

Slide deck L1

Startup Roles and Personalities

- **The Dreamer (CEO):** have the passion and vision to lead the project
- **The Visionary (CPO):** inspire team members based on the dream, making goals a reality. Have the business vision. *Chief Product Officer*
- **The Doer (CTO):** understand and meet technical challenges. *Chief Technical Officer*
- **The Hustler:** networking, selling and generally driving the product forward through usage
- **The Growth Hacker:** strategic thinker who is both analytical and creative, understands marketing and what users want and how to give it to them

Project Management Roles
Planning manager – responsible for tracking the plan.
Quality manager – responsible for tracking the quality plan.
Process manager – responsible for ensuring process discipline and for process improvement.
Support manager – responsible for ensuring that support needs are met and for configuration management.
Technical Management Roles
Customer interface manager – responsible for the interface to the customer or customer representative.
Design manager – responsible for the design practices and quality.
Implementation manager – responsible for implementation practices and quality.
Test manager – responsible for test practices and quality.

Slide deck L2

Managing a project:

1. Identifying requirements
2. Addressing the various needs, concerns and expectations of the stakeholders
3. Balancing the competing project constraints: scope, quality, schedule, budget, resources and risk

Iron Triangle



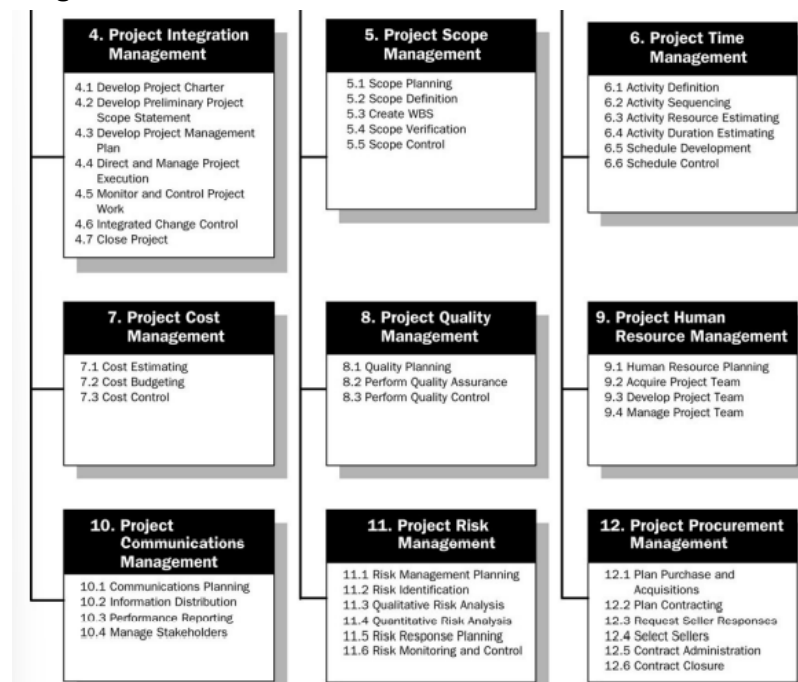
Project Manager

- Person assigned to achieve the project objectives
- Many of the tools and techniques are specific to project management
- Understanding and applying the knowledge, tools and techniques is not sufficient
- Knowledge + performance (what he is able to do or accomplish) + personal (how he behaves - attitudes, core personality, leadership)

PMBOK

- Application of knowledge, skills, tools and techniques to project activities to meet the project requirements
- Is accomplished through the appropriate application and integration of the **49 project management processes** comprising the **5 process groups**
 - Initiating: meeting the client and stakeholders. Fix the scope and set goals
 - Planning: determine and assign tasks in order to reach set goals
 - Executing: begin working on the tasks
 - Monitoring and controlling: ensure the project flow is where it should be, assess risks and control it
 - Closing: analyze what worked, deliver the project, answer questions, reward your team, document the project for use in other projects

PMBOK Knowledge areas



- **Integration**: start to end. monitor the five processes
- **Cost**: gain the upper hand costs and stop when overruns appear
- **Scope**: control and prevent scope creep and how to manage it
- **Quality**: ensuring quality and controlling missteps
- **Time**: paying close attention to schedules to ensure deliverables (slide 22 - inputs, tools & techniques, outputs)
 - Define activities
 - Sequence activities
 - Estimate activity resources
 - Estimate activity durations
 - Develop schedule
 - Control schedule

- **Human Resource:** change management issues and deal with team conflict
- **Procurement:** everything from software to equipment to vendors (purchasing department)
- **Risk:** assess and prioritize risks and create a risk register
- **Stakeholders:** timely and satisfactory project delivery to stakeholders
- **Communications:** holding status meetings and ensuring everyone is on the same page. Have a communication plan accessible to everyone.

Slide deck L3

“Entrepreneur defines what is minimum. Customer defines what is feasible.”

Minimum viable product (MVP)

- Helps entrepreneurs start the process of learning as quickly as possible. The fastest way to start learning how to build a sustainable business with the minimum amount of effort.
 - The goal of the MVP is to begin the process of learning, not end it.
 - Designed to test fundamental business hypotheses, answer product design or technical questions.
 - Release early, often and get feedback (danger: running in circles, may lose long-term vision)
 - **Vision** to build a product that solves this **central problem** and has this kind of general **characteristics**, and we think that for people who are early adopters of this type of **solution**.
 - Talk to the customers: you want them to put their money where their mouth is.
 - MVP is the product that has **only** the features that allow you to ship a product that early adopters recognize, identify themselves, pay money and provide feedback.
 - Maximum learning with minimum effort > minimum viable to go to the **market step**
 - Explainer video, landing page
1. Select one MVP strategy you think would work for you
 2. Create a simple plan to execute on it

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Knowledge areas	Initiating process group
Project integration management	Develop project charter
Project stakeholder management	Identify stakeholders

Project Integration Management

- Processes and activities needed to **identify, define, combine, unify and coordinate the various processes** and project management activities
- Integration includes characteristics of unification, consolidation, articulation, and integrative actions
- Make choices about resource allocation, making trade-offs among competing objectives and alternatives and managing the interdependencies among the project
- Thinking of other types of activities performed while completing a project
- Analyze and understand the scope: requirements, criteria, assumptions, constraints
- Understand the information and transform it into a project management plan
- Perform activities to produce project deliverables

- Measure and monitor all aspects of the project's progress
- 1. Develop project charter
- 2. Develop project management plan
- 3. Direct and manage project work
- 4. Manage project knowledge
- 5. Monitor and control project work
- 6. Perform integrated change control
- 7. Close project or phase

Project Stakeholder Management

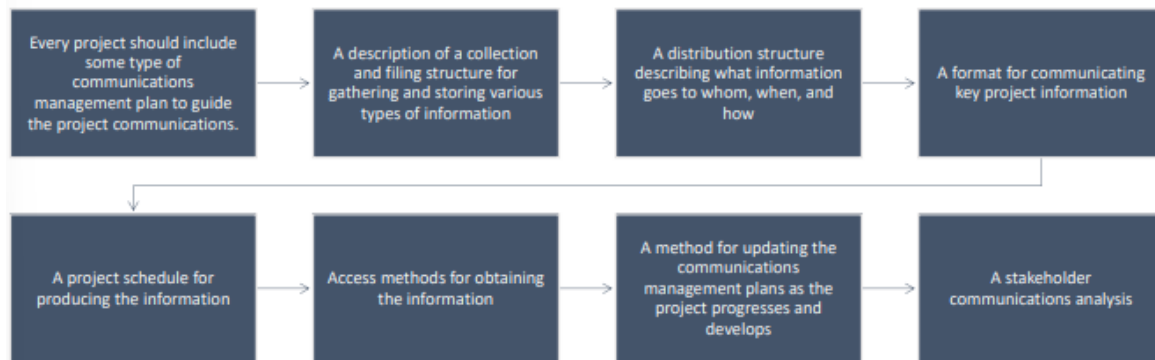
- Processes required to **identify the people, groups or organizations** that could impact or be impacted by the project, to **analyze stakeholder expectations** and their impact on the project and to **develop appropriate management strategies** for effectively engaging stakeholders in project decisions and execution
- **Identify, plan, manage and monitor** stakeholder engagement

Project Scope Management

- Processes required to **ensure that the project includes all the work required**, and only the work required
- **Defining and controlling what is and is not included** in the project
- The **approved detailed project scope statement** and its associated WBS are the scope baseline
- The baselined scope is **monitored, verified and controlled**

Project Communications Management

- Processes required to **ensure timely and appropriate generation, collection, distribution, storage, retrieval and ultimate disposition** of project information
- Spend the majority of their time **communicating with team members** and other project stakeholders
- Effective communication creates a bridge between diverse stakeholders involved in a project
- Has potential in many dimensions: internal and external, formal and informal, vertical and horizontal, official and unofficial, written and oral, and verbal and non-verbal
- **Communications Management Plan**
 - Defining the audience: key stakeholders
 - Defining the requirements: what they need to know
 - Building a communications schedule: when to do it
 - Finding the responsible team member: select the group who will lead the communication process
 - Defining the medium of communication: presenting information smoothly
 - Preparing the content: the content must be checked by the project manager. Maybe using a template



- During the project execution phase, managing project communication can be the difference between a successful and an unsuccessful one
- The process of **creating, distributing, and storing the communications** is an important part of project management, and requires the constant attention of the project manager.
- Must include project communication control at regular project status update points
- Must ensure that each stakeholder has receives the appropriate communication and whether anything should change
- 85 - 90% of a project managers time spent in communicating
- Skilled communication involves **actively listening**, cultural/personal aspects,
- **understanding stakeholder expectations**, and people handling skills
- Project **communication is sometimes more important than technical work**.

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Project (Human) Resource Management

- Organize, manage and lead the project team
- Early involvement and participation of team members adds their expertise during the planning process and strengthens their commitment to the project
- **Identify, develop and manage** the resources

Project Quality Management

- Processes and activities of the **performing organization** that determine **quality policies, objectives and responsibilities**, so that the project will **satisfy the needs** for which it was undertaken
- Policies and procedures with continuous process improvement activities
 - **Plan Quality:** Identify quality requirements and/or standards for the project and product and documenting how the project will demonstrate compliance
 - **Perform Quality Assurance:** Auditing the quality requirements and the results from quality control measurements to ensure appropriate quality standards and operational definitions are used
 - **Perform Quality Control:** Monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes
- Management of the project and the product of the project
- Applies to all projects, regardless of the nature of their products
- **Failure to meet product or project quality requirements** can have serious negative consequences for any or all of the projects stakeholders

- On **projects of smaller scope**, these processes are so tightly linked that they are viewed as a single process performed by a person over a relatively short period of time

Project Time Management

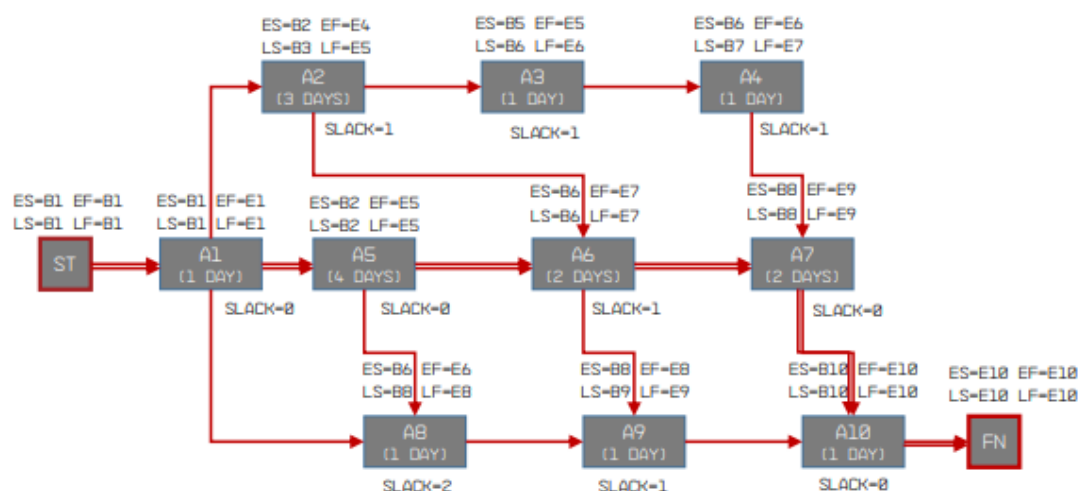
- Processes required to manage timely completion of the project
 - **Define activities:** identify the specific actions
 - **Sequence activities:** identify and document relationships among the project activities
 - **Estimate activity resources:** estimating the type and quantities of material, people, equipment or supplies required
 - **Estimate activity durations:** approximating the number of work periods needed to complete individual activities
 - **Develop schedule:** analyze activity sequences, durations, resource requirements and schedule constraints
 - **Control schedule:** monitor the status of the project and manage changes to the schedule baseline
- Uses the outputs from the processes to **define activities, sequence activities, estimate activity resources, and estimate activity durations**
- The finalized schedule is the baseline that will be used in the Control Schedule
- Ensure completion of project work in a timely manner

Milestone (event): is a significant occurrence in the life of a project. Take no time and consume no resources, they occur instantaneously. Signposts that signify a point in your trip to project completion. Mark the start or end of one or more activities

Activity: is a component of work performed during the course of a project. Take time and consume resources. Describe them using action verbs.

Duration: the total number of work periods it takes to complete an activity. Delay can add to an activity's duration.

CRITICAL PATH METHOD (CPM)



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ES=EARLIEST START EF=EARLIEST FINISH
LS=LATEST START LF=LATEST FINISH

LGP {}

B1=BEGINNING OF DAY 1
E1=END OF DAY 1

- Project assignments always have deadlines
- Make sure you define activities and milestones clearly
- Monitor critical-path activities closely
- Your project can have two or more critical paths at the same time
- Slack time is the amount of time an activity or milestone can be delayed without delaying your project's completion time

Risk: uncertain event or condition, that if it occurs, has a positive or negative effect on a project's objective

Slide deck L6

"What you don't know can hurt you... and almost certainly will!"

- Risk can be either positive or negative
- **Negative (threats)** potentially have a detrimental effect on one or more of the project objectives
- **Positive (opportunities)** potentially have a beneficial effect on project objectives

Project Risk Management

- Conducting risk management **planning, identification, analysis, response planning, and monitoring and control**
- Objective of increase the probability and impact of positive events and decrease the probability of negative events
 - **Plan Risk Management:** defining how to conduct risk management activities
 - **Identify Risks:** determine which risks may affect the project and documenting their characteristics
 - **Perform Qualitative Risk Analysis:** prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact
 - **Perform Quantitative Risk Analysis:** numerically analyzing the effect of identified risks
 - **Plan Risk Responses:** developing options and actions to enhance opportunities and reduce threats
 - **Monitor and Control Risks:** implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks and evaluating risk process effectiveness
- Project risk is always in the **future**
- A risk may have one or more causes and, if it occurs, it may have one or more impacts

Addressing Project Risks

- Identify: determine which aspects of your plan or project environment may change
- Assess the potential effects: consider what can happen if those aspects don't work out the way you envision
- Develop plans for mitigating the effects: decide how you can protect your project from the consequence of risks
- Monitor the status of your project's risks: determine whether existing risks are still present, arising, increasing or decreasing
- Inform key audiences of all risks: explain the status and potential effects

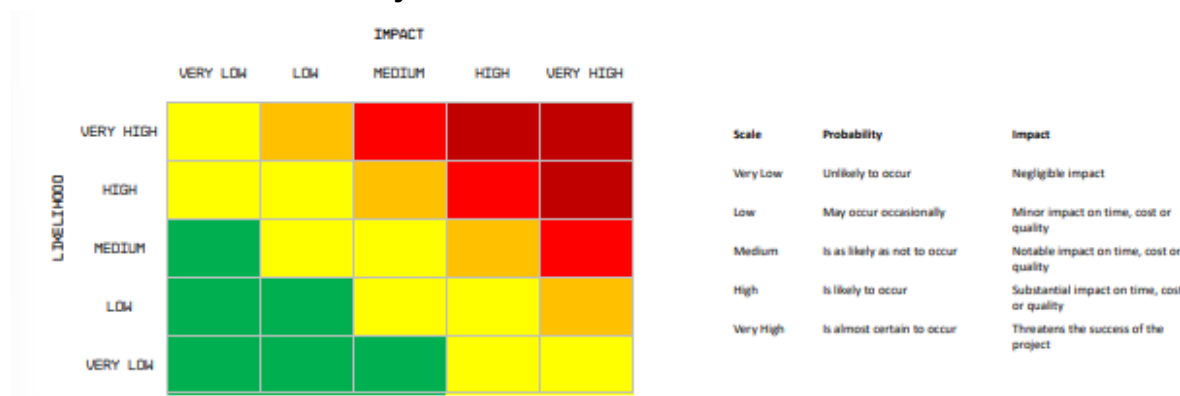
1. Risk Identification (slide 10)

- Which risks and their characteristics
- It's not a onetime vent
- Internal and external risks
 - Internal: the project team can control or influence
 - beyond the control of influence of the project team (market shifts or government action, for example)
- Also concerned with opportunities

2. Risk Assessment (slide 11)

- Evaluating risk and risk interactions to assess the range of possible project outcomes
- Determine which risk events warrant response
- Single risk event can cause multiple effects
- Opportunities for one stakeholder may be threats to another

3. Qualitative Risk Analysis



4. Quantitative risk analysis

CALCULATING
RISK EXPOSURE

$$EXP = \sum p \times I$$

p = probability
 I = loss

$$EXP \text{ risk A} = 0.9 \times 2 \text{ days} = 1.8 \text{ days}$$

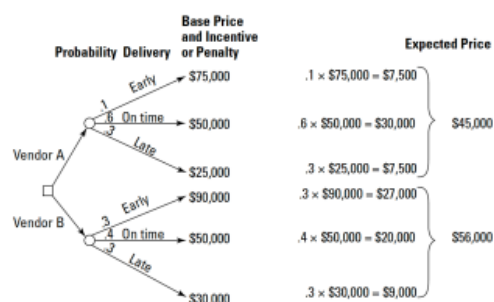
$$EXP \text{ risk B} = 0.1 \times 25 \text{ days} = 2.5 \text{ days}$$

$$EXP = 4.3 \text{ days}$$

Determine which vendor to buy from

- Both have the same price if the equipment is delivered on time
- Both have proposed an incentive for delivering early and a penalty for delivering late
- Incentives and penalties differ.

The **decision tree** depicts the probabilities that each vendor will deliver the equipment early, on time, and late, and the resulting price



5. Risk Response

Negative risk		Positive risk
Aggressive	Avoid	Exploit
Mitigate		Enhance
	Transfer	Share
Passive	Accept	Accept

AVOID: you want to be sure that the negative risk does not occur

TRANSFER: give to someone else like insurance company

MITIGATE: try to ensure it doesn't happen

ACCEPT: accept the risk when you can or you have to

EXPLOIT: you REALLY want the positive risk to happen

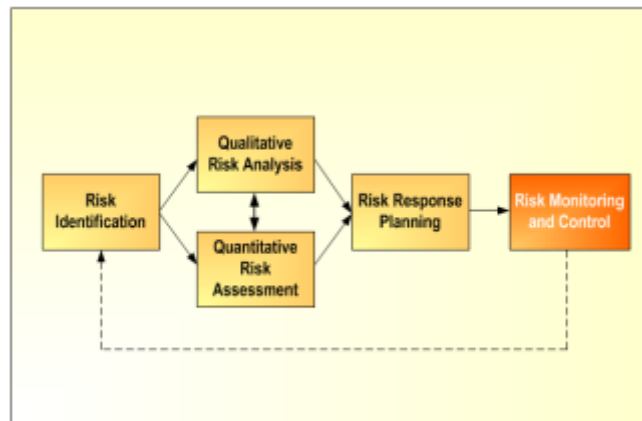
ENHANCE: try to ensure that the positive risk occurs.

SHARE: get a third party to try to help best capture the positive risk.

ACCEPT: enjoy the benefits of the opportunity

6. Risk Management Process

- Executing the risk management plan
- Identify > Quantify > Respond > All over again



7. Risk Register (slide 17)

- Is a tool used to track and monitor any risks that might impact the project
 - Is a living thing: change rapidly
-