

Informatik-Projektentwicklung

– Lecture 9 –

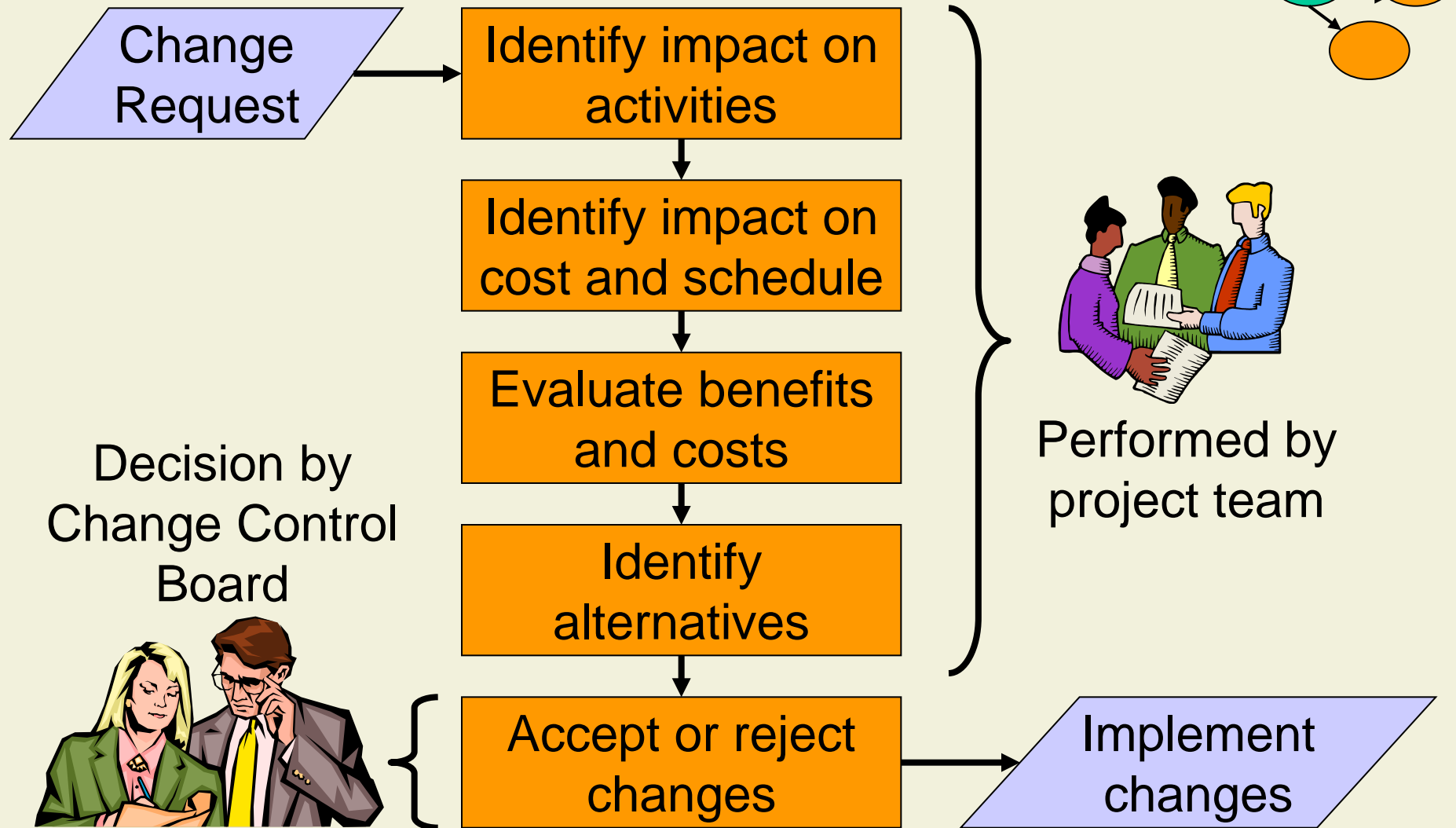
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Software Component Technology

Wintersemester 04/05



Eidgenössische Technische Hochschule Zürich
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Change Control Process

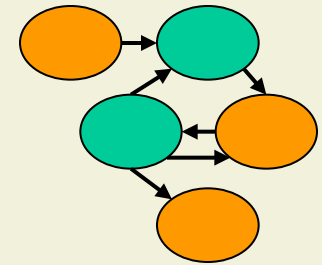


Risk Management

During which step of risk management is a determination to transfer a risk made?

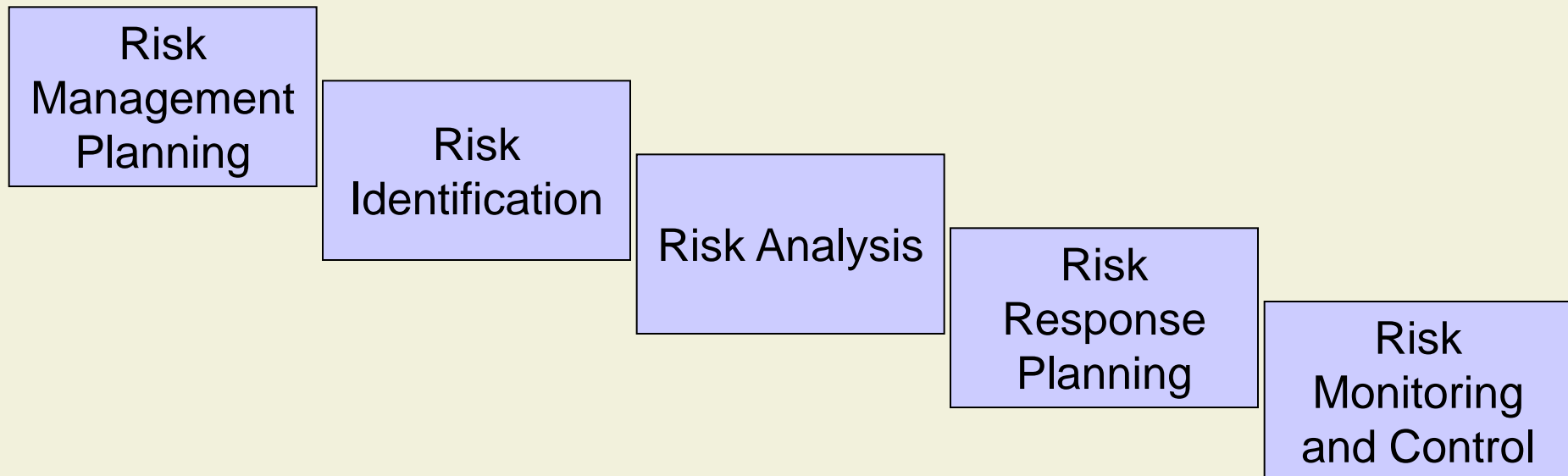
- a. Risk identification
- b. Risk quantification
- c. Risk response control
- d. Risk response planning

Risk Management



- Definition:

Systematic process of identifying, analyzing, and responding to project risk. It includes minimizing the consequences of adverse events to project objectives.

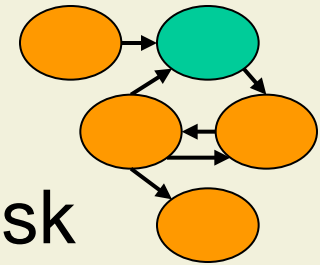


Risk Management

Purchasing insurance is BEST considered an example of risk:

- a. Containment
- b. Transference
- c. Acceptance
- d. Avoidance

Mitigation Strategies



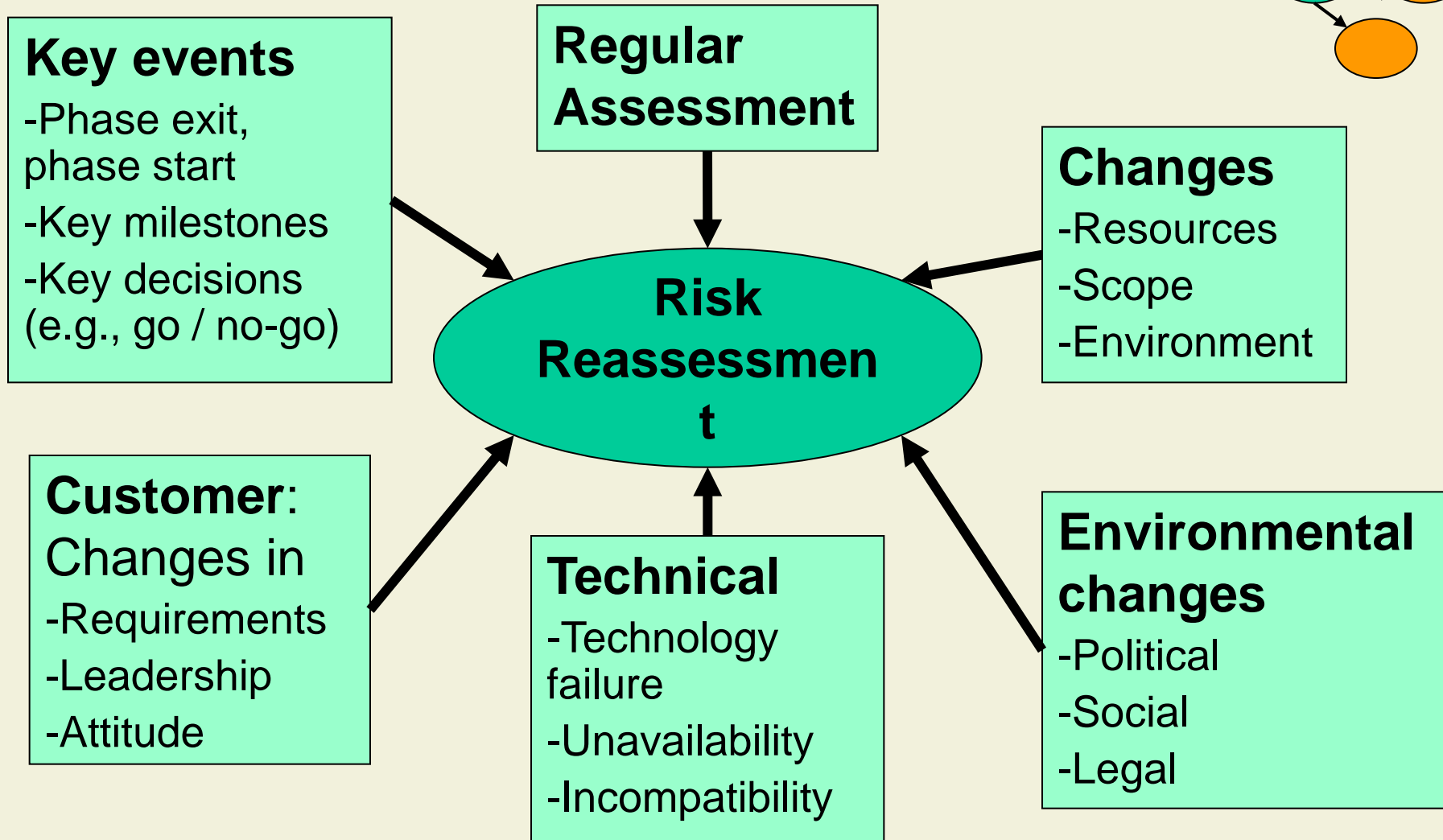
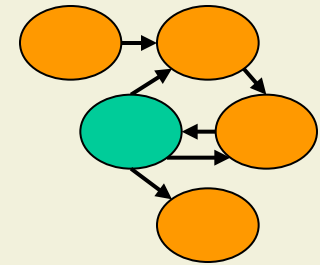
- **Avoid** the path or project to eliminate the risk
- **Ignore / Accept** the risk and its consequences if it occurs
- **Transfer** all or part of the risk to another party
- **Contain** the risk by specific actions to lower the probability and / or impact
- **Establish contingency**: Set funds aside to be used if the risk occurs or when later containment is deemed appropriate

Risk Management

Risk will be identified during which phase of the project management life cycle?

- a. Initiating
- b. Planning
- c. Executing
- d. All phases

Triggers for Risk Reassessment



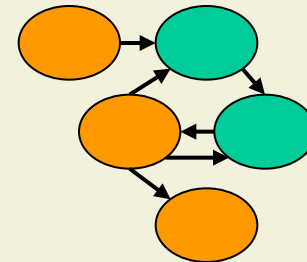
Agenda for Today

9. Organizational Aspects and HR Management

9.1 Organizational Aspects

9.2 Human Resource Management

9.3 Leadership



9. Organizational Aspects and HR Mgmt.

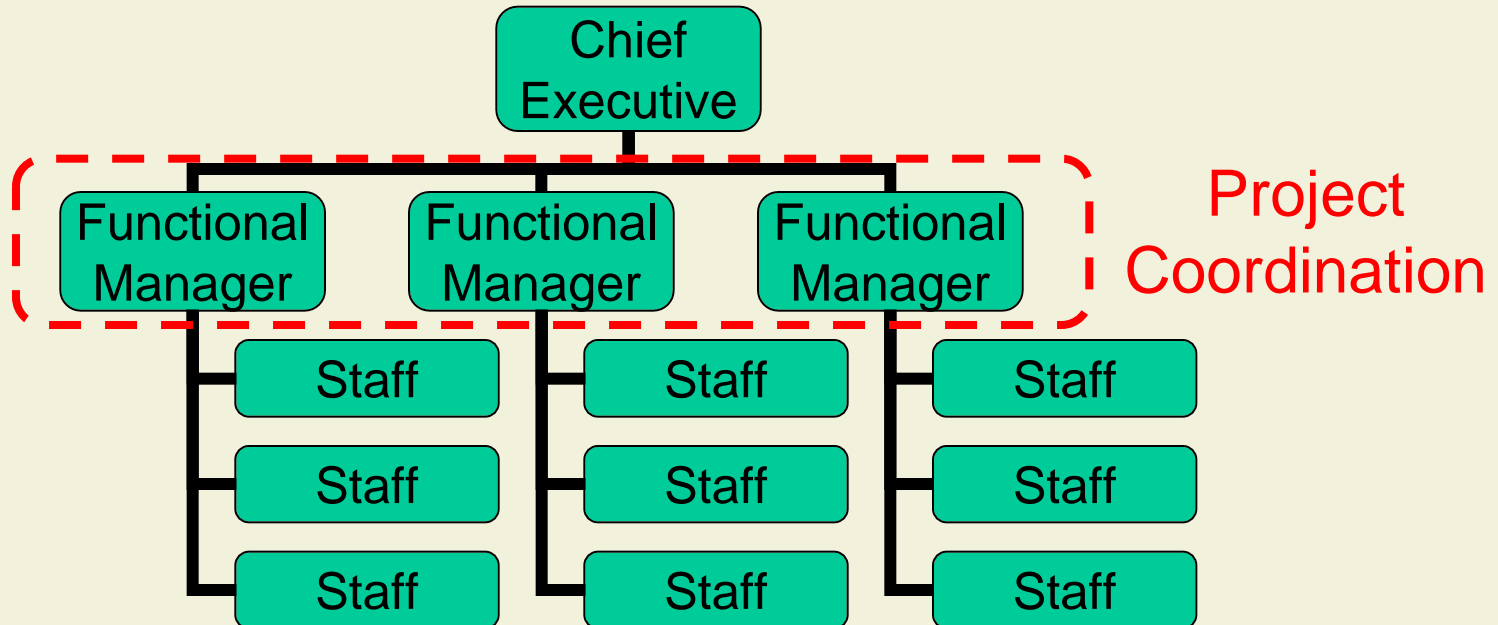
9.1 Organizational Aspects

- Organizational Structures
- Stakeholders

9.2 Human Resource Management

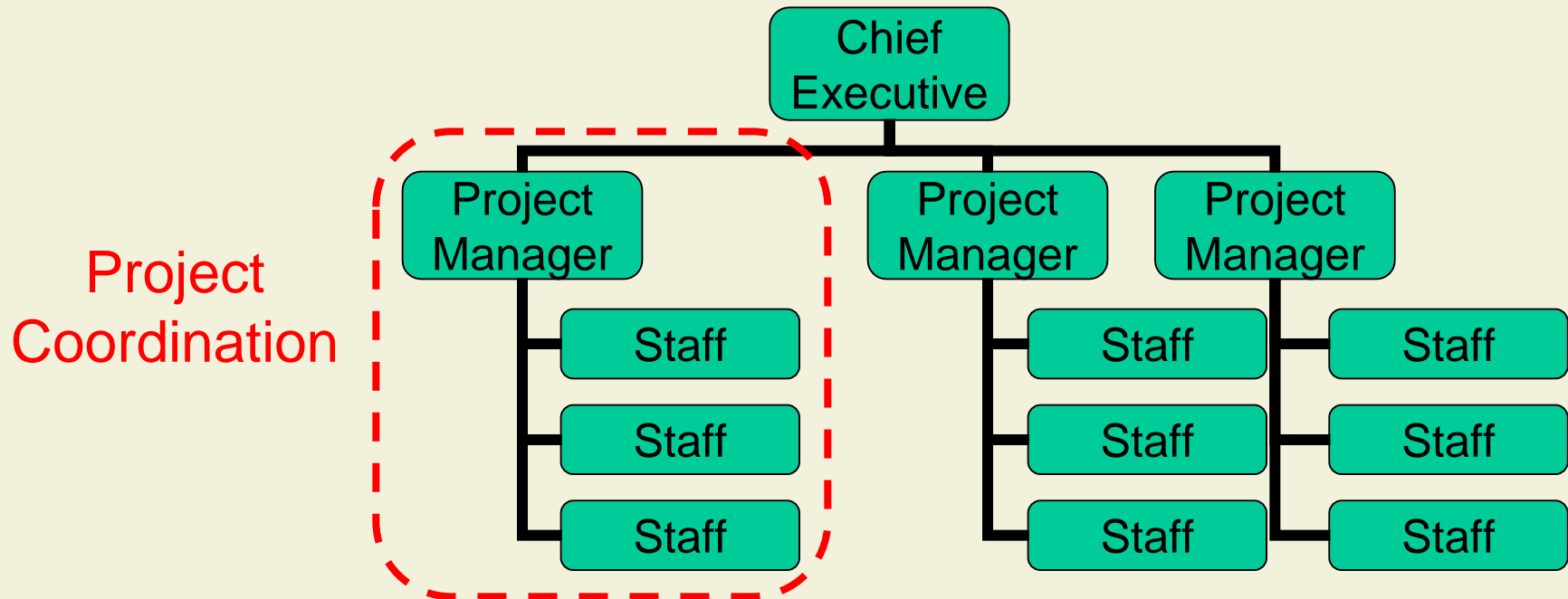
9.3 Leadership

Functional Organization



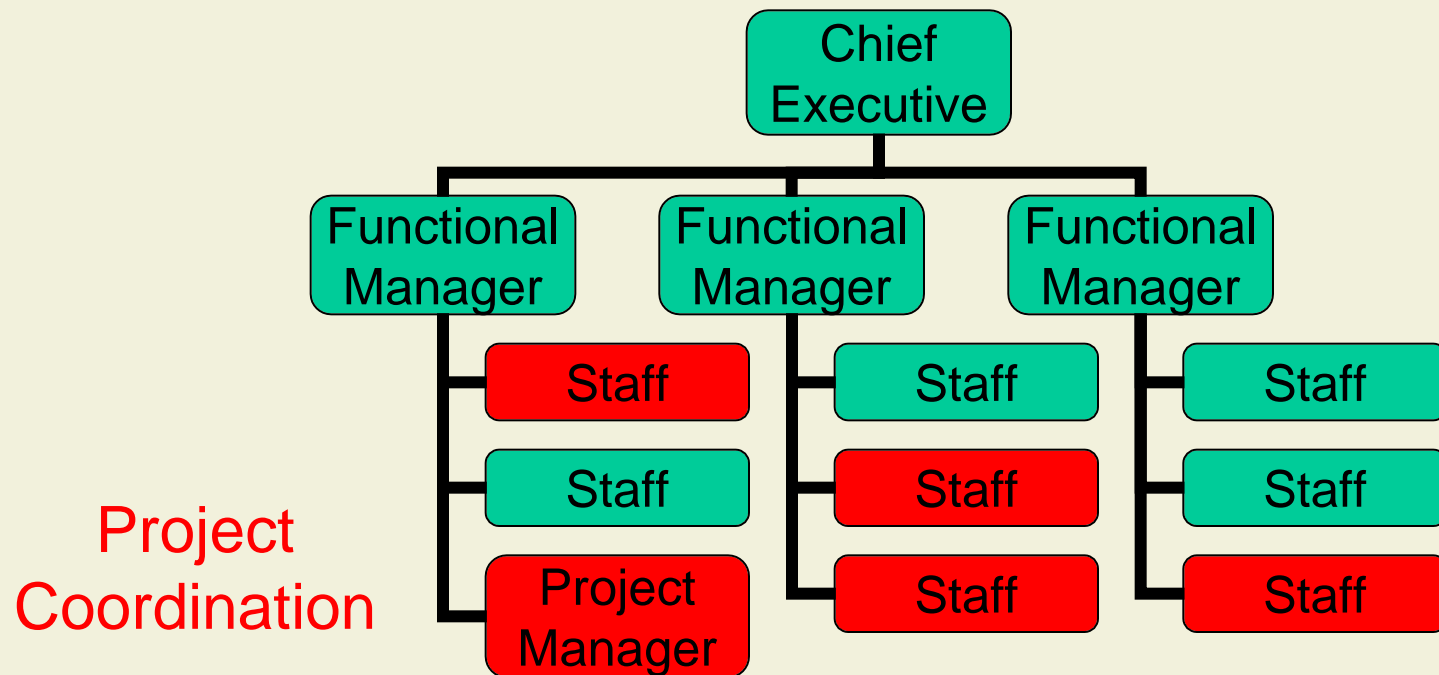
- Staff members are grouped by specialty
 - Production, marketing, accounting, etc.
- Scope of projects is limited to the boundaries of the function

Projectized Organization



- Most resources are involved in project work
- Project managers have great deal of independence and authority

Matrix Organization



- A blend of functional and projectized organizations

Comparison (to Functional Organization)

■ Projectized organization

Efficient project organization	No “home” when project is completed
Loyalty to the project	Lack of professionalism in disciplines
More effective communication	Duplication of facilities and job functions

■ Matrix organization

Highly visible project objectives	More than one boss for project teams
Maximum utilization of scarce resources	Tougher problems with resource allocation
Better horizontal and vertical dissemination of information	Functional managers may have different priorities than project mngrs
Team members maintain “a home”	Higher potential for conflict

Repetition: Stakeholders

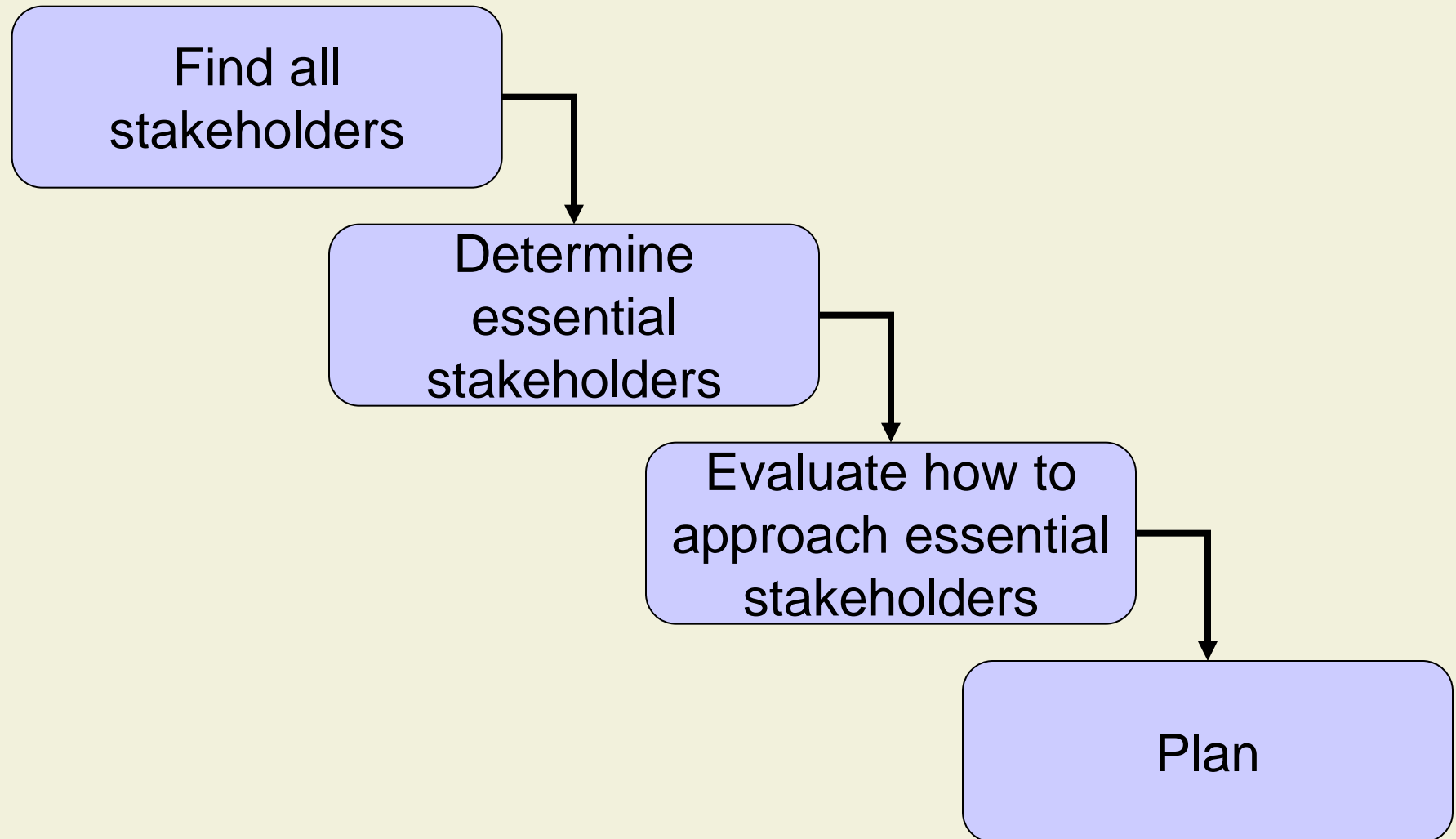
- Definition

Individuals and organizations that are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or project completion; they may also exert influence over the project and its results

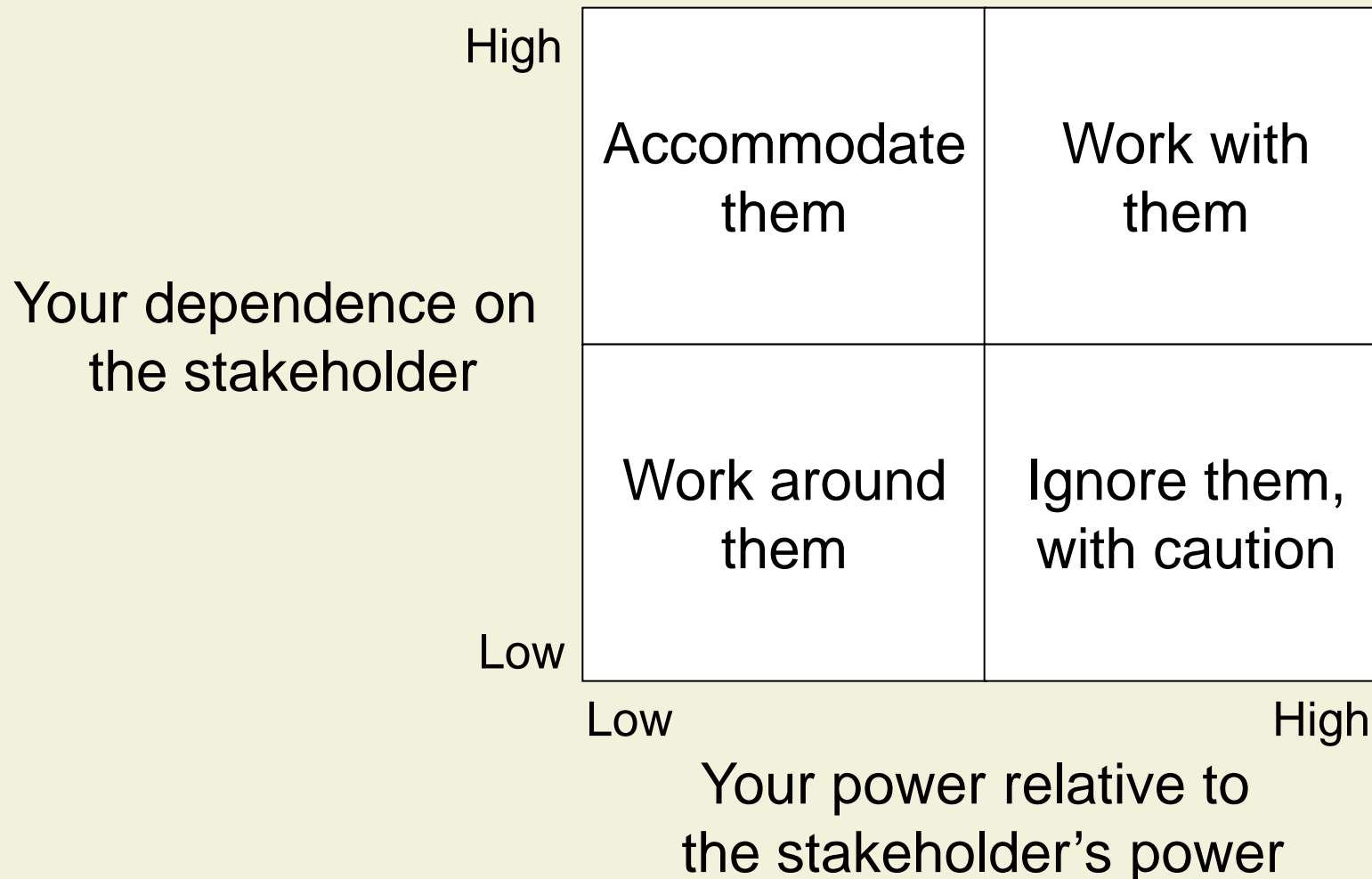
- Key stakeholders

- Project manager
- Customer
- Performing organization
- Project team members
- Sponsor

Stakeholder Analysis



Determining Essential Stakeholders



Evaluating Essential Stakeholders

- Acknowledge the caution that exists
- Be clear about what you want from them

- Bring them into your team
- Ask for advice and support

Agreement with
Project goals

Yes men

Allies

Adversaries

Challengers

- State your vision
- Acknowledge their position in a neutral way

- Be grateful for their challenges
- Follow their suggestions

Low

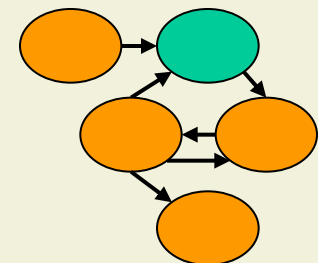
Relationship quality

9. Organizational Aspects and HR Mgmt.

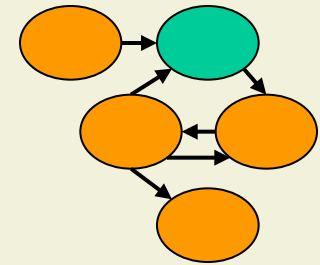
9.1 Organizational Aspects

9.2 Human Resource Management

9.3 Leadership



Organizational Planning: Summary

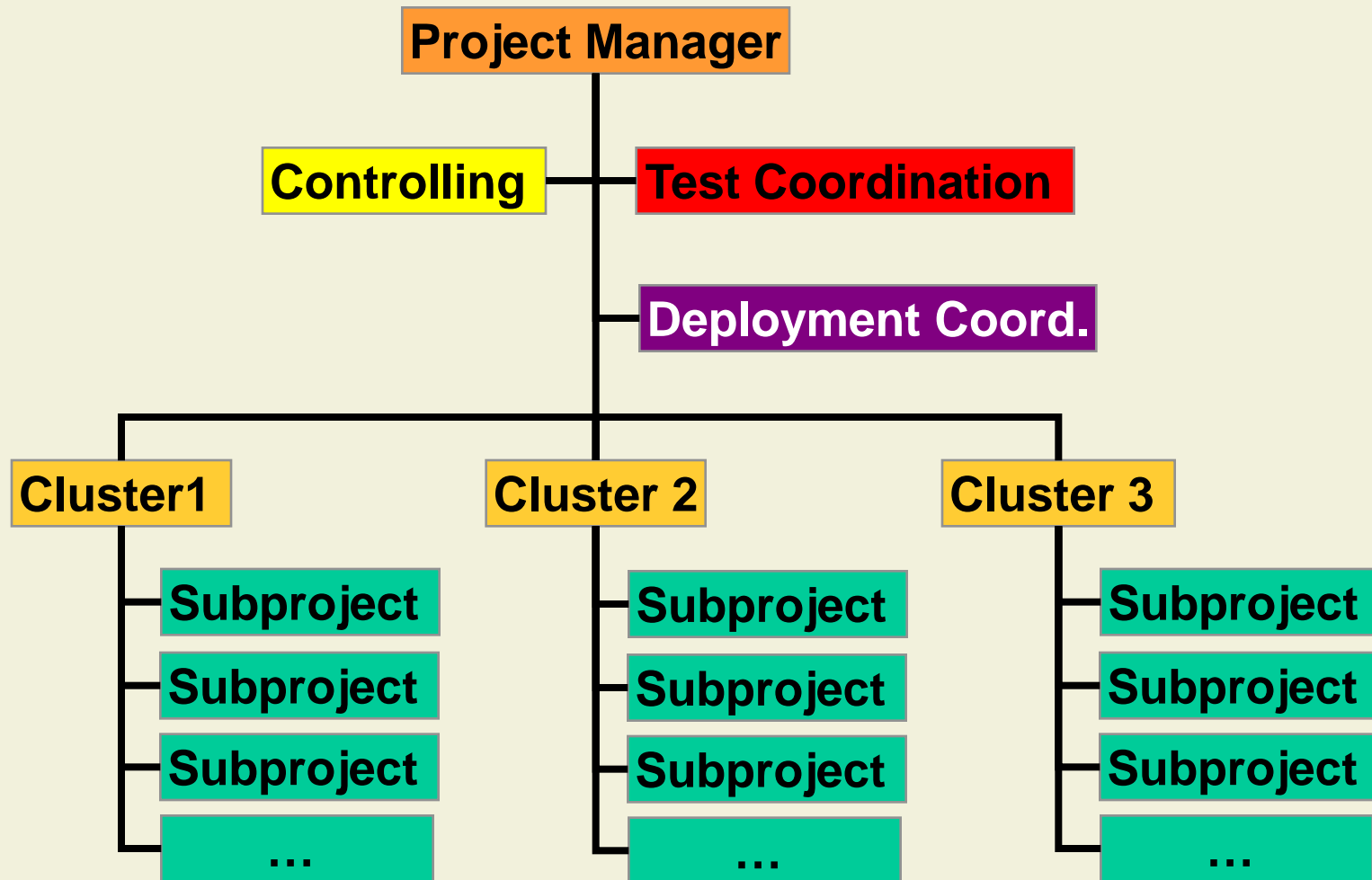


■ Purpose

- To identify, document, and assign project roles, responsibilities, and reporting relationships

Inputs	Tools & Techniques	Outputs
1. Project interfaces	1. Organizational theory 2. Stakeholder analysis	1. Roles and responsibility assignments 2. Organizational chart 3. Staffing management plan

Example: Project Organisation



Example: Responsibility Assignment Matrix

Roles & Responsibilities	Task	Processes					
		Status Reporting to PMO	Status Reporting to Steering Comm. and Mgmt.	Change Requests	Risk Management	Documentation and Information Platform	Migration Management
Role / Committee							
Business Coordinator		-	I	P	P	I	P
IT Project Manager		R	I	P	P	I	P
PMO		I	R	R	R	R	R
Project Board		-	I	A	A	I	A
Steering Committee		-	I	A	A	I	-

Legend

A - Approval

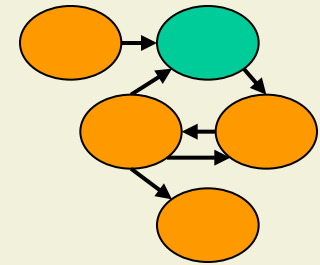
R - Responsible

P - Participation (mandatory)

I - Information

- Should be linked to WBS closely

Staff Acquisition: Summary



■ Purpose

- To get the needed human resources (individuals or groups) assigned to and working on the project

Inputs	Tools & Techniques	Outputs
<ol style="list-style-type: none">1. Staffing management plan2. Staffing pool description	<ol style="list-style-type: none">1. Negotiations2. Procurement	<ol style="list-style-type: none">1. Project staff assigned2. Project team directory

9. Organizational Aspects and HR Mgmt.

9.1 Organizational Aspects

9.2 Human Resource Management

9.3 Leadership

- Leadership Styles
- Motivation
- Power

Leadership

■ Definitions:

- *Leadership is influencing people to do willingly and well that which has to be done* [Charles Pellerin]
- *Leadership is the capacity to integrate the goals of the organization with the aspirations of the people through a shared vision and committed action*

■ Areas of leadership in a project

- Project leadership
- Technical leadership
- Team leadership

Leadership in Project Environments

- Focusing and motivating a group to achieve what is important
- Making decisions at the right time
- Providing continuity and momentum
- Getting the most out of people

Leading versus Managing

Leading

- Innovate
- Develop
- Originate
- Focus on people
- Inspire trust
- Ask what and why
- Do the right things

Managing

- Administer
- Maintain
- Imitate
- Focus on structures
- Rely on control
- Ask how and when
- Do things right

- Leadership requires both managing and leading

Leadership Styles

Provide specific instructions on what, when, where, and how to do something and closely supervise the accomplishment of tasks

Directing

Coaching

Explain decisions, solicit suggestions, and support progress while continuing to direct and closely supervise

Delegating

Supporting

Turn over responsibility for day-to-day decision making to the people doing the task

Support the efforts directed at accomplishing tasks and share responsibility for decision making with the team

Relationship-oriented

H

Task-oriented

Situational Leadership

- Leadership style depends on
 - The leader
 - The follower
 - The situation

- Immature teams
- Low competence
- In crises

Directing

Coaching

- Early phases
- Some competence, low commitment

- Mature teams
- High competence, high commitment

Delegating

Supporting

- Later phases
- High competence

Motivation - Definition

1. Why people **choose** to do certain things rather than other things
2. Why people put variable amounts of **effort** and **intensity** into their activities

Maslow's Hierarchy of Needs

- Individuals are motivated to satisfy a number of **different kinds of needs**
- Some needs are more pressing (**prepotent**) than others
- Until the most pressing needs are satisfied, other needs have little effect on an individual's behavior (*we satisfy the most prepotent needs first*)
- As one need becomes satisfied, other **needs become motivators** of our behavior

Maslow's Hierarchy of Needs (cont'd)



Maslow's Hierarchy of Needs (cont'd)

- Individuals do not experience only one type of need at a time
- The order of the needs does not necessarily reflect their prepotence for every individual
- Once a need is **satisfied** it is **no longer a motivator** - until it re-emerges
 - Most incentive schemes are based upon needs that have already been largely satisfied
- Maslow's model provides for **constant growth of the individual**
 - There is no point at which everything has been achieved

Herzberg's Dual-Factor Theory

- There are two types of motivators
 - Motivators result in **satisfaction** with the job
 - Hygienes merely **prevent dissatisfaction**

Motivators

Achievement
Recognition
Work itself
Responsibility
Advancement

Hygienes

Company administration
Working conditions
Supervision
Interpersonal relations
Money
Status
Security

Herzberg's Dual-Factor Theory (cont'd)

- Hygienes, if applied effectively, can at best prevent dissatisfaction: if applied poorly, they can result in negative feelings about the job
- Motivators allow for psychological growth and development on the job
 - They are closely related to self-actualization, involving a challenge, an opportunity to extend oneself to the fullest, to taste the pleasure of accomplishment, and to be recognized as having done something worthwhile

Herzberg's Theory: Discussion

- Assumption: If management keeps employees happy, they will respond by increasing productivity
- But: Satisfied needs do not motivate people
 - Hygienes simply keep employees quiet for a time
- For an individual to be motivated to perform a certain task, he or she must expect that **completion of the task will lead to achievement of his or her goals**
- The **task** is not necessarily the goal itself but **is** often **the means of goal attainment**

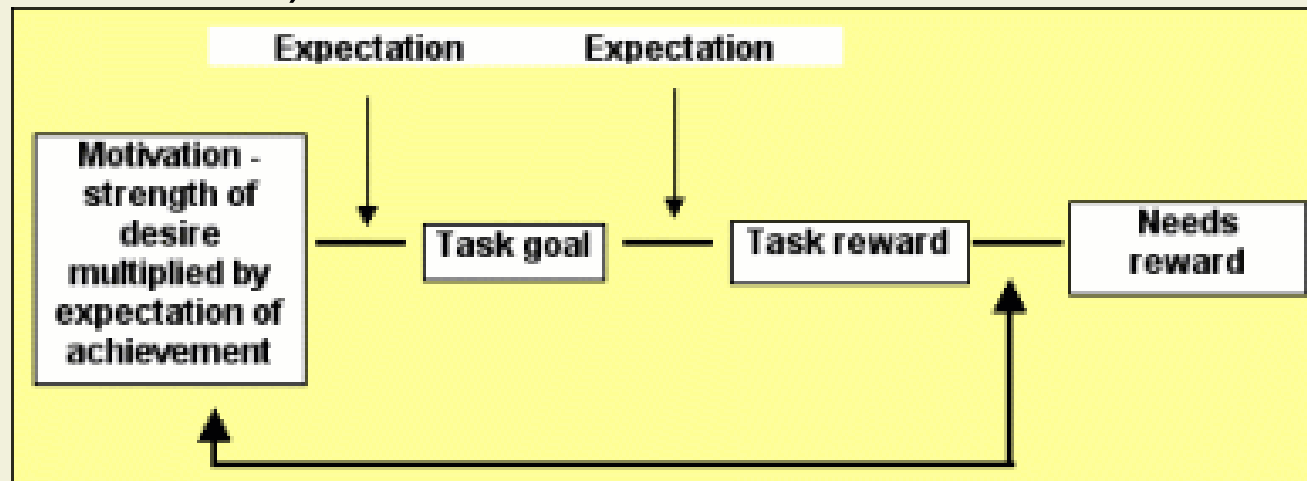
Vroom's Expectancy Theory of Motivation

- Motivation: "A process governing choices among alternative forms of voluntary behavior"
 - Why do individuals choose one outcome over another?
 - Maslow, Herzberg: choice reflects the strength of the individual's need for a specific outcome at a certain time

- **Task goals** (productivity, quality standards, etc.) are often means to an end, rather than the end in itself
 - **Second level** of outcomes which reflect the real goals of individuals

Vroom's Expectancy Theory (cont'd)

- An individual is motivated because he or she
 - Has a strong desire for a certain task outcome and a **reasonable expectation of achieving that outcome**
 - **Expects** that the **achievement** of the task outcome **will result in reward** in terms of pay, promotion, job security, or satisfaction of individual needs (physiological, safety, esteem, etc.)



Power

- Definition of *Power*:

Power is the capacity to exert influence over others

- Definition of *Authority*:

Authority is the right to exert influence

- Power is especially important in negotiations

Position Based Power

- Legitimate (formal position)
- Reward (ability to reward a person)
- Coercive (penalty)
- Resource control
- Connection / network

Personal Power

- Expert (knowledge, experience)
- Referent (referring to the authority of someone at a higher position)
- Reputation (accomplishments in the past)
- Integrity (trustworthiness, honesty)
- Bureaucratic (knowledge of rules, etc.)
- Charismatic (communication)
- Information (possessing important information)

Power of Project Managers

- Project managers have difficulty getting people to cooperate and perform, especially in matrix organizations
- Power of project managers
 - Expert
 - Reward
 - Legitimate
 - Referent
 - Coercive



Leadership

As for the best leaders, the people do not notice their existence. The next best, the people honor and praise. The next, the people fear; and the next, the people hate. When the best leader's work is done, the people say, "We did it ourselves".

[Lao-Tuz, Chinese philosopher]

	Initiating	Planning	Executing	Controlling	Closing
Integration		Project Plan Dev.	Project Plan Execution	Integr. Change Ctrl	
Scope	Initiation	Scope Planning Scope Definition		Scope Change Ctrl	
Time		Act. Definition, Act. Sequencing, Schedule Dev.			
Cost		Resource Planning Cost Estimating Cost Budgeting			
HR		Organizational Pl. Staff Acquisition			
Risk		Identification Analysis Response Planning		Monitoring and Control	
Procurement					