

1) Introduction

What is a project?

Dictionaries provide various definitions of the word "project", for example...

Cambridge:

- "a piece of planned work or an activity which is finished over a period of time and intended to achieve a particular aim"

Chambers:

- "a scheme of something to be done; a proposal for an undertaking; an undertaking"

Oxford:

- "a planned piece of work that is designed to find information about something, to produce something new, or to improve something"

Webster's:

- "any piece of work that is undertaken or attempted; a planned undertaking"

Here is another definition which I have devised (for what it's worth!):

- A project is the set of actions leading from an idea to its concrete realization.

Finally, here are two definitions (from pmi.org and method123.com respectively) which are more precise and more technical:

- "A project is a temporary endeavor undertaken to create a unique product, service or result."
- "A project is a unique endeavour to produce a set of deliverables within clearly specified time, cost and quality constraints."

As compared with standard business operations or processes, projects have the following characteristics (as presented in method123.com):

- they are unique in nature, as opposed to being repetitive, each new project being different from previous ones;
- they have a defined timescale, including clearly specified start and end dates;
- they are assigned a specific, limited and approved budget, which is often treated as an investment;
- they have well-identified resources;
- they involve an element of risk, due to the fact that their end result is in the future;
- they are usually intended to achieve beneficial change.

A project may be simple or complex, short or long. Whatever its features, **a project must be managed** in order to produce the expected result.

What is project management?

To complement the above definitions of the word "project", here are the brief definitions of the words "**management**" and "**to manage**" as they appear in the Cambridge dictionary:

- management: the control and organization of something
- to manage: to be responsible for controlling and organizing someone or something

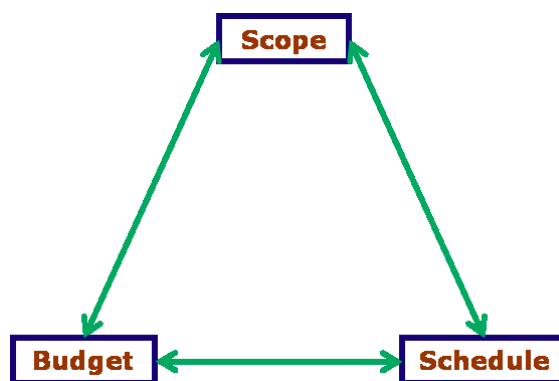
Here are definitions of “**project management**” (quoted from pmi.org and method123.com respectively):

- “Project management is the application of knowledge, skills, tools and techniques to project activities to meet project requirements.”
- “Project management is the discipline of planning, organizing and managing resources to achieve the specific objectives of a project.”

The above statements may be extended to “**program management**”, which refers to the management of multiple interdependent projects.

Project management triangle

The key attributes of a project may be summarized in the so-called “Project management triangle”, with “**Scope**” (or “Requirements”), “**Schedule**” (or “Time”) and “**Budget**” (or “Cost”) as vertices representing the **primary three constraints of a project**.

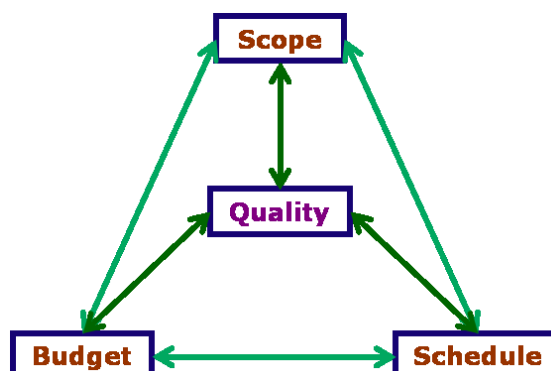


The **scope** of a project is the definition of what it includes. The scope is often expressed in terms of the project’s “**deliverables**”, ie its result or outcome (eg a product). It is generally useful to **also define** what is “**outside scope**”, ie what will **not** be included in the project (although such a definition can obviously never be exhaustive...).

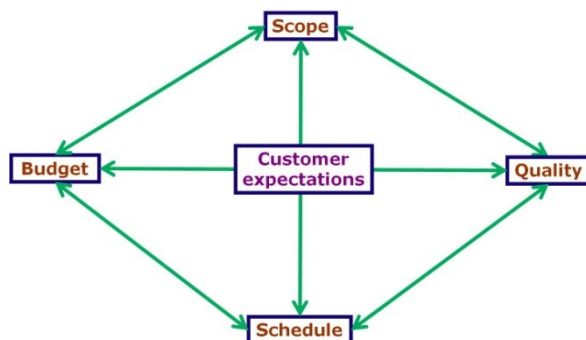
The **schedule** of a project refers to the lead time between the actual initiation of a project and its completion, its start and finish dates, as well as its intermediate milestones.

The **budget** of a project is the total amount of money which has been approved to be spent on the project in order to make it happen and to successfully complete it.

Quality, which is also a **major attribute and constraint** to be taken into consideration, is sometimes featured at the centre of the triangle. This attribute refers primarily to the quality of the project’s result but it also relates to the quality of the processes involved in the project itself.



These four constraints may also be represented in a “**Project management diamond**”, along with “**Customer expectations**” in the centre of the lozenge:



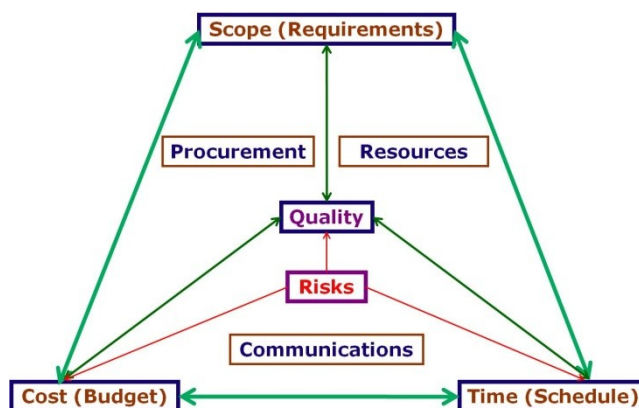
Customer expectations are the needs and wants of the “**project owner/sponsor**”, ie the entity for which the project is undertaken, and of the “**end users**” of the result of the project, which is often a “product”.

The message conveyed by these simple graphical representations is that **changing any one of the key attributes**, for example expanding the scope or tightening the schedule or reducing the budget, **will directly impact the other attributes**, for instance the quality of the resulting product, which may therefore not meet customer expectations. Such diagrams are helpful when discussing the issues of a project with its stakeholders...

Project management areas

- **The objective of project management is to ensure the completion of a project in compliance with the agreed scope, schedule, budget and quality requirements, in order to meet customer expectations.**

Meeting this objective requires the application of **knowledge, skills, tools, techniques and processes** in a number of areas summarized in the diagram below, which is an extension of the project management triangle.



Not all relationships between areas are featured in the diagram (in order to keep it readable...), but **direct relationships and interdependencies** nevertheless exist between virtually any two of the areas of project management.

The above diagram is useful as a graphical mnemonic of **the eight areas of project management** that need to be addressed in project planning as well as in project execution and supervision, as will be described at length further on in this guide.

The Project Management Institute (pmi.org) model features a **ninth area**, namely **Integration**, which includes the activities and processes required to identify, combine, unify and coordinate activities and processes in the other eight areas, which is what managing a project is all about!