Project Management

- No single way to manage a project
- Apply project management knowledge, skills, and processes

Project Management Team may perform [1]

- Analyze and understand the scope
- Document specific criteria of the product requirements
- Understand how to take the identified information and transform into a project management plan
- Prepare the work breakdown structure
- Take appropriate project actions
- Measure and monitor project status, processes, and products
- Analyze project risks

PMBOK Guide 2004 [1]:

4. Project Integration Management

4.1 Develop Project Charter

4.1.1 Develop Project Charter: Inputs

- .1 Contract (When Applicable)
- .2 Project Statement of Work (SOW)
  - Business need (market demand, technical advance, competitiveness, legal requirement, government standard, etc)
  - Product scope description, or Service requirements (less detail during the initiation process, and more detail later)
  - Strategic plan (supporting the organization’s strategic goals)
- .3 Enterprise Environmental Factors
  - Organizational or company culture and structure
  - Governmental or industry standards
  - Infrastructure (existing facilities and capital equipment, etc)
  - Existing human resources (skills, disciplines, and knowledge)
  - Personal administration (hiring and firing guidelines, employee performance reviews, training records)
  - Company work authorization system
  - Market conditions
  - Stakeholder risk tolerances
  - Commercial databases (standardized cost estimating data, industry risk study information, and risk databases)
- .4 Organizational Process Assets (and procedures for conducting the work)
• Organizational standard processes
• Standardized guidelines, work instructions, personal evaluation criteria, and performance measurement criteria
• Templates (risk template, WBS templates, project schedule network diagram templates)
• ..
• Risk control procedures (risk categories, probability definition and impact, and probability and impact matrix)
• Organizational corporate knowledge base for storing and retrieving information

4.1.2 Develop Project Charter: Tool and Techniques
• .1 Project Selection Methods
  • Benefit measurement methods: comparative approaches, scoring models, benefit contribution, or economic models
  • Mathematical models: linear, nonlinear, dynamic, integer, or multiobjective programming algorithms
• .2 Project Management Methodology
• .3 Project Management Information System
• .4 Expert Judgment
  • Other units within the organization
  • Consultants
  • Stakeholders (customers and/or sponsors)
  • Professional and technical associations
  • Industry groups

4.1.3 Develop Project Charter: Outputs
• .1 Project Charter

4.2 Develop Preliminary Project Scope Statement
• The project scope statement is the definition of the project – what needs to be accomplished
  • A Project Scope Statement includes
    • Project and product objectives
    • Product or service requirements and characteristics
    • Product acceptance criteria
    • Project boundaries
    • Project requirements and deliverables
    • Project constraints
    • Project assumptions
    • Initial project organization
    • Initial defined risks
    • Schedule milestones
    • Initial WBS
    • Order of magnitude cost estimate
    • Project configuration management requirements
    • Approval requirements

4.2.1 Develop Preliminary Project Scope Statement: Inputs
• .1 Project Charter
- .2 Project Statement of Work
- .3 Enterprise Environmental Factors
- .4 Organizational Process Assets

➢ 4.2.2 Develop Preliminary Project Scope Statement: Tool and Techniques
  ➢ .1 Project Management Methodology
  ➢ .2 Project Management Information System
  ➢ .3 Expert Judgment

➢ 4.2.3 Develop Preliminary Project Scope Statement: Outputs
  ➢ .1 Preliminary Project Scope Statement

➢ 4.3 Develop Project Management Plan
  The subsidiary plans include, but not limited to:
  - Project scope management plan
  - Schedule management plan
  - Cost management plan
  - Quality management plan
  - Process improvement plan
  - Staffing management plan
  - Communication management plan
  - Risk management plan
  - Procurement management plan
  - Milestone list
  - Resource calendar
  - Schedule baseline
  - Cost baseline
  - Quality baseline
  - Risk register

➢ 4.3.1 Develop Project Management Plan: Inputs
  ➢ .1 Preliminary Project Scope Statement
  ➢ .2 Project Management Processes
  ➢ .3 Enterprise Environmental Factors
  ➢ .4 Organizational Process Assets

➢ 4.3.2 Develop Project Management Plan: Tools and Techniques
  ➢ .1 Project Management Methodology
  ➢ .2 Project Management Information System
  - Configuration Management System
  - Change Control System
  ➢ .3 Expert Judgment

➢ 4.3.3 Develop Project Management Plan: Outputs
  ➢ .1 Project Management Plan

➢ 4.4 Direct and Manage Project Execution

➢ 4.4.1 Direct and Manage Project Execution: Inputs
  ➢ .1 Project Management Plan
  ➢ .2 Approved Corrective Actions
  ➢ .3 Approved Preventive Actions
  ➢ .4 Approved Change Actions
4.4.2 Direct and Manage Project Execution: Tools and Techniques
- 1 Project Management Methodology
- 2 Project Management Information System

4.4.3 Direct and Manage Project Execution: Outputs
- 1 Deliverables
- 2 Requested Changes
- 3 Implemented Change Requests
- 4 Implemented Corrective Actions
- 5 Implemented Preventive Actions
- 6 Implemented Defect Repair
- 7 Work Performance Information

4.5 Monitor and Control Project Work
4.5.1 Monitor and Control Project Work: Inputs
- 1 Project Management Plan
- 2 Work Performance Information
- 3 Rejected Change Requests

4.5.2 Monitor and Control Project Work: Tools and Techniques
- 1 Project Management Methodology
- 2 Project Management Information System
- 3 Earned Value Technique
- 4 Expert Judgment

4.5.3 Monitor and Control Project Work: Outputs
- 1 Recommended Corrective Actions
- 2 Recommended Corrective Actions
- Forecasts
- Recommended Defect Repair
- Request Changes

4.6 Integrated Change Control
4.6.1 Integrated Change Control: Inputs
4.6.2 Integrated Change Control: Tools and Techniques
4.6.3 Integrated Change Control: Outputs

4.7 Close Project
4.7.1 Close Project: Inputs
- 1 Project Management Plan
- 2 Contract Document
- 3 Enterprise Environmental Factors
- 4 Organizational Process Assets
- 5 Work Performance Information
- 6 Deliverables

4.7.2 Close Project: Tools and Techniques
- 1 Project Management Methodology
- 2 Project Management Information System
- 3 Expert Judgment
4.7.3 Close Project: Outputs

- 0.1 Administrative Closure Procedure
- 0.2 Contract Closure Procedure
- 0.3 Final Product, Service, or Result
- 0.4 Organizational Process Assets (Updates)
  - Formal Acceptance Documentation
  - Project Files
  - Project Closure Documents
  - Historical Information

References