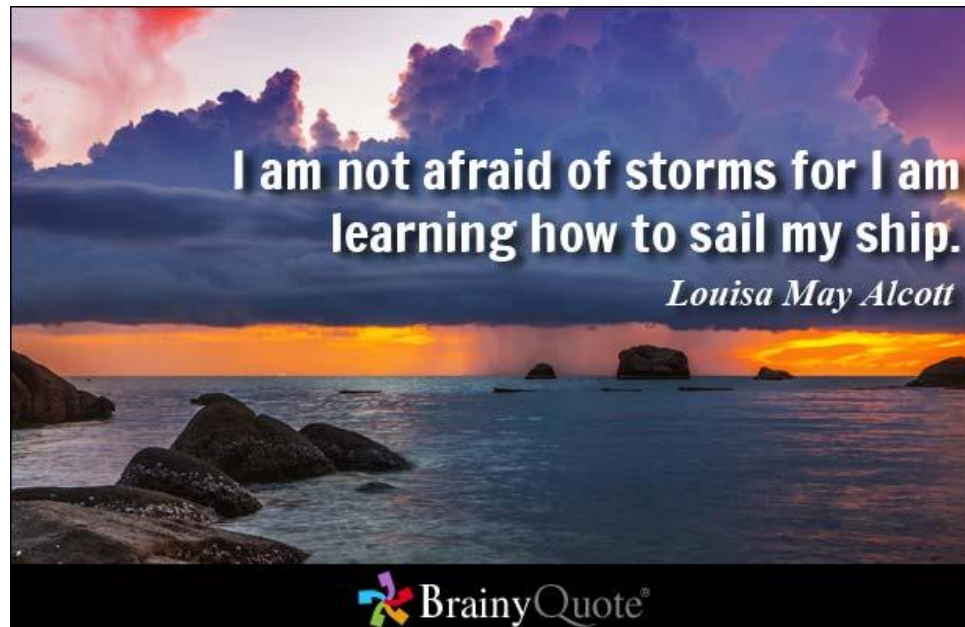


An Introduction to Project Management

Facilitator: Mr Brian O'Reilly *MBA PMP*

*Deputy Director of Industrial Relations and Technology Transfer
MBA Program Coordinator*



Workshop Outline

- Understanding **project management**
- Defining the **roles** of the project manager and team
- Project **stakeholders**
- **Defining** the project
- **Initiating** a project and **project charter**
- Creating a **WBS**
- **Estimating, sequencing, and planning** activities
- Project **risk** management
- **Monitoring** and **control**

Expected Outcomes

- **After this workshop, you should be able to:**
- Understand what **project management** is.
 - Understand the **principles, methods, and techniques** that people use to effectively **plan, implement, and control** project work
 - Help complete projects on **time, within budget, and on target.**



Why am I taking this course?

Your Facilitator:

Mr Brian O'Reilly

MBA PMP

- **Experience with Project Management:**
- Worked for over 15 years in **Civil Engineering** on projects involving the design and construction of roads.
 - Worked in **organisational change management**, and **organisational restructuring** projects.
 - Worked in **IT, marketing, product launching**, and **other corporate projects**.
 - Over 14 years experience in developing and delivering **project management higher education and training programs**.

Introductions



Brief Introduction of Participants:

- *Name*
- *Where you are from? (Country/Province/City)*
- *Project management experience*
- *What do you want to learn from this course?*

Part 1:

Understanding Project Management

- Many people become project managers by **accident**.
- **Learning** project management skills can help you complete projects on:
 - time,
 - budget, and
 - target.
- Project management is **not just for project managers**.

All of mankind's greatest accomplishments --- from building the great pyramids to discovering a cure for polio to putting a man on the moon --- began as a project.



What is Project Management

- **Project Management** is a set of **principals, methods, and techniques** that people use to effectively **plan** and **control** project work.
- The **objective** of project management is to optimise project **cost, time, and quality**.

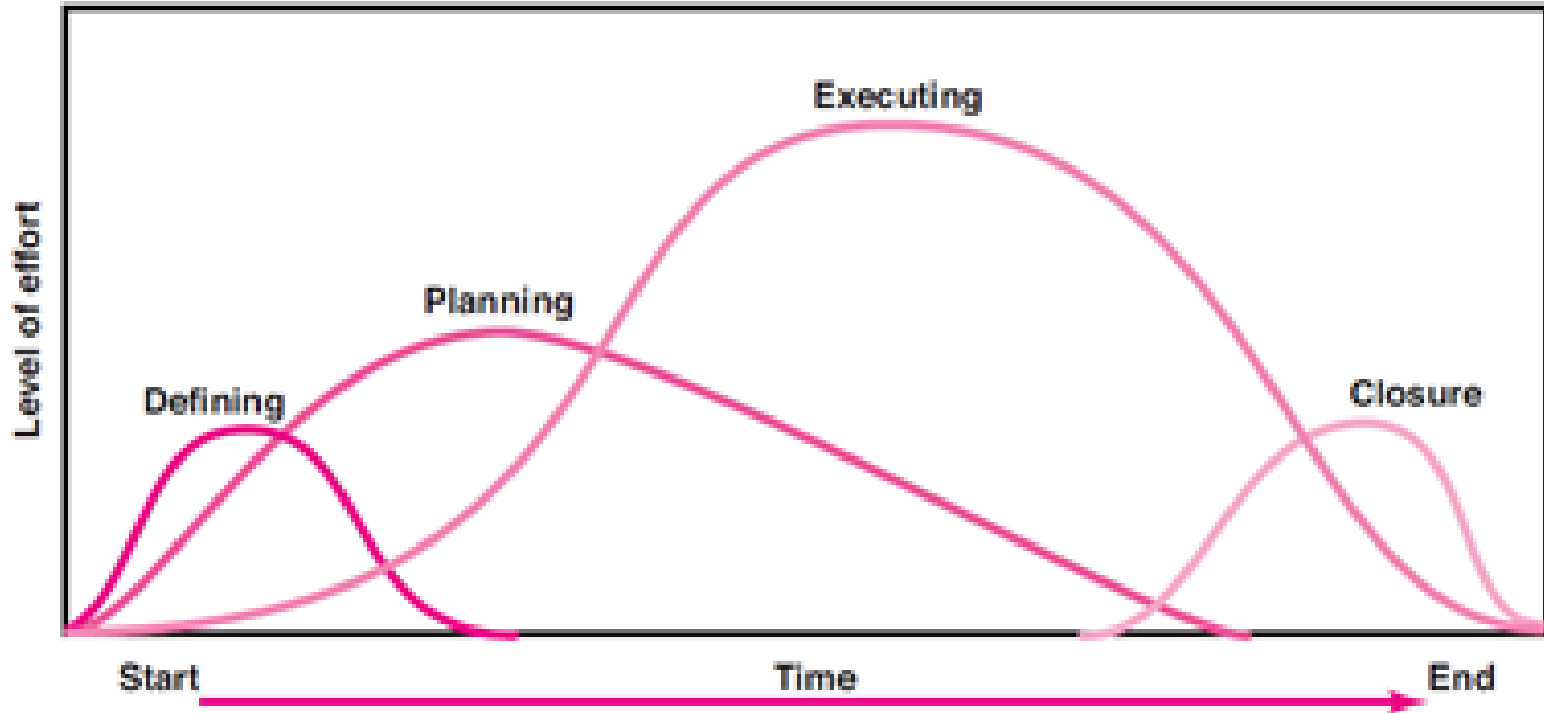


Project Characteristics

- Have a **specific objective** (which may be unique or one-of-a-kind) to be completed within certain specifications
- Have defined **start** and **end** dates
- Have **funding limits** (if applicable)
- Consume **human** and **nonhuman resources** (i.e. money, people, equipment)
- Be **multifunctional** (cut across several functional lines)



Project Life Cycle



Defining

1. Goals
2. Specifications
3. Tasks
4. Responsibilities

Planning

1. Schedules
2. Budgets
3. Resources
4. Risks
5. Staffing

Executing

1. Status reports
2. Changes
3. Quality
4. Forecasts

Closure

1. Train customer
2. Transfer documents
3. Release resources
4. Evaluation
5. Lessons learned

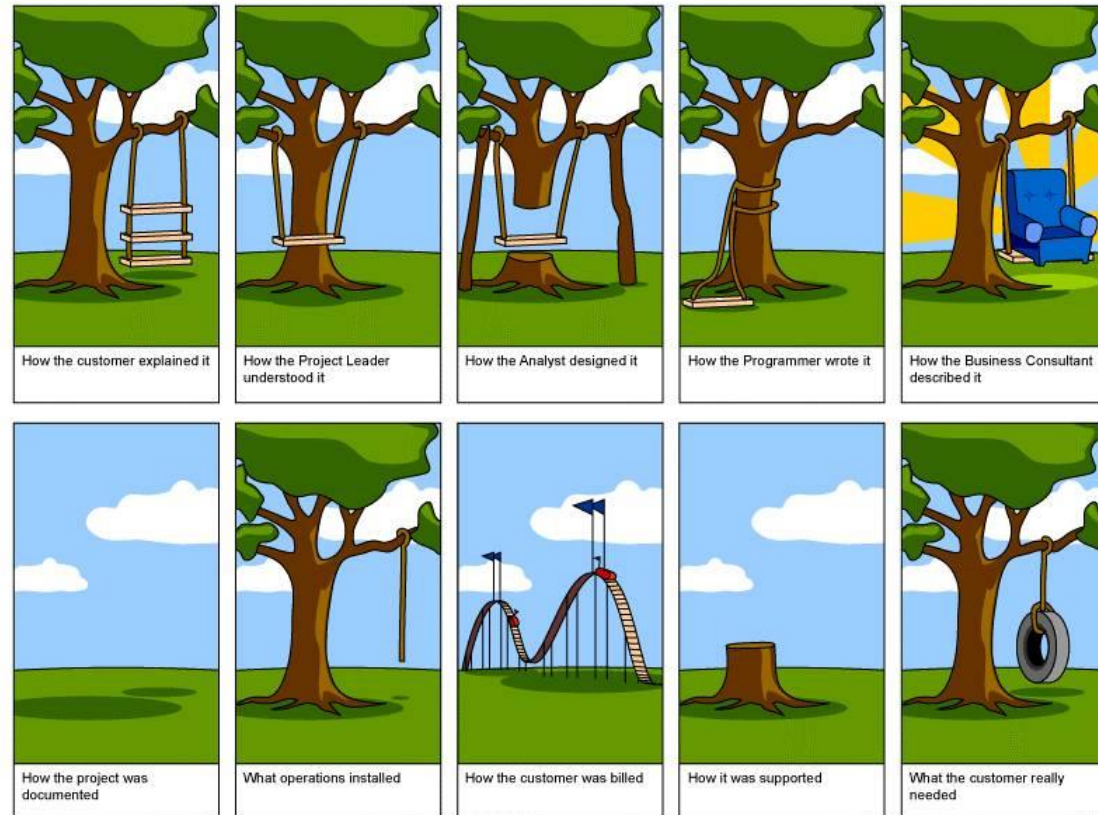
The Importance of Project Management

- Compression of the Product Life Cycle
- Knowledge Explosion
- Triple Bottom Line (planet, people, profit)

- Corporate Downsizing

- Increased Customer Focus

- Small Projects Represent Big Problems



Project vs Operations Management

<u>Mangement:</u>		
<u>Basis of:</u>	<u>Project Management</u>	<u>Operations Management</u>
<i>Time</i>	<i>Projects have a definitive start and a definitive finish.</i>	<i>Operations are continuous.</i>
<i>Task Type</i>	<i>Projects tasks are specific for that for that project and have never been done before.</i>	<i>Operational tasks are repetitive and cyclical.</i>
<i>Success/Improvement Criteria</i>	<i>Project work success is based on project objectives identified specifically and uniquely for that project.</i>	<i>Operational work success is based on previous indicators (i.e. system availability).</i>

Part 2

Defining the Roles of the Project Manager and the Team

- The role of the **project manager** can be a tricky one.
- This is especially the case where the project manager has **no formal authority** over the people they must work with to get the job done.
- This section defines the **roles** of the **project manager** and the **project team members**.

The Role of a Project Manager

- Planning
- Organizing
- Integrating
- Controlling
- Leading
- Decision-making
- Communicating, and
- Building a supportive climate for the project



Project Management Skills

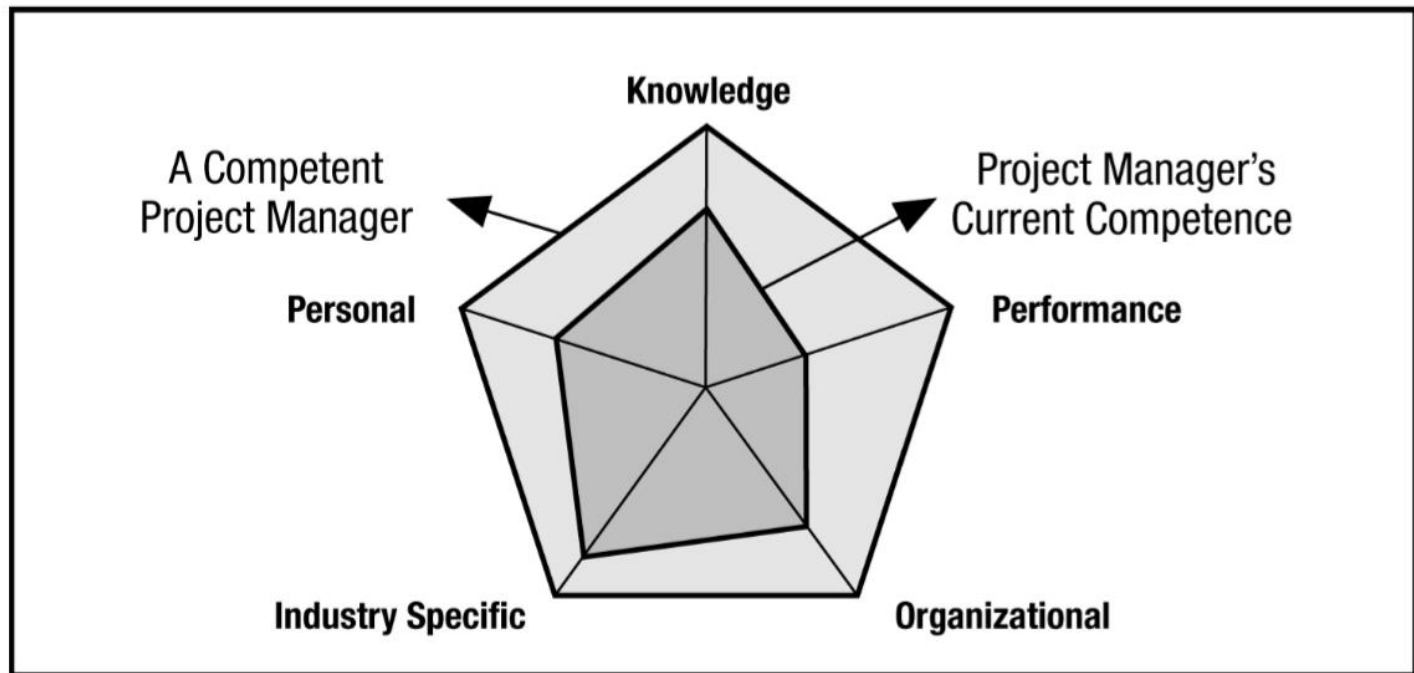


Figure 1-2. Complementing the *PMCD Framework*

People Skills

- It is necessary for the project manager to use both **direct authority** and **persuasion** and to know when to use each.
- S/he needs to be **a master of communication** and to have the skills to manage conflict and change.



Project Skills

➤ Can you **estimate costs** and **prepare workable schedules** and **adequate budget plans**?

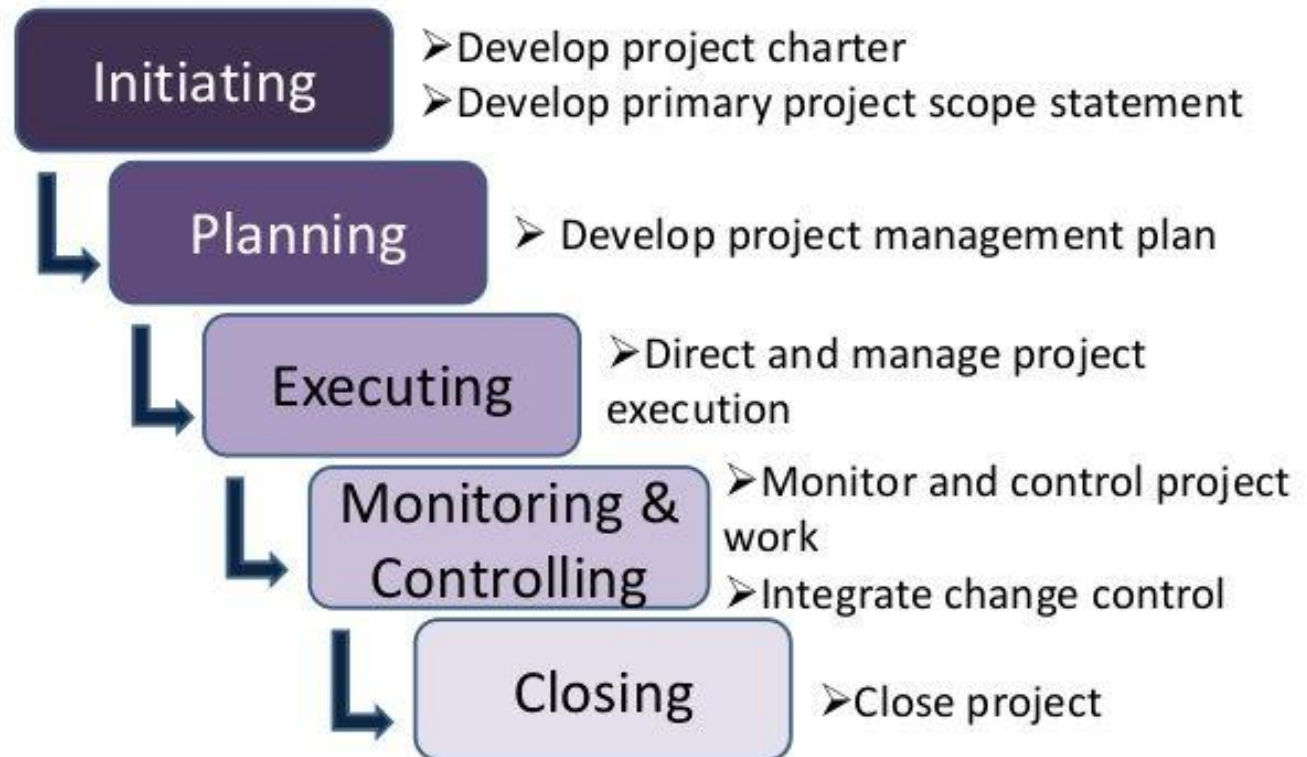
7 Project Management Skills that have been Overlooked



Integration Skills

- One of the primary duties of a project manager is **coordination** of the many project elements.

Project integration management



Technical Skills

- **A project manager**
 - must understand what needs to be done **technically**,
 - but will not have the same depth of understanding as the subject matter experts working on the project.
- However, they must know if potential **pitfalls** exist.



The Make Up of a Project Manager

- Flexibility and adaptability.
- Preference for significant initiative and leadership.
- Assertiveness, confidence, persuasiveness, verbal fluency.
- Ambition, activity, forcefulness.
- Effectiveness as a communicator and integrator.
- Broad scope of personal interests.
- Poise, enthusiasm, imagination, spontaneity.

The Make Up of a Project Manager

- Able to balance technical solutions with **time, cost, and human factors**.
- Well organized and **disciplined**.
- A **generalist** rather than a **specialist**.
- Able and willing to devote most of his time to **planning and controlling**.
- Able to **identify problems**.
- Willing to **make decisions**.
- Able to maintain proper **balance** in the use of **time**.

Additional Skills Needed

- Are **feasibility** and **economic analysis** necessary?
- Is complex **technical expertise** required?
If so, is it within the individual's capabilities?
- If the individual is **lacking expertise**, will there be sufficient backup strength in the line organisations?
- Is this the company's or the individual's **first exposure** to this type of project and/or client?
If so, what are the **risks** to be considered?
- What is the **priority** for this project, and what are the **risks**?
- With whom must the project manager **interface**, both inside and outside the organisation?

Responsibility, Authority and Accountability



Responsibility

- While others are responsible for parts of the project, the **project manager** still retains **FULL responsibility** for the **final result!**



Accountability

- Helps **decrease poor performance** and **increase good performance** when the level of accountability is in line with responsibility.



Authority

- **Appropriate access to resources** must be granted to team members, including the project manager in order to complete the project.
- **Without proper authority**, the team cannot be held accountable for poor results.



The Role of Team Members

- They must **know what they are supposed to do**, preferably in terms of an end product.
- They must have a **clear understanding** of their authority and its limits.
- They must know what their **relationship** with other people is.
- They should know where and when they are **falling short**.



Part 3:

Project Stakeholders

- For every project it is important to clearly identify:
 - the **client** who requested the project,
 - the **stakeholders** who have an interest in the project, and
 - the **customer** who will use the product, service, process, or plan the project produces.
- Some projects get into serious trouble because they have **several clients** who each want something different from the project.



Who is the Client?

- The client is **the person who requests the project**.
- Be sure to get commitment of support from the client.
- Ask the following questions to the client:
 - Who is authorised to **make decisions** for the project?
 - What **access** does the project manager have **to the client**?
 - What **approvals** does the client require at which stages of the project?
 - How will these approvals be **obtained** and how long will they take?
 - Who has the **authority** to formally sign off on the project when it is completed?



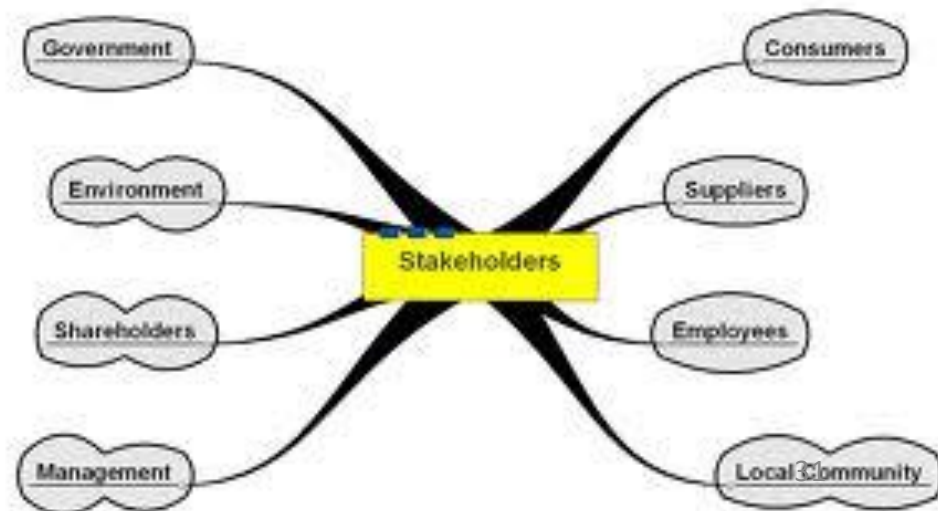
The Customer

- The **customer** is the person or group of persons that will **use what the project** is intended to provide – the product, service, process or plan.



Other Stakeholders

- A **stakeholder** is **someone else who has an interest in the project.**
- They may be people in **other departments, suppliers, vendors, other government agencies, management or stockholders.**
- **Information** should be disseminated to stakeholders throughout the life of the project.



Stakeholder Analysis

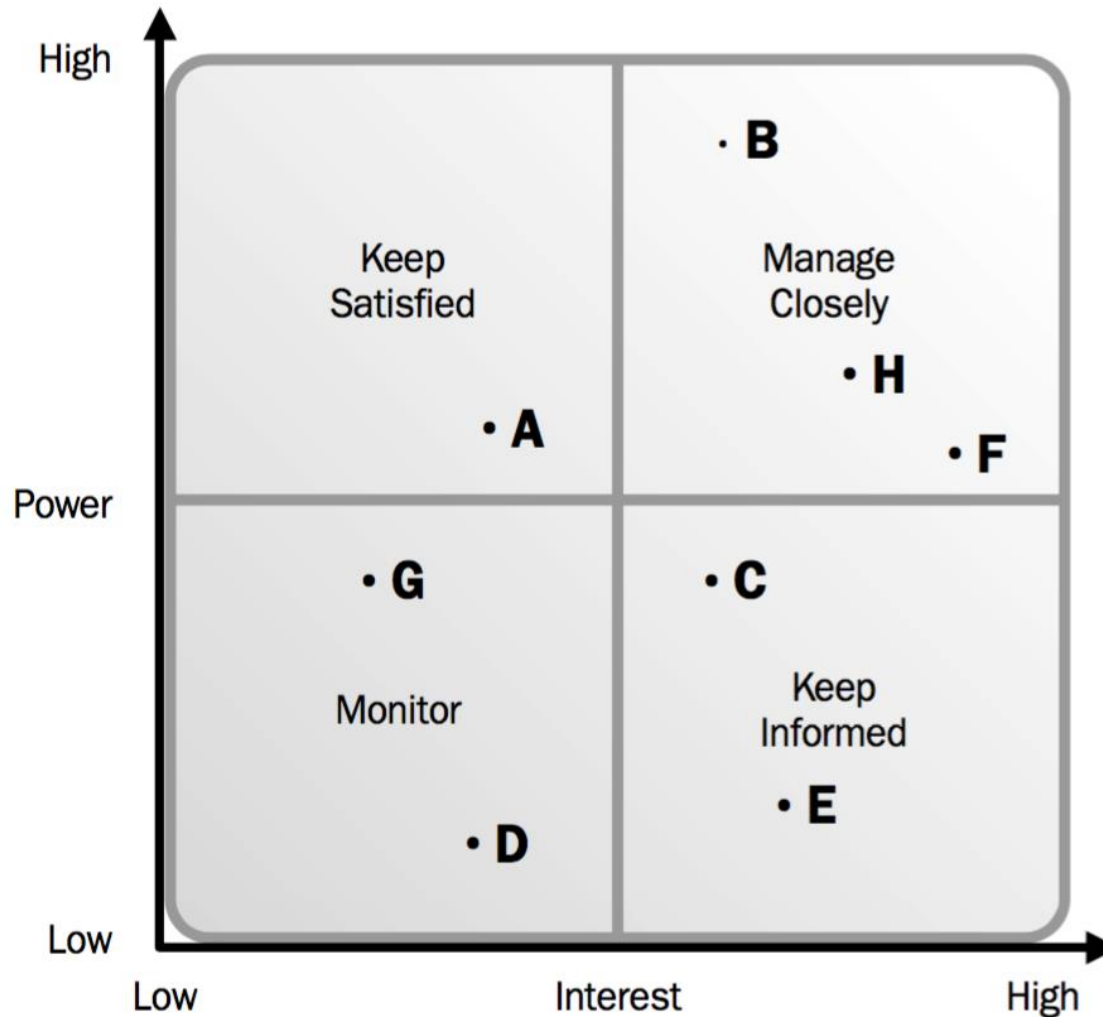


Figure 13-4. Example Power/Interest Grid with Stakeholders

Part 4:

Defining the Project

- A clear **project definition** and **detailed objectives** are critical to the success of the project.
- Whatever time you and energy you need to **define the project properly** in the planning stage is much less than what it will **cost to fix problems** after the project is completed.
- This chapter covers **the first steps in project planning**.

Defining the Project



Defining the Problem or Opportunity

Define the **problem** or **opportunity** that makes the project necessary or desirable by:

- Getting **a clear definition** of the problem to be solved or the opportunity to take advantage of.
- Determining **the client's needs** and **wants**. Distinguish between the two.
- Gathering **sufficient background information** about the current situation.
- Learning and thoroughly understanding **the business reasons for the project**.

Types of Projects

- **Market driven** ~ designed to fill a need for your customers
- **Crisis driven** ~ a fast solution to a specific problem
- **Change driven** ~ the need to change current operations to become more effective



Establishing Project Objectives

- “You can have it **cheap, quick, or done right.**
Pick any two”



Time, Cost, Scope

- **Time** - Easy to measure. Client wants the project **NOW!**
- **Cost** - More difficult to measure. Influenced by **specifications, compliance, and technical requirements.**
- **Scope** - Project Manager must write a clearly defined scope statement that clearly defines **the desired end product, service or process** including **quality standards** to be met.



Part 5

Initiating a Project and Project Charter

- **Planning** and **control** go hand in hand.
- With a **solid plan**, a project manager can exercise **proper control**.
- You cannot **control** without a **plan**.
- Many organisations have **no formal planning** and **control systems**.
- This chapter discusses why a **planning and control system** is important and provides the basic components of such a system.

**IF YOU FAIL TO PLAN,
YOU ARE PLANNING
TO FAIL.**

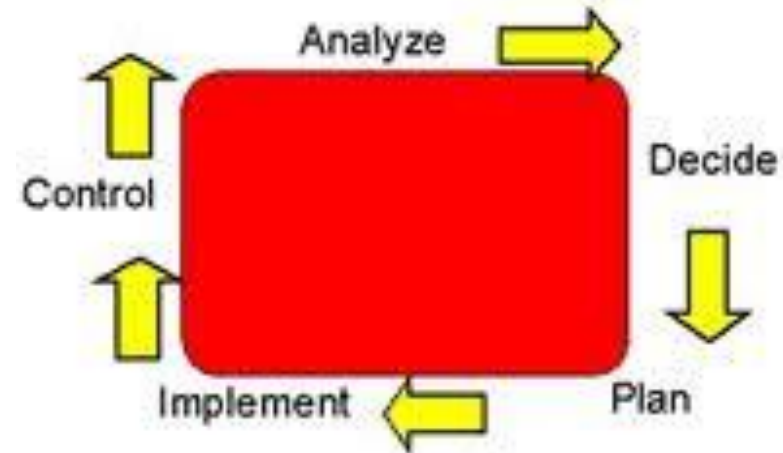
-BENJAMIN FRANKLIN

The Need for a Planning and Control System

- **Planning** and **controlling** are closely related and with **proper planning** a project manager can exercise **effective control** over the project.
- It is recommended to spend **at least 25% of the project effort** in planning.
- **Projects**, regardless of the amount and quality of planning, **will always need adjusting**.
- Any good planning and controlling system **must be flexible** enough to incorporate required changes but **rigorous** enough to provide control.

Elements of a Planning and Control System

1. Define the **problem** or **opportunity**
2. Establish project **objectives**
3. Develop the project **plan**
4. Project **implementation**
5. **Monitoring**
6. **Control**
7. Project **completion** and **closure**



1. Define the Problem or Opportunity

- At the beginning of a project it is important to **clearly define the project** and **what it will achieve** i.e. solving a problem or taking advantage of an opportunity.



2. Establish Project Objectives

- The second step is to define **the basic objectives** of the project, the project strategy, in terms of **time**, **cost** and **scope**.



Money



Time

PROJECT OBJECTIVES



Scope



Quality

SMART Goals

S = Specific

M = Measurable

A = Achievable

R = Relevant

T = Time-Bound

Project Charter

- The **Project Charter** is a **document** that **formally recognises a project** and states the **project approvals** by the client, or senior management, and the **authority** granted to senior management.

Project Charter

A Project Charter is a living document outlining the issues, targets and framework of a process improvement effort.



Problem Statement

The problem captured in the form of a measurement.



Business Case

The business reasons for doing the project.



Goal Statement

The target of the process measurement.



Timeline

When each project phase will be completed.



Scope

What's in and what's out of the project.



Team Members

The people who will participate in the project.

Getting Approvals and Commitments for Project Management Plan

- Getting written approvals from the **customer, client** and **senior management**.
- Remember, unless it is **on paper** it has not been said.
- Determine what the **commitments mean**.
- Make sure that **everyone understands** what is expected of them.
- Obtain **funding** for budgets, personnel equipment, accommodation and other resources.

3. Develop the Project Plan

- **Detailed plans** are then developed that include:
 - activities,
 - schedules,
 - budgets and
 - resource requirements.

- **Project management software** is very useful at this stage.



4. Project Implementation

Once the project plans have been prepared and approved then **implementation** can start.



5. Monitoring

- It is essential that the progress of a project needs to be **monitored** against the plan.
- **Variances** need to be analysed to see if corrective action is required.

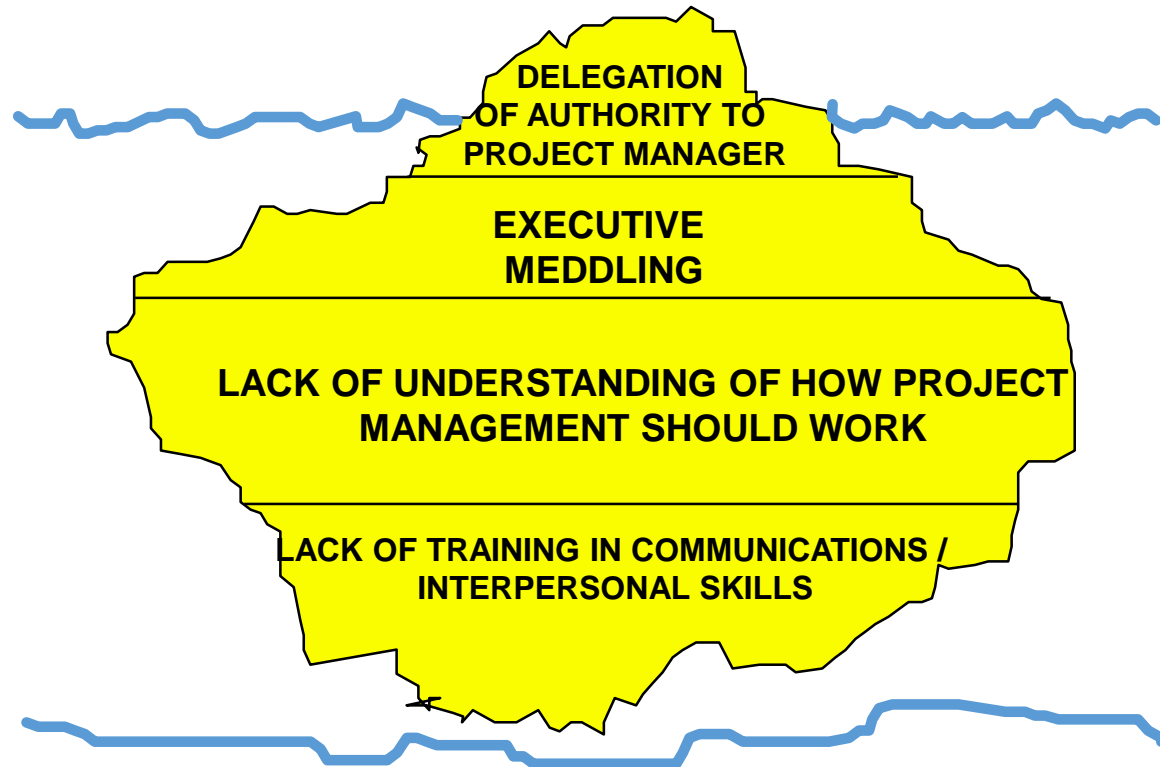


6. Control

- **Corrective action** may be required to get the project back on track.
- If the **variations** are large enough then the overall project strategy may need to be reviewed.



THE TIP-OF-THE-ICEBERG SYNDROME



MANY OF THE PROBLEMS ASSOCIATED WITH PROJECT MANAGEMENT WILL SURFACE MUCH LATER IN THE PROJECT AND RESULT IN MUCH HIGHER COSTS

7. Project Completion and Closure

- It is important to **formally close a project** and review the project.
- This may provide **valuable information** for the success of future projects.

Project Completion Form



Part 6

Creating a Work Breakdown Structure (WBS)

- A **Work Breakdown Structure (WBS)** defines the work to be completed in a project.
- The **WBS** is the basis for **time estimating**, **resource allocation**, and **cost estimating** and **collection**.

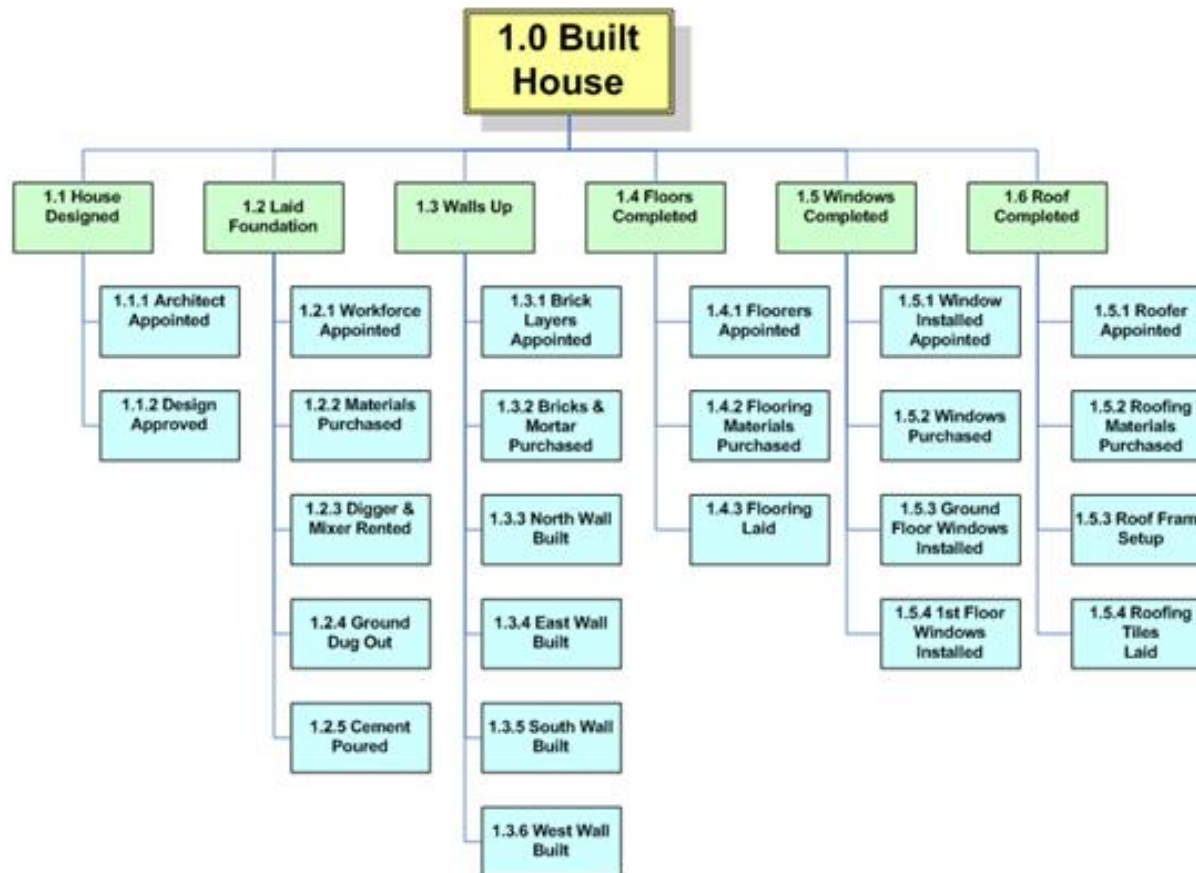
Simple Work Breakdown Structure



Rules to Create a WBS

- Include **100%** of the work necessary to complete the goal.
- Don't account for any amount of work **twice**.
- Focus on **outcomes**, not actions.
- A **work package** should take no less than 8 hours and no more than 80 hours of effort.
- Include about **three levels** of detail.
- Assign each work package to a **specific team** or **individual**.

WBS – Building House



Part 7

Estimating, Sequencing, and Planning Activities

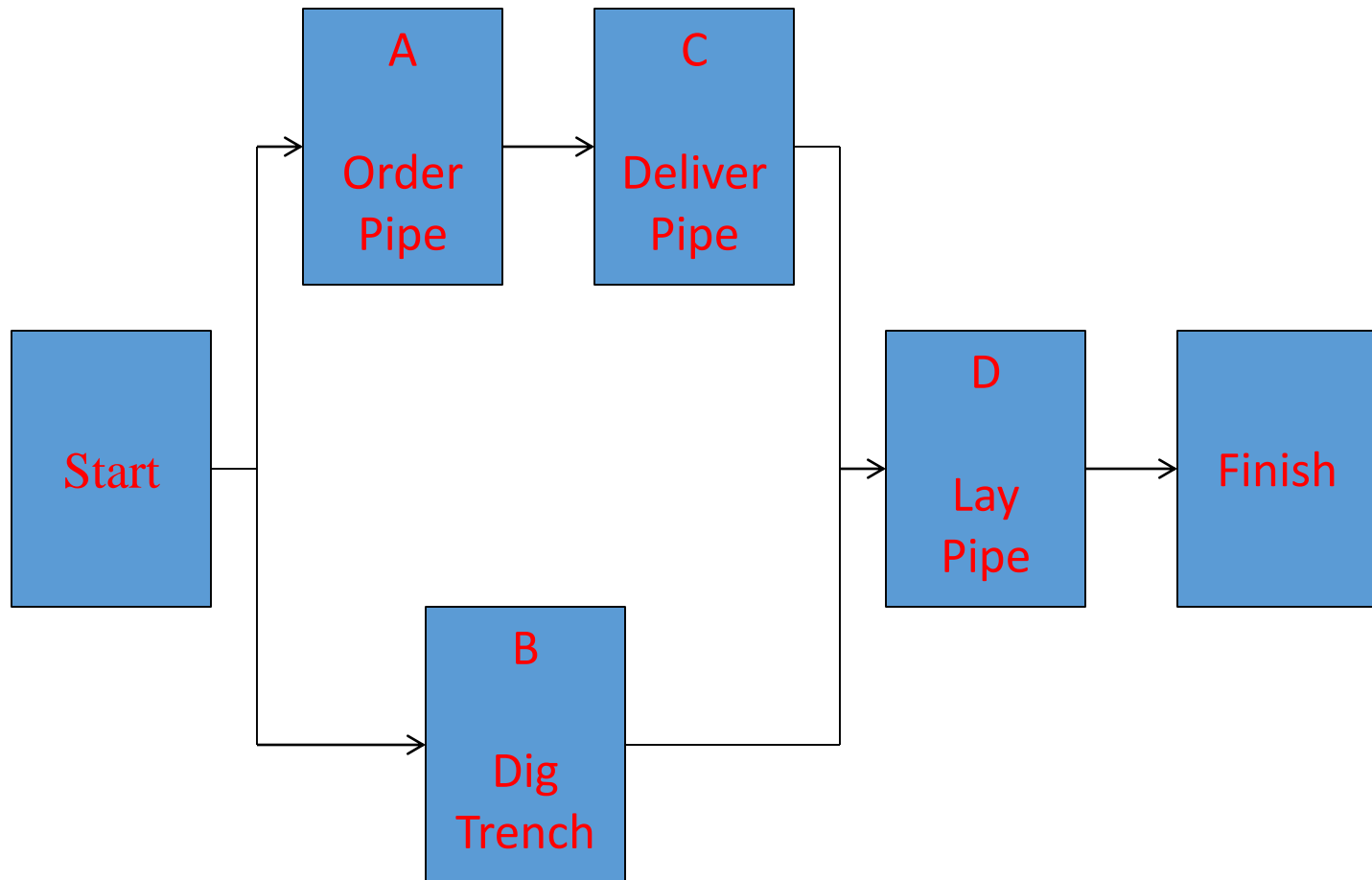
Estimating:

- Good estimation is critical for successful completion of a project – **on time, on budget** and **on the mark**.
- Use the **WBS** as the basis for creating **activity estimations**.
- Estimating is **not an exact science**.
- Projects often involve a greater degree of **uncertainty**.

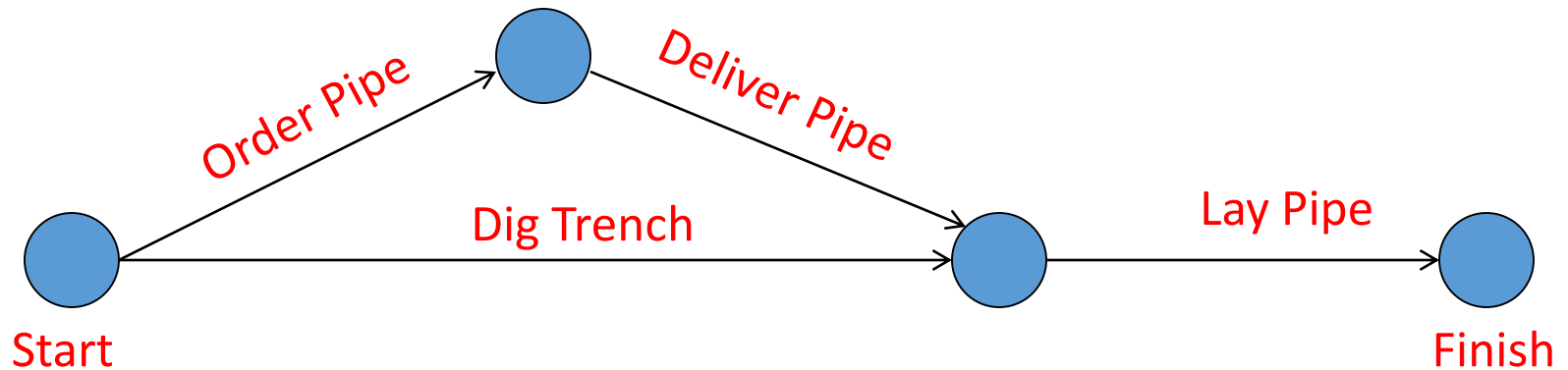
Sequencing

- An important part of project planning is determining **the logical workflow** of the various activities you identified in the WBS.
- **Network diagrams** are used that represent a graphical flow plan of activities that must be accomplished to complete the project.
- The diagram illustrates which **activities must be performed in sequence**.
- It also shows **the planned sequence of steps**, with all dependencies.
- **Project management software** will automatically prepare network diagrams and bar charts.

Precedence Diagram Method

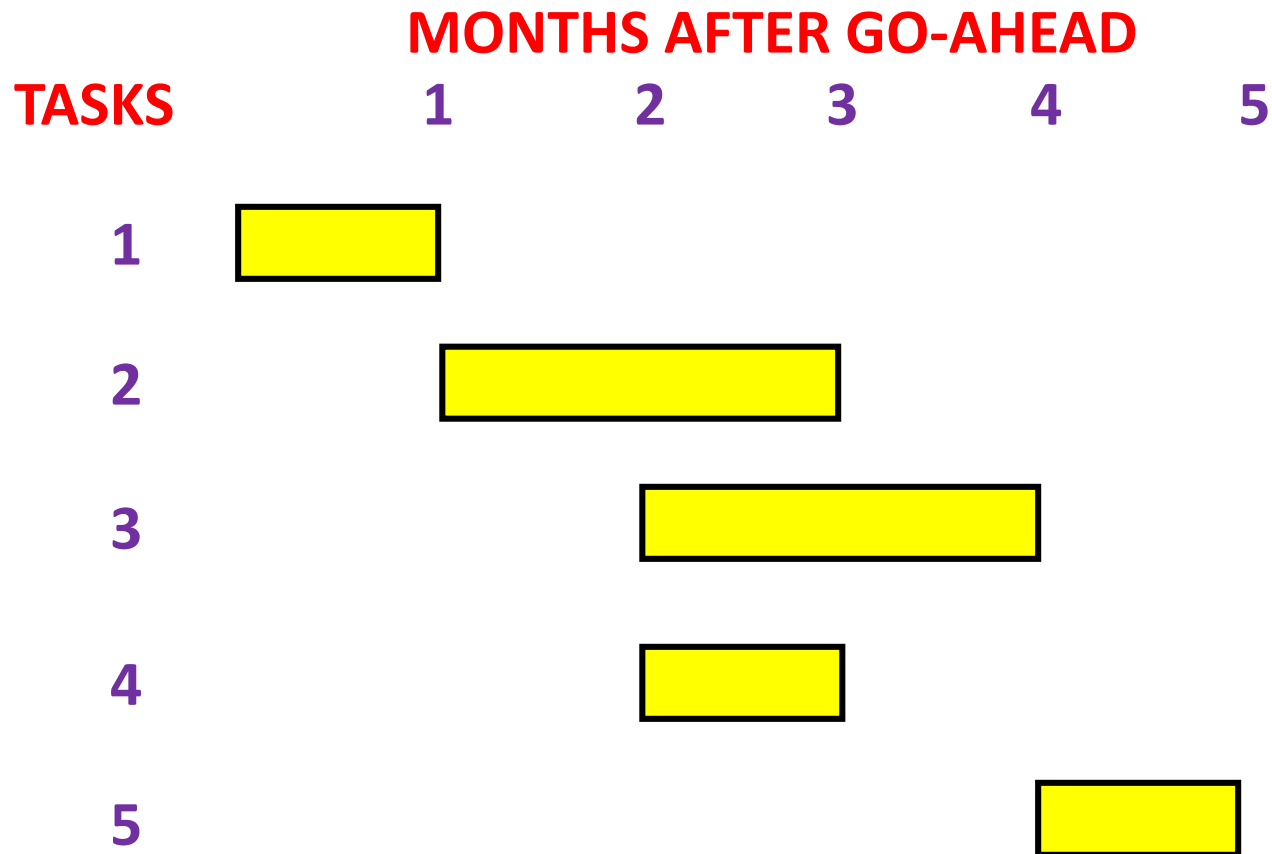


Arrow Diagram Method



Finish to Start	Activity A must finish before activity B can begin
Start to start	Activity A must begin before activity B can begin
Start to finish	Activity A must begin before activity B can finish
Finish to finish	Activity A must finish before activity B can finish

Bar (Gantt) Chart



Part 8

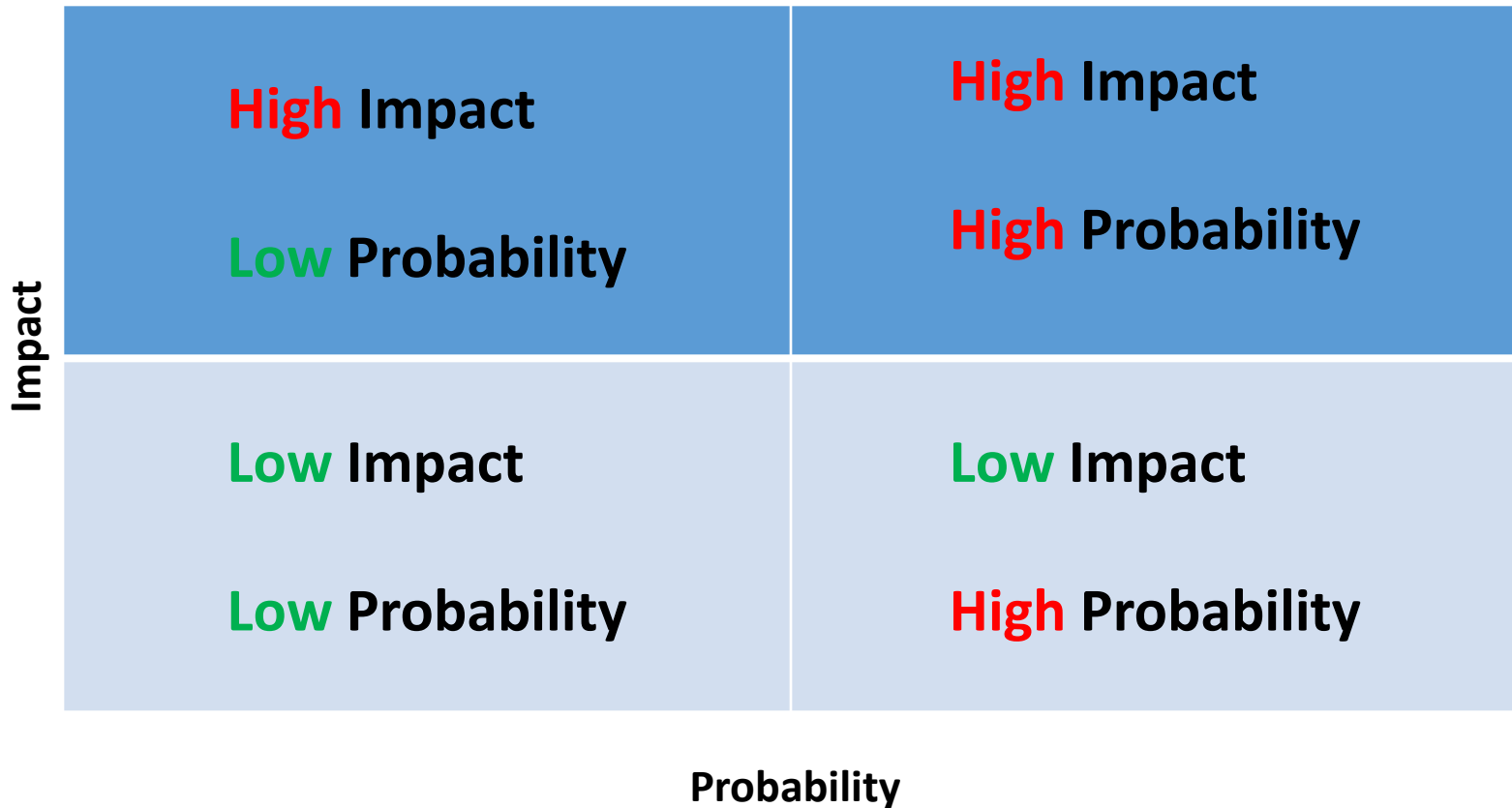
Project Risk Management

➤ Identifying Risk: Possible sources:

- Technical
- Administrative
- Environmental
- Financial
- Resource availability
- Human
- Logistical
- Governmental
- Market



Assessing Risk

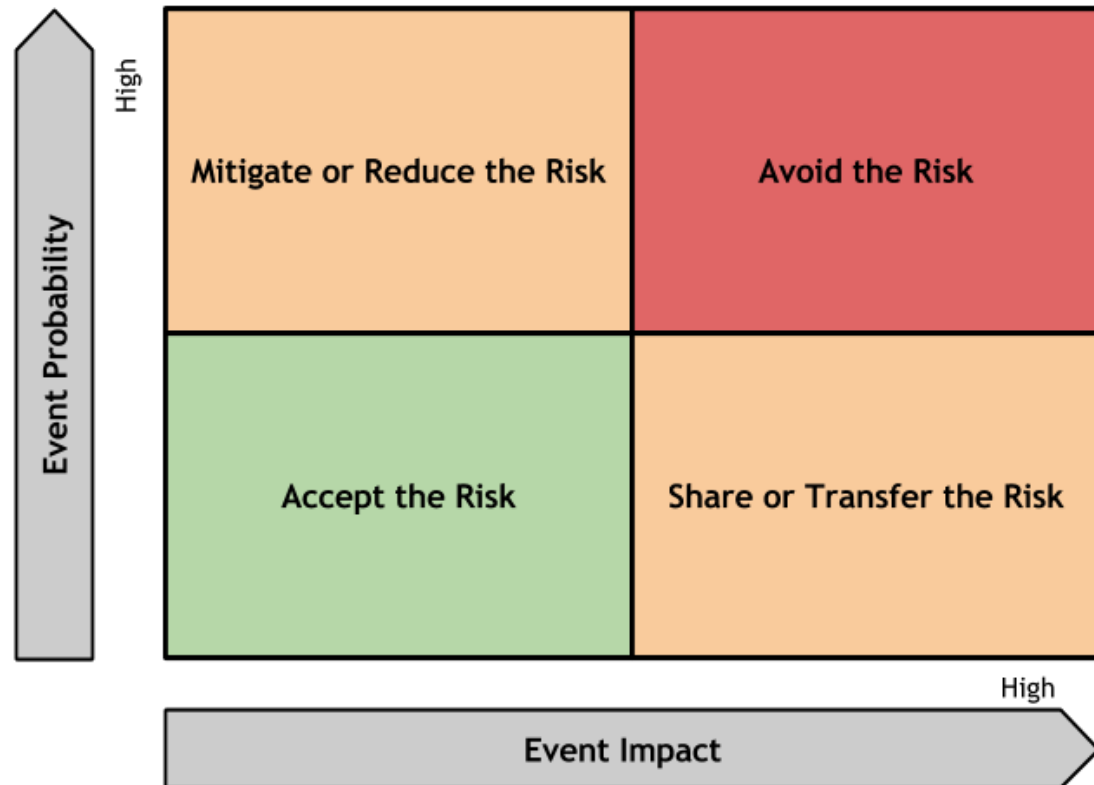


Responding to Risk

➤ **Response Plan:** This should be developed before the risk event occurs. If the event occurs then execute the plan.

➤ Possible Responses:

- Avoiding
- Transferring
- Mitigating
- Accepting



Part 9

Monitoring and Control

- Monitoring and control is the process of **comparing actual performance to the plan** to determine the variances, evaluate possible alternatives, and take appropriate action.
- The ability to **control a project** is directly tied to the effectiveness of the project plan.
- Problems will **always occur** but they should be kept to a **minimum**.

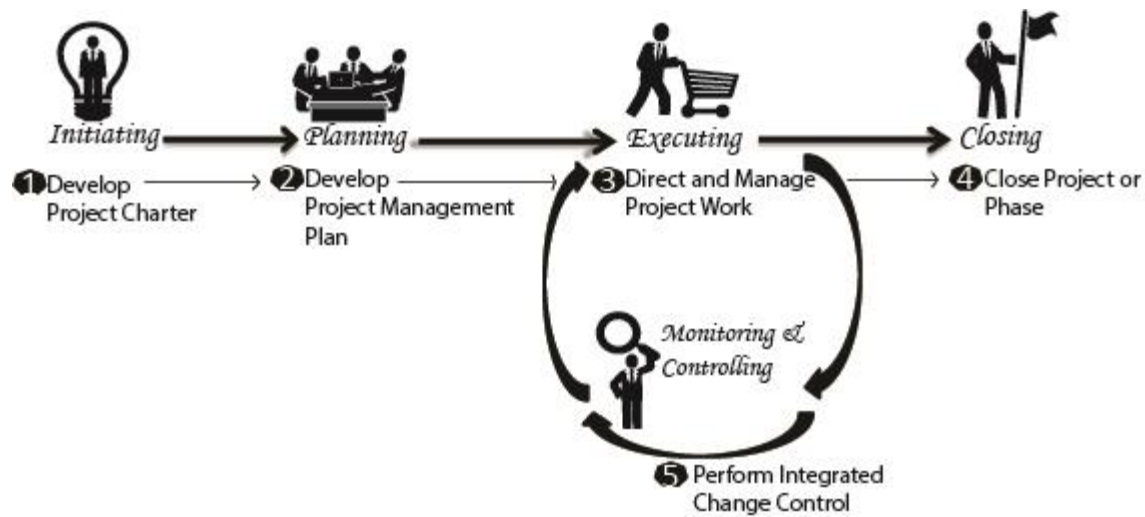


Principles of Monitoring and Control

- Set up **a formal process** to control changes in the project.
- Don't **micro-manage**.
- Elevate problems to **the lowest level** of management that can make the decision and take action.
- Be consistent, calculating and reporting **schedule progress**, **cost expenditures**, and **scope performance** throughout the project life.
- If you have more than one project, be sure to handle **significant, highly-visible projects first** and more often, followed by average and then low priority projects.

Establishing a Plan to Monitor and Control the Project

- Determining **Information Needs**
- Determining **Data Collection Methods**
- Determining **Frequency of Data Collection**
- **Status Information**
- **Variances**
- **Reports**
- **Course of Action**



Determine Data Collection Methods

- Electronic
- Manual
- Onsite Inspection
- One-on-one Interviews
- Team Meetings

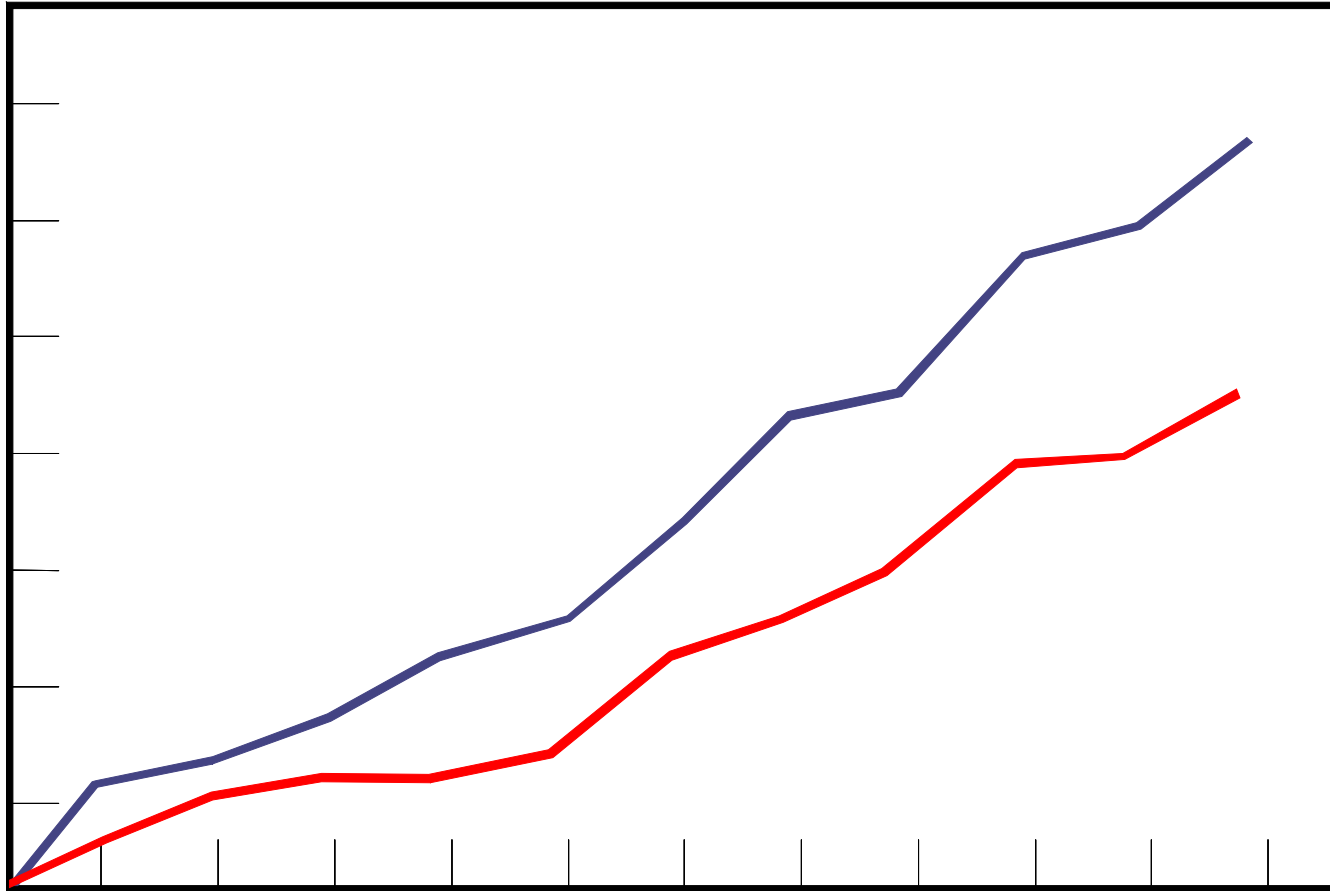


Variations

- The **cost variance** compares deviations only from the **budget** and **does not provide a measure of comparison between work scheduled and work accomplished**.
- The **scheduling variance** provides a comparison between **planned and actual performance** but does not include costs.
- **Impact** on the project.
- Whether impact is a **problem**.
- **Cause** of variance, including reasons and people involved.
- Whether the cause of the variance will **create variances elsewhere** in the project.



Variance Analyses



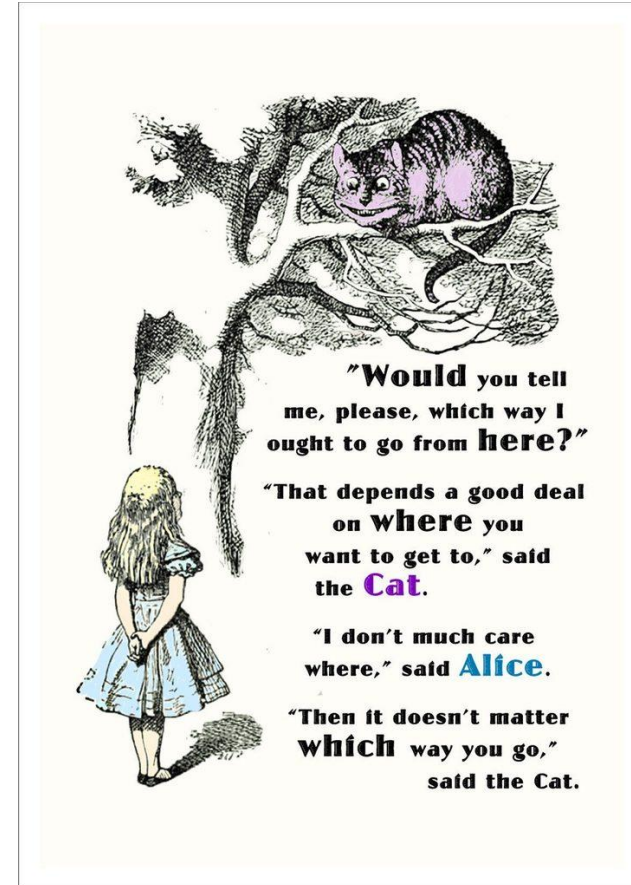
Reports

- What the plan says **should be happening**.
- What is **ACTUALLY** happening (**status**).
- **Variance** between plan and status.



Courses of Action

- **Implement** the decision.
- Follow up to ensure that the action solves the problem.
- Take **additional action** if necessary to solve the problem.
- **Document** the decisions that make significant changes in the approved plans.
- Take **preventative action** to ensure that similar problems don't happen again.



Time Control

- Systematically collect schedule **performance data**.
- Compare this status information with the **baseline schedule**.
- Analyse **variances** to determine their impact.
- Prepare and publish **reports**.
- Determine a **course of action**.
- Take **corrective action**.



Cost Control

- Systematically collect **cost performance data**.
- Compare **expenditures** to **baseline costs**.
- Analyse **variances** to determine their impact.
- Prepare and publish relevant **reports**.
- Determine a **course of action**.
- Take **corrective action**.



Scope and Quality Control

- The scope document includes not only a description of the features and functions of the product or service but also **quality measures**.
- **Quality measures** are used regularly in controlling quality once the project begins.
- When the **pressure** is on both quality and scope can suffer.

Scope Changes

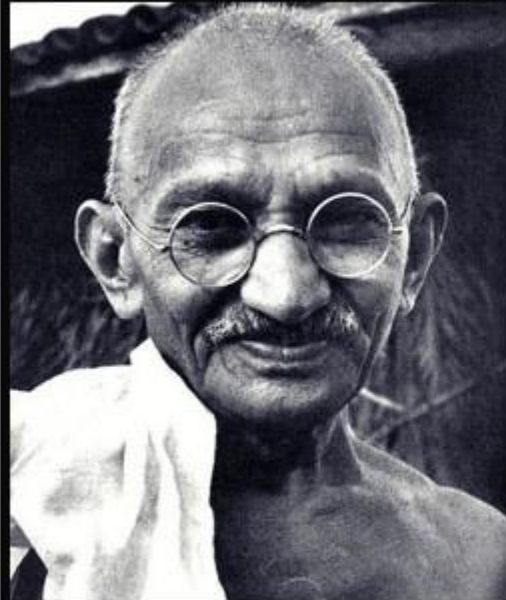
- **Frequent scope changes** may be an indication of **inadequate up-front planning**.
- They most often occur because of errors and **omissions** in the **planning stage**.
- Changes may be caused by either **internal** or **external** events.
- **Internal events** include inadequate planning as just mentioned and senior management decisions.
- **External events** may include changes to government regulations, new technology, new products or competitors.

Resource Control

- Be sure that all **team members** understand the basic objectives of the project and know how their tasks contribute to the project.
- Have team members prepare **individual plans** for accomplishing their work.
- Ensure that team members have the appropriate skills and **resources** to do their jobs.
- **Empower** team members to accomplish their tasks by giving appropriate authority and information. Provide supervision and **feedback**.

Final Activity

- Can you please write down **three actions** that you will undertake over the next **two weeks** to **improve your project management skills**.



You must be the change you want to see in the world.

(Mahatma Gandhi)

izquotes.com



Vietnamese - German University

Questions Please



Thank you very much

Regards

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