

Project Planning A Step by Step Guide

Angel Ariel Ortiz Noble, PE, PMP
Project Management Institute
San Juan, Puerto Rico

Project Planning A Step by Step Guide

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○ Introduction

- n The key to a successful project is in planning
- n Planning is the first thing you do when undertaking a project
- n Often project planning is ignore to rush in for the work
- n The value of project planning
 - saving money
 - saving time
 - saving many problems
- n Remember: If you fail to plan, you plan to fail

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- Essential elements for project planning
 - n Aim of project – what do we want to produce?
Business case
 - n Outputs – what do we actually need to get there?; need to be clearly defined
 - n Quality criteria – what quality the outputs need to be of?; we need the completed output to be of certain quality and we need to define what that quality is (define using the SMART principle: specific, measurable, achievable, realistic, timely); inputs from customer and stakeholders are critical here
 - n Resources – include staff time, particular knowledge or skill sets, money, time

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- Essential elements for project planning
 - n Management structure – how are we going to manage the work?; decision makers?; how to share project progress and to whom?
 - n Milestones – how to break up the project?; break up the project into discrete chunks (WBS); a defined milestone will help to identify when each section is completed
 - n Tolerances – how far can you let the project stray from the defined targets before sounding the alarm; will help manage the project without continually seeking guidance from the top executives as to whether you should carry on

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- Essential elements for project planning
 - n Dependencies – what need to happen before something else? Understanding dependencies will help understand the impact of changes in any part of the project; internal (within your control); external (outside of your control)
 - n Risks – what could go wrong?; what could happen that may affect your ability to deliver the project on time?; what can you do to avoid them?

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- Essential elements for project planning
 - n Scheduling – there is something you need to understand about the schedule: it will be wrong; there is no perfect schedule; get your executives to know that the schedule is not engraved on stone; they should expect changes

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- Step 1 – Project goals
 - n Identify the stakeholders of the project
 - Stakeholder is any body impacted directly or indirectly by the project
 - n Establish their needs by interviewing or having consolidated meetings
 - n Prioritize stakeholders needs
 - n 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

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- Step 2 – Project Deliverables
 - n Create a list of things that need to be delivered to meet the defined goals
 - n Specify when and how each item must be delivered
 - n Add deliverables to the project plan with an estimated delivery date

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- Step 3 – Project Schedule
 - n Create a list of tasks that need to be carried out for each deliverable identified previously
 - Identify the amount of effort needed (hours or days)
 - Identify resource that will do the task
 - n Organize all the above information using a scheduling software or template
 - n You may found that the project estimated deadline is not aligned with the “imposed project deadline” by the sponsor
 - Renegotiate the deadline (project delay)
 - Employ additional resources (additional money)
 - Reduce the scope of the project (less deliverables)
 - Be firm and do not make commitments other than what your schedule and budget dictate

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- Step 4 – Supporting plans
 - n 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

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○ Step 4 – Supporting Plans

n Communications plan

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

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- Step 4 – Supporting Plans
 - n Risk Management Plan
 - Identify as many risks to your project as possible
 - Be prepared if something bad happens
 - Common project risks
 - n time and costs estimates too optimistic
 - n Unexpected budget cuts
 - n Scope changes
 - n Atmospheric events
 - Write down a mitigation plan for every risk; how to address each risk

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- The Plan is a “living document”
- There will be changes along the project execution phase, therefore
 - n Update your plan as project progresses and measure progress against the plan

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- Real life experience – Installation of Production equipment in a Chemical Plant

- n Facts

- Imposed dateline due to production demands
 - Rush in to the project works without enough planning
 - Executives did not allow for development or conceptual design
 - Budget done by experience and guesstimate
 - Design lack of details due to lack of time
 - Bidding done based on available design

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○ Results

- n Many change orders – impact in budget and schedule
 - Schedule impact
 - Budget impact
- n Missing requirements from other stakeholders
 - Require additional contractor resources, therefore, additional time and money
- n Lessons learned
 - Planning can not be ignored
 - Start executing after a robust plan is prepared
 - Planning is critical to design