# Information Technology Project Management – Fifth Edition

By Jack T. Marchewka Northern Illinois University

# Project Planning: The Project Infrastructure

Chapter 4

# Learning Objectives

- Describe the planning phase of the project life cycle (PLC)
- Define the project's infrastructure.
- Describe project governance and its role.
- Understand the roles of the project manager and how the project team is selected.
- Understand how a project acquires both internal and external resources.
- Understand and describe the project environment.
- Describe three general categories for procurementtype contracts.
- Develop a project charter and understand its relationship to the project plan.

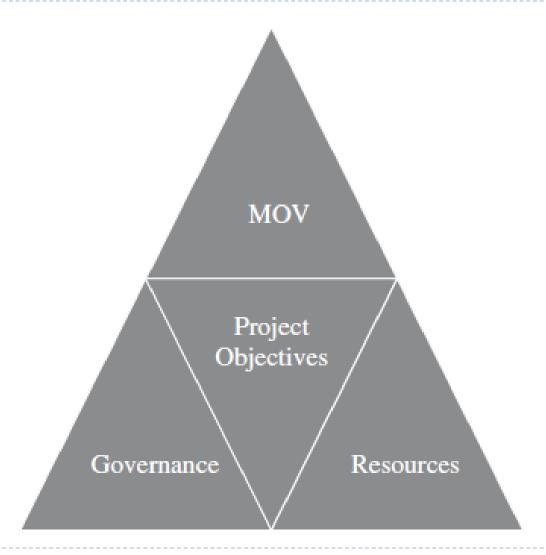
#### Introduction

- The Project Planning Phase Attempts to Answer the Following Questions:
  - What work needs to be done?
  - ▶ Who will do the work?
  - What resources will be needed to do the work?
  - ▶ When will they do the work?
  - ▶ How long will it take?
  - ▶ How much will it cost?
  - Does the time, money, and resources invested support the project's MOV?

### Introduction (continued)

- Project's have...
  - An Infrastructure
  - ▶ A Governance structure
  - Required Resources (must be obtained)
  - A Project Charter

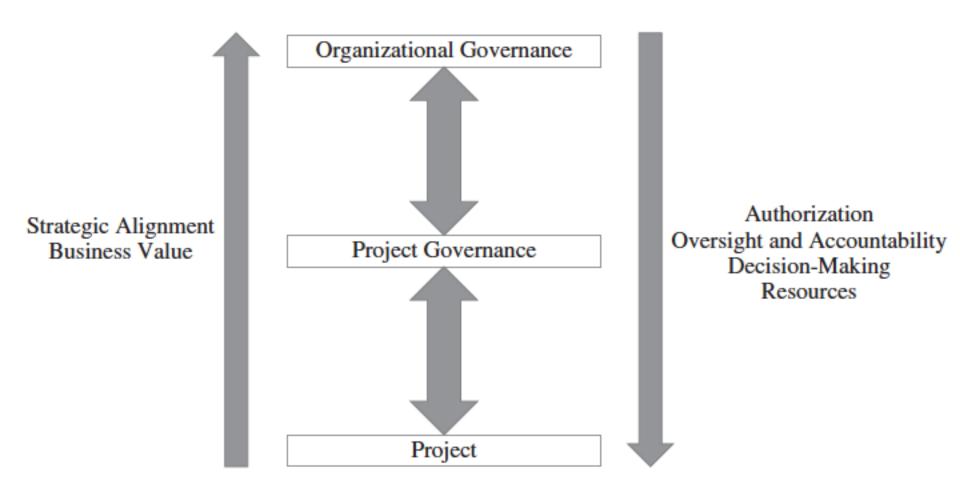
# Figure 4.1 – The Project Infrastructure



# Project Governance

- ▶ Should flow from *organizational governance*
- Provides a framework to ensure that a project aligns with a chosen business strategy while ensuring that the time, money, and resources provide real value to the organization.
- Projects governance must define:
  - Structure
  - Authorization
  - Oversight and Accountability
  - Decision Making
  - Resources

# Figure 4.2 Project Governance



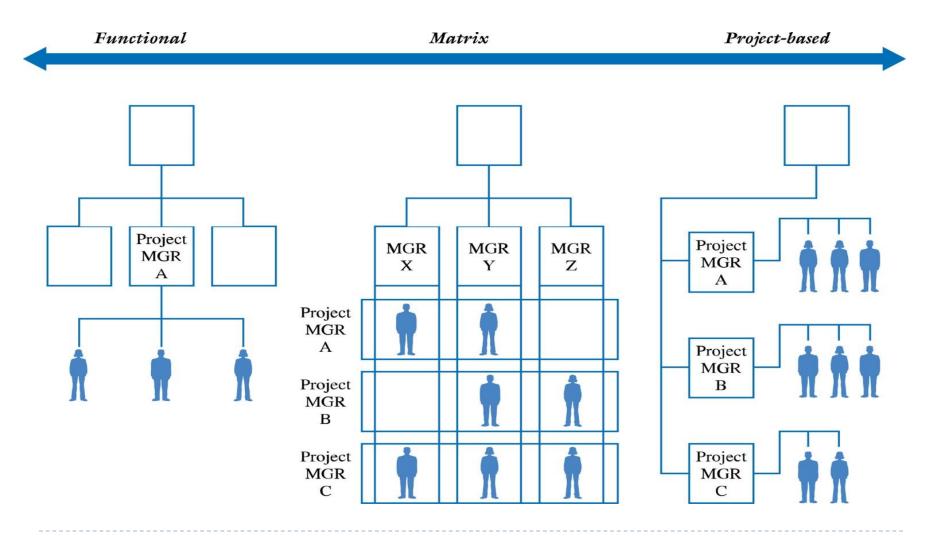
# The Project Team

- ▶ The Roles of the Project Manager
  - Managerial role
  - Leadership role
- Attributes of a successful project manager
  - ability to communicate with people
  - ability to deal with people
  - ability to create and sustain relationships
  - ability to organize
- ▶ The Project Team
  - Technology Skills
  - Business/organization knowledge
  - Interpersonal skills

### The Formal Organization

- Formal groupings & specializations
- Published Lines of
  - Authority
  - Responsibilities
  - Reporting Relationships
  - Communication
  - Decision-Making

# Figure 4.3 – The Organization and Project Resources



4-11

# The Functional Organization

#### Advantages

- Increased Flexibility
- Breadth & Depth of Knowledge & Experience
- Less Duplication

#### Disadvantages

- Determining Authority& Responsibility
- Poor Response Time
- Poor Integration

# The Project-Based Organization

#### Advantages

- Clear Authority & Responsibility
- ImprovedCommunication
- High Level of Integration

#### Disadvantages

- Project Isolation
- Duplication of Effort
- "Projectitis"

### The Matrix Organization

- Advantages
  - High Level of Integration
  - ImprovedCommunication
  - Increased Project Focus

- Disadvantages
  - Higher potential for conflict
    - Team members may wonder "Who's my boss?"
  - Poorer Response Time

# Procuring External Project Resources

- Project resources can be internal or externally acquired.
- ▶ The decision depends on
  - The project scope
  - Availability of the products and services in the marketplace
  - Cost
  - Quality
  - ▶ Terms and Conditions
  - Experience and skills of the project team
- Similar to a "make" or "buy" decision
- ▶ Business process outsourcing, including offshoring, is one option for acquiring external resources

# Figure 4.4 – The Project Outsourcing Model

Full Selective Full Outsourcing Outsourcing

Project resources are acquired internally. The project team is responsible for all project processes and delivery of the project. Specific project resources are acquired internally and the project team is responsible for many of project processes. The remaining resources and project processes are outsourced externally.

Project resources and processes are the responsibility of external sources.

### Procurement Planning

- Begins by determining which project needs can be fulfilled internally or externally by the project team
- Focuses on not only *what* can best be filled internally or externally, but
  - **How**
  - When
  - How Many
  - And Where these products or services will be acquired
- A Request for Proposal (RFP) may be developed and used to solicit bids, quotes, or proposals for services or goods from prospective sellers.

### Contracts Between Sellers and Buyers

- Once a seller is selected, the buyer may enter into contract negotiations so that a mutual agreement can be reached
- A contract is a document signed by the buyer and seller that defines the terms and conditions of the buyer-seller relationship. IT serves as a legally binding agreement that obligates seller to provide specific products, services, or even results, while obligating the buyer to provide specific monetary or other consideration.

# General Categories of Procurement-type Contracts

- ▶ Fixed-Price or Lump-Sum Contracts
  - A total or fixed price is negotiated or set as the final price for a product or service
  - May include incentives for meeting certain performance objectives or penalties if those objectives are not met

# Categories for Procurement-Type Contracts

#### Cost-Reimbursable Contracts

- Payment or reimbursement is made to the seller to cover the seller's actual direct costs (i.e., labor, materials, etc.) and indirect costs (i.e., admin. salaries, rent, utilities, etc.)
- May include incentives for meeting certain objectives or penalties if those objectives are not met
- Types
  - ▶ Cost-Plus- Fee (CPF) or Cost-Plus-Percentage (CPPC)
  - Cost-Plus-Fixed-Fee (CPFF)
  - Cost-Plus-Incentive-Fee (CPIF)

### Types of Cost-Reimbursable Contracts

#### Cost-Plus-Fee (CPF) or Cost-Plus-Percentage Cost (CPPC)

The seller is paid for the costs incurred in performing the work as well as a fee based upon an agreed on percentage of the costs

#### Cost-Plus-Fixed-Fee (CPFF)

The seller is reimbursed for the total direct and indirect costs of doing the work, but receives a fixed amount that does not change unless the project's scope changes

#### Cost-Plus-Incentive-Fee (CPIF)

The seller is reimbursed for the costs incurred in doing the work and receives a predetermined fee plus an incentive bonus for meeting certain objectives

# Categories for Procurement-Type Contracts

- ▶ Time and Materials (T&M) Contracts
  - A hybrid of cost-reimbursable and fixed-price contracts
  - The buyer pays the seller for both the time and materials required to complete the work
    - Resembles a cost-reimbursable contract because it is open-ended and full cost of project is not predetermined
    - ▶ But can resemble a fixed-price contract if unit rates are set

### The Project Environment

- A place to call home
- Technology
- Office supplies
- Culture
  - What is expected from each team member?
  - What role will each team member play?
  - ▶ How will conflicts be resolved?

### The Project Charter

- Serves as an agreement and as a communication tool for all of the project stakeholders
- Documents the project's MOV
- Defines the project's infrastructure
- Summarizes the details of the project plan
- Defines the project's governance structure
- Shows explicit commitment to the project
- See Figure 4-5 (next slide) for the typical areas of a project charter

### Figure 4.5 A Project Charter Template

#### Project Name or Identification

#### Project Stakeholders

- Names
- Titles or roles
- Phone numbers
- E-mail addresses

#### Project Description

- Background
- Description of the challenge or opportunity
- Overview of the desired impact

#### Measurable Organizational Value (MOV)

Statement or table format

#### Project Scope

- What will be included in the scope of this project
- What will be considered outside the scope of this project

#### Project Schedule Summary

- Project start date
- Project end date
- Timeline of project phases and milestones
- Project reviews and review dates

#### Project Budget Summary

- Total project budget
- Budget broken down by phase

#### Quality Issues

Specific quality requirements

#### Resources Required

People

- Technology
- Facilities
- Other
- Resources to be provided
  - Resource
  - Name of resource provider
  - Date to be provided

#### Assumptions and Risks

- Assumptions used to develop estimates
- Key risks, probability of occurrence, and impact
- Constraints
- Dependencies on other projects or areas within or outside the organization
- Assessment project's impact on the organization
- Outstanding issues

#### Project Administration

- Communications plan
- Scope management plan
- Quality management plan
- Change management plan
- Human resources plan
- Implementation and project closure plan

#### Acceptance and Approval

Names, signatures, and dates for approval

#### References

Terminology or Glossary

Appendices (as required)