

Introduction

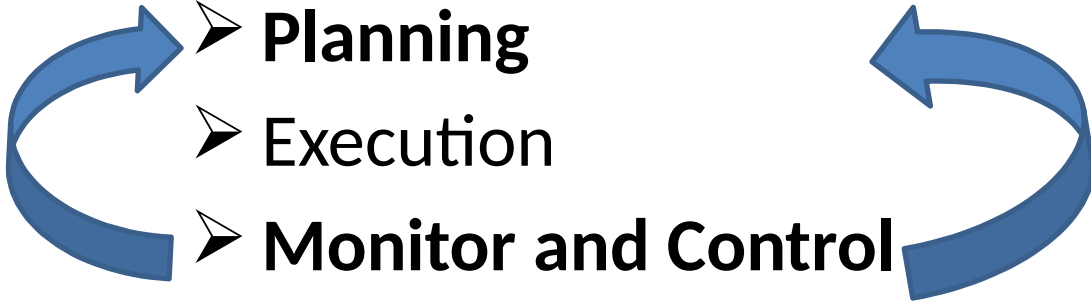
➤ Project Constraints/Boundaries



Project life cycle

There are six phases within your project's life cycle:

- Initiation
- **Planning**
- Execution
- **Monitor and Control**
- Evaluation.



Scope

- The goal of your project – carefully and specifically **defined**.
- **SMART** goals should be set.
- **S**: Specific
 - Do we know **EXACTLY** what is needed?
- **M**: Measurable
 - How do we know when it's done?
- **A**: Achievable
 - Can we do it?
- **R**: Recorded and Relevant
 - Document and communicate it **AND** is this worth doing right now?
- **T**: Time-based
 - In what timeframe must it be done?



Stakeholder standards

- The stakeholders within a project will generally have a major influence on determining quality objectives and standards; their level of influence will depend upon their level of authority and seniority, as well as their importance to the project.
- The business, stakeholders and relevant personnel and departments will usually work together to determine and agree on quality standards and objectives.



Quality objectives

Quality objectives may be:

- Client definition of 'fit for purpose'
- Explicit and assumed performance requirements
- Negotiated trade-offs between cost, schedule and performance
- Organisation, client or sponsor requirements
- Requirements of other stakeholders
- Those quality aspects that may impact on customer satisfaction.



Standards

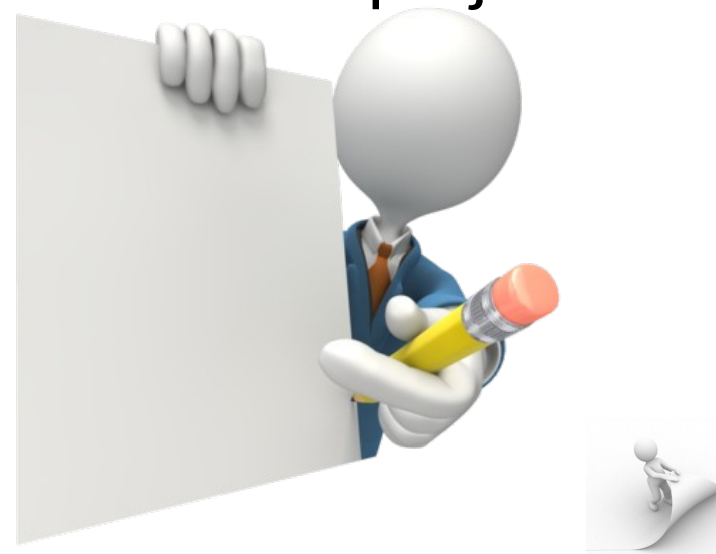
Standards may include:

- Australian and international standards
- Enterprise and industrial agreements
- Industry codes of practice
- Industry standards
- Organisational policy, systems and procedures
- Regulations and legislation.



Quality metrics

- Quality metrics are values and measurements used to benchmark levels of required and expected quality within a project
- These quality metrics define the required and acceptable levels of quality and can be used to gauge how effective the quality management of the project is or was
- Quality metrics can also be used for continuous improvement purposes.



Quality management plans

Quality management plans may be:

- Authorisations and responsibilities for quality control
- Continuous improvement processes
- Applicable standards
- Measurable quality metrics for process and product
- Quality data recording and maintenance
- Reliability and validity requirements.



Tools, techniques and methodologies

Quality management tools, techniques and methodologies may include:

- Benchmarking
- Brainstorming
- Charting processes
- Control charts
- Defining control
- Flowcharts
- Histograms.



Discussing quality requirements

- Discussing quality requirements generally occurs before the project begins, in order to identify and negotiate the quality requirements; this allows the project to start with the requirements and expectations in place.
- Different stakeholders will be involved in this discussion and will work together to reach an agreement.



Distributing quality requirements

- When quality requirements have been agreed upon, the information should be distributed to all relevant personnel and staff and stakeholders who are involved with the project.
- All staff and participants must be aware of these requirements so that they can work compliantly and up to standard.



Supporting quality requirements

- When staff and other stakeholders have been informed of the quality requirements and work has begun, staff should be supported in achieving quality requirements.

This may involve:

- Gathering feedback from staff
- Monitoring quality and acting upon any problems that arise
- Ensuring that staff are able to get on and work
- Providing enough training and information to staff



Project management plans

- As explained in section 1.2, the project's quality management plan will contain the quality metrics for the project, which can be used to assess and monitor performance.
- These metrics and stated requirements can be used as a way of measuring the performance levels of current and future projects; if the information is not included within the plan, then it cannot be referenced and used.



Quality assurance

- Quality assurance refers to the process of monitoring quality throughout the duration of the project in order to ensure that it is maintained
- Quality assurance allows any issues and problems to be detected early so that they can be resolved promptly and therefore minimise impact to the rest of the project.



Methods

Systematic review

- Review quality management throughout the project to ensure compliance

Continuous improvement

- Continuous improvement seeks to continually improve practices and methods

Lessons learned

- Lessons learned are where an organisation identifies a past mistake or ineffective process and takes steps to improve this process and avoid repeating the mistake.



Quality control

- Project quality management and control should be documented in line with organisational requirements and agreed procedures
- This allows you to maintain an accurate record of current and past project information and contributes to continuous improvement processes and allows you to document lessons learned
- Different quality control actions may require mandatory documentation, such as inspections and audits.



Quality control measures

Quality control measures may include:

- Inspections and audits in compliance with guidelines
- Monitoring conformance to the specification
- Recommending ways to eliminate causes of unsatisfactory performance of products or processes
- Regular inspection by the individual or the monitoring of inspections by internal or external agents
- Reporting variances.



Variances

- Variances to the quality metrics may be required as the project progresses
- Variances may be caused by events inside or outside of the project; for example, if the project grows or problems are encountered
- Where a project's quality is subject to change, it is important to adapt and allow variances to occur in order to ensure that quality objectives remain achievable.



Reporting variances

- All identified variances should be recorded and communicated to relevant others who can initiate the appropriate action to combat and resolve the issues

Appropriate others may be:

- Higher project authority
- Organisational quality management
- Project managers
- Project specialists and other personnel
- Team members.



Remedial action

- Remedial action should be taken in the event of a variation in quality in order to preserve the project's quality and deliverables
- The remedial action will vary according to the nature of the project and the nature of the problem
- In any case, the action should seek to minimise damage and disruption and ensure that project quality objectives and deliverables remain achievable.



Quality management system

- A quality management system (QMS) is a system that incorporates several processes that work together to aid in achieving project quality objectives.
- A QMS involves working to eliminate project problems and to maintain quality in a cost-effective manner
- The processes involved in a QMS generally take the form of documents, which are usually electronic in modern business.



Maintain the QMS

- In order to ensure that the QMS can produce accurate quality audit data, you must take steps to ensure that it is maintained.

This may include:

- Inputting correct data
- Amending data as required
- Running regular checks
- Calibrating the system as required
- Maintaining the software version
- Running backups, if applicable.



Review variations

- Variations and other events may occur within the project's timeframe

Changes may include:

- Revised metrics and forecasts
- Variance management
- Actions within agreed authorisation and limits
- Actions within established organisational framework, procedures and routines.



Review outcomes

- Project outcomes should be reviewed in an ongoing way in order to assess the effectiveness of quality management activities
- During a project, this means assessing whether the project is on track to achieve the project goal(s) within given parameters
- After a project, this means assessing whether the project achieved its outcomes and quality criteria.



Lessons learned

- Lessons learned from previous activities can be incredibly useful in future projects and can save time, money and effort
- By reviewing projects thoroughly you can identify lessons learned
- This usually involves identifying things that went well and things that didn't go so well.

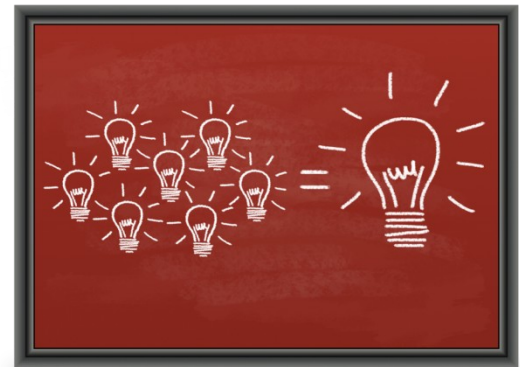


Improvements

- Improvements are solutions and better practices that are developed from lessons learned and previous experience in quality management

Improvements may include:

- Formal practices, such as total quality management or continuous improvement
- Improvement by less formal processes that enhance both the product quality and processes of the project.



What is Quality?

- The standard of something as measured against other things of a similar kind; the degree of excellence of something.
- Quality is meeting the needs of customers, standards, policies, safety or compliance.
- Cost of Quality or Cost of Poor Quality is costs associated with providing poor quality products or services.
- **Project quality management** is all of the processes and activities needed to determine and achieve **project quality**



Quality Management System

- What is a quality management system?
 - A quality management system (QMS) is **a set of policies, processes and procedures required for planning and execution** (production/development/service) in the core business area of an organization.
 - Quality can apply to areas that can impact the organization's ability to meet customer requirements.



Quality Management System

- ISO 9001:2008 is an example of a Quality Management System.
- A QMS is nothing more than good business sense.
- Quality management systems have key elements such as:
 - Being centered on the customer or consumer of the good or service, actively providing that customer with the best value possible
 - Some type of continuous improvement profile, which implies that there is not “perfect” state of action, that all processes and approaches can always be improved upon
 - An efficiency imperative that says waste must be reduced and all resources maximized
 - It also requires top management support and the provision of adequate resources to achieve
 - It aids or facilitates clear understanding between all participants
 - Measurement and accurate data collection are incorporated within it



What now?

- Complete workbook: Due **NEXT WEEK** (10/05/2017)
- Complete a Quality Management Plan for your chosen project (This will be your answer for some Major Project questions in your assessment)
- Ask me any questions regarding the workbook.

*Documents are located in: **Z:\Project Management\Quality** along with PowerPoint slides.*



Major Project

- Create a Quality Management Plan following template
- **In Pairs:** Work in groups of two to establish each other's quality objectives for your projects – Discuss quality requirements/objectives/goals with your partner and document them.
- **Alone:** Decide on and document a QA/QC process and how it will be carried out for your project.
- **In Pairs:** Decide on and document a review or continuous improvement process and how it will be carried out for your project.
 - *Best to do this part today.*

