

# SWEN90016

## Software Processes & Project Management

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2021 – Semester 1

Lecture 2

## Lecture 1 – Recap

- ✓ Understand Assignments and our expectations
- ✓ Understand key elements of a Project and why organisations use them
- ✓ Understand the foundational components of Project Management
- ✓ Understand key skills, responsibilities & activities of a Project Manager
- ✓ Understand key elements of how to manage Projects
- ✓ Exposure to some Project Management Methodologies

## Lecture 1 – Recap

- ✓ Explore key drivers in why projects fail / succeed
- ✓ Understand how organisations select the best / right projects
- ✓ Understand the Project Initialization process, Business Case structure and why organisations use them
- ✓ Explore various Investment techniques and financial models
- ✓ Understand responsibilities associated with building a Business Case and the accountable group / individual
- ✓ Understand what a Project Charter is and how it is used

## L1 - Recap



## Intended Learning Objectives

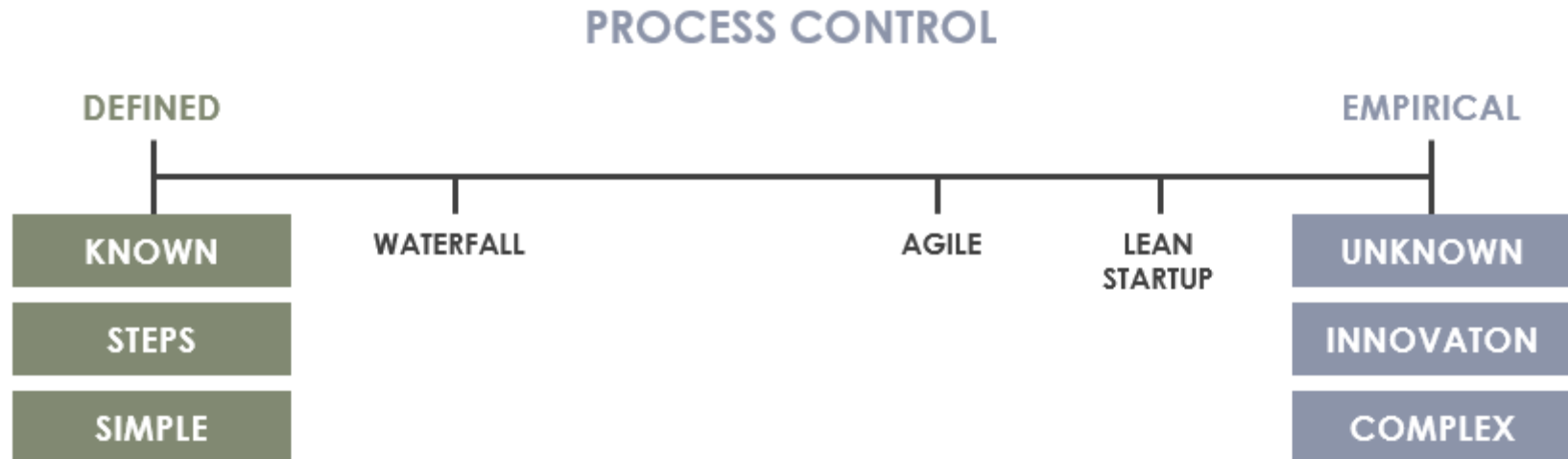
**Module 4 – Process & Project Management Plan.**

**Module 5 – Stakeholder Management.**

**Module 6 – Communication Management.**

## Module 4.1 – Empirical and Defined Process

Empirical process control expects the unexpected, while defined process control expect every piece of work to be completely understood in upfront.

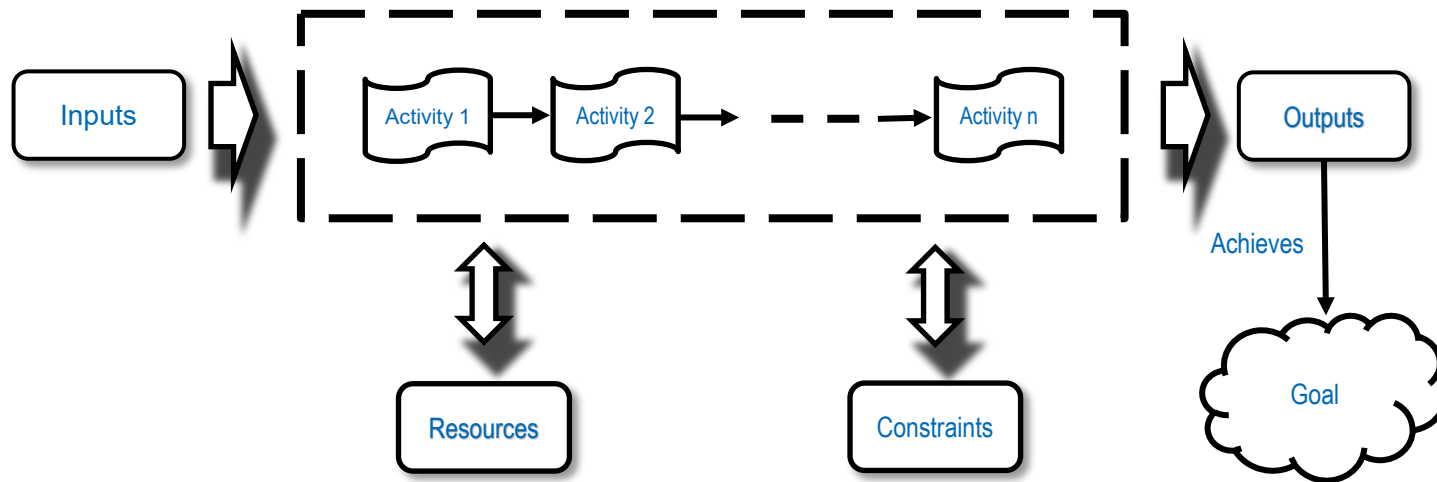


[www.visual-paradigm.com/scrum/empirical-vs-defined-process-control](http://www.visual-paradigm.com/scrum/empirical-vs-defined-process-control)

## Module 4.1 – Defined Process Control

A process with a well-defined set of steps. Given the same inputs, a defined process should produce the same output every time.

Great when in an environment with relatively low volatility that can be easily predicted; given the same inputs, a defined process should produce the same output every time based on its repeatability and predictability nature.



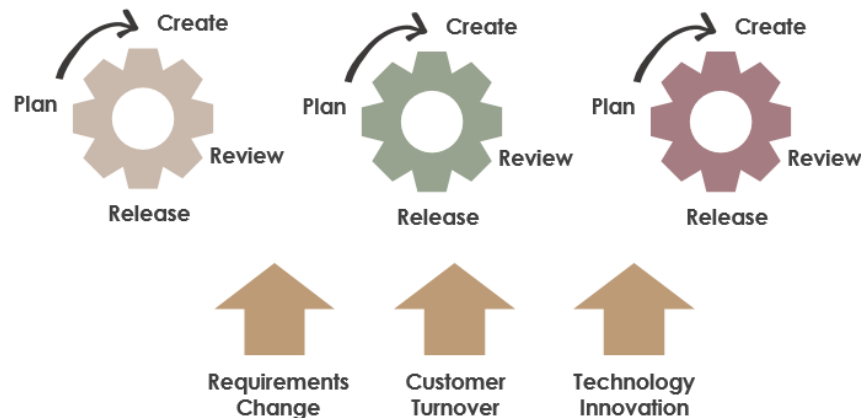
[www.visual-paradigm.com/scrum/empirical-vs-defined-process-control](http://www.visual-paradigm.com/scrum/empirical-vs-defined-process-control)

## Module 4.1 – Empirical Process Control

In empirical process control, you expect the unexpected. Empirical process control has the following characteristics:

- Learn as we progress
- Expect and embrace change
- Inspect and adapt using short development cycles
- Estimates are indicative only and may not be accurate

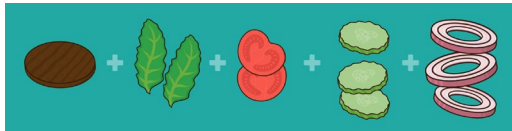
Agile Project ▶



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## Module 4.1 – Defined v Empirical

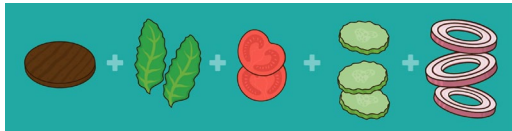


**Defined / Repeatable Process**



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## Module 4.1 – Defined v Empirical



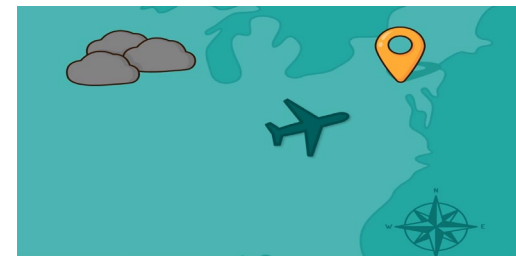
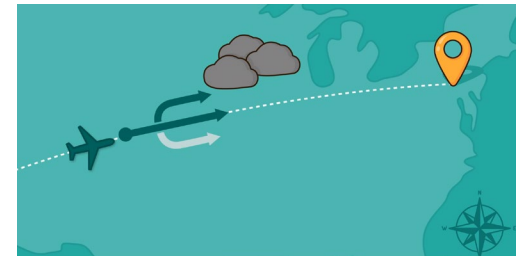
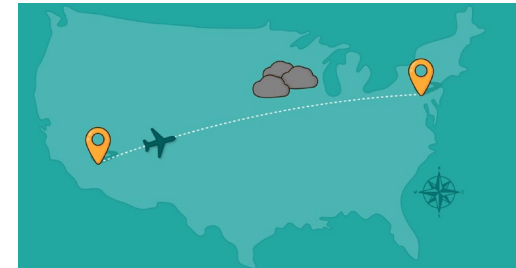
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**Defined / Repeatable Process**



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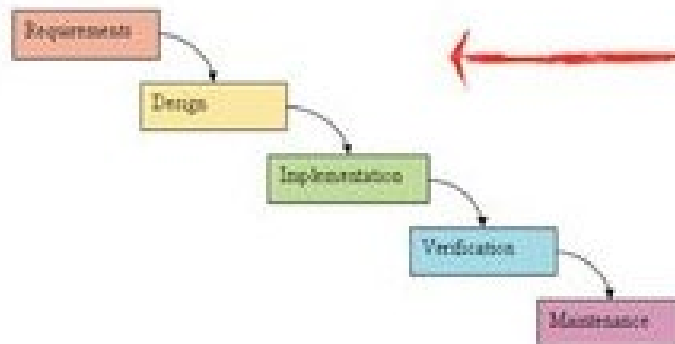
## Module 4.1 – Defined v Empirical



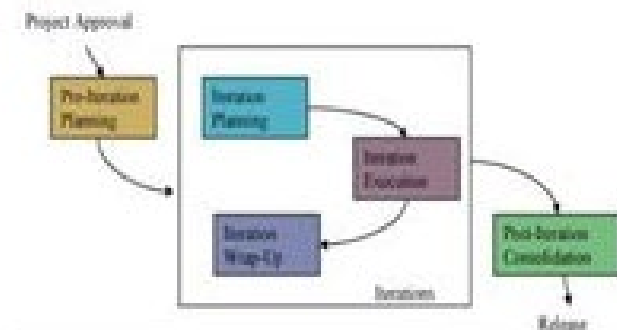
*Requires that every piece of work be completely understood. Given a well-defined set of inputs, the same outputs are generated every time. A defined process can be started and allowed to run until completion, with the same results every time.*

*Provides and exercises control through transparency, frequent inspection and adaptation for processes that are imperfectly defined and generate unpredictable and unrepeatable outputs.*

### Waterfall



### Agile



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## Module 4.1 – What does a Process have to do with Project Management and Software Engineering?

1. Project Management is a process as it defines a series of tasks (Planning, Executing and Controlling) to deliver a specific / an agreed set of outcomes.
2. System Development Lifecycle (SDLC) is a term used in Software Engineering. It describes a process for planning, creating, testing, and deploying an information system. SDLC can be composed of hardware only, software only, or a combination of both.

## Module 4.1 – Project Management Plan (Formal)

Almost every organisations will have it's own “*version*” of a Project Management Plan (PMP), however the reasons they have and use them are the same.

A PMP is a formal approved document that defines how the project is executed, monitored and controlled. It may be a summary or a detailed document.

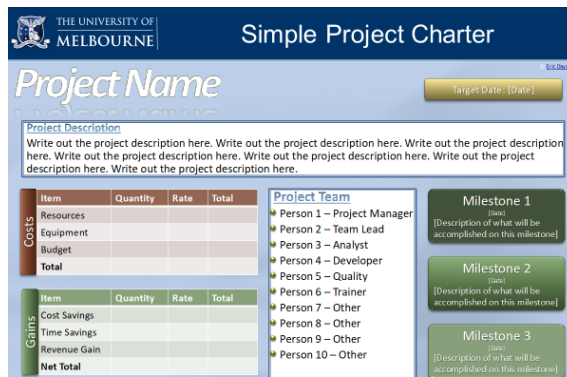
It is a document that is owned, controlled and populated by the Project Manager and is used throughout the project.

A good PMP provides the required level of detail across key project components and is the one source of truth for all parties involved across the project.

## Module 4.1 – Project Charter V Project Management Plan

A Project Charter is a summary project proposal to secure approval for the project goals and terms (useful as part of Business Case).

A PMP is an approved document showing how to achieve the approved project goals / benefits and provides the details on how to execute and manage the project (used as part of mobilisation and on-going management of the project).



**Simple Project Charter**

**Project Name** [Text Box]

**Target Date:** [Date]

**Project Description**  
Write out the project description here. Write out the project description here. Write out the project description here. Write out the project description here. Write out the project description here.

Item	Quantity	Rate	Total
Resources			
Equipment			
Budget			
<b>Total</b>			

**Project Team**

- Person 1 – Project Manager
- Person 2 – Team Lead
- Person 3 – Analyst
- Person 4 – Developer
- Person 5 – Quality
- Person 6 – Trainer
- Person 7 – Other
- Person 8 – Other
- Person 9 – Other
- Person 10 – Other

**Milestone 1**  
[Description of what will be accomplished on this milestone]

**Milestone 2**  
[Description of what will be accomplished on this milestone]

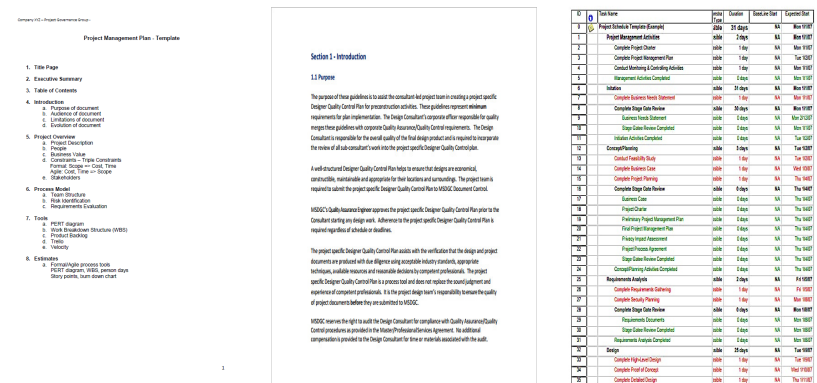
**Milestone 3**  
[Description of what will be accomplished on this milestone]

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IT ALL STARTS HERE

**Primary Use:** Summary (few pages) of key information used to communicate, engage, gain buy-in and obtain approvals.



**Project Management Plan - Template**

**Section 1 - Introduction**

**1.1 Purpose**

The purpose of these guidelines is to assist the consultant and project team in creating a project specific Design Quality Control Plan for project implementation. The Design Consultant is responsible for quality management for the project. The project team is responsible for quality management for the project. The project team is responsible for quality management for the project. The project team is responsible for quality management for the project.

**1.2 Scope**

The project specific Design Quality Control Plan is a process tool and does not replace the sound judgment and experience of competent professionals. It is the project design team's responsibility to ensure the quality of project outcomes delivered to the client.

**1.3 Objectives**

The project specific Design Quality Control Plan is a process tool and does not replace the sound judgment and experience of competent professionals. It is the project design team's responsibility to ensure the quality of project outcomes delivered to the client.

ID	Task Name	Start	Finish	Duration	Start on Site	Complete On Site
1	Project Initiation Template Examples	2018	2018	1 day	NA	NA
2	Project Management Activities	2018	2018	2 days	NA	NA
3	Complete Project Charter	2018	2018	1 day	NA	NA
4	Complete Project Management Plan	2018	2018	1 day	NA	NA
5	Complete Quality Control Plan	2018	2018	1 day	NA	NA
6	Complete Quality Control Plan	2018	2018	1 day	NA	NA
7	Complete Quality Control Plan	2018	2018	1 day	NA	NA
8	Complete Quality Control Plan	2018	2018	1 day	NA	NA
9	Complete Quality Control Plan	2018	2018	1 day	NA	NA
10	Complete Quality Control Plan	2018	2018	1 day	NA	NA
11	Complete Quality Control Plan	2018	2018	1 day	NA	NA
12	Complete Quality Control Plan	2018	2018	1 day	NA	NA
13	Complete Quality Control Plan	2018	2018	1 day	NA	NA
14	Complete Quality Control Plan	2018	2018	1 day	NA	NA
15	Complete Quality Control Plan	2018	2018	1 day	NA	NA
16	Complete Quality Control Plan	2018	2018	1 day	NA	NA
17	Complete Quality Control Plan	2018	2018	1 day	NA	NA
18	Complete Quality Control Plan	2018	2018	1 day	NA	NA
19	Complete Quality Control Plan	2018	2018	1 day	NA	NA
20	Complete Quality Control Plan	2018	2018	1 day	NA	NA
21	Complete Quality Control Plan	2018	2018	1 day	NA	NA
22	Complete Quality Control Plan	2018	2018	1 day	NA	NA
23	Complete Quality Control Plan	2018	2018	1 day	NA	NA
24	Complete Quality Control Plan	2018	2018	1 day	NA	NA
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35	Complete Quality Control Plan	2018	2018	1 day	NA	NA
36	Complete Quality Control Plan	2018	2018	1 day	NA	NA
37	Complete Quality Control Plan	2018	2018	1 day	NA	NA
38	Complete Quality Control Plan	2018	2018	1 day	NA	NA
39	Complete Quality Control Plan	2018	2018	1 day	NA	NA
40	Complete Quality Control Plan	2018	2018	1 day	NA	NA
41	Complete Quality Control Plan	2018	2018	1 day	NA	NA
42	Complete Quality Control Plan	2018	2018	1 day	NA	NA
43	Complete Quality Control Plan	2018	2018	1 day	NA	NA
44	Complete Quality Control Plan	2018	2018	1 day	NA	NA
45	Complete Quality Control Plan	2018	2018	1 day	NA	NA
46	Complete Quality Control Plan	2018	2018	1 day	NA	NA
47	Complete Quality Control Plan	2018	2018	1 day	NA	NA
48	Complete Quality Control Plan	2018	2018	1 day	NA	NA
49	Complete Quality Control Plan	2018	2018	1 day	NA	NA
50	Complete Quality Control Plan	2018	2018	1 day	NA	NA

## Module 4.1 – Project Management Plan (Formal)

A typical PMP consists of all / or most of the following categories.

- *Project Information*
  - Executive Summary
  - Financial Authority to proceed
  - Key Stakeholders
  - Scope
  - Delivery approach / SDLC - Waterfall or Agile
  - Resources / People
  - Key Milestones
  - Project Budget
  - Lessons learned applied to this project
  - Constraints

## Module 4.1 – Project Management Plan (Formal)

And.....

- *Project Governance*
  - Roles and Responsibilities
  - Mandatory Project Planning / Key Additional Activities
    - Schedule
    - Risk Management
    - Cost Estimation
    - Quality Assurance
    - Configuration Management (Change Management)

The PMP is a large multi-page document that takes time to prepare, review and complete. Multiple people (subject experts) are involved and prepare the specific details. The Project Manager coordinates all items and has ultimate accountability for the quality and final outcome.