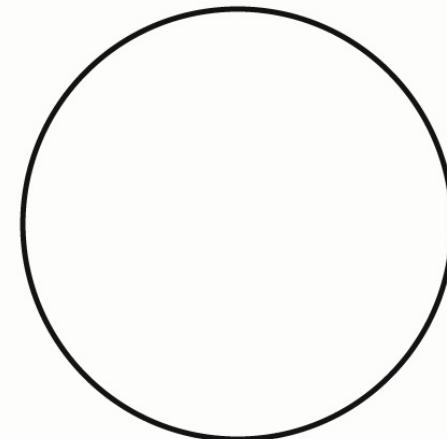


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# LABORATÓRIO DE GESTÃO DE PROJETOS

2022/2023



**U.PORTO**  
FEUP FACULDADE DE ENGENHARIA  
UNIVERSIDADE DO PORTO

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S. Adams E-Mail: SCOTTADAMS@AOL.COM

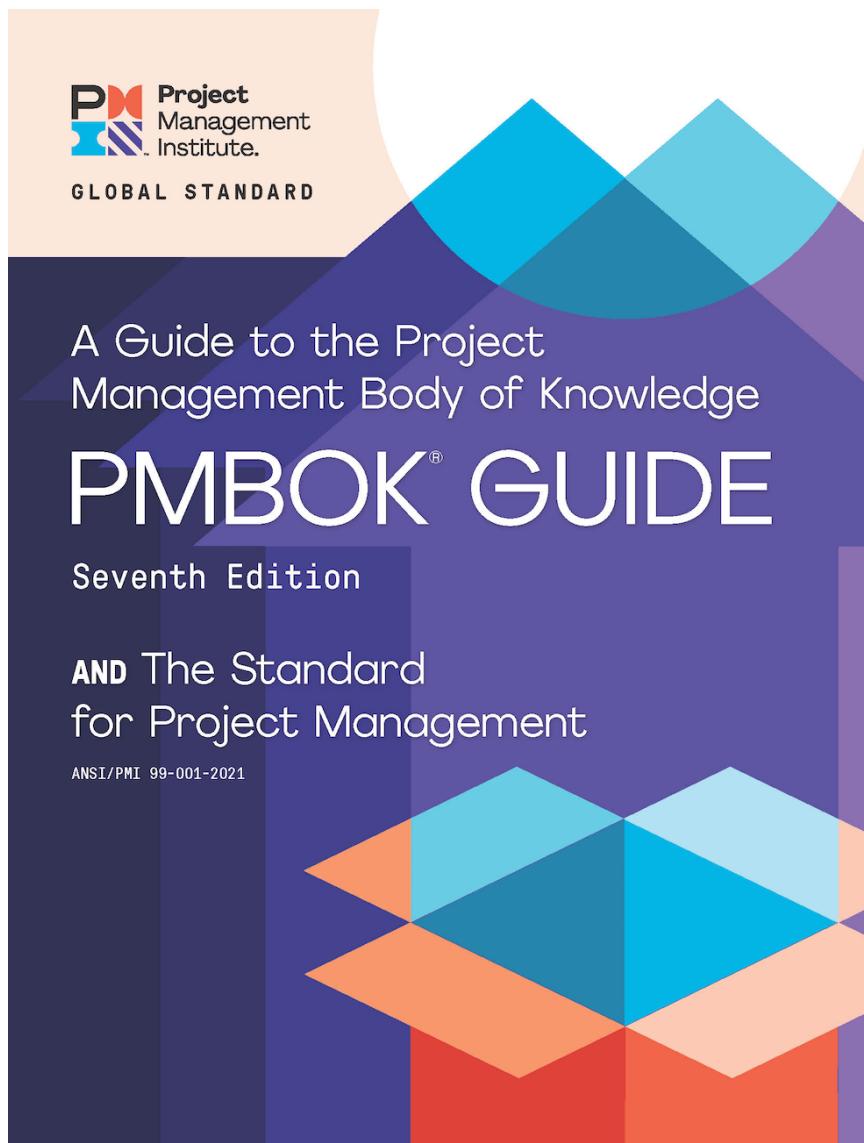
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# PROJECT MANAGEMENT 101

AN OVERVIEW OF THE PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK)

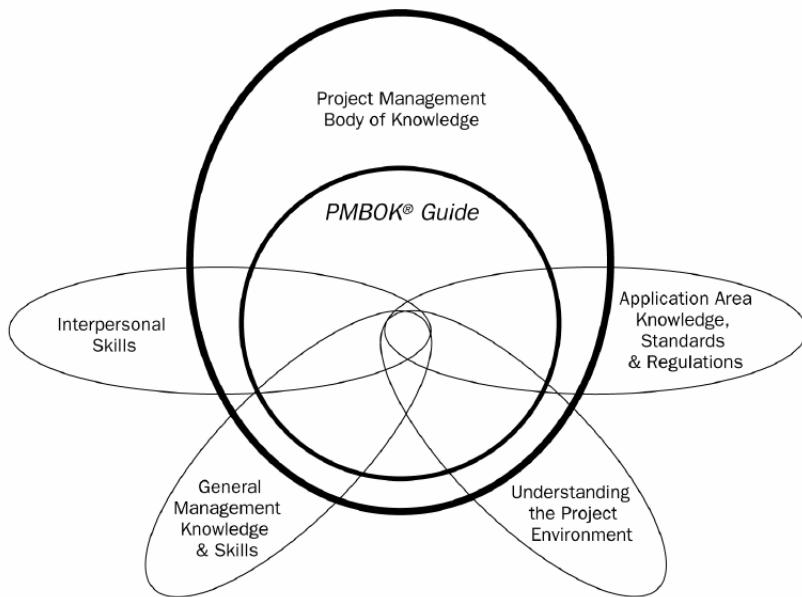
AKA PMBOK FOR DUMMIES



## WHAT IS THE PMBOK?

- The PMBOK is a **collection** of processes and knowledge areas, generally accepted as **best practice** within the project management discipline.
- It describes **established norms**, methods, processes and practices.
- As with other professions such as law, medicine and accounting, the knowledge contained in this standard **evolved** from the recognized good practices of project management practitioners.

# PMBOK GUIDE



- **Identifies** that subset of the project management body of knowledge generally recognised as good practice.
- “Generally recognized” means that **knowledge** and practices described are applicable to most projects most of the time, and there is consensus about their value and usefulness.
- PMBOK is a guide, or **framework**, rather than methodology. One can use different methodologies and tools to implement the framework.

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## PMBOK IS . .

- the sum of professional project management knowledge
- a tool box
- a framework
- process oriented
- useful for all industries



- a methodology
- a prescribed way of doing projects



\*/

# WHAT IS A PROJECT?

A project is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists. Temporary does not necessarily mean short in duration. Temporary does not generally apply to the product, service, or result created by the project; most projects are undertaken to create a lasting outcome. For example, a project to build a national monument will create a result expected to last centuries. Projects can also have social, economic, and environmental impacts that far outlast the projects themselves.

Every project creates a unique product, service, or result. Although repetitive elements may be present in some project deliverables, this repetition does not change the fundamental uniqueness of the project work. For example, office buildings are constructed with the same or similar materials or by the same team, but each location is unique—with a different design, different circumstances, different contractors, and so on.

An ongoing work effort is generally a repetitive process because it follows an organization's existing procedures. In contrast, because of the unique nature of projects, there may be uncertainties about the products, services, or results that the project creates. Project tasks can be new to a project team, which necessitates more dedicated planning than other routine work. In addition, projects are undertaken at all organizational levels. A project can involve a single person, a single organizational unit, or multiple organizational units.

A project can create:

- A product that can be either a component of another item or an end item in itself,
- A capability to perform a service (e.g., a business function that supports production or distribution), or
- A result such as an outcome or document (e.g., a research project that develops knowledge that can be used to determine whether a trend is present or a new process will benefit society).

Examples of projects include, but are not limited to:

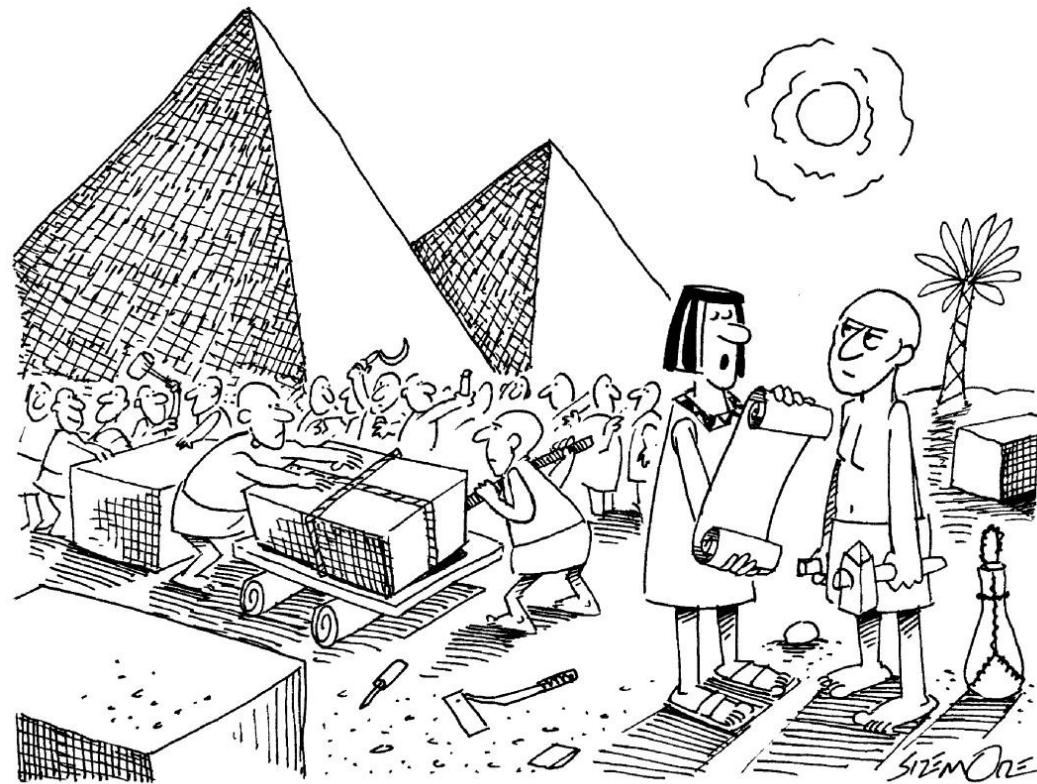
- Developing a new product or service,
- Effecting a change in the structure, staffing, or style of an organization,
- Developing or acquiring a new or modified information system,
- Constructing a building or infrastructure, or
- Implementing a new business process or procedure.

/\*\*

## MAJOR PROJECTS IN THE OLD DAYS . .

- Pyramids (Egypt), Great Wall (China), ..
- Complexity and amount of resources involved
- There is no documented evidence on the use of project management

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"You do as you're told, we pay as we please. You work like a slave, we punish at random. That, in a nutshell, is our corporate culture."

2020

January

February

March

April

May

June

**PHASE 1**

Task 1

100%

Jan 2 – Feb 2

Task 2

100%

Jan 18 – Feb 25

Task 3

95%

Feb 15 – Apr 10

**Milestones:**



High Priority



Medium Priority



Low Priority

*% completion*

**PHASE 2**

Task 1

20%

Apr 10 – May 2

Task 2

5%

Jul 20 – Jun 10

**Everyone has a plan ‘till they  
get punched in the mouth**

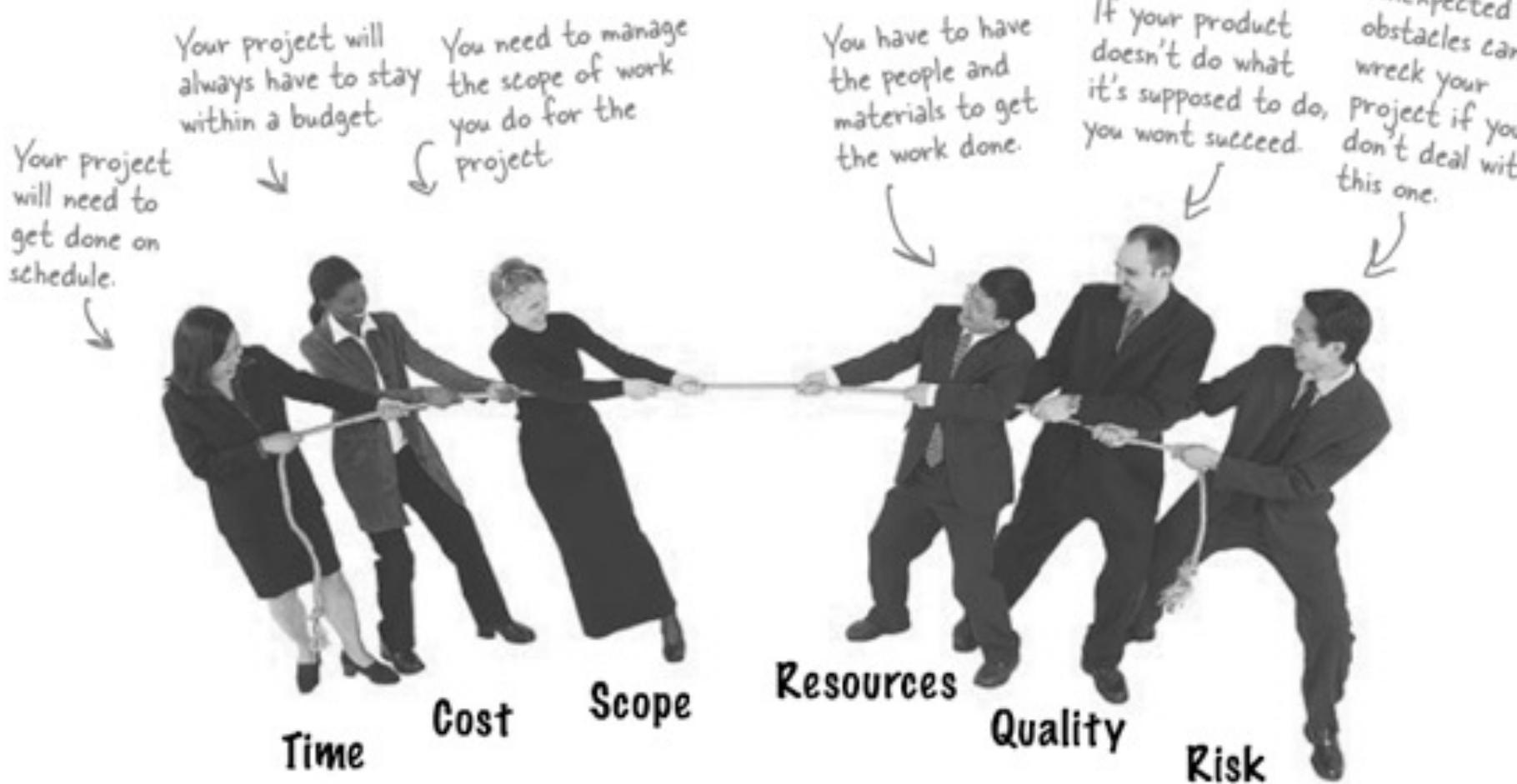
Mike Tyson



# MANAGING A PROJECT INVOLVES . .

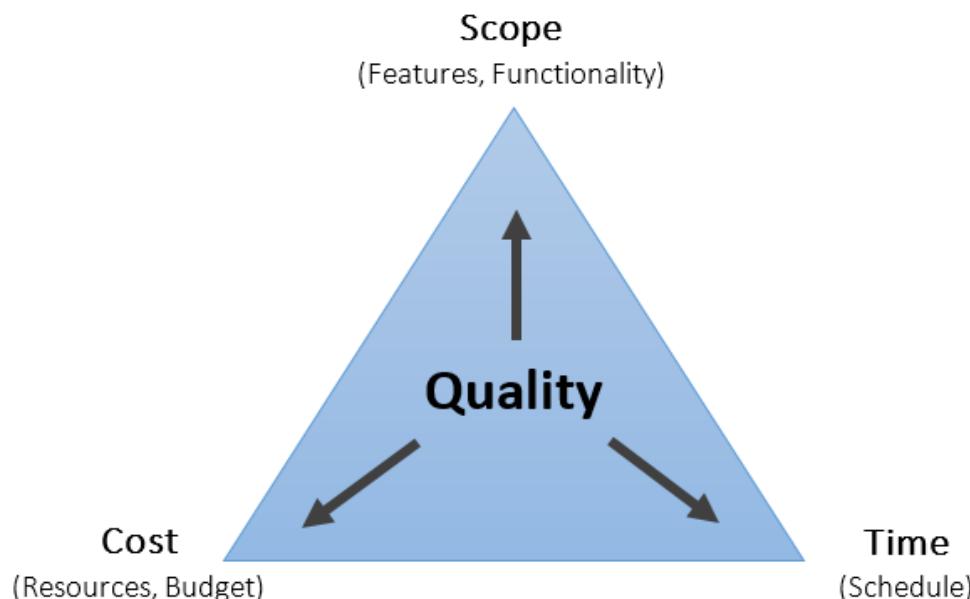
- identifying requirements.
- addressing the various needs, concerns, and expectations of the stakeholders as the project is planned and carried out.
- balancing the competing project constraints including, but not limited to: scope, quality, schedule, budget, resources, and risk.

The specific project will influence the constraints on which the project manager needs to focus.



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# IRON TRIANGLE



- If any one factor changes, at least one other factor is likely to be affected.
- **For example**, if the schedule is shortened, often the budget needs to be increased to add additional resources to complete the same amount of work in less time. If a budget increase is not possible, the scope or quality may be reduced to deliver a product in less time for the same budget.
- Changing the project requirements may create **additional risks**. The project team must be able to assess the situation and balance the demands.
- Because of the **potential for change**, the project management plan is iterative and goes through progressive elaboration throughout the project's life cycle.

# PROJECT MANAGER

- Person assigned by the organization to achieve the project objectives.
- Many of the tools and techniques for managing projects are specific to project management.
- Understanding and applying the knowledge, tools, and techniques that are recognized as good practice is not sufficient for effective project management.
- Effective project management requires the following characteristics:
  - **Knowledge.** what the project manager knows about project management.
  - **Performance.** what the project manager is able to do or accomplish while applying their project management knowledge.
  - **Personal.** how the project manager behaves when performing the project or related activity (attitudes, core personality characteristics and leadership).

# WHAT IS PROJECT MANAGEMENT? (.. PMBOK)

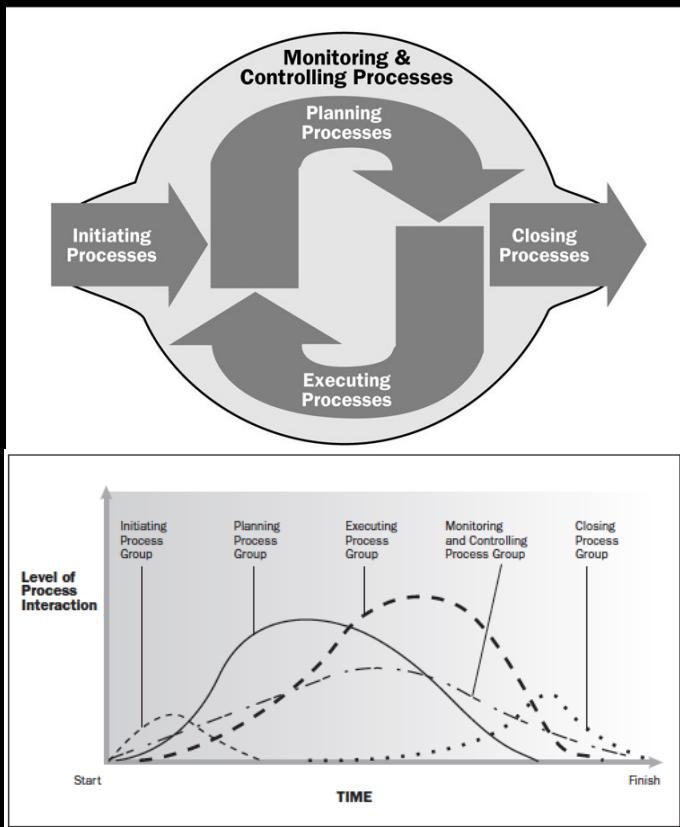


Project management is the **application of knowledge, skills, tools, and techniques** to project activities to meet the project requirements.



Project management is accomplished through the appropriate application and integration of the **49** logically grouped **project management processes** comprising the **5 Process Groups**.

# PMBOK PROCESS GROUPS



**Initiating:** meeting the client or project sponsor and a meeting or two with all of your stakeholders. This process group is necessary to fix the scope of the project and set goals.

**Planning:** determine and assign tasks in order to reach set goals: who will do what, when it will be needed, and what's the timeline?

**Executing:** teams and other stakeholders begin working on the assigned tasks set in the planning phase.

**Monitoring and Controlling:** ensure the project flow is where it should be, assess risks, and control those risks.

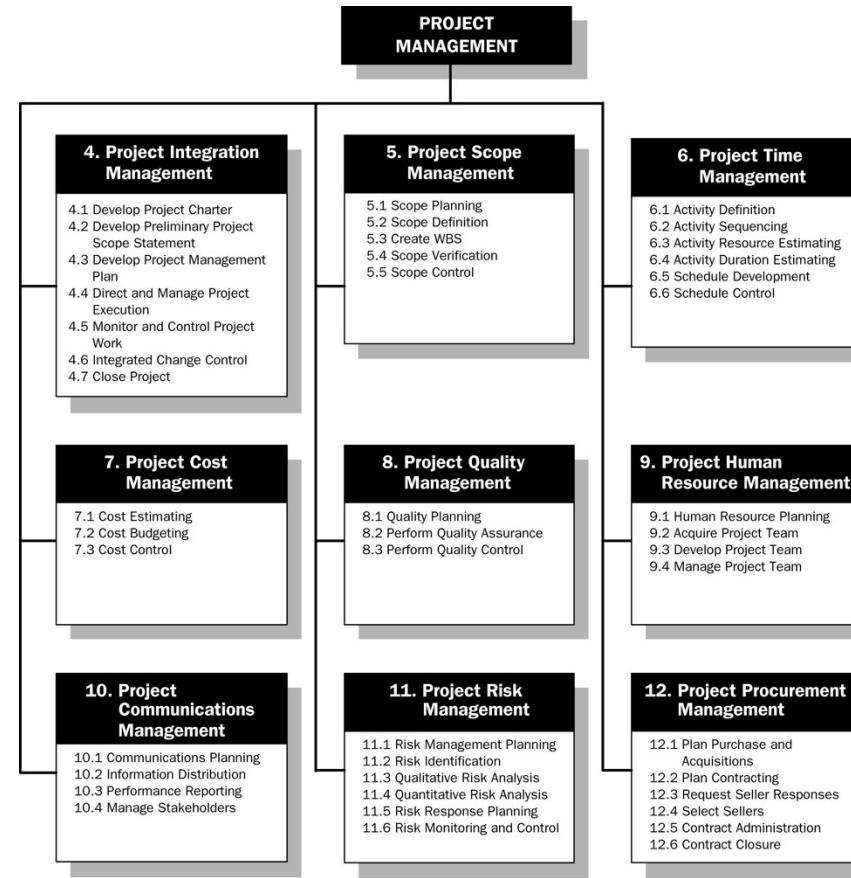
**Closing:** analyze what worked, what didn't and how problems were solved, etc.; deliver the project, answer questions, reward your team, and document the project for use in other projects.

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# PMBOK KNOWLEDGE AREAS



# PMBOK KNOWLEDGE AREAS (I)



**Integration Management** – Think of this area as everything you need from project start to end. This knowledge area basically consists of the five process groups only closer monitoring and overseeing is required.



**Cost Management** – Are you over or under budget? Utilizing this knowledge area allows you to gain the upper hand on project costs and stop or intercede when overruns appear.



**Scope Management** – Scope creep and how to manage it is key in this knowledge area. You need to control and prevent scope creep and stick to the scope statement prepared or you'll find the project out of control.



**Quality Management** – As the PM, you can't have a sloppy, disorganized project. This knowledge area is all about ensuring quality and controlling missteps.



**Time Management** – You can't rely on the hope that milestones and goals will just appear. Time management requires paying close attention to schedules to ensure deliverables can be achieved.

# PMBOK KNOWLEDGE AREAS (II)



**Human Resource Management** – tricky because it contains the “human” element. Not only must you deal with change management issues but also team conflict. From choosing to monitoring teams to managing external stakeholders, the PM must mix all these “human” elements to flow in tune to realize a successful outcome.



**Procurement Management** – This knowledge area is often a constant throughout the project. Everything from software to equipment to vendors to who will offer services and what type are included in procurement management. Think of this knowledge area as your purchasing department.



**Risk Management** – You are not playing the famous board game here. Risk management means you have to assess and prioritize risks, monitor and control risks, and create a risk register showing how risks will be and are dealt with.



**Stakeholders Management** – Project stakeholder management is the final knowledge area and considered very important. The success or failure of the product depends on timely and satisfactory project delivery to stakeholders.



**Communications Management** – You must have a communication plan accessible to everyone. This knowledge area also means holding status meetings and ensuring everyone is on the same page. In other words, if anything changes, everyone working on the project, every stakeholder must be aware of changes, additions or improvements.

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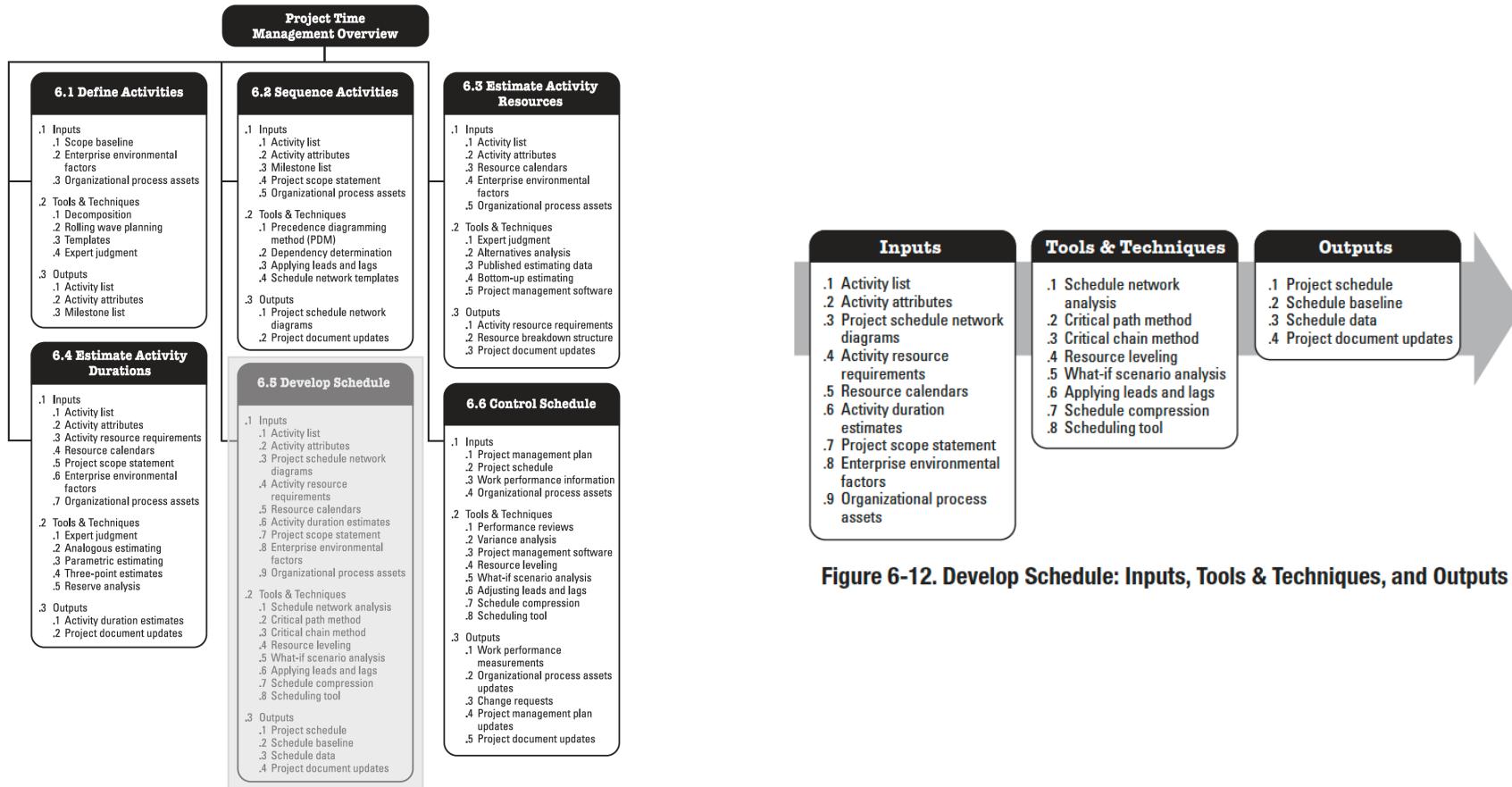


Figure 6-1. Project Time Management Overview

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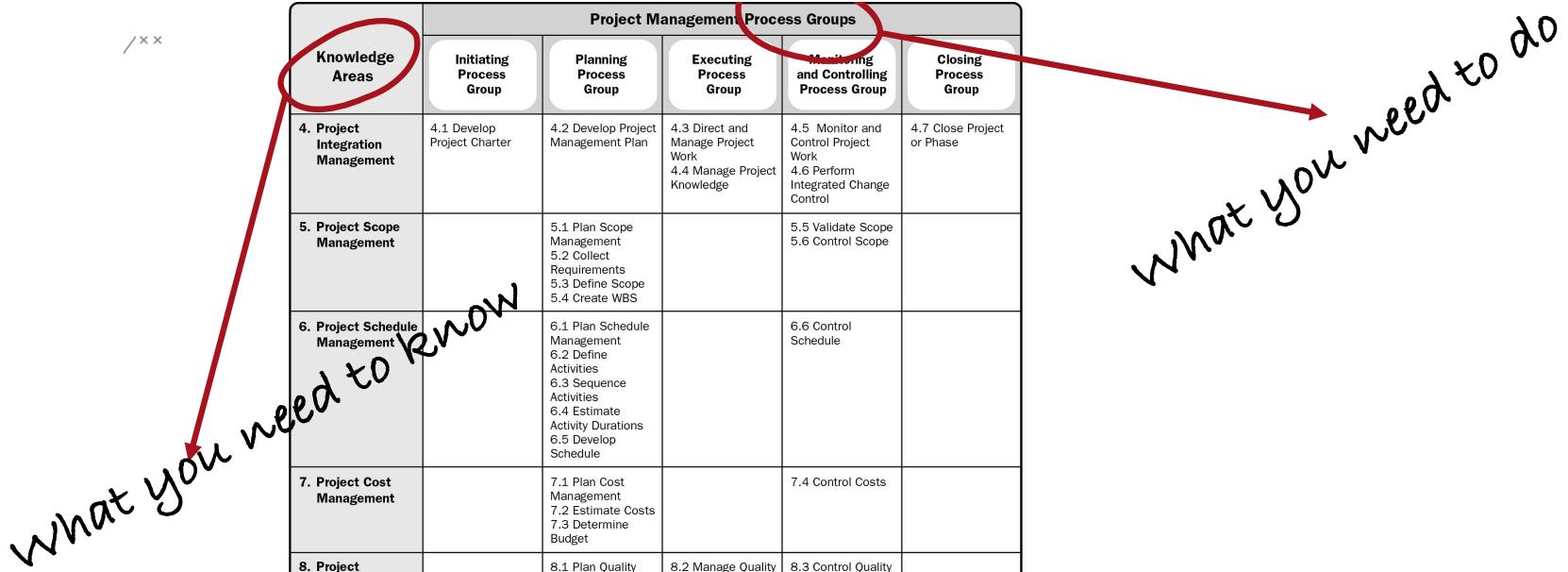
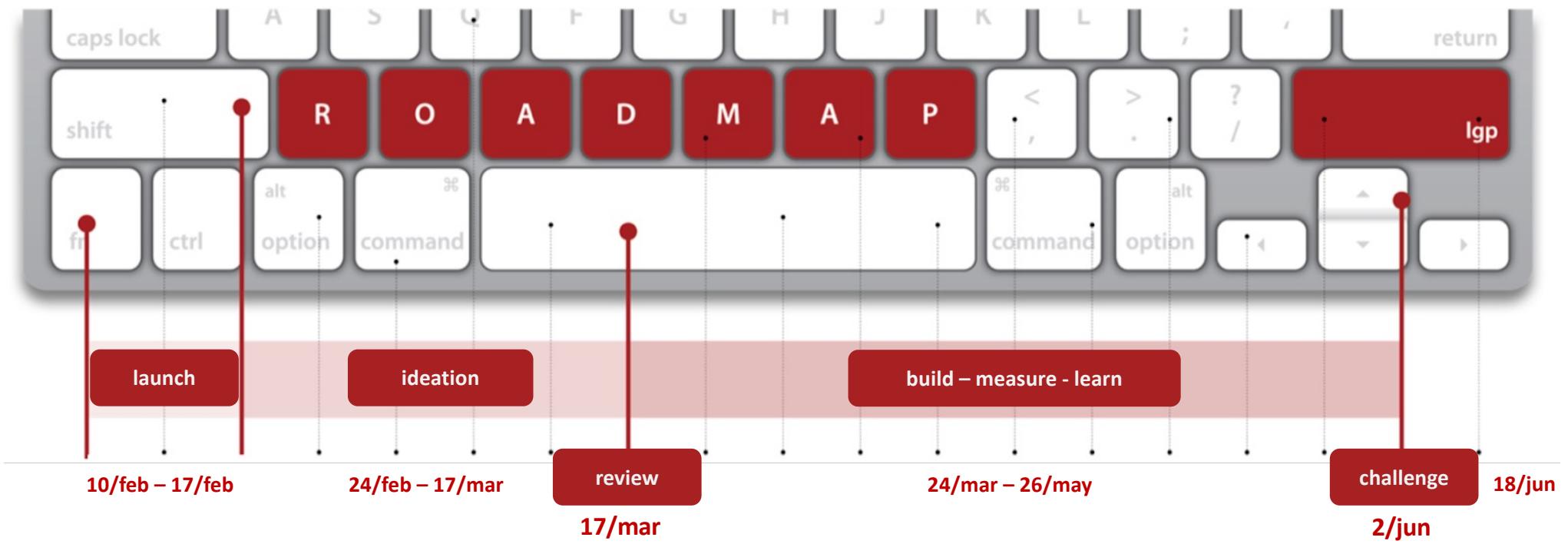


Table 1-4 (Guide). Project Management Process Group and Knowledge Area Mapping

A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Sixth Edition. ©2017 Project Management Institute, Inc. All rights reserved.



Phases	Dates			what	when	whom	
Launch	10-Feb	17-Feb	2 weeks	CTO KoM	Company/team Organisation Kick-off Meeting	17-Feb 24-Feb	supervisor supervisor

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**Question:**

## Document Repository Structure

(Last edited: Wednesday, 15 February 2023, 13:32)

**Answer:**

## Document Repository Structure

Each company should create the following folder structure for the document repository (in their private teams channel).

1. Launch
2. Ideation
3. Review
4. Build-Measure-Learn
5. LGP Challenge
6. Closure

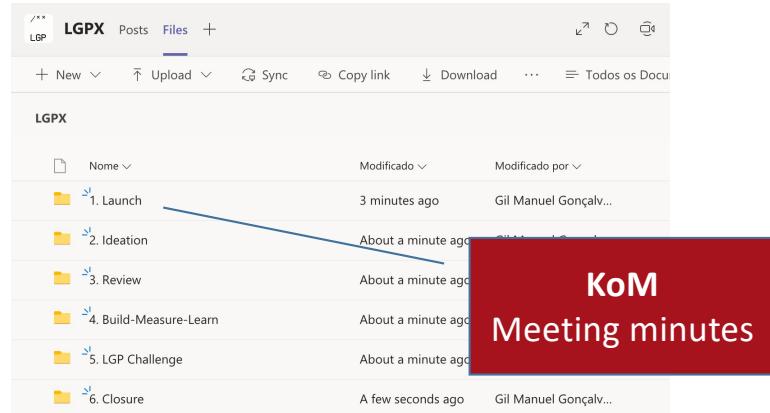
Check the FAQ!

Keep the number in the folder name. Inside each folder, sub-folders can be created for work documents and draft versions.

Final versions of the [deliverables](#) should be in the 'root' of the corresponding phase folder.

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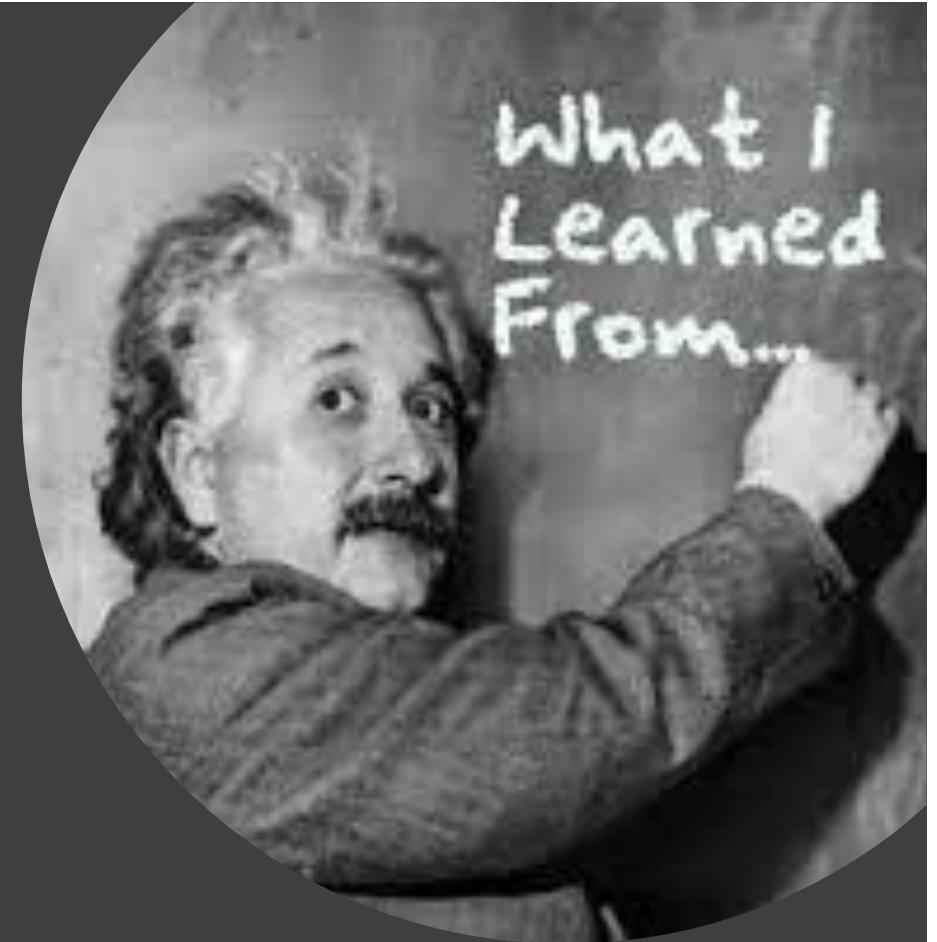


**CTO (Company & Team Organisation)**  
• Students  
• Clients  
• attendance

/\*

- PMBOK is the **sum of** professional project management **knowledge**.
- PMBOK is a guide, or **framework**, rather than methodology.
- Take from PMBOK those areas of best practice that are **appropriate** to your project; depends on size, complexity and industry.
- You can use **different methodologies** and tools to implement the framework .. from Six Sigma to Agile to Waterfall to PRINCE2 to ..

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## COMING NEXT

15:00 WORK ON THE “FORMING” PROCESS AND PREPARE  
THE KOMS

16:00 KOM MEETINGS WITH PROJECT CLIENTS

15:50 MEET THE CLIENTS IN ROOM B031

LIST OF KOM ROOMS AVAILABLE IN MOODLE

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