



Fundamentals of Project Management

FelCom/Graduate Student Council
Career Development Seminar on Project Management
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Introduction

- Education:
 - ◆ B.Sc. Biology
 - ◆ M.Sc. Molecular Biology
 - ◆ D.Sc. Environmental Biotechnology (1993)
 - ◆ MBA (2002)
- Certification:
 - ◆ **P**roject **M**anagement **P**rofessional (since 2005)
- Work Experience:
 - ◆ Environmental management – various industries
 - ◆ Government project management – NIH
 - ◆ Consultant for pharma, biotech & device companies
 - ◆ Managing of drug development teams

What is a Project?

- A project is a **temporary** endeavor undertaken to produce a **unique** product or service
 - ◆ **Temporary** – Definitive beginning and end
 - ◆ **Unique** – New undertaking, unfamiliar ground

Almost everything we do in life sciences fits the definition of a project:

- Research projects
- Presentations
- Papers
- Lab setup

What is Project Management?

Project Management is the application of skills, knowledge, tools and techniques to meet the needs and expectations of **stakeholders** for a project.

The purpose of project management is **prediction** and **prevention**, NOT recognition and reaction.

Stakeholders?

Any person or group with a vested interest in the outcome of a project or plan. Stakeholders can be internal or external to the project or organization.

- Your supervisor/mentor
- His/her supervisor/mentor, etc...
- Collaborators
- Sponsors
- Family



Why Do We need Proper Project Management?



How the customer explained it



How the Project Leader understood it



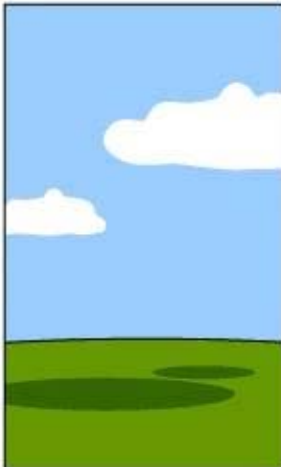
How the Analyst designed it



How the Programmer wrote it



How the Business Consultant described it



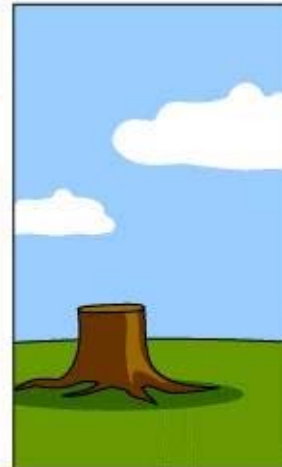
How the project was documented



What operations installed



How the customer was billed



How it was supported



What the customer really needed

Project Success

**“Customer”
Requirements
satisfied/exceeded**

**Completed within
allocated time frame**



**Completed within
allocated budget**

**Accepted by the
“customer”**

Project Failure

Scope Creep

Poor Requirements Gathering

Unrealistic planning and scheduling

Lack of resources



The Triple Constraint



Elementary School Geometry - The sum of the angles in a triangle always equal 180 degrees

Change in one or more “angle(s)” of triple constraint will immediately affect the other.

Key Areas of Project Management

- Scope Management
- Issue Management
- Cost Management
- Quality Management
- Communications Management
- Risk Management
- Change Control Management

Remember - The purpose of project management is **prediction** and **prevention**, NOT recognition and reaction. **Plan ahead!**

Scope Management

The definition and control of what **IS** and **IS NOT** included in the project.





Issue Management

- Issues are restraints to accomplishing the deliverables of the project.
- Typically identified throughout the project and **logged** and **tracked** through resolution.
- Issues usually impact the cost, time or quality of deliverables.

Cost Management

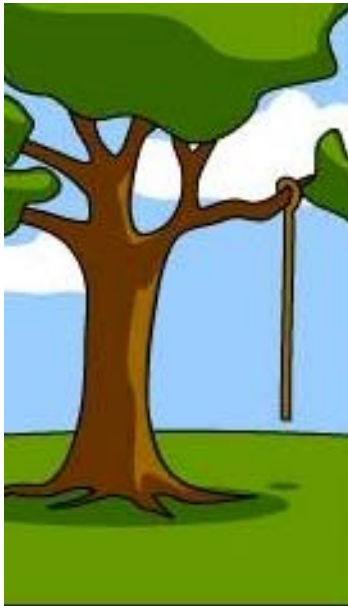
Cost management ensures that the project is completed within the approved budget and includes:

- Setting up a budget
- Tracking Resources
 - people
 - equipment
 - materials



Quality Management

Quality Management ensures the project will meet the needs of the intended deliverable(s).



- Conformance to requirements - **Crosby**
- Fitness for use - **Juran**
- The totality of characteristics of an entity that bear on its ability to satisfy stated and implied need - **ISO**



- GxP in research, drug development and manufacturing.
- Adherence to institutional, regional, national and international regulations and guidelines.
- Adherence to publication and presentation guidelines.

Communications Management

Communication management ensures the timely and appropriate generation, collection, dissemination, and storage of project information.



Risk Management

Risk management ensures that risks are identified, a mitigation strategy (preferably a plan is in place, and risks are closely tracked and updated.

Risk vs. Danger

A danger is ever present whereas risk is the likelihood of that danger happening. Consider the following two statements:

- A hungry tiger is dangerous.
- A hungry tiger is risky.

A hungry tiger is certainly dangerous, but it is only a risk if it is in your vicinity. It is very risky if it is in the same room as yourself!

Conclusion: Do not let the tiger into your project !



Change Control Management

Change control management defines the following:

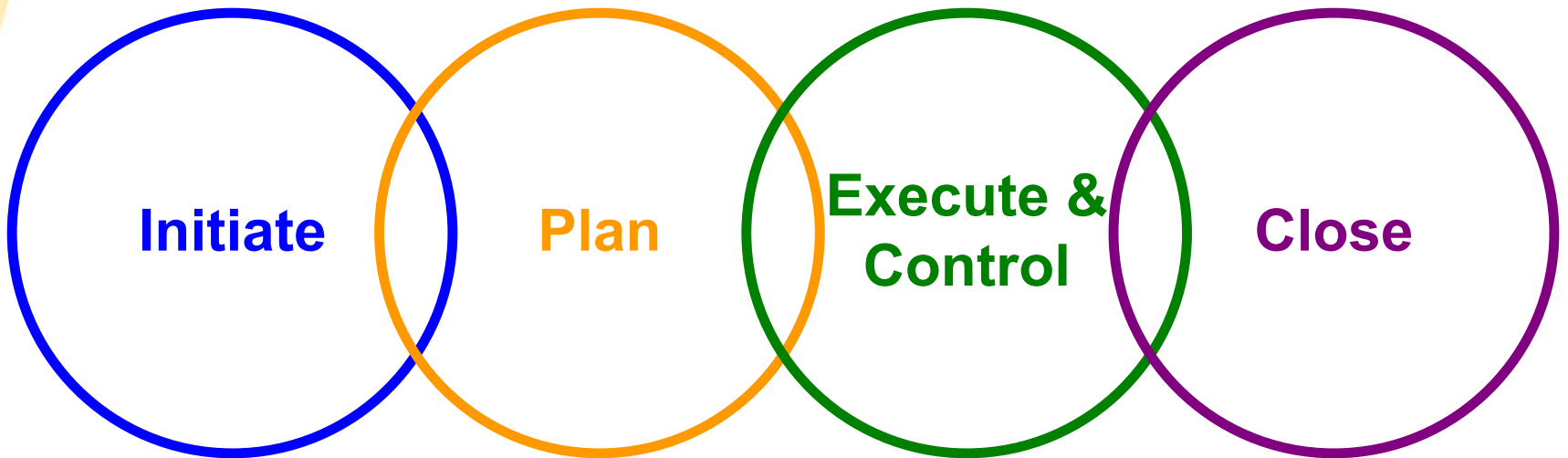
- Who has rights to request changes to the project scope.
- Who has rights to approve changes to the project scope.
- How changes to the project scope will be executed.

Scope Change – more/less work
Changes in technical specifications
Schedule changes



All changes require collaboration and buy in via the project sponsor's formal approval prior to implementation of the changes.

Project Life Cycle



Role of the Project Manager

Process Responsibilities

- Handle project issues
- Disseminating project information
- Mitigating project risk
- Quality
- Managing scope
- Metrics
- Managing the overall work plan

People Responsibilities

- Implementing standard processes
- Establishing leadership skills
- Setting expectations
- Team building
- Communicator skills

- Project Management Institute (PMI) – www.pmi.org
- Pharma Specific Interest Group (PharmaSIG) - www.pharmasig.org
- Pharma Local Interest Group (PharmaLIG)
- Universities and colleges