

Scope

INF60016

Project Management For Research

Swinburne Research

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Learning Outcomes

- Identifying project and project management process;
- Explaining project life cycle models;
- Defining project scope;
- Describing elements of project charter.

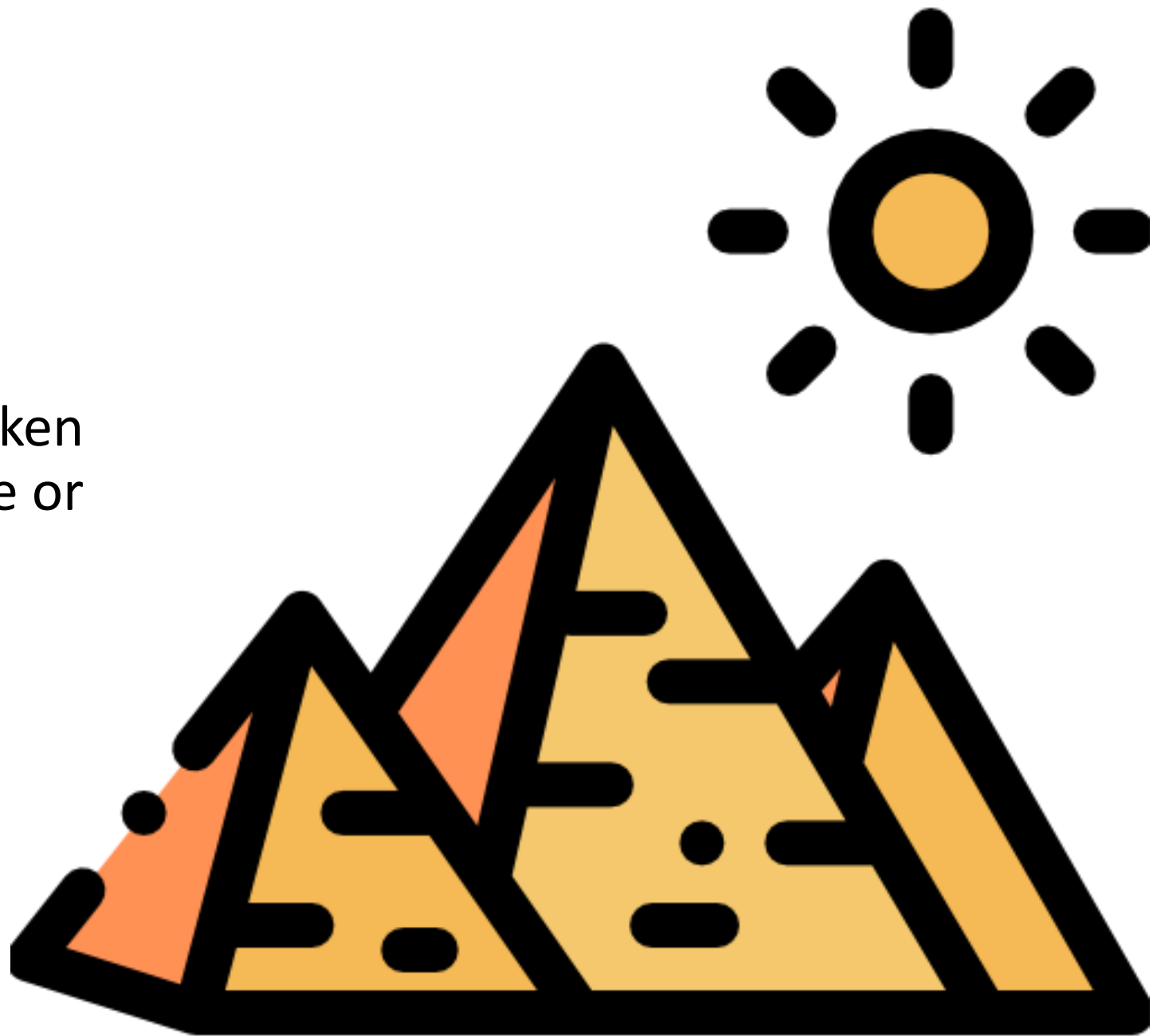
* Acknowledgment- the lecture content is partially inspired by materials on strategic project management and project management for business development by Swinburne business school.



Project defined as ...

‘A temporary endeavors undertaken to create a unique product , service or result’- PMBOK

- It is one-time and not routine;
- Has a unique purpose;
- Has a temporary time frame with start and end;
- Has limited cost and resources;
- Require a mixture of activities;
- Has sponsors or/and customers;
- Carry elements of uncertainties;
- Require specific performance and progress.

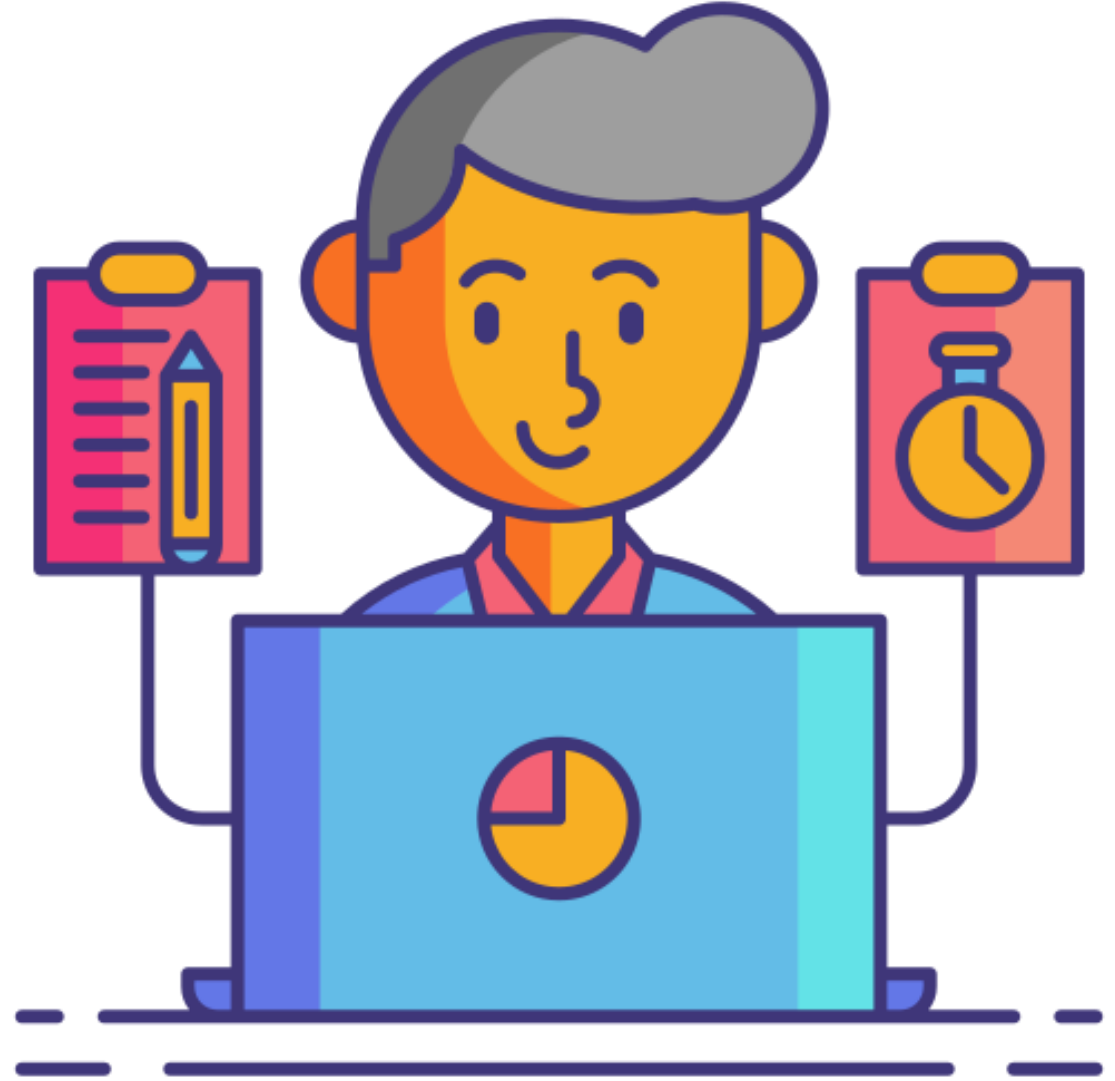


Project or Not Project!

Now think about your research....

Is your research considered a project ?

- ☐ It is one-time and not routine;
- ☐ Has a unique purpose;
- ☐ Has a temporary time frame with start and end;
- ☐ Has limited cost and resources;
- ☐ Require a mixture of activities;
- ☐ Has sponsors or/and customers;
- ☐ Carry elements of uncertainties;
- ☐ Require specific performance and progress.



Project management defined as...

‘The application of Knowledge, skills, tools and techniques to project’s activities to meet the project requirements’- PMBOK

This consists of process steps, pillars, and tools such as:

Process

- Initiating
- Planning
- Executing
- Documenting
- Monitoring
- Closing

Pillars

- Scope
- Schedule
- Stakeholders
- Risks
- Control

Tools

- Charter
- WBS
- Gantt Chart
- Network Diagram
- Critical Path
- Cost
- Stakeholder Register
- Risk Matrix





Project manager...

- Is liaison and project focal point;
- Leads the project management process;
- Is responsible for schedule, cost and project result delivery.

Project manager is the judge and often needs to change hats between ...

- Act vs analyze;
- Lead vs follow;
- Repeat vs change;
- Focus on big picture vs small details;
- Technical vs behavioral;
- Order vs innovation;
- Optimism vs pessimism;
- Enhance and maintain vs accept the change;
- Take over vs stay back;
- Short term vs long term.

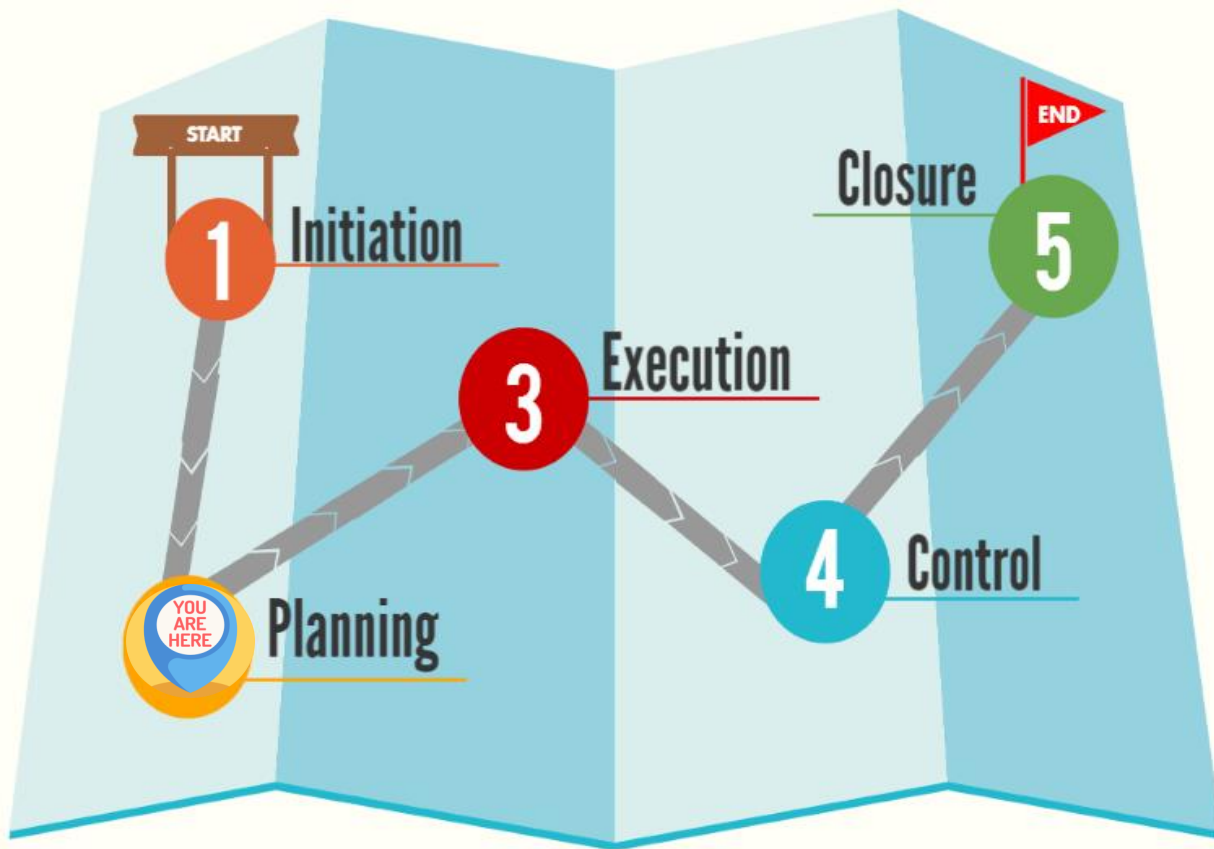


Project management requires a selection of hard skills and *soft skills* specially in the concept of research. Skills such as:

- Planning;
 - Problem solving;
 - Budgeting;
 - Scheduling;
 - Risk management;
 - Time management;
 - Documentation;
 - Etc.
- *Communication;*
 - *Leadership;*
 - *Team work;*
 - *Adaptability;*
 - *Decision making;*
 - *Empathy;*
 - *Conflict resolution;*
 - *Negotiation;*
 - *Resilience;*
 - *Autonomy;*
 - *Active listening;*
 - *Political and cultural awareness;*
 - *Etc.*



Project Life Cycle



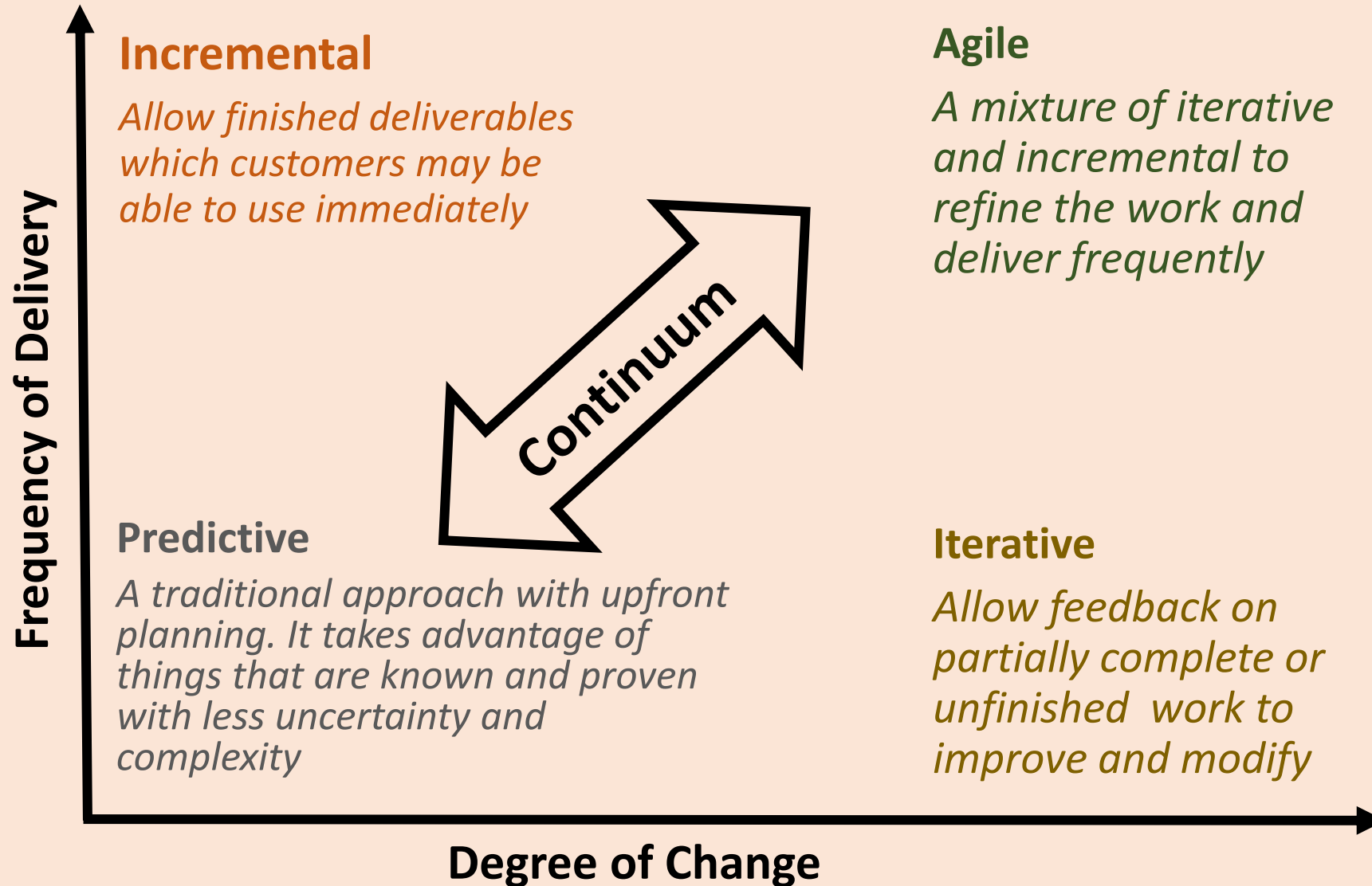
‘A project life cycle is the series of phases that a project passes through from its start to completion. A project phase is a collection of logically related project activities that culminates in the completion of one or more deliverables. The name, number, and duration of the project phases are determined by the nature of the project itself and its area of application’ - PMBOK

Life Cycle Model

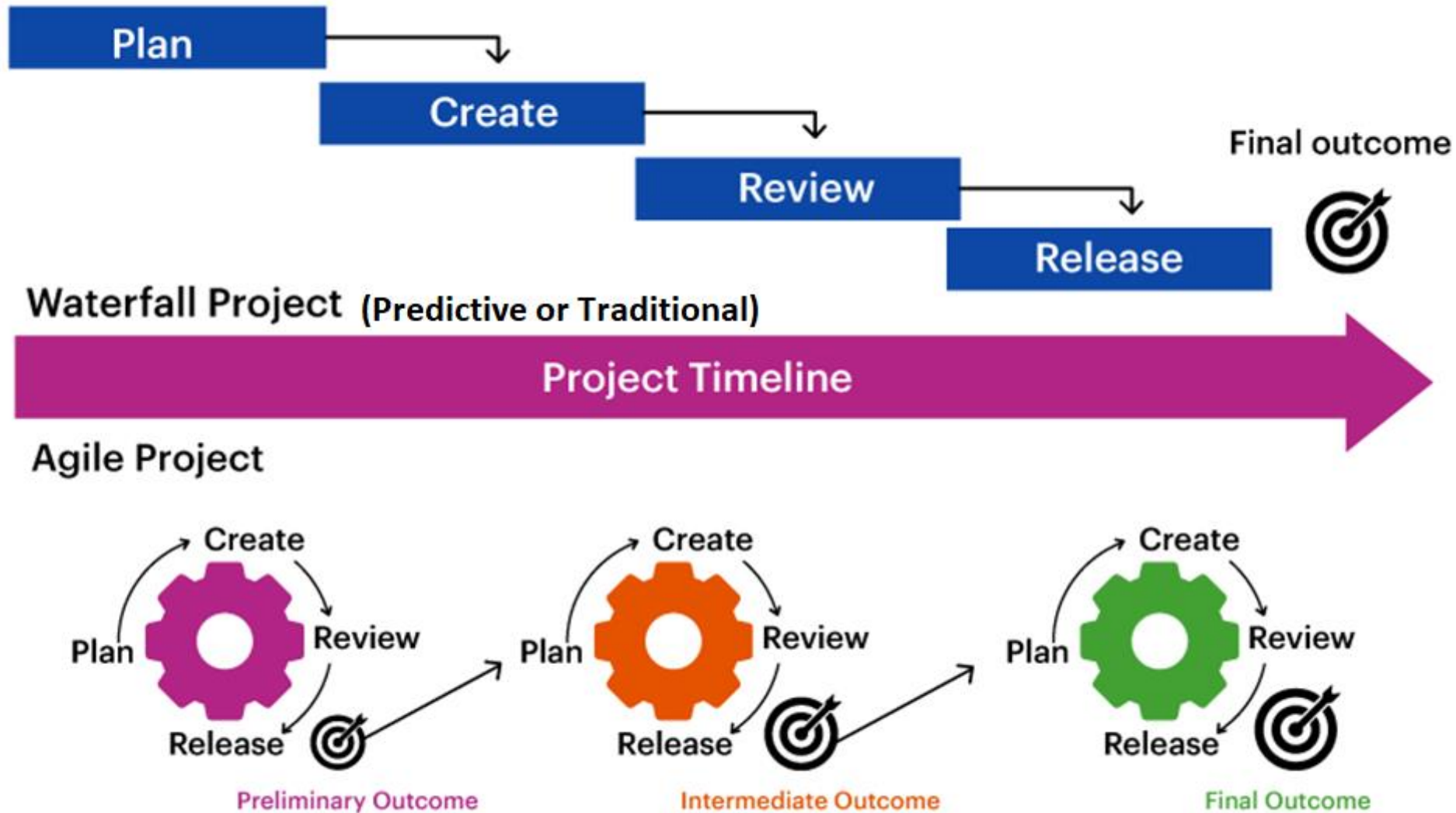
Although the life cycle of projects are almost identical, there are variety of ways to complete project life cycle. The model applied to the project life cycle varies depending on frequency of delivery and degree of change and uncertainty in the project.

In next slide, four different models are demonstrated.

Life Cycle Models



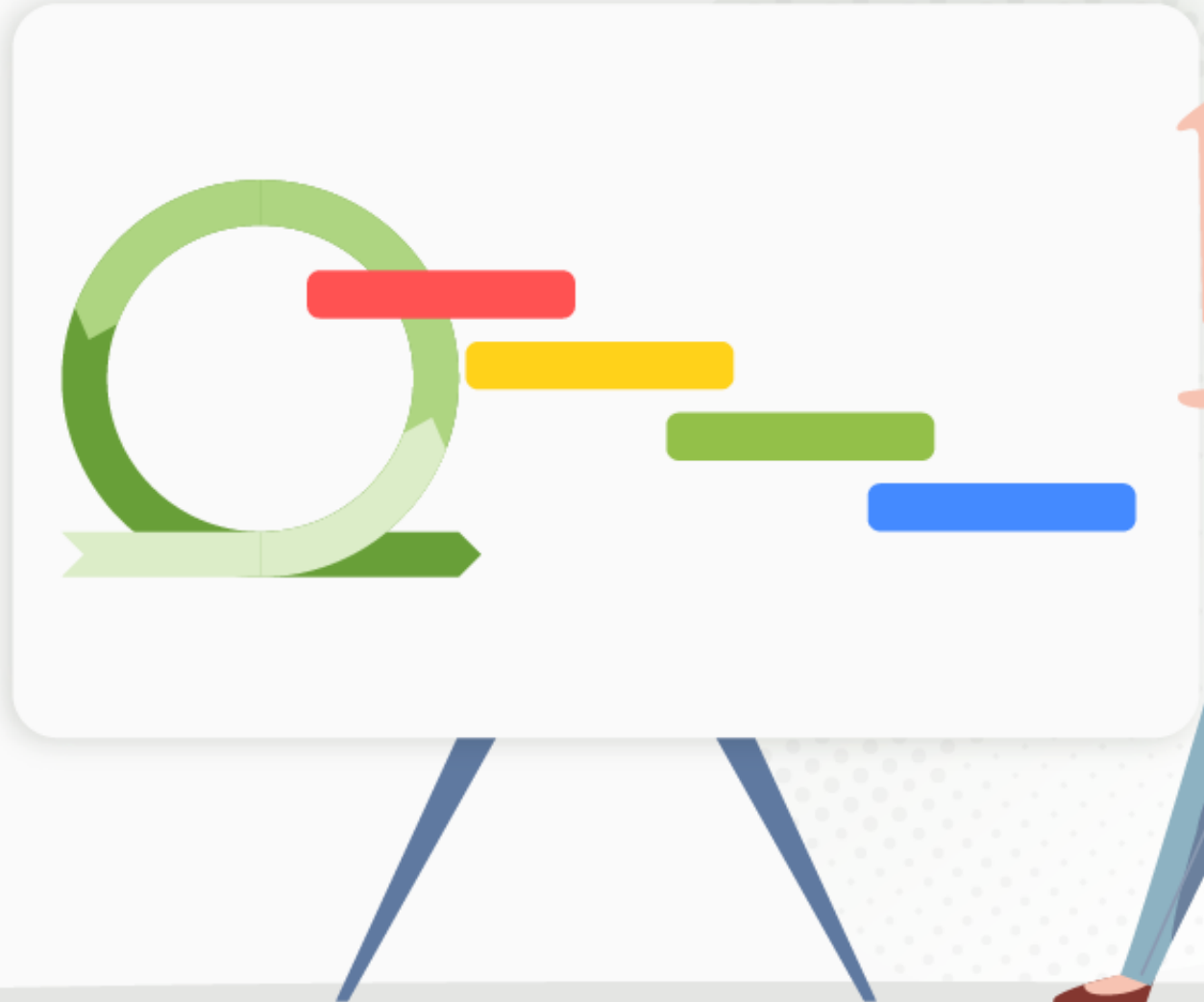
Both ends of project management spectrum



Which model or a mixture of models does suit your research projects?

The answer of this question depends on:

- Objectives of the research;
- Nature of the research and research method (Qualitative and/or Quantitative);
- Deliverables;
- Stakeholders expectations.



What project life cycle model (or models) are you going to use for your research project and on what parts?



Life Cycle Process of Research Project



At this point you should have the answer to the questions below:

- *Is your research defined as a project?*
- *Who is the project manager of your research and what are the responsibilities?*
- *What is the life cycle of your research?*
- *What life cycle model does suit your research the best?*

If Not! Start Over!



Given you have started your PhD, an idea must exist already. In next slides, you will turn this idea into a project. This process called defining project scope and has three main parts of objectives, scope statement and deliverables.



Shaping An Idea Into A Research Project!

Scope

3.Deliverables

2.Scope Statement

1.Objectives



Objective of a research project is the drive behind it, such as...

- To provide what is needed;
- To resolve a problem;
- To fill a knowledge gap;
- To seize an opportunity;
- To give a voice to a group of people;
- To reduce a risk;
- To improve or scale up a process;
- To create a meaning;
- To develop a theory;
- To provide description of an experience;
- To interrogate the meaning in the text;
- Etc.

The objective is the solid foundation on which the research project is planned, therefore it needs to be S.M.A.R.T.



But how to find the objectives?

The objective of research projects can be found in different ways depending on the research method. Research methods are **Quantitative**, **Qualitative** or a mixture of both.

The objectives can be found or designed through a mixture of different process and techniques such as :

- Literature review;
- Positioning map;
- Industry collaboration;
- Existed problems or needs;
- Surveys and/ or interviews;
- Etc.



Shaping An Idea Into A Research Project !

Scope

3.Deliverables

*2.Scope
Statement*

1.Objectives

Scope Statement

The scope statement involves the definition of what needs to be done, what is excluded from the project.

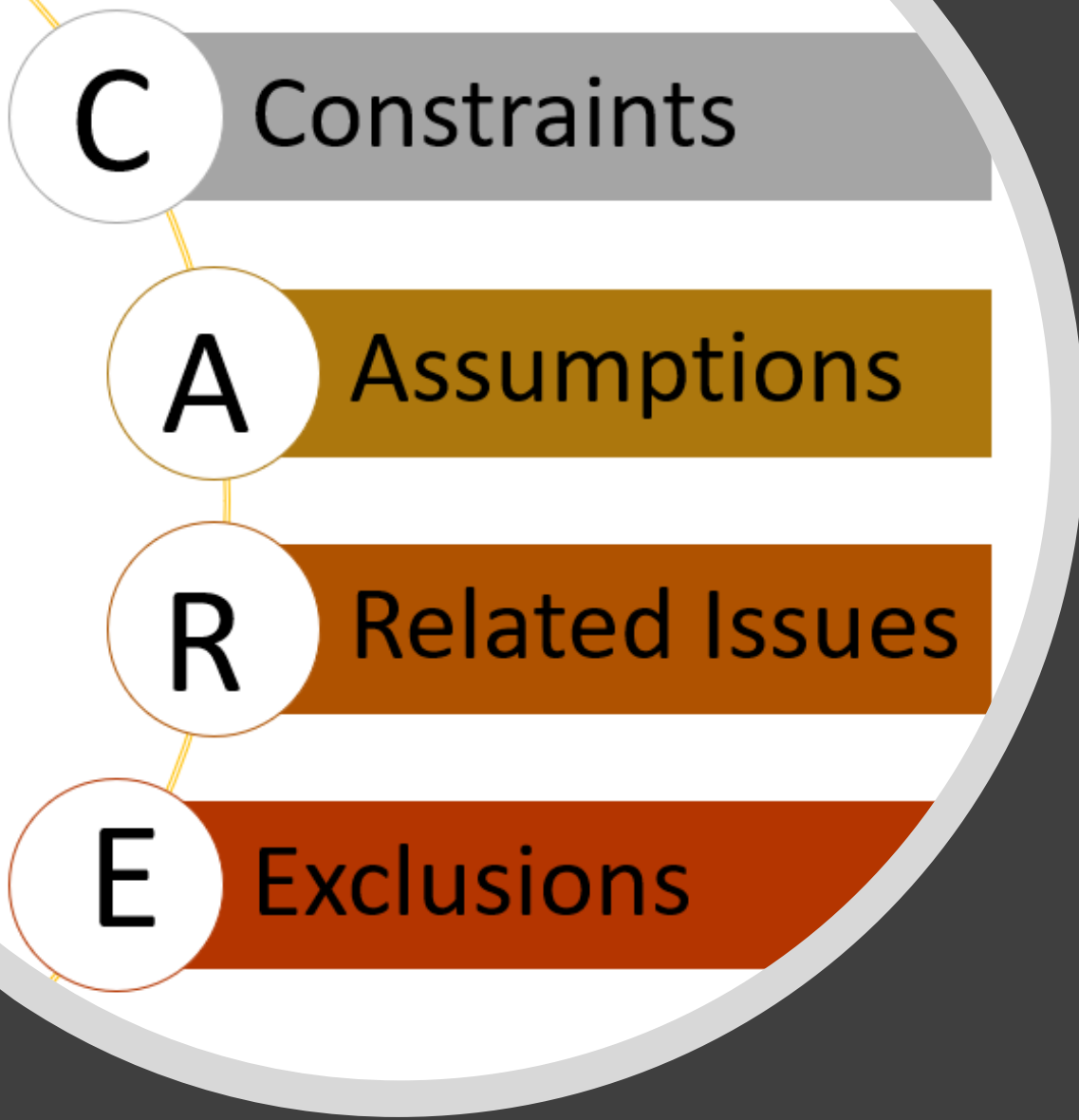
It clearly defines the start and the end with assumptions and boundaries.

The project manager (the researcher) and the stakeholders (supervisors, sponsors) need to agree on the details of scope.

A well-defined scope statement helps to improve the accuracy of planning including time, cost, and resource management.

Setting boundaries is essential for ensuring that the research project does not grow needlessly and endlessly.

These data need to be collected via stakeholders communication.



Scope statement is often defined with CARE which stands for Constraints, Assumptions, Related Issues and Exclusions. Exploring these elements will put a well-defined boundaries around the project.

3.Deliverables

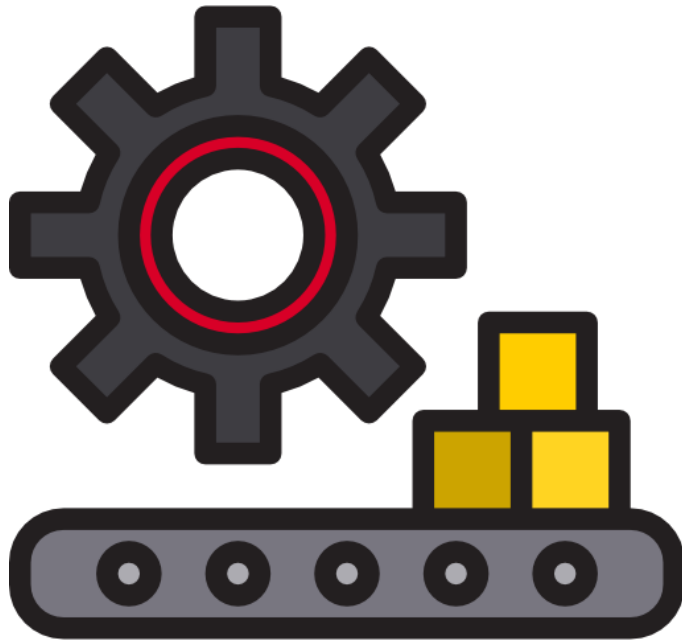
*2.Scope
Statement*

Shaping An Idea Into A Research Project !

Scope

1.Objectives

Deliverables ...

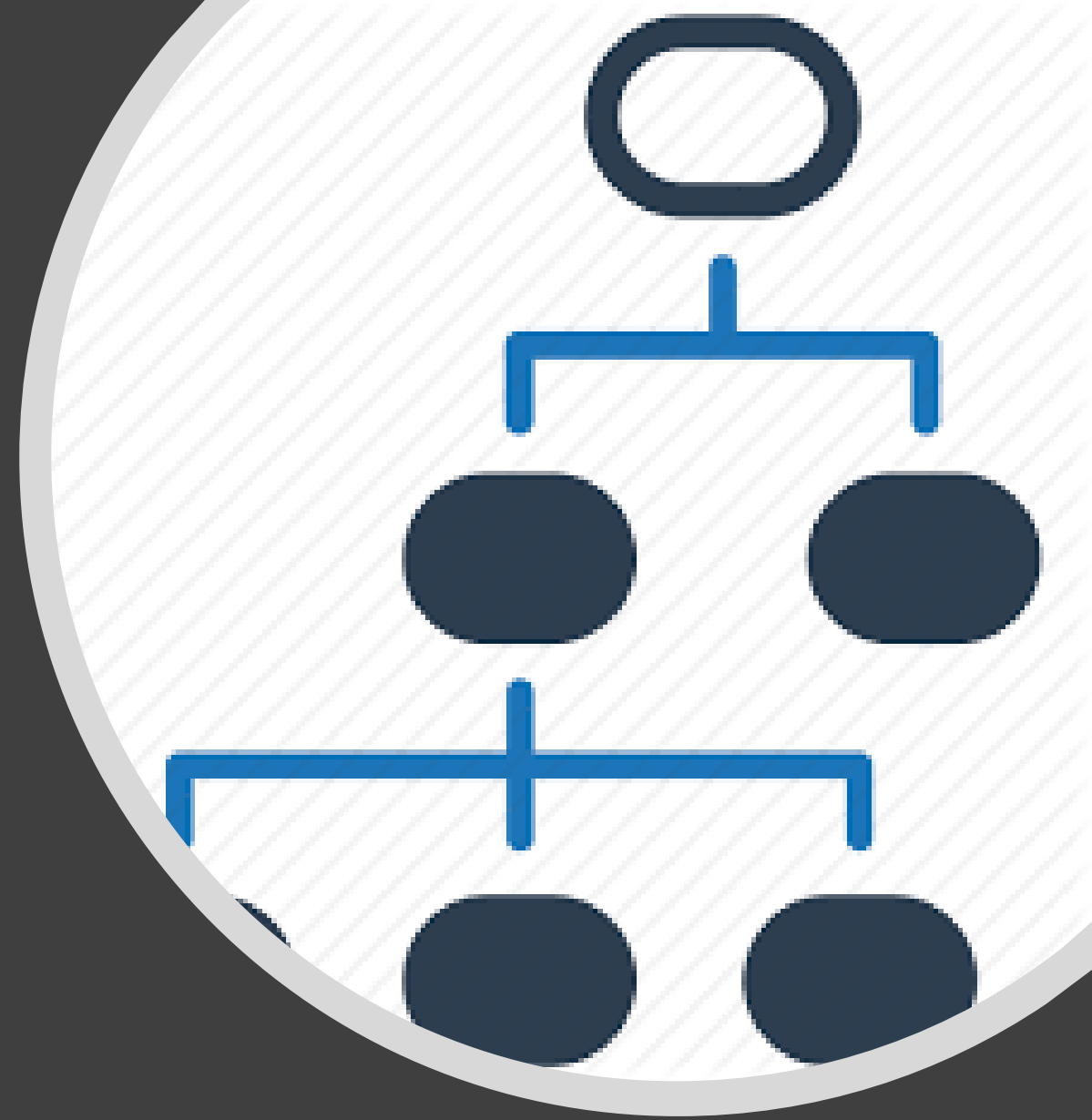


Are the specific outputs, which can be measured and controlled against specifications and quality standards. The path to achieve the deliverables is explored using Work Breakdown Structure (WBS) tool.

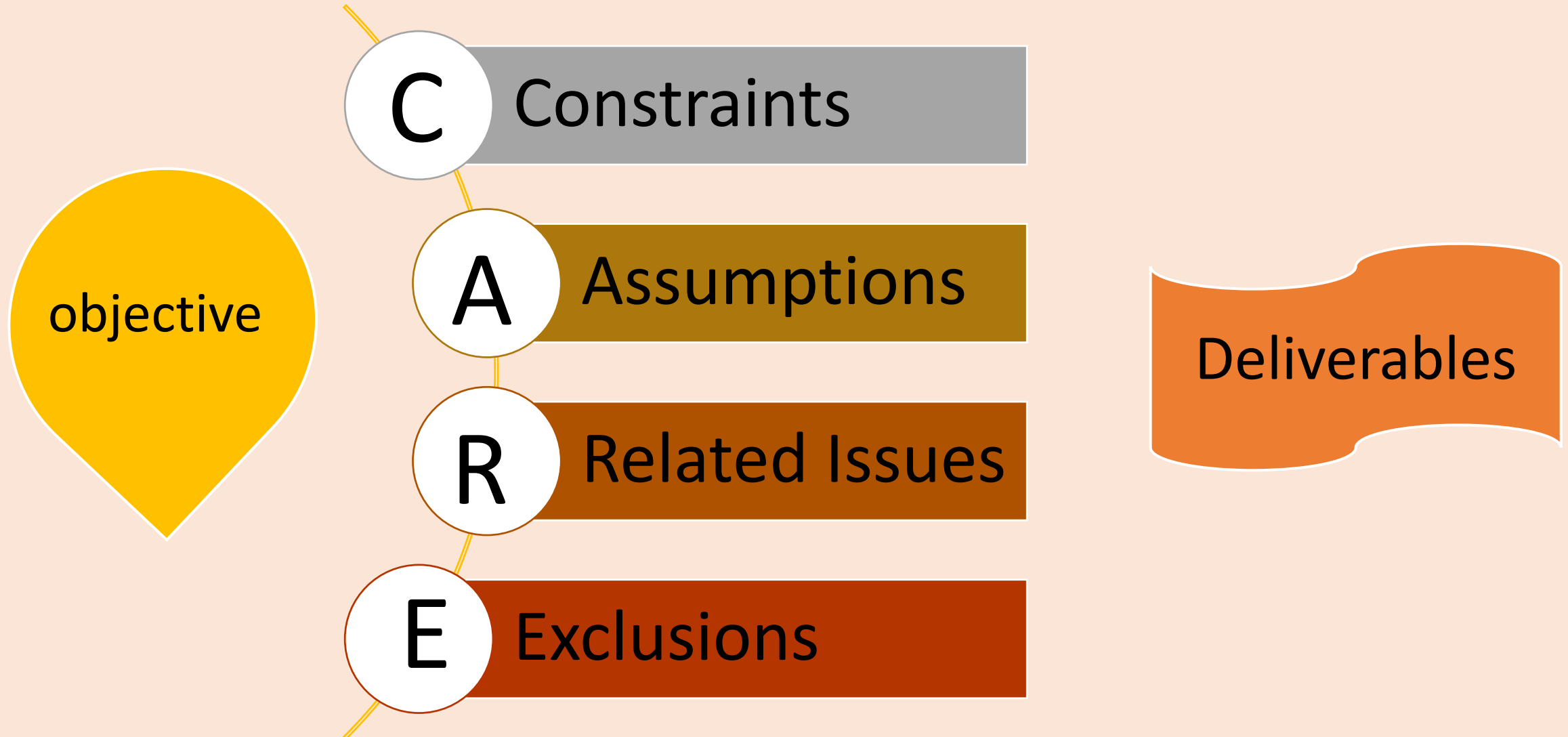
Work Breakdown Structure...

Or WBS is a deliverable- oriented grouping tool that defines the total scope of the project.

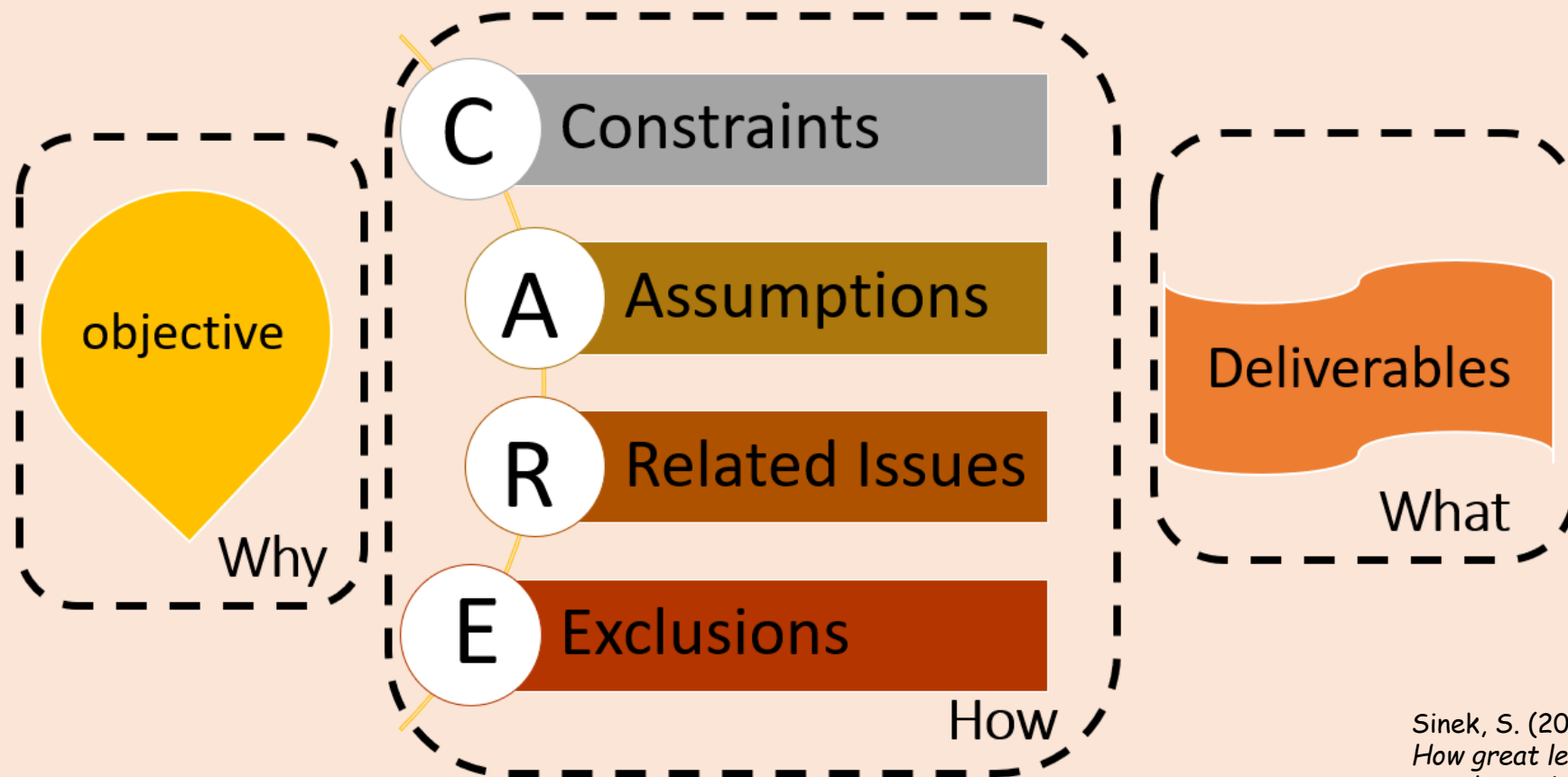
WBS is the foundation document that is used for planning and managing project schedules, costs, resources and changes which is discussed in next module.



To sum up, the project scope is defined as...



In my opinion, the elements of project scope could be approached in many ways. A good example which has been very popular and successful in business world is the '**Golden Circle**' by Simon Sinek. According to Golden Circle theory, the three elements of scope can be replaced by Why, How, and What. Hold this thought and we will further explore this in the research pitch.



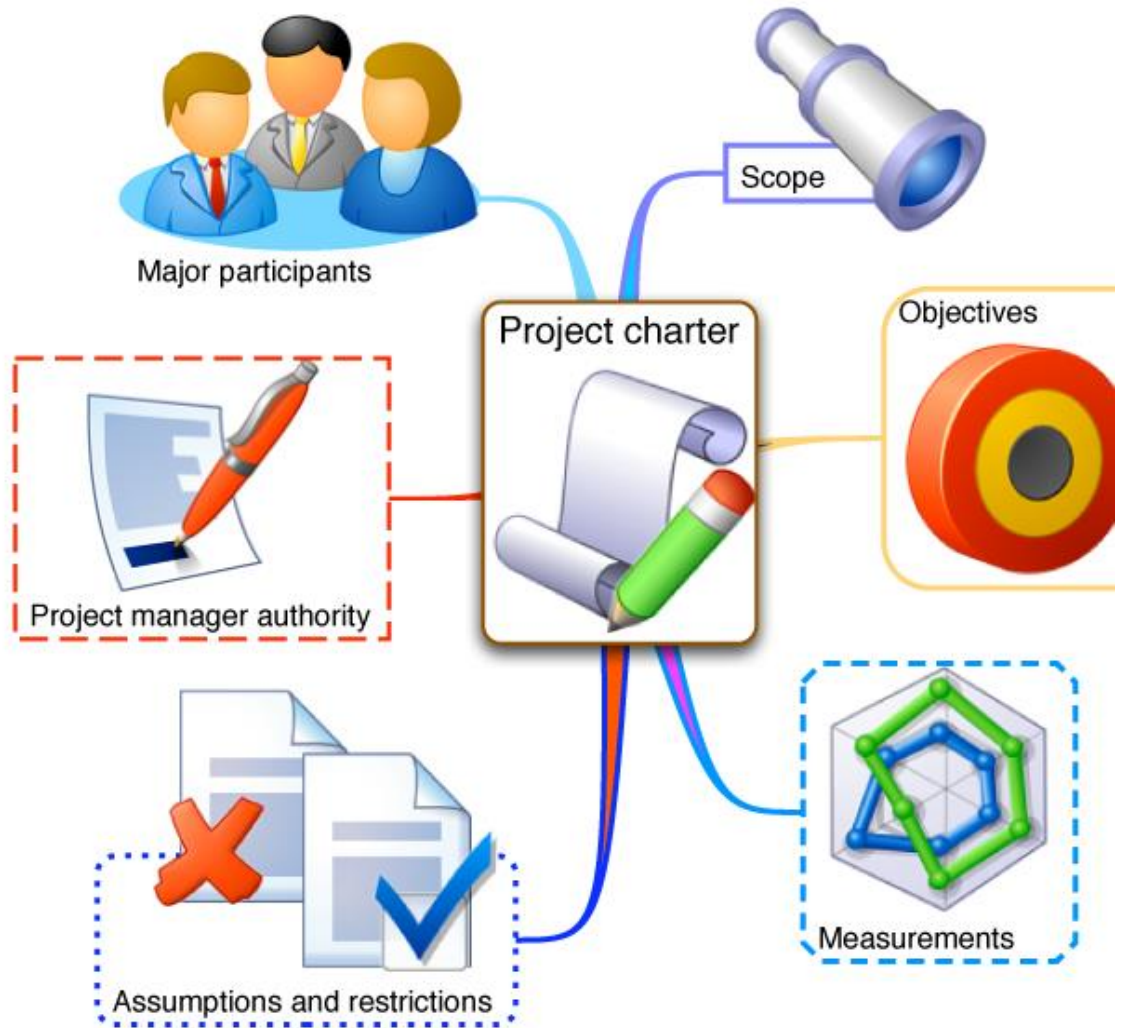


A Glance At The Project Charter

The Equivalent Of Project Charter

Project charter is a document which outlines the purpose of the project (objectives), the way the project will be structured (Scope statement) and the outcomes (deliverables). It also outline the milestones, budget estimates and responsibilities in a nut-shell. This is a tool to introduce the project, agreed on its terms and finally get approval.

The equivalent of project charter is research proposal.



Ideally,
you should be able to:

- Determine your project life cycle model;
- Clearly define your research project scope;

