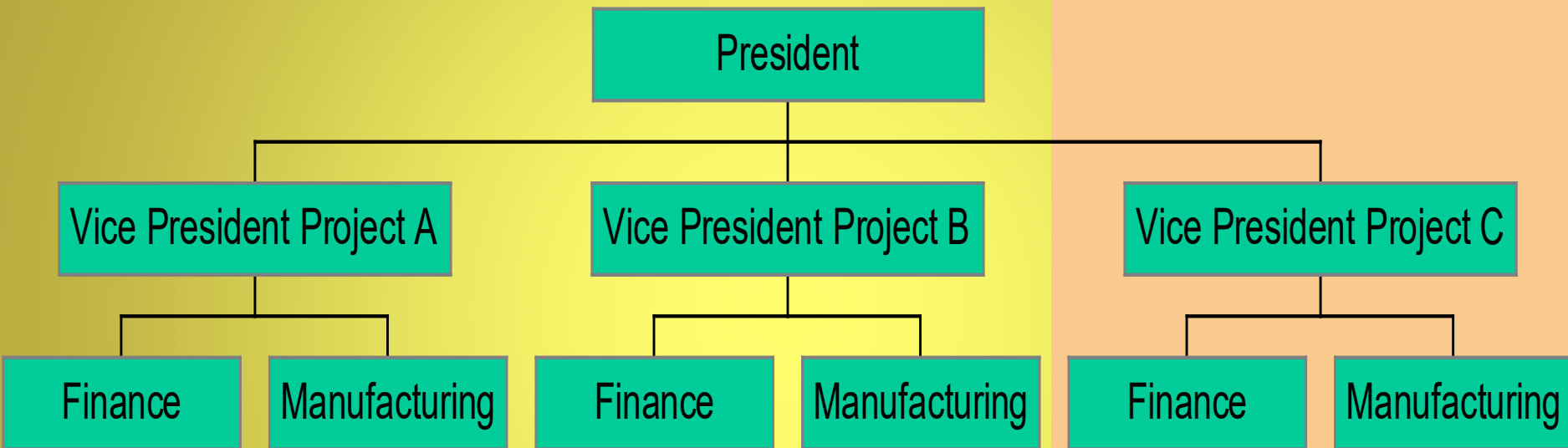❖ **Preoccupation with own department and losing sight of organizational goals.**

Disadvantages of Functional Organization

- ❖ **The client is not the focus of activity and concern**
- ❖ **Tend to be oriented towards functional activities**
- ❖ **No individual is given full responsibility for the project**
- ❖ **Slow response to client's needs**
- ❖ **Tendency to sub-optimize the project**
- ❖ **Motivation of project team is weak**
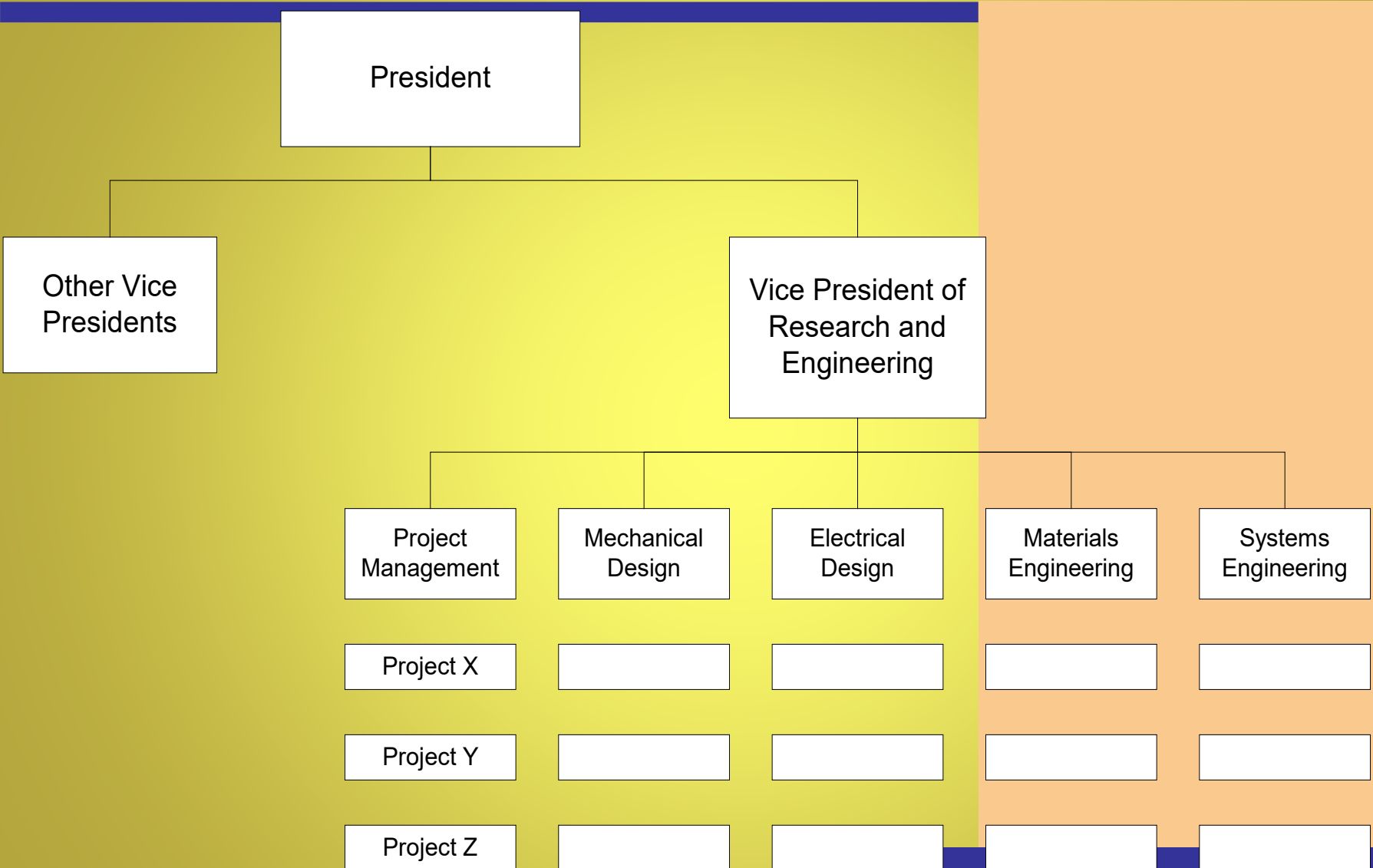- ❖ **Does not facilitate a holistic approach to the project**

Pure Project Organization

❖ **Project is separated from the rest of the parent system**

❖ **Becomes self contained unit**

Project Organization

```
                        President
                            |
        ┌───────────────────┼───────────────────┐
Vice President Project A   Vice President Project B   Vice President Project C
    ┌────┴────┐             ┌────┴────┐             ┌────┴────┐
 Finance  Manufacturing  Finance  Manufacturing  Finance  Manufacturing
```
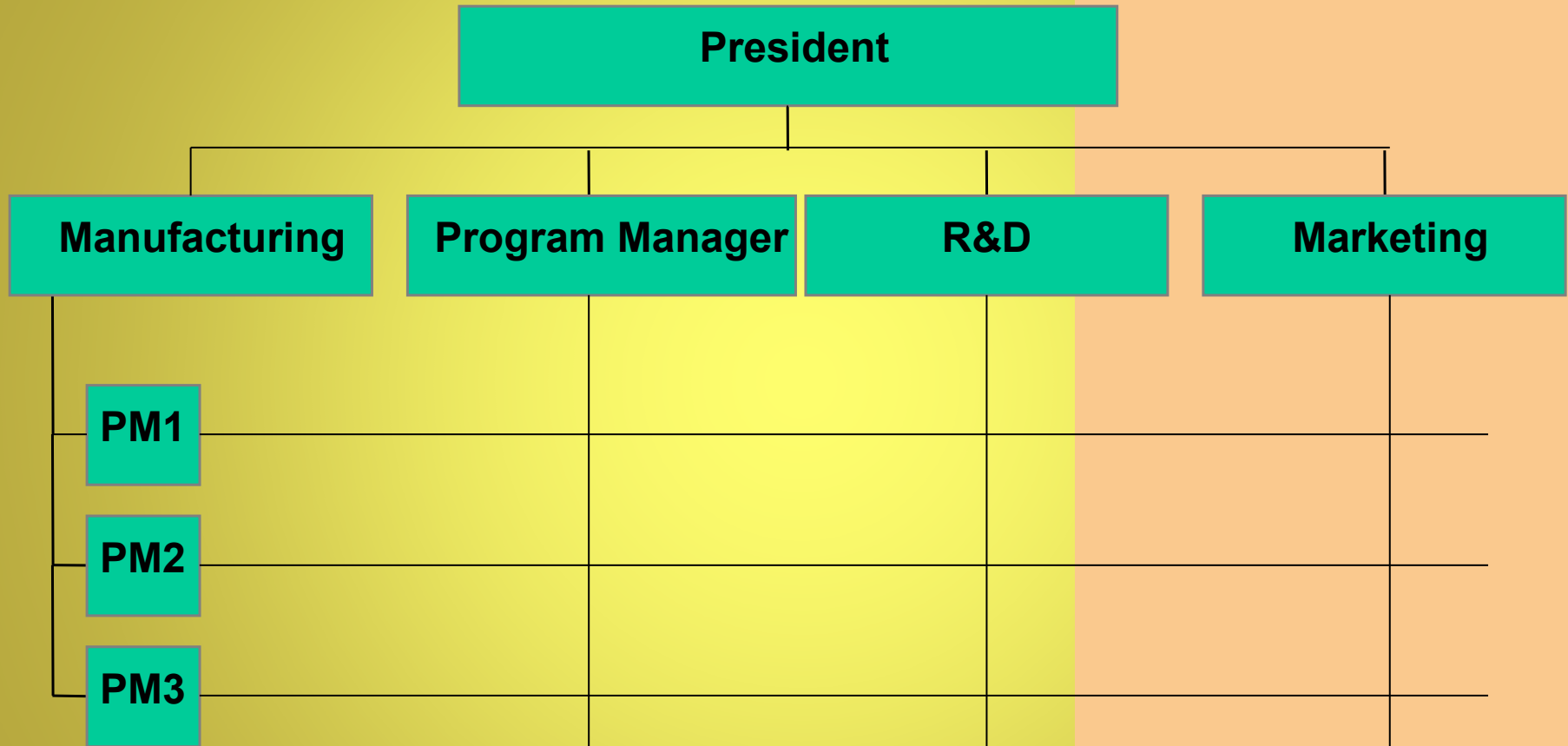
Project Organizational Structure


```
                        President
                           |
        ┌──────────────────┴──────────────────┐
Other Vice                              Vice President of
Presidents                               Research and
                                          Engineering
                                              |
        ┌───────────┬───────────┬───────────┬───────────┐
Project      Mechanical    Electrical    Materials    Systems
Management     Design        Design     Engineering  Engineering

Project X

Project Y

Project Z
```

Advantages of Project Organization

- ❖ PM has full line authority over the project
- ❖ All project workforce directly responsible to the PM
- ❖ Lines of communication are shortened
- ❖ Maintain permanent group of experts
- ❖ High level of commitment
- ❖ Ability to make swift decisions
- ❖ Unity of command
- ❖ Simple and flexible structure
- ❖ Support holistic approach to the project

Disadvantages Project Organization

- ❖ **Duplication of effort**
- ❖ **Stockpile equipment and technical assistance "just in case"**
- ❖ **Lack of expertise in high technology project**
- ❖ **Foster inconsistency and cutting corners**
- ❖ **Project takes on a life of its own**
- ❖ **Worry about "life after project ends"**

Matrix Organization

```
                          ┌─────────────────┐
                          │    President    │
                          └────────┬────────┘
        ┌──────────────────┬───────┴────────┬──────────────────┐
┌───────────────┐ ┌─────────────────┐ ┌───────────┐ ┌───────────────┐
│ Manufacturing │ │ Program Manager │ │    R&D    │ │   Marketing   │
└───────┬───────┘ └─────────────────┘ └───────────┘ └───────────────┘
        │
   ┌─────────┐
   │   PM1   │─────────────────────────────────────────────────
   └─────────┘
   ┌─────────┐
   │   PM2   │─────────────────────────────────────────────────
   └─────────┘
   ┌─────────┐
   │   PM3   │─────────────────────────────────────────────────
   └─────────┘
```

Matrix Organization

❖ **Combination of functional and pure project organizations**

❖ **Matrix project is not separated from parent organizations**

❖ **Individuals come from respective functions divisions and are assigned to the project full time or part time**

Matrix Organization

❖ **Cross-functional team members**

❖ **Draw temporarily on technological expertise of relevant functions**

❖ **High technology areas – integrate functional specialties**

❖ **Iterations in adapting "over the wall" approach**

❖ **Systems approach – integrity of product design**

❖ **Close coordination and communication among all parties**

Advantages of Matrix Organization

❖ **The project is the point of emphasis**

❖ **Reasonable access to pools of technical talents**

❖ **Less anxiety about what happens after project completion**

❖ **Rapid response to client needs**

❖ **Access to administrative units of the parent firms**

❖ **Better balance of company resources in multiple projects**

❖ **Flexibility in control**

You Tube Lim Lyheng | Pages ថែកចំណេះនិងបទពិសោធន៍ @LimLyheng

Disadvantages of Matrix Organization

❖ **Delicate balance of power**

❖ **Movement of resources – conflict**

❖ **Projects resist death**

❖ **Complex division of authority and responsibility**

❖ **Violates the principle of unity of command**

Type of Matrix Organization

❖ **There are three types of Matrix Organizations:**

❖ **Weak Matrix**

❖ **Balanced Matrix**

❖ **Strong Matrix**

Weak Matrix

Balanced Matrix

Strong Matrix

Weak Matrix Organization

Weak Matrix Organizations share many of the same characteristics of a Functional Organization where the Project Manager has limited authority and is more of a coordinator than a manager.
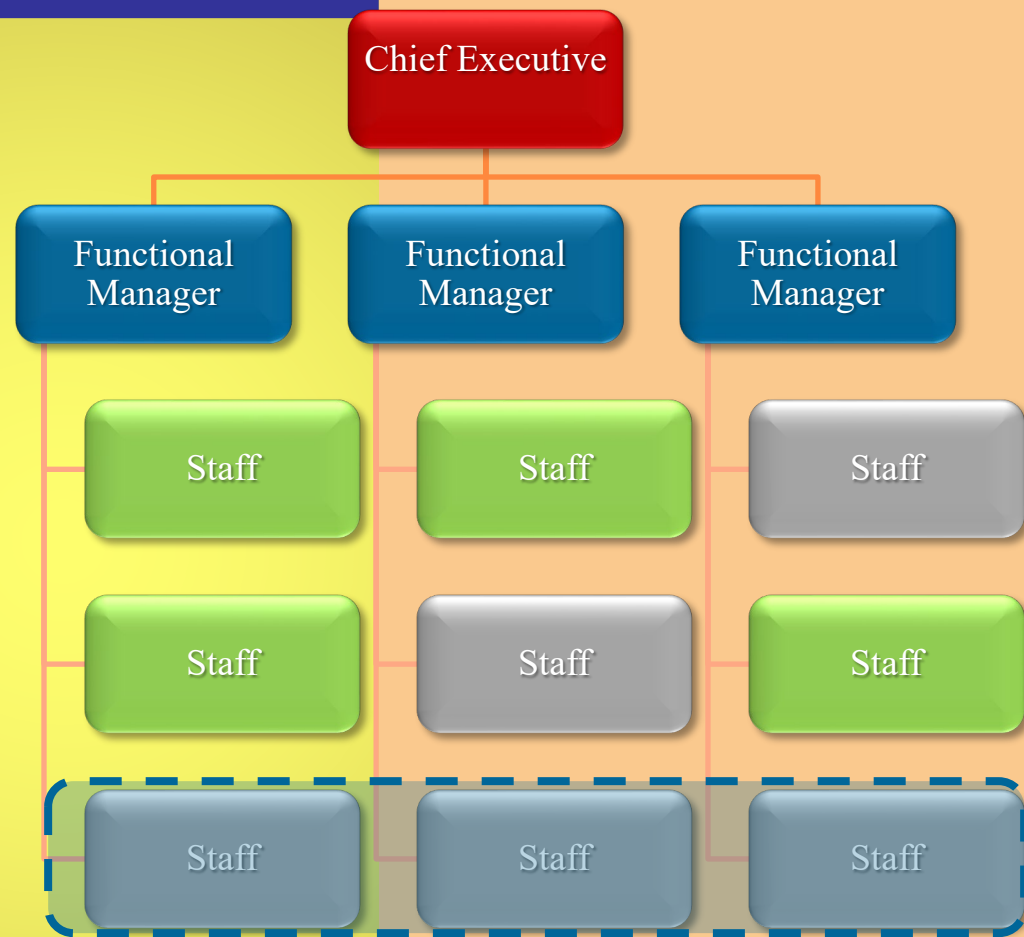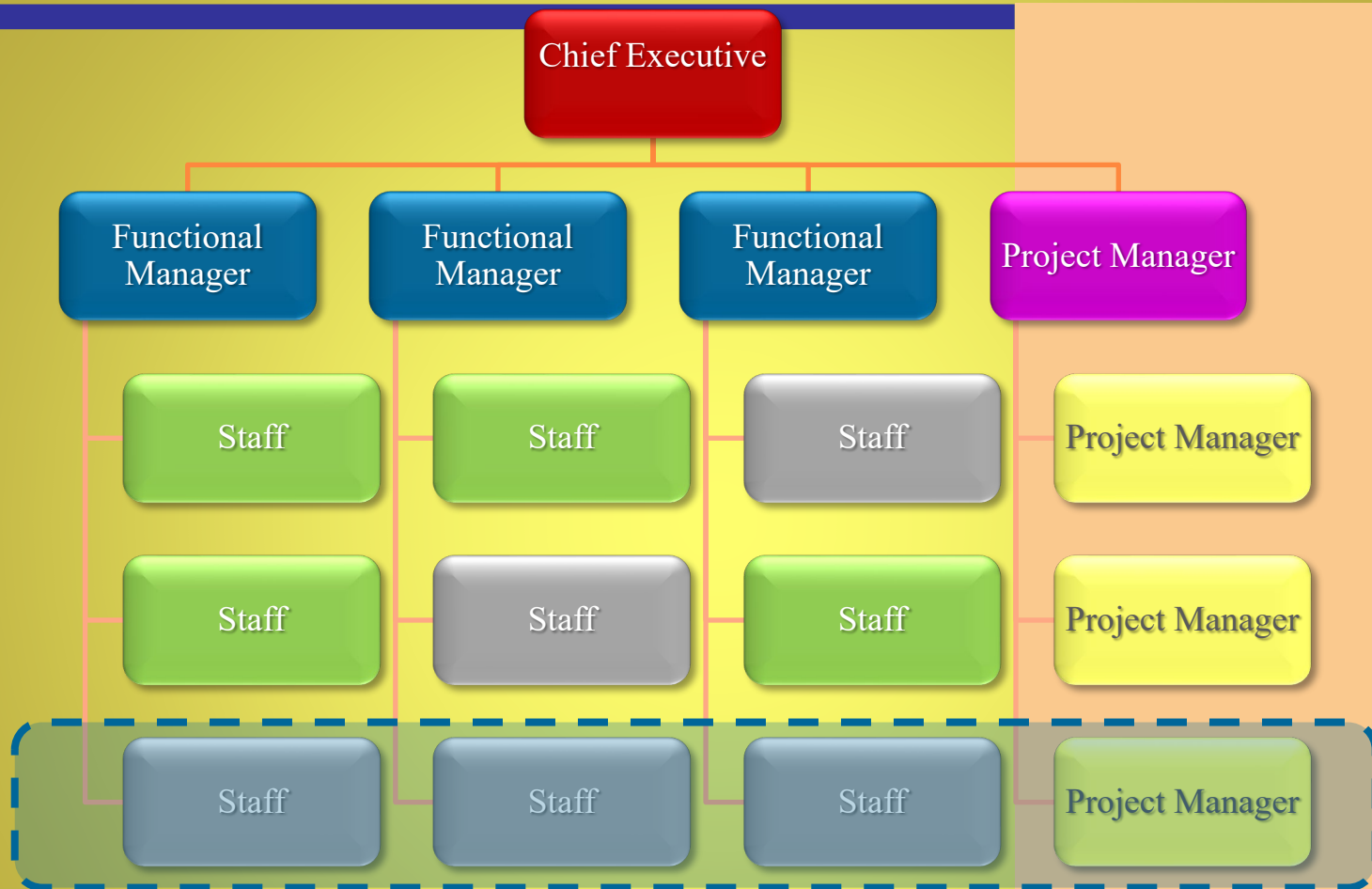
The dotted lines on the graphic represent where the Project Manager coordinates projects and the gray boxes represent staff engaged in project activities.

Balanced Matrix Organization

❖ **The Balanced Matrix Organization recognizes the need for a Project Manager. While it does not provide the Project Manager with full authority over the project and project funding.**

❖ **There is a balance of power between the Project and Functional Managers. Each manager has responsibility for their parts of the project or organization, and employees get assigned to projects based on the needs of the project, not the strength or weakness of the manager's position**

Balanced Matrix Organization

The dotted lines on the graphic represent where the Project Manager coordinates projects and the gray boxes represent staff engaged in project activities.

Strong Matrix Organization

Strong Matrix Organizations share many of the same characteristics of a Projectized Organization where the Project Manager has considerable independence and authority compared to the Functional Manager.

Strong Matrix Organization

The dotted lines on the graphic represent where the Project Manager coordinates projects and the gray boxes represent staff engaged in project activities.

* Many Organizations Focus on the Structural Frame

Comparing Matrix Structure

	Weak Matrix	Balanced Matrix	Strong Matrix
Project Manager's Title:	Project coordinator, project leader, or project expeditor	Project manager	Project manager
Project Manager's Focus:	Split focus between project and functional responsibilities	Projects and project work	Projects and project work
Project Manager's Power:	Minimal authority and power	Balance of authority and power	Significant authority and power
Project Manager's Time:	Part-time on projects	Full-time on projects	Full-time on projects
Organization Style:	Most like functional organization	Blend of both weak and strong matrix	Most like a projec-tized organization
Project Manager Reports To:	Functional manager	A functional manager, but shares authority and power	Manager of project managers

Most Significant Characteristics of Effective and Ineffective Project Managers

Effective Project Managers	Ineffective Project Managers
1. Lead by example	1. Set bad examples
2. Are visionaries	2. Are not self-assured
3. Are technically competent	3. Lack of technical expertise
4. Are decisive	4. Are poor communicators
5. Are good communicators	5. Are poor motivators
6. Are good motivators	
7. Stand up to upper management when necessary	
8. Support team members	
9. Encourage new ideas	

Organizational Authority

Functional	Weak Matrix	Balanced Matrix	Strong Matrix	Projectized

The closer an organization aligns itself to either a Functional or Projectized Organization Structure determines which manager type has more authority.

36

Factors Affecting Organizational Structure

The Job Characteristics Model
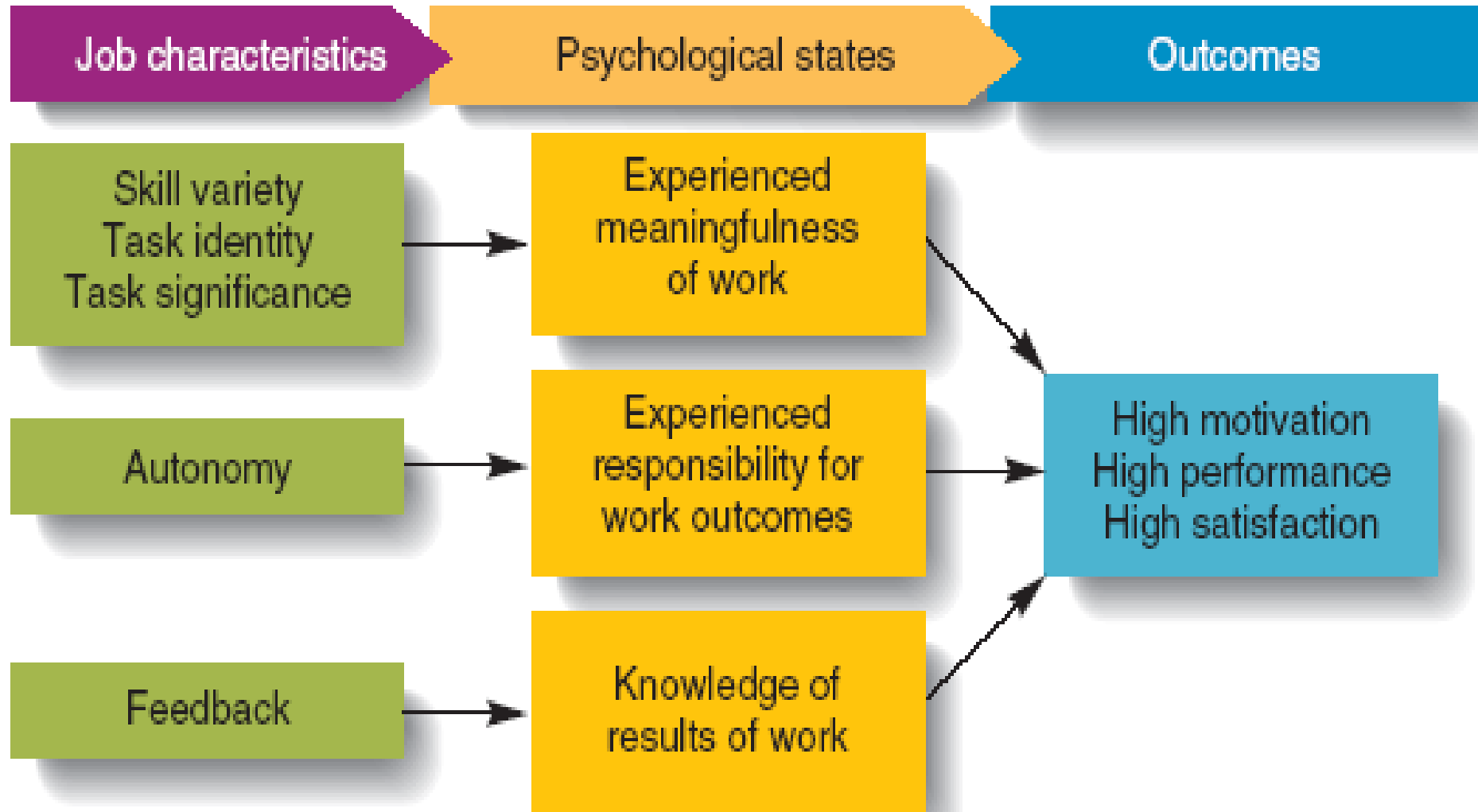
Job Characteristics Model

Job Characteristic	
Skill variety	Employee uses a wide range of skills.
Task identity	Worker is involved in all tasks of the job from beginning to end of the production process
Task significance	Worker feels the task is meaningful to organization.
Autonomy	Employee has freedom to schedule tasks and carry them out.
Feedback	Worker gets direct information about how well the job is done.

Organizational Culture

shared set of beliefs, expectations, values, and norms that influence how members of an organization relate to one another and cooperate to achieve organizational goals

Sources of an Organization's Culture
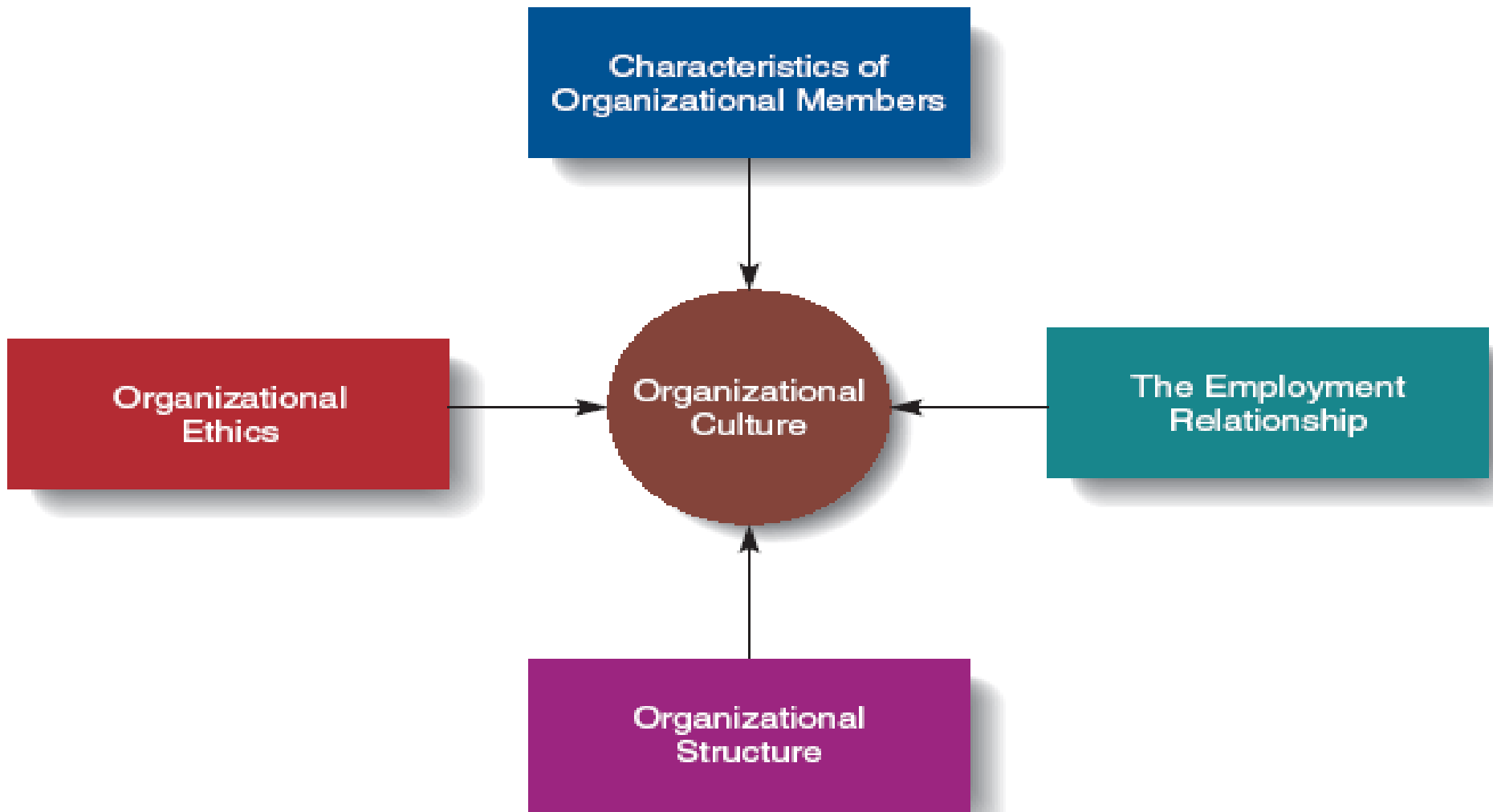
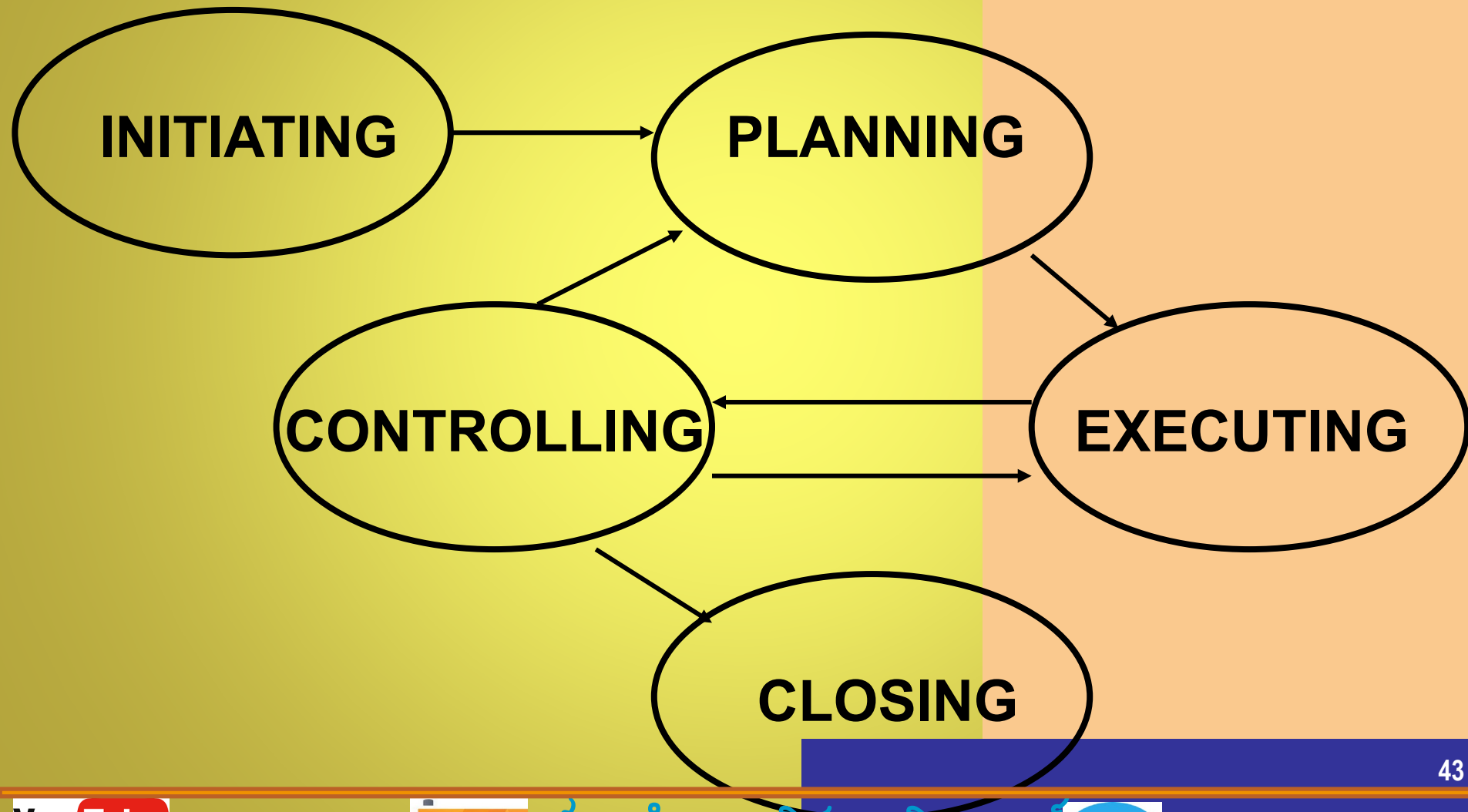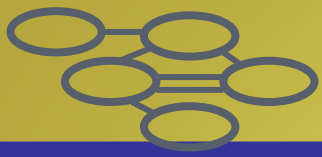# Strong, Adaptive Cultures Versus Weak, Inert Cultures

❖ **Adaptive cultures**

- values and norms help an organization to build momentum and to grow and change as needed to achieve its goals and be effective
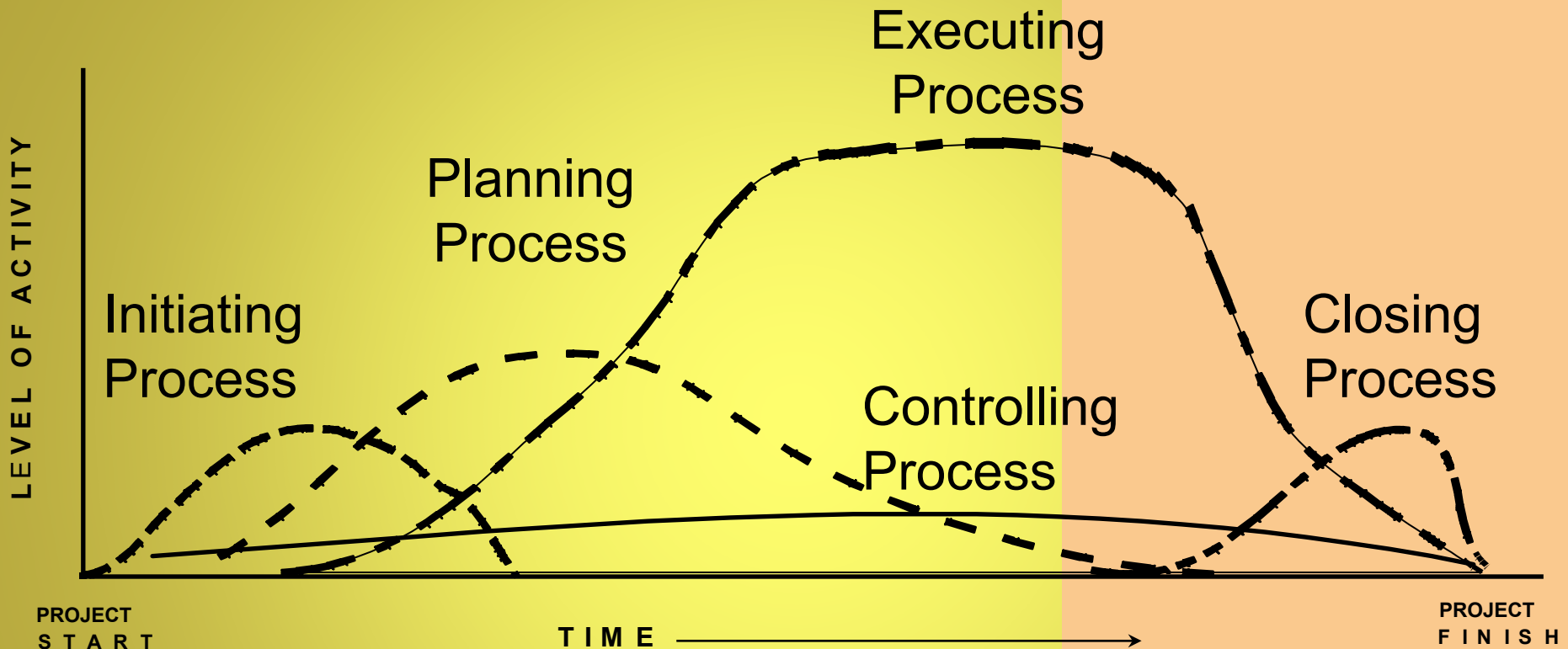
Project Management Processes
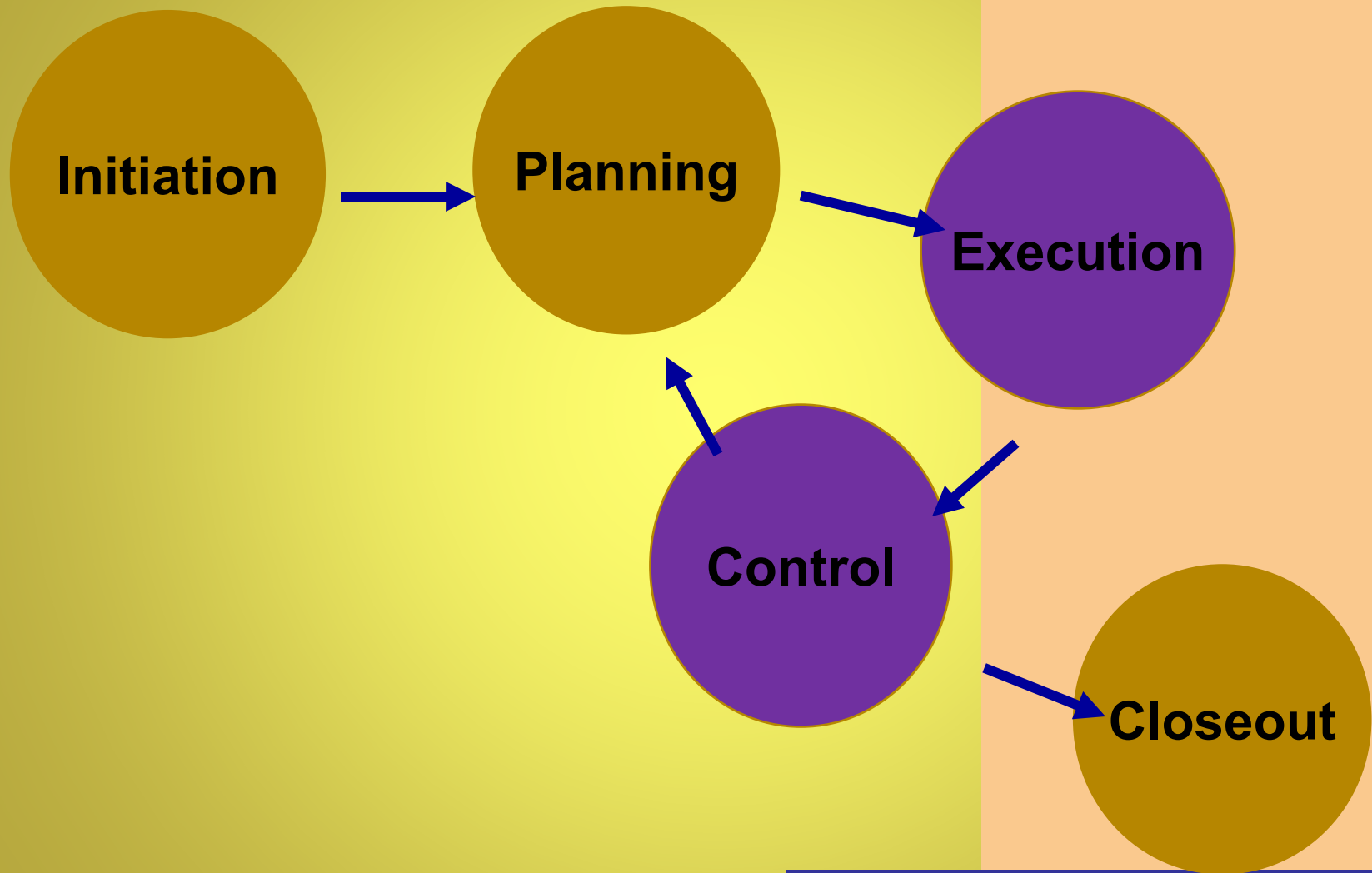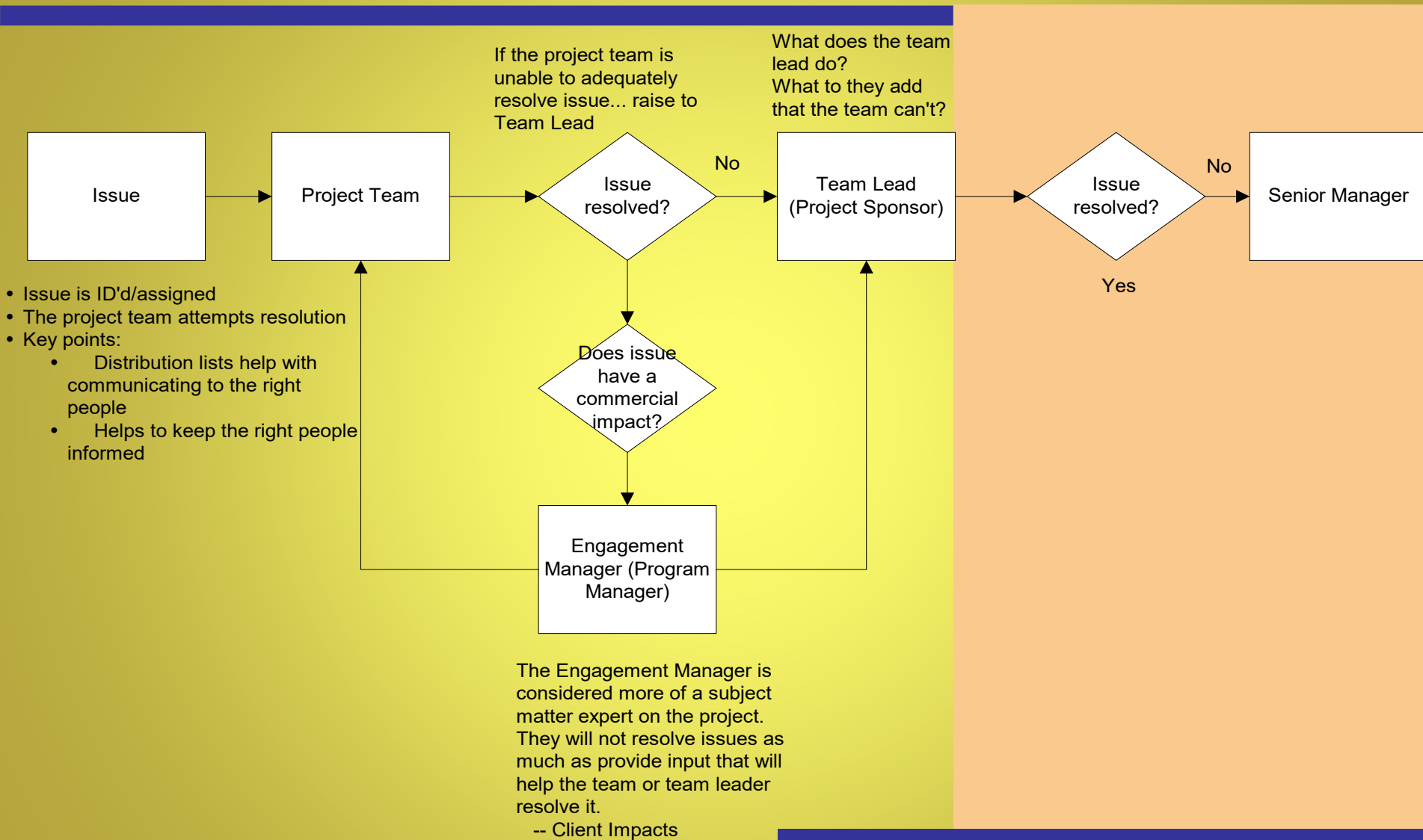## 5 Major Project Management

INITIATING → PLANNING

CONTROLLING ↔ EXECUTING

CLOSING

: Iterative & Overlapping

PHASES OF THE PROJECT LIFE CYCLE

Issue Escalation

If the project team is unable to adequately resolve issue... raise to Team Lead

What does the team lead do?
What to they add that the team can't?

```
Issue → Project Team → [Issue resolved?] --No--> Team Lead (Project Sponsor) → [Issue resolved?] --No--> Senior Manager
```

No

Yes

- Issue is ID'd/assigned
- The project team attempts resolution
- Key points:
  - Distribution lists help with communicating to the right people
  - Helps to keep the right people informed

[Does issue have a commercial impact?]

Engagement Manager (Program Manager)

The Engagement Manager is considered more of a subject matter expert on the project. They will not resolve issues as much as provide input that will help the team or team leader resolve it.
    -- Client Impacts

Process Focus – Closing

❖ Requires Speaking Truth to Power about the project

❖ Assessment required on whether business goals met

❖ Requires Discipline to finish the project

- throughout the Organization

- With End User

- With other Stakeholders

❖ Everyone is Tired

❖ The Art, The Science, and …..

End of Chapter2