



Project Management Fundamentals

Fondamenti di Project Management
2023

PART 2 – METHODOLOGY 1ST – APPROACH AND INITIATING

Seminar Part 2 Topics

PART 2 – METHODOLOGY 1ST – APPROACH AND INITIATING

- 1) Methodology Options**
- 2) Predictive approach**
- 3) The Project Manager**
- 4) Project Life-Cycle**
- 5) Project Start**
- 6) Stakeholders**

PMBoK

The PMBoK firstly issued in 1996 was the PMI, in which was include all the rules and insight of the Project Management methodology.

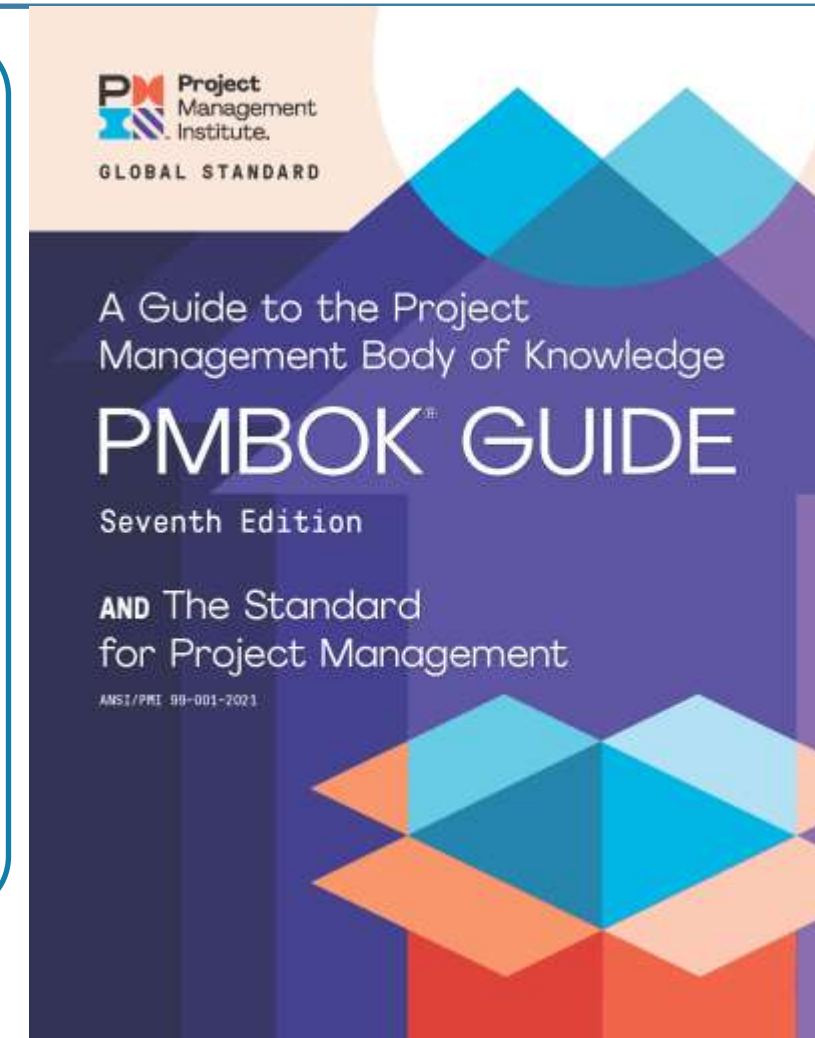
The PMI till the 6th edition was strictly focused on Predictive Approach.

The 3rd (2004) edition became standard ANSI (American National Standard Institute)

The 6th (2017) edition started including Agile as content, detached itself from ANSI, opened to the Adaptive environments.

The 7th (2021) edition was no more a manual but an introduction to various practices, composed by 2 parts:

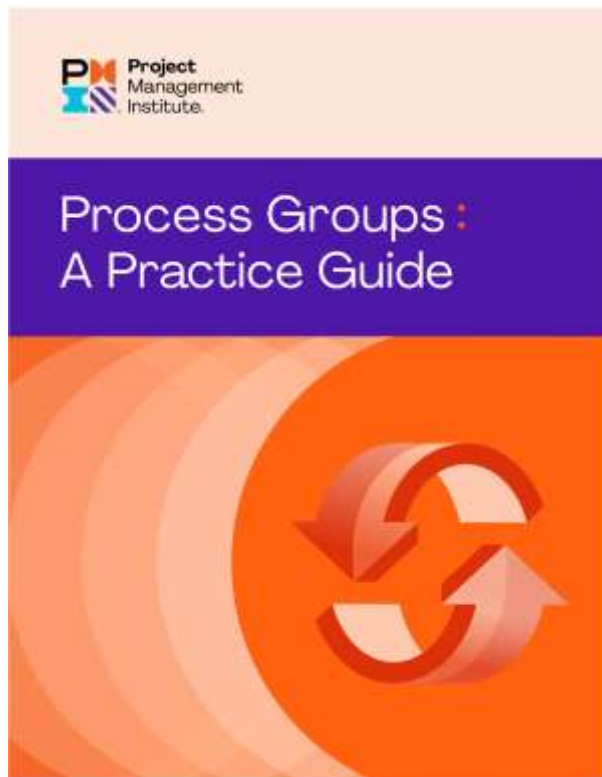
- ▶ The standard for Project Management
- ▶ A guide to project management body of knowledge



PMI - Project Management Options

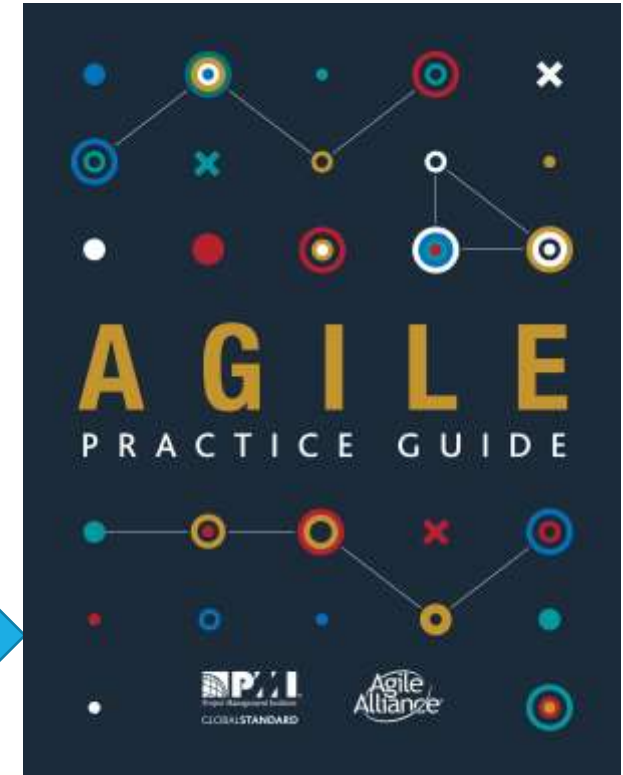
As said the PMBoK is no more a manual, but much more a document that sets the principles common to every Project Management Activity.

So there is no preferable way to manage projects, but a number of different techniques or frameworks that could be chosen.



Includes the traditional predictive techniques, to manage the project with a list of sub-processes

Introduces the principles that stay at the base of agile project management, helping to choose the best fitting framework for the organization



Comparison EURATOM - PROJECT

HORIZON-EURATOM – PERIODIC REPORT

Table of Contents

1. Project summary
2. List of participants
3. List of deliverables
4. List of milestones (outputs/outcomes)
5. List of critical risks
6. Project pathway to impact (*Results, Ownership list, Publications, Data sheets, Intellectual property rights, standards, other results*)
7. Dissemination and communication activities
8. Financial support to third parties
9. Research infrastructure (*HE*)
10. Mobility declaration (*HE MSCA, ERASMUS, ESC*)
11. *Financial Report*

Traditional Waterfall Project elements compared

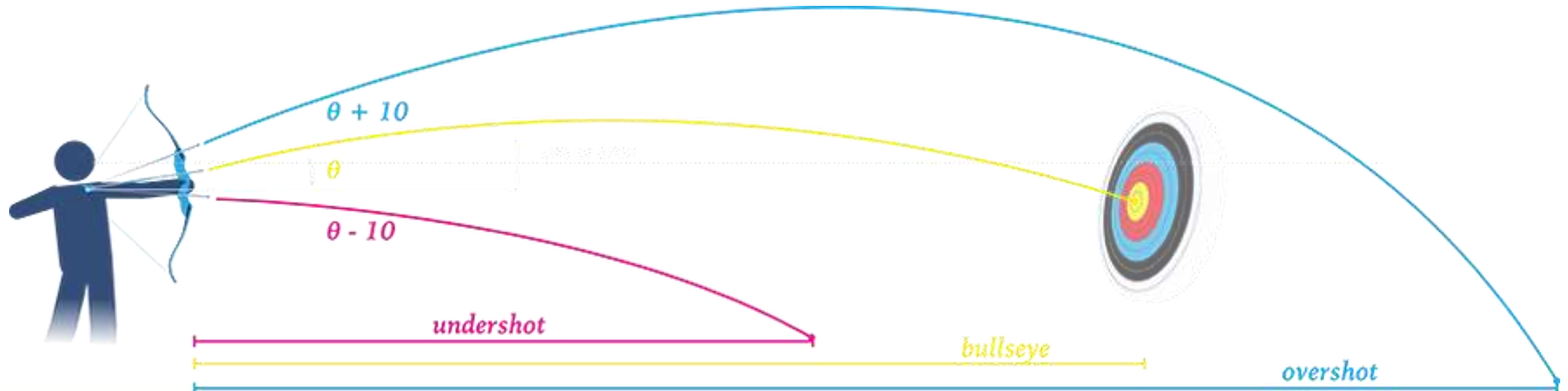
	Part
1. → Project Charter	2
2. → Team	x
3. → Deliverables (Communication Plan)	x
4. → Planning	2
5. → Risks Management	3
6. → The outcome	x
7. → Project Communication plan	5
8. → Project Costs	4
9. --	
10.--	
11.→ Project Costs	4

What to choose?

Starting from the Periodic Report, requested by HORIZON-EURATOM, it appears quite much more suitable a Predictive approach to cope with it.

The type of documents and artefacts required matches quite better with a classic waterfall approach than an Agile framework.

Clearly inside the overall path designed, or inside the single high level work package identified, an agile approach could be used, especially in a high paced environment.



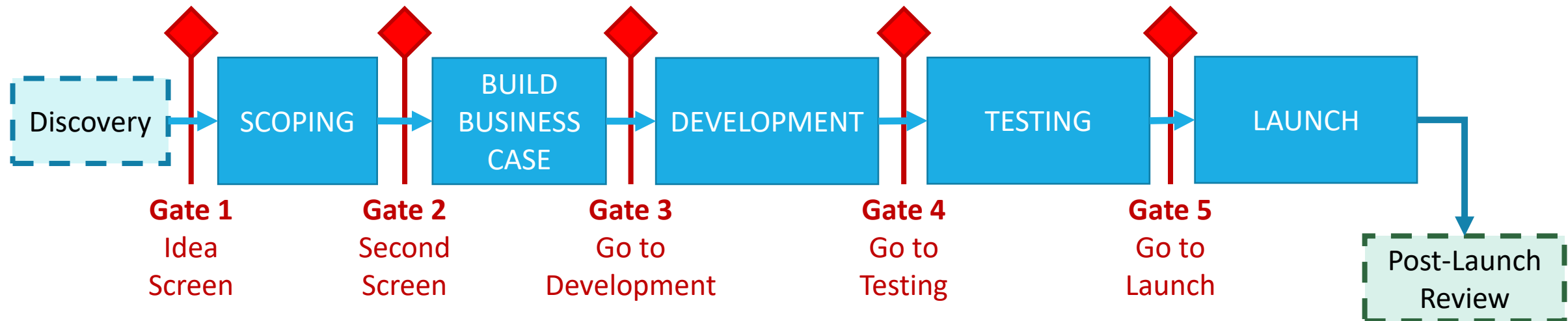
Predictive approach - Cooper's Stage-Gate Model

The Predictive Approach prepare a model of the project, and a plan.

The basic idea is to simplify it with a sort of stage-gate model, that visually match well with the waterfall diagram.

The stage-gate model was proposed by Prof. Robert G. Cooper in the mid-1980s and identify an effective way to develop a product.

It was designed by the observation of several project teams in different fields of application, so is the synthesis of several best practices on the field.

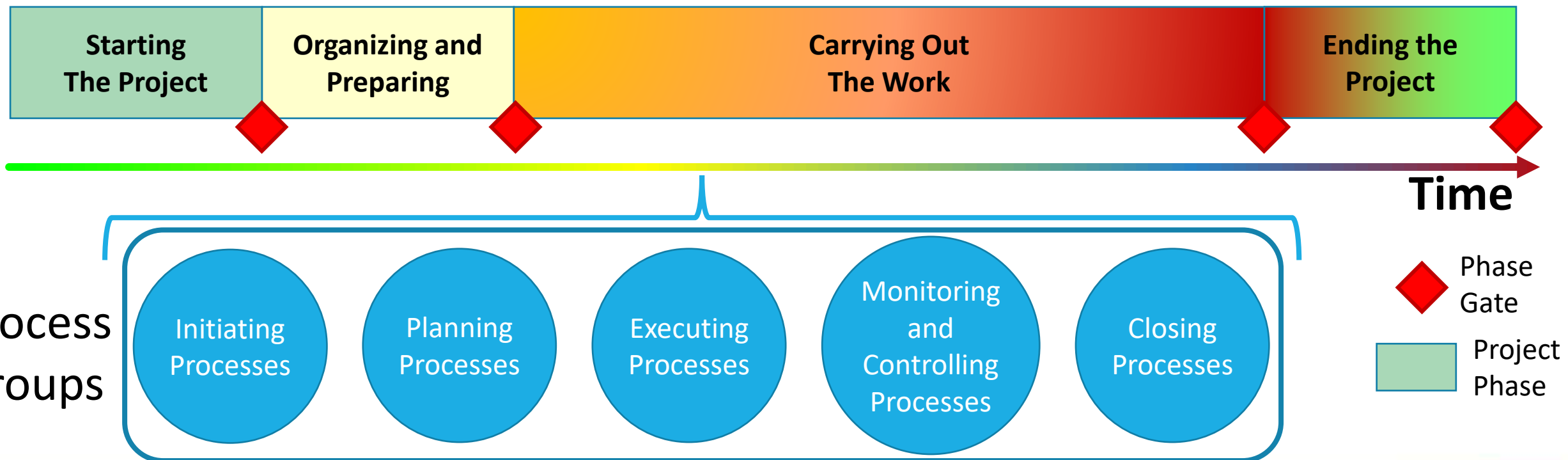


Predictive approach - Processes

Choosing the Predictive Approach, every project is managed by a number (49) of processes.

These identify activities, done once or repeatable during the project.

Processes are scattered among 5 groups, that identifies also timetable of the project, except for “Monitoring and Controlling” that embrace the whole lifespan of the project.

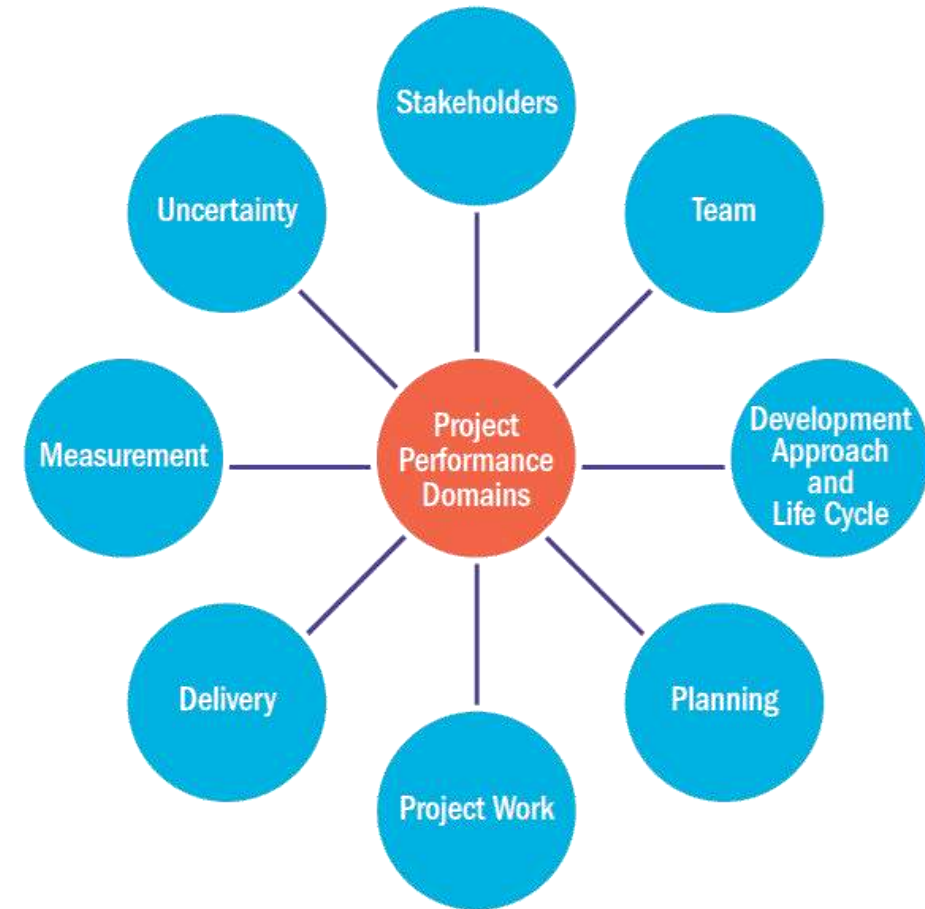


Predictive Approach - Dimension

There are many dimension that could be monitored in a project, called in different ways they can derive KPIs (Key Performance Indicators) that could give a qualitative/quantitative idea of the good standing (or not) of the project.

The 7th Edition identify 8 Project Performance Domains, any of which could be measured by a number of indicators, or not (Could be a bit challenging to measure numerically the performance in the Team Domain).

Clearly the 8 domains have themselves are multi-dimensional, but anyway simplifying them focusing on 3 (4) principal dimensions could give immediately an idea on the project performance.



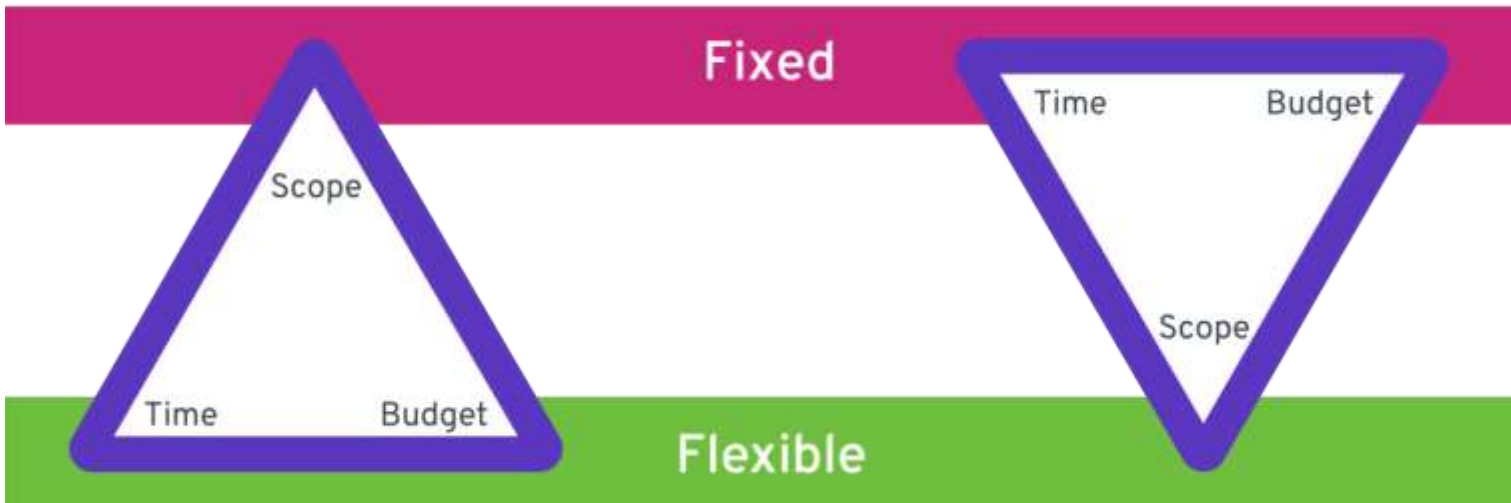
Predictive Approach – The iron Triangle

This for many ways “Old-Style” way to have an idea of the project health in a glimpse is called “The iron triangle”. This geometry is based on the historically most important dimensions:

- ▶ Scope (what to do and deliverables)
- ▶ Time (Plan)
- ▶ Cost (budget and value)

Traditional

Agile



NOTE:

Another major difference between Traditional approach and Agile approach is the idea of what is fixed and what is variable. Since usually in predictive the scope is fixed, while time and budget could vary; Agile consider fixed the resources: time and Budget, while scope is usually not be fixed. In any case at least in Agile you cannot have these 3 dimensions fixed, but one has to be flexible

Project Manager

Def. 6: Project Manager (PMBok 7th Ed.)

The Person assigned by performing organization to lead the project team that is responsible for achieving the projects objectives. Project managers perform a variety of functions, such as facilitating the project team work to achieve the outcomes and managing the processes to deliver intended outcomes.

Additional functions associated with projects:

- ▶ Provide oversight and coordination
- ▶ Present objectives and feedback
- ▶ Facilitate and support
- ▶ Provide business direction and insight
- ▶ Maintain governance
- ▶ Perform work and contribute insights
- ▶ Apply expertise
- ▶ Provide resources and direction

So what is exactly the Project Manager?



The one that follows every task?



A lion tamer?

A one man band?



The Project Manager

The Project Manager is similar to a Conductor of Orchestra:

- ▶ He doesn't play any particular instruments (yet he should know many of them), he takes advantage of the expertise of every single musician
- ▶ He coordinates the work of several «instruments groups» to pursue the overall result
- ▶ He manages the project variables (among all the principle are: output, time, cost)



Typical errors of dysfunctional Organizations:

- ▶ The project is up to the Project Manager so if it doesn't work: his
- ▶ The Project Manager must have the whole know how, better than every team member and has to retrieve the work that anyone doesn't want to do
- ▶ Nice having a Project Manager but... why cannot he/she also work?!

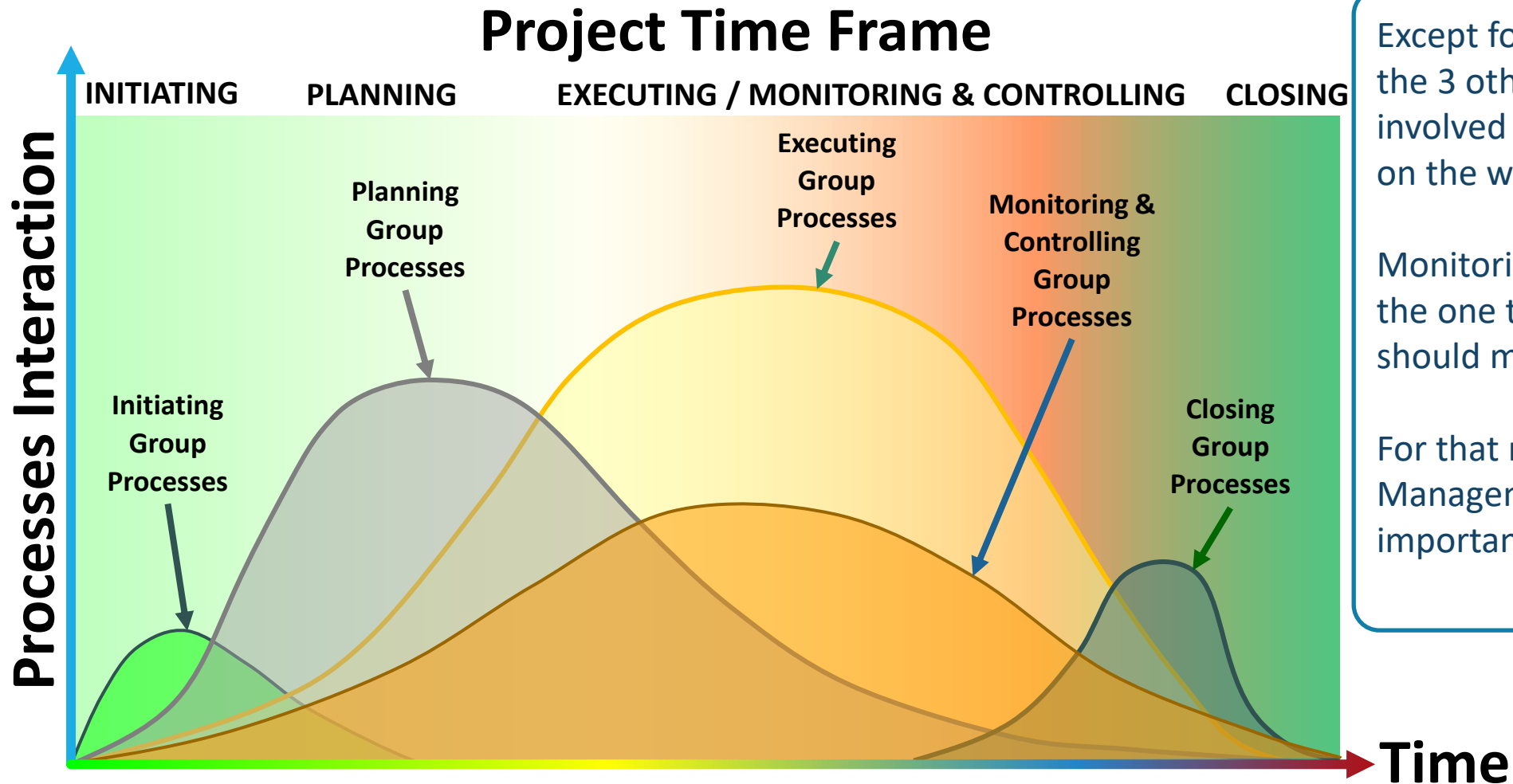


Predictive Approach – Process Groups and Project Management Processes

Project Management Process Groups				
Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4.1 Develop Project Charter	5.1 Develop Project Management Plan	6.1 Direct and Manage Project Work	7.1 Monitor and Control Project Work	8.1 Close Project or Phase
4.2 Identify Stakeholders	5.2 Plan Scope Management	6.2 Manage Project Knowledge	7.2 Perform Integrated Change Control	
	5.3 Collect Requirements	6.3 Manage Quality	7.3 Validate Scope	
	5.4 Define Scope	6.4 Acquire Resources	7.4 Control Scope	
	5.5 Create WBS	6.5 Develop Team	7.5 Control Schedule	
	5.6 Plan Schedule Management	6.6 Manage Team	7.6 Control Costs	
	5.7 Define Activities	6.7 Manage Communications	7.7 Control Quality	
	5.8 Sequence Activities	6.8 Implement Risk Responses	7.8 Control Resources	
	5.9 Estimate Activity Durations	6.9 Conduct Procurements	7.9 Monitor Communications	
	5.10 Develop Schedule	6.10 Manage Stakeholder Engagement	7.10 Monitor Risks	
	5.11 Plan Cost Management		7.11 Control Procurements	
	5.12 Estimate Costs		7.12 Monitor Stakeholder Engagement	
	5.13 Determine Budget			

Project Management Process Groups				
Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
	5.14 Plan Quality Management			
	5.15 Plan Resource Management			
	5.16 Estimate Activity Resources			
	5.17 Plan Communications Management			
	5.18 Plan Risk Management			
	5.19 Identify Risks			
	5.20 Perform Qualitative Risk Analysis			
	5.21 Perform Quantitative Risk Analysis			
	5.22 Plan Risk Responses			
	5.23 Plan Procurement Management			
	5.24 Plan Stakeholder Engagement			

Project Life-Cycle: Processes involved

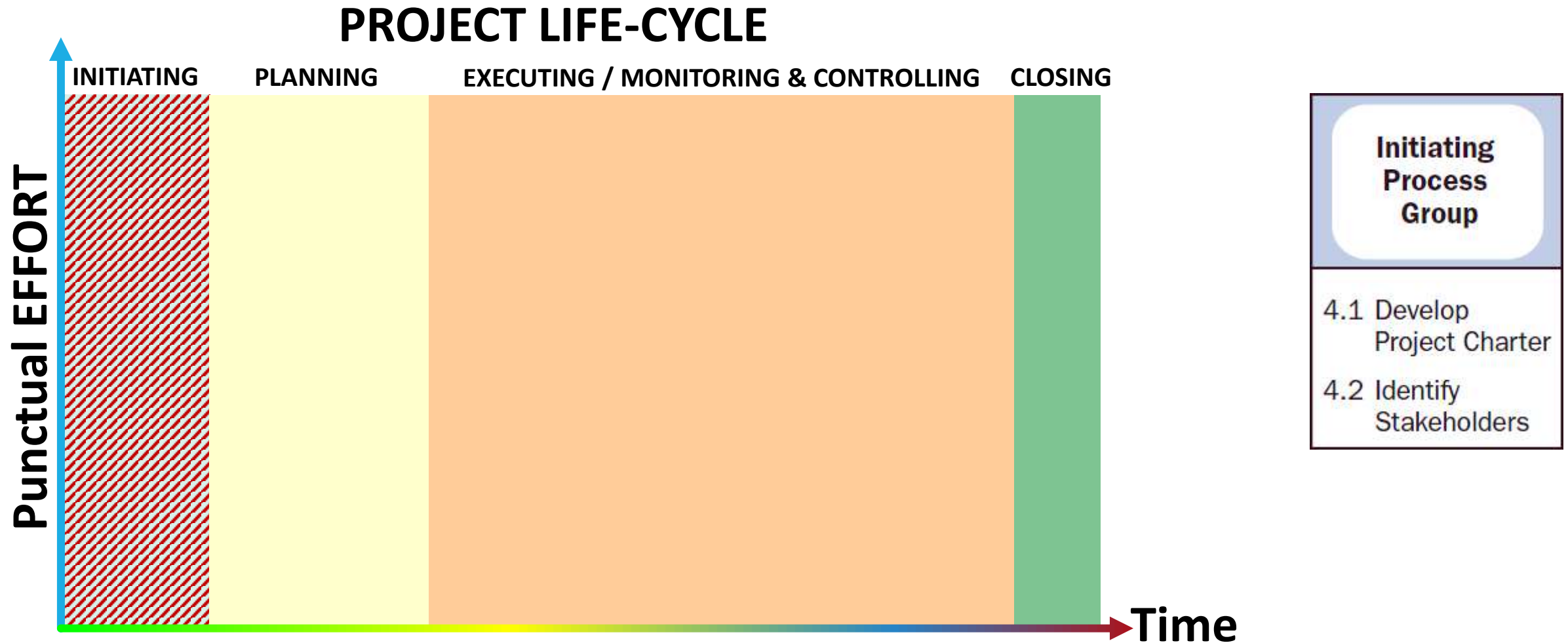


Except for INITIATING and CLOSING the 3 other Process Groups are involved with a different influence on the whole project lifespan.

Monitoring and controlling group is the one that a Project Manager should majorly directly manage.

For that reason the Project Management activity is an important part of the global effort.

Project Life-Cycle: Step 1

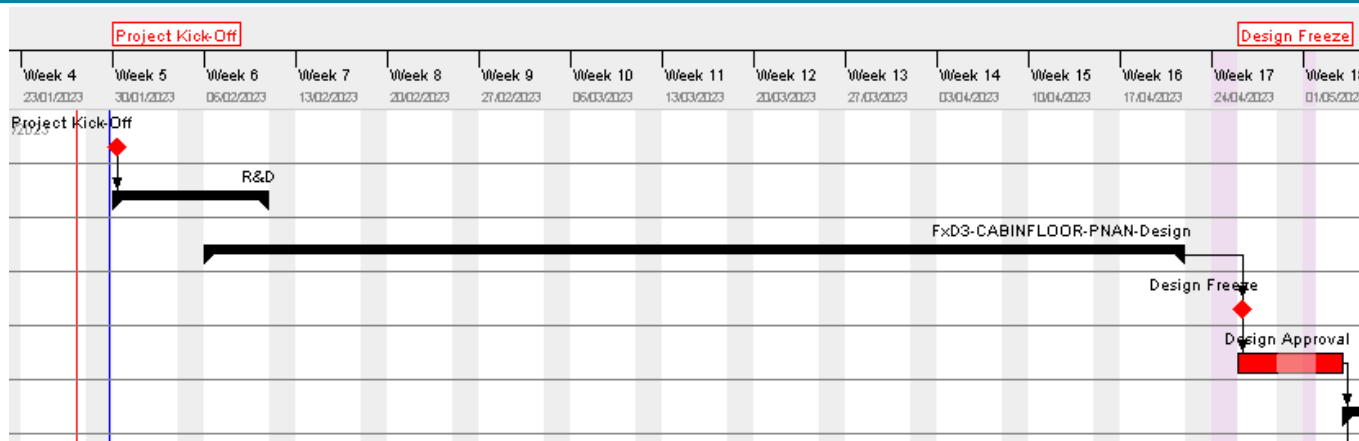


Kick-Off Meeting

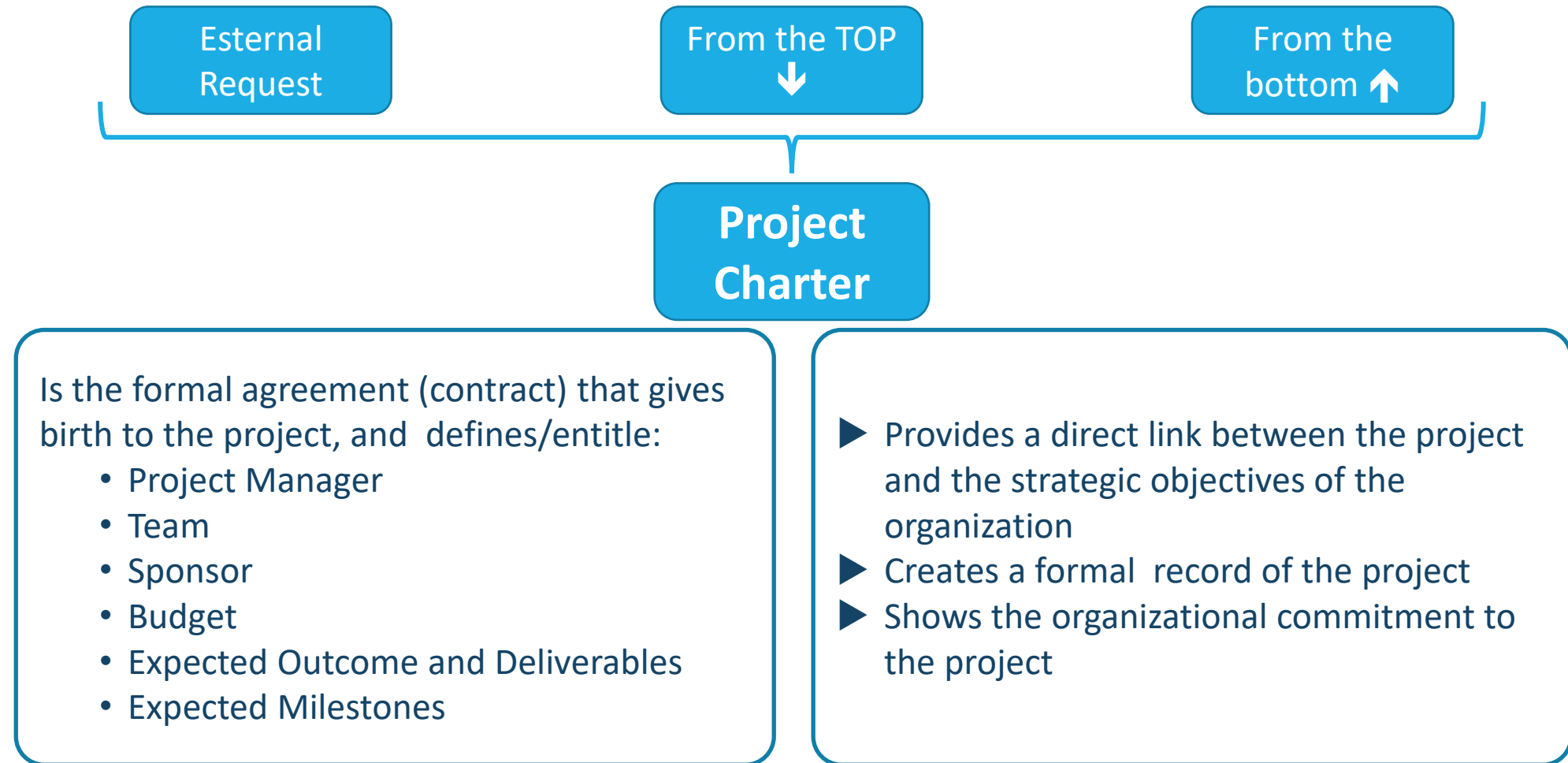
The kick-off meeting is the formal ceremony by which a project starts to exist.

- ▶ Approving and signing the Project Charter by the sponsor
- ▶ Appointing officially the Project Management
- ▶ Assigning budget and Team
- a project Take place

The kick-off meeting is fundamental because from now-on the Project starts generating **Costs** in order to create **Value**



4.1 Develop Project Charter - How to start a Project



4.1 Develop Project Charter – What shape does it have

There is no specific format to build up a Project Charter.
Every Organization can shape it out in the way they prefer.

The aim of the Project charter is to sum up

- ▶ All the details of the agreement with the sponsor/customer.
- ▶ All needed details for starting the project and to perform it during his Life-Cycle
- ▶ All the prescriptions and the specs of the field in which the projects will operate (laws, standards, rules etc.)
- ▶ The outputs expected and their form (way to convey them, the time they are expected, documentations etc.)
- ▶ Quality specifications
- ▶ Timeline and milestones



PROJECT CHARTER

1. General Project Information

Project Name: _____

Executive Sponsor: _____

Department Sponsor: _____

Impact of project: _____

2. Project Team

	Name	Department	Telephone	E-mail
Project Manager:				
Team Members:				

3. Stakeholders (e.g., those with a significant interest in or who will be significantly affected by this project)

4. Project Scope Statement

Project Purpose / Business Justification Describe the business need this project addresses:

Objectives (in business terms) Describe the measurable outcomes of the project (e.g., reduce cost by 10%)

Deliverables (or the high-level "products" to be created (e.g., improved core process, employee manual, etc.))

Submitted by: (Name) _____

For assistance in using this template, contact NYU's Office of Learning and Organizational Development at _____



Project Title: _____

Project Charter

INSTRUCTIONS

Capture the below details about your project. Make sure you involve your sponsor(s) to help articulate each part of the project.

1 Project Details

Business Need/Project Objectives:

Project Requirements:

Product Description/Deliverables:



Project Charter

1

Stakeholders! Who are they?



4.2 Identify Stakeholders

Def. 14a: Stakeholder

A formal definition of a stakeholder is:

“individuals and organizations who are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or successful project completion” (Project Management Institute (PMI®), 1996).

Stakeholders could be:

- ▶ **Promoters of the Project:** Sponsor, Active investors, The organization that started or requested the project, etc.
- ▶ **Actively involved and operating inside the Project:** Project Manager, Project Team, The organization supporting the project, suppliers, etc.
- ▶ **Non involved but positively engaged in the Project:** Potential customers, people who can take advantage from the project, potential suppliers, generic investors, etc.
- ▶ **Not involved and negatively impacted by the Project:** People/Organizations or groups opposing to the project, people who suffer the project impact, people indirectly hit by the project, etc.
- ▶ **Not interested/impacted “yet”:** People/Organizations who doesn’t care about the project (other sectors, geographic locations, etc.), Not interested, Not touched by the project outcome, etc.



Stakeholders Analysis

Def. 14b: Stakeholder (PMBok 7th Ed.)

An individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project, program, or portfolio

Def. 15: Stakeholder analysis. (PMBok 7th Ed.)

A method of systematically gathering and analyzing quantitative and qualitative information to determine whose interests should be taken into account throughout the project.

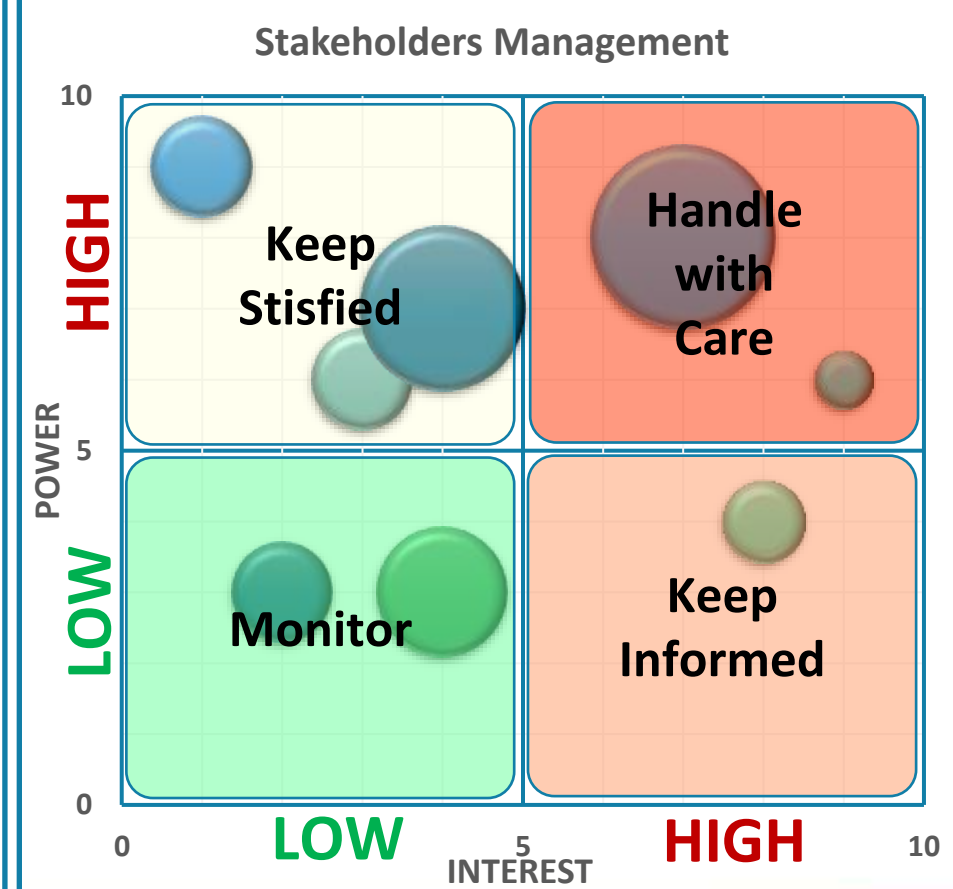
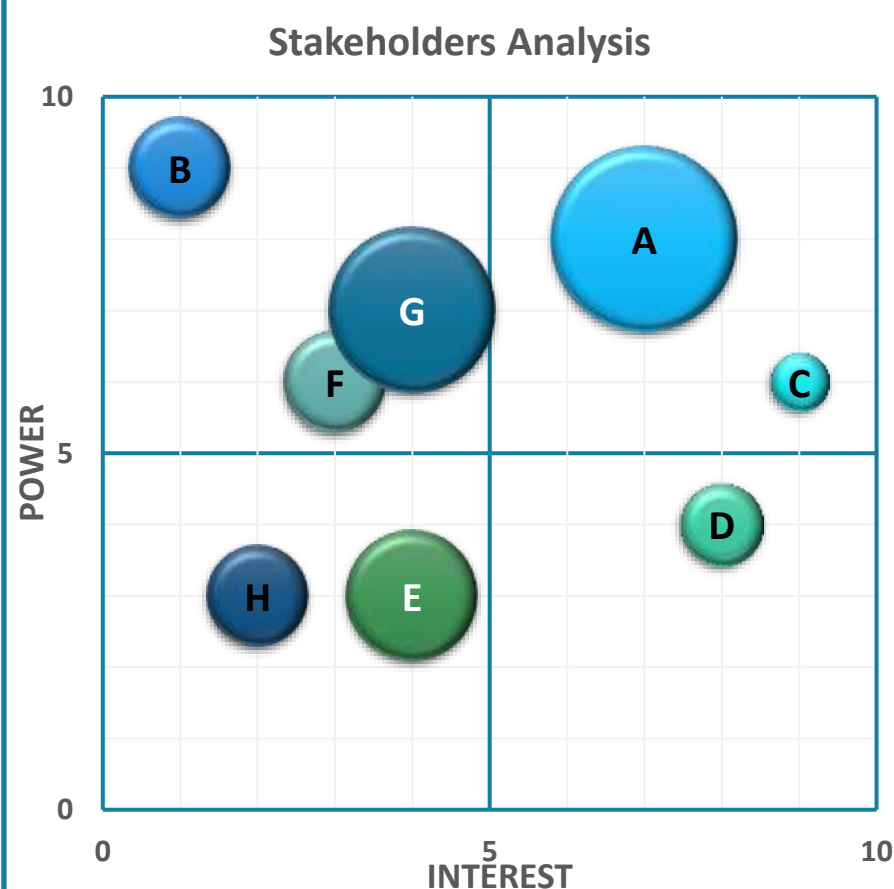
Stakeholders can affect many aspects of a project, including but not limited to:

- ▶ *Scope/requirements*, by revealing the need to add, adjust, or remove elements of the scope and/or project requirements;
- ▶ *Schedule*, by offering ideas to accelerate delivery or by slowing down or stop delivery of key project activities;
- ▶ *Cost*, by helping to reduce or eliminate planned expenditures or by adding steps, requirements, or restrictions that increase cost or require additional resources;
- ▶ *Project team*, by restricting or enabling access to people with the skills, knowledge, and experience needed to deliver the intended outcomes, and promote a learning culture;
- ▶ *Plans*, by providing information for plans or by advocating for changes to agreed activities and work;
- ▶ *Outcomes*, by enabling or blocking work required for the desired outcomes;
- ▶ *Culture*, by establishing or influencing—or even defining—the level and character of engagement of the project team and broader organization;
- ▶ *Benefits realization*, by generating and identifying long-term goals so that the project delivers the intended identified value;
- ▶ *Risk*, by defining the risk thresholds of the project, as well as participating in subsequent risk management activities;
- ▶ *Quality*, by identifying and requiring quality requirements; and
- ▶ *Success*, by defining success factors and participating in the evaluation of success.

Stakeholders impact

For the sake of the project any stakeholder should be identified and evaluated in the field of:
Interest, Power and Influence /Impact to be properly managed.

ID	INTEREST	POWER	INFLUENCE IMPACT
A	7	8	10
B	1	9	3
C	9	6	1
D	8	4	2
E	4	3	5
F	3	6	3
G	4	7	8
H	2	3	3



PART 2 – METHODOLOGY 1ST – APPROACH AND INITIATING

Thank you for your attention

