



# **SEN319 Software Project Management (Fall 2023)**

## **Project Management Principles and Performance Domains**

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# Agenda

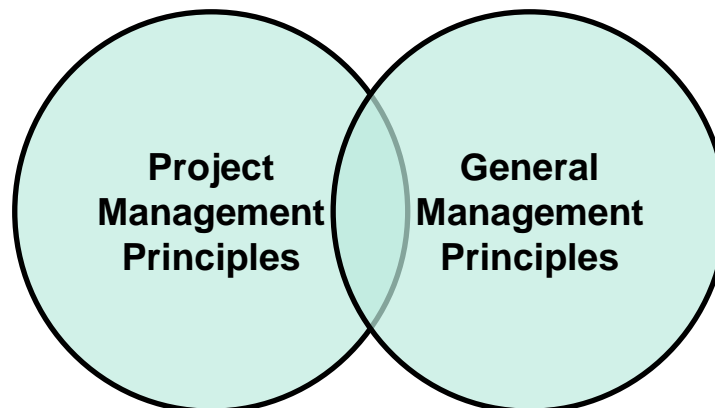
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- **Principles**
- **PMI Code of Ethics and Professional Conduct**
- **12 Principles of PM**
- **Project Performance Domains**



# Principles

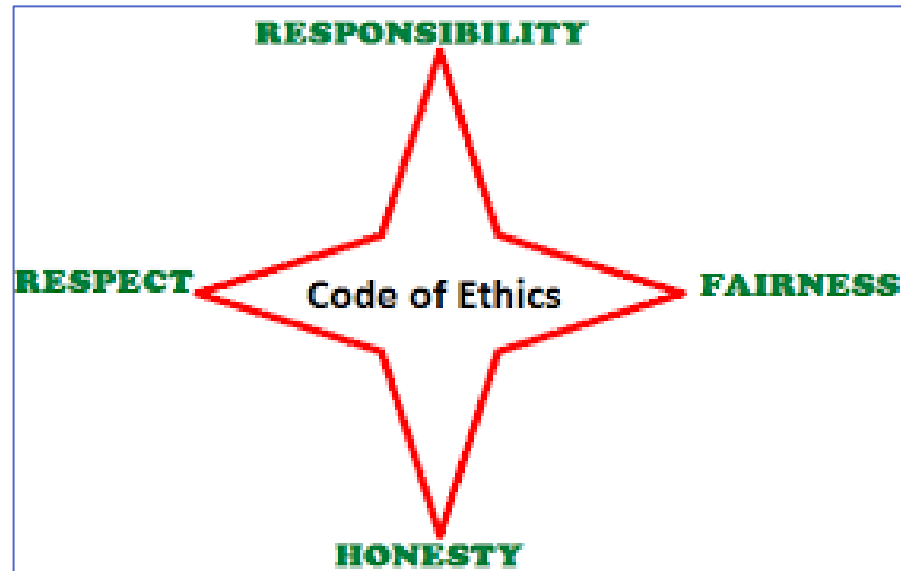
- **Principles serves as foundational guidelines for strategy, decision making, and problem solving.**
- **Professional standards and methodologies are often based on principles.**
- **Principles for project management provide guidance for the behavior of people involved in projects.**





# PMI Code of Ethics and Professional Conduct

- Principles can, but do not necessarily, reflect morals.
- A code of ethics is related to morals.
- A code of ethics for a profession can be adopted by an individual or profession to establish expectations for moral conduct. PMI is based on four values:
  - Responsibility
  - Respect
  - Fairness
  - Honesty





# 12 Principles of PM

1. Be a diligent, respectful, and caring steward
2. Create a collaborative project team environment
3. Effectively engage with stakeholders
4. Focus on value
5. Recognize, evaluate, and respond to system interactions
6. Demonstrate leadership behaviors
7. Tailor based on context
8. Build quality into processes and deliverables
9. Navigate complexity
10. Optimize risk responses
11. Embrace adaptability and resiliency
12. Enable change to achieve the envisioned future state

# 12 Principles of PM

## 1. Be a diligent, respectful, and caring steward

- **Stewardship:** “The act of taking care of or managing something, for example property, an organization, money or valuable objects.”
- **Stewards act sensibly to carry out actions with integrity, care, and trustworthiness while keeping compliance with internal and external guidelines.**
- **They demonstrate a broad commitment to financial, social, and environmental impacts of the projects they support.**
- **Stewardship has responsibilities both within and external to the company.**



# 12 Principles of PM

## 2. Create a collaborative project team environment

- Projects are done by project teams.
- Project teams are made up of people who have diverse skills, knowledge, and experience.
- Project teams that work collaboratively can finish a shared objective more effectively and efficiently than individuals working on their own.
- Project teams work within organizational and professional cultures and guidelines, often establishing their own “local” culture.



# 12 Principles of PM

## 3. Effectively engage with stakeholders

- Engage stakeholders proactively and to the point needed to contribute to project success and customer satisfaction.
  - **Stakeholders impact projects, performance, and outcomes.**
  - Project teams work for other stakeholders by engaging with them.
  - **Stakeholder engagement proactively improves value delivery.**
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- Project teams actively engage other stakeholders throughout the project to minimize potential negative impacts and maximize positive impacts.





# 12 Principles of PM

## 4. Focus on value

- Value is the worth, importance, or usefulness of something. Value is subjective, in the sense that the same concept can have different values for different people and organizations.
- Continually evaluate and adjust project alignment to business objectives and intended benefits and value.
- Value is the ultimate indicator of project success.
- Value, and the benefits that contribute to value, can be defined in quantitative and/or qualitative terms.



# 12 Principles of PM

## 5. Recognize, evaluate, and respond to system interactions

- A system is a set of interacting and interdependent components that function as a unified whole.
- **A project is a system of interdependent and interacting domains of activity.**
- Recognize, evaluate, and respond to the dynamic circumstances within and surrounding the project in a holistic way to positively affect project performance.
- **Project teams should acknowledge this holistic view of a project, seeing the project as a system with its own working parts.**



# 12 Principles of PM

## 6. Demonstrate leadership behaviors

- Any project team member can demonstrate leadership behaviors.
- **Leadership** should not be confused with **authority**.
  - **Authority is the right to exercise power and control individuals.**
  - **It takes leadership to motivate a people toward a common goal, inspire them to align their individual interests in favor of collective effort, and achieve success as a project team rather than as individuals.**

### Leadership vs. Authority



An authority has the title.  
A leader has the people.

# 12 Principles of PM

## 7. Tailor based on context

- Each project is unique.
- Design the project development methods based on the needs of the project and its objectives, stakeholders, governance, and the environment.
- Project success is based on adapting to the unique context of the project.
- Tailoring the method is iterative, and therefore is a continuous process throughout the project.



# 12 Principles of PM

## 8. Build quality into processes and deliverables

- **Quality is about meeting the acceptance criteria for deliverables.**
- **Project quality is about satisfying stakeholders' expectations and fulfilling project and product requirements.**
- **Quality may have several different dimensions, including but not limited to the following:**
  - **Performance**
  - **Conformity**
  - **Reliability**
  - **Resilience**
  - **Satisfaction**
  - **Efficiency**
  - **Sustainability**



# 12 Principles of PM

## 9. Navigate complexity

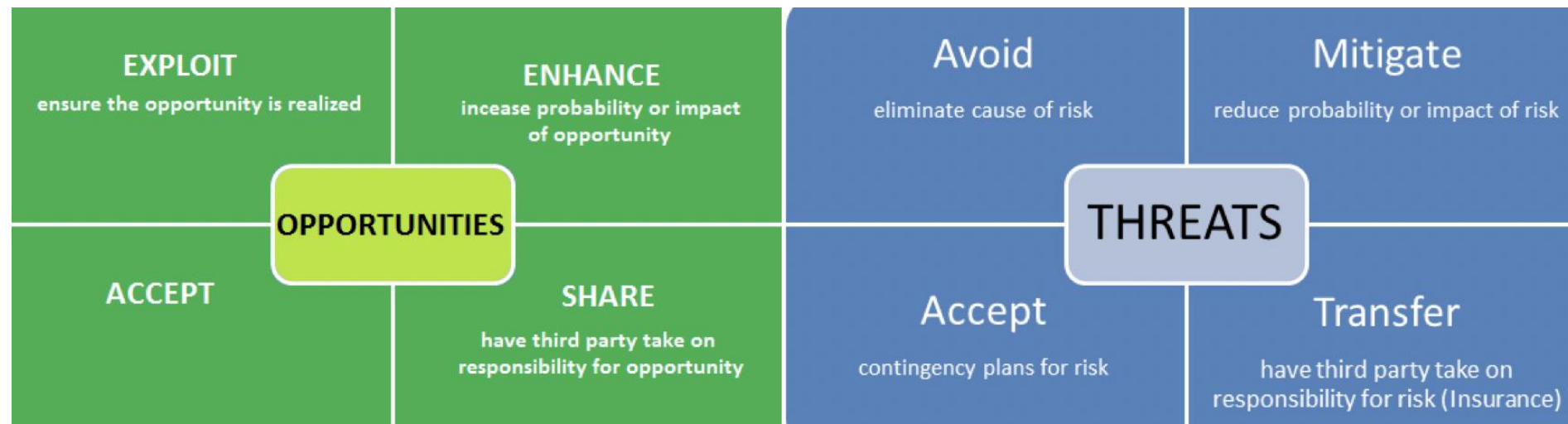
- Complexity is the outcome of human behavior, system interactions, uncertainty, and ambiguity.
- **Complexity can arise at any point during the project.**
- Some of the more common sources of complexity are:
  - Human behavior
  - System behavior
  - Uncertainty and ambiguity
  - Technological innovation



# 12 Principles of PM

## 10. Optimize risk responses

- A risk is an uncertain event or condition that, if it occurs, can have a positive or negative effect on one or more objectives.
- Project team members engage with relevant stakeholders to understand their risk appetite and risk thresholds.
- An organization's risk attitude, appetite, and threshold influence how risk is addressed.



# 12 Principles of PM

## 11. Embrace adaptability and resiliency

- Adaptability is the ability to respond to changing conditions.
- Resiliency is the ability to absorb impacts and to recover quickly from a setback or failure.
- Build adaptability and resiliency into the organization's and project team's approaches A focus on **outcomes** rather than **outputs** facilitates adaptability.





# 12 Principles of PM

## 12. Enable change to achieve the envisioned future state

- Change can originate from internal influences or external sources.
- **Enabling change can be challenging as not all stakeholders embrace change.**
- Attempting too much change in a short time can lead to change fatigue and/or resistance.
- **A structured approach will help individuals, groups, and the organization transition from the current state to a future desired state.**





# Project Performance Domains

- **Domains are a group of related activities that are critical for the effective delivery of project outcomes.**
- **They are interactive, interrelated, and interdependent areas of focus that work in unison to achieve desired project outcomes.**
- **They operate as an integrated system, with each domain being interdependent of the other domains to enable successful delivery of the project and its intended outcomes.**
- **The specific activities undertaken within each of the performance domains are determined by the context of the organization, the project, deliverables, the project team, stakeholders, and other factors.**

# Project Performance Domains





# Project Performance Domains

## Stakeholders

- **Addresses activities and functions associated with stakeholders.**
- **Effective Stakeholder Engagement:**
  - **Identify**
    - Understand who your stakeholders are, both internal and external.
  - **Understand and Analyze**
    - Understand stakeholders' feelings, emotions, beliefs, and values.
  - **Prioritize**
    - Focus on stakeholders with the most power and interest as one way to prioritize engagement.
  - **Engage**
    - Working collaboratively with stakeholders.
  - **Monitor**
    - Throughout the project, stakeholders will change as new stakeholders are identified and others cease to be stakeholders.

# Project Performance Domains

## Team

- Deals with activities and functions associated with the people who are responsible for creating project deliverables that realize business outcomes.
- This performance domain entails establishing the culture and environment that enables a collection of diverse individuals to evolve into a high-performing project team.
- Each project team develops its own team culture.
- The project manager is important in establishing and maintaining a safe, respectful, nonjudgmental environment that allows the project team to communicate openly.





# Project Performance Domains

## Development Approach and Life Cycle

- Deals with activities and functions associated with the development approach, cadence, and life cycle phases of the project.
- A development approach is the means used to create and evolve the product, service, or result during the project life cycle.
- There are different development approaches. Three common approaches includes:
  - **Predictive** approach (detailed and strict plan, e.g., Waterfall)
  - **Adaptive** approach (including both iterative and incremental)
  - **Hybrid** approach

# Project Performance Domains

## Development Approach and Life Cycle

### ■ Factors that influence the selection of a development approach:

#### Product, service, or result

- Degree of innovation
- Requirements certainty
- Scope stability
- Ease of change
- Delivery options
- Risk
- Safety requirements
- Regulations

#### The project

- Stakeholders
- Schedule constraints
- Funding availability

#### Organization

- Organizational structure
- Culture
- Organizational capability
- Project team size and location



# Project Performance Domains

## Planning

- Deals with activities and functions associated with the initial, ongoing, and evolving organization and coordination necessary for delivering project deliverables and outcomes.
- The purpose of planning is to proactively develop an approach to create the project deliverables.
- There will be changes throughout the project.





# Project Performance Domains

## Project Work

- Deals with activities and functions associated with establishing project processes, managing physical resources, and fostering a learning environment.
- Project work keeps the project team dedicated and project activities running correctly.
- The project manager and the project team establish and periodically review the processes the project team is using to conduct the work.



# Project Performance Domains

## Delivery

- **Project delivery is about meeting requirements, scope, and quality expectations to produce the expected deliverable.**
- **Some project deliver value throughout, and others deliver the bulk at the end.**
- **The project manager will need to understand how the deliverable is able to deliver value to the stakeholders. This includes:**
  - **Requirements gathering**
  - **Evolving and discovering requirements**
  - **Managing requirements**
  - **Define and decompose the scope**
  - **Completion of deliverables**





# Project Performance Domains

## Measurement

- Involves measuring project performance and implementing appropriate responses to keep the project on track.
- This domain evaluates the amount to which the work done in the **Delivery Performance Domain** is meeting the metrics identified in the **Planning Performance Domain**.
- Ways to measure performance include:
  - **Key Performance Indicators (KPI)** - two types of KPIs:
    - Leading indicators predict changes or trends in the project.
    - Lagging indicators measure project deliverables or events. They provide information after the fact.
  - **Effective Metrics**
    - Use of **SMART** (Specific, Meaningful, Achievable, Relevant, Timely) criteria.

# Project Performance Domains

## Uncertainty

- Deals with activities and functions associated with risk and uncertainty.
- Projects happen in environments with varying degrees of uncertainty.
- Uncertainty in the broadest sense is a state of not knowing or unpredictability.
- Uncertainty presents threats and opportunities that project teams explore, assess, and decide how to handle.
- Options for responding to uncertainty:
  - Gather information
  - Prepare for multiple outcomes
  - Build in resilience





**Thank you...**

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