Project Integration Management

WEEK 5 LECTURE 9&10

CUI LAHORE CAMPUS

Today's Objectives

- Discuss an overall framework for project integration management
- Discuss project plan development
- Explain project plan execution
- Understand the integrated change control process
- Describe how software can assist in project integration management

The Key to Overall Project Success

Good Project Integration Management

- Project managers must coordinate all of the other knowledge areas throughout a project's life cycle
- Many new project managers have trouble looking at the "big picture" and want to focus on too many details
- Project integration management is not the same thing as software integration

Key Difference: Project & Software Integration

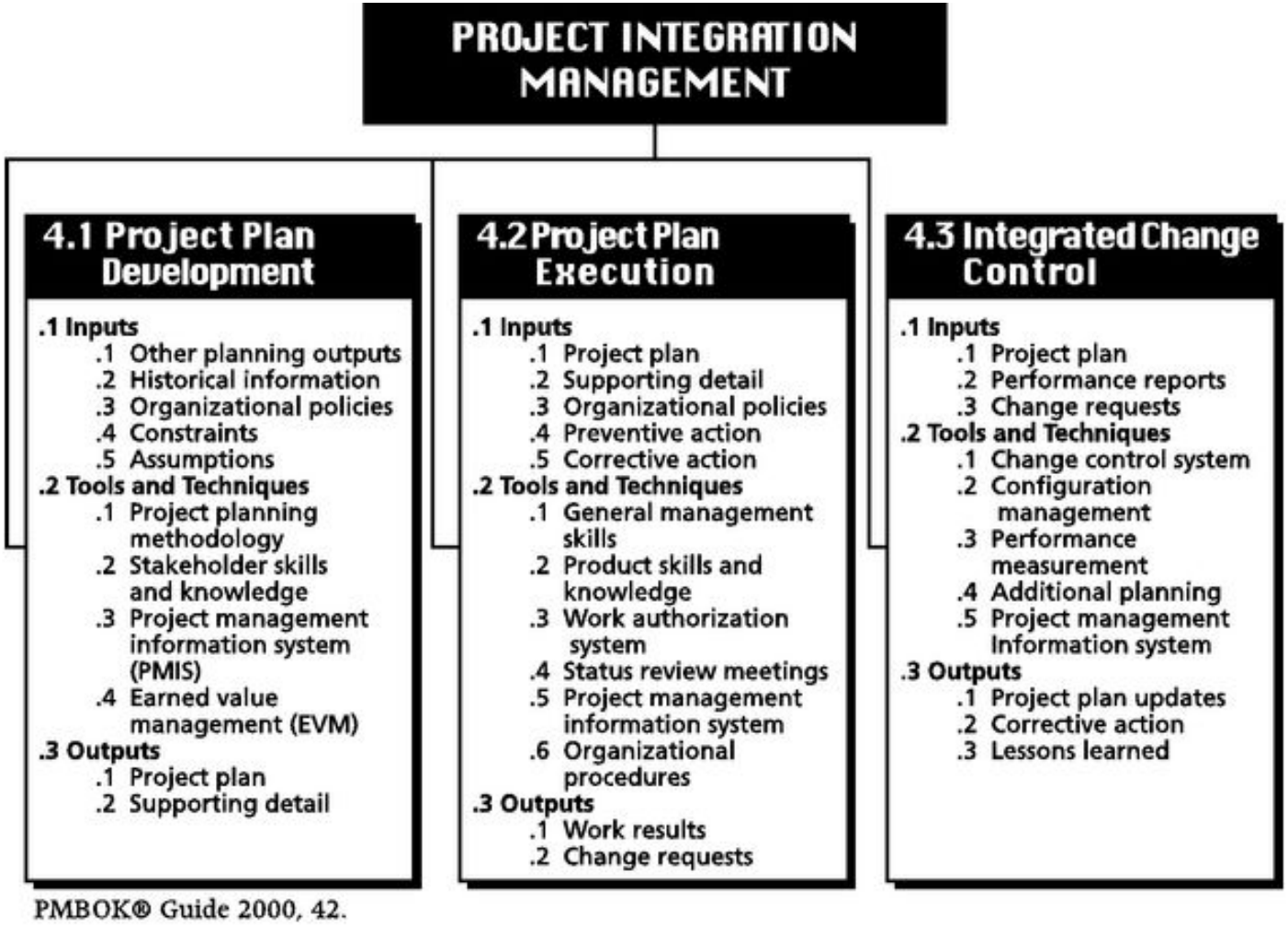
Software Integration: is the act of bringing together smaller components into a single system or entity that functions as one.

Project Management: is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements and end goals.

Project Integration Management Processes

- **Project Plan Development:** taking the results of other planning processes and putting them into a consistent, coherent document—the project plan
- **Project Plan Execution:** carrying out the project plan
- **Integrated Change Control:** coordinating changes across the entire project

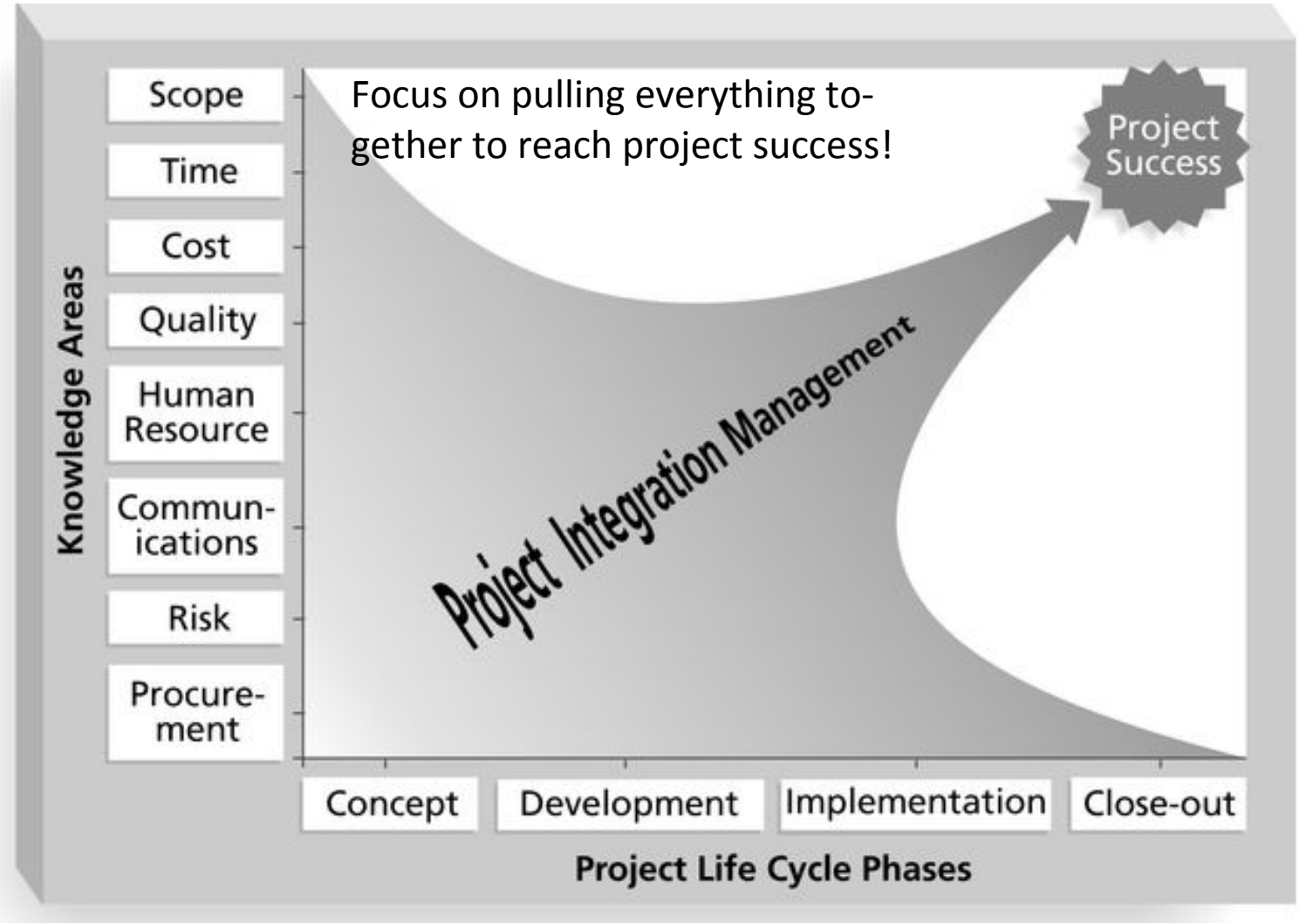
Figure 4-1.Project Integration Management Overview



PMBOK® Guide 2000, 42.

Figure 4-1. Project Integration Management Overview

Figure 4-2. Framework for Project Integration Management



Project Plan Development

- **A project plan** is a document used to coordinate all project planning documents
- Its main purpose is to *guide project execution*
- Project plans assist the project manager in *leading the project team and assessing project status*
- Project performance should be measured against a baseline plan

Attributes of Project Plans

- Just as projects are **unique**, so are project plans
- Plans should be **dynamic**
- Plans should be **flexible**
- Plans should be **updated as changes** occur
- Plans should **first and foremost guide** project execution

Common Elements of a Project Plan

- Introduction or overview of the project
- Description of how the project is organized
- Management and technical processes used on the project
- Work to be done, schedule, and budget information

Introduction/overview of the project

1. The project name
2. A brief description of the project and the need it addresses
3. The sponsor's name
4. The names of the project manager and key team members
5. Deliverables of the project
6. A list of important reference materials
7. A list of definitions and acronyms, if appropriate

Description of how the project is organized

- Organizational charts
- Project responsibilities
- Other organizational or process related information

Management and technical processes used on the project

- Management objectives
- Project controls
- Risk management
- Project staffing
- Technical processes

Work to be done

- Major work packages
- Key deliverables
- Other work-related information

Project schedule information

- Summary schedule
- Detailed schedule
- Other schedule-related information

Project budget

- Summary budget
- Detailed budget
- Other budget-related information

Table 4-1. Sample Outline for a Software Project Management Plan (SPMP)

Project Management Plan Sections					
	Introduction	Project Organization	Managerial Process	Technical Process	Work Packages, Schedule, and Budget
Section Topics	Project overview; project deliverables; evolution of the SPMP; reference materials; definitions and acronyms	Process model. organizational structure; organizational boundaries and interfaces; project responsibilities	Management objectives and priorities. assumptions, dependencies, and constraints; risk management; monitoring and controlling mechanisms; and staffing plan	Methods, tools, and techniques; software documentation; and project support functions	Work packages; Dependencies; resource requirements; budget and resource allocation; and schedule

IEEE Std 10581-1987

Stakeholder Analysis

A stakeholder analysis documents important (often sensitive) information about stakeholders such as

- Stakeholders' names and organizations
- Roles on the project
- Unique facts about stakeholders
- Level of influence and interest in the project
- Suggestions for managing relationships

Table 4-2. Sample Stakeholder Analysis

Key Stakeholders					
	Ahmed	Susan	Erik	Mark	David
Organization	Internal senior management	Project team	Project team	Hardware vendor	Project manager for other internal project
Role on project	Sponsor of project and one of the company's founders	DNA sequencing expert	Lead programmer	Supplies some instrument hardware	Competing for company resources
Unique facts	Demanding, likes details, business focus, Stanford MBA	Very smart, Ph.D. in biology, easy to work with, has a toddler	Best programmer I know, weird sense of humor	Start-up company, he knows we can make him rich if this works	Nice guy, one of oldest people at company, has 3 kids in college
Level of interest	Very high	Very high	High	Very high	Low to medium
Level of influence	Very high; can call the shots	Subject matter expert; critical to success	High; hard to replace	Low; other vendors available	Low to medium
Suggestions on managing relationship	Keep informed, let him lead conversations ,do as he says and quickly	Make sure she reviews specifications and leads testing; can do some work from home	Keep him happy so he stays; emphasize stock options; likes Mexican food	Give him enough lead time to deliver hardware	He knows his project takes a back seat to this one, but I can learn from him

Project Plan Execution

- Project plan execution involves managing and performing the work described in the project plan
- Most of the time and money is usually spent on execution
- The application area of the project directly affects project execution because the products of the project are produced during execution

Important Skills for Project Execution

- General management skills like leadership, communication, and political skills
- Product skills and knowledge
- Use of specialized tools and techniques

Tools and Techniques for Project Execution

Work Authorization System: a method for ensuring that qualified people do work at the right time and in the proper sequence

Status Review Meetings: regularly scheduled meetings used to exchange project information

Project Management Software: special software to assist in managing projects

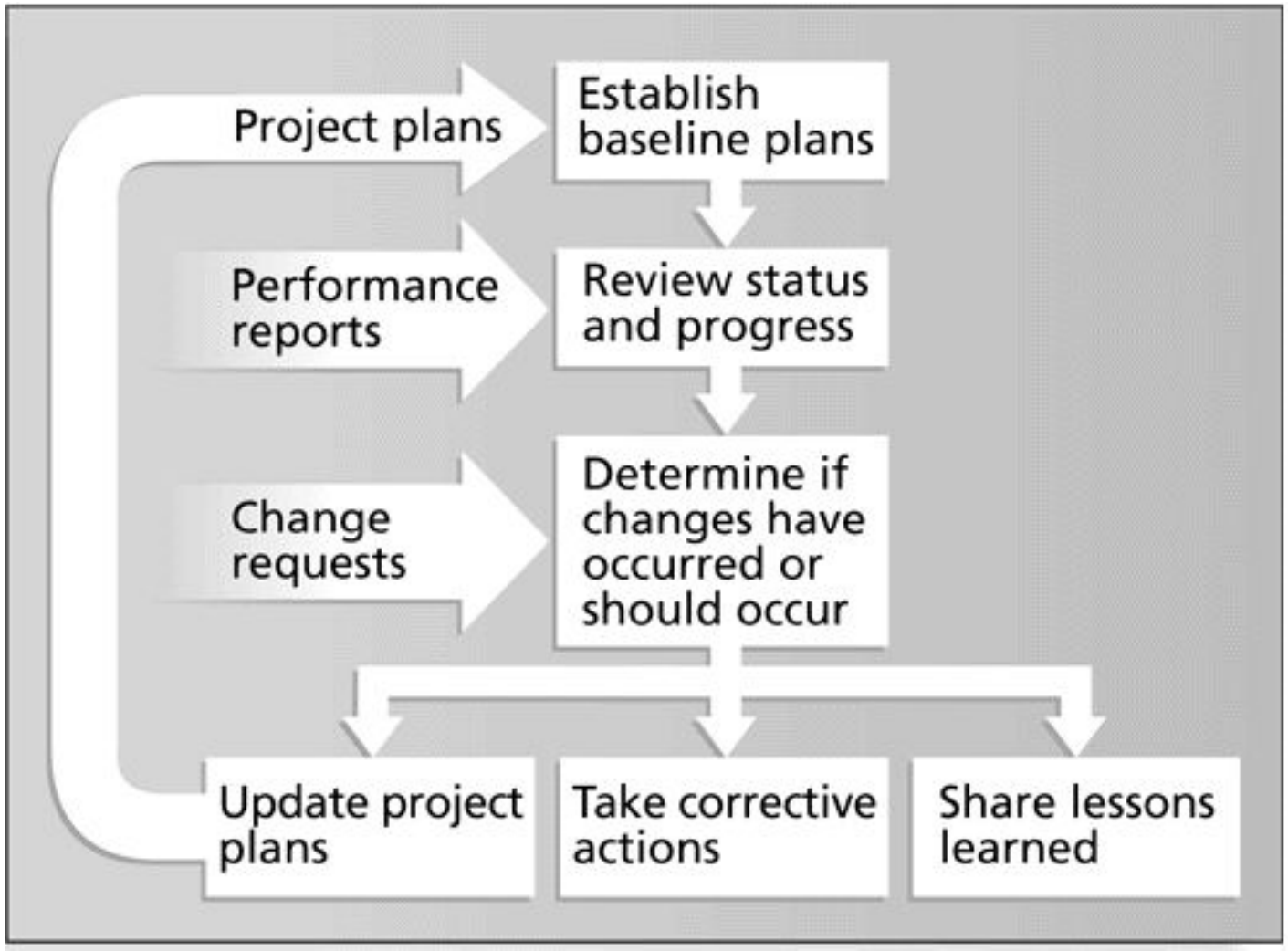
Integrated Change Control

Integrated change control involves identifying, evaluating, and managing changes throughout the project life cycle (Note: 1996 PMBOK called this process “overall change control”)

Three main objectives of change control:

- Influence the factors that create changes to ensure they are beneficial
- Determine that a change has occurred
- Manage actual changes when and as they occur

Figure 4-3. Integrated Change Control Process



Change Control on Information Technology Projects

- **Former view:** The project team should strive to do exactly what was planned on time and within budget
- **Problem:** Stakeholders rarely agreed up-front on the project scope, and time and cost estimates were inaccurate
- **Modern view:** Project management is a process of constant communication and negotiation
- **Solution:** Changes are often beneficial, and the project team should plan for them

Change Control System

- A formal, documented process that describes when and how official project documents and work may be changed
- Describes who is authorized to make changes and how to make them
- Often includes a change control board (CCB), configuration management, and a process for communicating changes

Change Control Boards (CCBs)

- A formal group of people responsible for approving or rejecting changes on a project
- CCBs provide guidelines for preparing change requests, evaluate change requests, and manage the implementation of approved changes
- Includes stakeholders from the entire organization

Making Timely Changes

Some CCBs only meet occasionally, so it may take too long for changes to occur

Some organizations have policies in place for time-sensitive changes

- "48-hour policy" allows project team members to make decisions, then they have 48 hours to reverse the decision pending senior management approval
- Delegate changes to the lowest level possible, but keep everyone informed of changes

Configuration Management

- Ensures that the products and their descriptions are correct and complete
- Concentrates on the management of technology by identifying and controlling the functional and physical design characteristics of products
- Configuration management specialists identify and document configuration requirements, control changes, record and report changes, and audit the products to verify conformance to requirements

Table 4-3. Suggestions for Managing Integrated Change Control

- View project management as a process of constant communications and negotiations
- Plan for change
- Establish a formal change control system, including a Change Control Board (CCB)
- Use good configuration management
- Define procedures for making timely decisions on smaller changes
- Use written and oral performance reports to help identify and manage change
- Use project management and other software to help manage and communicate changes

Using Software to Assist in Project Integration Management

Several types of software can be used to assist in project integration management

- Documents can be created with word processing software
- Presentations are created with presentation software
- Tracking can be done with spreadsheets or databases
- Communication software like e-mail and Web authoring tools facilitate communications
- Project management software can pull everything together and show detailed and summarized information

Conclusion

- We have discussed an overall framework for project integration management
- How can we develop a good project plan?
- Project execution
- Discussed the integrated change control process
- How software can assist in project integration management

Reading Assignment

Chapter 4: Project Integration Management by PMBOK-Guide-6th-Edition-PMI

(Book and Lecture Slides are already uploaded on resource link.)

Resource Link:

Thank You