Project Management

Outline

- Project management overview
- The project manager
- Essential elements for successful projects

Project Management Overview

What Is Project Management

- Project management is simply the process of managing projects.
  - Covers a vast array of subjects, processes, skills, and tools, but the key fundamentals are straightforward and are consistent across industries.
  - To better understand project management, we need to understand what a project is. The nature of a project provides insights into the scope and challenges of project management.
  - To better understand project management, we need to understand what is implied by the term managing and how this compares against traditional business management.

What Is a Project

- A project is the work performed by an organization one time to produce a unique outcome.
  - One time: the work has a definite beginning and a definite end.
  - Unique: the work result is different in one or more ways from anything the organization has produced before.
- The Project Management Institute (PMI) definition of project: a temporary endeavor to produce a unique product or service.
- Examples of projects:
  - Building a new house
  - Developing a new software application
  - Performing an assessment of current manufacturing processes
  - Improving an organizational business process
  - Writing a book
  - Relocating a company’s technology infrastructure to a new location
  - Merging two organizations

What Is a Project

- Different from the operations of an organization.
  - The operational work is the ongoing, repetitive set of activities that sustain the organization.
  - Examples of ongoing operations include the following:
    - Processing customer orders
    - Performing accounts receivable and accounts payable activities
    - Executing daily manufacturing orders
    - Performing recommended equipment maintenance procedures
    - Conducting customer account maintenance

Projects vs Operations

Feature	Projects	Operations
Key Similarities	Planned, executed, and controlled Performed by people Resource constrained	Planned, executed, and controlled Performed by people Resource constrained
Purpose	Attain objectives and terminate	Sustain the organization
Time	Temporary Definite beginning and end points	Ongoing
Outcome	Unique product, service, or result	Non-unique product, service, or result
People	Dynamic, temporary teams formed to meet project needs Generally not aligned with - organizational structure	Functional teams generally aligned with organizational structure
Authority of Manager	Varies by organizational structure Generally minimal, if any, direct line authority	Generally formal, direct line authority

- Inherent challenges involved with project management:
  - Projects are less predictable and are constantly impacted by the dynamic, uncertain nature of most organizational environments.

Managing Projects: Definitions

- Applying both the science and the art of planning, organizing, implementing, leading, and controlling the work of a project to meet the goals and objectives of the organization.
- The process of defining a project, developing a plan, executing the plan, monitoring progress against the plan, overcoming obstacles, managing risks, and taking corrective actions.
- The process of managing the competing demands and trade-offs between the desired results of the project (scope, performance, quality) and the natural constraints of the project (time and cost).
- The PMI definition of project management: the application of knowledge, skills, tools, and techniques to project activities to meet project requirements.

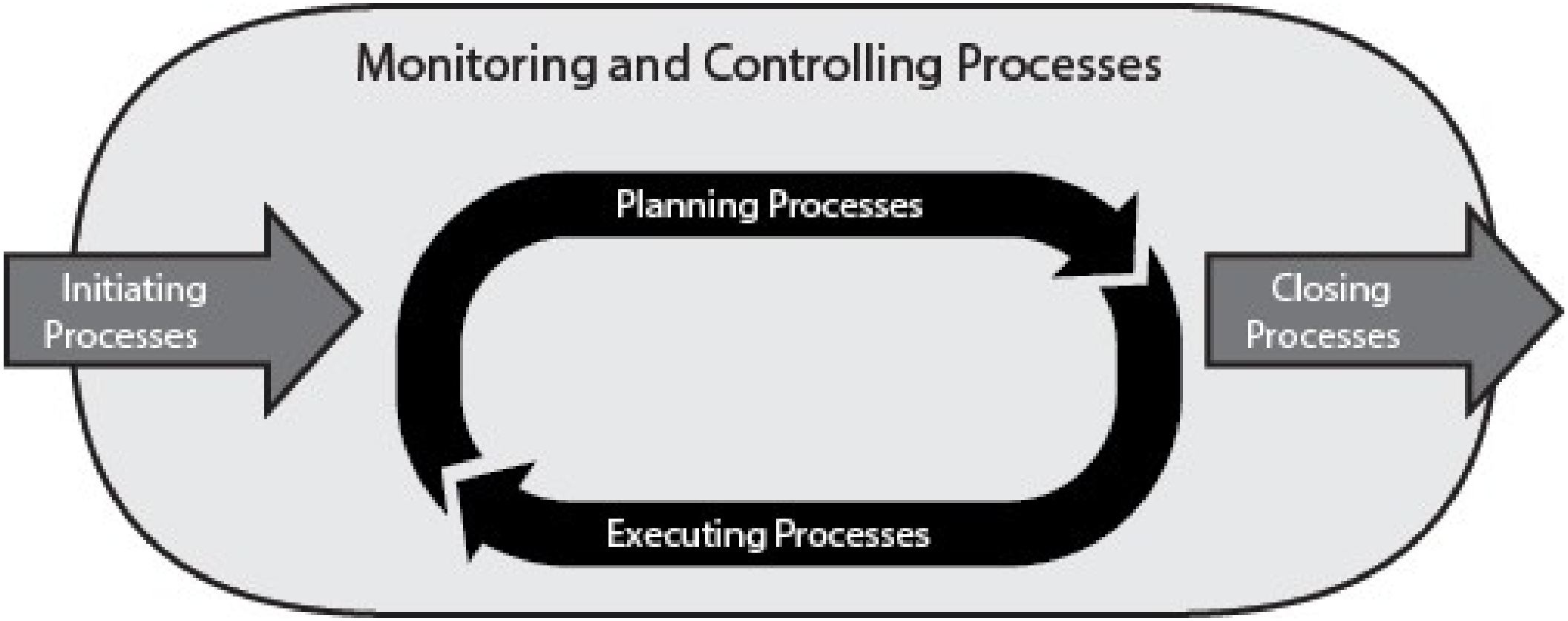
An Academic Look

#	Process Group	Description per *PMBOK Guide* – Sixth Edition	Common Terms
1	Initiating	Those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase.	"preliminary planning" "kicking off"
2	Planning	Those processes required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve.	"defining" "developing the plan" "setting the stage"
3	Executing	Those processes required to coordinate the people and resources needed to implement the plan.	"making it happen" "getting it done" "coordinating"
4	Monitoring and Controlling	Those processes required to track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes.	"tracking progress" "keeping on course"
5	Closing	Those processes performed to formally complete or close the project, phase, or contract.	"client acceptance" "transition" "closeout" "close contract"

Description of Project Management Process Groups

- PMI, the globally recognized standards organization for project management (www.pmi.org), defines project management as a set of five process groups and ten knowledge areas.

An Academic Look



Project management process relationships

What Is the Value of Project Management

At an organizational level,

- Provides a controlled way to rapidly respond to changing market conditions and new strategic opportunities
- Maximizes the innovative and creative capabilities of the organization by creating environments of focus and open communication
- Enables organizations to accomplish more with less cost
- Enables better leverage of both internal and external expertise
- Provides key information and visibility on project metrics to enable better decision-making management
- Increases the pace and level of stakeholder acceptance for any strategic change
- Reduces financial losses by “killing off” poor project investments early in their life cycles

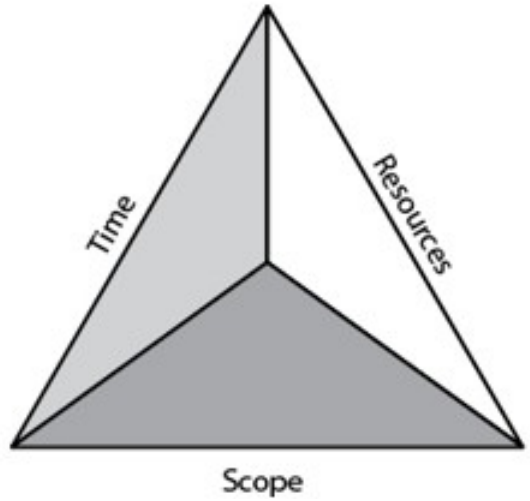
What Is the Value of Project Management

At a personal level,

- Ensures that our work is put to the best use for the organization and is properly recognized
- Provides a career path that offers unique, challenging opportunities on each new project
- Provides a career path that requires all our abilities and knowledge, including our management, business, people, and technical skills
- Provides a career path that is high in demand and, generally, offers an increase in income
- Provides a career path that prepares you for organizational leadership positions
- Provides a career path that is recognized more each year as excellent preparation for CxO positions (as more CxO positions are filled by individuals with project management experience)
- Provides a career path that enables you to be on the front lines of strategic organizational initiatives and have major impact on the organization’s future

Why Are Projects Challenging

- Uncharted territory: work to be done likely never been done before by this group of people in this particular environment.
- Multiple expectations: multiple stakeholders each having their own needs and expectations for the project.
- Communication obstacles: due to natural organizational boundaries, communication channels, and team development stages.
- Balancing the competing demands:
  - Scope: deliverables to be produced
  - Quality: deliverables must achieve a certain performance level
  - Time: within a defined time period
  - Cost: under an approved budget
  - Resources: with a specified set of resources
  - Expectations: to meet the approval of the key stakeholders



Why Are Projects Challenging

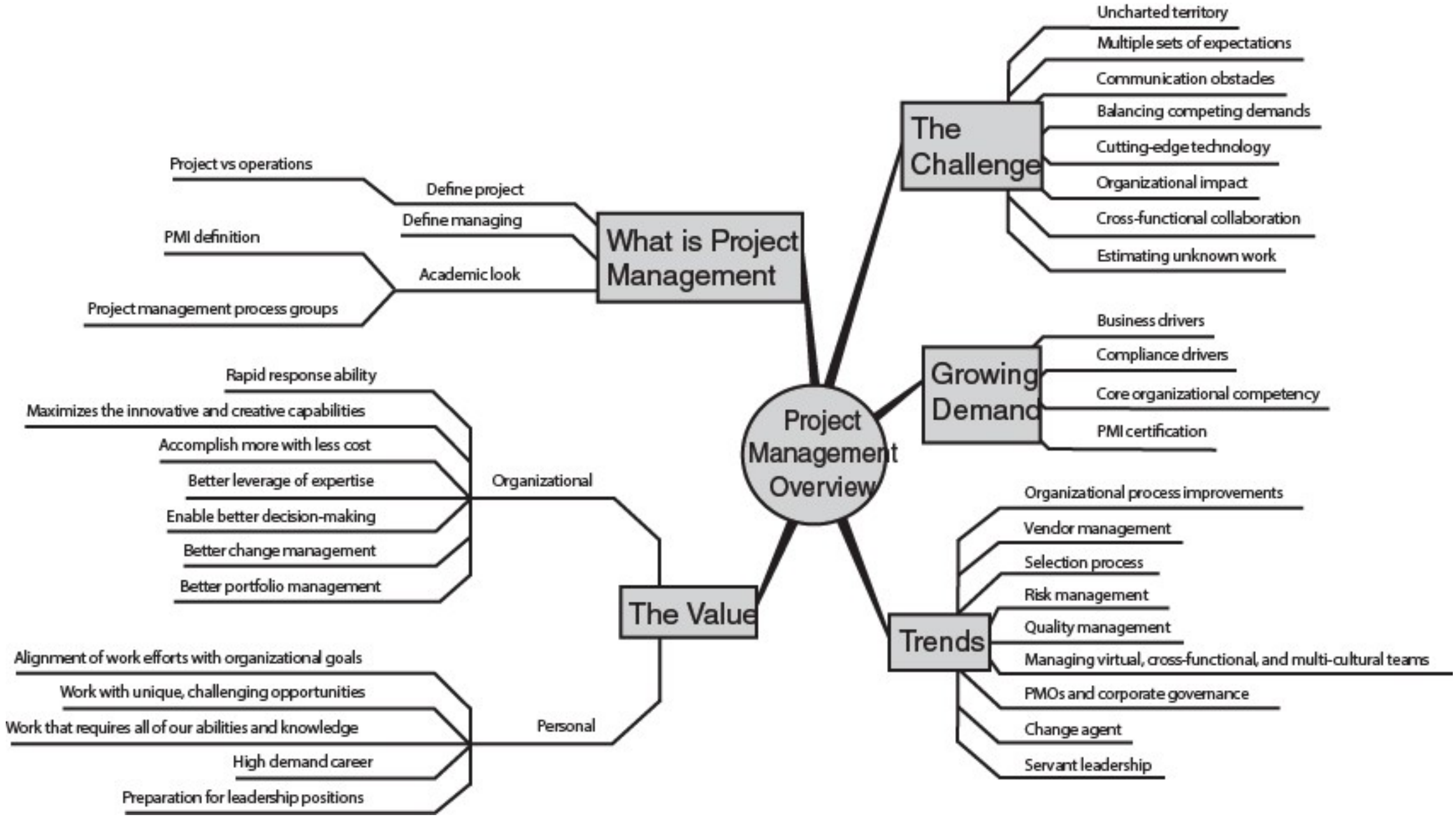
- Cutting edge: often deal with new, leading-edge technologies, thus having more risks, more unknowns, and being much more difficult to estimate accurately.
- Organizational impacts: must manage overlaps in organizational approval and authority domains, contend with competing priorities for shared resources, deal with annual budget cycles that might not be aligned with the project's funding needs, and ensure that the project is aligned with the focus of the organization.
- Collaboration: must facilitate collaboration from stakeholders in different functional areas across the organization.
- Estimating the work: project work is often unique, so difficult to accurately estimate the effort. Must also anticipate the quantity and severity of the issues and obstacles that are likely to surface.

Growing Demand for Effective Project Managers

- More and more industries are adopting project management as the way to do business because of
  - Business trends of global competition and increased worker productivity
  - Increased cybersecurity threats to organizational assets, growing complexity of applications, and the ability to collect more and more data
  - Compliance or competitive drivers requiring organizations to make process improvements to meet various process standards
- More organizations are requiring certification for project managers, such as PMI’s Project Management Professional (PMP) certification.

Trends in Project Management

- Cybersecurity threats
- Mobile and Internet of things applications
- HIPAA privacy compliance
- Agile development
- Social media
- Project management collaboration tools
- Managing virtual, cross-functional, and multicultural teams


Project Management Overview
What is Project Management
Project vs operations
Define project
Define managing
PMI definition
Academic look
Project management process groups
The Challenge
Uncharted territory
Multiple sets of expectations
Communication obstacles
Balancing competing demands
Cutting-edge technology
Organizational impact
Cross-functional collaboration
Estimating unknown work
Growing Demand
Business drivers
Compliance drivers
Core organizational competency
PMI certification
Trends
Organizational process improvements
Vendor management
Selection process
Risk management
Quality management
Managing virtual, cross-functional, and multi-cultural teams
PMOs and corporate governance
Change agent
Servant leadership
The Value
Organizational
Rapid response ability
Maximizes the innovative and creative capabilities
Accomplish more with less cost
Better leverage of expertise
Enable better decision-making
Better change management
Better portfolio management
Personal
Alignment of work efforts with organizational goals
Work with unique, challenging opportunities
Work that requires all of our abilities and knowledge
High demand career
Preparation for leadership positions

The Project Manager

Roles of Project Manager

- Planner—Ensures that the project is defined properly and completely for success, all stakeholders are engaged, work effort approach is determined, required resources are available when needed, and processes are in place to properly execute and control the project.
- Organizer—Using work breakdown, estimating, and scheduling techniques, determines the complete work effort for the project, the proper sequence of the work activities, when the work will be accomplished, who will do the work, and how much the work will cost.
- Point Person—Serves as the central point of contact for all oral and written project communications.
- Quartermaster—Ensures the project has the resources, materials, and facilities it needs when it needs it.
- Facilitator—Ensures that stakeholders and team members who come from different perspectives understand each other and work together to accomplish the project goals.
- Persuader—Gains agreement from the stakeholders on project definition, success criteria, and approach; manages stakeholder expectations throughout the project.

Roles of Project Manager

- Umbrella—Works to shield the project team from the politics and “noise” surrounding the project, so they can stay focused and productive.
- Coach—Determines and communicates the role each team member plays and the importance of that role to the project’s success, finds ways to motivate each team member, looks for ways to improve the skills of each team member, and provides constructive and timely feedback on individual performances.
- Bulldog—Performs the follow-up to ensure that commitments are maintained, issues are resolved, and action items are completed.
- Librarian—Manages all information, communications, and documentation involved in the project.
- Insurance Agent—Continuously works to identify risks and develop responses to those risk events in advance.
- Police Officer—Consistently measures progress against the plan, develops corrective actions, and reviews the quality of both project processes and project deliverables.
- Salesperson—An extension of the Persuader and Coach roles, but this role is focused

Key Skills of Project Managers

- Project Management Fundamentals—The “science” part of project management, including office productivity suite and project management software skills.
- Business Management Skills—Budgeting, finance, procurement, organizational dynamics, team development, performance management, coaching, and motivation.
- Technical Knowledge—The knowledge gained from experience and competence in the focal area of the project.
- Communication Skills—Written communication skills (correspondence, emails, documents), oral communication skills, facilitation skills, presentation skills, and active listening.
- Leadership Skills—Interpersonal and general people relationship-building skills, adaptability, flexibility, people management, degree of customer orientation, analytical skills, problem-solving skills, and the ability to keep the big picture in mind.

Qualities of Successful Project Managers

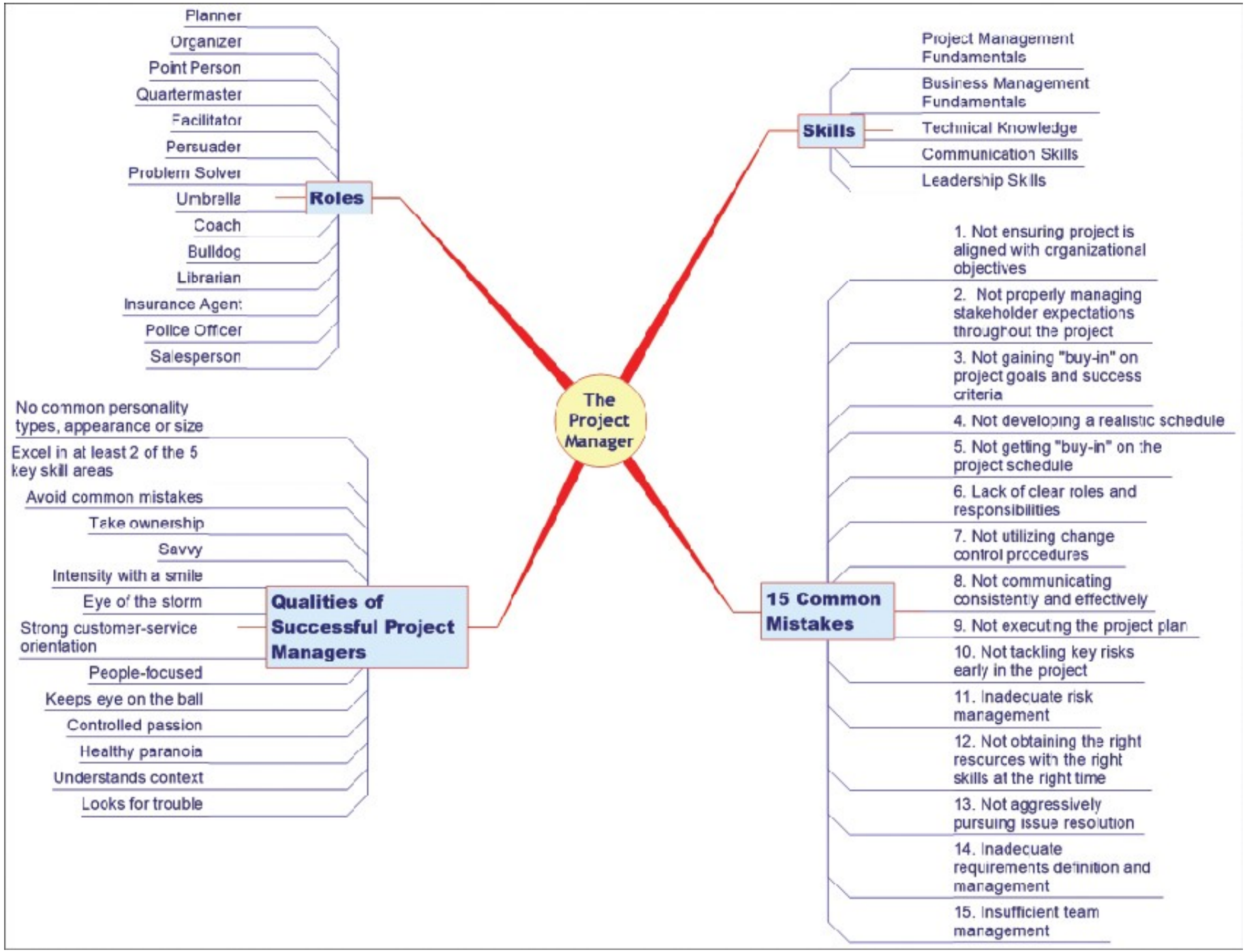
- Excel in at least two of the five key skill categories (Project Management Fundamentals, Business Management Skills, Technical Knowledge, Communication Skills, Leadership Skills) and are either good enough in the other categories or staff their teams to compensate for their deficiencies.
- Avoid the common mistakes.
- Bring a mindset and approach to project management that is best characterized by one or more of the following qualities:
  - Takes ownership
  - Savvy
  - Intensity with a smile
  - Eye of the storm
  - Strong customer-service orientation
  - People-focused
  - Always keeps “eye on the ball”
  - Controlled passion
  - Healthy paranoia
  - Context understanding
  - Looking for trouble

Common Mistakes of Project Managers

- Not clearly understanding how or ensuring that the project is aligned with organizational objectives.
- Not properly managing stakeholder expectations throughout the project.
- Not gaining agreement and buy-in on project goals and success criteria from key stakeholders.
- Not developing a realistic schedule that includes all work efforts, task dependencies, bottom-up estimates, and assigned leveled resources.
- Not getting buy-in and acceptance on the project schedule.
- Not clearly deciding and communicating who is responsible for what.
- Not utilizing change control procedures to manage the scope of

Common Mistakes of Project Managers

- Not communicating consistently and effectively with all key stakeholders.
- Not executing the project plan.
- Not tackling key risks early in the project.
- Not proactively identifying risks and developing contingency plans (responses) for those risks.
- Not obtaining the right resources with the right skills at the right time.
- Not aggressively pursuing issue resolution.
- Inadequately defining and managing requirements.
- Insufficiently managing and leading the project team.


The Project Manager
Roles
Planner
Organizer
Point Person
Quartermaster
Facilitator
Persuader
Problem Solver
Umbrella
Coach
Bulldog
Librarian
Insurance Agent
Police Officer
Salesperson
Skills
Project Management Fundamentals
Business Management Fundamentals
Technical Knowledge
Communication Skills
Leadership Skills
Qualities of Successful Project Managers
No common personality types, appearance or size
Excel in at least 2 of the 5 key skill areas
Avoid common mistakes
Take ownership
Savvy
Intensity with a smile
Eye of the storm
Strong customer-service orientation
People-focused
Keeps eye on the ball
Controlled passion
Healthy paranoia
Understands context
Looks for trouble
15 Common Mistakes
1. Not ensuring project is aligned with organizational objectives
2. Not properly managing stakeholder expectations throughout the project
3. Not gaining "buy-in" on project goals and success criteria
4. Not developing a realistic schedule
5. Not getting "buy-in" on the project schedule
6. Lack of clear roles and responsibilities
7. Not utilizing change control procedures
8. Not communicating consistently and effectively
9. Not executing the project plan
10. Not tackling key risks early in the project
11. Inadequate risk management
12. Not obtaining the right resources with the right skills at the right time
13. Not aggressively pursuing issue resolution
14. Inadequate requirements definition and management
15. Insufficient team management

Essential Elements for Any Successful Project

What Is a Successful Project?

Ideally,

- Delivers as promised
- Completes on time
- Completes within budget
- Delivers quality
- Achieves original purpose
- Meets all stakeholder expectations
- Maintains “win-win” relationships

Learning from Troubled Projects

- Reasons for project troubles can be generally classified into two groups: project-level issues and organizational-level issues.
- One of the key differences in the two groups is the level of control that the project manager has over these factors.
- For project-level issues,
  - the project manager has tremendous influence on these matters.
  - In most cases, can either avoid or take action to resolve them.
- For organizational-level issues,
  - the project manager cannot generally fix the problems,
  - but can have influence on them by asking the right questions, anticipating the associated risks and issues, focusing extra efforts to compensate for the issues, and developing contingency plans to minimize the impact.
- Issues may not be exclusive. In most cases, there is overlap.

Learning from Successful Projects

Qualities for successful projects:

- Organization
  - The project is aligned with organizational goals.
  - The project has effective management support.
- Stakeholders
  - All key stakeholders are in agreement on the purpose, goals, and objectives of the project.
  - All key stakeholders share a common vision of the project results.
  - All key stakeholders share realistic expectations for the project results.
- Planning
  - The project scope, approach, and deliverables are clearly defined and agreed upon during planning.
  - An investment is made in proper planning.
  - A high priority is placed on accurate and complete work effort estimates.
  - A realistic schedule is developed and agreed upon.

Learning from Successful Projects

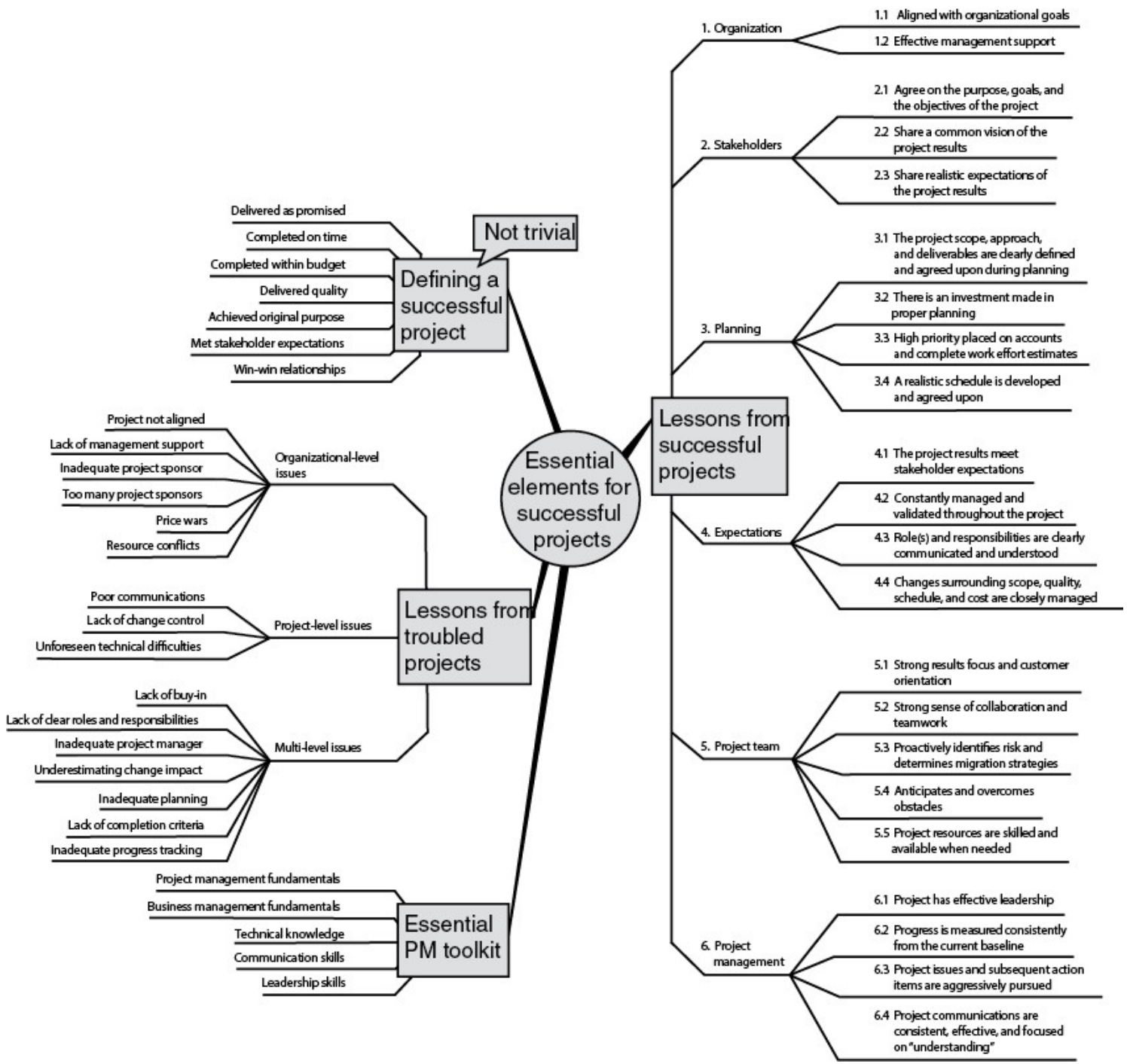
More qualities for successful projects:

- Expectations
  - The project results meet the expectations of the key stakeholders.
  - Stakeholder expectations are constantly managed and validated throughout the project.
  - Each stakeholder and team member’s role(s) and responsibilities are clearly communicated and understood.
  - Expectations and changes surrounding scope, quality, schedule, and cost are closely managed.
- Project team
  - The project team is results-focused and customer-oriented.
  - There is a strong sense of collaboration and teamwork.
  - The project team proactively identifies risk and determines mitigation strategies to reduce project exposure.
  - The project team anticipates and overcomes obstacles to ensure the project meets objectives.

Learning from Successful Projects

More qualities for successful projects:

- Project management
  - The project has effective leadership.
  - Project progress is measured consistently from the current baseline.
  - Project issues and subsequent action items are aggressively pursued.
  - Project communications are consistent, effective, and focused on understanding.


Essential elements for successful projects
Not trivial
Defining a successful project
Delivered as promised
Completed on time
Completed within budget
Delivered quality
Achieved original purpose
Met stakeholder expectations
Win-win relationships
Lessons from troubled projects
Organizational-level issues
Project not aligned
Lack of management support
Inadequate project sponsor
Too many project sponsors
Price wars
Resource conflicts
Project-level issues
Poor communications
Lack of change control
Unforeseen technical difficulties
Multi-level issues
Lack of buy-in
Lack of clear roles and responsibilities
Inadequate project manager
Underestimating change impact
Inadequate planning
Lack of completion criteria
Inadequate progress tracking
Essential PM toolkit
Project management fundamentals
Business management fundamentals
Technical knowledge
Communication skills
Leadership skills
Lessons from successful projects
1. Organization
1.1 Aligned with organizational goals
1.2 Effective management support
2. Stakeholders
2.1 Agree on the purpose, goals, and the objectives of the project
2.2 Share a common vision of the project results
2.3 Share realistic expectations of the project results
3. Planning
3.1 The project scope, approach, and deliverables are clearly defined and agreed upon during planning
3.2 There is an investment made in proper planning
3.3 High priority placed on accounts and complete work effort estimates
3.4 A realistic schedule is developed and agreed upon
4. Expectations
4.1 The project results meet stakeholder expectations
4.2 Constantly managed and validated throughout the project
4.3 Role(s) and responsibilities are clearly communicated and understood
4.4 Changes surrounding scope, quality, schedule, and cost are closely managed
5. Project team
5.1 Strong results focus and customer orientation
5.2 Strong sense of collaboration and teamwork
5.3 Proactively identifies risk and determines migration strategies
5.4 Anticipates and overcomes obstacles
5.5 Project resources are skilled and available when needed
6. Project management
6.1 Project has effective leadership
6.2 Progress is measured consistently from the current baseline
6.3 Project issues and subsequent action items are aggressively pursued
6.4 Project communications are consistent, effective, and focused on "understanding"