

# INFS2040 Project Management

## Week 1 – Introduction to Project Management

**Project:** A temporary endeavour to create a unique product/service/result.

- A project ends when it either meets the set objectives OR is terminated
- A formal project management system is used to conduct operations in a coordinated method. it provides a formal methodological approach to tackling a project.

**Project Management:** The application of knowledge, skills and tools in project activities to meet project requirements.

**\*\*The key factor in successful projects is to understand what the customer wants\*\***

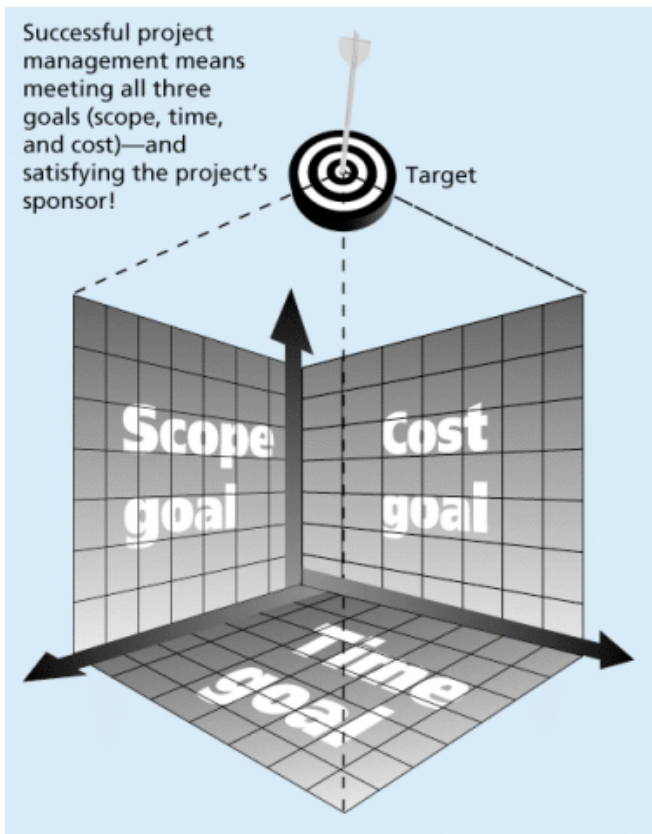
Attributes of a project:

- Unique purpose
- Temporary
- Undertaken via progressive elaboration
- Requires collaboration between various functional areas of business
- A primary customer or sponsor (funder of the project)
- Involves uncertainty

Projects are created as they are the incremental steps in meeting strategic initiatives (i.e. goals)

- Strategy → long term
- Tactical → day-to-day operations

**Programme:** A group of related projects managed in a coordinated way to gain benefits otherwise not obtained if managed individually.



### Triple Constraint

Project managers strive to meet the triple constraint; they push to do this in order to meet expectations of stakeholders.

**Stakeholders:** anyone who impacts or is impacted by the project.

**Project Success** can be met in a variety of ways:

- Meet the triple constraint goals
- Satisfy customer/sponsor/stakeholders
- Project results meet objectives i.e. providing good ROI

**Best Practice:** The optimal way recognised by industry to achieve the goal/objective

- This is engaged to optimise projects and align them with the business strategy
- Engage and reaffirm stakeholders

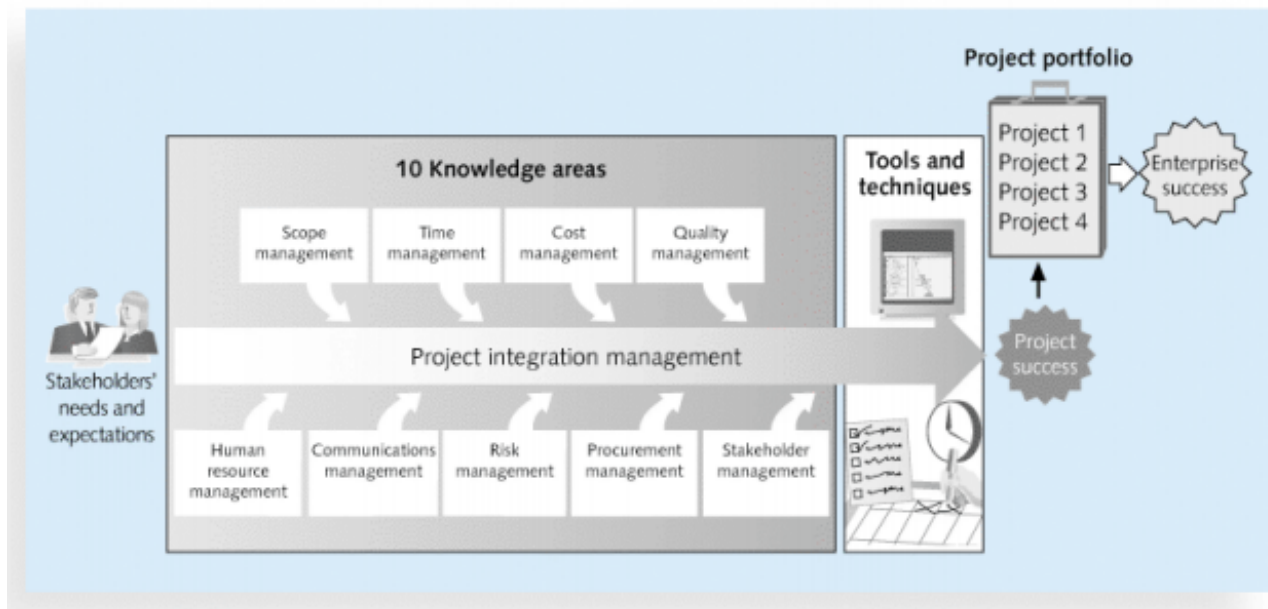
## Week 2 – PM Lifecycle and Knowledge Areas

### Week 1 – Review

- Project requirements = meeting customer needs
- The sponsor can also be your customer
- Sponsors are mainly focused on 3 key aspects of the project: Capital, Vision, Resources

### **PMBOK:** Project Management Body of Knowledge

- An industry standard that was published by PMI: Project Management Institution
- It identifies stakeholder needs and expectations – funnels them into 10 knowledge areas that are facilitated via tools and techniques to produce results and project success.



### PMBOK

**Knowledge Areas:** describe the key competencies that project managers must develop.

- Project managers must have knowledge on all 10 areas

**Project Management tools and techniques:** These assist project managers and their teams in various aspects of PM

- Project charters, scope statements (scope)
- Gantt charts, critical chain scheduling (time)
- Cost estimates and earned value management (cost)

## Project Charter

- Also known as a project brief, concept paper, statement of work or high-level plan
- Formed during the initiation stage
- Context of the project or industry and the methodology applied to the project will determine the specific term the project charter is used for.
- Defines and authorises a project by documenting the initial requirements to satisfy stakeholder and sponsor needs.
- Forms a tangible partnership between sponsor, client, manager etc.
- Should include: project background, description, purpose, justification, objectives, high-level scope, risks, budget and structure.
- Should also refer to timeframe, assumptions, dependencies and constraints
- **Justification:** should establish the importance and direction of the project – it should drive the project forward, align the project to strategic initiatives and evaluate its value and viability.

All **PMBOK** processes should contain:



**FIGURE 3.5** *Define Scope: input, tools and techniques, and output.*

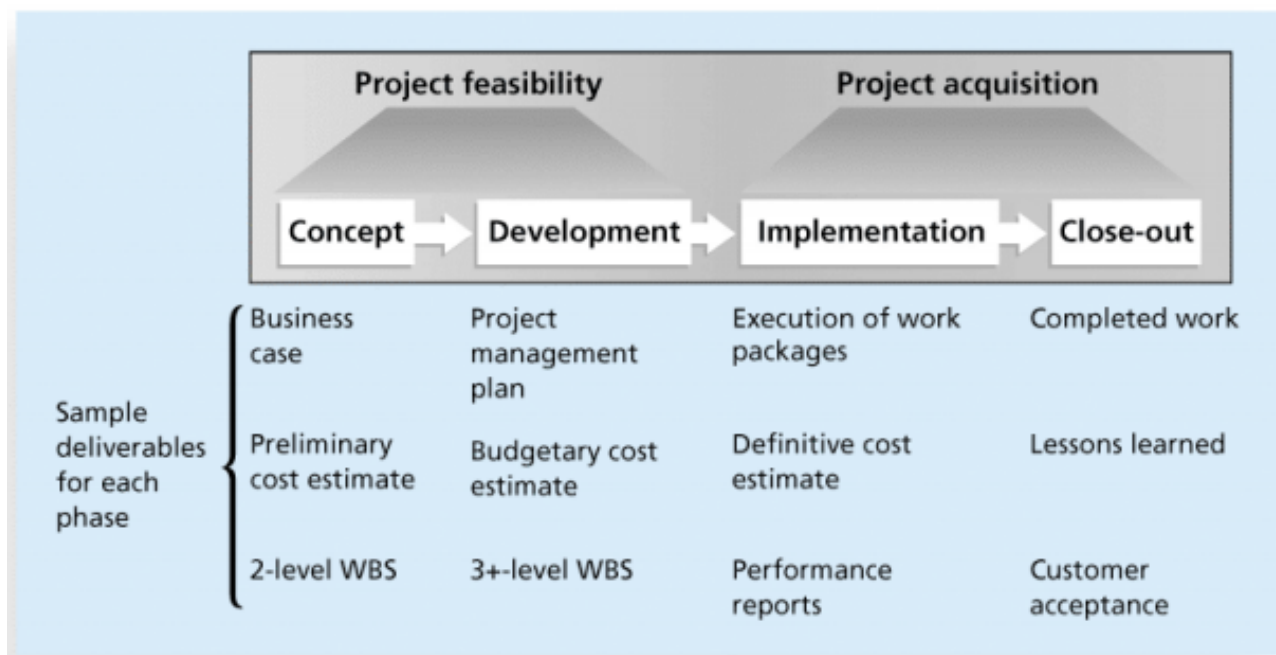
## Project phases and the Project Life Cycle

- A project life cycle is a collection of project phases that defines
  - > work in each phase
  - > deliverables
  - > operations in each phase
  - > managerial action over work produced in each phase

**Deliverable:** a product or service produced or provided as part of a project.

	Resource Needs	Uncertainty (Risk)	Stakeholder Influence
Early phases	Lowest	Highest	Greatest opportunity
Middle phases	More resources needed	Decreases	
Final phases	Ensure project requirements are met		Low – sponsor approves completion

## Phases of a Traditional project life cycle



## Product life cycle

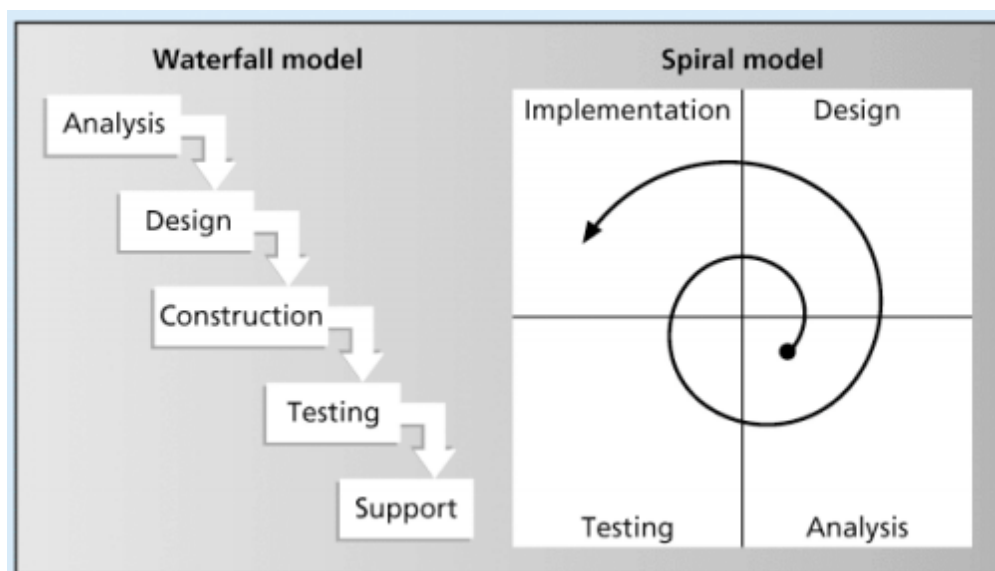
The **Systems Development Life Cycle (SDLC)** is a framework for describing the phases involved in developing and maintaining information systems. They can be:

- **Predictive life cycles:** the scope of the project can be early articulated and the schedule and cost can be predicted.
- **Adaptive Software Development (ASD) life cycle:** requirements cannot be clearly expressed, projects are mission driven and component based, using time-based cycles to meet target dates.

\*Applied to PM Life cycle

### **Predictive Life Cycle Models**

1. Waterfall Model: has well-defined linear stages of systems development and support
2. Spiral Model: shows that software is developed using an iterative or spiral approach rather than a linear approach
3. Incremental build model: provides for progressive development of operational software
4. Prototyping model: used for developing prototypes to clarify user requirements
5. Rapid Application Development (RAD) model: used to produce systems quickly without sacrificing quality.



Waterfall model – stages only begin when the previous has been completed.

Spiral model – phases are continuously prototyped, revisiting of phases and becoming adaptive during the project is essential.