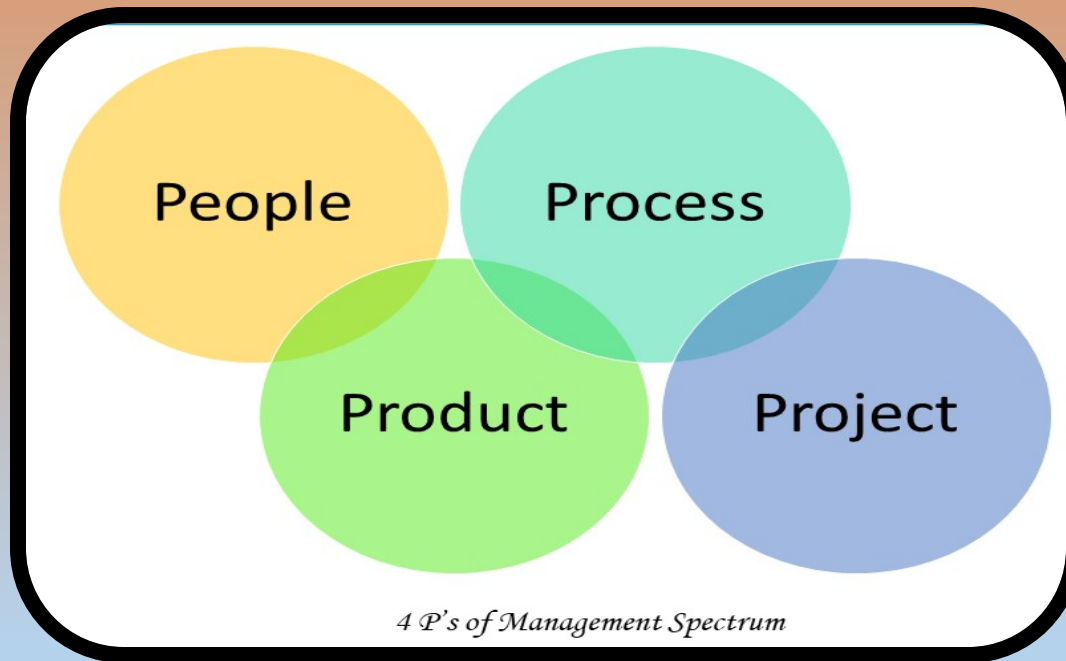


# Management Spectrum: 4P's of Project Management



# PEOPLE



Senior Managers



Practitioners



End-Users



Project Managers



Customers

# **Leadership vs Management**

# Leadership

- “One who has follower” *Peter Drucker*
- “Leadership is the name of influence” *Jhon C. Maxwell*
- “If your actions inspire others to dream more, learn more, do more, and become more, you are a leader” *Jhon Quincy Adams*

*Continued...*



# Leadership

- *By Allama Muhammad Iqbal*

نگہ بلند سخن دل نواز جاں پر سوز  
یہی ہے رخت سفر میر کارواں کے لیے

- *By Bao Gi*



# Characteristics of Leadership

- State of mind
- Character
- Vision
- Bonding force for people (Team Management)
- Make people work (Motivation)



## DNA of Leader

- Driving force
- Desire to lead
- Desire to take responsibility
- Integrity
- Self confidence
- Intelligence
- Job relevant knowledge



# **Leadership**

- **Jerry Weinberg's MOI Model**

- Motivation (Push or Pull)

- Organization

- Innovation or Ideas

- **Effective Characteristics of Project Manager**

- Problem Solving

- Managerial Identity

- Achievement

- Influence

# **Team vs Group**



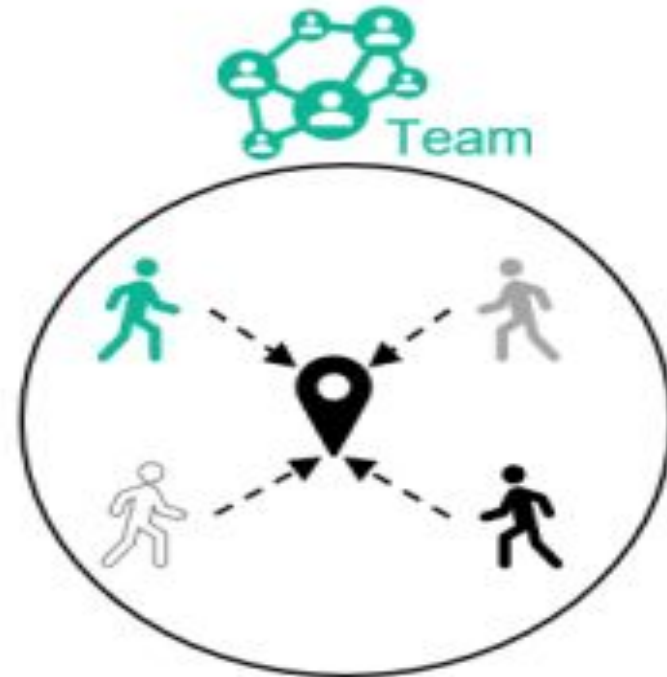
# Team Vs Group

## Group vs Team



Share a **common interest**  
but with individual goals and  
accountability.

VS



Share a **common goal** and  
hold each member accountable.

# Team:

## **Forming**

Team acquaints and establishes ground rules. Formalities are preserved and members are treated as strangers.



## **Storming**

Members start to communicate their feelings but still view themselves as individuals rather than part of the team. They resist control by group leaders and show hostility.



## **Norming**

People feel part of the team and realize that they can achieve work if they accept other viewpoints.



## **Performing**

The team works in an open and trusting atmosphere where flexibility is the key and hierarchy is of little importance.



## **Adjourning**

The team conducts an assessment of the year and implements a plan for transitioning roles and recognizing members' contributions.



**Tuckman's Team Model, 1965**

# **Team Structures:**

## **Control Centralized (CC) (Chief Programmer)**

**Communication: Vertical > Horizontal**

**Decision Making: Order and obey (Dictatorship)**

**Leadership: Permanent**

## **Democratic Decentralized (DD) (Innovative Anarchy)**

**Communication: Horizontal > Vertical**

**Decision Making: With consensus**

**Leadership: Rotation based**

## **Controlled Decentralized (CD) (Agile Team)**

**Communication: Vertical  $\geq$  Horizontal**

**Decision Making: as per situation**

**Leadership: Mix**

# **The Product**

- **The term product includes any software that's is to be built at the request of others**
- **The Product objectives and scope should be established before planning a project**
- **The Second step is to consider the alternate solutions**
- **The “best” solution is then selected, keeping in mind the deadlines, budget, resources, people and other constraints**

# **The Product**

- **Software Scope**
  - **Context**
  - **Information Objectives (Input, output)**
  - **Function and Performance**
- **Problem Decomposition**
  - **Work Breakdown Structure (WBS)**

# **The Process**

- **Selection of Model**
- **Combining Product and Process**
- **Process Decomposition**

# Melding the Product and the Process

COMMON PROCESS FRAMEWORK ACTIVITIES	customer communication				planning				risk analysis				engineering			
Software Engineering Tasks																
Product Functions																
Text input																
Editing and formating																
Automatic copy edit																
Page layout capability																
Automatic indexing and TOC																
File management																
Document production																

# **The Project : Reasons of Jeopardy**

- Lack of customer's need understanding
- Product scope poorly defined
- Changes managed poorly
- Change in technology
- Business needs change
- Unrealistic deadlines
- Resistant Users
- Lost sponsorship
- Lack of appropriate skills
- Lessons not learnt



# **The Project : Jeopardy Avoidance**

- Start on right foot**
- Maintain momentum**
- Track progress**
- Make smart decisions**
- Conduct postmortem analysis**

# **Conclusion**

- Software Project Management is an umbrella activity within software engineering**
- It begins before any technical activity is initiated and continues throughout the definition, development, and support of computer software**
- Four P's have substantial influence on software project management**
- The PM activity encompasses measurements and metrics, estimation, risk analysis, schedules, tracking and control. Each of these topics is considered in the chapters that follow**

## References:

**Software Engineering - A practitioner' s Approach by Roger S. Pressman**

**Chapter 21**

**21.1 – (21.1.1, 21.1.2, 21.1.3, 21.1.4)**

**21.2 – (21.2.1, 21.2.2, 21.2.3)**

**21.3 – (21.3.1, 21.3.2)**

**21.4**

**21.5**

**Handouts**