PROJECT HUMAN RESOURCE MANAGEMENT

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LECTURE 7

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LEARNING OBJECTIVES

- Discuss human resource planning and be able to create a human resource plan, project organizational chart, responsibility assignment matrix and resource histogram.

- Understand important issues involved in project staff acquisition and explain the concepts of resource assignments, resource loading and resource leveling.

- Explain several tools and techniques to manage a project team and summarize general advice on managing teams.

- Describe how project management software can assist in project human resource management.

THE IMPORTANCE OF PROJECT HUMAN RESOURCE MANAGEMENT

- Many corporate executives have said, "People are our most important asset"

- People determine the success and failure of organizations and projects.

PROCESS OF PROJECT HUMAN RESOURCE MANAGEMENT?

- Making the most effective use of the people involved with a project

- Processes include:
  - **Developing the human resource plan**: identifying and documenting project roles, responsibilities, and reporting relationships
  - **Acquiring the project team**: getting the needed personnel assigned to and working on the project
  - **Developing the project team**: building individual and group skills to enhance project performance
  - **Managing the project team**: tracking team member performance, motivating team members, providing timely feedback, resolving issues and conflicts, and coordinating changes to help enhance project performance

PROJECT HUMAN RESOURCE MANAGEMENT SUMMARY

Planning
Process: **Develop human resource plan**
Output: Human resource plan

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Executing
Process: **Acquire project team**
Outputs: Project staff assignments, resource calendars, project
            management plan updates
Process: **Develop project team**
Outputs: Team performance assessments, enterprise environmental
            factors updates

Process: **Manage project team**
Outputs: Enterprise environmental factors updates, organizational
            process assets updates, change requests, project
            management plan updates

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Project Start   **Project Finish**
——→

IMPLICATION OF NETWORK SECURITY PROJECT HUMAN RESOURCE MANAGEMENT

- Proactive organizations are addressing workforce needs by:
  - Improving benefits
  - Redefining work hours and incentives
  - Finding network security talents who competent
  - Reduce the number of turnover through giving training and increase the awareness for project completion.

KEYS TO MANAGING PEOPLE

- Psychologists and management theorists have devoted much research and thought to the field of managing people at work.

- Important areas related to project human resource management include:
  - Motivation theories
  - Influence and power
  - Effectiveness

8 AREA: MOTIVATION THEORY

Intrinsic, Extrinsic, Maslow, Herzberg, McClelland, McGregor, Thamhain and Wilemon.
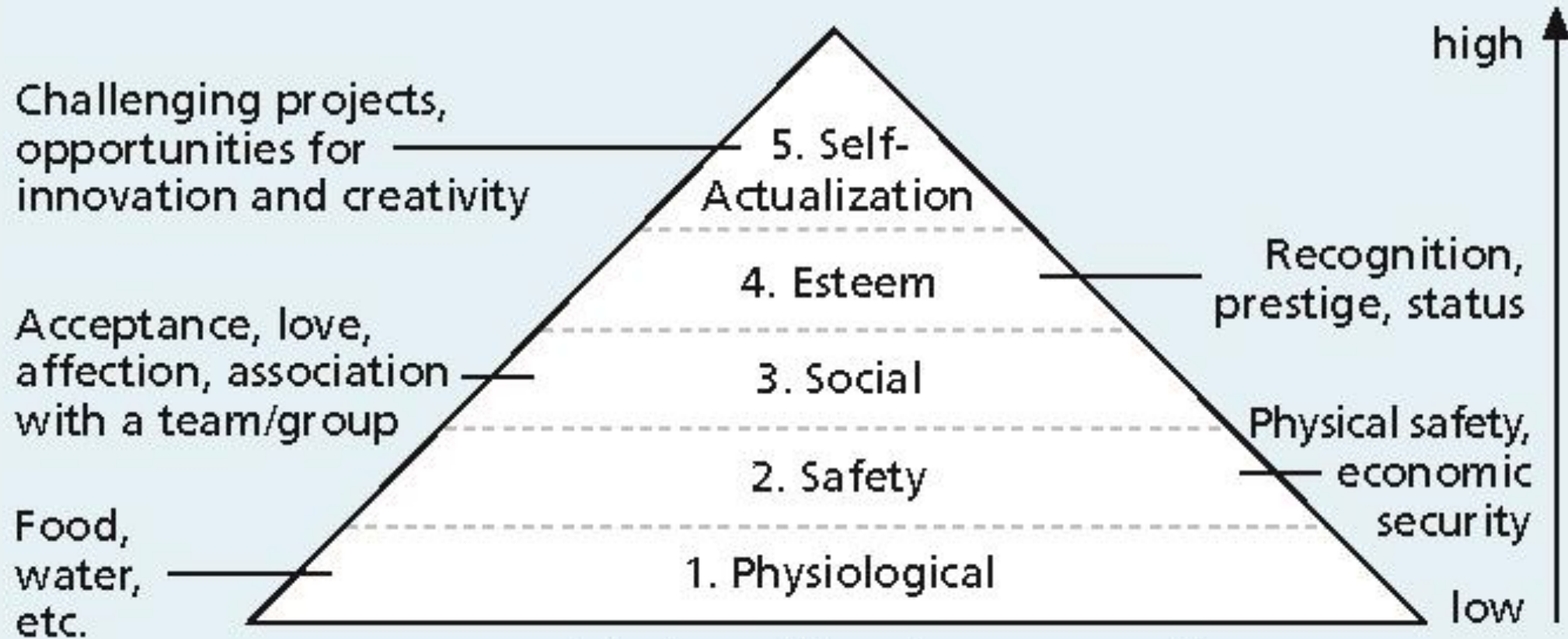
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INTRINSIC AND EXTRINSIC MOTIVATION

- **Intrinsic motivation** is an internal drive from inside causes people to participate in an activity for their own enjoyment or happiness.

- **Extrinsic motivation** is an external factor causes people to do something for a reward or to avoid a penalty.

- For example, some children take piano lessons for intrinsic motivation (they enjoy it) while others take them for extrinsic motivation (to win the competition for a grand prize or money).

MASLOW'S HIERARCHY OF NEEDS

- Abraham Maslow argued that humans possess unique qualities that enable them to make independent choices, thus giving them control of their destiny.

- Maslow developed a **hierarchy of needs** which states that people's behaviors are guided or motivated by a sequence of needs.

MASLOW'S HIERARCHY OF NEEDS

high

Challenging projects, opportunities for innovation and creativity — 5. Self-Actualization

4. Esteem — Recognition, prestige, status

Acceptance, love, affection, association with a team/group — 3. Social

2. Safety — Physical safety, economic security

Food, water, etc. — 1. Physiological

low

A satisfied need is no longer a motivator

HERZBERG'S TWO-FACTOR THEORY OF MOTIVATION

- According to Herzberg……
- **Motivating factors** (also called job satisfiers) are primarily intrinsic job elements that lead to satisfaction. Example: achievement, recognition, the work itself, responsibility, advancement and growth.
- **Hygiene factors** (also called job dissatisfiers) are extrinsic elements of the work environment. Example: larger salaries and more supervision.
- Thus, if the working conditions is poor, which are job dissatisfiers, may make employees quit the job. However, if the working condition is good that is job satisfier such as provide health benefits and friendly environment, which make the employee satisfies, then the person stays working in the organization.

HERZBERG'S TWO-FACTOR THEORY OF MOTIVATION

- These factors are:

- Motivating factors: Which can encourage employees to work harder.

- Hygiene factors: These won't encourage employees to work harder but they will cause them to become unmotivated.

EXAMPLES OF HERZBERG'S TWO-FACTOR THEORY OF MOTIVATION

Hygiene Factors	Motivators
Larger salaries	Achievement
More supervision	Recognition
More attractive work environment	Work itself
Computer or other required equipment	Responsibility
Health benefits	Advancement
Training	Growth

MCCLELLAND'S ACQUIRED-NEEDS THEORY

- Specific needs are acquired or learned over time and shaped by life experiences, including:

  - **Achievement (nAch):** achievers like challenging projects with achievable goals and lots of feedback
  - **Affiliation (nAff):** people with high nAff desire harmonious relationships and need to feel accepted by others, so managers should try to create a cooperative work environment for them
  - **Power (nPow):** people with a need for power desire either personal power (not good) or institutional power (good for the organization); provide institutional power seekers with management opportunities

MCGREGOR'S THEORY X AND Y

- Douglas McGregor popularized the human relations approach to management in the 1960s.

- **Theory X**: assumes workers dislike and avoid work, so managers must use coercion, threats, and various control schemes to get workers to meet objectives.

- **Theory Y**: assumes individuals consider work as natural as play or rest and enjoy the satisfaction of esteem and self-actualization needs.

- **Theory Z**: introduced in 1981 by William Ouchi and is based on the Japanese approach to motivating workers, emphasizing trust, quality, collective decision making, and cultural values.

THAMHAIN AND WILEMON'S WAYS TO HAVE INFLUENCE ON PROJECTS

1) Authority: the legitimate hierarchical right to issue orders

2) Assignment: the project manager's perceived ability to influence a worker's later work assignments

3) Budget: the project manager's perceived ability to authorize others' use of discretionary funds

4) Promotion: the ability to improve a worker's position

5) Money: the ability to increase a worker's pay and benefits

THAMHAIN AND WILEMON'S WAYS TO HAVE INFLUENCE ON PROJECTS (CONTINUED)

6) Penalty: the project manager's ability to cause punishment

7) Work challenge: the ability to assign work that capitalizes on a worker's enjoyment of doing a particular task

8) Expertise: the project manager's perceived special knowledge that others deem important

9) Friendship: the ability to establish friendly personal relationships between the project manager and others

WAYS TO INFLUENCE THAT HELP AND HURT PROJECTS

- Projects are more likely to *succeed* when project managers influence with:
  - Expertise
  - Work challenge

- Projects are more likely to *fail* when project managers rely too heavily on:
  - Authority
  - Money
  - Penalty

AREA: INFLUENCE AND POWER

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POWER

- **Power** is the potential ability to influence behavior to get people to do things they want to.
- Types of power include:
  - Coercive
  - Legitimate
  - Expert
  - Reward
  - Referent

COVEY AND IMPROVING EFFECTIVENESS

- Project managers can apply Covey's 7 habits to improve effectiveness on projects
  - Be proactive
  - Begin with the end in mind
  - Put first things first
  - Think win/win
  - Seek first to understand, then to be understood
  - Synergize
  - Sharpen the saw

EMPATHIC LISTENING AND RAPPORT

- Good project managers are **empathic listeners**; they listen with the intent to understand

- Before you can communicate with others, you have to have **rapport**, a relation of harmony, conformity, accord, or affinity

- **Mirroring** is the matching of certain behaviors of the other person, a technique to help establish rapport

- Network Security professionals need to develop empathic listening and other people skills to improve relationships with users and other stakeholders.
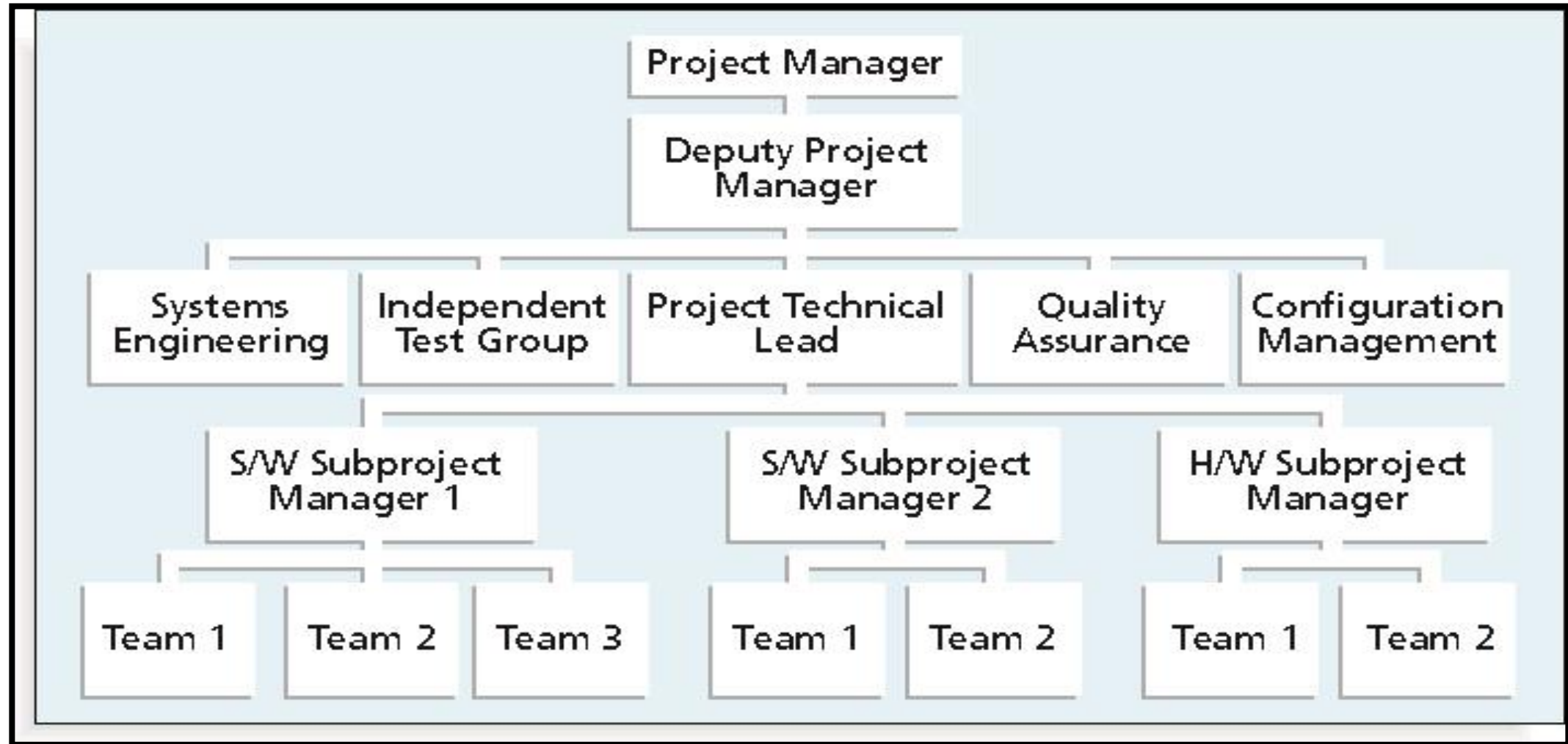
PROCESS 1:
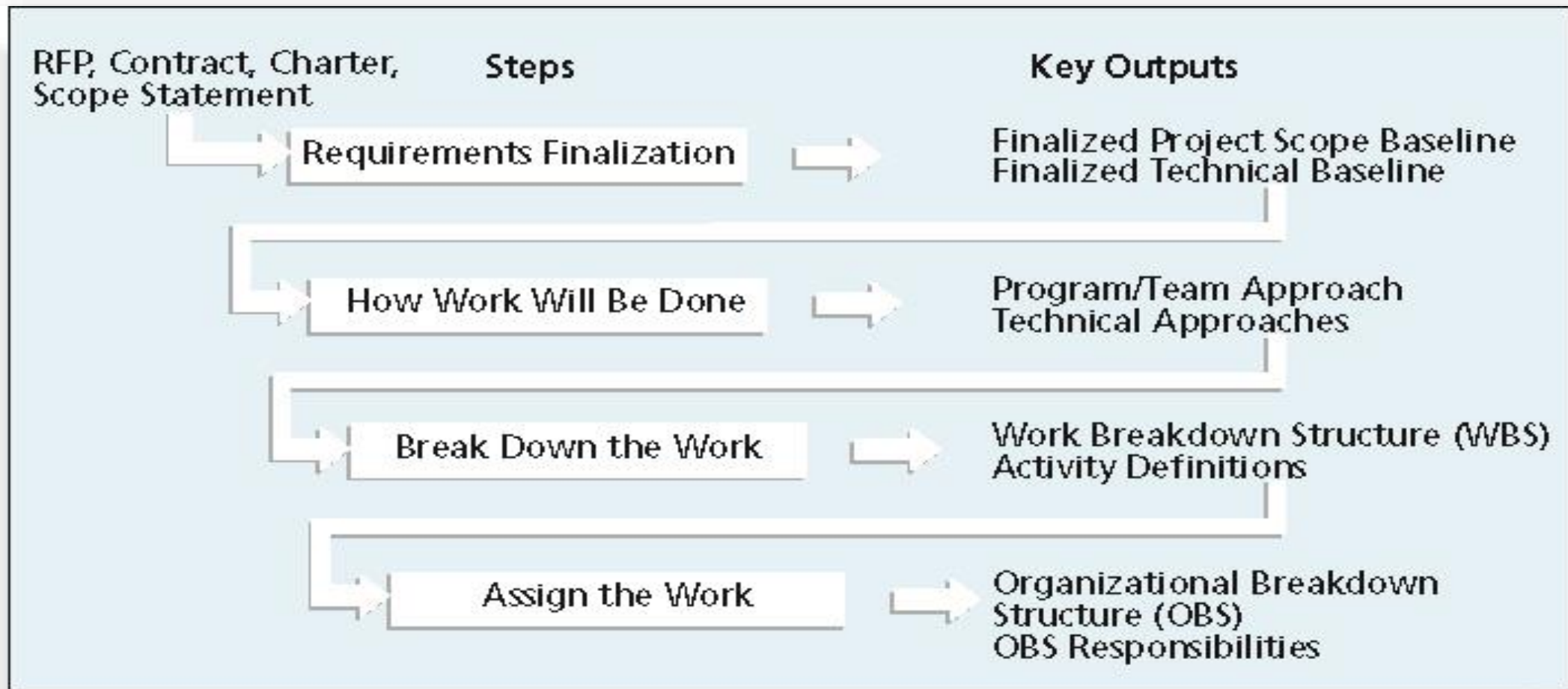# DEVELOP HR PLAN

DEVELOPING THE HR PLAN

- Involves identifying and documenting project roles, responsibilities, and reporting relationships

- Contents include:
  - Project organizational charts
  - Staffing management plan
  - Responsibility assignment matrixes
  - Resource histograms

SAMPLE ORGANIZATIONAL CHART FOR A LARGE PROJECT

WORK DEFINITION AND ASSIGNMENT PROCESS

RFP, Contract, Charter, Scope Statement

Steps

Key Outputs

Requirements Finalization → Finalized Project Scope Baseline
Finalized Technical Baseline

How Work Will Be Done → Program/Team Approach
Technical Approaches

Break Down the Work → Work Breakdown Structure (WBS)
Activity Definitions

Assign the Work → Organizational Breakdown Structure (OBS)
OBS Responsibilities

RESPONSIBILITY ASSIGNMENT MATRICES

- A **responsibility assignment matrix (RAM)** is a matrix that maps the work of the project as described in the WBS to the people responsible for performing the work as described in the OBS

- Can be created in different ways to meet unique project needs

SAMPLE RESPONSIBILITY ASSIGNMENT MATRIX (RAM)

WBS activities →

OBS units	1.1.1	1.1.2	1.1.3	1.1.4	1.1.5	1.1.6	1.1.7	1.1.8
Systems Engineering	R	R P					R	
Software Development			R P					
Hardware Development				R P				
Test Engineering	P							
Quality Assurance					R P			
Configuration Management						R P		
Integrated Logistics Support							P	
Training								R P

R = Responsible organizational unit
P = Performing organizational unit

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RAM SHOWING STAKEHOLDER ROLES

Items	Stakeholders				
	A	B	C	D	E
Unit Test	S	A	I	I	R
Integration Test	S	P	A	I	R
System Test	S	P	A	I	R
User Acceptance Test	S	P	I	A	R

A = Accountable
P = Participant
R = Review Required
I = Input Required
S = Sign-off Required

SAMPLE RACI CHART

	Group A	Group B	Group C	Group D	Group E
Test Plans	R	A	C	C	I
Unit Test	C	I	R	A	I
Integration Test	A	R	I	C	C
System Test	I	C	A	I	R
User Acceptance Test	R	I	C	R	A

R = responsibility
A = accountability, only one A per task
C = consultation
I = informed

Note that some people reverse the definitions of responsible and accountable.

STAFFING MANAGEMENT PLANS AND RESOURCE HISTOGRAMS

- A **staffing management plan** describes when and how people will be added to and taken off the project team

- A **resource histogram** is a column chart that shows the number of resources assigned to a project over time

SAMPLE RESOURCE HISTOGRAM
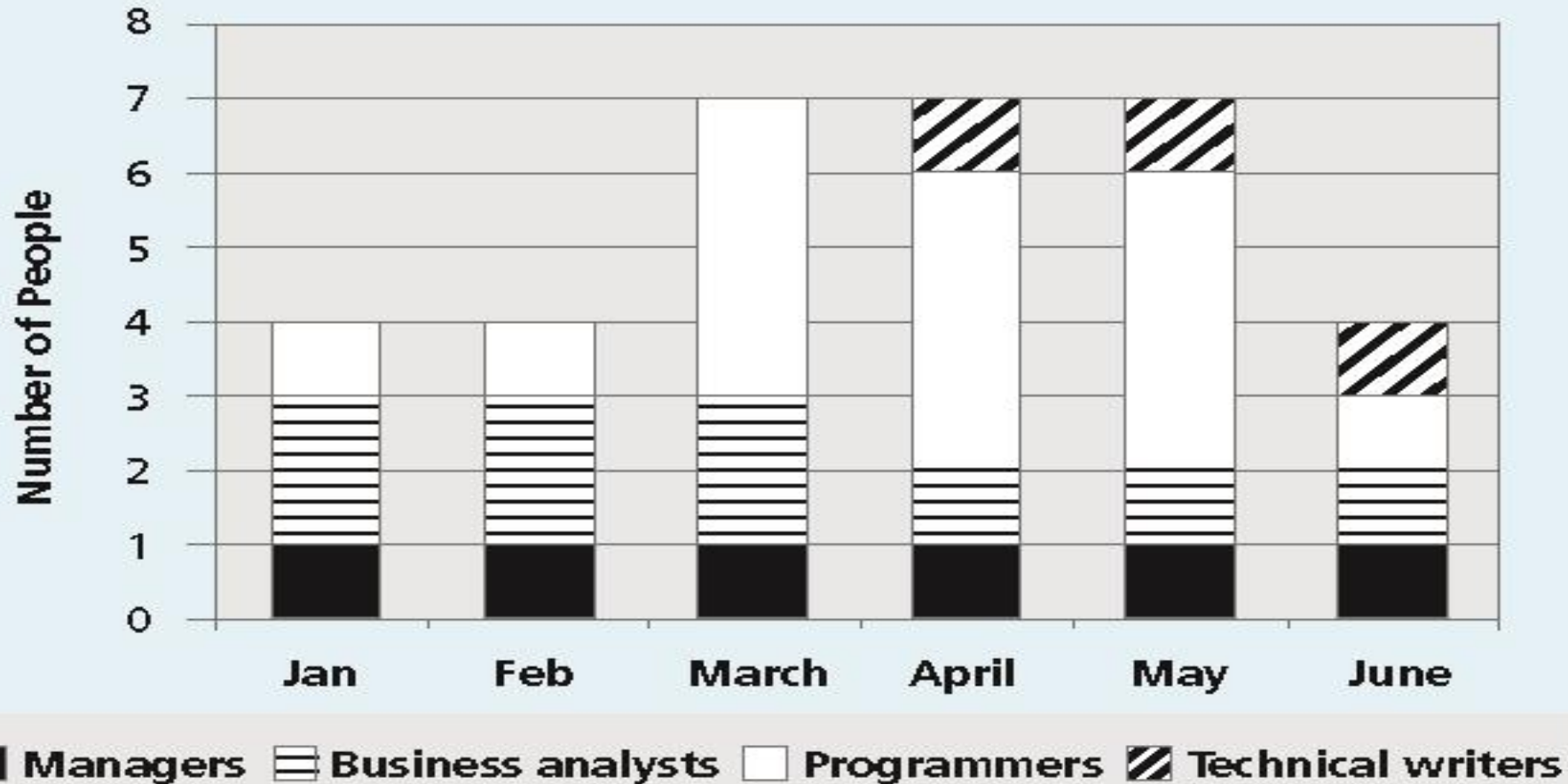
PROCESS 2: ACQUIRING OR HIRING THE PROJECT TEAM

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ACQUIRING THE PROJECT TEAM

- Acquiring qualified people for the project team is important.

- The project manager needs to hire the team based on experience, knowledge and high commitment for project completion.

- It's important to assign the appropriate type and number of people to work on projects at the appropriate times.

RESOURCE ASSIGNMENT

- Staffing plans and good hiring procedures are important, as are incentives for recruiting and retention
  - Some companies give their employees one dollar for every hour a new person they helped hire works
  - Some organizations allow people to work from home as an incentive

RESOURCE LOADING

- **Resource loading** refers to the amount of individual resources an existing schedule requires during specific time periods.

- Helps project managers develop a general understanding of the demands a project will make on the organization's resources and individual people's schedules.

- **Over allocation** means that more resources than are available are assigned to perform work at a given time.
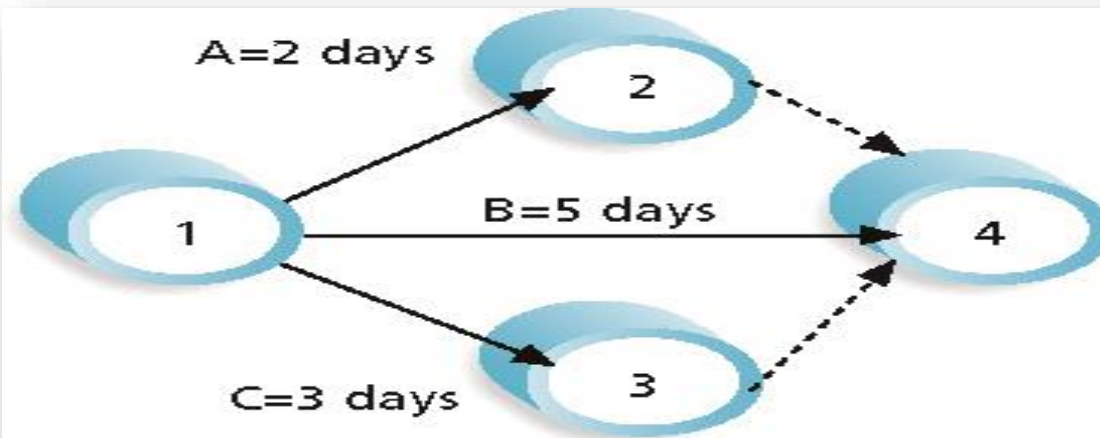
SAMPLE HISTOGRAM SHOWING AN OVERALLOCATED INDIVIDUAL
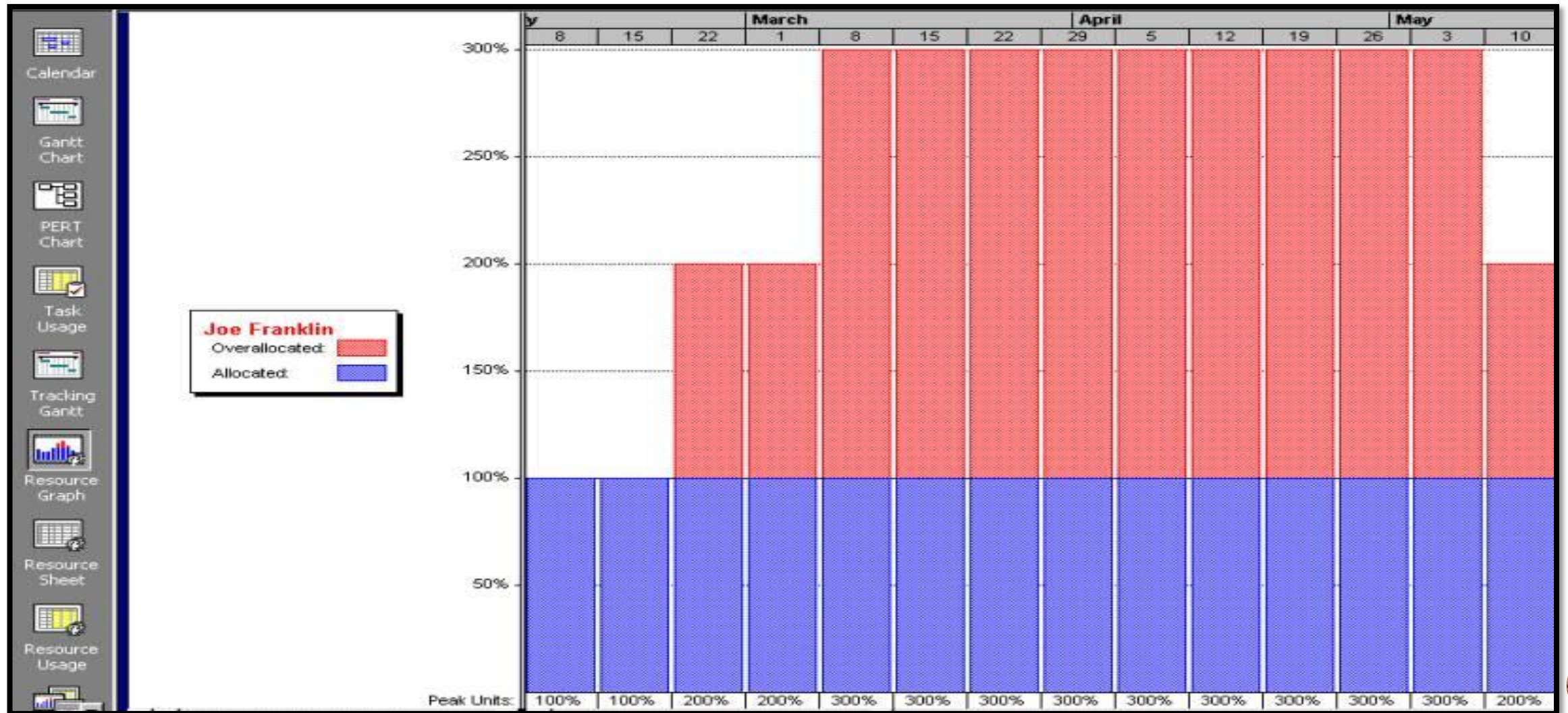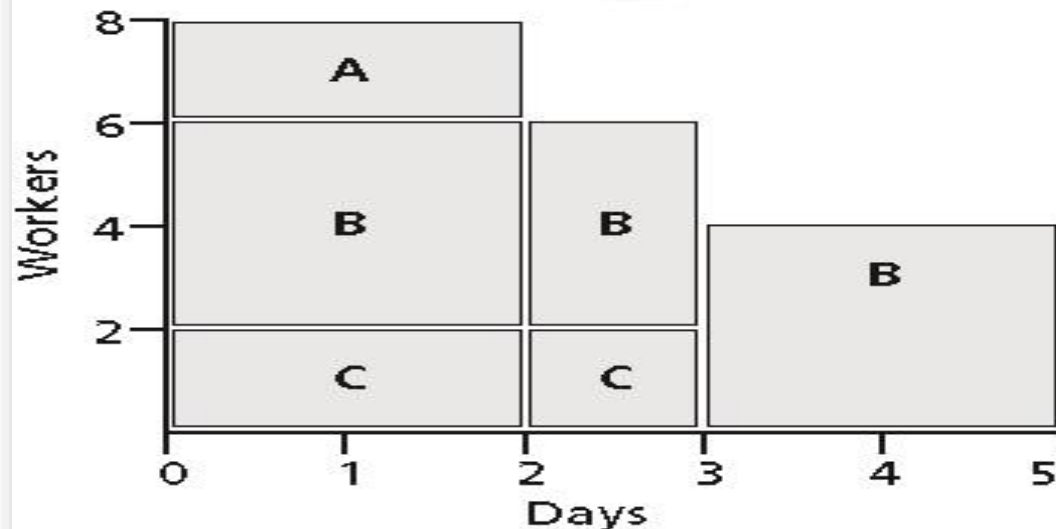
RESOURCE LEVELING

- **Resource leveling** is a technique for resolving resource conflicts by delaying tasks.

- The main purpose of resource leveling is to create a smoother distribution of resource usage and reduce over allocation
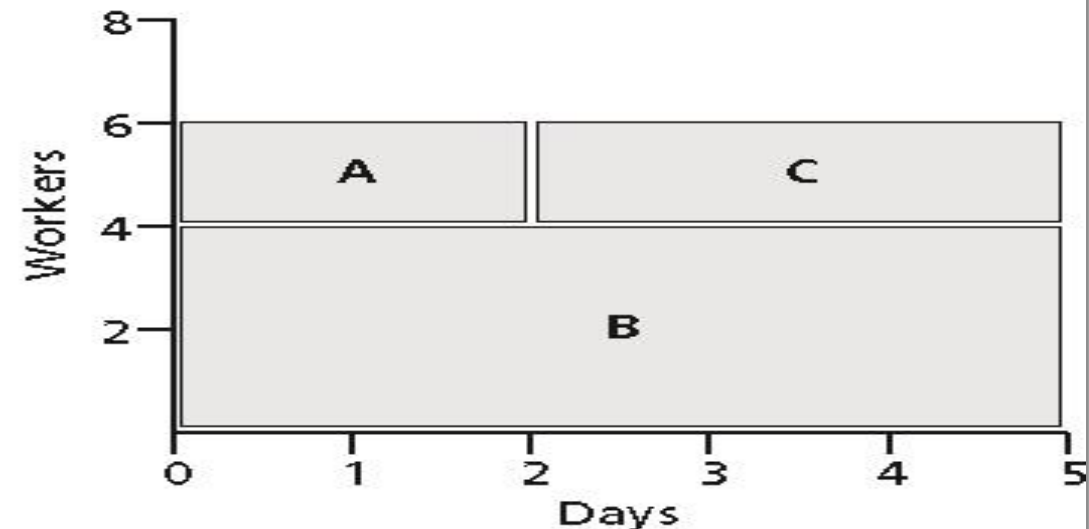
RESOURCE LEVELING EXAMPLE

A=2 days

B=5 days

C=3 days

Project network with Activities A, B, and C and durations as shown. Activity A has 3 days of slack, and Activity C has 2 days of slack. Assume Activity A has 2 workers, B has 4 workers, and C has 2 workers.

Resource usage if all activities start on day one

Resource usage if Activity C is delayed 2 days, its total slack

BENEFITS OF RESOURCE LEVELING

- When resources are used on a more constant basis, they require less management.

- It may enable project managers to use a just-in-time inventory type of policy for using subcontractors or other expensive resources.

- It results in fewer problems for project personnel and accounting department.
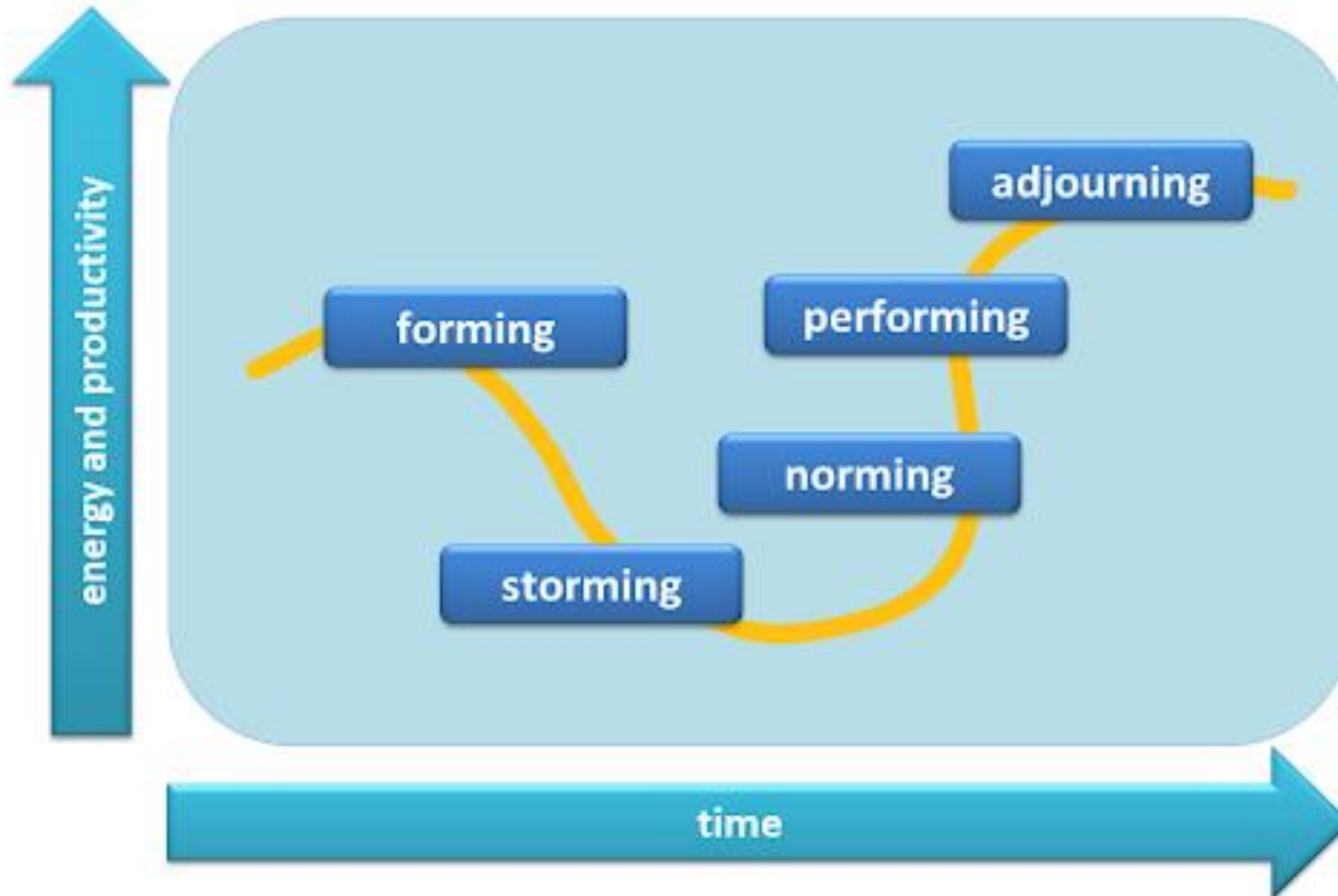
- It often improves morale.

PROCESS 3: DEVELOP PROJECT TEAM

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DEVELOPING THE PROJECT TEAM

- The main goal of **team development** is to help people work together more effectively to improve project performance.

- It takes teamwork to successfully complete most projects.

TUCKMAN MODEL OF TEAM DEVELOPMENT

- Forming
- Storming
- Norming
- Performing
- Adjourning

TRAINING

- Training can help people understand themselves, each other, and how to work better in teams.

- Team building activities include:
  - Physical challenges
  - Psychological preference indicator tools
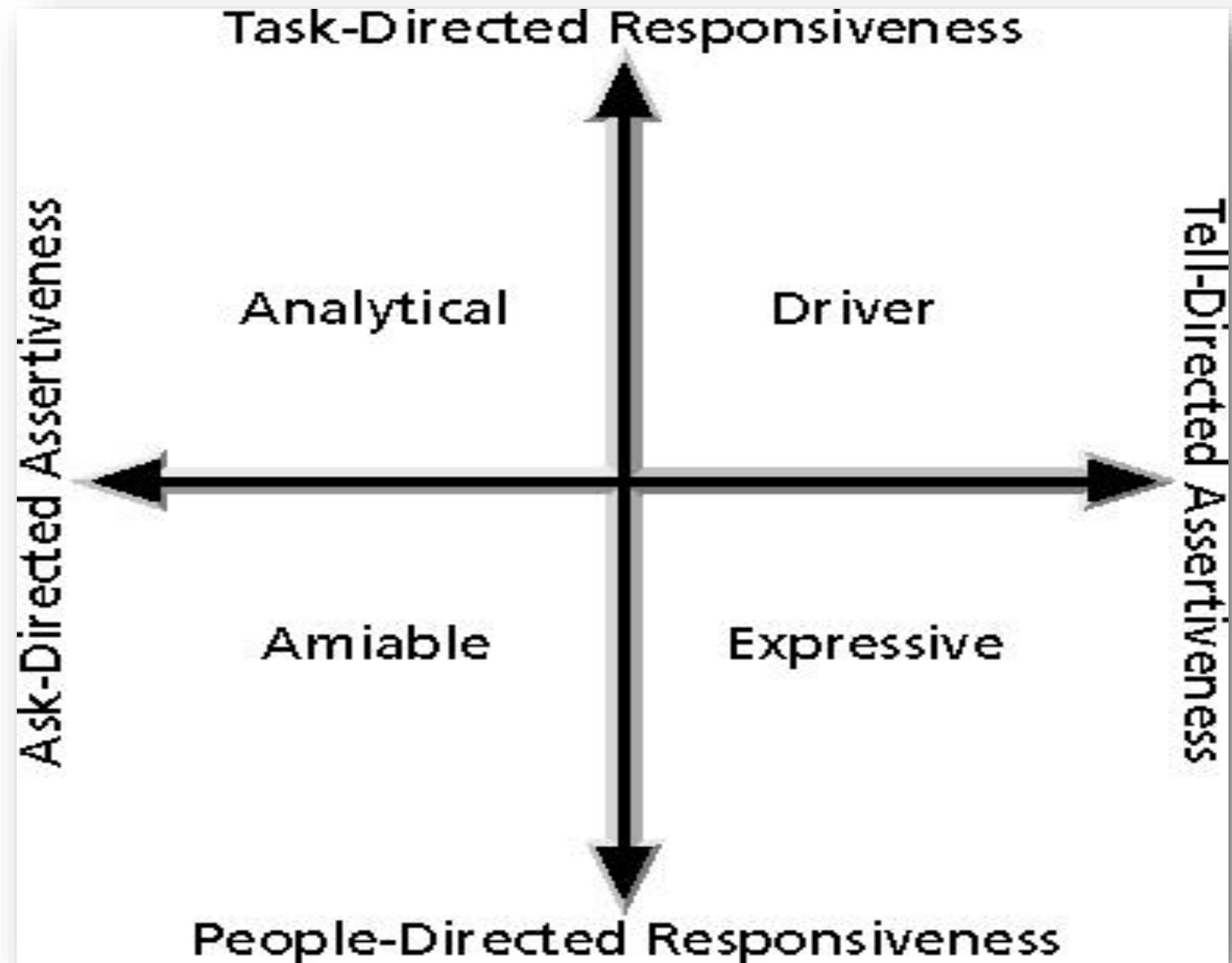
MEYERS-BRIGGS TYPE INDICATOR (MBTI)

- MBTI is a popular tool for determining personality preferences and helping teammates understand each other
- Four dimensions include:
  - Extrovert/Introvert (E/I)
  - Sensation/Intuition (S/N)
  - Thinking/Feeling (T/F)
  - Judgment/Perception (J/P)
- IT people vary most from the general population in not being extroverted or sensing
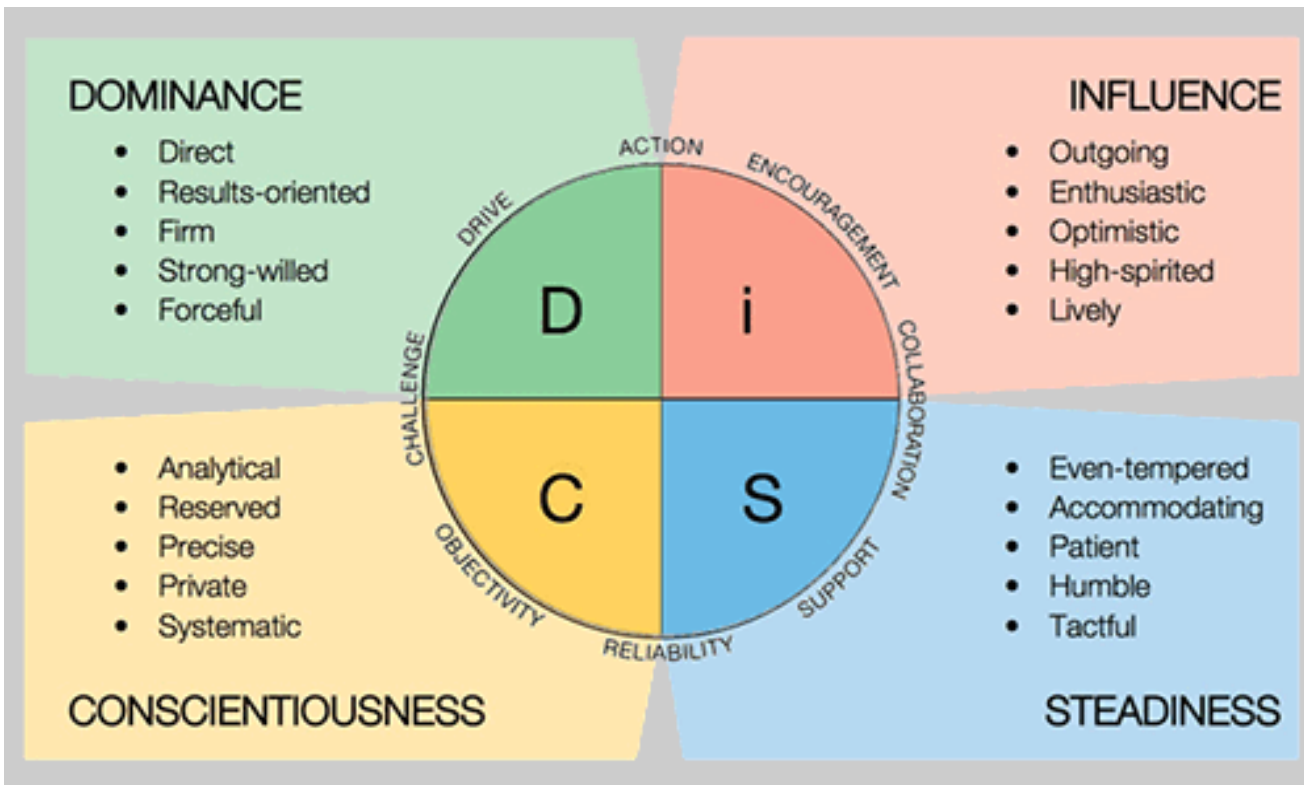
SOCIAL STYLES PROFILE

- People are perceived as behaving primarily in one of four zones, based on their assertiveness and responsiveness:
    - Drivers
    - Expressives
    - Analyticals
    - Amiables

- People on opposite corners (drivers and amiables, analyticals and expressives) may have difficulties getting along.

SOCIAL STYLES

DISC PROFILE

- DOMINANCE
  - Direct
  - Results-oriented
  - Firm
  - Strong-willed
  - Forceful

- INFLUENCE
  - Outgoing
  - Enthusiastic
  - Optimistic
  - High-spirited
  - Lively

- CONSCIENTIOUSNESS
  - Analytical
  - Reserved
  - Precise
  - Private
  - Systematic

- STEADINESS
  - Even-tempered
  - Accommodating
  - Patient
  - Humble
  - Tactful

▪ Also uses a four-dimensional model of normal behavior
  ▪ Dominance
  ▪ Influence
  ▪ Steadiness
  ▪ Conscientiousness or Compliance

▪ People in opposite quadrants can have problems understanding each other

THE DISC PROFILE

It
Compliance (Blue)
Data driven, risk averse, concerned, works well alone, prefers processes and procedures, not very communicative or social

I
Dominance (Red)
Direct, decisive, assertive, outcome oriented, competitive, self assured, takes control, has to win

You
Steadiness (Green)
Calm, sincere, sympathetic, cooperative, cautious, conflict averse, good listener, wants to maintain stability

We
Influence (Yellow)
Persuasive, optimistic, outgoing, verbal, enthusiastic, strives to win others over, leadership through acclimation

REWARD AND RECOGNITION SYSTEMS

- Team-based reward and recognition systems can promote teamwork

- Focus on rewarding teams for achieving specific goals

- Allow time for team members to mentor and help each other to meet project goals and develop human resources

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PROCESS 4: MANAGING THE TEAM

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MANAGING THE PROJECT TEAM

- Project managers must lead their teams in performing various project activities

- After assessing team performance and related information, the project manager must decide:
  - If changes should be requested to the project
  - If corrective or preventive actions should be recommended
  - If updates are needed to the project management plan or organizational process assets

TOOLS AND TECHNIQUES FOR MANAGING PROJECT TEAMS

- Observation and conversation

- Project performance appraisals

- Conflict management

- Issue logs

- Interpersonal skills

GENERAL ADVICE ON TEAMS

- Be patient and kind with your team

- Fix the problem instead of blaming people

- Establish regular, effective meetings

- Allow time for teams to go through the basic team-building stages

- Limit the size of work teams to three (3) to seven members (7)

FIVE (5) DISFUNCTIONS OF A TEAM

- Patrick Lencioni, author of several books on teams, says that "Teamwork remains the one sustainable competitive advantage that has been largely untapped"*

- The five disfunctions of teams are:
  1. Absence of trust
  2. Fear of conflict
  3. Lack of commitment
  4. Avoidance of accountability
  5. Inattention to results

*Lencioni, Patrick, "Overcoming the Five Dysfunctions of a Team," Jossey-Bass: San Francisco, CA (2005), p. 3.

GENERAL ADVICE ON TEAMS (CONTINUED)

- Plan some social activities to help project team members and other stakeholders get to know each other better

- Stress team identity

- Nurture team members and encourage them to help each other

- Take additional actions to work with virtual team members

USING SOFTWARE TO ASSIST IN HUMAN RESOURCE MANAGEMENT

- Software can help in producing RAMS and resource histograms.
- Project management software includes several features related to human resource management such as:
  - Assigning resources
  - Identifying potential resource shortages or underutilization
  - Leveling resources

PROJECT RESOURCE MANAGEMENT INVOLVES MUCH MORE THAN USING SOFTWARE

- Project managers must:
  - Treat people with consideration and respect
  - Understand what motivates them
  - Communicate carefully with them
- Focus on your goal of enabling project team members to deliver their best work

60 **SUMMARY**

CHAPTER SUMMARY

- Project human resource management includes the processes required to make the most effective use of the people involved with a project.

- Main processes include:
  - Develop human resource plan
  - Acquire project team
  - Develop project team
  - Manage project team

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