

Chapter 2 : Project:

1. Project Definition
2. Project scope
3. Project Lifecycle
4. Work Breakdown Structure (WBS)



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2.1 Project: Definition

- “It's a temporary endeavor undertaken to create a unique product, service or result..” (PMI - PMBOK ® Definition)
- “Planned set of interrelated tasks to be executed over a fixed period and within certain cost and other limitations.” (businessdictionary.com)
- “a project is an individual or collaborative enterprise, possibly involving research or design, that is carefully planned to achieve a particular aim” (Wikipedia)

↳ **Clear objective with Specific Delivery**

↳ **Unique**

↳ **Time delimited : with a START and an END**

↳ **It operates within defined boundary conditions**

↳ **Coordinated effort (inter-related / cross functional ...)**

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2.2 Project scope

- In case if you start the project without knowing what you are supposed to be delivering at the end to the client and what the boundaries of the project are, there is a little chance for you to success.
- The **main purpose of the scope definition is to clearly describe the boundaries of your project.**
Clearly describing the boundaries is not enough when it comes to project. You need to get **the client's agreement as well.**
The defined scope of the project usually included into the **contractual agreements between the client and the service provider. Statement of Work (SOW) is one such document.**
- In case, if you feel that you do not have enough information to come up with a high-level scope statement, you should then work closely with the client in order gather necessary information.

2.2 Project scope

- In the **PMBOK® 5th Edition** :
“- **Project Scope** : this is the work that must be completed to achieve the final scope of the project, namely the products, services and end results



2.2 Project scope

The scope states what the **objectives of the project are and what goals must be met to achieve success**

- Objectives must be clear :
 - ➔ Make sense for all project Stakeholders
 - ➔ Must be beneficial to all project Stakeholders
- A good Objective must be **SMART** or **SMARTED** :
 - S : Specific**
 - M : Measurable**
 - A : Achievable**
 - R : Realistic**
 - T : Time Limited**
 - E : Ethical**
 - D : Documented**
- An objective must be specified by
 - ➔ **Deliverables / Time / Cost / Resources**
- These are **measurable criteria**
- Revised periodically with Stakeholders

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2.3 Project Life cycle

- Definition :
 - Project life cycle defines the inter-related phases of a project and provides a structure for monitoring and controlling the progression of the work.
 - The Project Life Cycle refers to the four-step process that is followed by nearly all project managers when moving through stages of project completion.
- Usually four Phases are defined :



2.3 Project Life cycle

- **Project Initiation** : Defines the phase start and authorises action
→ A strategic need for the project or service must be recognized by upper management.

Ask yourself the following questions during Initiation:

What is the problem(strategic need) ?

Will the development of a project solve that problem?

What are the specific goals of the project?

Do we have enough resources to create and support the project?

- **Project Planning** : Defines the objectives and the work required
→ Once management has given the OK to launch a project, a more formal set of plans is established.

Ask yourself the following questions during Planning:

What is the project purpose, vision, or mission?

Are there measurable objectives or success criteria?

Do you have a description of the project, requirements and risks?

Can you adequately schedule and budget high level milestones?

2.3 Project Life cycle

- **Project Initiation** : Defines the phase start and authorises action
→ A strategic need for the project or service must be recognized by upper management.

This phase typically involves :

- Creation of the statement of work (SOW → contractual agreements between the client and the service provider) .
- Presenting the business case.
- Creation of a business contract.

- **Project Planning** : Defines the objectives and the work required
→ Once management has given the OK to launch a project, a more formal set of plans is established.

This phase typically involves :

- Creation of schedule
- Creation of a resource plan
- Creation of a budget
- Creation of a quality plan

2.3 Project Life cycle

- **Project Execution** : Measure, monitor and adjust as needed
→ This is when the work of the project is performed. Required materials, tools, and resources need to be available to reach the project goals. During this phase, performance is continually measured to ensure the project is successful.

Ask yourself the following questions during Execution :

Are all resources being tracked?

Is the project on budget and on time? Do we need to do requirements adjustments ?

Can resource planning be optimized?

Are there developed features followed quality requirements?

- **Project Closure** : Formal acceptance of the project deliverables, end of phase
→ This phase begins once the project has been completed.

Ask yourself the following questions during Closure :

Are the project's completion criteria met?

Is there a project closure report in progress?

Have all project artifacts been collected and archived?

Has a project postmortem been planned?

2.3 Project Life cycle

- **Project Execution** : Measure, monitor and adjust as needed
→ This is when the work of the project is performed. Required materials, tools, and resources need to be available to reach the project goals. During this phase, performance is continually measured to ensure the project is successful.

This phase typically involves :

- Schedule Monitoring and Control
- Develop and manage Project team
- Control of budget
- Quality Control

- **Project Closure** : Formal acceptance of the project deliverables, end of phase
→ This phase begins once the project has been completed.

This phase typically involves :

- Lessons Learnt
- Project celebration

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2.3 Work Breakdown Structure (WBS)

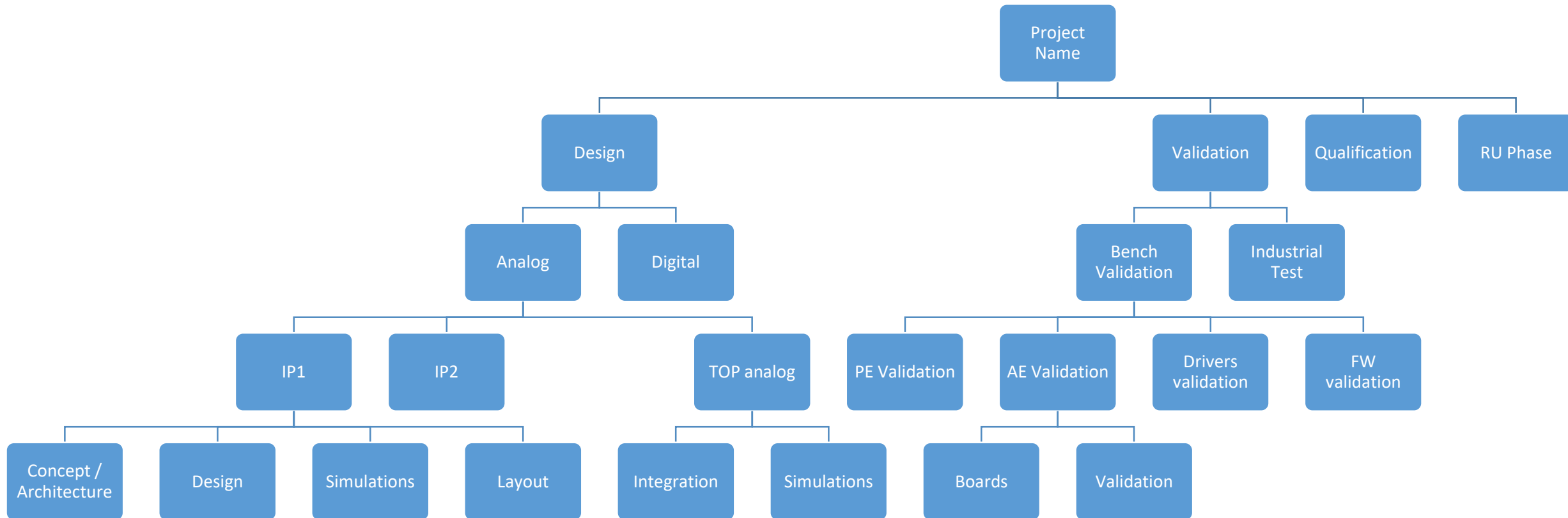
- French Acronym : Structure de Découpage du Projet – SDP or Organigramme des tâches (OT)
- « Providing a structured vision of what has to be delivered » (PMBOK – 5th Edition)
- The work breakdown structure visually defines the scope **into manageable chunks that a project team can understand**, as each level of the work breakdown structure provides further definition and detail.

The project team with the Project manager creates the project work breakdown structure **by identifying the major functional deliverables and subdividing those deliverables into smaller systems and sub-deliverables**. These sub-deliverables are further decomposed until a single person can be assigned. At this level, the specific **work packages** required to produce the sub- deliverable are identified and grouped together.

The work package represents the list of tasks or "to-dos" to produce the specific unit of work.

- Main benefits :
 - Defines all the work needed
 - Subdivides a project into smaller work items / tasks / activities
 - Groups the activities logically
 - Helps to identify the activities

2.3 Work Breakdown Structure (WBS)



2.3 Work Breakdown Structure (WBS)

- How to develop a WBS :
 - **Top / Down** : you need to take the biggest task or module in the project and break them down. It requires more logic and structure and generally it is a preferred method for creating WBS. This approach will identify the solution first and then dissect the solution into smaller steps required to implement it.
 - **Bottom up** : by starting to define all the deliverables of the project to allow to build sub-groups of deliverable after to create the groups and move up to the Top.
 - **Mind-mapping Technique**: This is a very useful technique used by most Project Specialists and especially for the Project Managers.
In this approach, we need to write the task in a non-linear, branching format and then create the WBS structure.
- Decomposition can be done :
 - By phase
 - By Major deliverable
 - By professions
 - By contracts

