

Project Time Management

مقرر: إداره وقت المشروع

Prepared by Dr. Amira Elfekky

PMG 212

Lecture 3



Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Agenda



What is Planning?

- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

What is Planning?

Making decisions now with the objective of influencing the future. (AACE)

A detailed scheme, program, or method worked out beforehand for the accomplishment of an objective: “A plan of attack”. (American Heritage Dictionary)

What is Planning?

The construction industry is notoriously risky. Much of the preparatory work and planning that precedes construction projects can be viewed as the formulation of Risk Allocation between the contracting parties.

The 6P's!

Proper Prior Planning Prevents Poor
Performance!

Why Planning Matters in Projects

- Provides a clear roadmap for all stakeholders
- Reduces uncertainty and unexpected changes
- Ensures resources are allocated effectively
- Aligns project goals with organizational objectives

Levels of Planning

- **Strategic Planning** – Long-term vision and direction
- **Tactical Planning** – Translating strategies into specific actions
- **Operational Planning** – Day-to-day activities and resource management

Pitfalls of Poor Planning

- Unrealistic deadlines and expectations
- Failure to identify risks early
- Lack of communication among stakeholders
- Overlooking dependencies between tasks

Tools & Techniques for Planning

- Work Breakdown Structure (WBS)
- Gantt Charts & Network Diagrams
- Critical Path Method (CPM)
- Project Management Software (e.g., MS Project, Primavera)

Agenda

- What is Planning?
- **Planning vs Scheduling**
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

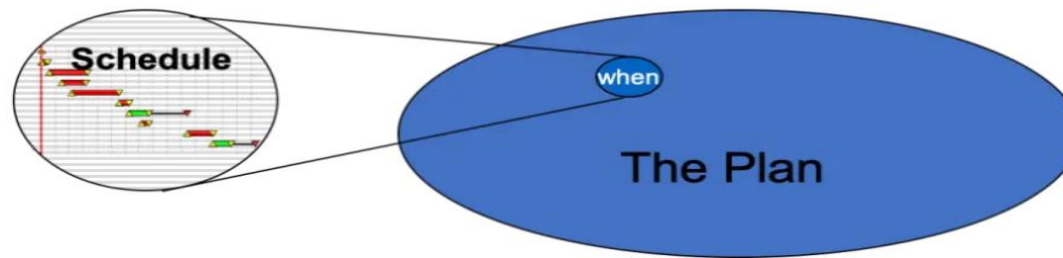
Planning vs Scheduling

A ***Plan*** is a logical sequence of events to accomplish a goal.

A ***Schedule*** incorporates **durations** and **dates** into the sequence of events necessary to accomplish the Plan.

Planning vs Scheduling

Both '*plan*' and '*schedule*' are concerned with making arrangements for the way something is done. However, '*plan*' is more comprehensive and involves details about different aspects of an event or action, while '*schedule*' is only concerned with the timing of events.



Planning vs Scheduling

A Plan answers the questions:

What needs to be done?

Why should it be done?

How will it be done?

A Schedule answers the questions:

When will it be done?

Who will do it?

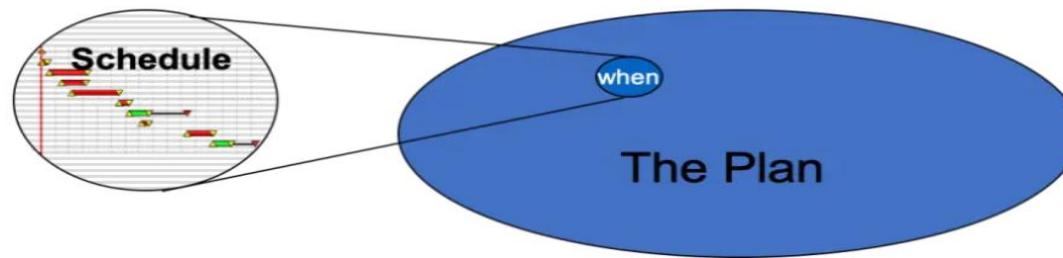
In what order will tasks occur?

Planning vs Scheduling

◇ Key Difference:

A **Plan** provides the *strategy* and *roadmap*.

A **Schedule** provides the *timeline* and *commitments*.



Agenda

- What is Planning?
- Planning vs Scheduling
- **Plan vs Planning**
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Plan vs Planning

“Plans are of little importance, but **planning is essential”**

(Winston Churchill)

“Plans are worthless, but **planning is everything”**

(D. Eisenhower)

Plan vs Planning

The Difference:

Plan = A document, roadmap, or static output

Planning = A dynamic process, continuous adjustments

Key Idea: *Planning prepares the mind, not just the paper*

Plan vs Planning

Why Planning Matters:

Plans may become outdated

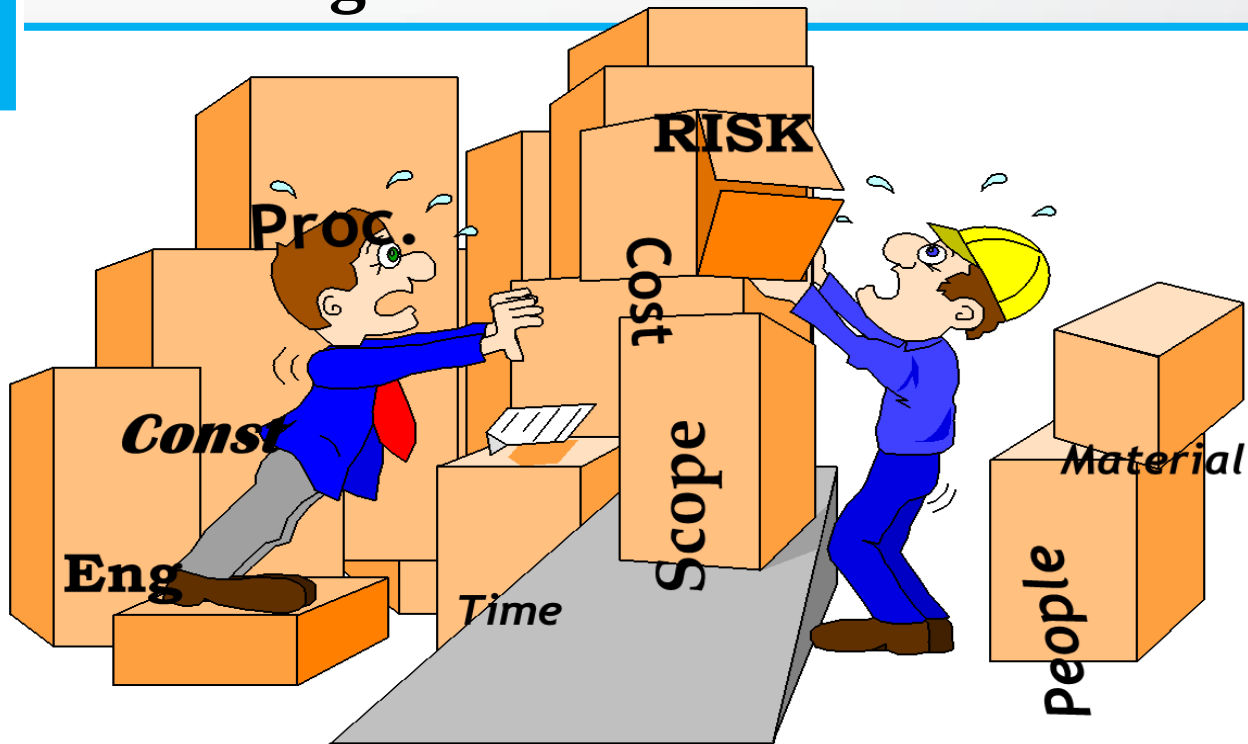
Unexpected risks and changes occur

Planning builds adaptability and readiness

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- **Planning Effort**
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Planning Effort



Planning involves the efficient use of the 4 Resources!

That being; **Time**, **Money**, **People** & **Material**

Planning Effort

Challenges in Balancing Resources:

- Time delays increase costs
- Overloaded people lower efficiency
- Limited materials cause bottlenecks
- Poor money management leads to overruns

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- **Planning Team**
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Planning Team

Who makes up the TEAM to develop the Plan?

- Project Manager
- Engineering Manager
- Discipline Leads
- Construction Manager
- Craft Superintendents

Planning Team

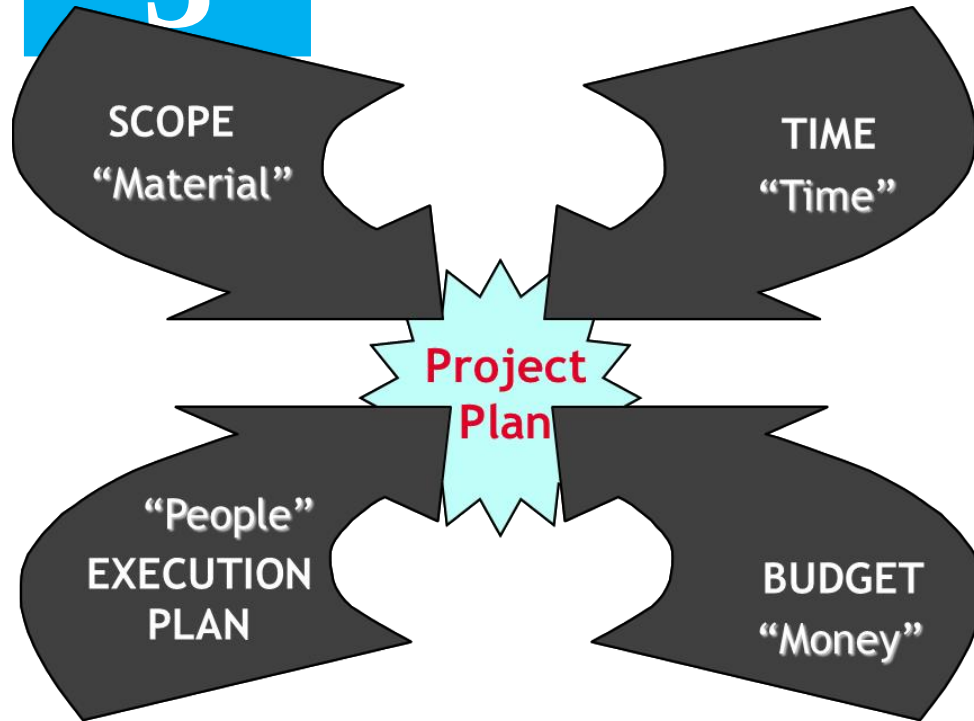
Who makes up the TEAM to develop the Plan?

- **Project Controls**
 - Planning / Scheduling
 - Cost Controls
 - Estimating
- Procurement - Major Suppliers

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- **Elements of Project Plan**
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Elements of Project Plan



Project Plan

- Identifies the Project **goals**
- Encompasses the **Scope of Work**.
- Defines the Project **Execution Plan**.
- Incorporates decisions that can **influence the future**.
- Is a **sequence of activities** with which the Project Goals can be accomplished.
- Identifies the **resources** required and **cost**.

Planning is the efficient use of the 4 Resources!

Time, Money, People & Material

Elements of Project Plan

- **Scope Definition**
- **Execution strategy (EPC, D&B, C etc.)**
- **Contract requirement**
- **Discipline integration**
- **Work Breakdown Structure (WBS)**

Elements of Project Plan

- **Organizational Breakdown Structure**
- **Work and Planning Packaging**
- **Identifying / Defining the activities & milestones necessary**
- **Level of detail**

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- **Questions Planner Asks- Fundamentals**
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Questions Planner Asks- Fundamentals

- What is the **scope of work**?
- What is the **execution strategy**? E? EP? EPC? EPCM? CM? PMC?
- When is the official contract **award** or **notice to proceed date**?
- What constitutes **completion**?

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- **Questions Planner Asks- Tasks**
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Questions Planner Asks- Tasks

- **What tasks** will be performed? (Scope)
- **How** will the tasks be performed? (Execution Plan)
- **What** is the **sequence** the tasks will be performed? (Execution Plan & Resources)
- **Who** will perform the tasks? (Resources & Execution Plan)

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- **Questions Planner Asks**
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Questions Planner Ask

- Where is the **equipment list**, is there any exotic material used? (Scope & Execution Plan)
- How many **subcontractors** do we plan to use? (Execution Plan & Resources)
- What **Permits** are required and who is responsible for them? (Scope & Execution Plan)
- **Where** is the Project to be executed? (Scope, Execution Plan & Resources)

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- **Deliverables Associated with the Plan**
- Project Planning and Setup
- What Is Setup?
- Keys to Successful Setup

Deliverables Associated with the Plan

The Plan - How to achieve the Project's Goals. In a Level II Schedule format

The Scope Book - A written document detailing our understanding of the Project's Goals and therefore the basis of Plan.

The Execution Plan - A written document detailing the deliverables that support the Plan and the Risks that the Project is willing to accept and the resources that will be used on the Project.

Deliverables Associated with the Plan

Estimate - To the accuracy allowed, based on the information given or developed.

Budget - Cost of the Plan as presented and based on the Estimate.

Basis - Underlying Assumptions used in the development of the Plan and the Execution Plan.

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- **Project Planning and Setup**
- What Is Setup?
- Keys to Successful Setup

Project Planning and Setup

“Front-end planning is arguably the single most important process in the facility project lifecycle. It creates strong early links between the business or mission need and the project’s strategy, scope, cost, and schedule and maintains these links throughout the project life.”

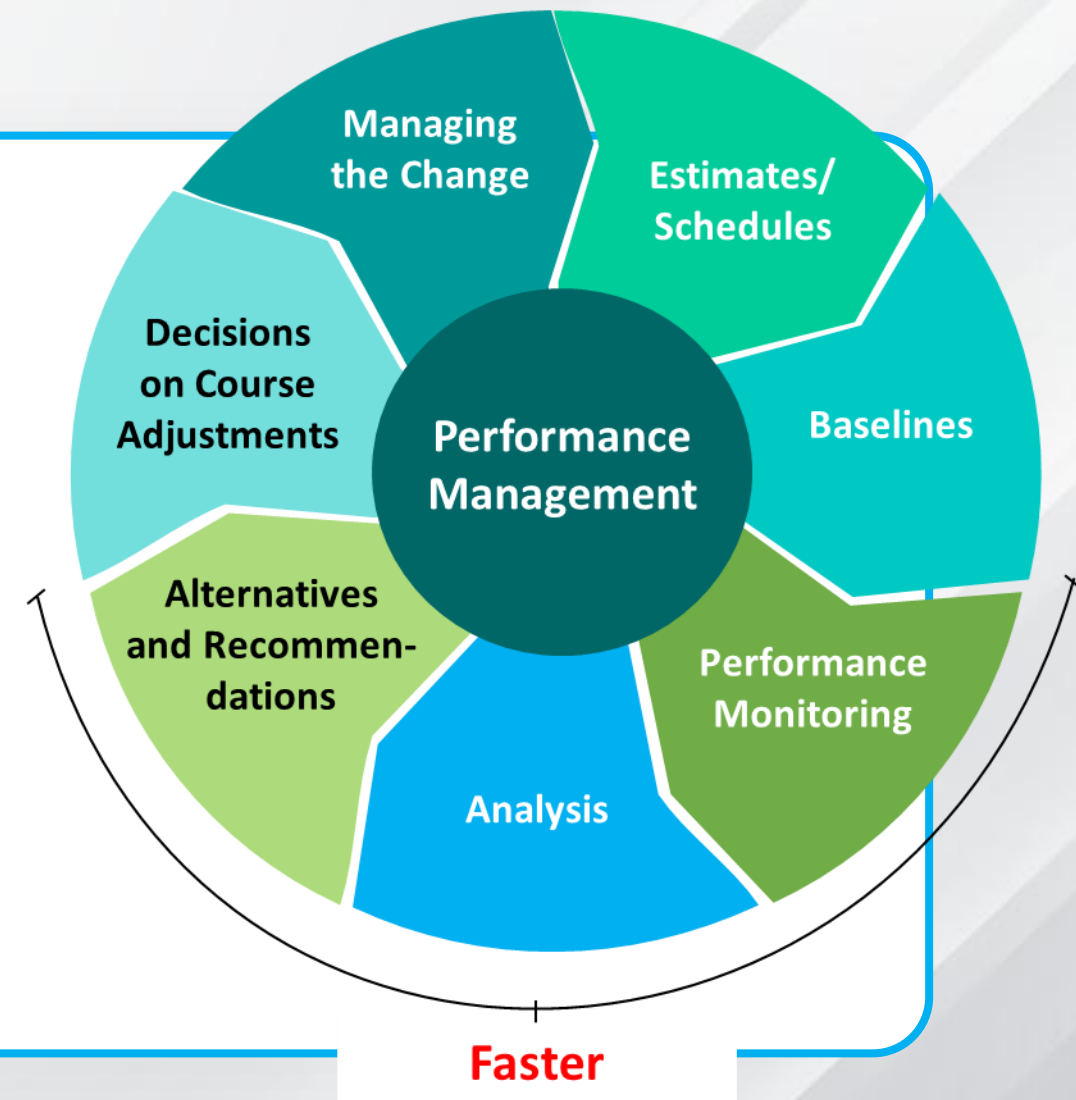
From Construction Industry Institute (CII)

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- **What Is Setup?**
- Keys to Successful Setup

What Is Setup?

Performance management setup is establishing how the project is going to do this progression—well and fast.



What Is Setup?

Performance management setup is about establishing **how the project will progress — well and fast.**

- Defines performance standards and expectations
- Ensures alignment with project objectives
- Establishes KPIs and benchmarks
- Provides a basis for monitoring and evaluation
- Creates accountability for results

Agenda

- What is Planning?
- Planning vs Scheduling
- Plan vs Planning
- Planning Effort
- Planning Team
- Elements of Project Plan
- Questions Planner Asks- Fundamentals
- Questions Planner Asks- Tasks
- Questions Planner Asks
- Deliverables Associated with the Plan
- Project Planning and Setup
- What Is Setup?
- **Keys to Successful Setup**

Keys to Successful Setup

- Utilize a Scope Packaging Matrix.
- Ensure the baseline is owned.
- Strive for less detail and more clarity.
- Emphasize timeliness, especially related to trending and change management.
- Focus on the data, not the tools, for data-driven decisions.
- Hold rigorous (but few and short) performance review meetings.
- Produce analytics versus reports.



Thank You