Resource Guide for the course on

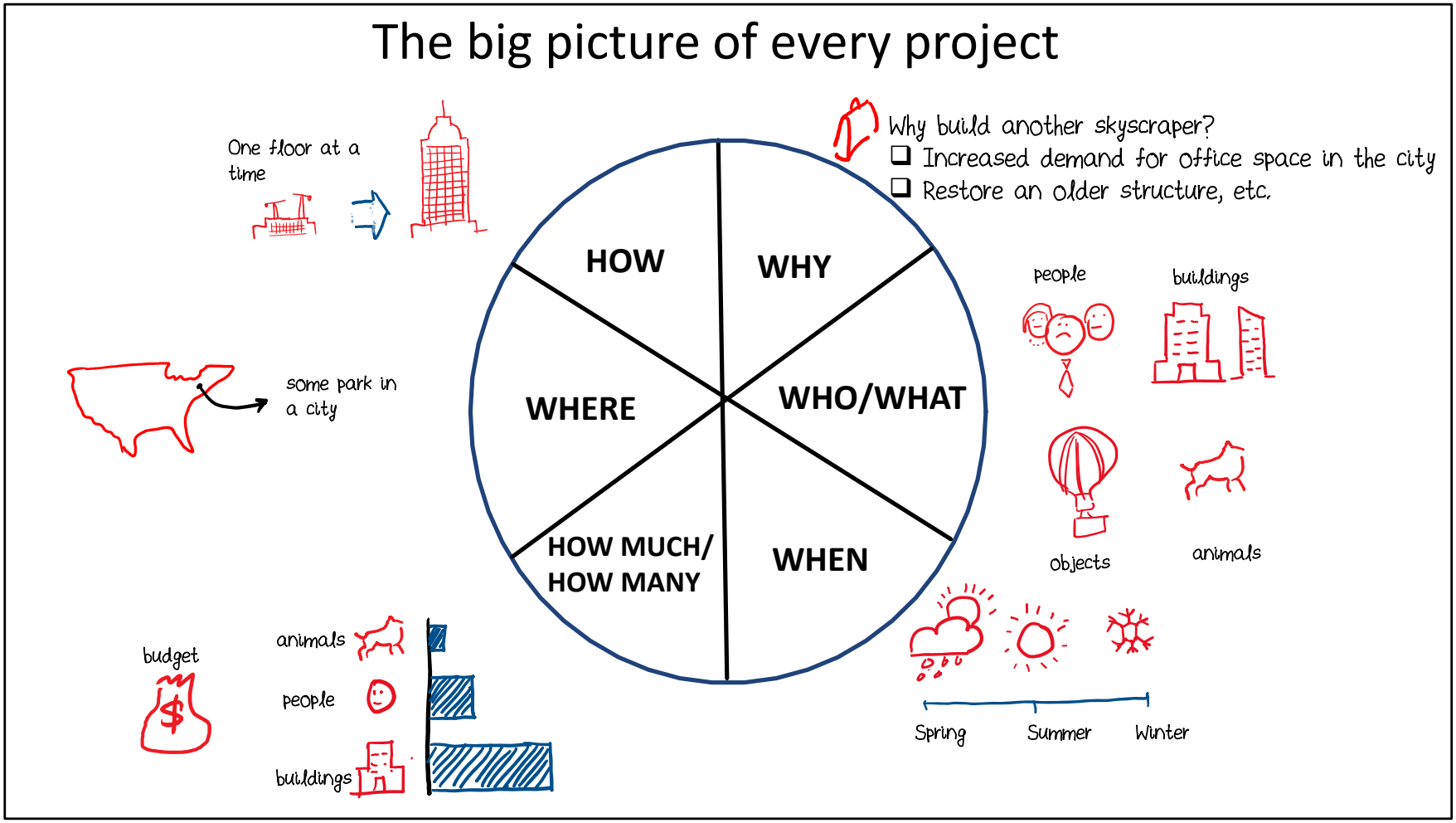
Project Management Professional (PMP) Exam Training

Instructed by:

Aslam Khan

Part 2

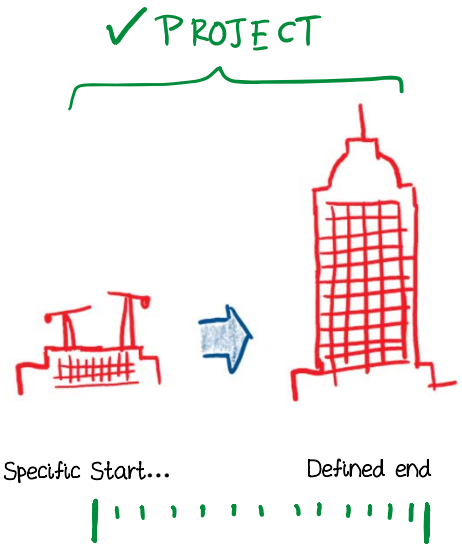
The Big Picture of Project Management

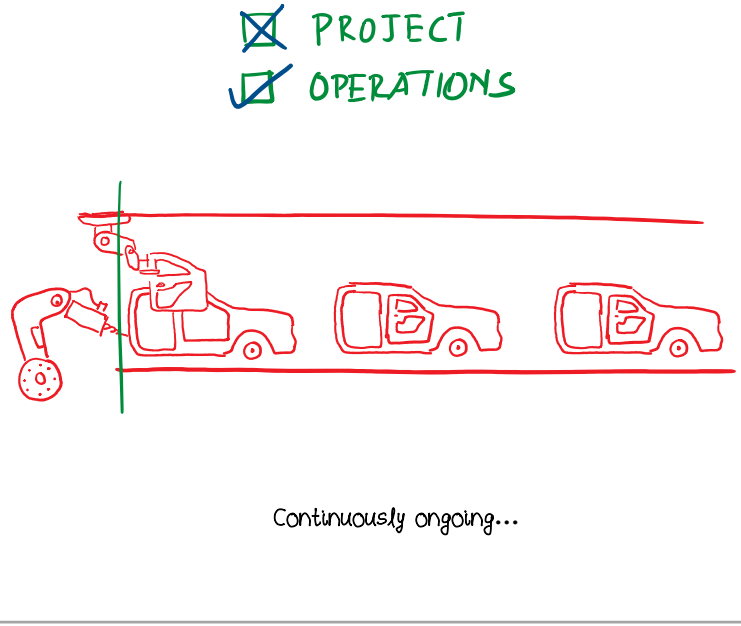


Six visual pathways can help us understand project management:

- The first pathway is the WHO and the what, which includes stakeholders and the project's product or service
- The second pathway is the WHEN – the dimension of time, which includes the project's schedule
- The third pathway is the HOW MUCH/ HOW MANY, which involves quantitatively determining the resources needed for the project
- The fourth pathway is WHERE, which looks at the spatial lines and hierarchical arrangements within organizations involved in the project
- The fifth pathway is HOW, which involves choosing an appropriate methodology or framework for the project
- The sixth pathway is WHY, which considers the business rationale for the project and whether it's worth the effort
- These pathways align with how we see things in the real world.

What is a Project





A project is a temporary endeavor undertaken to create a unique product, service or result.

- Projects are temporary work with a defined start and end, aimed at creating a unique product, service, or result that didn't exist before.
- Projects involve a coordinated set of activities with a defined plan to follow.
- Examples of projects include building a physical structure or creating a website from scratch, while ongoing activities without a defined start and end are considered operations.
- Car manufacturing is not a project, but creating a unique car design is.
- Projects can end prematurely due to lack of budget or support from key stakeholders.

What is Project Management

"Project Management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements", and a Project Manager is that individual assigned by the organization to skillfully lead the team to achieving the project objectives.

- Project management guides us in coordinating activities for a project.
- Project management applies knowledge, skills, tools, and techniques for structured methodology.
- Without project management, we wouldn't know where to start or how to approach the work.
- Project management is about efficiently juggling multiple activities and maintaining balance.
- A project manager coordinates activities through project management methodologies and principles.

Value of a project

Any Project

Business case: What is the business rationale for doing the project

Value: The benefit that the project is promising to deliver contained in the business rationale for doing the project

•The business case contains the fundamental rationale behind starting a project and the value it promises to deliver.
•Project sponsors and stakeholders care about the end result of the project and the value it promises to bring, not just how well the project is managed.

Value of a project

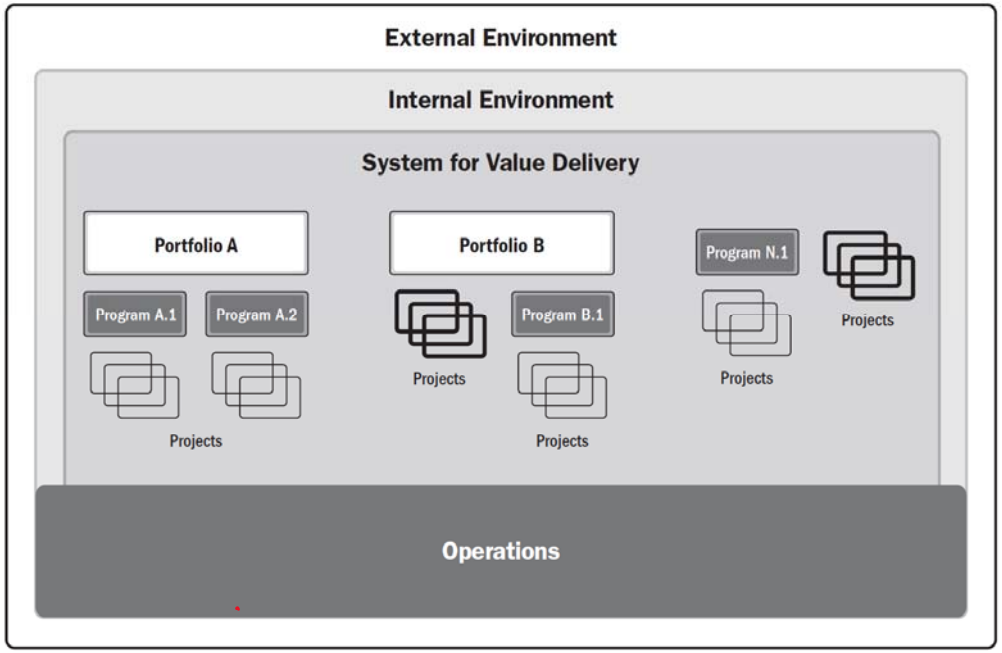
Value generated by:

- Creating a new product, service or result to meet the needs of customers
- Creating positive social or environment contributions
- Improving efficiency, productivity, effectiveness or responsiveness
- Enabling changes within organizations to facilitate transition to its desired future state
- Sustaining benefits enabled by programs, project and operations

•Projects can deliver value in the form of increased sales, revenues, profits, and operational efficiencies.
•However, projects can also be done to cause positive societal changes or environmental contributions.
•The World Bank is an example of an organization that undertakes projects to increase access to basic human needs in places where they are needed most.
•Projects within organizations can also bring about change to transition the company to a better future state.
•Projects, programs, operations, and portfolios are components within the organization that deliver value.

System of value delivery

Portfolio, Programs, Projects and Operations

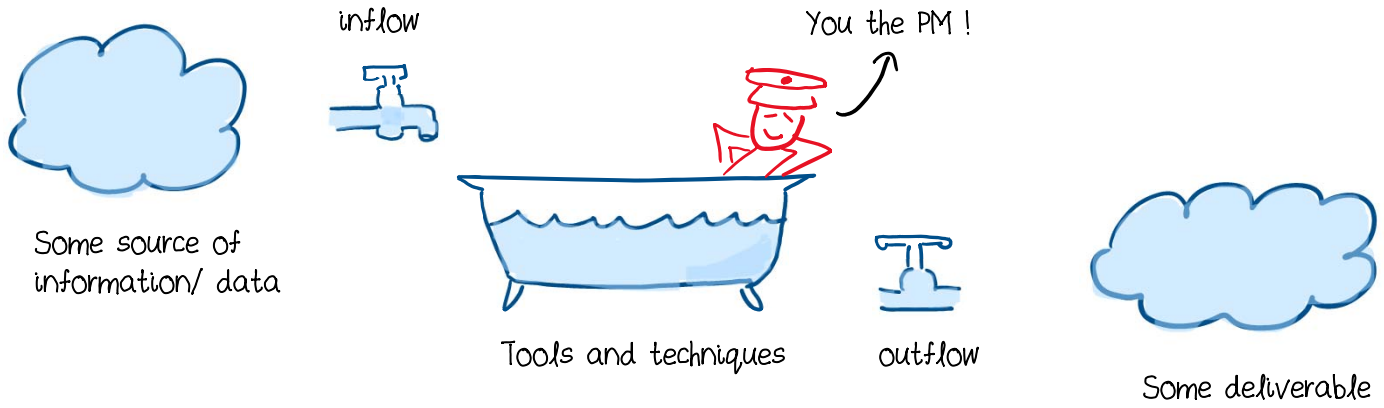


Source: PMBOK Guide 7th ed

- The system of value delivery consists of multiple components: projects, operations, programs, and portfolios.
- Projects are temporary endeavors with defined starts and ends to create a unique product, service, or result.
- Operations are continuous efforts without a defined start or end, resulting in repeated or duplicated products or services.
- Programs group related projects together, sharing objectives, resources, or technology.
- Portfolios consist of multiple programs, projects, and operations that align with the organization's strategic objectives.
- Internal and external factors influence the system of value delivery, such as organizational strategy, regulations, market conditions, and political situations.

•The system of value delivery translates the organization's vision and objectives into tangible results and generates value, including monetary benefits.

Systems thinking



- Systems thinking is used to visualize all the inputs and outputs in project management processes.
- Inputs are fed into a process, where they are mixed together using various tools and techniques to produce outputs.
- The PM is the primary person facilitating this process.
- The outputs are interim project deliverables like project plans, schedules, budgets, and the actual product.
- This is a simplified representation of the systems thinking concept, borrowed from systems theory and modified for project management purposes.

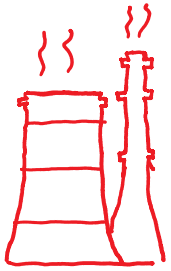
Matrixed Environment

- Understanding the organization's structure and hierarchy is important for project managers.
- There are mainly three types of organizational structures: functional, project-based, and matrix.
- Functional organizations are based on specialties and give authority to functional managers.
- Project-based organizations give authority to project managers and are focused on project delivery.
- Matrix structures share authority between functional and project managers.
- Balanced matrix environments are ideal but rare.
- Weak matrix environments give more authority to functional managers, while strong matrix environments give more authority to project

managers.

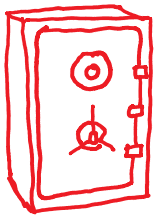
•Project managers have varying levels of authority over resources and decision-making depending on the type of organizational structure.

EEF and OPA



Enterprise Environmental Factors

- ❑ Government regulations
- ❑ Industry standards
- ❑ Market conditions
- ❑ Political climate

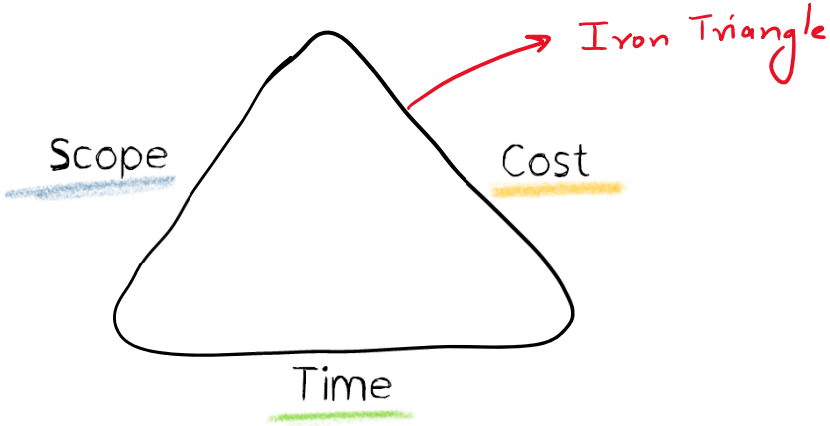


Organizational Process Assets

- ❑ Internal policies and procedures
- ❑ Guidelines
- ❑ Templates
- ❑ Systems
- ❑ Best practices

•Enterprise Environmental Factors: Not everything in a project is under your control, and external factors may have an influence on the outcome.
•These external factors are called Enterprise Environmental Factors, which may include government regulations, market conditions, and political climates.
•Organizational Process Assets are an organization's internal policies, procedures, guidelines, templates, systems, and best practices that may have been collected from past experiences. These assets are important inputs to many project management processes.

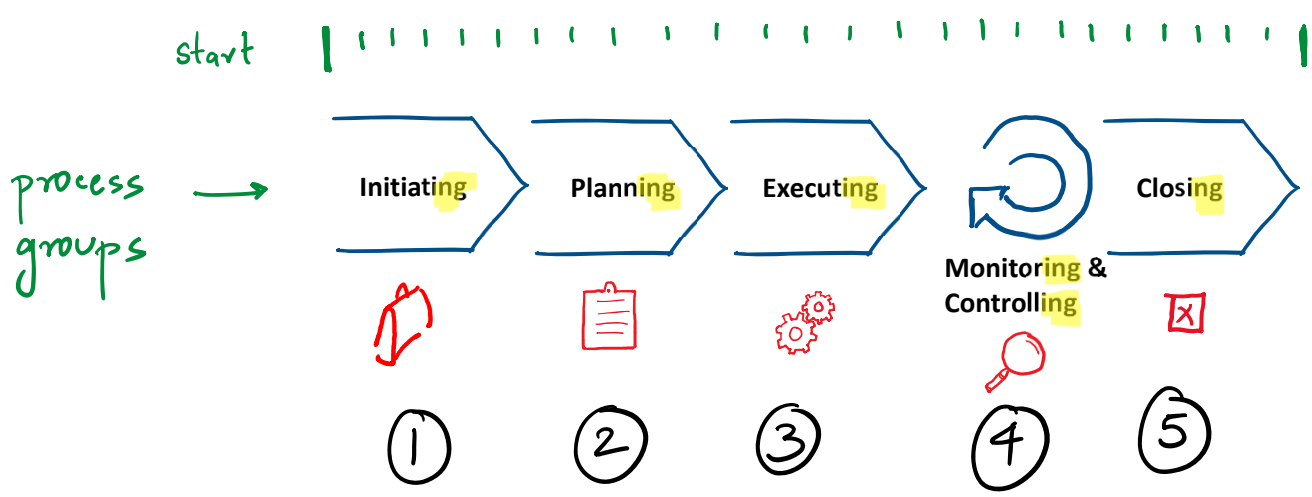
Project Constraints



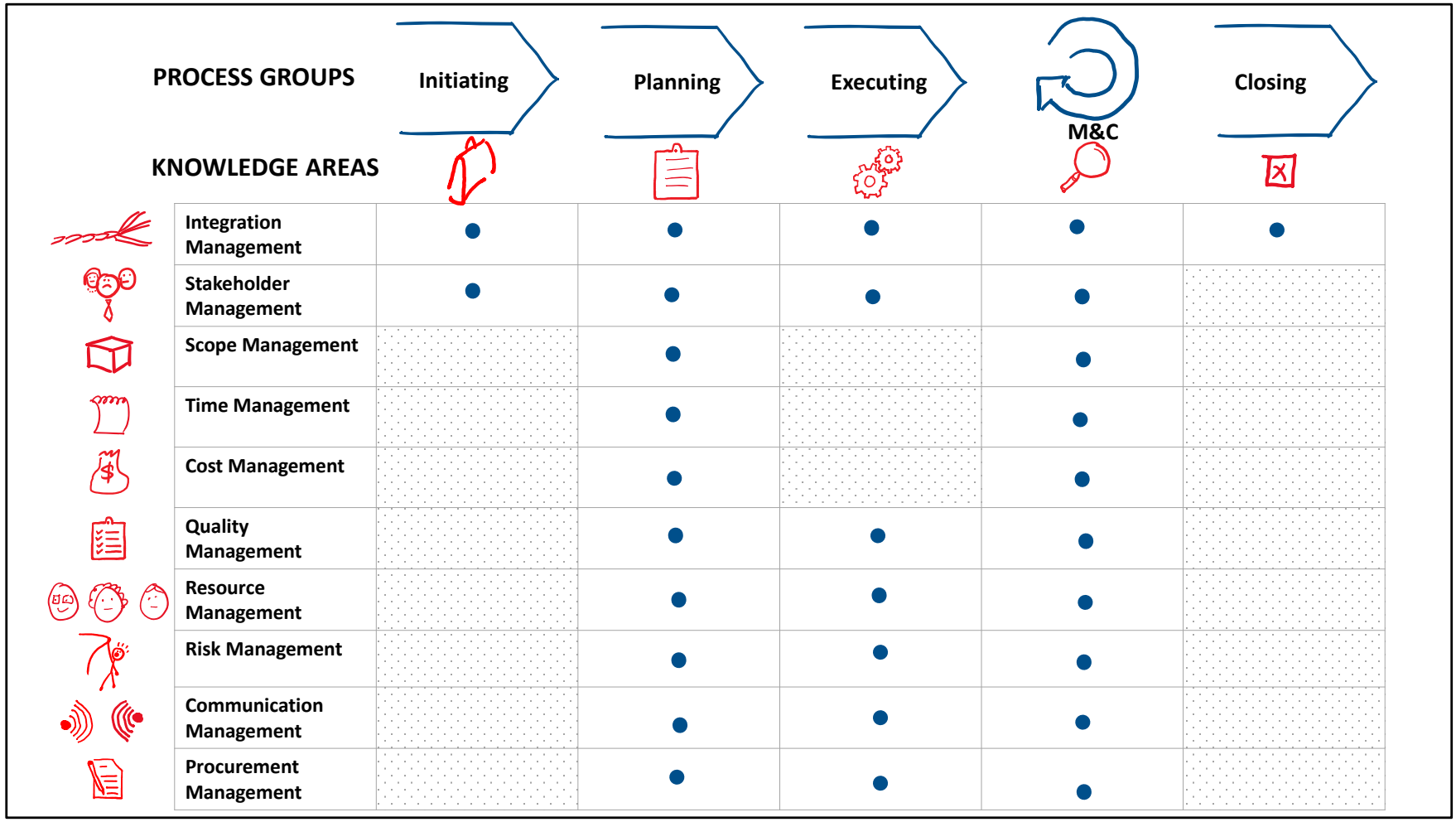
"Iron triangle" because when you alter one project constraint you will end up altering other project constraints

- Project managers need to understand that there are limitations to the resources, time, and budget available for a project.
- These limitations are called project constraints and they dictate the actions that can be taken by the project manager and team.
- Constraints can be of different types and not just limited to scope, time, or cost.
- The iron triangle is a concept that refers to the three constraints of scope, time, and budget that dictate the setup and execution of a project.

Process Groups

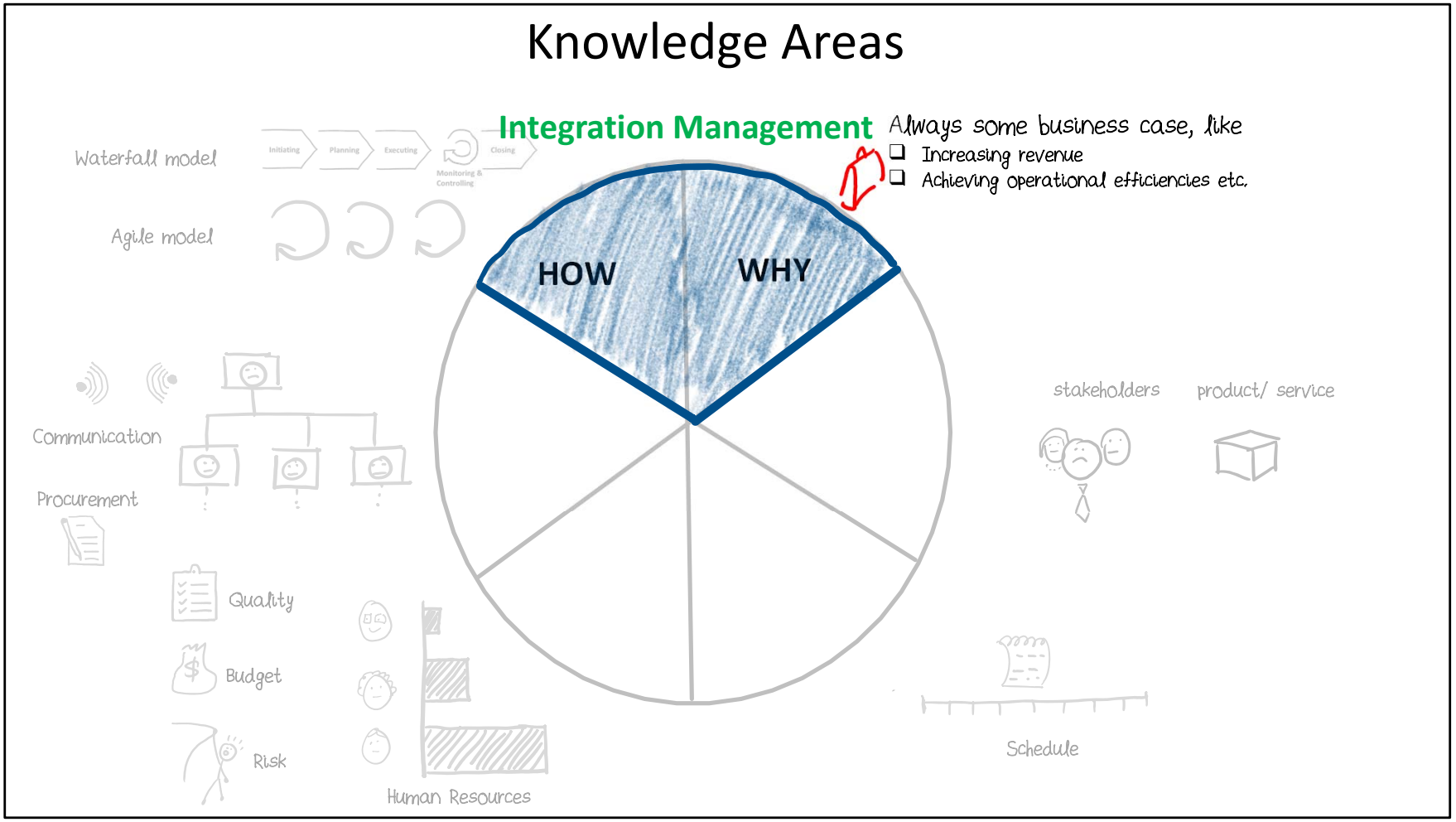


- Time is a crucial component in a project.
- Projects are divided into five main process groups: initiating, planning, executing, monitoring and controlling, and closing.
- The initiating process group involves putting everything needed to start the project and officially recognizing it.
- The planning phase is where most of the work is done in planning for the project's future, and the project management plans are created.
- The executing phase involves building the final product or service and coordinating with people and resources.
- The monitoring and controlling phase involves tracking progress, identifying areas of changes, and initiating corrective and preventive actions.
- The closing phase includes concluding activities and closing all project management processes and contractual obligations.



- Project management can be divided into 10 knowledge areas and 5 process groups

Knowledge Areas

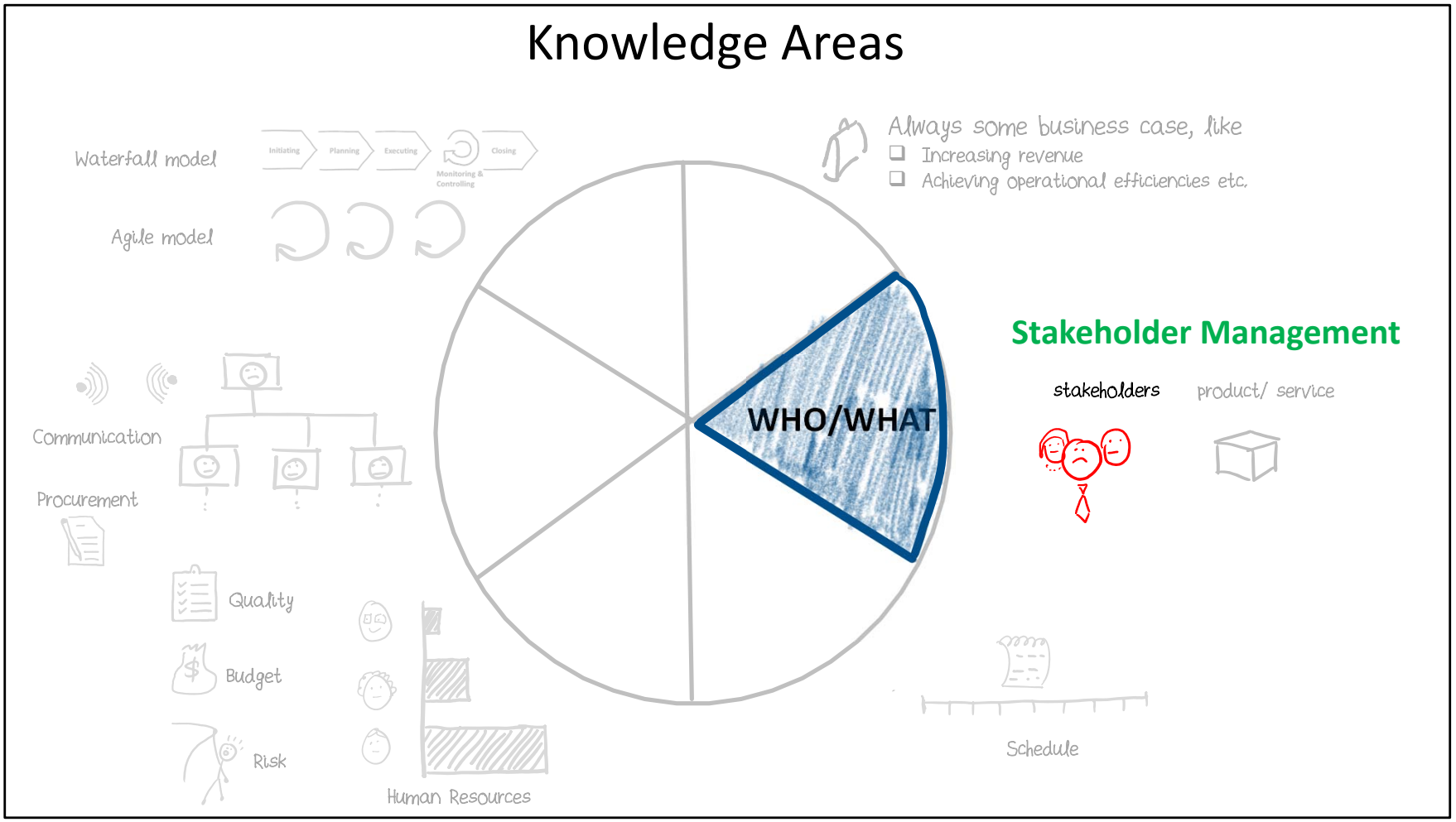


Integration management is one of the ten knowledge areas in project management, and it is concerned with bringing together all the different elements of a project into a cohesive whole. It involves the coordination and management of all the project management processes, including initiating, planning, executing, monitoring and controlling, and closing, to ensure that the project objectives are achieved.

- Integration management is a knowledge area that deals with the why and how of the project.
- It begins with formulating the business case for the project and the defining ultimate goals of the project.
- It also involves planning for the project, considering changes, and balancing various processes to deliver the defined goals.
- Integration management identifies stakeholders and manages their expectations through appropriate tools and techniques.

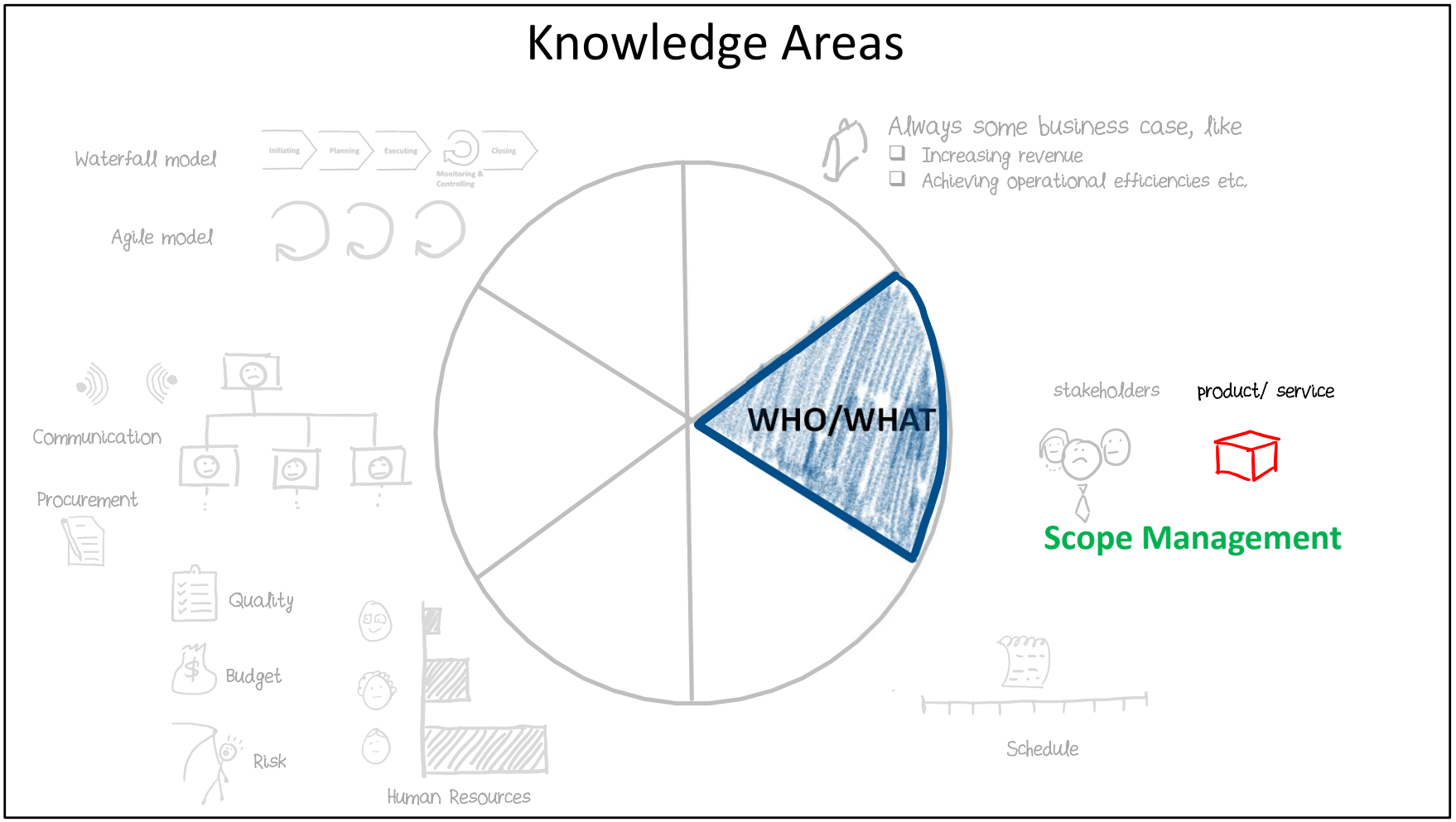
- It spans all the 5 process groups of project management.

Knowledge Areas



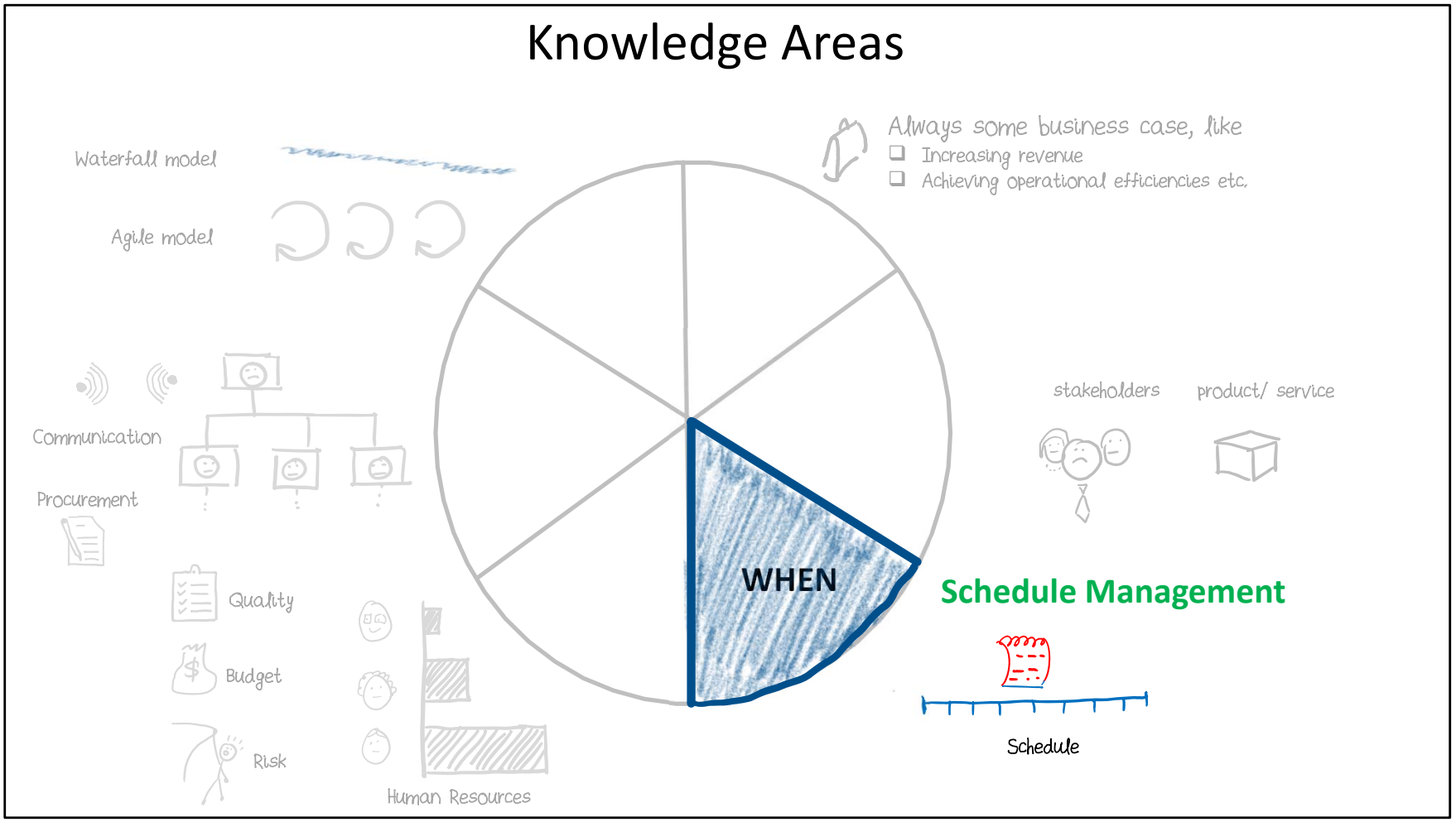
- Stakeholder management is a knowledge area in project management that involves identifying, analyzing, and managing stakeholders who have an interest or influence in the project.
- The main goal of stakeholder management is to ensure that stakeholders' needs and expectations are understood, addressed, and managed effectively to support the success of the project.
- This includes identifying all the stakeholders and determining their level of involvement, assessing their impact on the project, and managing their expectations and concerns.

Knowledge Areas



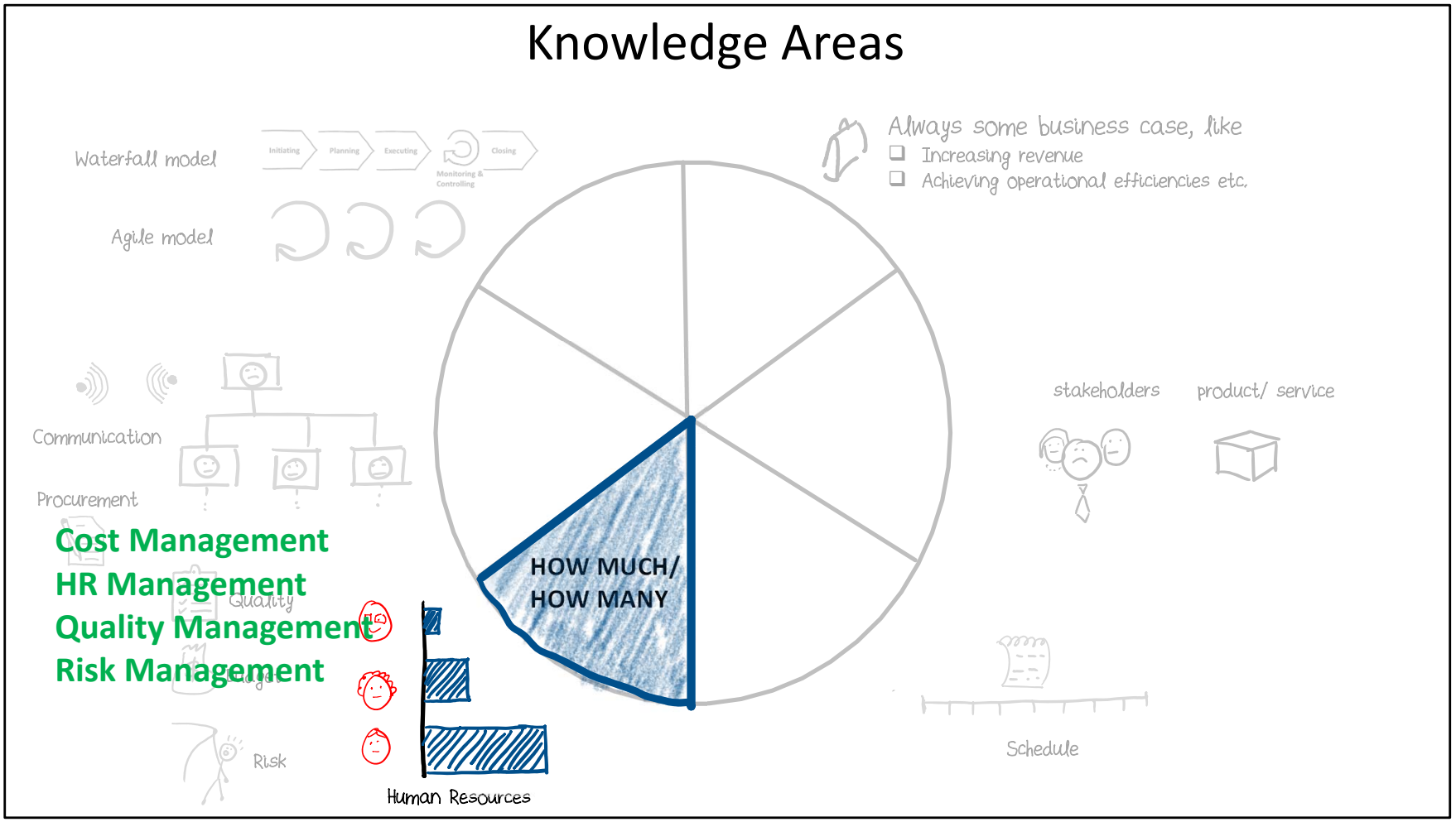
- Scope management in project management refers to the processes and techniques used to define, validate, and control the work that needs to be done on a project.
- It involves identifying all the project deliverables, requirements, and objectives, as well as establishing a plan for how to accomplish them.
- The goal of scope management is to ensure that the project stays on track and that all project work is completed within the agreed-upon timeline and budget.

Knowledge Areas



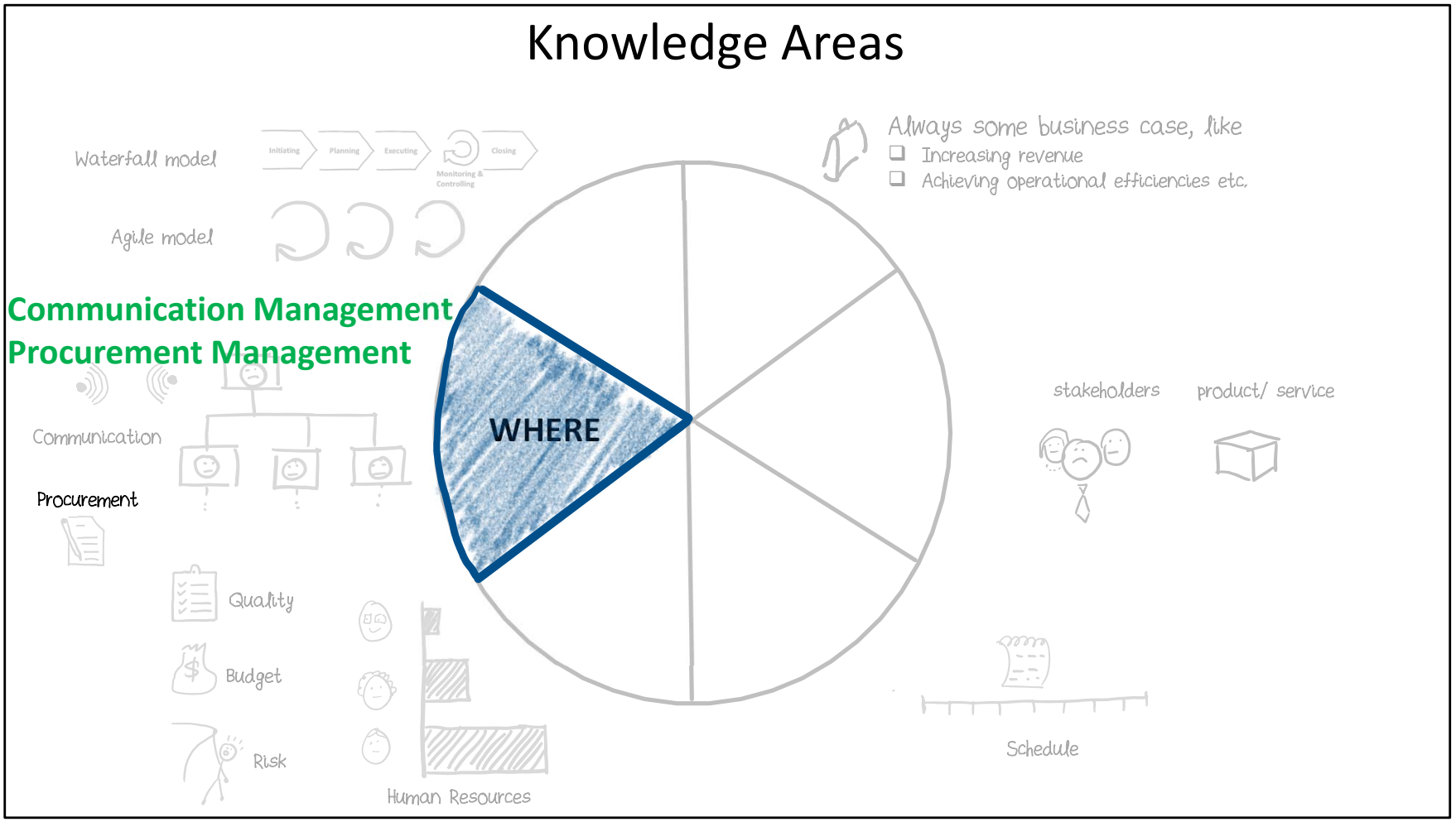
- Schedule management is a knowledge area in project management that deals with the planning, development, monitoring, and control of project schedules.
- It includes the processes required to ensure that the project is completed on time, taking into account all the necessary tasks and resources required to deliver the project objectives.
- The main goal of schedule management is to create a schedule that is realistic, achievable, and meets the needs of all stakeholders.

Knowledge Areas



- The next knowledge areas are quantitative and focus on measuring certain aspects of the project
- Cost management deals with estimating resources cost and establishing budgets to determine if the project continues or stops
- Resource management involves managing people working on the project, including conflicts and motivation, and ensuring their effective use
- Quantity management ensures that the project meets the requirements and quality standards set out in the planning process
- Risk management is concerned with identifying and planning for potential risks and evaluating their probability of impact, including positive consequences that can improve project outcomes or efficiencies

Knowledge Areas



- The Communications Management and Procurement Management are two knowledge areas we will discuss in the WHERE portion.
- Communication Management processes are related to general communication among stakeholders and the project team, and the project manager's communication skills are essential to coordinating and delivering the project.
- Processes in Communication Management ensure that project information, including plans, assessments, and meetings, are collected, documented, and archived properly.
- Procurement Management processes are involved in purchasing goods or services from external vendors or contractors, and discussions assume the perspective of a buyer.