

# **Project Planning & Its Types**

# Introduction

- ❑ The key to a successful project is in the planning.
- ❑ Planning is the first thing that is done when one undertakes a project.
- ❑ Often project planning is ignore to rush in for the work.
- ❑ The value of project planning is
  - saving money.
  - saving time.
  - quality output.
- ❑ Note: If you fail to plan, you plan to fail.



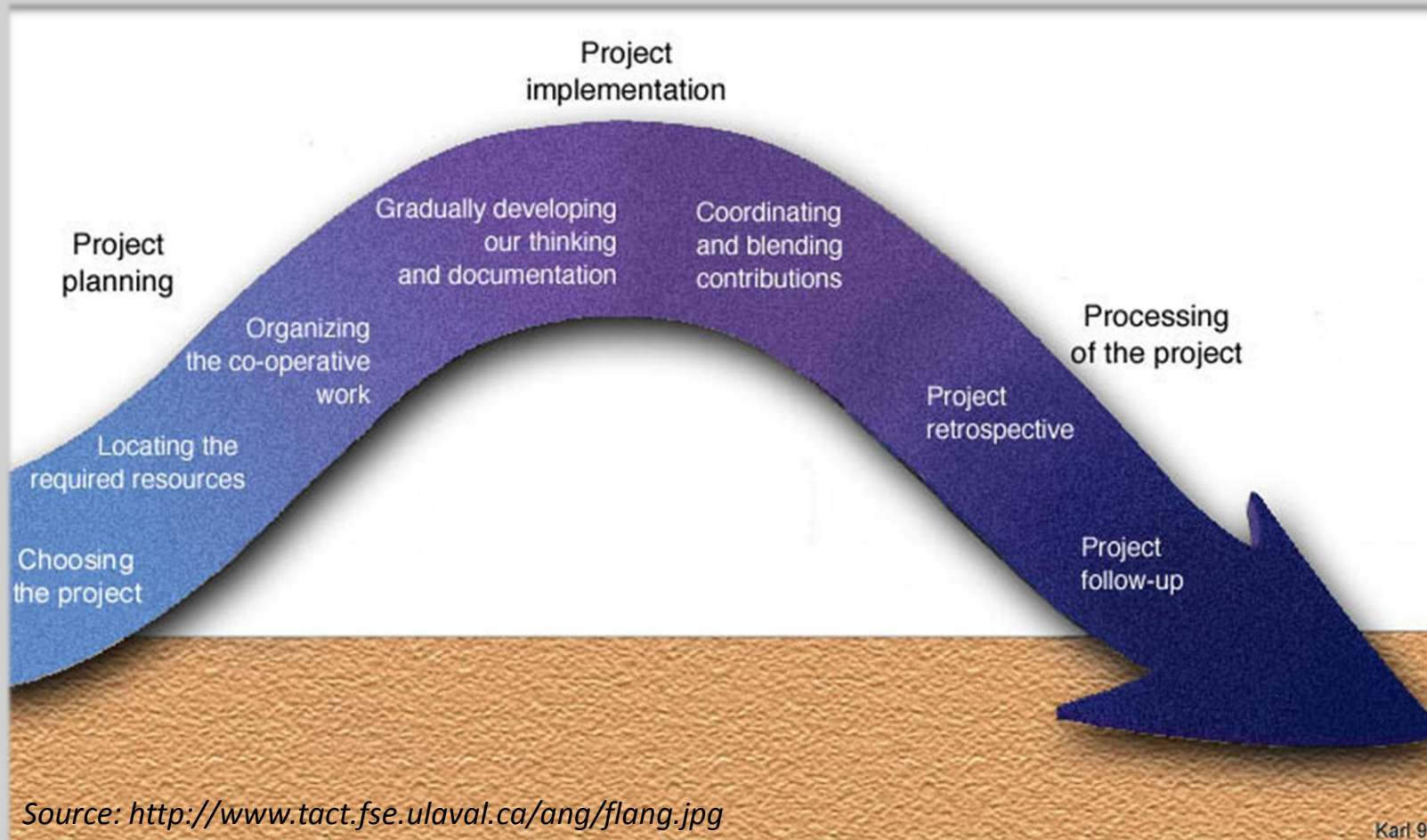


Fig: Project Planning

# Essential Elements For Project Planning

- ❑ Aim of project
  - What do we want to produce?
- ❑ Outputs
  - What do we actually need to get there?
- ❑ Quality criteria
  - What is the quality of the output?
  - We need the completed output to be of certain quality and we need to define what that quality is (we define it using the SMART principle: Specific, Measurable, Achievable, Realistic, Timely).

# Contd..

## ☐ Resources

- Includes staff time, particular knowledge or skill sets, money, time.

## ☐ Management structure

- How are we going to manage the work.

## ☐ Milestones

- A defined milestone will help to identify when each section is completed.

## ☐ Tolerances

- How far can we let the project stray from the defined targets before sounding the alarm.

# Contd..

## ☐ Dependencies

- Understanding dependencies will help understand the impact of changes in any part of the project.

## ☐ Risks

- What could happen that may affect our ability to deliver the project on time?
- What can we do to avoid them?

## ☐ Scheduling

- Will be wrong. There is no perfect schedule.
- Schedule is not engraved on stone. One should expect changes .

# Project Planning Process

Establish the project constraints

Make initial assessments of the project parameters

Define project milestones and deliverables

**while** project has not been completed or cancelled **loop**

    Draw up project schedule

    Initiate activities according to schedule

    Wait ( for a while )

    Review project progress

    Revise estimates of project parameters

    Update the project schedule

    Re-negotiate project constraints and deliverables

**if** ( problems arise ) **then**

        Initiate technical review and possible revision

**end if**

**end loop**

# Steps in Planning

- ☐ Specification
- ☐ Project Goals
- ☐ Global Structure
- ☐ Project Breakdown
- ☐ Task Delegation
- ☐ Time Estimation
- ☐ Supporting Plans
- ☐ Setting Controls/Gates



# Specification

- ❑ A written definition of requirements and deadlines.
- ❑ Should be clear, complete and rigorous to eliminate misunderstandings, contradictions, oversight of technical difficulties.

# Project goals

- ❑ Identify the stakeholders of the project.
- ❑ Stakeholder is any body impacted directly or indirectly by the project.
- ❑ Establish their needs by interviewing or having consolidated meetings.
- ❑ Prioritize stakeholders needs.
- ❑ Create a set of goals that can be easily measured (you may use the SMART technique for this)
  - S – specific
  - M – measurable
  - A – achievable
  - R – realistic
  - T – timely

# Structure

- ❑ Includes tasks that must be accomplished.
- ❑ Relationship of each task to the specifications.
- ❑ Who will do what?
- ❑ When will it be done?

# Project Breakdown

- ❑ Break project down into a series of task.
- ❑ Break each task down into subtasks.
- ❑ Continue until all items are doable and understandable.

# Task Delegation

- ☐ Assign tasks to specific people (or teams).
- ☐ Order tasks so that they occur in a logical sequence.
- ☐ Match tasks to abilities of the team.
- ☐ Do not over specify.

# Time Estimation

- ❑ Times are based on previous experience.
- ❑ They are always wrong so one must plan accordingly.

## ❑ Example

How long should it take you to climb the statue of Liberty?

- Estimate the number of steps.
  - Estimate the time per steps.
- ❑ Add extra buffer where tasks depend on one another.

# Supporting plans

## ❑ Human resource plan

- Identify by name the individuals with a leading role in the project and describe roles and responsibilities.
- Describe the number and type of people needed to carryout the project.
- Include SME's (subject matter experts) and specific trades of the market.
- Create a single sheet with the above information.
- The above will help establishing the project budget.

# Contd..

## □ Communications plan

- Who needs to be informed about the project?
- How will they receive the information
  - Weekly/monthly progress reports to include performance, status, milestones achieved, work planned for next periods etc.



# Contd..

## ❑ Risk Management Plan

- Identify as many risks as possible.
- Be prepared if something bad happens.
- Common project risks
  - Time and costs estimates too optimistic.
  - Unexpected budget cuts.
  - Scope changes.
  - Atmospheric events.
  - How to address each risk.

# Project Controls

- ☐ Indicate progress to the supervisors.
- ☐ Allow for quality control checkpoints.

## Quality Control

- ☐ Must examine critical parameters.

# Planning for Unknowns

- ❑ Identify risky tasks.
  - Have not been done before.
  - Rely on new equipment.
  - Depend on training of personnel.
- ❑ Allow extra margins for risky tasks.

# Types Of Project Plan

- ☐ Quality plan

Describes the quality procedures and standards that will be used in a project.

- ☐ Validation plan

Describes the approach, resources and schedule used for system validation.

- ☐ Configuration management plan

Describes the configuration management procedures and structures to be used.

- ☐ Maintenance plan

Predicts the maintenance requirements of the system, maintenance costs and effort required.

- ☐ Staff development plan.

Describes how the skills and experience of the project team members will be developed.

# References

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**Any Queries ?**