

# Undertake project work

Learner Guide



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# 1. Define project

## 1.1 - Access project scope and other relevant documentation

### Project scope

Project scope and other relevant documentation may include:

- Contract or other agreement
- Project brief
- Project plan or summary.

Other documents outlining:

- Expected outcomes of the project
- Inclusions and exclusions from project
- Project resources
- Quality standards for project
- Timeframes for project.



Projects are, by definition, delivering a once-off outcome, involving a group of interrelated activities, with a team of people, within a specific timeframe.

### Project definition and project scope

- One of the first tasks of a project manager is to determine the scale of the project as the size will determine the level of detail and discipline of project management activities to be applied
- No matter how small the project, a clear definition and statement of the areas and boundaries of the project need to be established. The scope of the project includes the outcomes, stakeholders, output work and resources (both human and financial).

The scoping and definition stage is essential for later project success.

- If the project is unfeasibly defined and scoped, and not properly linked with the organisational goals and objectives of the business, there is a high risk the project will not be successfully completed
- The success of every project is measured differently depending on the organisation's goals and objectives and can be different for varying members within the one organisation.

For example; the construction of a sports facility - whilst important to be built on time and within budget needs to be also measured by its operational and venue management functionality once constructed and commissioned.

**As a start, the following areas define and form the scope of the project:**

- The outcomes/benefits
- The customers/stakeholders
- The work/tasks which are required
- The resources (both human and financial)
- Criteria by which the project's success will be evaluated.

Once the scope has been defined and agreed upon, the details can be documented in the project business plan/project schedule or, in the case of smaller projects, a project proposal/brief may be all that is required.

Once documented, sign off by the project sponsor/senior manager should be obtained so that a formal agreement exists as to the scope of the project.

**Project scope, brief and schedule:**

- Contract or other agreement
- Project brief
- Project plan or summary.

**Template example:**

Suggested Headings	Comments
<b>Title</b>	
<b>Background / context</b>	A brief explanation of the background and/or context of the project
<b>Objective</b>	Why are you doing the project? What is the aim of this project?
<b>Target outcomes</b>	Maybe things that are to be improved, increased, enhanced or reduced and showing the benefits that the project intends to achieve
<b>Project activities, output and milestones</b>	What things will be delivered by the project? Outputs are used by the project's customers to achieve the outcomes. Detail milestones and chart the success or failure.
<b>Measured</b>	How will the success of the project be measured? Measurements are linked to one or more target outcomes which can then answer such questions as 'what have we achieved' and 'how do we know?'
<b>Governance</b>	Briefly describe the accountabilities of each party. Detail the name and title of the project manager and project sponsor.
<b>Reporting requirements</b>	Reporting frequency, format and to whom?

<b>Resources</b>	Human resources, internal, external, consultants and/or working groups will be required for the project? Budget, funding and details of the proposed expenditures.
<b>Stakeholders and communication strategy</b>	List the key stakeholders or stakeholder groups who will impact on the project. How will they be engaged?
<b>Assumptions and constraints</b>	List any underlying assumptions and / or constraints.
<b>Risks and minimisation strategies</b>	Identify barriers to achieving the project success. For each of these risks, what steps will be undertaken to minimise them?
<b>Risk management</b>	The process used to manage risks throughout the project. Identification, review and reporting.
<b>Issues management</b>	The process used to manage issues throughout the project. Identification, review and reporting.
<b>Related projects</b>	Projects which are dependent on this project, or projects that are interdependent on this project. Describe the relationship.
<b>Guidelines / standards</b>	Guidelines, standards or methodologies that will be applied manage the project.
<b>Quality control</b>	Levels of review that will be undertaken. The development of the project outputs. How the reviews will be conducted and who will be involved.
<b>Capturing the lessons learnt</b>	Review the entire process (internal or external) to capture the lessons learnt throughout the project.

## 1.2 - Define project stakeholders

### Stakeholders

Stakeholders may include:

- Clients or customers (internal and external)
- Funding bodies
- Management, employees and relevant key personnel (internal and external) with special responsibilities
- Project sponsor.

A stakeholder is everybody who is involved in the project or whose work or interest might be affected by the project.

Stakeholders once were regarded more as investors, but the modern or current meaning expands this to include everyone who has some form of vested interest.

Sometimes it does include those who may 'perceive' they have an interest, and it now more important for the project manager to filter those perceptions so as not to waste time and energy on those who are more an inquisitive stakeholder than a person with a real vested interest in the project and its outcomes.

**Stakeholders may have varied level of interest, involvement, and influence on the project.**

It is extremely important to identify all the stakeholders and manage them as Stakeholders can have negative and positive influence on the project.

**A broad definition to assist you in filtering stakeholders could include:**

- A person or organisation who are actively involved in the project
- Those whose active interest in your project can exert positive or negative work on the project or the outputs from the project
- Those who exert influence over the project or its deliverables.

**These stakeholders who could exert those influences include:**

- Customers
- End users
- Sponsors
- Program managers
- Portfolio managers
- The project manager
- The project team
- Other functional managers
- Operation managers
- Sellers
- Vendors
- Legal department.



<b>Customers / end users</b>	People who will be using the project output
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<b>Sponsor</b>	Person or a Group, who generally provide financial support and act as the advocate of the project. Sponsors act as escalation path for the issues that a project manager cannot handle. Sponsors provide a key input to the scope and project charter
<b>Portfolio manager</b>	Portfolio Manager might increase or decrease the priority of the project and might be involved in the selection of project by looking at ROI (Return On Investment)
<b>Program manager</b>	Provides support and oversight to the project.
<b>Project management office</b>	Might provide support and guidance to project management team
<b>Project manager</b>	Key person responsible for achieving project objectives by managing key constraints
<b>Project team</b>	All team members involved in the project including project manager, project management team members, and other team members
<b>Functional managers</b>	Provide functional resources for various functional expertise in the project
<b>Operational manager</b>	Includes key business area in the organisation. After closing, project outcome is handed over to operational manager
<b>Sellers / vendors</b>	Provides external service or expertise to the project.

### 1.3 - Seek clarification from delegating authority of issues related to project and project parameters

#### Delegating authority

Delegating authority may include:

- Customer or client
- Funding body
- Manager or management representative
- Project sponsor.

Project parameters may include:

- Project finances or budget
- Integration of project within organisation
- Legislative and quality standards

- Physical, human and technical resources available or required for project
- Procurement requirements associated with project
- Reporting requirements
- Risks associated with project, including WHS
- Scope of project
- Time lines.



Although there is much written about project management and the processes that support it, there are still many issues that we need to consider in the delivery of successful projects.

- There are many frameworks and a great deal of information about project management, however, project delivery is still heavily influenced by the environment in which the project manager is working
- The application of any general project management methodology requires an appropriate consideration of the corporate and business culture that forms a particular project's environment
- This is especially important in an environment where there is a dynamic industry and where flexibility, attention to detail and risk management strategies are crucial components for successful delivery.

#### **Seek clarification from delegating authority of any issues**

It may not be appropriate to undertake all project management activities to the same level of detail and with the same level of discipline:

- For successful project management it is critical to seek clarification from the delegating authority and identify any issues using and following a structured and stringent process
- However, it is of paramount importance to balance the process requirements so as to not outweigh the outcome, which can be an issue in some organisations such as government bodies or heavily regulated industries

- Project desired when and



teams must keep the outcome in mind applying their time efforts to process requirements such as reporting, planning and documentation.

## 1.4 - Identify limits of own responsibility and reporting requirements

### Responsibility and reporting

Ultimate responsibility and accountability for the project must be articulated and accepted at an appropriately high level within the organisation.

This involves commitment of organisational management and a willingness to be aware of concerns identified by the project team.

The project manager is the key person around which the project will ultimately revolve.

#### The project manager is responsible for:

- Organising the project into one or more sub-projects
- Managing the day-to-day aspects of the project
- Resolving planning and implementation issues
- Monitoring progress and budgets
- Organise reporting requirements.

#### Monitoring budgets:

- It could be argued that establishment of the human and financial resources necessary to deliver the project is the most crucial element for the success of the project
- This process must be established during the project definition and scoping stage
- Notwithstanding this, it is critical to allow for contingencies during the life of the project in areas such as timeframes, budget and resourcing.

#### For larger or more complex projects:

- Advanced project management knowledge and experience are essential
- Detailed knowledge of the business area in which the project is being run is needed
- Those project managers who don't have this knowledge should seek to obtain this
- effectively communicate with project team members and clients
- Address business issues to ensure concerns are met.



**Avoiding scope creep:**

- Avoiding 'scope creep' a commonly used term to describe the risk of stakeholders attempting to add extras, such as activities/tasks or outcomes, during the course of the project
- If scope creep does occur, the scoping of the project needs to be revisited in order to clearly show your organisation the impact these 'extras' will have on the resources, time, cost, and quality of the project
- As the pace of change is constantly increasing and business processes embrace flexibility and ability to change the customer and the project team are often on a learning curve and will only know what the scope should be as they progress through stages of the project.

**1.5 - Clarify relationship of project to other projects and to the organisation's objectives****Project relationships**

Prior knowledge management:

- A single project rarely exists in a vacuum, even in a small organisation
- You can establish links between projects and accurately model the relationship between the different project components
- When you have a task that relies on or drives a series of tasks some of which may have been addressed in another project, you can create a task dependency to link the tasks in different projects
- A project manager should look at all similar projects that have been undertaken before, or consider re-using documents and processes of a previous project
- A great deal of time can be saved doing this and the project can have a greater degree of predictability
- Project managers can learn critical success factors and/or problem issues to assist with their immediate planning.

**How does your project relate to your organisation's objectives?**

- What is the context in which your project will function within the organisations objectives and is this project unique?
- Is there a similarity or 'connection' between past projects and this project?
- Are those connections of benefit or not?



- Clarify relationship of past projects to the organisations objectives to see if they match yours?
- How will the project change or improve the organisations objectives?

#### What are the strategic objectives this project is intended to satisfy?

- Who has the ultimate responsibility in the solution or outcome?
- How do the other stakeholders meet these goals? Do the stakeholder's goals align with the strategic goals you are trying to achieve through this project?
- Are they also designed to meet the organisations objectives as outlines above?

## 1.6 - Determine and access available resources to undertake project

### Resources

Resources include:

- Obtaining goods and services required to deliver the project
- Appointing or recruiting staff
- Appointing consultants.

Resource determination will include:

- Cost
- Management of the project
- Lead time
- Date resources are required
- Specifications
- Supplier or provider contact details
- Procedure (e.g. by a formal tender)
- Requirement for expert advice
- Responsibility
- Alternatives.



Resource	Cost Per Item	No. of Units	Total Cost	Supplier Details	Procedure
			\$ -		
			\$ -		
			\$ -		

			\$ -		
<b>Total</b>			\$ -		

Expert Advice	Lead Time	Date Required	Responsibility	Recovery Tactic

### Human resources

Details	Skills Required	Hours Required	When Required	Source (Internal/ agency)	Responsibility/Contact Details

Consultant Activity	Cost Per Hour	No. of Hours	Total Cost	Recruitment Procedure	Source (Unit or External)
			\$ -		
Contact Details	Expert Contacted	Lead Time	Recovery Tactic	Responsibility to Organise	

## 2. Develop project plan

### 2.1 - Develop project plan in line with the project parameters

#### Project plans

Project plan may include:

- Details of how the project will be managed
- Roles and responsibilities

- Time lines
- Work breakdown structure.

#### **Options to consider when developing a project plan:**

- The project plan consolidates all the information about the project to date and forms the basis for monitoring and controlling once the project commences implementation
- This document is to be signed off by the project sponsor and any key stakeholders.
- The level of detail required would be determined in consultation with the project sponsor
- There are many ways organisations choose to plan, prioritise and schedule activities pertaining to a project (their 'project plan' or 'project schedule'), and for that matter, the terminology used differs among organisations
- Whatever method is chosen, the foundation of project planning is creating a 'work breakdown structure', which makes a project manageable by first breaking it down into individual components in a hierarchical structure
- Such a structure defines tasks that can be completed independently of other tasks, facilitating resource allocation, assignment of responsibilities, and measurement and control of the project. Some tasks are to be performed sequentially; others concurrently



The documenting of work breakdown structures can be aided by the use of scheduling tools such as Microsoft Project or other project management specific software:

- These programs enable the project manager to track progress towards the delivery of each output against identified milestones
- Larger, complex projects are most likely to benefit from the use of project management specific software/technology, whereas small to medium size projects can be supported by keeping day to day project plans such as charts, word processor documents, or tabular format task lists and timeframes

## **Timelines**

### **Gantt chart**

Originally developed by Henry Gantt to track the progress of ship building projects in a specialised chart, the 'Gantt chart' displays the progression of a project in the form of a horizontal bar graph. At

a glance this tool displays the progress of each activity and it can easily be compiled using spreadsheet or project management software. For larger projects a work breakdown structure would be developed to identify the tasks before constructing a Gantt chart.

**For smaller projects the Gantt chart itself may be used to identify tasks:**

- This tool is one of the most easily understood of the scheduling formats
- It lists the tasks with a task bar next to each task showing its time duration.

Simply list the activities and tasks in column A, select an appropriate time interval (days, weeks or months), allocate the dates to columns B onwards and plot the expected time duration (total time from start to completion) under the appropriate column by selecting shading from the Format/Cells/Patterns menus.

When you wish to provide a status report simply colour or shade in black those items that are completed or estimate the percentage complete. This will give you an immediate visual representation as to whether or not you are on schedule. You may wish to add extra columns for assignment of responsibilities etc.

Activity/Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TASK EXAMPLE A																
TASK EXAMPLE B																
TASK EXAMPLE C																
TASK EXAMPLE D																
TASK EXAMPLE E																

## Work breakdown structure

### Project roles and responsibilities

It is important to understand who the major players are on the project. List the major project roles, responsibilities and the actual people involved. Add in any additional roles as required.

#### Examples only:

Title	Role
Project Manager	Person responsible for running the project on a day-to-day basis within defined authorities for cost and schedule as agreed with the Project Sponsor/Board
<b>Responsibilities</b>	
1	



2	
3	
4	
Title	Role
Project Sponsor/Project Director/Project Board	Senior management of the Project – accountable for the success of the project. Has the authority to commit resources.
Responsibilities	
1	
2	
3	
4	

### Project parameters

Basic parameters are the 'need to know' facts about your project

#### Examples only:

1. What is the (proposed) name for the project?	
2. Where is the geographic area of the project?	
3. What is the size of the project?	
4. What is the estimated cost of the project?	
5. Have building/zoning/environmental permits been obtained for construction to commence?	

## 2.2 - Identify and access appropriate project management tools

### Project management skills

Project management tools may include:

- Cost schedule control system



- Critical path method
- Gantt and bar charts
- Life cycle cost analysis
- Logistics support analysis
- Pert charts
- Project management software
- Risk and issues logs
- Spread sheets
- Technical resources required for the project, for example WHS management-system tools.

**Charts:**

- Critical path method
- Gantt and bar charts
- Pert charts.

**Critical path schedule:**

- The critical path is simply all the tasks that determine the end date in your project schedule. If one of those tasks is late by one day, then your project end date will be extended by one day. Oftentimes, there will be tasks that are not on the critical path; this is due to the slack in the project schedule. If you refer to your current schedule, you can examine the Gantt chart and quickly identify the tasks that have some float compared to the tasks that have no slack.

**PERT charts:**

- A PERT chart is a project management tool used to schedule, organise, and coordinate tasks within a project. PERT stands for Program Evaluation Review Technique, a methodology developed by the U.S. Navy in the 1950s to manage the Polaris submarine missile program.

**Gantt and bar charts:**

- A Gantt chart is a project chart in which a series of horizontal lines shows the amount of work done or production completed in certain periods of time in relation to the amount planned for those periods. A Gantt chart is used for the same purpose as a Critical Path Schedule.

**Cost schedule control system:**

- A set of criteria specified by the project manager for reporting the project schedule financial information. By tracking the project costs and schedule, you can assess the status of how well the project is meeting planned deadlines.

**Life cycle cost analysis:**

- Life cycle costing is a method of project evaluation, for which all costs arising from owning, operating, maintaining and disposing of a project are considered.
- Life cycle costing evaluates all relevant costs over a period of time of a project.
- It takes into account the costs including capital, purchase, energy cost, operating cost, maintenance cost, replacement cost, financing cost and any resale for the disposal over a life time of a project.

**Logistics support analysis:**

- Logistics support analysis, in the context of a project, is a structured approach to creating efficiency and reduce the cost of providing resources and support by pre-planning all aspects of project plan including requirements, constraints and recommendations.

**Project management software:**

<ul style="list-style-type: none"> <li>➤ Tenrox Project Management Software Summer Heat</li> <li>➤ Microsoft Project Standard</li> <li>➤ Project KickStart</li> <li>➤ MindView 3 Business</li> <li>➤ Genius project for Domino</li> <li>➤ ProjectPlan</li> <li>➤ FastTrack Schedule</li> <li>➤ RationalPlan Multi Project</li> <li>➤ Service Desktop Pro</li> <li>➤ FusionDesk Professional</li> </ul>	<ul style="list-style-type: none"> <li>➤ Microsoft Project</li> <li>➤ dotproject</li> <li>➤ Planner</li> <li>➤ Trac</li> <li>➤ Gantt Project</li> <li>➤ Merlin</li> <li>➤ FastTrack Schedule</li> <li>➤ Omni Plan</li> </ul>
<p><b>Online:</b></p> <ul style="list-style-type: none"> <li>➤ ClarizenAtTask</li> <li>➤ Daptiv PPM</li> <li>➤ Tenrox</li> <li>➤ Celoxis</li> <li>➤ EPM Live</li> <li>➤ Easy Projects.net</li> <li>➤ Genius Project for Web</li> <li>➤ Project Insight</li> <li>➤ LiquidPlanne</li> </ul>	<p><b>One review example</b></p> <ul style="list-style-type: none"> <li>➤ ClarizenAtTask</li> </ul> <p>Simple, comprehensive online project management solution that allows you to manage time, budgets, deadlines, work tasks, teams and people.</p>

**Considerations:**

- Licensing and Costs
- Migration

- Collaborative
- Platform Independence
- Usability
- Maintainability.

### Spreadsheets

Microsoft templates:

- First, it would be wise to see what templates you already have installed in Microsoft Excel
- Project scorecard
- Project cost summary
- Project time performance tracking
- Event management project tracker
- Project performance tracking and reporting.

	A	B	C	D	
1	<b>&lt;Project Name&gt;</b>				
2	<b>Project Team Communication Plan</b>				
3		<b>Deliverable</b>	<b>Description</b>	<b>Delivery Method</b>	<b>Frequ</b>
16		<Deliverable>	<Description>	<Delivery Method>	<Frec
17	<b>Reviews and Meetings</b>	Team meeting	Meeting to review project status	Meeting	Week
18		<Deliverable>	<Description>	<Delivery Method>	<Frec
19		<Deliverable>	<Description>	<Delivery Method>	<Frec
20		<Deliverable>	<Description>	<Delivery Method>	<Frec

### WHS management system tools

A Work Health and Safety Management System is a coordinated and systematic approach to managing health and safety risks in a project or other environment.

From individual jurisdictions under the previous OHS laws, it is now changed to a harmonised WHS coverage.

- With the harmonised Work Health and Safety (WHS) laws commencing in five out of nine jurisdictions on 1 January 2012, businesses need to ensure they are not only familiar with the legislation, but are also taking measures to achieve legal compliance.

### Key changes:

- The primary duty holder will be a Person Conducting a Business or Undertaking (PCBU) which includes, individuals, companies, partnerships, non-profit organisations and unincorporated associations
- The primary duty of care will be qualified by reasonable practicability
- Introduction of officer's due diligence requirements
- Broad nature of the definition of the term "worker"
- Introduction of health and safety representatives and their power to issue provisional improvement notices
- Requirement for cooperation, consultation and coordination between duty holders
- Right of entry for unions to enter workplaces for WHS purposes to advise and assist in WHS or when a contravention of the law is suspected
- Inclusion of WHS permit holders, and
- Categorisation of offences, increased range of penalty options and increased maximum penalties that may be imposed for a breach of the WHS legislation.



### Checklist

Meanwhile, workplace WHS advises businesses that they should have:

- Familiarised themselves with the complexities of the new Act, Regulations and Codes of Practice
- Audited their existing WHS systems and, where appropriate, updated their policies and procedures to meet the new requirements
- Identified their PCBUS (Persons Conducting a Business or Undertaking) and their officers

- Reviewed corporate government arrangements to ensure that senior management and directors and other officers can meet their due diligence obligations
- Given effect to the Act's mandatory consultation provisions and have in place arrangements for consulting with staff, contractors, volunteers and others
- Taken steps (such as holding information and training sessions) to ensure the changes have been communicated to managers and staff so that they are aware of their safety obligations and rights
- Developed a change management strategy to demonstrate that they have done, and are doing, everything that is 'reasonably practicable' to achieve full compliance.

## 2.3 - Formulate risk management plan for project, including Work Health and Safety (WHS)

### Risk Management

There are always risks associated with a project:

- The purpose of risk management is to ensure levels of risk and uncertainty are properly managed so that the project is successfully completed
- It enables those involved to identify possible risks, the manner in which they can be contained and the likely cost of mitigation strategies.

While typically conducted as part of the initial project conception and subsequent definition, depending on the scale of the project, risk management activities should become an ongoing conduct throughout the project life to ensure changing circumstances are tracked and managed.

**Once all risks have been identified, a filtering process should be used to determine which identified risks:**

- Are best left, as the likelihood and seriousness would be so low that mitigation strategies are not required
- Need monitoring, but no proactive mitigation strategies are required at this stage;
- Are avoided by changing the scope of the project
- Are moved to a third party by outsourcing etc.  
or
- Need planned mitigation strategies as detailed in the risk register.

**Examples of possible risks include:**

- Budget blow-outs



- Information security breaches
- Loss of key project team members
- Major milestone timeframes not being met.

The results of this exercise should be documented in a risk register for the project, which is a document outlining all risks identified before and during the project.

### **Risk mitigation / treatment**

Risk mitigation actions or treatment reduce the chance that a risk will be realised and reduce the seriousness of a risk that is realised.

#### **There are two broad types of risk mitigation or treatment activities:**

- Preventative - planned actions to reduce the likelihood a risk will occur and the seriousness if it does occur. In other words, what should you do now?

For example, if an identified risk is that a construction deadline is not going to be achieved, further resources could be added to prevent this occurring.

- Contingency - planned actions to reduce the seriousness of the risk, if it does occur. In other words, what should you do if?

For example, a possible action in response to the previous risk example might be that a timeframe and budget contingency is built into the original project scope and plan.

### **The risk management plan**

A risk management plan should be included as a section in the project business plan and should cover, at a minimum, the following:

- The process for identification, analysis evaluation and treatment of risks both initially and throughout the life of the project.
- How often the risk register will be reviewed, the process for review and who will be involved?
- How risk status will be reported and to whom.
- Who will be responsible for which aspects of risk management?

As a minimum, changes in the risk should be reported to the project manager and the Steering Committee as part of the reporting process.

### **Project risk assessment**

Risk	Level (high / medium / low)	Management strategy


### WHS in project management

With the national harmonised Work Health and Safety (WHS) laws already rolled-out across most of the country, it's important to know if your WHS documentation is in line with the new legislative requirements.

WHS is not something that you immediately consider when planning and scoping a project but it is a requirement to understand the basic elements of the legislation.

- The general provision of Work Health and Safety Legislation
- The principles of a WHS Management System including duty of care responsibilities and supervisor and management responsibilities
- The principles of implementing WHS Risk Management in the workplace as well as risk assessment process and hierarchy of control
- The importance of procedures for the review of WHS performance in the workplace
- Understand the provisions of Workplace Injury Management and Workers Compensation provisions.

A key requirement of the Work Health and Safety legislation is for the employer to systematically manage risks arising from workplace hazards.

There must also be effective consultation and communication with the workers involved about these risks and how they are to be managed.

The responsibilities under the state and federal laws within Australia make this area part of Risk Management.

- Increased liability risk for project directors due to inconsistent and onerous WHS Laws
- Added pressure of project directors due to added disclosure requirements
- Project Directors/Responsible Persons can be prosecuted for breaches in WHS.

The national WHS strategic reviews that have been undertaken indicate growing concerns that some projects, especially smaller ones, may cut corners when the project is in trouble.

- Project directors / managers should demonstrate by the actions they take with WHS and WHS legislation seriously.



**Why should a Project director / manager be conscious of WHS?**



- Strategic and resource responsibilities
- Operational responsibilities
- Management tools use and reporting responsibilities
- Behavioural programme establishment.

## 2.4 - Develop and approve project budget

### Project budgets

Consultants may form an integral part of the project team. Consultants are employed from outside the organisation to provide specialist or other expertise unavailable from internal resources, e.g. legal specialists, probity auditors and financial advisors. A major issue with consultants is to manage their deliverables as to the project timeframes, and to monitor the consultancy budgets closely so to not overspend.

At the workplace coal face, the task of developing an initial budget and seeking approval is a mechanical process of producing a budget that shows:

- Income
- Expenditure
- Result.

What is the goal of a project budget?

- One of the key elements of any project proposal is the project budget. It is a pivotal tool that will be used by several different groups involved in the project.
- The project manager will use a budget to determine whether the project is on track
- Project personnel will use it as a guideline to monitor certain project milestones
- The client will use it to determine the success of the effort.

Some expenses, such as salaries, fees, wages, rent, or equipment costs, may seem pretty straight forward. But there are many contingencies and unknowns that may affect how and when the project is carried out and ultimately completed.

### Contingencies:

- Project's unknowns or risks contingency
- Cost estimating contingency
- Design contingency
- Bid contingency
- Construction contingency



- Cost escalation contingencies.

Remember that the most important point to keep in mind is that although a project budget should be based on best knowledge available of the numbers and accurate assessments of the resources needed to complete the task, the bottom line is that a budget is meant to be an estimate.

#### Link project budgets to key outcomes:

- Establish a set of reference baselines
- Then, as work progresses, you monitor the work
- Then analyse the findings
- Forecast the end results and compare those with the reference baselines
- If the end results are not satisfactory then you make adjustments as necessary to the work in progress, and repeat the cycle at suitable intervals.

#### Design

Assuming project income, as opposed to the traditional P-and-L style budget, is based on fees or other revenue not realised until the completion of the project, expenses are the main variable and unique to developing and approving a project budget.

Project expenses:

Human resources	Development	Goods/Services	Other
Salary	Seminars and training	Contracted services	Office Expense
Commissions	Consulting fees	Advertising	Telephone
Casual wages	Legal fees	Marketing materials	Computer network
Employee incentives/ benefits	Other professional fees Recruitment	Travel and entertainment	Repairs and maintenance
			Office supplies
<b>Total costs</b>	<b>Total costs</b>	<b>Total costs</b>	Subscriptions
			Office rent
			Postage
			General insurance
			Taxes and licenses
			Software licenses
			<b>Total costs</b>

**Examples of how to determine specific calculations for your project budget:**

Goods and Services or Suppliers Costs			Human Resources Costs		
Cost Per Item	No. of Units	Total Cost	Cost Per Hour	No. of Hours	Total Cost
Contracted services			Salary		
Advertising			Commissions		
Marketing materials			Casual wages		
Travel and entertainment			Employee incentives/ benefits		

**Resource and budget cost plan**

**Identify cost (project) risks**

Risk	Level (high/Medium/Low)	Management Strategy
		<ul style="list-style-type: none"> <li>➤ Deliverables</li> <li>➤ Milestones</li> <li>➤ Phase</li> <li>➤ Resource</li> <li>➤ Cost</li> <li>➤ Budget</li> </ul>
<b>Over/under - Budget and Expenditure control</b>		
<p>Project cost control is a lot more difficult to do in practice, as is evidenced by the number of projects that fail to contain costs!</p>		

**Budget approval:**

- Develop your detailed budget estimate and get it approved in the organising and preparing stage after you specify your project activities
- Check with your organisation to find out who must approve project budgets. At a minimum, the budget is typically approved by the project manager, the head of finance, and possibly the project manager's supervisor.

## 2.5 - Consult team members and take their views into account in planning the project

### Consulting with teams

#### Why consult with team members?

Getting their views:

- Make consultation with staff members part of the business culture
- Introduce weekly or monthly or as needed strategy meetings with staff
- Actually ask for ideas and feedback
- Conduct round-table discussions
- Hold in-depth brainstorming sessions on a specific project issue
- If you hold formal meetings with teams, allow a different employee to chair each meeting
- Teams are more motivated if also allowed to follow up on their ideas
- Project managers struggle with seeing clearly and quickly what their team is doing at any given point in the project schedule
- Project managers can also struggle with finding a quick and painless way to do something about problems that they discover.

#### Technical and functional expertise:

- To complete the task at hand ensure the team make up is suitable. E.g., a group with only marketing experts is less likely to succeed than a group comprised of operational experts and team members experienced in project design or execution.



#### Problem solving and decision-making skills:

- Teams must be able to make decisions and identify the onset of a problem or opportunity, evaluate the opportunity and decide on an appropriate course of action
- Team members usually possess some level of these skills and develop them more on the job.

#### Interpersonal skills:

- Skills which enable effective communication and management of any conflict arising will enable the team to develop common understandings of purpose and function.

This could include risk taking, helpful criticism, objectivity, active listening, giving the benefit of the doubt, support and or recognising the needs of others.

The challenge for any team though is to strike the right balance between selection based on existing skills and those, which might be developed as a result of team membership.

#### **Commit to a common purpose and performance goals:**

- A team's purpose and its performance are closely related. Without a common purpose a team will quickly break apart and operate as a collective of individuals or smaller teams.

#### **Check for these:**

- Is your team small or large?
- Can you convene easily and frequently?
- Can you communicate with all members easily and frequently?
- Are your discussions open and interactive for all members?
- Does each member understand the issues you are addressing?
- Do you need more people to get information?
- Are sub teams possible or necessary?



## **2.6 - Finalise project plan and gain necessary approvals to commence project according to documented plan**

### **Finalising plans**

Now that you have a complete list of tasks with resources assigned, you are ready to finalise your project.

At this point, you will want to check your project finish date to determine whether it is acceptable.

- As a project manager, you may need to reduce a project's total duration at some point
- The idea being to get the job done in an acceptable time frame
- To adjust the total project duration you will need to identify which project tasks affect the project end date and adjust your critical path schedule.

#### **Print a project summary report:**

- This will assist those who may need a summarised breakdown of the project to issue appropriate approvals
- Produce a baseline plan for your project
- Generate and print a cost table or a cost report to distribute to those who are reviewing the project for approvals.

Distribute the project plan to the Project Sponsor and other appropriate stakeholders:

**Distribute this in report form:**

Report Category	Description
<b>Overview</b>	Summarise the number of tasks, project costs, or list the critical tasks or CPS
<b>Current activities</b>	Intended for those who may be more aware of the project and those more directly involved with the tasks in the project
<b>Costs</b>	Budgets, cost plan and other effective financial reports used in tracking the budget cost of a project
<b>Assignments</b>	Report on the to-do lists for human resources and their assigned tasks. Current task progress and information to determine who may have too many assignments in the available time
<b>Workload</b>	Report viewing the amount of work assigned to a task or per resource, on a weekly basis

- Schedule a meeting with project sponsor and other relevant stakeholders to review the project plan deliverables
- Make any changes from the formal review and finalise the project plan deliverable
- Ask the project sponsor to acknowledge if the project will proceed
- Obtain signatures from the Project Sponsor and any other designated stakeholder.

## 3. Administer and monitor project

**3.1 - Take action to ensure project team members are clear about their responsibilities and the project requirements**

**3.2 - Provide support for project team members, especially with regard to specific needs, to ensure that the quality of the expected outcomes of the project and documented time lines are met**

### Supporting team members

Support for project team members may include:

- Additional physical, human and technical resources (within allocated budget) if and as required
- Encouragement
- Feedback
- Learning and development
- Regular project team meetings
- Supervision, mentoring and coaching.

Allocating tasks, prioritising and monitoring resources in accordance with project requirements are all part of project management and best suited in terms of management within a software program such as project manager.

### **Allocating tasks**

The project team is ready, it is now time to allocate tasks.

A project manager can be appointed at any stage of the project but preferably prior to the establishment of the team.

The project manager should document a detailed role or job description for each project task and then appoint a person or persons to fulfil those tasks / roles.

These can also include appointments based on the person's skills and experience not just seniority or employee status.



### **Allocating the resources required to meet the tasks:**

Although general groups of resources may have already been allocated to the project, a detailed resource assessment is required to identify the:

- Types of resources, e.g., labour, equipment and materials
- Total quantities of each resource type
- Roles, responsibilities and skill-sets of all human resources
- Items, purposes and specifications of all resources
- Items and quantities of materials and resources.

### **Assisting to identify team skills and skills gaps:**

- Basic / fundamental Skills: such as literacy, numeracy, using technology
- People-related skills: such as communication, interpersonal, teamwork
- Conceptual/thinking skills: such as collecting and organising information, problem solving, planning and organising, learning-to-learn skills, thinking innovatively and creatively, systems thinking

- Personal skills and attributes: such as being responsible, resourceful and flexible, being able to manage one's own time, having self-esteem.

### Take action to ensure project team members are clear about their responsibilities

#### Project roles and responsibilities:

It is important to understand who the major players are on the project. List the major project roles, responsibilities and the actual people involved. Add in any additional roles as required.

#### Examples only

Title	Role
Project manager	Person responsible for running the project on a day-to-day basis within defined authorities for cost and schedule as agreed with the project sponsor / board
<b>Responsibilities</b>	
1	
2	
3	
4	
Title	Role
Project sponsor / project director / project board	Senior management of the project – accountable for the success of the project. Has the authority to commit resources.
<b>Responsibilities</b>	
1	
2	
3	
4	



**List for as many team members are required:**

Title	Role
Responsibilities	

You will further clarify the 'linkage' of the responsibilities that you list against each team member. Examples may include:

Specific area	Ensure the team is clear
<b>Inputs</b>	Are the main resources required to undertake the activities in which to produce the outputs
<b>Outputs</b>	The outputs must be necessary to achieve the outcome physical and/or tangible goods and / or services delivered by the project
<b>Activities and milestones</b>	Activities are the key actions (groups of tasks) carried out using project inputs to successfully achieve the planned outputs.
<b>Performance targets and indicators</b>	Identify how the successful achievement of an output, outcome, or impact will be measured. Indicators are quantifiable with a target value that identifies how much will be achieved in a specific timeframe.
<b>Data sources and reporting mechanisms</b>	The data sources describe where information on the status of each indicator can be found, who provides the information, and how the information is collected.
<b>Assumptions and risks</b>	Are external factors that are not within the control of the project and can affect the completion
<b>Project performance and reporting</b>	After project approval, the project team will regularly update project performance information

**Provide support for project team members, especially with regard to specific needs****Examples only:**

- Additional physical, human and technical resources (within allocated budget) if and as required
- Encouragement
- Feedback
- Learning and development
- Regular project team meetings
- Supervision, mentoring and coaching.

<b>Resources</b>	<p><b>Enterprise resources</b></p> <p>Resources that are part of an organisation's entire list of resources. Enterprise resources can be shared across projects.</p> <p><b>Generic resources</b></p> <p>Resources that are used to specify the skills required for a specific task. Providing the necessary logistics needed by the project teams.</p>
<b>Encouragement</b>	<ul style="list-style-type: none"> <li>➤ Reconfirm the work you expect team members to perform</li> <li>➤ Explain or re-confirm the schedules and deadlines you expect team members to keep</li> <li>➤ Reassure team members of the time you expect them to spend on the work</li> <li>➤ Clarify specific activities and the nature of the work</li> <li>➤ Share information with the team who will be involved in the project</li> </ul>
<b>Supervision, mentoring and coaching</b>	<p>Most effective project managers of complex projects have learned the ability to coach, rather than overly direct the team.</p> <p>The team invariably directs its own activities.</p> <p>Coaching and mentoring a team is accomplished by having the coach interact with the entire team or specific team members within the setting of a team meeting or a set of project goals.</p>
<b>Feedback</b>	<p>Really listen to the team members and what they are saying.</p> <p>Be sure you understand their project related feedback and comments completely. Refrain from judgment until all of the feedback is gathered.</p> <p>Act accordingly on what is said only to the benefit of the project.</p>
<b>Regular project team meetings</b>	<p>Active listening at meetings has several benefits. First, it causes team members to listen attentively to others. Second, it can avoid misunderstandings.</p> <p>When team members are in conflict, they often contradict each other, denying the other party's description of a situation.</p> <p>Often, in team project meetings, there comes a time when the team needs to negotiate a solution, or set of solutions to a specific problem.</p>

**Ineffective patterns that can frequently develop in the team:**

- Conflicts
- Missed deadlines due to lack of communication
- Individual interpersonal conflicts
- "Them" and "us" attitudes between portions of the team
- Department or divisions in the workplace
- Conflict between the team and others outside the team, including management.

The solution to this dysfunction generally involves the coaching of two or more individuals and then as a group.

### **3.3 - Establish and maintain required record keeping systems throughout the project**

**Record keeping**

**Required record keeping systems may include systems for:**

- Correspondence
- Financial data including costs, expenditure, income generated, purchases
- Project outcomes
- Quality data including any test results
- Recording of time spent on project and progress in completing project
- Samples, prototypes, models.

**There are many different ways to maintain records for your projects:**

- Using Microsoft Project, for example, would be a simple record of data within the software
- Conversely, recording data on Excel spread sheets will provide accessible records.

**Project progress report**

To generate a project status report for a project, the project manager needs to produce or format a report or use Project or other software showing:

- Milestones in the last period, and if they are completed
- Milestones due next period



- Action items not completed by their due date
- Action items due to be completed in the next period
- Any commentary prepared by the project manager.

The report can be e-mailed directly to a set distribution list (using Microsoft Outlook). The period can be set by the project manager.

**The value of the report:**

- The value comes from ensuring that at least once a reporting period has been established, the team is encouraged to review due and outstanding items in accordance with those schedules.
- Usually this will encourage teams to focus on completing actions and milestones so they do not appear in the report as incomplete. This function acts as a project status report template or a piece of period status reporting software.

**Basic project records would include:**

- Team personnel involved in planning and executing the project
- Minutes of meetings and discussions held for planning
- Project scope, objectives and relevant statement of the goals of the project and the likely contingency plans
- Work record plan showing dates, times and work done
- Critical path schedule showing a chronological diary that maps out the progress of the project and shows milestones
- All communications via emails and letters relating to the project
- Financial budget, summary and associated documentation like goods and services for the project
- Lists of specifications, requirements and important features or functions
- Drawings or references to drawing numbers or computer generated work
- Invoices or purchase orders for all materials relating to the project
- Any other record or reference to a computer file or website location

**Where are the records kept?**

- Virtually all electronic accounting systems will produce a report for most of the required information detailed above.
- As well, specialist systems like Microsoft Project and similar, will have software for both producing and keeping project records in a personalised design manner.

- Another feature of using Project management software is the ease of which additional information in record form can be added at any time, even remotely.

**Examples:**

Project Status	Last Period	This Period	Comments
Overall project status			
Recording of time spent on project and progress in completing project			
Financial data including costs, expenditure, income generated, purchases			
Time			
Cost			
Scope			
Quality			
Benefit			
Risk			
Work Package Name	Status	Completion Date (as per plan)	Forecast Date (if different from plan)
Project outcomes			
	Pending authorisation		
	In execution		
	Completed		
<b>Summary of corrective action taken during the period</b>			
<i>Corrective actions taken during the period</i>			

**Project Status Report**

<p><b>Project Name:</b></p> <p><b>Project manager:</b></p> <p><b>Company/client:</b></p> <p><b>Process:</b></p>
---

Prepared by:

Document Owner(s)	Project/Organisation Role

Project Status Report Version Control

Version	Date	Author	Change Description
		<i>[Document owner]</i>	<i>[Document created]</i>

Milestone Deliverables performance reporting over last period

Milestone Deliverables	Due Date	% Completed	Deliverable Status
<b>Milestone 1</b>			
Deliverable 1	date	%	[On Schedule]
Deliverable 2	date	%	[Ahead of Schedule]
Deliverable 3	date	%	[Behind Schedule]
<b>Milestone 2</b>			
Deliverable 1	date	%	[On Schedule]
Deliverable 2	date	%	[Ahead of Schedule]
Deliverable 3	date	%	[Behind Schedule]

**Milestone Deliverables scheduled for completion over next period**

Milestone Deliverables	Due Date	% Completed	Deliverable Status
<b>Milestone 1</b>			
Deliverable 1	date	%	[On Schedule]
Deliverable 2	date	%	[Ahead of Schedule]
Deliverable 3	date	%	[Behind Schedule]
<b>Milestone 2</b>			
Deliverable 1	date	%	[On Schedule]
Deliverable 2	date	%	[Ahead of Schedule]
Deliverable 3	date	%	[Behind Schedule]

**Project budget / financial status**

Budget Item	Planned Budget	Actual Cost	Variance/Explanation

**Project Risk Management Status**

Risk and Description	Risk Chance	Risk Impact	Risk Priority	Change from Last Review
[Description of Risk] ➤ [Item] ➤ [Item]	[High/Med /Low]	[High/Med /Low]	[High/Med /Low]	[Description]
[Description of Risk] ➤ [Item] ➤ [Item]	[High/Med /Low]	[High/Med /Low]	[High/Med /Low]	[Description]

### Project Issue Management Status

Issue and Description	Project Impact	Target Due Date	Issue Status	Issue Resolution
<i>[Description of Risk]</i> ➤ <i>[Item]</i> ➤ <i>[Item]</i>	<i>[High/Med /Low]</i>	<i>date</i>	<i>[Open/ Closed]</i>	<i>[Description]</i>
<i>[Description of Risk]</i> ➤ <i>[Item]</i> ➤ <i>[Item]</i>	<i>[High/Med /Low]</i>	<i>date</i>	<i>[Open/ Closed]</i>	<i>[Description]</i>

### Project Recommendations

[Replace this text with a brief statement for the Steering Committee, Project Sponsor, or Senior Manager to consider or endorse. Other questions to consider for review with key project stakeholders are:

- Will the project be completed on time and on budget?
- Will the project deliverables be completed within acceptable quality levels?
- Are scope change requests being managed successfully?
- Are project issues and risks being addressed successfully and mitigated?
- Are all customer concerns being addressed successfully?

## 3.4 - Implement and monitor plans for managing project finances, resources and quality

### Monitoring the project

Resources may include:

- Human
- Physical
- Technical.

Project financial management is a process which requires:

- Planning
- Budgeting
- Accounting
- Financial reporting
- Internal control
- Auditing



- Procurement of goods and services
- Disbursement of payments
- Achieving the project's financial objectives.

**Like all processes, financial management relies upon management:**

- Financial management should not be confused with accountancy, which is simply the process of recording the transactions of a business or a project in this case and culminates in the production of the financial statements of the project
- Financial management is, as are most forms of management, a dynamic and challenging sector, requiring high levels of business acumen and vision
- Cost control as the term implies, requires measurement and analysis of all levels of the project finances, resources (human, physical and technical) and expenditure to ensure that such expenses are incurred at an optimum level to meet the project budget.

### 3.5 - Complete and forward project reports as required to stakeholders

#### Project reports

As the project manager, you will generally spend much of your time communicating:

- You deliver information upward and downward, internally and externally as the various sessions so far have addressed
- Daily, you make and receive numerous reports, e-mail messages, phone calls, and other messages to keep your team and your customers up to date about the status of your project.

#### Basic project records would include:

- Team personnel involved in planning and executing the project
- Minutes of meetings and discussions held for planning
- Project scope, objectives and relevant statement of the goals of the project and the likely contingency plans
- Work record plan showing dates, times and work done
- Critical path schedule showing a chronological diary that maps out the progress of the project and shows milestones
- All communications via emails and letters relating to the



project

- Financial budget, summary and associated documentation like goods and services for the project
- Lists of specifications, requirements and important features or functions
- Drawings or references to drawing numbers or computer generated work
- Invoices or purchase orders for all materials relating to the project
- Any other record or reference to a computer file or website location

**Strong communication skills are critical to keeping your team and stakeholders informed, supportive, and enthusiastic:**

- Have a communications plan in place that outlines reports as required to stakeholders and keeps your project on track and helps avoid confusion.

**Identify the different groups with whom you will communicate**

**Identify:**

- The frequency of your reports
- The details stakeholders actually need as opposed to general and non-essential reporting
- The methods you will use to deliver reports
- Set up a central network for stakeholders to access online or through an intranet
- Create secure storage of all project reporting information.



**Reporting formats:**

- Create templates for presentation, status, meeting minutes, and other important documents
- Make sure these follow company-wide standards for all stakeholders.

**Provide these to stakeholders as required:**

- A shared project calendar
- Collaboration software
- Access to intranet web sites
- Access to project databases.

**Set up standard procedures:**

- Set up procedures for communicating with your project team and stakeholders
- Create an approval chain for announcements that go outside of the project team
- Advise all team members to organise all project-related e-mail messages so that they are easy to locate and refer to throughout the project.
- Team members can either file messages in electronic folders or print hard copies.

**Prepare for the unexpected:**

- Consider setting up a project reporting 'online' hotline that team members and stakeholders can access when instant communication is required.

Often during the life of the project you might deliver a message that requires immediate feedback. Yet the recipient might be unavailable.

- Ask stakeholders to name substitutes who you can contact during those times or when they are unavailable on holiday, at business trips, or unplanned absences

**Be flexible:**

- As the project moves forward, your communication requirements might change.
- You may find that some stakeholders need more (or less) project reporting style information
- Keep your communication plan flexible enough that you can make changes as required
- Do stakeholders want lots of detail or only a pre-determined level summary?
- Do stakeholders need a full presentation or additional fact sheets?
- Do you know if the stakeholders read e-mail thoroughly or need further personal face-to-face advice on the project?

**You will also need to prepare for unplanned communications:**

- Design the best approach to such messages in accordance to your stakeholders needs
- Sometimes an urgent e-mail message to a busy stakeholder might go unread for several days, so a phone call or other form of contact might be more effective
- Your communication is more effective when you are aware of the stakeholders different requirements and movements.



**Language and global advice:**

- Outsourcing and new technologies have made global project teams more common place
- This can create language barriers and cultural differences between key stakeholders and teams
- Be careful when reporting to stakeholders in different countries to avoid misunderstandings
- Avoid 'localised' slang or references to a specific cultures in your messages
- Avoid humour as it can be easily misunderstood across certain cultures.

#### **Keep the quality of your reporting high:**

- Maintain a consistent level of high quality reporting to sponsors, steering committee members, and stakeholders
- Every project team has people with different levels of written and oral communication skills
- As project manager, you need to review and approve all reports, presentations, and other formal communications before they are delivered to stakeholders.

#### **Share the load:**

- Project communication can provide the chance for teams at different levels and functionality to be more involved by having them write some of the reports, memos, or other project status reports
- This shares you project management workload and gives team members visibility to stakeholders.

#### **Bring it all together:**

- Clear and accurate communications are a vital part of any successful project and the planning and process you put in place will benefit both the quality and relevancy of reporting that you deliver to stakeholders.

**Discuss in the class the following communication points using an example project from the workplace, or a hypothetical example from the instructor.**

Typical issue raised	Discussion points
What information will be communicated	
How will the information be communicated? E.g., in meetings, email, telephone, web portal, etc.	
When will the information be distributed?	

What resources will the project allocate for communication?	
How will any sensitive or confidential information be communicated and who must authorise this?	
What may be the constraints, internal or external, which could affect project communications?	

### 3.6 - Undertake risk management as required to ensure project outcomes are met

#### Risk management

Risk management may include:

- Changing roles and responsibilities within project team
- Negotiating an extension of deadline, or redefining completion or quantities or quality of outcomes
- Outsourcing some aspects of the project
- Reducing costs
- Researching and applying more efficient methods for completing project tasks
- Seeking further resources to meet deadline
- Sharing of ideas to gain improvements to work undertaken within the project.



#### Rick management control:

Risk is something that is intangible. You can't see it or touch it, but you can certainly tell when it has occurred.

#### Likelihood and consequence:

- Risk management has two important elements: Likelihood and Consequence.
- In a mathematical sense, risk is most commonly represented as the product of these two.

Risk = likelihood x consequence

#### Likelihood:

- Likelihood represents the chance that something will happen. This can be represented qualitatively as a word, quantitatively as a probability or frequency, or as both.

**Consequence:**

- Consequence represents the impact that a risk may have and is measured in degrees of severity, should the risk occur.
- A consequence may be financial loss or gain, legal problems or opportunities, delays in a project, personal injury or damage.

**Examples**

Likelihood	Consequence
Changing roles and responsibilities within project team	Uncertainty, not being familiar with current progress, disharmony, chance of failure in certain areas
<ul style="list-style-type: none"> <li>➤ Negotiating an extension of deadline</li> <li>➤ Seeking further resources to meet deadline</li> </ul>	Gives unprofessional image, effects budgets and insurance cover, costs blow out
Redefining completion or quantities or quality of outcomes	Gives unprofessional image, effects budgets and insurance cover, costs blow out
Outsourcing some aspects of the project	Adds to costs, does not meet original specifications

Consequence	Action
Adds to costs, does not meet original specifications	Researching and applying more efficient methods for completing project tasks
Gives unprofessional image, effects budgets and insurance cover, costs blow out	Reducing costs
Uncertainty, not being familiar with current progress, disharmony, chance of failure in certain areas	Sharing of ideas to gain improvements to work undertaken within the project

**Undertake risk management as required:**

1. Establish the context of the risk potential in your project
2. Identify those risks
3. Evaluate those risks
4. Analyse those risks
5. Treat those risks to ensure project outcomes are met.

### Establishing the context

This requires careful consideration of what exactly is the risk?

Likelihood	Consequence

This involves setting the parameters of the risk assessment. If not done correctly by you or whoever is designated to handle the risk assessment it can waste a lot of time or duplicate areas that have already been covered.

### Don't waste time and resources on an ill-focussed exercise:

Establishing the context of risk in a project example could likely involves three parts:

1. External/strategic context
2. Internal/organisational context
3. Risk management context.

### External / strategic context:

- Ensure you fully understand the legal, financial, political, and environmental safety and any other related contexts that your project exists within.

When making risk assessments there are always current Standards and other state and federal regulations that apply.

- Check if there have there been any recent changes in the laws that relate to risk management, WHS legislation or compliance

- Is there any commercial 'risk' involved in your assessment that may be better addressed in insurance or self management rather than risk in the traditional sense?

It is also useful to discuss community expectations regarding the risks you are considering to assess and ensure you are very clear on who the stakeholders are.

Sometimes a SWOT analysis can also help with establishing the external context before assessing major strategic risks.

#### **Internal / organisation context:**

- The internal organisational context is more about the goals and objectives of the project and its focus for the risk involved in those undertakings present in the organisation
- The reason for defining this to identify threats and opportunities to achieving objectives
- It is also important to clarify the organisational structure involved with various job roles in the project that could potentially be affected by the risk assessment. If it is unclear as to who is responsible for different parts of the organisation, then this ambiguity will also create problems when attempting to assign responsibility for the management of risks at project level
- Earlier it has been discussed as the need to clearly define who is responsible for different parts of the project scope
- Risk assessments may uncover problems with attempting to assign or re-assign responsibility for the various sectors of the project.

#### **Some consideration should be made in your assessment of risk within the organisation to the culture and attitude toward risk.**

- Is the organisation's culture leaning towards being risk takers or risk averse?
- Is the project 'profit' or 'financially' driven to the detriment of overlooking risk?
- Is the organisation prepared to provide suitable and adequate resources for the risk assessment?
- How long will the organisation be prepared to spend in terms of time to make all necessary risk assessments?



You may need to conduct a workshop with all stakeholders to ensure that you will have all the resources necessary and to draw information from existing sources.

#### **Risk management context**



- The risk management context involves defining which risk categories apply to the risk assessment
- There will not only be safety risks but other forms of operational risk and organisation risk as we have discussed
- It is possible to conduct a higher level strategic risk assessment as opposed to just focussing on a project or part of a project, so the context can be different
- These risk categories need to be documented and then customised so they are meaningful to your particular project.

**Consideration should also be given as to how risk will be analysed:**

- What constitutes a high, medium, low and negligible risk?
- What will you do when you identify a high risk?
- Who will it be reported to?
- What level of risk is unacceptable?

**The best way is to develop a risk register:**

- This is a table format on a spreadsheet or a software risk assessment application that contains descriptions on the risk, its causes, impacts, controls, analysis, who is going to undertake the controls and by when
- The risk assessor or the project manager if they are different also needs to identify how the risk assessment information shall be kept and circulated
- Often it is best kept in a spreadsheet, database or increasingly in risk assessment software.



**Identifying risks**

This is the most important phase of risk management:

- If you have not identified the risk, then you cannot assess it and you most certainly cannot effectively control it
- This is the phase where you may draw on historical data and the experience of 'project' experts in your organisation, (or from outside), to identify risks, causes, effects and controls.

The reason for identifying causes, impacts and current controls in risk identification is when analysing the risk later, each risk should be measured in terms of inherent risk (in its current state with controls), and residual risk (after new controls are put in place).

If there are no changes in the level of risk after new controls are implemented, then the new controls should not be undertaken.

**Analysing risks:**

Before analysing risks it is important to document any assumptions that relate to each risk.

**For example:**

- Is the analysis focussed on the most foreseeable risks and/or worst case scenarios?
- The likelihood of the most foreseeable risks will be higher than the worst case scenario.
- Conversely, the worst case scenario should, in theory, have a very low likelihood and a much higher consequence. They will therefore sit in different locations on the risk matrix and may result in being of different priorities.

Analysing risk involves identifying the likelihood and consequence of each risk given its current causes, impacts and controls.

For this activity, it is useful to do this in a project team environment, rather than by a single individual.

- Discussion by all team members and stakeholders should be encouraged to ensure any relevant information regarding each risk is shared
- It is also useful to have someone with strong facilitation skills to Chair the session
- If not, it is easy for these sessions to deteriorate into a 'talk fest', with risks being assessed according to the views of the person who speaks loudest.

**Evaluating risks**

Once the risk analysis is complete, each risk will be given a corresponding risk value. This value will have been calculated using the definitions that were set when establishing the risk management context.

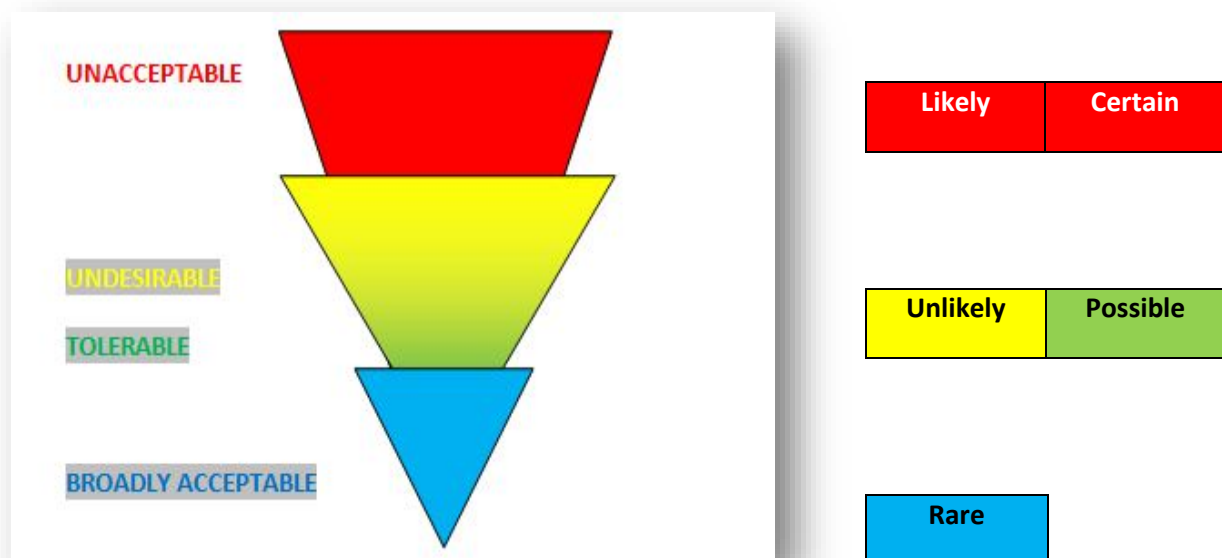
**NOTE:** *if you are using a pre-printed guide to evaluate risk, the Risk Management Standard, AS/NZS 4360:2004 has been superseded by AS/NZS ISO 31000:2009, Risk management - Principles and guidelines.*

Another method of evaluating risk in table or graph format involves assigning a score to each category:

- Through multiplying likelihood and consequence, the resultant risk score allows for representing each risk as a number
- The larger the risk number, the higher the assumed level of risk.
- Whatever method you may use should be established in advance during the risk management context phase or workshop session with teams and stakeholders.

**Risk matrix example:**

		LIKELIHOOD				
		Rare	Unlikely	Possible	Likely	Certain
CONSEQUENCE	Severe					
	Major					
	Moderate					
	Minor					
	Insignificant					

**Treating risks**

Depending upon the level of risk and evaluation, one of four treatment strategies may suit your project assessment.

1. Terminate – do not undertake the activity or part that has been risk assessed
2. Transfer – pass risk on to others through contracts, insurance outsourcing etc
3. Treat–reduce either the likelihood and/or consequence
4. Tolerate – monitor the risk for changes but implement no additional control measures.

## 3.7 - Achieve project deliverables

### Project deliverables

#### Deliverables:

- A deliverable is a tangible and measurable result, outcome, or item that must be produced to complete a project or part of a project
- Typically, the project team and project stakeholders agree on project deliverables before the project begins
- Management of deliverables, like most project requirements, are best recorded and documented for reporting purposes in your software program such as project manager.

#### How to achieve the numerous project deliverables:

- Many tasks occur concurrently and repeatedly and continue almost the entire duration of the project
- Be clear on your project objectives
- As discussed elsewhere; be fully aware of the purpose of the project and what the project will achieve
- The project is considered to be successful if the project objectives are met successfully
- The ultimate deliverable is the completion of the project.



#### All projects produce deliverables:

- When you have completed creating your objectives and deliverables, go back and make sure that they are in alignment and match the scope and other ground rules you have laid.

#### You shouldn't have any objectives that are not aligned to one or more deliverables:

- If you don't include deliverables in your project scope it is unlikely you will achieve the project objectives
- Be careful not to build deliverables into your scope that will not help you achieve your objectives
- If you have a deliverable without an objective, then you need to ask whether the deliverable is really important to your project. If it isn't, then remove it from the project.

#### Assign each deliverable:

Assign each deliverable to a separate phase of the project, and use a milestone that represents the completion of both the deliverable and the phase simultaneously.

For example, a project may have clearly definable sections, so list the deliverables in 'phases'.

#### Group similar deliverables:

- It can also be more efficient to group similar deliverables or deliverables with the same stakeholders in a phase
- This method allows you to schedule a team to work on a project until the deliverable is handed off
- Then the team can move on to other projects.

#### Group deliverables spanning a time period:

- Group deliverables that are worked on during the same time period in phases spanning that time period
- This is useful for projects where trade-offs can be made in the scope and quality of the deliverable to meet a fixed finish date
- There may be phases for each month leading up to the finish date containing the tasks that must be started or completed during that month
- Tasks that are not finished by the end of the phase are often completed separately after the team has moved on to the next phase.

#### Documentation of project deliverables

Phase and Document	Target Date	Status	Comments
<b>Pre-Project</b>			
1. list as required			
2. list as required			
3. list as required			

<b>During</b>			
Phase and Document	Target Date	Status	Comments
1. list as required			
2. list as required			
3. list as required			

Using project manager you can create a report on a timeline created to indicate milestones, or, as below, create a simple excel spreadsheet format.

		TIME IN: days, weeks, months etc.									
Milestones	Responsibility										

Processes	Tasks (outcomes)	Deliverables
Manage constraints	Manage project scope	Scope under control
	Manage project schedule	Updated project schedule
	Manage project budget	Updated budget
Monitor and Control Risks	Monitor risks	Risk management assessment
	Control risks	Project status report
	Monitor impact	Updated project report
	Manage change control	Updated reports to: <ul style="list-style-type: none"> <li>➤ Project manager</li> <li>➤ Project sponsor and /or project director</li> <li>➤ Project team member</li> </ul>

<b>Manage Project Execution</b>		<ul style="list-style-type: none"> <li>➤ Customer representative</li> <li>➤ Steering committee</li> </ul>
	<b>Manage issues</b>	Issue project status report
	<b>Execute communication plan</b>	Project status report and other communication tools

## 4. Finalise project

### 4.1 - Complete financial record keeping associated with project and check for accuracy

#### Complete records

##### Finalise a project:

- A project plan is generally deemed finalised when it is formally accepted and approved by the project sponsor and other designated stakeholders
- Formal approval acknowledges that all the deliverables produced during the various stages are complete, reviewed and accepted
- Signatures on the project plan document indicate final approval
- This sign-off marks the plan as the go-forward agreement and can be viewed as a project management milestone.

#### Project closing

	<b>Steps</b>	<b>Who is responsible?</b>	<b>Comments</b>
<b>1</b>	Close project or phase	Project manager / steering committee / business unit	Finalise all activities of the project and obtain sign-off of deliverables from the business
<b>2</b>	Close contractual obligations	Project manager / director, finance, reporting and compliance	Complete project procurement and contracts
<b>3</b>	Complete project review	Project manager	Conduct a post closure and impact review to formally close the project

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### Key project area

Complete financial record keeping associated with project and check for accuracy:

Key Project Area	Planned expectation (as in project plan)	Actual outcome	Reference for evidence	Reason for any variance from project plan
Scope				
Time				
Cost				
Quality				
Risk Management				
Communication				

Category	Planned	Actual	Variance	Explanation
Internal Staff Labour				
Services				
Software Tools				
Hardware				
Materials and Supplied				
Facilities				
Telecommunications				
Training				
Contingency (Risk)				

Resource	Person or department who received resource	Turnover date
(Describe or name the resource)		



<b>Project Team</b>		
<b>Customer Support</b>		
<b>Facilities</b>		
<b>Equipment</b>		
<b>Software Tools</b>		
<b>Other</b>		

## 4.2 - Ensure transition of staff involved in project to new roles or reassignment to previous roles

### Staff assignments

Assigning staff:

- Each new project starts with a default set of roles
- They may be the most basic roles that you can assign to staff but each one has a specific purpose.
- The basic roles should be created with each new project or, as suggested, reassigned.

**First:**

1. Choose the project which you will assign roles for.

**Second:**

2. Select the staff member(s) to whom you will assign the role(s).

Once you have selected the task and staff member re-check the list of the roles for the project, and check any roles for re-assignment or adjustment.

Document the process using a Project software program or manually, as in this example:

Staff ID	Recommendation	
	New roles	Reassign previous
	Where/How	Seek approval by supervisor
Action	Date	Responsible Person

### 4.3 - Complete project documentation and obtain necessary sign-offs for concluding project

#### Sign-offs

Necessary sign-offs may be required by:

- Clients
- Funding body
- Management
- Project sponsor.

#### Project information:

<b>Project Number</b>	
<b>Project Name</b>	
<b>Date</b>	
<b>Project Ownership</b>	
<b>Project Contacts</b>	
<b>Project Approval</b>	

#### Project completion report

Area / stage / phase	Completed	Signed off
<b>Project overview</b>		<ul style="list-style-type: none"> <li>➤ Clients</li> <li>➤ Customers</li> <li>➤ Funding body</li> <li>➤ Management</li> </ul>
<b>Project objective</b>		
<b>Initial project objective</b>		
<b>Agreed changes to project objective</b>		

Project outcomes		➤ Project sponsor
Deliverables/milestones		
Budgeted cost		
Final cost		
Scheduled completion date		
Final date		
Issues and risks summary		
Lessons learned		
Milestone/phase		
Recommended improvements		

## 5. Review project

### 5.1 - Review project outcomes and processes against the project scope and plan

#### Reviewing the project

##### Why conduct project reviews and evaluations?

- Monitoring versus evaluation
- Post-project evaluation
- Pre-project evaluation
- Ongoing project evaluation
- Project completion evaluation
- Lessons learned.



Reviewing project outcomes and processes against the project scope and plan provides an opportunity in a formal environment to learn from those experiences.

- If you design the review process as a sequence of activities it will result in a conscious and planned attempt to prevent the next project from having to repeat any negative areas uncovered or, adopt the positive ones for future projects.
- A review should be conducted for all projects, not just the ones considered complex or with many stakeholders. Often the simple ones will contain both negative and positive features that can be used and are sometimes overlooked because the detail of the project appears too simple.

Projects have to be aligned with the agreed strategic plan. The review process provides this platform.

**Review:**

- Regardless of the size or complexity of the project, a measurement of the project's success against well-defined criteria is necessary. Establishing the criteria helps with the measurements taken during the project and after the project has finished.
- These measurements, which have been detailed in the previous session, include determining whether key performance milestones have been met, how well managed the project was, and whether the specified project outputs were achieved and delivered.

**Simple steps to take for a post project review:**

- Create an agenda
- Select participants
- Prepare for a workshop environment (participation is the key)
- Conduct the workshop/review
- Present the results
- Adopt recommendations.

## **5.2 - Involve team members in the project review**

At least one person should be selected from each stakeholder area or the person themselves need to be included.

- The final selection if some people are unavailable should always include those who have a strong knowledge of the processes that were undertaken in the project
- The best candidates are team leaders
- The success of the project review will benefit from the involvement of as many project participants as possible to evaluate the success and document the lessons learnt
- The evaluation criteria developed before the start of the project should be used as a baseline when reviewing the project.

**Review against the project scope and plan:**

Each participant should be asked to respond to a set of topics that they can be advised of prior to the workshop / meeting.

- That way there are no surprises
- The subsequent responses should focus on what went right, what went wrong, and what can be improved
- After the project outputs have been delivered, a review of the project is needed to assess if the desired outcomes were attained.

- The project plan should include a section for conducting this review.

### General review categories

Examples only – each project review will have its featured and priority areas:

<ul style="list-style-type: none"> <li>➤ Staffing</li> <li>➤ Communications</li> <li>➤ Project objectives</li> <li>➤ Product definition and any changes</li> </ul>	<ul style="list-style-type: none"> <li>➤ Stakeholder involvement</li> <li>➤ Schedules and tracking</li> <li>➤ Training</li> <li>➤ Productivity</li> </ul>
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Some of those categories, and others, may need an expanded review including:

- Formal governance and are there any changes needed to the approval process
- Was the project team fully accountable for the project results?
- Is there a requirement for additional training in project management as a result of this project?
- Were the areas of measurement and feedback systems adequate?
- Was there regular communication with all stakeholders?
- Did the records clearly list tracking of people, skills and time?
- Did the use of software, systems, applications used for the project management tools perform adequately?
- Is there a need for more improved or different software?
- Did the software allow for reporting and formal documentation?
- Were the organisation's resources supporting the project effectiveness and efficiency adequate?



## 5.3 - Document lessons learnt from the project and report within the organisation

### Lessons learned

#### Practical aspects:

- A workshop should be conducted as a working meeting
- Ideally, the agenda should be covered in a half day time frame. If more time is needed because of a complex project, schedule another meeting a few days later
- Each stakeholder should present responses to the topics that were previously distributed.

#### Set a time limit for each person

Although the workshop/meeting must encourage full participation from all attendees, a time limit is necessary or otherwise those with the personality to stand and talk endlessly will overrun your agenda.

As mentioned earlier, create two lists:

“What went right” – things that you want to carry forward to future projects.

“What went wrong” – encourage specifics.

- Focus on the top 5 to 10 problems
- Every attempt should be made to obtain the full support of the project’s leadership in implementing the any recommendations to the organisation as quickly as possible.



#### Document lessons learnt:

- Complete a post-project review report either within the software of the project management system you are using or have someone document this separately
- The real benefit of the documented report will be the lessons learned and circulated within the organisation for the attention of stakeholders and teams in future projects
- As part of the next project evaluation and scoping all reports generated at this review meeting should be mandatory reading for any new projects
- A project review concept has great value to an organisation and ultimately to the acceptance of the organisations ability by its clients.

## References

*These suggested references are for further reading and do not necessarily represent the contents of this learners guide*

- Project Management: A Systems Approach to Planning, Scheduling, and Controlling [Hardcover]  
Harold Kerzner (Author)
  
- Project Management  
(David L. Cleland and Lewis R. Ireland )
  
- Radical Project Management [Paperback]  
Rob Thomsett (Author)
  
- The Art of Project Management (Theory in Practice (O'Reilly)) [Paperback]  
Scott Berkun (Author)
  
- Brilliant Project Management: (Revised Edition)  
Stephen Barker, Rob Cole