

# Project management – the triple constraint

Project management is about managing a one-off endeavour that delivers specific outcomes to a particular standard or quality over a pre-determined period of time using a limited amount of money or resources.

Project management is a structured way of achieving goals for change and innovation.

## The triple constraint

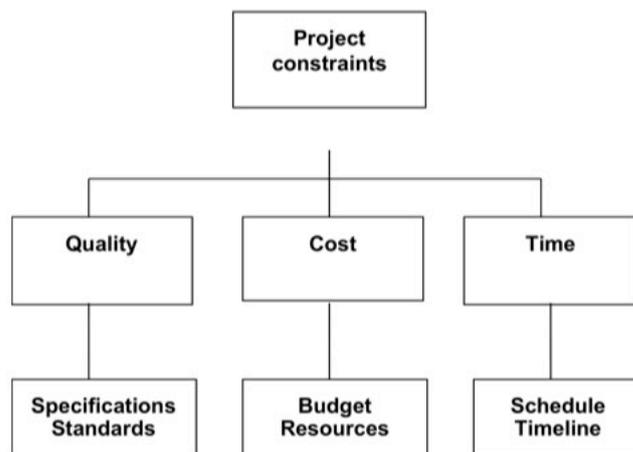
Projects are traditionally described as having three constraints.

- Quality: the standard of the outcomes to be achieved
- Cost: the amount of money it will take to complete the project
- Time: the amount of time available for the project

**Quality** is expressed in the **specifications** or outcome standards of the project.

**Cost** is expressed in the **budget** or resources.

**Time** is expressed in the **schedule** or timeline.



Each of these is a constraint because they place limits on a project. Change one of the constraints and you change the whole project.

Project management is about effective management of the triple constraint.

We manage the quality by ensuring specific quality outcomes or specifications are achieved.

We manage the cost through a project budget and resourcing plan.

We manage the time through scheduling.

We aim to bring a project in on time, on budget and to specification.

Often one constraint may dominate a project and therefore constrain the other two factors and influence the way a project is managed.

### **When time dominates**

For some projects, the most important factor is time. The project must be completed by a certain date, no matter what. In this case, because the focus is getting things done quickly you may "cut corners" on quality or you may need to spend more money to employ more people to meet the timelines.

### **The effect of the dollars or resources**

There is a significant difference in projects which have limited resources and those which have generous budgets. In a small budget project, one person may manage and do the work of the project. Given that the project can only afford one person, it may not meet its deadlines. The one person managing and doing the project tasks may need to work long hours to ensure that quality outcomes are met. In a large budget project, a project manager may have the role of coordinating a team of staff, consultants and sub-contractors who get the work done. If the project manager is sufficiently skilled at managing the team and the processes, quality outcomes should be more easily achieved on time.

### **When quality is everything**

If quality of outcomes is everything, then there should be sufficient resources and a timeline that is flexible. That is an unusual project, but if you think about projects where the outcomes must be as safe as possible and where the consequence of poor quality may mean injury or death to end users, then you can see how the cost of the project will go up and the timelines may need to be extended.

## **Project planning for the constraints**

It is critical when planning a project that your client and your team are aware of the implications of the constraints placed on the project. Be very careful about accepting a project that has such significant constraints that you will not achieve outcomes or you will go significantly overtime or over budget. Everyone loses in a project like this. And you want to win!