

## IT Project and Change Management Summary

### WEEK 1: INTRODUCTION TO PROJECT MANAGEMENT

#### What is a project:

- Temporary endeavour (start date, finish date)
- Resources as input
- Processes
  - Project Management processes
  - Product-oriented processes

#### Types of Information systems projects

- Software development projects
- Package implementation projects
- System enhancement projects
- Consultancy and business analysis
- Systems migration projects
- Infrastructure projects
- Outsourcing (and in-sourcing) projects
- Business continuity projects

Projects are increasingly challenging HOWEVER: Project management also getting smaller

- More people seeing advantage of project management techniques
- Techniques more widely taught and written about with tools becoming cheaper

#### Triple Constraint:

To maintain quality of a project, there are 3 constraints to be faced:

- Time, Scope & Cost
  - Focusing on one may lose focus on another

#### IMPLICATIONS:

- Inter-related
  - Meet the budget
  - Finish on schedule
  - Meet specifications that satisfy the client
- Enter the **uncertainty factor**
  - We can compromise on one constraint but it will influence the other two.
  - E.g. Budget is cut in half mid-way through the project. Impact? Scope limited

Therefore, Project Manager (PM) must decide how to trade off one project goal against another

- Keep the same scope but reduce time factor by increasing cost factor
- Keeping same scope but reduce cost factor by increasing time factor
- Reduce scope which reduces both time and costs

#### SUCCESSFUL PROJECT:

- Delivers all the requirements
- Within cost
- Within schedule
- Satisfies the customer

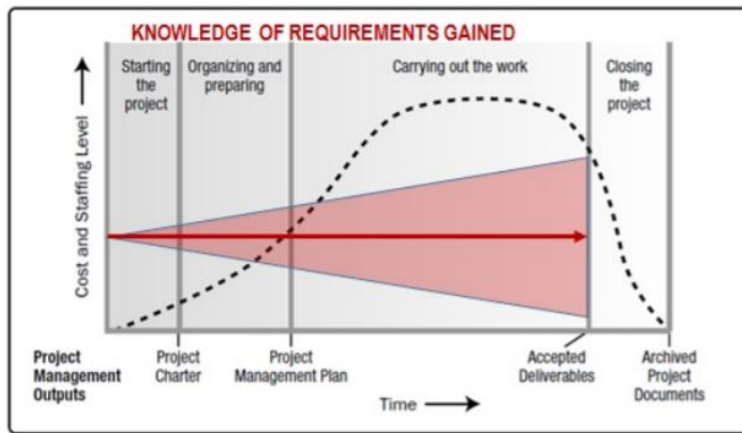
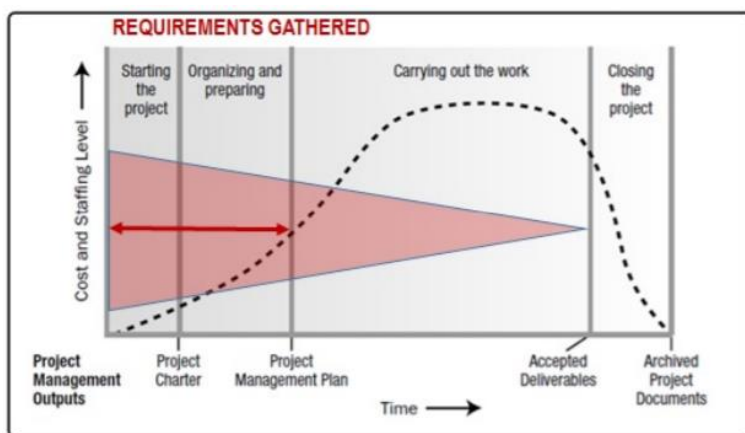
#### What is a project manager?

- Person assigned by an organisation to achieve an objective (develop a product, system etc.)

## 1. Requirements change during the project

Why do they change?

- Technology changes
- Organisational changes
  - Business structure, stakeholders
- Economic changes
  - Business doing worse (better) than previous, GFC
- Political and legal changes
- People don't know what they want until they **see it**



How do we deal:

- Clearly defined process for receiving, analysing and incorporating change requests
- Make customer aware how to interact with this change process
- Milestones for each development phase beyond which major changes are not possible
- Change requests are clearly communicated and to all stakeholder and documented (with rationale)

## 2. Customers have unreasonable timelines

- Customer may say: "want this job done asap, in a few weeks"
- Mistake is to agree to the timeline without having:
  - Detailed analysis of scope
  - Determined available resources

How to deal:

- Convert requirements specification into a project plan
- Detail tasks and resources at each stage and model **best-case, middle case and worst-case scenarios**
- Be reasonable and outcome will be positive for both parties

## 3. Communication gaps exist between stakeholders

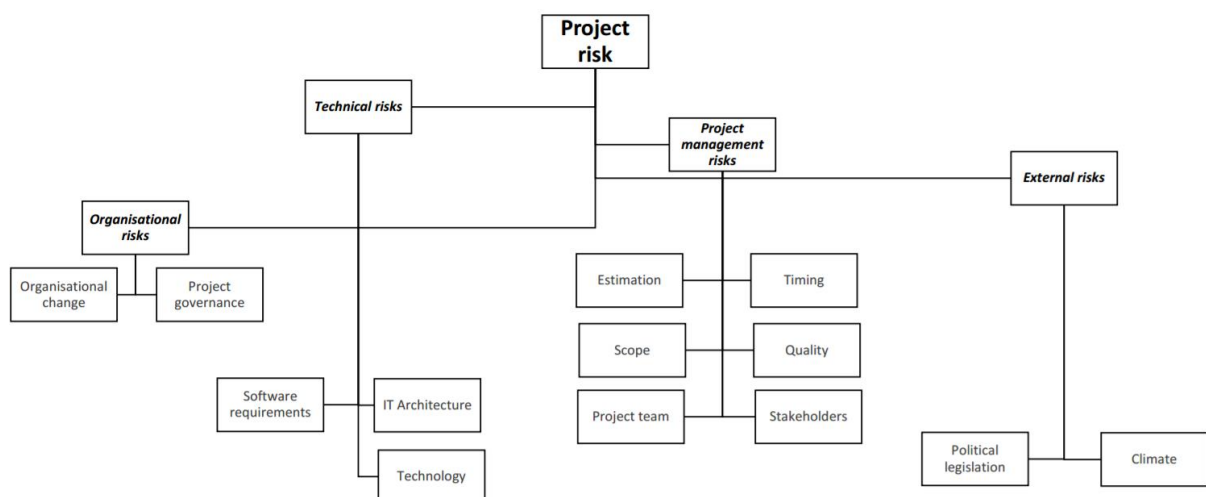
- Customers, engineers, project managers may interpret language in different ways leading to confusion

How to deal:

- Take notes during meetings and disseminate these to project team
- Consistent in use of terms (glossary if needed)

## RISK MANAGEMENT PROCESS:

1. **Risk Planning** – Approach and planning of risk management activities for the project
  - Methodology – agreed approach, tools and data
  - Assigned roles and responsibilities
  - Resourcing – resources assigned to risk management
  - Based on project goals
  - Development of plan for each success phase of the risk management process
2. **Risk Identification** – Identifying which risks might affect the project and how to document their characteristics
  - Determining all the risks, defining potential risk event that causes the risk and the potential outcome if that risk event were to occur
    - Start with Risk Breakdown Structure (RBS)
    - Identify the various risks to the project that relate to activities
    - Everyone plays a role; team members identify risks arising from their own work
    - Consider risks that have a potentially negative outcome (tied to one or more of the triple constraint: Scope, Cost, Time)
    - 
    - Risks are rarely isolated



Risk Type	Possible Risk
Organisational	<ul style="list-style-type: none"> <li>• The organisation is restructured - different management responsible for the project</li> <li>• Organisational financial problems force reductions in the project budget</li> </ul>
Technology	<ul style="list-style-type: none"> <li>• The database used in the system cannot process as many transactions per second as expected</li> <li>• Software components that should be reused contain defects that limit their functionality</li> <li>• The code generated by CASE tools is inefficient</li> <li>• Interfaces cannot be integrated</li> </ul>
Project management	<p>Cost</p> <ul style="list-style-type: none"> <li>• The time to develop the software is underestimated</li> <li>• The effect of defect repair is underestimated</li> </ul> <p>Scope</p> <ul style="list-style-type: none"> <li>• Changes to requirements that require major rework are proposed</li> <li>• Customers fail to understand the impact of requirement changes</li> </ul> <p>People</p> <ul style="list-style-type: none"> <li>• It is impossible to recruit staff with the skills required</li> <li>• Key staff are ill and unavailable at critical times</li> <li>• Required training for staff is not available</li> </ul>
External	<ul style="list-style-type: none"> <li>• The system will be located in bush-area with high bush-fire occurrence</li> <li>• New law to be passed before system has been developed</li> </ul>