PM²

Project Management Methodology

Guide Open Edition

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Guide - Open Edition

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1 An Introduction to the PM² Guide

This guide provides an introduction to the PM² Project Management Methodology. It has been kept as lean as possible while still providing enough information to help you understand and start using the PM² Methodology effectively.

This guide is:

- for entry-level Project Managers and project teams wishing to learn more about Project Management and the PM² Methodology.
- for experienced Project Managers (PMs) and team members who wish to learn more about the PM² Methodology.
- a source of information that will enable Project teams to start using the PM² Methodology in their projects.

It provides:

- a common vocabulary (glossary) which makes it easier for project teams to communicate and apply project management concepts.
- best practices– it's up to the Project Managers and project teams to choose the PM² practices that will bring most value to their projects.
- A link to the Agile PM² and to the PM² Project Portfolio Management models.
- links to PM² resources (online resources, artefact templates and examples).

1.1 About the PM² Methodology

PM² is a Project Management Methodology developed by the European Commission. Its purpose is to enable Project Managers (PMs) to deliver solutions and benefits to their organisations by effectively managing project work. PM² has been created considering the environment and needs of EU Institutions and projects, in order to facilitate the management of projects' complete lifecycle.

PM² incorporates elements from a wide range of globally accepted project management best practices, described in standards and methodologies, as well as relevant European Commission communications and operational experience from various internal and external projects.

PM² is a light and easy-to-implement methodology which makes it possible for project teams to tailor it to their specific needs. PM² is fully supported by a comprehensive training programme, workshops, coaching sessions, online documentation, and an active Community of Practice (CoP) (currently only available within the European Commission and a number of affiliate European Institutions).

The PM² Methodology provides:

- a project governance structure.
- process guidelines.
- artefact templates.
- guidelines for using artefacts.
- a set of effective mindsets.

PM² improves the effectiveness of project management by:

- improving communication and the dissemination of information.
- clarifying expectations as early as possible in the project's lifecycle.
- defining the project lifecycle (from Initiating to Closing).
- providing guidelines for project planning.
- introducing monitor and control activities that are necessary for managing a project.
- proposing management activities and outputs (plans, meetings, decisions).
- providing a link to agile practices (e.g. Agile PM²).

1.2 The Centre of Excellence in PM² (CoEPM²)

The purpose of Centre of Excellence in PM² is to provide the European Commission and EU Institutions with high-quality Project Management infrastructure, support and consulting services. The CoEPM² supports internally the PM² Methodology, coordinates an inter-institutional Project Support Network (PSN) and promotes PM² through the Open PM² initiative.

1.3 The Open PM² Initiative

Open PM² is an initiative taken by the European Commission bringing the PM² Methodology and its benefits closer to its broader stakeholders and user community.

The goal of the Open PM² is to provide open access to the PM² Project Management Methodology and overall PM² Offering to all European Union Institutions, Contractors and the broader EU stakeholder groups. This will enable increased effectiveness in the management and communication of project work serving the objectives of the European Union and needs of Member States and EU citizens.

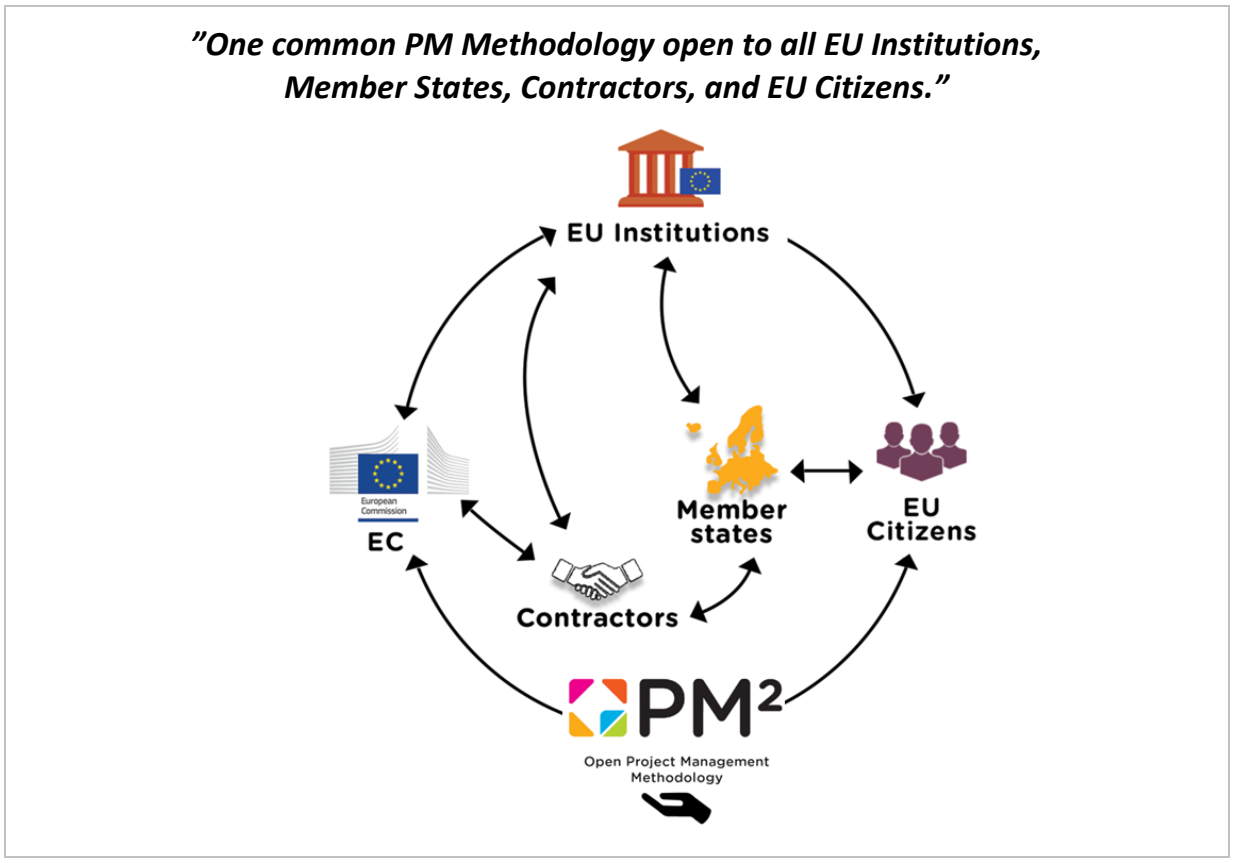

Fig 1.1 Open PM² Synergies

Opening PM² aims to help avoid repeating mistakes of the past of replicating efforts and sponsoring divergent Project Management approaches based on *differences* rather than investing in converging approaches based on *similarities and common interest* of the broader EU Public Administration and beyond.

Opening PM² aims to contribute towards the increase in project management competency within the European Union and lead to increased project efficiency and success. Open PM²:

- achieves rationalisation of Project Management approaches across the EU.
- establishes a common language & processes resulting effective project communication.
- enables work transparency and visibility for cross-organisational project collaborations.
- enables higher quality project management enabling cost/effort efficiency.
- enables better monitoring and controlling of EU funded projects and grants.
- materialises the European Commission decision of 12 December 2011 (2011/833/EU) on the *"reuse of Commission documents to promote accessibility and reuse."*

1.3.1 Open PM² Publications

The CoEPM² provides a central online location for all PM² information, publications, etc.

- PM² Publications http://europa.eu/PM2/Publications
- Contact EC-PM2@ec.europa.eu

1.3.2 Project Support Network (PSN)

The PM² Project Support Network (PSN) is a network of Local Project Support Offices (LPSOs) which are coordinated and supported by the Centre of Excellence in PM². The PM² Project Support Network (PSN) aims to become a decentralized Project Management support network, providing guidance and support to PM² users on both the PM² Methodology and the effective use of Project Management Tools & Techniques.

The Project Support Network (PSN):

- promotes the exchange and sharing of knowledge, experiences and best practices.
- makes it possible to collect feedback to continuously improve and build on the PM² Methodology.
- enables the Local Project Support Offices (LSPOs) to support each other as a community.
- is coordinated and supported by the Centre of Excellence in PM².
- depends on the contributions of PM² champions (individuals and organisations).

Join the Open PM² Community and stay in touch for updates:

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2 Project Management

This section introduces basic project management concepts and provides the context for a better understanding of the PM² Methodology.

2.1 About Projects

2.1.1 What is a project?

A project is a **temporary** organisational structure which is setup to create a **unique** product or service (output) within certain constraints such as time, cost, and quality.

- **Temporary** means that the project has a well-defined start and end.
- **Unique output** means that the project's product or service has not been created before. It may be similar to another product but there will always be a certain level of uniqueness.
- A project's output may be a **product** (e.g. new application) or a **service** (e.g. a consulting service, a conference or a training programme).
- The project is defined, planned and executed under certain external (or self-imposed) **constraints** of time, cost, quality, as well as other constraints related to the project's organisational environment, capabilities, available capacity, etc.

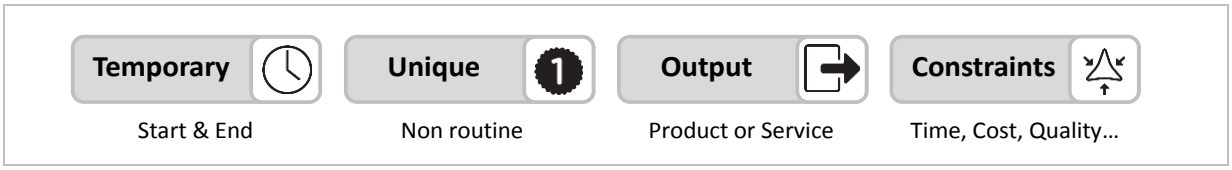

Fig 2.1 Key project characteristics

A project ends when its objectives have been achieved and all deliverables have been produced and accepted by the organisation or person who requested the project (the client). All deliverables are then handed over to the client and the project team is disbanded.

Projects are different from normal day-to-day work (operations) and require a special temporary organisational structure in order to:

- define the project scope and deliverables (products or services).
- create a business justification for the investment (define the project's value for the organisation, the business context, list of alternative solutions, etc.).
- identify project stakeholders and define a project core team.
- create the project plans to help guide and manage the project.
- assign and coordinate project work to teams.
- monitor and control of the project on a daily basis (progress, changes, risks, issues, quality, etc.).
- handover the deliverables and administratively close the project.

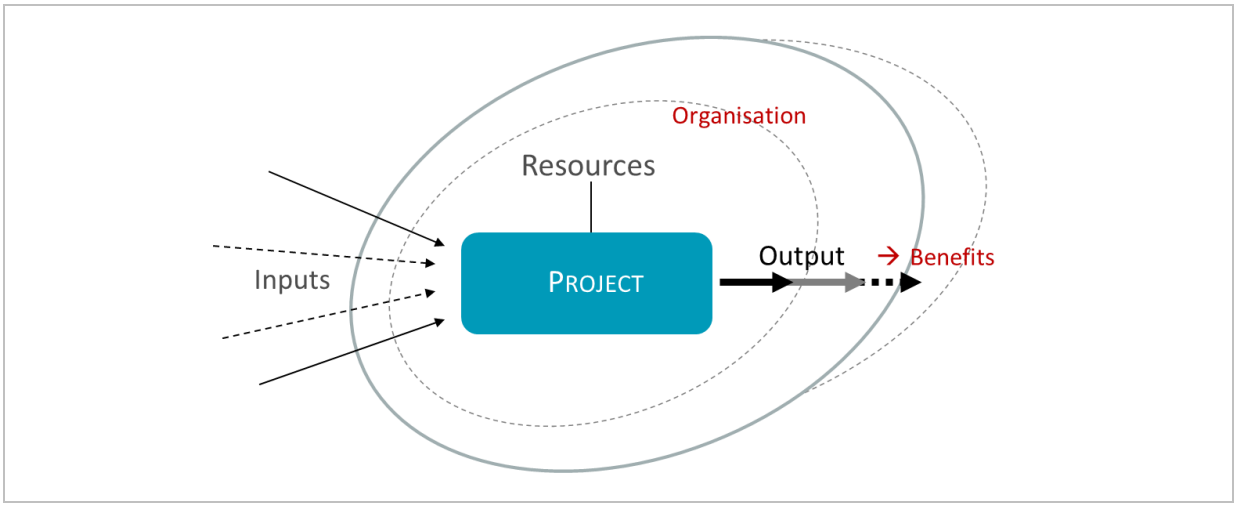

Fig 2.2 A project as a transformational process, turning ideas into reality

2.1.2 Why we do projects?

Each project's goal is to introduce a new product or service or to change an existing one. achieving the goal is expected to bring about benefits to the organisation (e.g. a new organisation-wide document management system can increase productivity by introducing a new way of searching, reading and filing documents). A project can also be seen as a transformational process, turning ideas into reality (see Figure 2.2).

Projects may be carried out to maintain current business operations (e.g. maintain current level of service, relationships, productivity), to transform business operations, or to improve the way of working so the organisation can be more efficient in the future.

There are many different reasons for why projects are started:

- A client request for a new product or service.
- A market demand or opportunity for a new product or service.
- A change in legislation or organisational need.
- Making use of a new technology to reduce costs.
- Reacting to a new product or service.
- A merger of two or more departments, which needs process integration.
- The update of an existing process.
- The result of an audit which outlines improvements that should be made.
- An office move.
- An awareness campaign.
- The need for proof-of-concept.
- The announcement of the termination of support for an existing IT platform.
- Migration of information to a new document management system.
- The improvement of an existing service.

2.1.3 Project outputs, outcomes, benefits

Project teams tend to focus their efforts on producing deliverables. However, the reality is that project deliverables are merely a means to an end, as the real purpose of a project is to achieve certain outcomes which will yield measurable benefits.

Therefore, it is important for everyone involved in a project's management and execution (managers and team members) to understand the relationship between project outputs, outcomes and benefits, and to clearly identify them for their projects. This allows the project participants to make sure that they are working on the right things, not lose sight of the project's original purpose, and avoid producing deliverables with little (or no) value to the organisation.

More specifically, project outputs (deliverables) are products or services which introduce something new (a change) which will result in an outcome, while benefits are the measurable improvements resulting from an outcome. Note that project outcomes and benefits are often realised only after the project has closed.

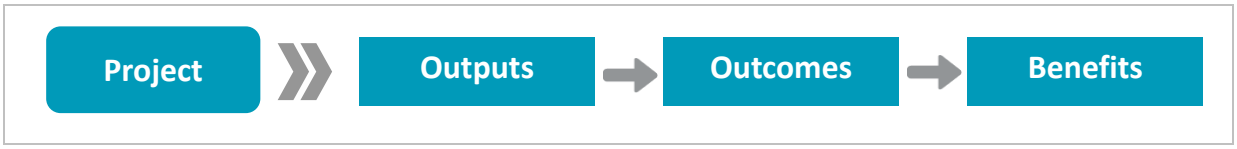

Fig 2.3 Project outputs, outcomes and benefits

The table below illustrates this with a simple example:

Example of outputs, outcomes and benefits.	
Project Output	Adoption of the PM² Methodology within an organisation (DG, Unit, etc.).
Project Outcomes	• Increased project quality. • Improved visibility of project objectives, status and forecasts. • Capability to have more in-depth control over contractor work and deliverables.
Project Benefits	• Project cost overruns decreased by 30 % • Productivity increased by 30 %.

2.2 About Project Management

2.2.1 What is Project Management?

Project Management can be described as the activities of planning, organising, securing, monitoring and managing the necessary resources and work to deliver specific project goals and objectives in an effective and efficient way.

The project management approach used should always be tailored to serve the needs of the project. When using PM², a Project Manager (PM) should use (and perhaps further customise) only the parts that contribute to their project's effective management.

2.2.2 Project Documentation

Project documentation is a key activity of project management and carries through from the start of a project to its completion. The purpose of project documentation is to:

- help people think something through: documentation sharpens thinking through the process of having to put vague thoughts and plans into words.
- crystallise planning.
- define the project scope for approval: ensure agreement by all project stakeholders and project team members (so that everybody shares the same expectations on what is to be delivered, what to do, when to do it, etc.).
- provide all stakeholders with a clear picture of the project requirements.
- facilitate communication with internal and external groups.
- provide a baseline for the monitoring and control of a project's progress.
- document important decisions made.
- provide the information required by official audits.
- support organisational memory and act as an historical reference which can be used to increase the chances of success of future projects.

Note that project documentation should of course adhere to the organisation's and project's quality standards regarding format, style, etc., but above all it should fulfil its purpose and be easily understandable and user-friendly.

2.2.3 The Project Support Office (PSO)

A Project Support Office (PSO) is an organisational body (or entity) that provides support project management services. The Project Support Office's responsibilities can range from providing simple Project Management support functions to helping link projects to strategic goals. Not all organisations have a Project Support Office (PSO).

A Project Support Office (PSO) can:

- offer administrative support, assistance and training to Project Managers (PMs) and other staff.
- collect, analyse and report on project progress information.
- assist with using a Project Management Information System (PMIS), project scheduling, resource planning and coordination.
- maintain a central project repository (of Project Documents, Risks, Lessons Learned).
- coordinate configuration management and quality assurance activities.
- monitor adherence to Methodology guidelines and other organisational standards.
- tailor the Project Management methodology to new best practices, and help project teams to implement it effectively in their projects.

2.2.4 Programme Management

A programme is defined as a group of related projects grouped together to facilitate a level of management which will make it possible to achieve additional objectives and benefits that would not have been possible if these projects were managed individually.

Like projects, programmes are a way of achieving strategic goals and objectives. However, programme management is different from multi-project management (managing many projects in parallel). A Programme Manager coordinates efforts between projects but does not directly manage the individual projects.

2.2.5 Project Portfolio Management

A Project Portfolio is a collection of projects, programmes and other activities which are grouped together for better control over financial and other resources, and to facilitate their effective management in terms of meeting strategic objectives. The projects or programmes of the portfolio may not necessarily be dependent on or related to each other. From a strategic point of view, portfolios are higher-level components than programmes and projects. The portfolio level is where investment decisions are made, resources are allocated, and priorities are identified.

It is very important for people involved in project definition and management to understand the differences between projects, programmes and portfolios, as well as their specific management requirements. They should also be able to define or position their work at the right level (e.g. whether their work can be better managed as a programme or as a network of projects), while always being aware of the management and organisational context of their work.

Fig 2.4 Relationships between strategy, project, programme, portfolio and operations

2.2.6 Projects vs Operations

Projects are temporary and therefore should have a definite start and end. A project should be deemed as completed when it is determined that its planned goals and objectives have been accomplished.

However, people often find themselves involved in 'projects' that have been going on for years, working with moving targets or a continuously expanded scope which sometimes includes activities which should be classified as maintenance or operations. These are situations where the projects have been allowed to either become uncontrollable, or to move into operations (maintenance) mode.

In most projects, the operations period begins after the project's main products have been produced and accepted by the client.

How do you recognise that a project has slipped into operations mode?

- The main project deliverables have been produced and have been accepted by the client.
- The main project output (deliverable) is being used.
- Support is provided to users (by former project team members or via a help desk).
- Maintenance activities are undertaken.
- Minor updates (improvements) are planned and implemented over time.

2.3 Project Environment

2.3.1 Project Organisation

It would be convenient to assume that all PM² Project Managers (PMs) operate within their organisations in a homogenous environment and with always the same levels of authority and responsibility. This is generally not the case, however.

There are typically several ways of organising projects within organisation. And in many cases, a project's organisation can be characterised as a composite or a hybrid organisation, which is a combination of several of the following structures:

The Functional Structure

In a functional organisational structure, project work is integrated into the work performed by the permanent organisation. Project members and other resources are 'borrowed' from multiple sections of the functional organisation. Usually, the Project Manager (PM) has limited authority and needs to involve senior management to manage important project issues, while their project work is often viewed as having lower priority than everyday work.

The Projectised Structure

On the other side of the spectrum, in a projectised organisation, a permanent (functional) hierarchy exists and all work is organised and performed within temporary project organisations. Project resources are brought together specifically for the purpose of a project and work more or less exclusively for the project. At the end of the project, resources are either reassigned to another project or returned to a resource pool.

The Matrix Structure

A matrix organisation is a blended organisational structure. Additional temporary project organisations are created alongside the functional hierarchy to achieve specific project goals and work. The Project Manager's (PM) role is recognised as central and key for the project's success, and the Project Steering Committee (PSC) typically delegates enough authority and responsibility to the Project Manager (PM) and the Business Manager (BM) for them to manage the project and its resources. Matrix organisations can be further divided into weak, balanced, and strong matrix organisations. The difference between these three is primarily the level of authority and autonomy given to the project organisation.

2.3.2 Typical Expectations of a Project Manager

Project Management is much more than creating schedules and budgets and involves applying a breadth of technical and behavioural skills which must be practised to build up knowledge and experience.

How does someone become an effective Project Manager (PM)?

- Understand how projects are handled within the organisation (ask colleagues).
- Review any project methodologies, standards and frameworks that exist in your organisation.
- Follow a Project Management course (e.g. a course from the PM² Training Programme).
- Practise Project Management and examine how you manage your project today, what you are doing well, and where you can improve.
- Become an active member of the PM² Community, actively participate in the forum discussions, and learn from questions asked by other Project Managers (PMs).
- Talk to other more experienced Project Managers (PMs) about how they run their projects.

It is up to the Project Manager (PM) to acquire these skills and invest in the practice of Project Management. Project Management knowledge comes from study, discussions, sharing experiences, practice and reflecting on what went well and what can be improved.

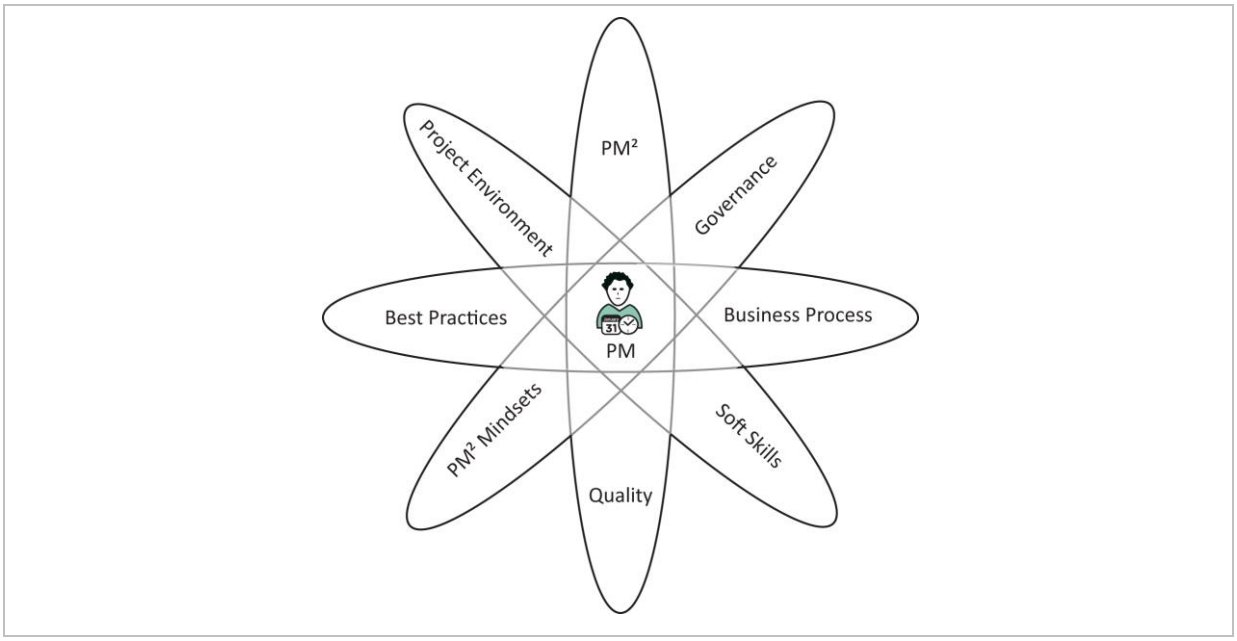

Fig 2.5 What Project Managers (PMs) should understand.

2.3.3 Competences of Project Managers

Beyond the core technical skills required from Project Managers (PMs), other competences which allow them to work effectively with people and within the broader organisational context are also needed. These include the contextual and behavioural skills necessary to manage complex projects with diverse teams and stakeholder groups with pluralistic and conflicting priorities.

Project Managers (PMs) should understand:

- the Project Management Methodology used in their organisation (e.g. PM²).
- how to effectively manage the initiation, planning, execution, control and closing of a project.
- how to communicate, lead, motivate, negotiate, solve problems and deal with issues, conduct meetings and workshops, report project status, etc..
- the business context of the project and the general project environment (i.e. sociocultural, political, physical, etc.).
- subject-specific knowledge (e.g. IT, policy, etc.).
- organisational policies and standards (e.g. security, organisational architecture, audits, etc.).
- how the end-product or service will be maintained after it is delivered.

Most, if not all, of the above-mentioned points are also required for the Business Managers (BM).

The table below lists the main competences for Projects Managers (PMs) and Business Managers (BMs):

People Competences	Perspective Competences
• Self-reflection and self-management • Personal integrity and reliability • Personal communication • Relationships and engagement • Leadership • Teamwork • Conflict and crisis • Resourcefulness • Negotiation • Results Orientation	• Strategy • Governance, structures and processes • Compliance, standards and regulation • Power and interest • Change and transformation • Culture and values *Source: IPMA-ICB (adapted)*

The above competences are not necessarily independent, but each of them can influence many others. However, the filter that determines what is more important (e.g. self over common interest, time over quality, results over balance, etc.) lies in our values and ethics. Therefore, competences related to values appreciation and ethics have a prominent position compared to the rest because it is our ethical profile that guides us on how we should apply our competencies, and determines what we consider good or bad, right or wrong in every given situation, decision and action.

Note that Project Managers (PMs) and Business Managers (BMs) should demonstrate these competencies effectively, consistently and appropriately to the given situation, while remaining aligned with organisational and professional values and ethics. The purpose is to achieve the project goals by making (and acting on) the right decisions, at the right time, in the right way, and for the right reasons. This can be a challenge for Project Managers, who often face tensions between making decisions based on goals and values, and meeting the needs of various stakeholders.

These tensions are easier to manage when Project Managers (PMs) have achieved a clear awareness and a balanced development of an ethical disposition which involves the connection of goals and skills, with character integrity and moral virtue.

To read more on this topic see Appendix G.2. Personal and Professional Virtues.

3 Overview of the PM² Methodology

3.1 The House of PM²

The PM² Methodology is built on Project Management best practices and is supported by four pillars:

1. a project governance model (i.e. Roles & Responsibilities)
2. a project lifecycle (i.e. Project Phases)
3. a set of processes (i.e. Project Management activities)
4. a set of project artefacts (i.e. templates and guidelines).

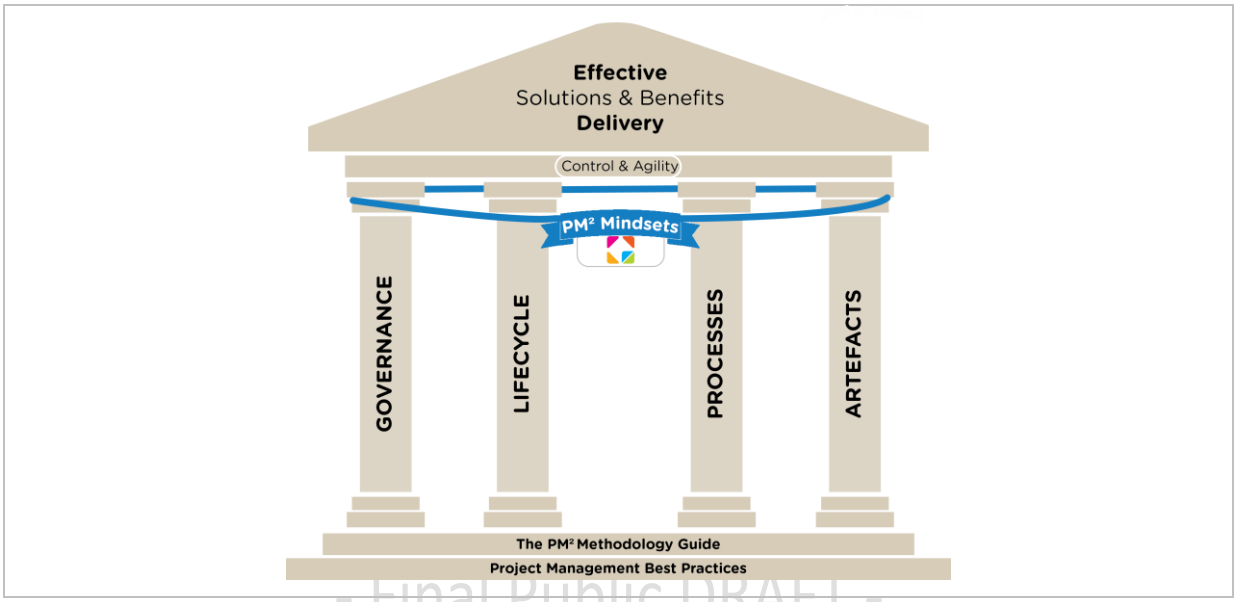

Fig 3.1 The House of PM²

The spirit of the PM² Methodology is further defined by the PM² Mindsets, which provide the glue that holds together the PM² practices, and provide a common set of beliefs and values for PM² project teams.

3.2 The PM² Lifecycle

Every project has a beginning and an end: their lifecycle has identifiable start and end points, which can be associated with a time scale. The project lifecycle includes all project activities from the point of inception through to the final completion of the project.

The PM² project lifecycle has four phases. Each phase represents a period of time in the life of the project during which similar type of activities are executed (e.g. planning type activities 'peak' in terms of effort during the planning phase, etc.). Note that the interfaces between phases are almost never clearly separated as activities related to a specific phase (e.g. planning activities) continue to be executed during the next phase(s) (e.g. Executing Phase). Therefore, phases are defined by convention: at a given moment a project's phase is declared as the output decision of a phase gate.

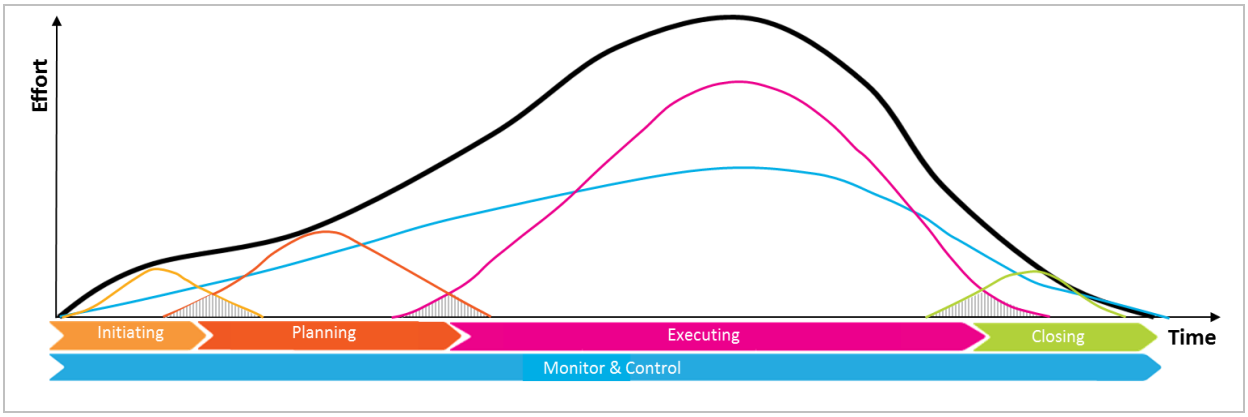

Fig 3.2 The PM² project lifecycle: overlapping of phase-related activities

In the beginning, projects focuses on initiating and planning activities, in the middle on implementation, monitoring and controlling activities, and in the end on acceptance, transitioning and closing activities.

Inexperienced project teams can fail to see the importance of the work done the initial project phases. They start working on project deliverables that are not adequately defined or planned and the result is the delivery of unusable outputs of poor quality, or of little value to the end-users. This is a common and costly mistake project teams make and is often the root cause of overall project failure and failure to realise intended benefits.

Project Phases	Description
1. Initiating	Define the desired outcomes, create a Business Case, define the project scope, and get the project off to a good start.
2. Planning	Assign the Project Core Team, elaborate the project scope, and plan the work.
3. Executing	Coordinate the execution of the project plans. The team produces the project's deliverables.
4. Closing	Coordinate the project's formal acceptance, report on the project's performance, capture lessons learned and post project recommendations, and administratively close the project.
Monitor & Control: Throughout the project's duration, monitor and control all project work and management activities. Monitor project variables, measure progress, manage changes, address risks and issues and identify corrective actions as per the project's needs.	

3.2.1 Initiating Phase

The first phase of a PM² project is the Initiating Phase. Its purpose is to define what the project will do (formulate the project's objective), make sure the project is aligned to the organisation's strategic objectives, get the project off to a good start by performing some initial planning, and provide the necessary information to get approval to continue to the Planning Phase. The main input for this phase is a (client) request for addressing a need, problem or opportunity.

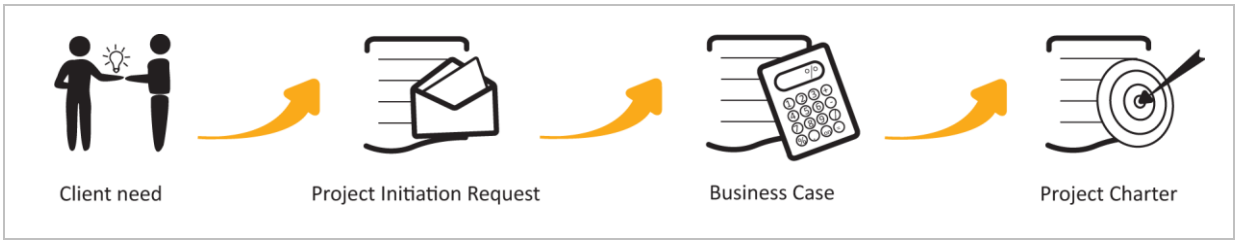

Fig 3.3 Overview of the Initiating Phase

The following activities are part of the Initiating Phase:

- Creation of the Project Initiation Request. This contains information about the requestor, business needs and desired project outcomes.
- Creation of the Business Case. The Business Case provides the project justification and defines budgetary requirements. Typical document sections include the business context, problem descriptions, project description, possible alternative solutions, costs, and timescale.
- Creation of the Project Charter. This document provides more details on the project definition in terms of scope, cost, time, and risk. It also includes information such as milestones, deliverables and project organisation.

The Business Case and Project Charter provide the project's definition and direction. The Project Manager (PM) and the Project Core Team (PCT) reference and use them throughout the project's duration.

At the end of the Initiating Phase, the Project Steering Committee (PSC) or other Appropriate Governance Body (AGB) reviews the above documents and decides whether to allow the project to move forward.

3.2.2 Planning Phase

During the Planning Phase, the project's objective is verified and developed into a specific and workable plan ready to be carried out. This involves:

- specifying the project scope and determining the appropriate approach for the project.
- deciding on a schedule for the various tasks involved, and estimating the necessary resources.
- developing the details of the project plans.

The Project Work Plan can be updated several times during the Planning Phase as the Project Manager (PM) and team try to achieve the optimal balance between available resources, project objectives and various project constraints. Once the Project Work Plan has been agreed and finalised, it is baselined and signed off.

The following activities are part of the Planning Phase:

- running the Planning Kick-off Meeting to officially starts the Planning Phase.
- creating the Project Handbook, which defines the management approach for the project.
- finalising the Project Stakeholder Matrix, which identifies all project stakeholders.
- creating the Project Work Plan (Work Breakdown, Schedule and Costs).
- creating other important plans such as the Communications Management Plan, the Transition Plan, and the Business Implementation Plan.

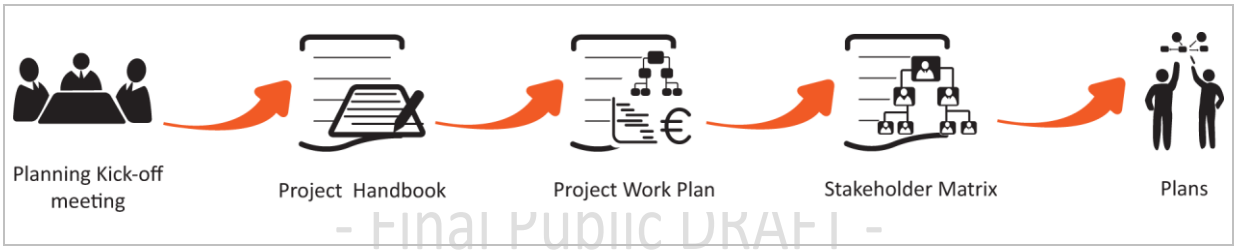

Fig 3.4 Overview of the Planning Phase

The Project Manager (PM) uses the outputs of the Planning Phase to request approval to move on to the Executing Phase. This decision to move on is taken by the Project Steering Committee.

3.2.3 Executing Phase

The following activities are part of the Executing Phase:

- running the Executing Kick-off Meeting.
- distribution of information based on the Communications Management Plan.
- performing Quality Assurance (QA) activities as defined in the Quality Management Plan to ensure that the project adheres to the agreed quality standards.
- coordinating project work, people and resources, and resolving conflicts and issues.
- producing the project deliverables in accordance with the project plans.
- handing over the deliverables as described in the Deliverables Acceptance Plan.

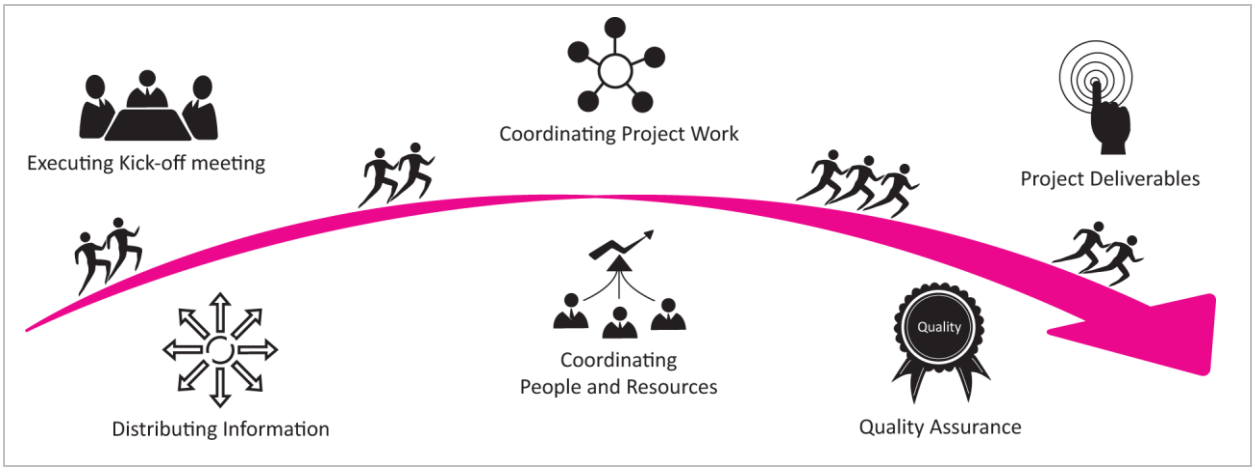

Fig 3.5 Overview of the Executing Phase

3.2.4 Monitor & Control

During Monitor and Control, all work is observed from the point of view of the Project Manager (PM). Monitoring is about measuring ongoing project activities (where we are in relation to the plan) and monitoring project variables (cost, time, effort) against project plans. Controlling is about identifying corrective actions to address deviations from plans, and to properly address issues and risks.

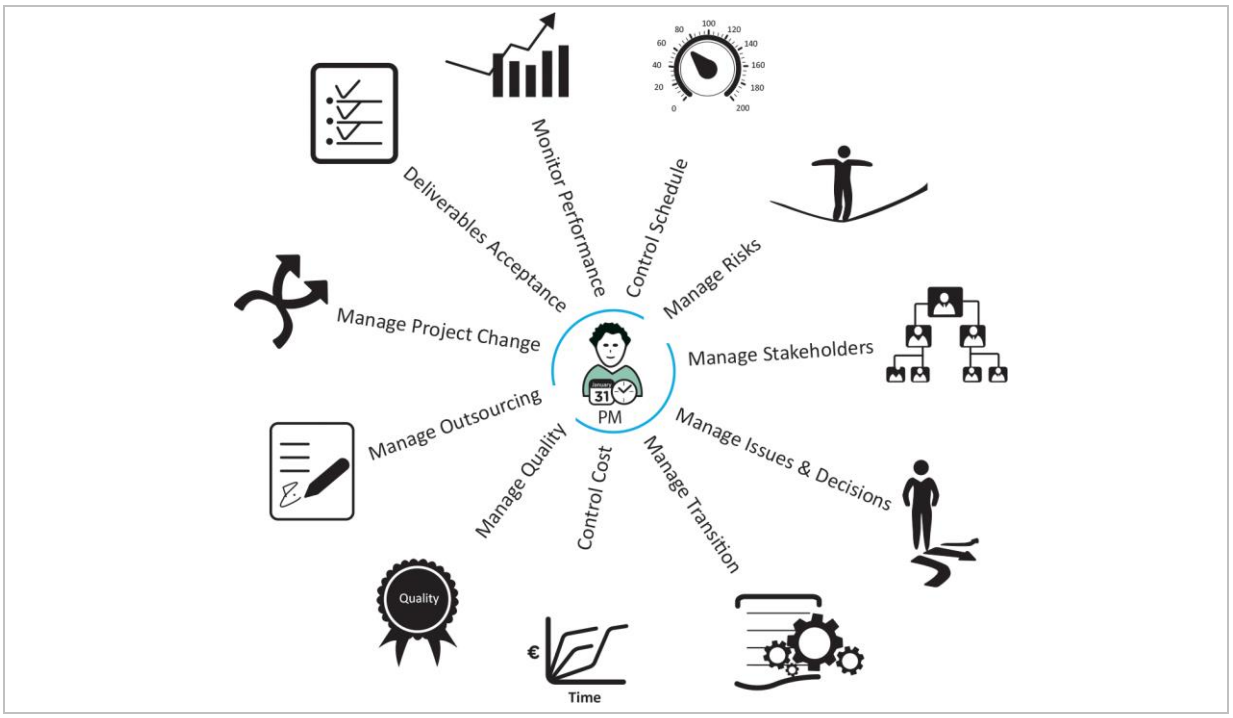

Fig 3.6 Monitor & Control activities

3.2.5 Closing Phase

During a project's Closing Phase, the finished deliverables are officially transferred to the care, custody, and control of the Project Owner (PO) and the project is administratively closed.

The Closing Phase starts with an official Project-End Review Meeting. The Project-End Report is created and includes information on overall project performance and Lessons Learned. The Project Manager (PM) also ensures that the deliverables produced are accepted, all project documents are correctly filed and archived, and that all resources used by the project are formally released.

The following activities are part of the Closing Phase:

- finalising all activities related to all deliverables, to formally close the project.
- discussing the overall project experience and Lessons Learned with the project team.
- documenting the Lessons Learned and the Best Practices for future projects.
- administratively closing the project and archiving all project documents.

Fig 3.7 Overview of the Closing Phase

3.2.6 Phase Gates and Approvals

At the end of each phase, the project passes through an approval gate. This is to ensure that the Project Steering Committee (PSC) reviews the project before it moves on to the next phase. These checkpoints contribute to the overall quality of the Project Management and allow the project to proceed in a controlled way.

The PM² phase gates are:

- **RfP** (Ready for Planning): At the end of the Initiating Phase.
- **RfE** (Ready for Executing): At the end of the Planning Phase.
- **RfC** (Ready for Closing): At the end of the Executing Phase.

3.3 PM² Phase Drivers and Key Artefacts

Projects depend on people to define, plan, execute and generally drive them throughout their lifecycle. The project drivers differ from phase to phase within a PM² project: the Project Owner (PO) is the main driver during the initiation of the project (initiates the project and is accountable for all documentation), while the Project Manager (PM) drives the Planning Phase (is responsible for coordinating the delivery of all project plans). The Project Core Team (PCT) drives the execution of the project plan and the creation of the project deliverables while the project stakeholders are the main drivers of the Closing Phase as they evaluate the project deliverables and overall performance.

The figure below shows the PM² drivers and key artefacts as inputs and outputs of the project phases.

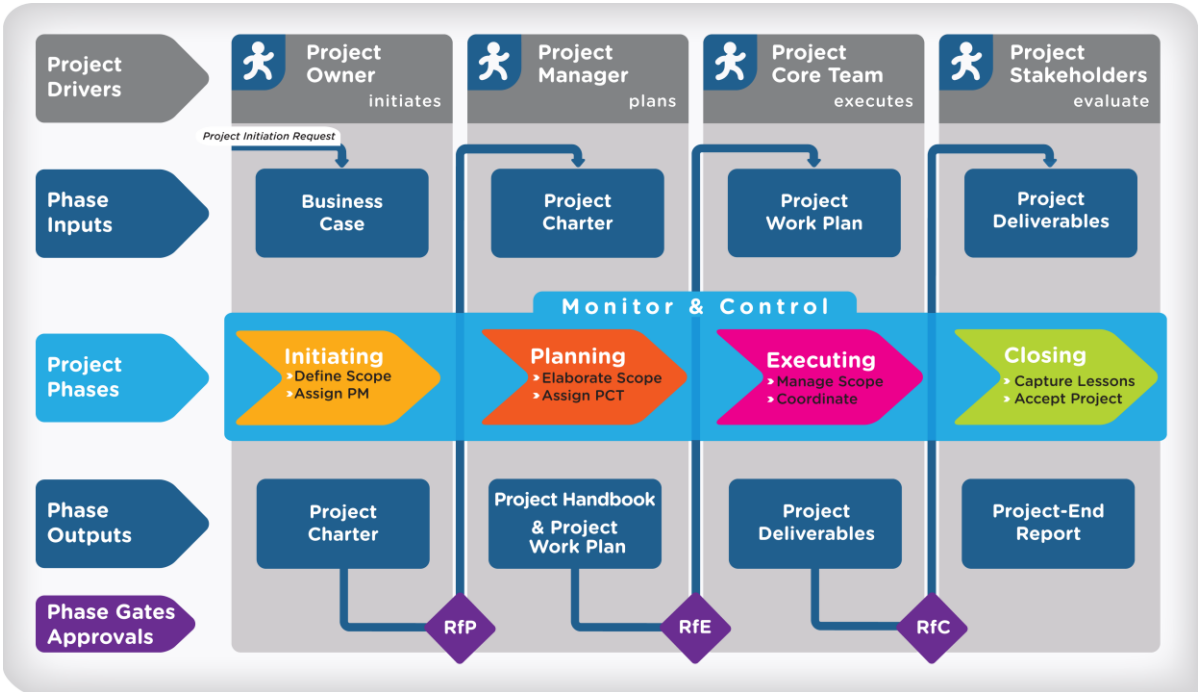

Fig 3.8 PM² Swimlane Diagram

Phase Input/Output	Description
Project Initiation Request	Formalises the commitment to explore further a problem, need or opportunity and captures the context.
Business Case	Captures the reasoning behind the project, provides justification and establishes the budgetary constraints.
Project Charter	Builds on the Business Case and defines the project scope and the high-level requirements and deliverables.
Project Handbook	Presents the project management objectives and the overall management approach, and documents the roles and responsibilities.
Project Work Plan	Includes a breakdown of the work to be carried out, estimates of the effort and costs involved, and the project schedule.
Project Deliverables	The complete set of project's deliverables as defined in the Project Charter and the Project Work Plan.
Project-End Report	Summarises the project experience, project performance, lessons learned and both successful project practices and pitfalls.

3.4 What is a PM² Project

Many of the PM² best practices can be applied to any type of project or work activity. However, the 'sweet spot' of applying the whole PM² Methodology is in managing projects with certain characteristics, i.e. PM² projects. A PM² project:

- is (above all) a project (i.e. not operations, not a work activity, not a programme, etc.).
- has a duration of more than 4-5 weeks, with more than 2-3 people involved.
- runs within an organisation and can subject to internal or external audits.
- requires a clearly defined governance structure and clearly assigned roles and responsibilities.
- requires approval of its budget and scope.
- includes more than just construction/delivery activities.
- includes transition and business implementation activities.
- requires a certain level of documentation, transparency and reporting.
- requires a certain level of control and traceability.
- has a broad base of internal (and external) stakeholders.
- may require the collaboration of several organisations, or several organisational units.
- contributes to raising the organisation's Project Management maturity.

A project can be managed as a PM² project if most of these characteristics are present.

3.5 PM² Mindsets

The PM² Methodology processes, artefacts, tools and techniques help project teams make decisions on trade-offs between the projects dimensions of time, cost, scope and quality.

The PM² Mindsets are the attitudes and behaviours that help project teams focus on what is really important to achieve the project's goals. Together they help navigate the complexities of managing projects in Organisations and make the PM² Methodology both more effective and complete.

Project Managers (PMs) and project teams who practice PM²:

1. **Apply PM²** best practices to manage their projects.
2. **Remain mindful** that the methodologies are there to serve projects and not the other way around.
3. Are **committed to** delivering project results with **maximum value** rather than just following plans.
4. Foster a project culture of **collaboration**, clear **communication** and **accountability**.
5. Ensure the support and **involvement** of the project's sponsor and stakeholders throughout the project's duration, including in the planning and implementation of the organisational changes needed to achieve the intended **project benefits**.
6. **Invest** in developing their technical and behavioural competences to **become better** project leaders.
7. **Share knowledge**, actively manage lessons learned, and contribute to the **improvement** of project management within their Organisations.
8. Are **inspired** by the PM² Guidelines on Ethics and Professional Conduct (see Appendix G).

Project Managers (PMs) and project teams who practice PM² should ask the following important Infrequently Asked Questions (IAQs):

- **Do we know what we are doing?** Tip: Develop a clear and shared project vision. Manage the project using a holistic approach and optimise the whole project, not just parts. Follow a process but stay Agile and frequently 'remember why' you're doing something in the first place.
- **Do we know why we are doing it? Does anyone really care?** Tip: Make sure your project matters. understand its goals, its value and impact, and how it relates to the organisational strategy. Define (upfront) what project success is and deliver maximum value and real benefits, not just outputs.
- **Do we know who is doing what**? Tip: Know what you should be doing, and make sure others know what they should be doing. Is it clear to everyone? Clearly define and understand roles, responsibilities and accountabilities.
- **Deliver at any cost or risk**? Tip: Show respect for people's work and EU funds and avoid high-risk behaviour and tactics. Always keep in mind that it's not just about the end result, how you get there also matters. Manage your projects based on positive values and principles.
- **Is this a task for the requestor or the supplier team**? Tip: Make sure that business/requestor and supplier groups work as one team towards the same goal. Real teamwork really works if you foster clear, effective and frequent communication.
- **Should I be involved**? Tip: Contribute from any position. Be proud of the skills, value, and positive attitude you bring to the project. Help everyone who needs to be involved get involved. Promote and facilitate the contribution of all stakeholders.
- **Have we improved**? Tip: Commit to ongoing self- and organisational improvement by gathering and sharing knowledge. Project teams should reflect on how to become more effective, and adjust their behaviour accordingly.
- **Is there life after the project**? Tip: The product (or service) lifecycle has just begun! Make sure you have contributed to its success.

The PM² Mindsets are the glue that holds the PM² processes and practices together, and provide a common set of beliefs and values for all PM² practitioners**.** The PM² Mindsets:

- help project teams navigate through the complexities of project reality.
- help project teams (re)position project management goals in a wider organisational context.
- remind project teams what is important for project success.
- are useful reminders of effective attitudes and behaviours.

3.6 Tailoring and Customisation

In order to ensure that the Methodology effectively serves the project's needs, some level of tailoring or/and customisation may be required.

Tailoring refers to changes to specific parts of the methodology (e.g. process steps). It is done in order to adapt the methodology to the needs of specific types of project (e.g. IT, promotional, events, etc.) while taking into account organisational processes, policies, and culture. Tailoring makes more sense at the organisation level (e.g. at unit level), but minor tailoring can also take place at the project level. All tailoring should be documented in the Project Handbook.

However, as every project is unique, additional customisation may also be required. This takes place at the project level and reflects the project's specific management needs.

The following guidelines must be taken into account for all tailoring and customisation:

- Significant deviations from the methodology should be avoided, as the methodology was designed as an integrated whole.
- There should be a balance between the levels of control a project needs and the extra effort such control requires.
- The tailored and customised approach should remain aligned with the spirit of the PM² Methodology as reflected in the processes, templates, guidelines and mindsets.

3.7 PM² and Agile Management

PM² recognises the complex and uncertain nature of many types of project and the positive contribution of the *Agile way of thinking* to their effective management.

Agile approaches meet various challenges, which grow with the size of the organisations in which they are applied. In the case of the European Commission, these challenges include coordination between Agile and non-Agile teams, compliance with various organisational governance and audit requirements, and organisational architecture and interoperability constraints.

PM² provides a structure that helps Agile teams to achieve the desired agility while still accommodating tight procurement and audit requirements, working with contractors, collaboration with other projects, coordination with programme and portfolio levels, and other organisational units or even external organisations.

What is Agile?

Agile is an approach to managing projects based on a specific set of principles and practices which promote adaptive planning, evolutionary development, early delivery, and continuous improvement. It encourages rapid and flexible response to change.

Agile takes into account the inherent uncertainty of the project environment and creates an organisation that is highly adaptive. It uses short feedback loops to quickly respond to changes in product requirements and to constantly improve its processes.

Agile's key characteristics are:

- focus on delivering value early on and frequently throughout the project's duration.
- decisions made based on what is known.
- close cooperation among all parties involved.
- continuous stakeholder involvement at all levels.
- plans created with the involvement of team members.
- incremental development with short cycles.
- scope management through the continuous (re)prioritisation of tasks.
- embracing change and continuous learning and improvement.
- just enough documentation and control.

For more information about Agile see Appendix E: PM² and Agile.

4 Project Organisation and Roles

4.1 Project Stakeholders

Project stakeholders are people (or groups) who can affect or be affected by the activities carried out during a project's lifecycle and/or by the project's output(s) and outcome(s). Stakeholders can be directly involved in a project's work, can be members of other internal organisations, or can even be external to the organisation (e.g. suppliers, users, general public, etc.).

Depending on the complexity and scope of a project, there may be few or many stakeholders. however, the more people the project impacts, the more likely it is that it will affect people who have some power or influence over the project. These people can be useful supporters of the project, or may choose to block it. Therefore, the effective management and involvement of project stakeholders becomes a very important task for project success.

4.2 Project Organisation and Roles

The following diagram gives an overview of the main roles in the project organisation, from a Project Management point of view. Each of these roles is briefly explained below and more information can be found later in this chapter.

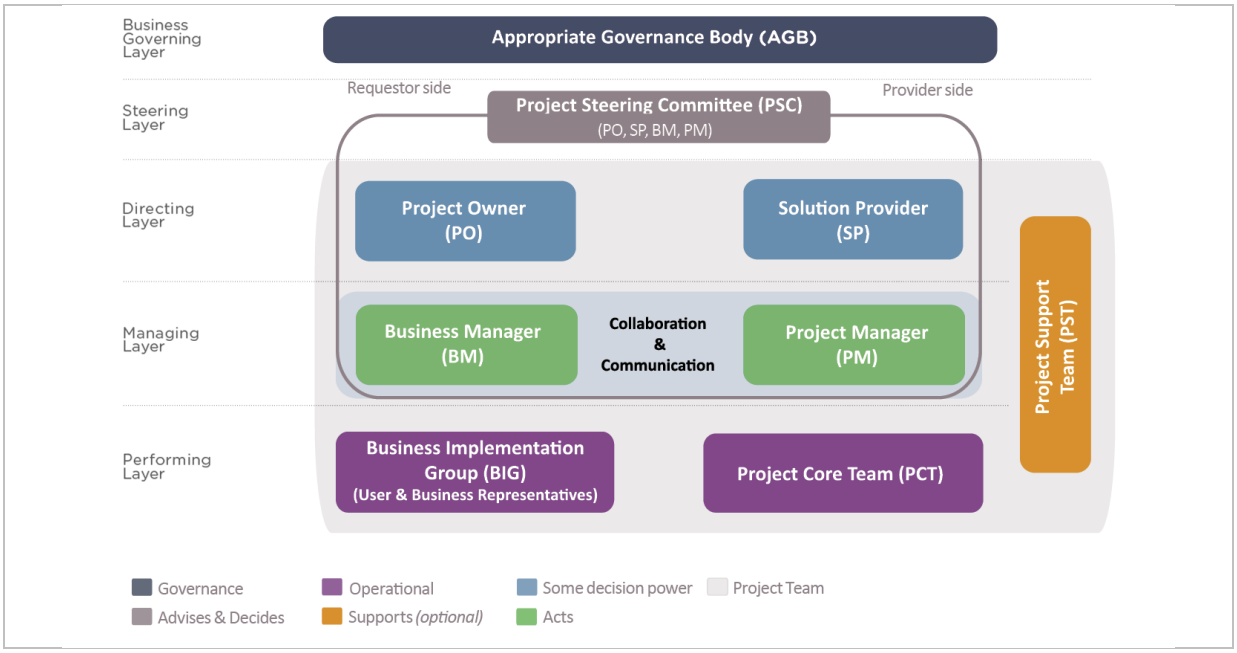

Fig 4.1 Project Organisation

Note that there is only one project team, composed of the people assuming the roles defined in the Performing, Managing and Directing Layers. These people need to work together as a team for the project to succeed.

Business Governing Layer
The Business Governing Layer determines the vision and strategy for the entire organisation. It consists of one or more management committees operating at director level. It is here that priorities are defined, investment decisions are made, and resources are allocated.

Steering Layer
The Steering Layer provides general project direction and guidance, keeping the project focused towards its objectives. It reports to the Appropriate Governance Body (AGB). The Steering Layer is composed of the roles defined in the Directing and Management Layers, and other optional roles.

Directing Layer
The Directing Layer champions the project and owns its Business Case. It mobilises the necessary resources and monitors the project's performance in order to realise the project's objectives. The Directing Layer comprises the roles of Project Owner (PO) and Solution Provider (SP).

Managing Layer

The Managing Layer focuses on day-to-day project operations by organising, monitoring, and controlling work to produce the intended deliverables and implement them in the business organisation. Members of the Managing Layer report to the Directing Layer. The Managing Layer comprises the roles of Business Manager (BM) and Project Manager (PM). It is of utmost importance for the success of the project that there is a close collaboration and communication between the Business Manager (BM) and the Project Manager (PM).

Performing Layer

The Performing Layer carries out the project work, producing the deliverables and implementing them in the business organisation. Members of the Performing Layer report to the Managing Layer. The Performing Layer comprises the roles of the Business Implementation Group (BIG) and the Project Core Team (PCT).

4.3 Appropriate Governance Body (AGB)

Role	Requestor or Provider	Group or Individual Role	Role Type
Appropriate Governance Body (AGB)	Both	Group	Key decision body

Responsibilities:

- Define the corporate and business domain strategy.
- Agree and implement a portfolio management framework to realise the strategic objectives.
- Plan the strategy implementation by identifying, evaluating and authorising programmes and projects for implementation.
- Monitor and control portfolio delivery performance, keeping each portfolio focused on its objectives.
- Optimise and manage portfolio resources and benefits.

4.4 Project Steering Committee (PSC)

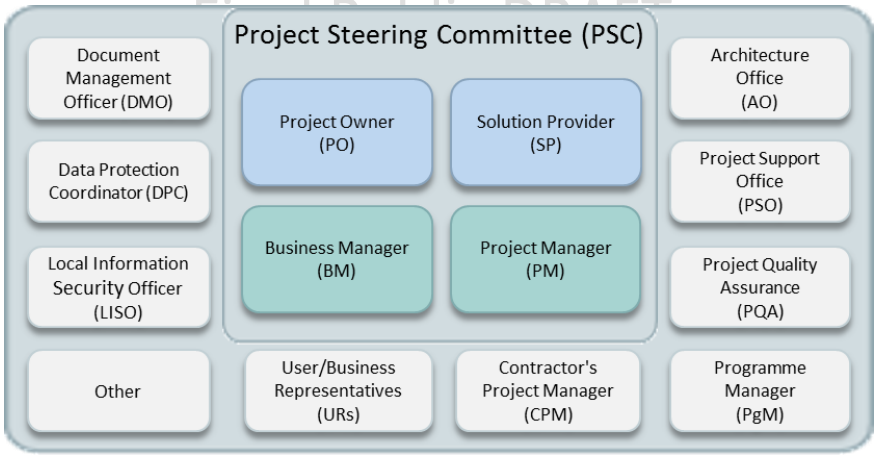

Fig 4.2 Composition of the Project Steering Committee (PSC): permanent and optional roles

Role	Requestor or Provider	Group or Individual role	Role Type
Project Steering Committee (PSC)	Both	Group	Key decision body

Composition (permanent members):

Roles	Description
Project Owner (PO)	Chairs the Project Steering Committee (PSC), and is the project's key decision maker and accountable for the project's success.
Business Manager (BM)	As a representative of the Project Owner (PO), the Business Manager is responsible for coordinating the activities on the business side of the project. Should work together with the Project Manager (PM).
Solution Provider (SP)	Assumes overall accountability for project deliverables
Project Manager (PM)	Is responsible for the entire project and its deliverables.

Responsibilities:

- Champions the project and raises awareness at senior level.
- Guides and promotes the successful execution of the project at a strategic level, keeping the project focused on its objectives.
- Ensures adherence to the organisation's policies and rules (e.g. IT governance, data protection, information security, document management, etc.).
- Provides high-level monitoring and control of the project.
- At the end of the Initiating Phase, authorises the project based on the project's Business Case and Project Charter, unless this is performed by the Appropriate Governance Body (AGB).
- At the end of the Planning Phase, authorises the project to continue on to the Executing Phase, based on the Project Handbook and Project Work Plan.
- Authorises plan deviations and scope changes with high project impact, and decides on recommendations.
- Arbitrates conflicts and negotiates solutions to escalated issues.
- Drives and manages organisational change caused by the project.
- Approves and signs-off all key management milestone artefacts (i.e. Business Case, Project Charter, Project Work Plan, etc.).

Optional Project Steering Committee (PSC) members:

People with other roles can also participate in the Project Steering Committee (PSC) as per the project's needs. Some of these roles are listed in the table below.

Roles	Description
User Representatives (UR)	Represents the interests of the project's users, ensuring that project deliverables are fit-for-purpose.
Contractor's Project Manager (CPM)	Is responsible for the outsourced parts of the project.
Architecture Office (AO)	Plays an advisory role on architectural aspects .
Project Support Office (PSO)	Administers Project Steering Committee (PSC) meetings and project documentation, produces consolidated reports for large projects.
Project Quality Assurance (PQA)	Responsible for quality assurance and auditing.
Document Management Officer (DMO)	Ensures the coherent implementation of document management roles.
Data Protection Coordinator (DPC)	Consults and advises on data protection issues.
Local Information Security Officer (LISO)	Consults and advises on security issues.

4.5 Project Owner (PO)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Project Owner (PO)	Requestor	Individual	Key role	Chairman

Description: The Project Owner (PO) is the key project decision maker and is accountable for the project's success.

Responsibilities:

- Acts as the project champion, promoting the project's success.
- Chairs the Project Steering Committee (PSC).
- Provides leadership and strategic direction to the Business Manager (BM) and Project Manager (PM).
- Sets the business objectives and defines the Business Case for the project.
- Owns the project risks and ensures that project outcomes are in line with business objectives and priorities.
- Mobilises the resources necessary for the project, in accordance with the agreed budget.
- Regularly monitors project progress.
- Coordinates the resolution of issues and conflicts.
- Ensures that the project's outcome meets business expectations.
- Drives organisational change and monitors proper evolution and change implementation.
- Approves and signs-off on all key management milestone artefacts (Project Handbook, Project Management Plans, Business Implementation Plan, etc.).

4.6 Solution Provider (SP)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Solution Provider (SP)	Provider	Individual	Key role	Key member

Description: The Solution Provider (SP) assumes overall accountability for project deliverables.

Responsibilities:

- Represents the interests of those who design, deliver, procure, and implement the project's deliverables.
- May help the Project Owner (PO) to define the project's Business Case and objectives.
- Agrees on objectives for supplier activities and approves the contractor's deliverables for the project (if applicable).
- Assumes overall accountability for project deliverables and services requested by the Project Owner (PO).
- Mobilises the required resources from the supplier side and appoints the Project Manager (PM).

4.7 Business Manager (BM)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Business Manager (BM)	Requestor	Individual	Key role	Key member

Description: The Business Manager (BM) represents the Project Owner (PO) in daily basis within the project and collaborates closely with the Project Manager (PM).

Responsibilities:

- Assists the Project Owner (PO) in defining the project's details and main business objectives.
- Sets up and guarantees an efficient cooperation and communication channel with the Project Manager (PM).
- Coordinates the Business Implementation Group (BIG) and acts as a liaison between the User Representatives (UR) and the provider organisation.
- Is responsible for the Project Initiation Request, Business Case and Business Implementation Plan.
- Ensures that the products delivered by the project fulfil the user's needs.
- Manages the activities on the business side of the project and ensures that the required business resources are made available.
- Decides on the best way to introduce business change or reengineering actions, when needed.
- Ensures that the business organisation is ready to accommodate the project's deliverables when these are made available by the provider organisation.
- Leads the implementation of the business changes within the user DG.
- Coordinates the schedule and delivery of user training (and production of necessary user support material).

4.8 Project Manager (PM)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Project Manager (PM)	Provider	Individual	Key role	Key member

Description: The Project Manager (PM) manages the project on a daily basis and is responsible for the qualitative product delivery within the imposed constraints.

Responsibilities:

- Proposes and executes the project plans as approved by the Project Steering Committee (PSC).
- Manages and coordinates the Project Core Team's (PCT) daily activities, making optimal use of the allocated resources.
- Ensures that project objectives are achieved within the quality, time, and cost objectives, taking preventive or corrective measures where necessary.
- Manages stakeholder expectations.

- Is responsible for creating all management artefacts (except the Project Initiation Request, Business Case and Business Implementation Plan) and proposes them for approval to the Project Owner (PO) or the Project Steering Committee (PSC).
- Ensures the products' controlled evolution, by implementing the Project Change Management Plan.
- Compares project the project status to the plan, and reports to the Project Steering Committee (PSC) on project progress.
- Performs risk management for project-related risks.
- Escalates unresolvable project issues to the Project Steering Committee (PSC).
- Liaises between the Directing and Performing Layers of the project.

4.9 Business Implementation Group (BIG)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Business Implementation Group (BIG)	Requestor	Group	Key role	On Request

Description: The Business Implementation Group (BIG) consists of representatives of business and user groups. It is responsible for implementing the business changes that need to be in place for the organisation to be able to effectively integrate the project deliverables into everyday work.

Responsibilities:

- Under the coordination of the Business Manager (BM), the Business Implementation Group (BIG) plans and implements the activities needed to achieve the desired business changes as described in the Business Case and the Business Implementation Plan.
- Analyses the impact of the project's implementation on ongoing operations and existing business processes, and on the organisation's people and culture.
- Participates in the design and updating of any affected business processes.
- Prepares the affected business area for the upcoming change.
- Advises the Business Manager (BM) on the organisation's readiness to change.
- Embeds the project deliverables into business operations and implements the organisational change activities that fall under the project's scope.

User Representatives (URs)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
User Representatives	Requestor	Individual/Group	Key role	On request

Description: User Representatives represent the interests of the project's end-users. They are part of the Business Implementation Group (BIG). Involving User Representatives (URs) throughout the project's duration is important. It ensures that they know what's happening within the project, have a sense of ownership and motivation, and validate requirements in regular intervals, which ensures that the deliverables are fit for business purpose.

Responsibilities:

- Helps define business needs and requirements.
- Ensures that the project specifications and deliverables meet the needs of all users.
- Approves the project specification and acceptance criteria on behalf of the users.
- Communicates and prioritises user opinions in the Project Steering Committee (PSC), and ensure that they are taken into account in decisions on whether to implement recommendations on proposed changes.
- Participates in demonstrations and pilot phases as needed.
- Performs user acceptance tests.
- Signs off on documents related to users (documentation, requirements, etc.).
- Guarantees business stability during the transition towards the new operational state.

4.10 Project Core Team (PCT)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Project Core Team (PCT)	Provider	Group	Key role	On request

Description: The Project Core Team consists of the specialist roles responsible for creating the project deliverables. Its composition and structure depend on the project size and type (e.g. IT project, policy development project, etc.) and are defined by the Project Manager (PM).

Responsibilities:
Under the coordination of the Project Manager (PM), the Project Core Team (PCT):

- Contributes to the development of the project scope and the planning of project activities.
- Carries out project activities based on the Project Work Plan and schedule.
- Produces project deliverables.
- Provides the Project Manager (PM) with information on the progress of activities.
- Participates in project meetings as needed and contributes to the resolution of issues.
- Participates in the Project-End Meeting to derive and document lessons learned that are useful for the organisation.

Aside from the specialist roles that create the project deliverables, there are two specific Project Core Team (PCT) roles that deserve to be discussed in more detail from a project management point of view: the Contractor's Project Manager (CPM) and the Assistant Project Manager (APM).

Contractor's Project Manager (CPM)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Contractor's Project Manager	Provider	Individual	Optional role	On request

Description: Leads the contractor's staff working on the project.

Responsibilities:

- Represents the contractor's team.
- Collaborates closely with the Project Manager (PM).
- Plans, controls and reports on the production of outsourced deliverables.
- Ensures that all work is carried out on time and to the agreed standards and quality.
- Guarantees the successful completion and delivery of the subcontracted activities.

Assistant Project Manager (APM)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Assistant Project Manager (APM)	Provider	Individual	Optional role	-

Description: For large projects, the Project Manager (PM) might find it useful to delegate part of the project management tasks to an assistant. This Assistant Project Manager (APM) works closely with the Project Manager (PM) and acts as their backup. Note, however, that the Project Manager (PM) remains responsible for the correct execution of all the delegated tasks.

Responsibilities:

- Reports to and takes directions from the Project Manager (PM).
- Assists in the development and execution of project plans (or parts of them).
- Communicates plans, decisions, and instructions to the Project Core Team (PCT).
- Assists in the coordination of the Project Core Team (PCT) and Project Support Team (PST).
- Provides guidance to project participants.
- Assists with the organisation of project meetings, including drafting agendas and meeting minutes.
- Gathers the status information of work packages.
- Proactively identifies quality or scheduling issues and proposes preventive actions.
- Prepares or assists in the preparation of project status reports.
- Supports the risk and change management process, updates the Risk and Change Logs.
- Coordinates the acceptance of deliverables with internal and external users and stakeholders.
- Establishes routine project communication methods to keep project stakeholders informed.

4.11 Project Support Team (PST)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Project Support Team (PST)	Provider	Group	Optional role	On request

Description: Consists of the people responsible for providing support to the project. Its composition and structure depend on the project size and are defined by the Project Manager (PM). The Project Support Team (PST) role may be assumed by team members or a specific team, or may be a horizontal service provided by the organisation.

Responsibilities:

- Provides administrative support to the project.
- Defines requirements for reporting and communication.
- Administers the Project Steering Committee (PSC) meetings and drafts related reports.
- Supports the Project Manager (PM) in planning, monitoring and controlling the project.
- Advises on project management tools and administrative services.
- Manages the project's documentation (versioning, archiving, etc.).

Examples of roles included in the PST Project Support Team (PST) are the Project Support Office (PSO) and the Project Quality Assurance (PQA).

Project Support Office (PSO)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Project Support Office (PSO)	Provider	Individual/Group	Optional role	Member

Description: Provides support to the Project Manager (PM) and the whole Project Team.

Responsibilities:

- Advises on project management tools, guidance and administrative services.
- Administers Project Steering Committee (PSC) meetings.
- Produces consolidated reports for the Project Steering Committee (PSC).
- Manages internal communication.
- Establishes standards, tools, procedures and methods for use in the project.
- Administers Project Management aspects such as document change control, baseline of plans, etc.
- Can play the role of custodian and guardian of all master copies of the project's products.

Project Quality Assurance (PQA)

Role	Requestor or Provider	Group or Individual Role	Role Type	PSC Participation
Project Quality Assurance (PQA)	Provider	Individual/Group	Optional role	Member

Description: Ensures the high-quality of the project and its deliverables, independently from the Project Manager (PM).

Responsibilities:

- Ensures adherence to DG policies, directions and predefined project management processes.
- Establishes quality assurance standards.
- Supports the Project Manager (PM) in planning, monitoring and controlling project quality.
- Reviews project management processes and artefacts (e.g. the Project Charter and Project Management Plans) as part of quality assurance.
- Identifies non-conformities or opportunities for improvement and recommends actions to the Project Steering Committee (PSC) for decision.
- Reports to the Project Steering Committee (PSC) who is responsible for appointing them.

4.12 RAM (RASCI) — Documenting Responsibility Assignments

RASCI (pronounced 'rasky') is also known as the Responsibility Assignment Matrix (RAM) and is a way of representing and clarifying the roles and responsibilities for an activity. RASCI stands for:

RASCI		Description
R	**R**esponsible	Does the work. Others can be asked to assist in a supporting role.
A	**A**ccountable	Ultimately answerable for the correct and thorough completion of the work. There is just **one** accountable person.
S	**S**upports	As part of a team, they work with the person responsible. Unlike the consulted role, the support role helps complete the task.
C	**C**onsulted	Those whose opinions are requested and with whom there is two-way communication.
I	**I**nformed	Those who are informed (kept up-to-date).

Stakeholders should be reminded of their roles and responsibilities during the project. This PM² guide includes a RAM (RASCI) table for each artefact in the Initiating, Planning and Closing Phases and each of the activities in the Executing Phase and in Monitor & Control.

Example: The RAM for the Standard PM² roles involved in creating the Business Case document.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Business Case	I	C	**A**	**R**	C	**S**	**S**	n.a.

Notes:

- **Accountable**: The Project Owner (PO) is accountable (they ensure that the work is done).
- **Responsible**: The Business Manager (BM) is responsible for creating the Business Case.
- **Supports**: The Solution Provider (SP) and the Project Manager (PM) work with the Business Manager (BM) to develop the Business Case. The final responsibility, however, lies with the Business Manager (BM).
- **Consulted**: The Project Steering Committee (PSC) and User Representative (UR) are consulted.
- **Informed:** The Appropriate Governance Body (AGB) will be informed about the outputs or status of the task (information will be made available).

5 Initiating Phase

Proper project initiation is a critical for successful project planning and execution. It involves defining project objectives and constraints, and receiving formal organisational sponsorship for the project. The following diagram provides an overview of the key activities executed and the artefacts created during the Initiating Phase.

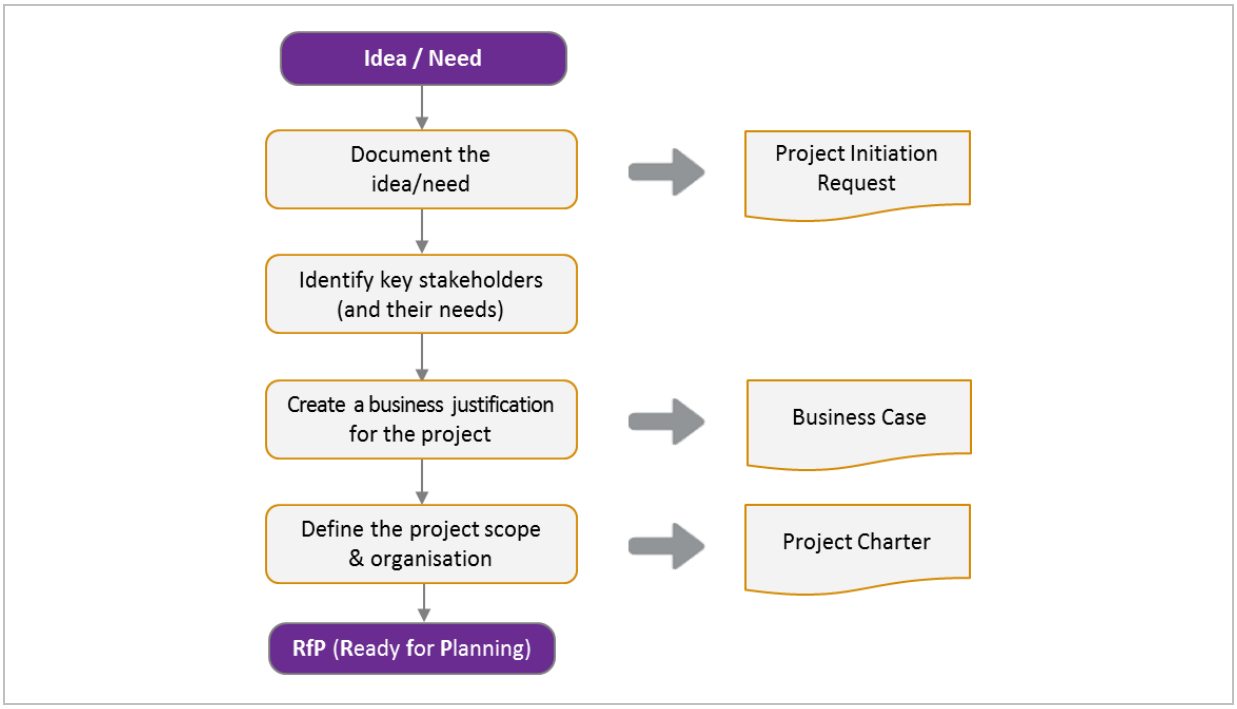

Fig 5.1 Initiating Phase: activities and main outputs

Three key project artefacts are created during the Initiating Phase: the Project Initiation Request, the Business Case, and the Project Charter. Some of the Project Logs are also set up (i.e. Risk Log, Issue Log, Decision Log) while other logs (i.e. Change Log) are typically set up during the Planning Phase.

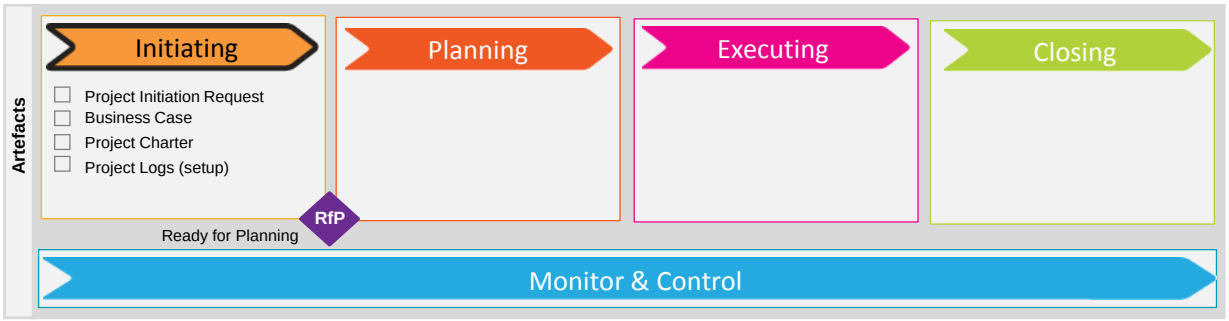

Fig 5.2 Initiating Phase Artefacts

Phase Gate: RfP (Ready for Planning)

This is the first phase gate. a review and an approval are recommended before the project can formally move to the next phase. After the Business Case and the Project Charter are accepted, the Project Manager (PM) assesses whether the project is ready to move to the Planning Phase. In the case where the Business Case or the Project Charter are rejected (with a final decision), then the project proceeds directly to the Closing Phase for lessons learned and proper project archiving.

5.1 Initiating Meeting

This is an informal meeting, usually between the Project Initiator and the Project Owner (PO), and others who could potentially contribute to the creation of the Initiating Phase documents. The goal of this meeting is to introduce any pre-project information and discuss the next steps.

The result of this meeting is a better understanding of the context of the (future) project, as well as a decision to move forward with the creation of the Project Initiation Request. Lessons learned from previous similar projects can also be used as input to this meeting.

5.2 Project Initiation Request

The Project Initiation Request is a project's starting point and formalises its initiation. By creating a Project Initiation Request, the project initiator ensures that the current context/situation (i.e. problem, need or opportunity) and the project's desired outcomes are formally captured and can be used as a basis for further exploration and elaboration.

Key Participants	Description
Initiator	Anyone can introduce a Project Initiation Request.
Project Owner (PO)	The main beneficiary of the project's outputs usually nominates a Project Owner (PO).
Solution Provider (SP)	The organisational unit that will carry out the project work nominates a Solution Provider (SP).
Approver	Depending on the project, the Project Owner (PO) or a higher-level Appropriate Governance Body (AGB) can accept the Project Initiation Request and authorise working on a more elaborate Business Case.

Inputs

- A problem, need and/or opportunity expressed by the Initiator.

Steps

1. The Initiator completes the Project Initiation Request.
2. Depending on the project size and the approval process, approval can be informal (i.e. the Project Owner (PO) accepts it) or formal (i.e. an Appropriate Governance Body (AGB) reviews and approves it).
3. The Project Owner (PO) usually delegates the creation of the Project Initiation Request to the Business manager (BM).
4. The Project Initiation Request contains the following information:
    - **Basic Information:** Project Title, Initiator and Organisation/Unit, Project Owner (PO), Solution Provider (SP), Date of Request and Approving Authority.
    - **Estimated effort/cost:** a high-level estimate in effort and/or euros.
    - **Type of Delivery:** expected or most suitable form of delivering the project (e.g. in-house, outsourced, mixed, unknown).
    - **Target Delivery Date.**
    - **Context/Situation:** description of the reason for why the project should be launched.
    - **Legal Basis:** how the request relates to the organisation's legislative initiatives.
    - **Outcomes:** description of the main outcomes that can be expected from the project.
    - **Impact:** description of the overall impact that the project will have in the organisation.
    - **Success Criteria:** description of the key success criteria based on which the project's success will be evaluated.
    - **Assumptions:** description of the key assumptions made for the project at this stage.
    - **Constraints:** description of the key constraints of the project at this stage.
    - **Risks:** description of the key risks considered for the project at this stage.
5. Once the Project Initiation Request is approved, the project needs to be further defined with a preliminary project scope description in the Business Case and further elaborated in the Project Charter.
6. The Project Manager (PM) and the Project Core Team (PCT) are assigned at a later stage, by the Solution Provider (SP).
7. The Project Manager is typically assigned after the Business Case is approved (at the latest before the completion of the Project Charter), while the Project Core Team (PCT) is typically assigned before the Planning Kick-off Meeting.

The lifecycle of the Project Initiating Request ends with the creation of the Business Case and Project Charter, (i.e. all the information included in the Project Initiation Request is copied over, updated and further detailed in the Business Case and the Project Charter). The Business Case and Project Charter remain 'live' until their lifecycles end with the end of the project. The figure below shows this relationship.

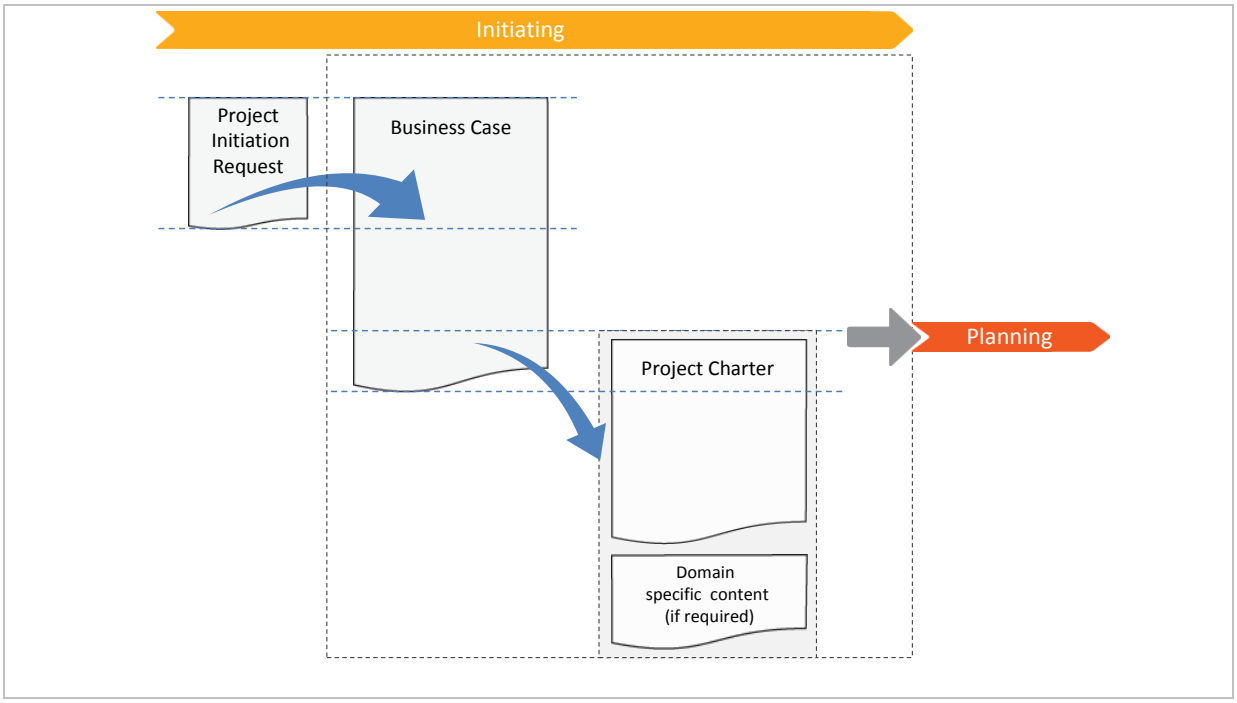

Fig 5.3 Relationship between the artefacts created during the Initiating Phase

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Initiation Request	I	n.a.	**A/S**	**R**	**S**/C	I	n.a.	n.a.

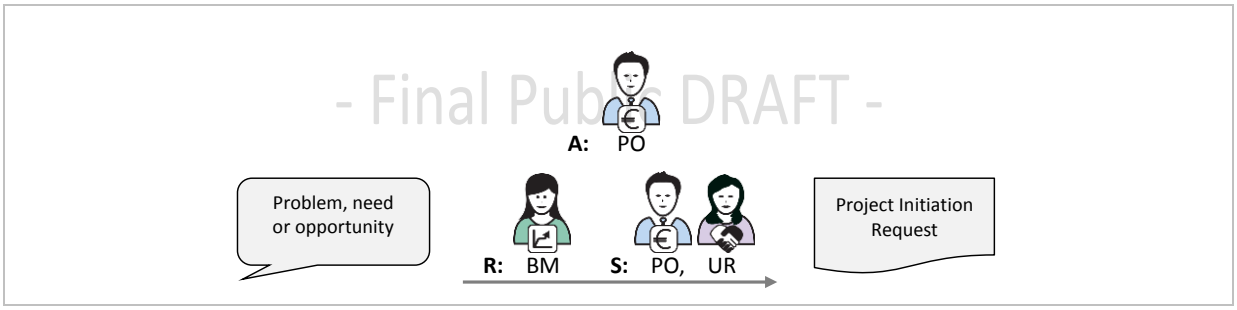

Fig 5.4 Project Initiation Request — inputs and main roles

Outputs

- Project Initiation Request

PM² Template?

☑

5.3 Business Case

The purpose of the Business Case is to capture the reasoning behind the project, to describe the alignment of this project to the organisation's strategic objectives, to provide a justification for the investment in time and effort, and to set out the budgetary needs. The Business Case provides decision makers with the necessary contextual information and project's benefits to determine whether the project is worth doing.

The Business Case typically contains an analysis of the necessary effort and costs to be incurred during the project, as well as the benefits that the project will bring. For larger projects addressing a political context, the Business Case must take into account an impact assessment, risks and a cost-benefit analysis.

The Business Case is a living document and is therefore re-examined at critical project milestones to see if the expected benefits are still achievable, if the costs/schedule fall within the budget/timeline, and if the project is still relevant to the organisation and therefore should be continued.

Key Participants	Description
Project Owner (PO)	Accountable for the Business Case.
Business Manager (BM)	Responsible for creating the Business Case. Is supported by the Solution Provider (SP) and the Project Manager (PM) (if known).
Other project stakeholders	The project stakeholders involved in defining the project are consulted.
Approver	Is usually a preliminary Project Steering Committee (PSC) or a higher-level Appropriate Governance Body (AGB).

Inputs

- The Project Initiation Request is the key input.

Guidelines

- Note that the form and depth of analysis required for this artefact depends on the level of investment required for the project. Senior management will challenge the estimates of and assumptions related to the amount of investment into the project.
- Consider various alternatives that fulfil this business need and recommend one of these alternatives.
- Describe the overall approach to how the project will be executed (project strategy).
- Identify measurable criteria that will be used to determine if the project was a success.
- For projects carried out under contract (as a result of a bid award, for example), create the Business Case based on the Request for Proposal, the response to this request, and the subsequent contract itself.

Steps

1. The Business Manager (BM) drafts the Business Case based on the information captured in the Project Initiation Request. The main project aspects to be analysed and presented are:
    - The project's worthiness.
    - The project's positioning in the overall organisational strategy.
    - An assessment (i.e. a SWOT Analysis) of Strengths, Weaknesses, Opportunities and Threats of several solution alternatives, one of which is proposed for implementation.
    - Benefits analysis, total cost of ownership, opportunity costs and risks.
    - Synergies and Interdependencies with other projects and initiatives.
    - High level project roadmap including major milestones.
2. The Project Owner (PO) sends the Business Case to the Appropriate Governance Body (AGB).
3. The Appropriate Governance Body (AGB) evaluates the Business Case and decides to approve or reject the project proposal.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Business Case	I	C	**A**	**R**	C	**S**	**S**	n.a.

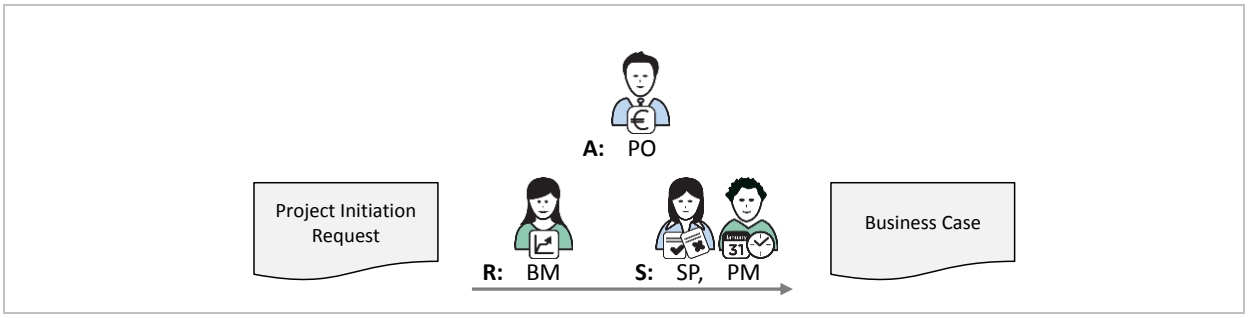

Fig 5.5 Business Case — Inputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Benefits Management	Business Case	Business Implementation Plan	Project Reports	Business Implementation Checklist	Project-End Report

Outputs

- Business Case

PM² Template?

☑

5.4 Project Charter

The Project Charter provides a basis for the more detailed project planning. It presents the project in the form of a scope statement, of high-level requirements, constraints, and final project deliverable(s).

It is a key element of the project approval process (along with the Business Case). It includes the 'what, how and when' fundamentals of the project and provides a baseline against which all future decisions can be measured. Although the Project Charter can be initiated by the Business Manager (BM), it ultimately becomes the responsibility of the Project Manager (PM) to complete it and submit it for approval.

Key Participants	Description
Project Manager (PM)	Responsible for the development of the Project Charter. Should be supported by the Business Manager (BM) and the Solution Provider (SP).
Project Owner (PO)	Accepts the Project Charter.
Decision making body	The approver is usually a preliminary Project Steering Committee (PSC) or a higher-level Appropriate Governance Body (AGB).

Inputs

- Project Initiation Request
- Business Case

Guidelines

- The Project Charter should be brief so that it can be sent to project stakeholders as soon as possible, and so that it is easy for them to review and understand.
- Avoid presenting detailed requirements. Instead present high-level needs and features.
- Detailed requirements may be captured in other artefacts (e.g. in a Requirements Document), or in an appendix to the Project Charter to be elaborated during the planning phase.
- The Project Manager (PM) (along with the Business Manager (BM)) should ensure that:
  - input from all concerned project stakeholders is considered.
  - the artefact is created, updated and distributed as required.

Steps

1. The Business Manager (BM) will first consult the main project stakeholders and takes part in drafting the Project Charter.
2. The Project Manager (PM) is responsible for delivering the document.
3. The main project stakeholders review the Project Charter and the Project Owner (PO) accepts it.
4. The Project Owner (PO) sends the Project Charter to the appropriate decision making body for a decision.
5. The appropriate decision making body evaluates and accepts or rejects the Project Charter.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Charter	I	C	**A**	**S**	C	**S**	**R**	C

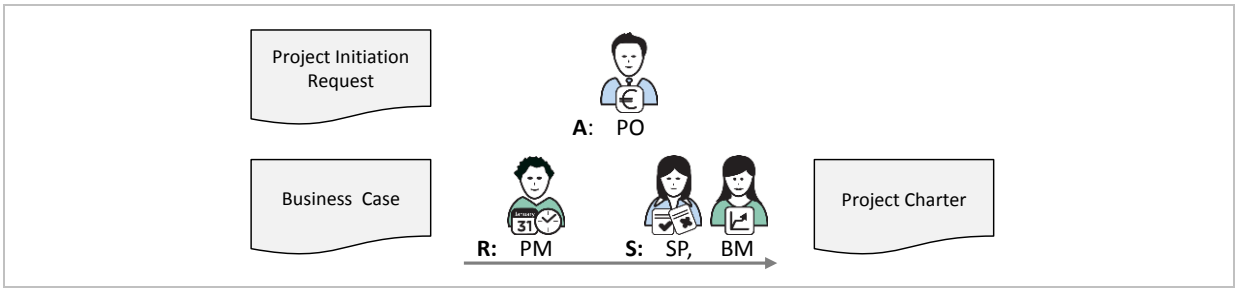

Fig 5.6 Project Charter — inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Scope Management	Business Case	Project Work Plan	Change Requests Project Reports	Project Logs	Project-End Report

Outputs

- Project Charter

PM² Template?

☑

6 Planning Phase

During the Planning Phase, the project scope is verified and developed into a workable plan for implementation. In practical terms, this means that:

- The project scope statement is further developed and the best strategies for completing the project are decided.
- The schedule for the various tasks necessary to complete the project work is defined and the necessary resources are identified and estimated.
- The various project plans are developed.
- The Project Work Plan may be revisited at any time during this phase in order to achieve the best balance between resource use and project duration and comply with the project objectives. Once agreed and accepted, the Project Work Plan is baselined and all activities are controlled against it.

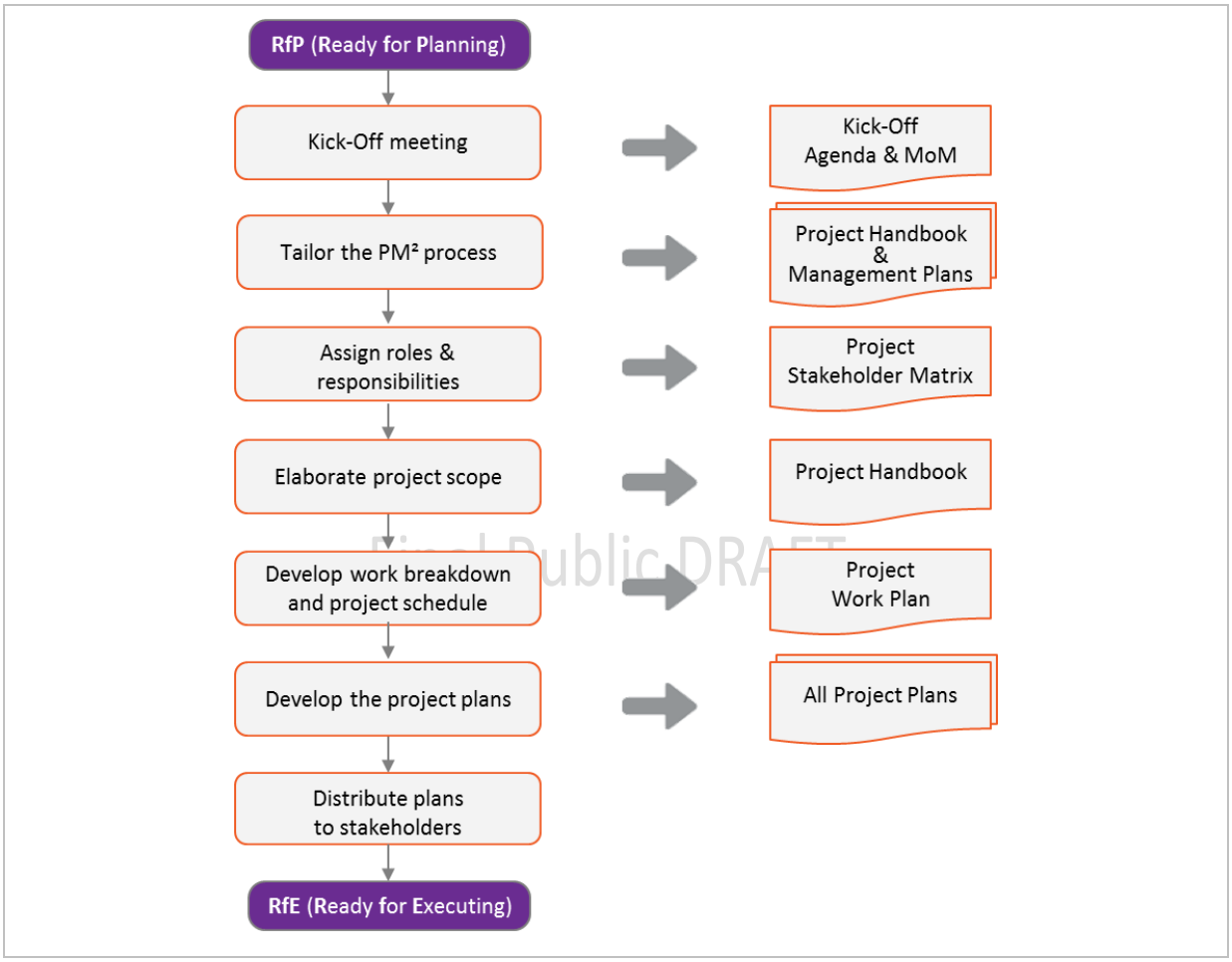

Fig 6.1 Planning Phase: activities and main outputs

Most of a project's artefacts are created during the Planning Phase. The table below shows the different project artefact types defined in PM². Note that PM² provides templates for all artefacts.

Artefact Type	Description
Management Plans (standard)	These plans define the processes to be used (e.g. the Risk Management Plan). PM² provides Management Plan templates along with guidelines on how to tailor and customise them to the project's context and needs.
Project Plans (specific)	These plans are specific to the project (e.g. the Project Work Plan) and are built based on project needs and the analysis and experience of the project team. PM² provides templates and guidelines for these plans.
Domain-Specific Artefacts	These artefacts are specific to the domain addressed by the project (e.g. system models for IT Projects, architectural layouts for moving projects, etc.)

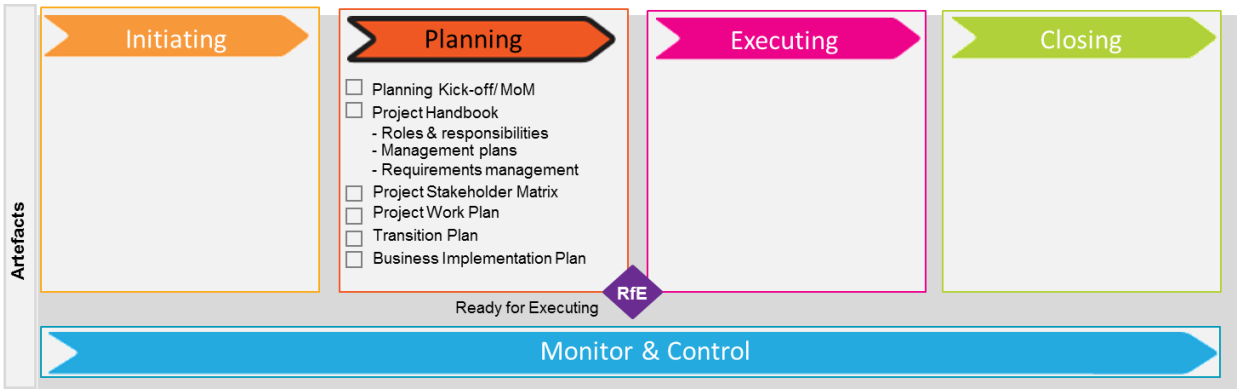

Fig 6.2 Planning Phase artefacts

Phase Gate: RfE (Ready for Executing)

The Project Owner must approve the Planning artefacts and decide, in cooperation with the Solution Provider (SP) and the Project Manager (PM), whether or not the project is ready to move to the Executing Phase.

If major deviations from the approved documents of the Initiating Phase are identified (e.g. from the Project Charter), then the Project Manager (PM) must request the approval of the Project Steering Committee (PSC) or the Appropriate Governance Body (AGB) before the project can move to the Executing Phase.

6.1 Planning Kick-off Meeting

The Planning Phase starts with an official Planning Kick-off Meeting, the aim of which is to:

- ensure that everyone understands the project's scope.
- clarify the expectations of all key project stakeholders.
- identify project risks.
- discuss the project plans.

At this early stage, past experiences, and especially Lessons Learned from previous similar projects, will significantly help the project team.

This Planning Kick-off Meeting should be planned and run effectively as it is critical that the project goals are well understood. PM² provides templates for the Meeting Agenda and the Minutes of Meeting.

Key Participants	Description
Project Manager (PM)	Organiser.
Project Core Team (PCT) Business Implementation Group (BIG) User Representatives (URs) Solution Provider (SP) Project Owner (PO) Business Manager (BM)	Required participants.
Assistant Project Manager (APM) Project Support Office (PSO)	Required (if part of the project).
Other project roles or stakeholders	Optional participation (as per the project's needs).

Inputs

- Business Case
- Project Charter

Steps

Before the Planning Kick-off Meeting:

1. Plan the meeting.
2. Draft the Meeting Agenda clearly indicating the points to be discussed.
3. Send out the Meeting Agenda in advance.
4. Ensure the presence of required participants.
5. Address any logistical needs, and prepare documentation or handouts needed for the meeting.

During the Planning Kick-off Meeting:

1. Introduce the meeting participants.
2. Ensure that someone takes notes in order to identify action items and compile and send out the Minutes of the Meeting to participants.
3. Walk the participants through the Project Charter so that they understand the project scope.
4. Outline the goals, expectations and activities of the Planning Phase, and discuss the planning timeline.
5. Describe and discuss the project roles and responsibilities.
6. Discuss the roles and responsibilities of the Project Core Team (PCT) and the Business Implementation Group (BIG).
7. Discuss the project timeline.
8. Discuss the overall approach to the project. This discussion can be a brainstorming session within the limits set by the Project Charter.
9. Discuss the project plans needed for the project. The final set of required project plans will be documented in the Project Handbook.
10. Discuss risks, constraints and assumptions.
11. Discuss or present any project supporting tools (with input from the Project Support Office).
12. Allow time for any other business (questions & answers).
13. Summarise the discussion (decisions, actions, and risks).
14. Communicate the next steps.

After the Planning Kick-off Meeting:

1. Communicate the Minutes of Meeting to the appropriate Stakeholders (as per the Communications Management Plan)
2. Include the following in the Minutes of Meeting:
   - A summary of project issues raised during the meeting. Issues should also be logged in the Issue Log.
   - A summary of project risks raised during the meeting. Risk should also be logged in the Risk Log.
   - A summary of decisions taken during the meeting. Decisions should also be logged in the Decision Log.
   - Proposed project changes. Changes should also be logged in the Change Log.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Planning Kick-off Meeting	I	**A**	C	**S**	C	C	**R**	C

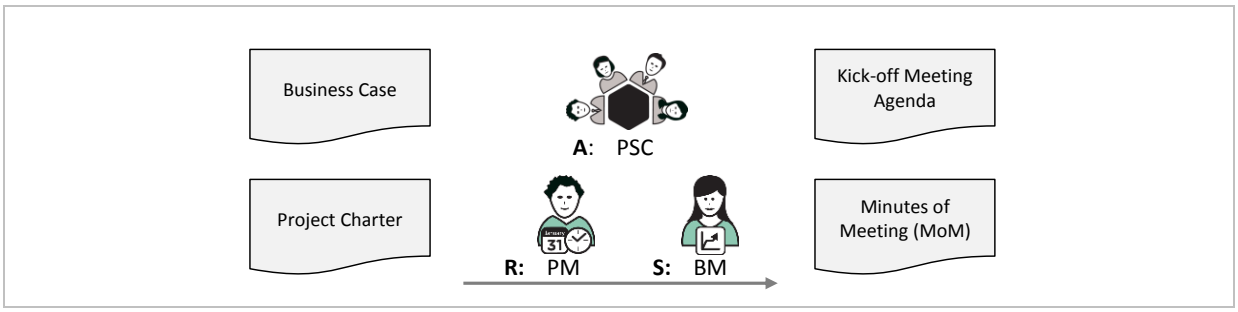

Fig 6.3 Planning Kick-off Meeting — Inputs/Outputs and main roles

Outputs	**PM² Template?**
• Kick-off Meeting Agenda	☑
• Minutes of Meeting (MoM)	☑

6.2 Project Handbook

The Project Handbook summarises the project objectives and documents the selected approach to reaching the project goals. It also defines the key controlling processes to be used, the conflict resolution and escalation procedure, the project policies and rules, and the overall management approach. The project scope statement (from the Project Charter) is a key input for this artefact.

The Project Handbook is an important document since it defines the processes and plans necessary for managing the project as well as the extent to which they should be customised and/or tailored.

The Project Handbook and the Project Work Plan are the basis for managing the project throughout its life cycle and are important references for all project members and stakeholders.

Key Participants	Description
Project Manager (PM)	Prepares the Project Handbook.
Business Manager (BM)	Is involved in defining the document's key elements.
Other project stakeholders	Review the Project Handbook.
Project Core Team (PCT)	Is consulted.

Inputs

- Business Case & Project Charter
- Planning Kick-off Minutes of Meeting

Guidelines

- Use the Planning Kick-off Meeting Minutes as a basis for defining the Project Handbook.
- The Project Handbook should be kept up-to-date throughout the life of the project.
- During the Closing Phase, the Project Handbook is an important point of reference for the Project-End Review Meeting, and should be properly archived.

Steps

1. Find any documentation of similar projects that might be available.
2. Identify possible reusable components from other projects, to save effort, cost and time (see the Project Charter).
3. Summarise the project objectives, dependencies, constraints and stakeholders.
4. Identify Critical Success Factors (CSFs) and define important project management objectives.
5. Discuss possible/necessary customisations and/or tailoring of the PM² Methodology.
6. Outline the selected delivery approach and its lifecycle (including project-specific stages).
7. Define the specific project management rules that will be applied in the project (agree on a set of 'rules of conduct' that will facilitate the better management and execution of the project).
8. Define a conflict resolution and escalation procedure for the project.
9. Highlight the main project controlling processes, such as change/risk/quality management.
10. Define the selected progress tracking and reporting approach. Determine which project artefacts (plans and other documents) are necessary for the project.
11. Document the roles involved in this project and their corresponding responsibilities.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Project Handbook	I	I	**A**	**S**	C	I	**R**	C

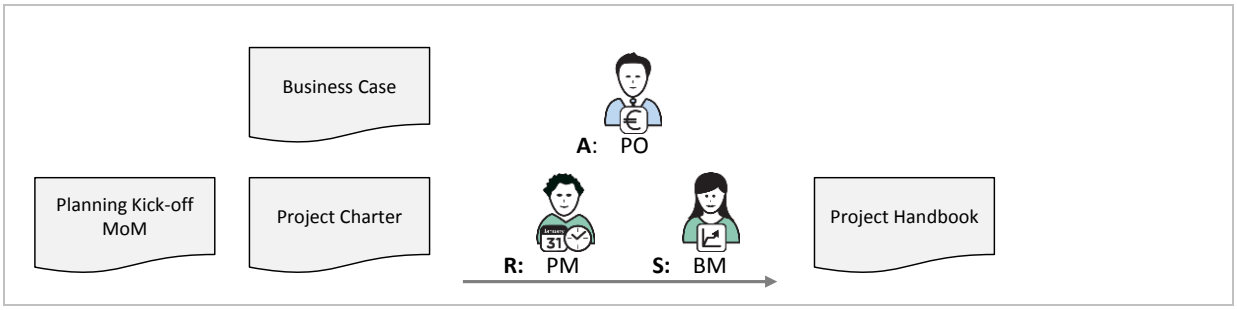

Fig 6.4 Project Handbook — Inputs and main roles

Outputs **PM² Template?**

- Project Handbook ☑

6.2.1 Project Roles & Responsibilities

The main purpose of the Project Roles and Responsibilities section is to document the project's roles and responsibilities for the project. Any deviations from the standard PM² Roles & Responsibilities are justified and documented, and any other/new roles are defined and their responsibilities clearly described. Based on this section, the Project Stakeholder Matrix can be tailored to the project and names can be assigned to all project roles (preliminary information is taken from the Project Charter).

6.2.2 The Project Management Plans

PM² provides several Project Management Plans (artefacts) which define key project management processes to be used. These are the:

1. Requirements Management Plan
2. Project Change Management Plan
3. Risk Management Plan
4. Quality Management Plan
5. Issue Management Plan
6. Communications Management Plan

Note that a summary of each Management Plan can be included in the Project Handbook, and this may be sufficient for most projects. If a more extensive and a more detailed plan is needed, a separate management plan can be produced based on the artefact template provided by PM².

6.2.3 The Project Specific Plans

PM² defines a set of recommended project plans which can be used for any type of project. It provides templates and guidelines for all of these plans. However, in contrast to the Management Plans which only require light customisation and tailoring, the Project Specific Plans usually require more effort as their content is specific to the project.

The optimal level of detail included in Project Specific Plans depends on the project type, size and complexity, the project management context and environment, and the experience and competences of the project team.

All Project Specific Plans to be used in a project should be listed in the Project Handbook.

6.2.4 The Domain-Specific Artefacts

These plans are specific to the domain of the project (i.e. the project type) and are very often an integral part of the project's planning and of the overall project documentation. No templates are provided by PM², however, the artefacts should still be identified and listed in the Project Handbook as they are part of the project's planning (phase) outputs. Examples of domain-specific artefacts are system designs (for IT projects), architectural layouts (for renovation/moving projects), and laws/policies (for policy projects).

6.2.5 Other

Escalation Procedure

An escalation procedure and tolerances should be defined (and tailored) in the Project Handbook. This should be referenced by the Management Plans to ensure that a consistent approach is applied.

The purpose of the escalation procedure is to provide an agreed and effective way by which issues and decisions can be escalated when needed. For example, it documents how important issues can be raised to a higher level (layer) of management for resolution. This ensures that the appropriate level of management is involved (or at least informed) if an issue cannot be resolved at a lower level.

Resource Needs

The Project Handbook must define how the resources (people and material) allocated to the project will be used to serve the project's best interests.

As the work to be done becomes clearer, the skills needed to perform the work will have to be recorded in the Project Handbook. A Training Plan can be annexed to the Project Handbook if any training is needed to acquire missing skills. If more people with these skills need to be hired, the process for this must be described in the same section of the Handbook. Finally, the way resources will be released at the end of the project (or when their work is complete) must also be formalised here.

6.3 Project Stakeholder Matrix

The Project Stakeholder Matrix lists all (key) project stakeholders and clarifies their roles in the project. It includes relevant information about each stakeholder, such as contact information and influence on the project. It may also include a classification or categorisation of each stakeholders.

The information captured in the Project Stakeholder Matrix should be tailored to meet the project's needs.

Key Participants	Description
Project Manager (PM)	Prepares the Project Stakeholder Matrix.
Business Manager (BM)	Supports the Project Manager, (PM) particularly with the management of stakeholders on the client side.
Other project stakeholders	Are consulted.

Inputs

- Business Case & Project Charter
- Planning Kick-off Minutes of Meeting

Guidelines

PM² provides a Project Stakeholder Matrix template. The template includes the standard project roles organised into the following groups:

- Teams (e.g. Project Steering Committee (PSC)).
- Roles (e.g. Project Owner (PO), Solution Provider (SP), User Representatives (URs)).
- Support (e.g. Project Support Office (PSO), Assistant Project Manager (APM)).
- Domain-specific or operational roles (e.g. User, Functional Architect, Analyst).

Steps

1. Based on the project's organisational structure, identify all people who will have a role in the project.
2. Assign each person a specific role for the duration of the project, based on the project mode standard Roles & Responsibilities.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Matrix	I	I	**A**	**S**	C	I	**R**	C

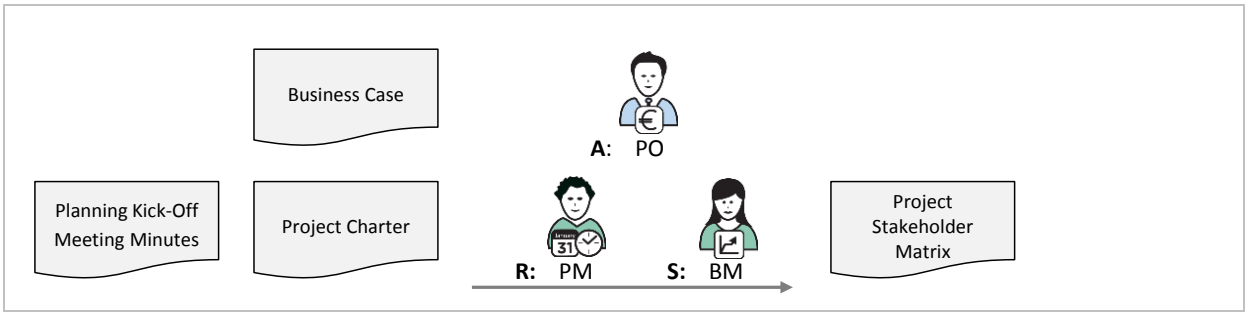

Fig 6.5 Project Stakeholder Matrix — Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Stakeholder Management	Business Case Project Charter	Project Handbook Outsourcing Plan Communications Management Plan	Project Reports	Project Logs Stakeholders Checklist	Project-End Report

Outputs

- Project Stakeholder Matrix.

PM² Template?

☑

6.4 Outsourcing Plan

The Outsourcing Plan ensures that any products or services outsourced outside the organisation fulfil the project needs. It identifies the outsourcing strategies that will be used, outlines the scope of products and/or services to be purchased or contracted, and identifies responsibilities for the full contract lifecycle. Note that any relevant procurement processes within the organisation supersede this plan.

Participants	Description
Project Manager (PM)	Prepares the Outsourcing Plan.
Solution Provider (SP)	Reviews the plan.

Inputs

- Business Case & Project Charter.
- Project Work Plan.
- Project Handbook.
- Relevant Organisational procurement processes.

Steps

1. Identify the items that will be outsourced and under what conditions.
2. Decide who can interface with the contractors and who can sign the contract. Note that there might be organisation-level rules regarding contracting that might need to be adhered to. For example, in contracts over a certain value, specific rules usually apply.
3. List the evaluation criteria for contractors. This ensures that a contractor is selected on the basis of pre-set criteria and that a single person or group does not influence the decision. The criteria could include the following:
    - Capability.
    - Quality of work.
    - Previous experience in similar projects.
    - Any other relevant subjects.
4. Identify any constraints that may affect the outsourcing process (e.g. framework agreements may require that the project works with specific suppliers or contractors).
5. Identify the method(s) by which new products may be obtained (i.e. lease/purchase, tendering process). Other factors like time/capacity constraints may also influence the choice of the method.
6. Identify the people within the organisation who must approve the purchases.
7. Provide a timeline for all the contracted activities and deliverables. This will ensure that the contractor is committed to have resources available to meet the pre-agreed timeline.
8. Identify any documentation deliverables expected from the contractors (e.g. manuals, etc.).

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Outsourcing Plan	**A**	C	C	C	I	**S**	**R**	I

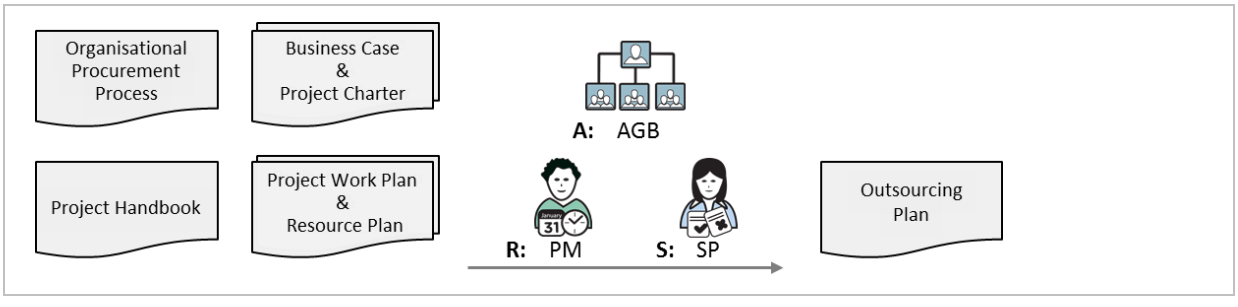

Fig 6.6 Outsourcing Plan – Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Outsourcing Management	Project Charter	Project Handbook Outsourcing Plan	Project Reports	Project Logs	Project-End Report

Outputs

- Outsourcing Plan.

PM² Template?

☑

6.5 Project Work Plan

The Project Work Plan identifies and organises the project into the activities, sub-tasks and work packages needed to achieve the project goals. It establishes a basis on which to estimate the project's duration, calculate the required resources, and schedule the work. Once the tasks are scheduled, the Project Work Plan is used as a basis for monitoring progress and controlling the project. The project Work Plan should be kept up-to-date during the life of the project.

Key Participants	Description
Project Manager (PM)	Is responsible for coordinating all activities involved in the development of the Project Work Plan (i.e. work breakdown, estimates of cost/effort, and scheduling of project activities).
Project Core Team (PCT)	Supports the Project Manager (PM).
Project Support Office (PSO)	May provide technical advice (e.g. for scheduling).

Inputs

- Business Case & Project Charter.

Guidelines

The Project Work Plan is composed of three parts:

1. **Work Breakdown:** a hierarchical decomposition of all the work that must be done to meet the needs of the customer.
2. **Effort & Cost Estimates**: estimates of resource needs (e.g. type, skills, etc.) and expected duration of each project task depending on resource availability and people's capabilities. These are then used to create the project schedule and budget.
3. **Project Schedule:** used to plan and implement project tasks and monitor progress.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Work Plan	I	**A**	C	**S**/C	C	C	**R**	**S**/C

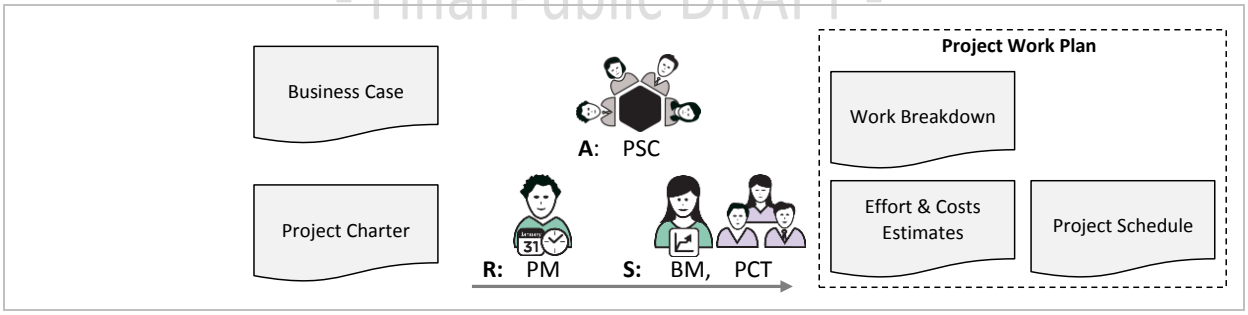

Fig 6.7 Project Work Plan — Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Schedule and Cost Management		Project Work Plan. (Work Breakdown, Effort & Cost, Schedule)	Project Reports	Project Work Plan Project Logs	Project-End Report

6.5.1 Work Breakdown

The objective is to break the project down into smaller and more manageable components such as deliverables, work packages, activities, and tasks. Each lower level includes more detailed deliverables and work. taken together, these define the project output(s) and the work involved in producing them. A summary of work breakdown techniques is presented in Appendix C: Project Management Tools & Techniques.

Inputs

- Business Case & Project Charter.
- Project Requirements.

Outputs

- Work Breakdown (part of the Project Work Plan).

6.5.2 Effort & Cost Estimates

The objective is to estimate the effort needed for each project task of the Work Breakdown, based on resource availability and people's capabilities. The estimates will be an input for the creation of the schedule. A summary of effort and cost estimation techniques is presented in Appendix C: Project Management Tools & Techniques.

Inputs

- Project Work Plan (Work Breakdown).

Outputs

- Effort & Cost Estimates (part of the Project Work Plan).

6.5.3 Project Schedule

The objective is to identify dependencies between tasks, assign resources for each task, identify task start and end dates, and work out the overall project duration.
Scheduling can be done in advance for the entire project or just for its parts, e.g. for individual project stages. The Project Manager (PM) uses the schedule to assign and coordinate project tasks, and to monitor and control progress. A summary of scheduling techniques is presented in Appendix C: Project Management Tools & Techniques.

Inputs

- Project Charter.
- Project Work Plan (Work Breakdown, Effort & Cost Estimates).

Outputs

- Project Schedule (part of the Project Work Plan).

6.6 Deliverables Acceptance Plan

Deliverables acceptance planning aims to increase the likelihood that deliverables will be accepted by the relevant stakeholders, and that the resources involved in the acceptance will be used in an efficient way.

The Deliverables Acceptance Plan documents the deliverables acceptance approach, activities, responsibilities and acceptance criteria so that the project's deliverable(s) can be formally accept based on objective criteria and predefined timelines.

Key Participants	Description
Project Steering Committee (PSC)	Approves the Deliverables Acceptance Plan.
Project Manager (PM)	Prepares the Deliverables Acceptance Plan. May also be supported by other roles such as the Project Quality Assurance (PQA), Project Support Office (PSO) and other project stakeholders.
Business Manager (BM)	Reviews and validates the deliverables acceptance requirements, activities and associated metrics.

Inputs

- Project Charter and Requirements Documents.
- Project Handbook.
- Project Work Plan.
- Requirements Management Plan.
- Quality Management Plan.

Guidelines

- Review the guidelines set out in the Deliverables Acceptance Plan template to get a better understanding of how to tailor the deliverables acceptance process for your project.
- Ensure that there is no duplication of information contained in other plans (e.g. the Requirements Management Plan, Quality Management Plan, Project Work Plan, etc.). Align the deliverables acceptance process with the requirements validation activities, as well as with other testing and quality control activities.
- Ensure that all project deliverables are accounted for, including any support material (e.g. user manuals, etc.).
- Note that deliverables acceptance activities may not happen (only) at the end of the Executing Phase, but can follow the project's delivery schedule.
- Include the deliverables acceptance activities (and resources required) in the Project Work Plan.

Steps

- Define the overall acceptance approach and schedule, as well as the tools to be used.
- Define the acceptance criteria and tolerances for the project deliverables and define the activities that are needed to achieve their validation.
- Define the process and timeline for dealing with non-acceptance (or partial acceptance) situations.
- Define the level of formality of the acceptance process (e.g. whether a signed Deliverables Acceptance Note is required, etc.).
- Define clear roles and responsibilities for the acceptance of each deliverable:
  - determine who is responsible for the activities leading up to the acceptance of the deliverable.
  - determine who is responsible for providing the necessary resources.
  - identify the stakeholders who will validate the deliverable and define the specific knowledge and skills required.
  - identify who is responsible for the final acceptance of the deliverable.
- Tailor the Deliverables Acceptance Checklist based on the acceptance activities defined.
- Submit the Deliverables Acceptance Plan to the Project Steering Committee (PSC) for approval.

RAM/RASCI	AGB	PSC	PO	BM	UR	SP	PM	PCT
Deliverables Acceptance Plan	I	**A**	C	**S**	I	C	**R**	C

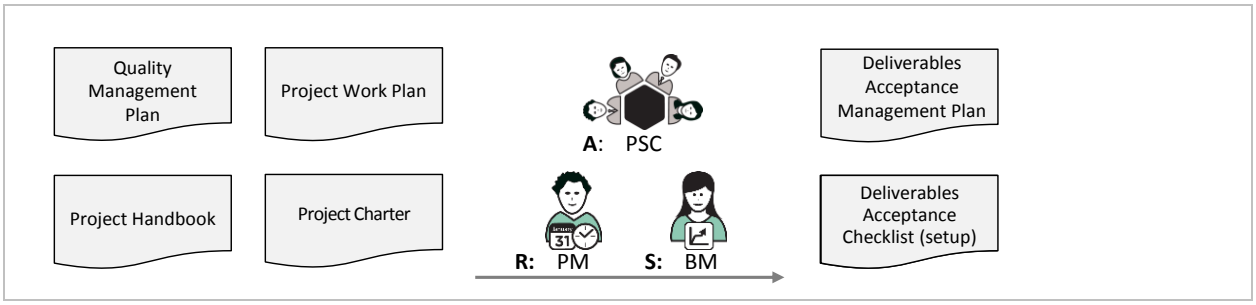

Fig 6.8: Deliverables Acceptance Plan — Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Acceptance Management	Project Charter	Deliverables Acceptance Plan	Deliverables Acceptance Note	Deliverables Acceptance Checklist Decision Log	Project-End Report

Outputs	**PM² Template?**
• Deliverables Acceptance Plan	☑
• Deliverables Acceptance Checklist (setup)	☑

6.7 Transition Plan

The Transition Plan defines the goals, pre-requisites, activities and responsibilities for transitioning from the old state to the new state in a way that minimises the impact of any disruptions to the business. Transition planning facilitates the rollout (or replacement) of project outputs in a smooth and timely fashion, and allows for their efficient use as early as possible.

Successful transition is an important prerequisite to the achievement of the planned project benefits. All transition activities become part of the Project Work Plan and are controlled as part of the overall project.

Key Participants	Description
Project Manager (PM)	Prepares the Transition Plan.
Project Core Team (PCT)	Is consulted.
Other project Stakeholders	Review and approve this deliverable.

Inputs

- Business Case & Project Charter.
- Project Work Plan.
- Project Change Management Plan.
- Business Implementation Plan.

Steps

1. Identify the roles and responsibilities linked to all aspects of the transition process.
2. Document what must be completed before the transition can start and finish.
3. Determine whether any changes need to be made to the physical (or virtual) environments within which the project outputs will be released.
4. Identify possible business interruptions and ensure that they are communicated to all impacted stakeholders and in a timely fashion.
5. Determine the coordination needs between various stakeholders (e.g. clients, users, etc.).
6. Ensure that operational support and maintenance is foreseen.
7. Define and schedule the transfers of responsibility for the deliverables from the Project Core Team (PCT) to the Project Owner (PO) and the operational support team.
8. Ensure that a formal announcement of the transition start and end is planned.
9. Include all transition activities in the Project Work Plan.
10. Ensure that the transition plan is communicated to the project stakeholders.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Transition Plan	I	**A**	C	C	C	C	**R**	C

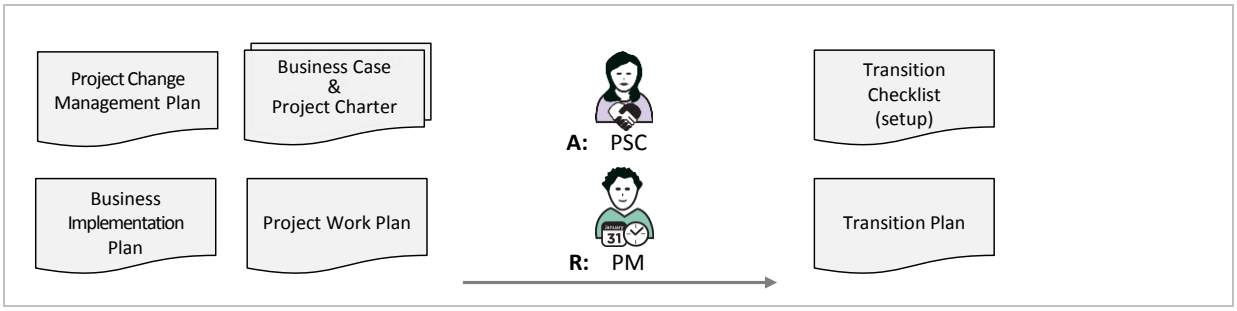

Fig 6.9 Transition Plan — Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Implementation Management	Project Charter	Business Implementation Plan Transition Plan Project Work Plan	Project Reports	Transition Checklist Business Implementation Checklist	Project-End Report

Outputs

- Transition Plan
- Transition Checklist (setup)

PM² Template?

☑
☑

6.8 Business Implementation Plan

The Business Implementation Plan outlines the project's impact on the organisation along with the change management activities that need to take place. The organisation must ensure that the project outputs are effectively integrated in the organisation's environment. A change management plan is developed to ensure this and to increase the chances of achieving the desired outcomes and benefits.

The Business Implementation Plan outlines these activities as a response to an analysis of the project's impact on the organisation's processes, culture and people. The activities become part of the Project Work Plan and are scheduled and controlled as part of the overall project.

Key Participants	Description
Business Manager (BM)	Prepares the Business Implementation Plan.
Project Manager (PM)	Supports the Business Manager (BM). Updates the Project Work Plan to include all the business implementation activities which fall within the responsibilities of the project.
Business Implementation Group (BIG) and other project stakeholders	Are consulted during the impact analysis and involved in the business implementation activities.
Project Owner (PO)	Reviews and approves the Business Implementation Plan.

Inputs

- Business Case & Project Charter
- Project Handbook
- Project Work Plan
- Quality Management Plan

Steps

1. Understand the current/future states and analyse the project's impact on the organisation and its processes, people and culture.
2. Plan the redesigning or updating of any affected business processes.
3. Develop a communication strategy and define change management activities.
4. Identify possible sources of resistance to the desired change(s), analyse the attitude of key stakeholders, and plan their involvement in change management activities.
5. Determine the training needs of the people in the organisation.
6. Devise business continuity plans for business-critical systems.
7. Include all project-related business implementation activities in the overall Project Work Plan.
8. Identify the change implementation (and change sustaining) activities to be carried out by the organisation after the project ends, possibly as future/follow-up projects.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Business Implementation Plan	I	I	A	**R**	C	I	**S**	I

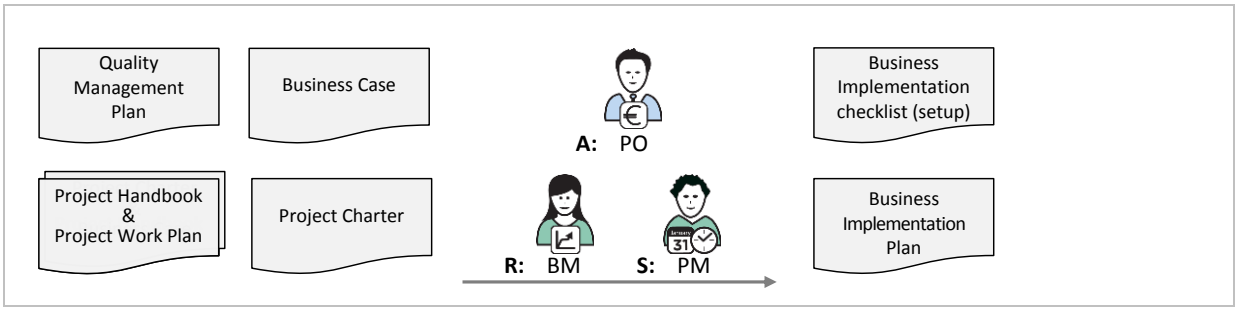

Fig 6.10 Business Implementation Plan — Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Implementation Management	Project Charter	Business Implementation Plan Transition Plan Project Work Plan	Project Reports	Transition Checklist Business Implementation Checklist	Project-End Report (Post-Project Recommendations)

Outputs

- Business Implementation Plan
- Business Implementation Checklist (setup)

PM² Template?

☑
☑

7 Executing Phase

During the Executing Phase, the Project Core Team (PCT) executes the work as was defined in the project plans. The purpose is to produce the project deliverables (outputs) as per the project requestor's expectations. By the end of the Executing Phase, all project deliverables need to have been produced and accepted by the requestor side (final or provisional acceptance — as per the Deliverables Acceptance Plan).

- The Executing Phase starts with a Kick-off Meeting that aims to bring everyone involved in the project onto the same page regarding the activities and expectations for this phase.
- The Project Manager (PM) coordinates people, resources, meetings and activities.
- The Project Manager (PM) resolves conflicts, manages quality assurance, produces project performance reports, and distributes information to all relevant stakeholders.
- The Project Core Team (PCT) executes the activities defined and scheduled in the Project Work Plan.
- The Business Implementation Group (BIG) executes the business implementation activities.

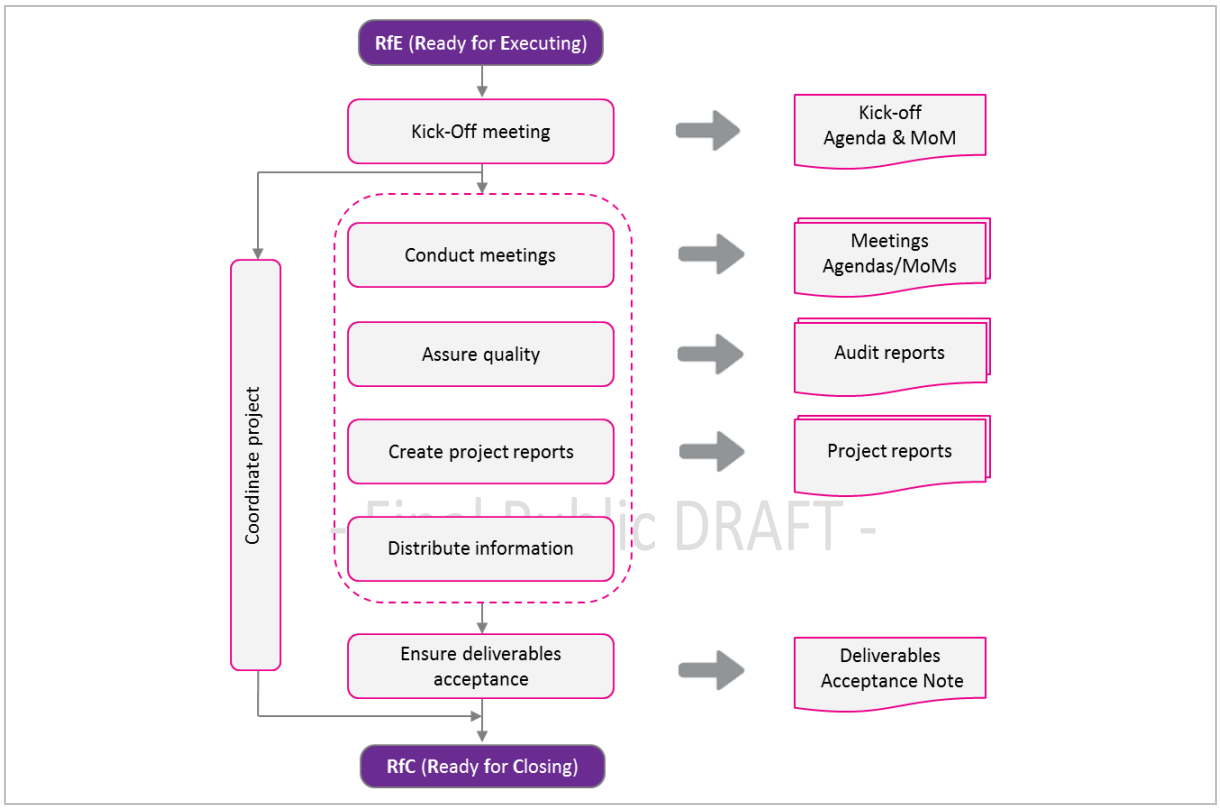

Fig 7.1 Executing Phase: activities and main outputs

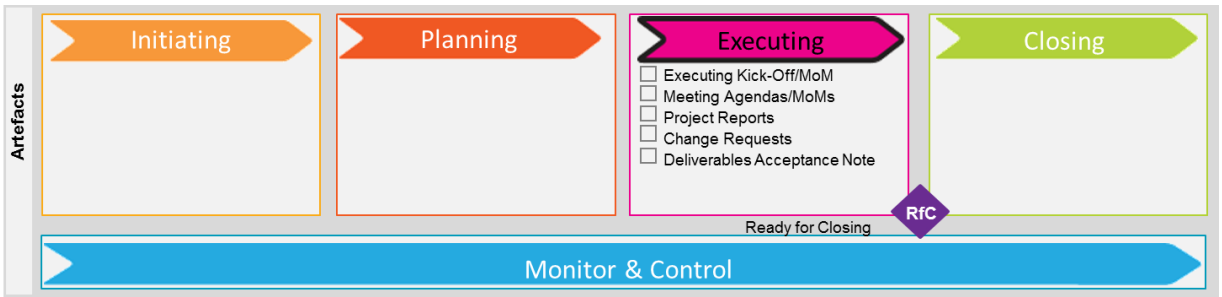

Fig 7.2 Executing Phase artefacts

Phase Gate: RfC (Ready for Closing)

The Project Steering Committee (PSC) verifies that all planned activities have been carried out, all requirements have been met, and that the project's output(s) have been fully delivered and accepted by the Business Manager (BM) and the User Representatives (URs).

The Project Manager (PM) ensures that the Project Owner (PO) provisionally accepts the project's deliverables before finalising the transition and making the outputs available to the end-users.

Once all of the above conditions have been satisfied, the project is ready to move to the Closing Phase.

7.1 Executing Kick-off Meeting

The Executing Phase starts with the Executing Kick-off Meeting. This meeting ensures that the whole Project Core Team (PCT) is aware of the key elements and rules of the project.

Key Participants	Description
Project Manager (PM)	Organiser.
Project Core Team (PCT)	Required participants.
Assistant Project Manager & (APM) Project Support Office (PSO)	Required (if they are part of the project).
Other project roles or stakeholders	Optional participation (as per the project's needs).

Inputs

- Business Case & Project Charter.
- Project Handbook.
- Project Work Plan.
- All project plans.
- Any requirements documents.

Steps

Before the Executing Kick-off Meeting:

1. Plan the meeting.
2. Draft the Executing Kick-off Meeting Agenda and decide on the main points to be discussed.
3. Send out the Executing Kick-off Meeting Agenda in advance.
4. Ensure the presence of the participants.
5. Address any logistical needs, and prepare documentation or hand-outs needed for the meeting.

During the Executing Kick-off Meeting:

1. Ensure that someone takes Meeting Minutes.
2. Present the Project Handbook and the Project Work Plan with the appropriate level of detail.
3. Present the Communications Management Plan.
4. Agree on the conflict resolution process and present the escalation procedure.
5. Present the Project Stakeholder Matrix.
6. Present the Risk Management, Issue Management and Project Change Management processes, and the Quality Assurance & Control activities.
7. Clarify the expectations for the Project Core Team (PCT).
8. Agree on the team's ground rules (communication via email, meetings, phone, meeting minutes to be produced, availability, etc.).

After the Executing Kick-off Meeting:

Send out the Meeting Minutes, including:

- A summary of project issues raised during the meeting. These are also logged in the Issue Log.
- A summary of decisions taken during the meeting. These are also logged in the Decision Log.
- A summary of project risks raised during the meeting. These are also logged in the Risk Log.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Executing Kick-off Meeting	I	**A**	C	**S**/C	C	C	**R**	C

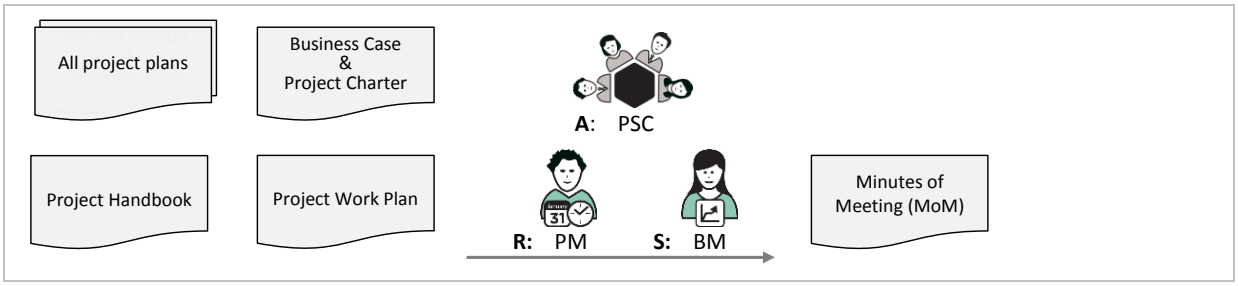

Fig 7.3 Executing Kick-off Meeting — Inputs/Outputs and main roles

Outputs

- Minutes of Meeting (MoM).

PM² Template?

☑

7.2 Project Coordination

The objective of project coordination is to facilitate the project's progress by continuously providing information to the Project Core Team (PCT) and supporting the completion of assigned work.

Project coordination includes the allocation of project resources to activities, performing regular quality checks of interim results, ongoing communication with all project team members, as well as the continuous motivation of all those involved in the project through leadership, negotiations, conflict resolution and the application of appropriate people management techniques.

Key Participants	Description
Project Manager (PM)	Responsible for all project coordination activities.
Assistant Project Manager (APM)	Supports the Project Manager (PM).
Business Manager (BM)	Can support (or contribute to) project coordination depending on the context of the project.

Inputs

- Project Handbook.
- Project Work Plan.

Note: In reality, project coordination begins with the initiation of the project and ends with its closing. however, the intensity of project coordination peaks during the Executing Phase.

Steps

1. Manage and direct project activities and stakeholders.
2. Assign tasks to the Project Core Team (PCT) and coordinate their execution as per the Project Work Plan.
3. Provide information to the Project Core Team (PCT) to support the progress of project work.
4. Verify the completion of tasks and accept interim work deliverables following predefined acceptance criteria.
5. Provide leadership and motivate the project team.
6. Manage project team dynamics.
7. Use negotiations, conflict resolution, and people management techniques to achieve smooth collaboration of team members and the effective progress of project work.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Coordination	I	I	**A**	**S**	I	I	**R**	I

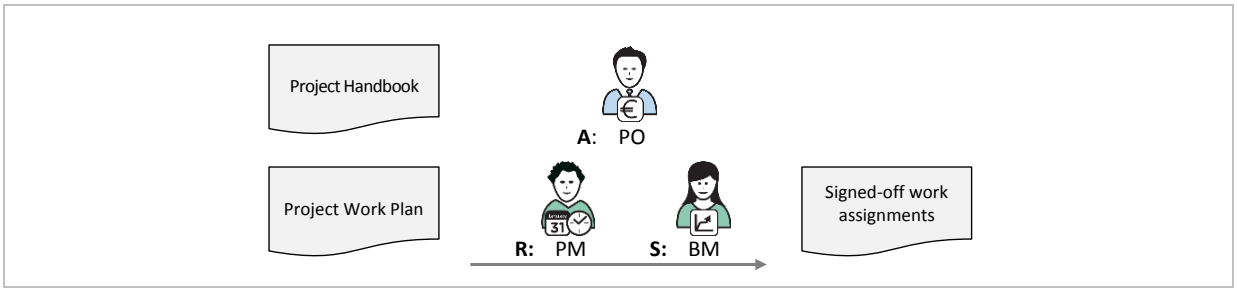

Fig 7.4 Project Coordination — inputs/outputs and main roles

Outputs

- Signed off work assignments.

7.3 Quality Assurance

Quality Assurance (QA) is the activity of providing the evidence needed to ensure high-quality work, and therefore, provide adequate confidence that the project will satisfy the desired scope and quality requirements within the project constraints.

Quality Assurance activities include assessing whether appropriate project controls are in place, confirming that they are implemented, and assessing their effectiveness. Quality Assurance activities are documented in the Quality Management Plan and can be performed:

- Internally, implemented by the Project Quality Assurance (PQA) role and by other project roles (e.g. the Project Core Team (PCT), Business Manager (BM), and Solution Provider (SP)).
- Externally, through audits carried out by entities external to the project.

Key Participants	Description
Project Manager (PM)	Is accountable for carrying out all Quality Assurance activities.
Project Quality Assurance (PQA)	Establishes quality assurance standards, and reviews project outputs and deliverables.
Project Core Team (PCT)	Must adhere to the project's quality assurance standards.

Inputs

- Quality Management Plan.
- Project Work Plan.

Guidelines

1. The Project Manager (PM) ensures that Quality Assurance activities are carried out.
2. These Quality Assurance activities must be part of the Project Work Plan.
3. The Project Quality Assurance (PQA) role establishes quality assurance standards, and reviews the compliance of project processes, outputs and deliverables to these standards.
4. The Project Core Team (PCT) must adhere to the quality assurance standards.
5. The Project Core Team (PCT) must provide evidence of adherence to the quality assurance standards and procedures.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Quality Assurance	I	I	I	**S**	C	I	**A**	**R**

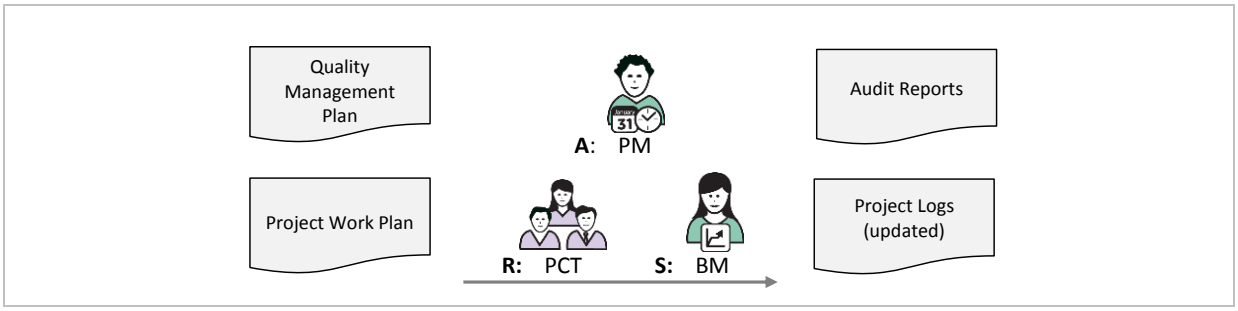

Fig 7.5 Quality Assurance — Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Quality Management	Project Charter	Quality Management Plan	Quality Review Reports Audit Reports	Quality Review Checklist Project Logs Phase-Exit Review Checklist	Project-End Report Project Acceptance Note

Outputs	**PM² Template?**
• Audit Reports.	-
• Project Logs (updated).	☑
• Quality Review Report.	-

7.4 Project Reporting

The purpose of all Project Reports is to document and summarise the status of various dimensions of the project's progress, in order to inform relevant project stakeholders. Project reports typically provide information on scope, schedule, cost, and quality, but often also include relevant information on risks, issues, project changes and contract management issues. This information should be provided to the various stakeholders in the appropriate representation (e.g. text or charts) and at the appropriate level of granularity.

The reports may also contain agreed project indicators and metrics for evaluating progress. The reports are formally presented and discussed during the various project meetings (e.g. Project Status Meetings, Steering Committee Meetings, etc.), and disseminated via the information distribution activities described in the Communications Management Plan.

Key Participants	Description
Project Manager (PM)	Responsible for all project reports (except external audit reports).
Other project stakeholders	Responsible for reviewing the reports.

Inputs

- Project Handbook.
- Project Work Plan.
- Communications Management Plan.
- Project Logs.
- Project Checklists.
- Outputs of the Monitor Project Performance activity.

Guidelines

Project Reports are an output of project monitoring and an important input for project control and decision making. They are also an input to the Project-End Review and an important way of capturing historical information. They should therefore be properly archived during the Closing Phase.

Project Reports should be tailored to the project's needs, as they are there to serve the information and communication needs of the project stakeholders.

Steps

1. List all reports to be used in the project in the Project Handbook. PM² provides templates for the Status and Progress Reports.
2. Make sure that the report templates used are effective in achieving their purpose.
3. Make sure that the report's content, information granularity (level of detail) and format are well thought-through and appropriate for the intended audience (stakeholders).
4. If needed, create Ad Hoc Reports to address specific reporting needs (e.g. in case of a project crisis).

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Reports	I	I	**A**	**S**/C	I/C	I/C	**R**	C

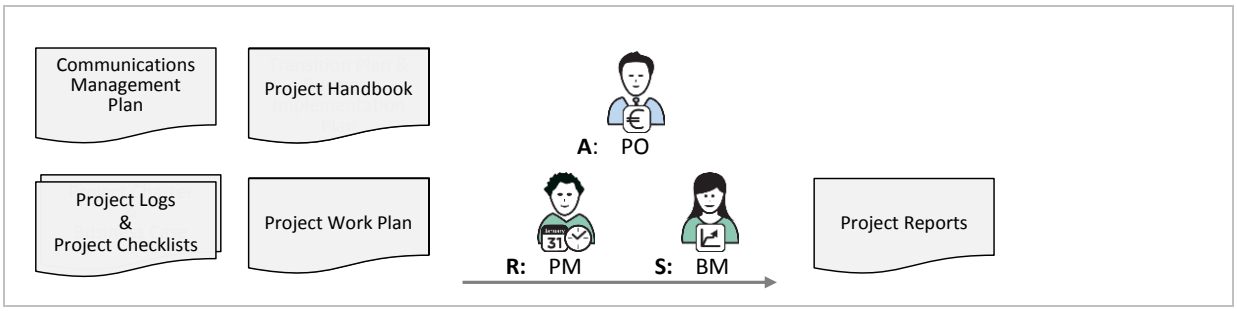

Fig 7.6 Project Reporting — Inputs and main roles.

The following are examples of PM² reports:

- Project Status Report.
- Project Progress Report.
- Quality Review Report.
- Contractor Status Report.
- Custom or Ad Hoc Reports

The Project Status Report

The Project Status Report is produced by the Project Manager (PM) and is regularly submitted to the Project Steering Committee (PSC) and other stakeholders (as per the Communications Management Plan).

It should provide a summary of the project's performance (rather than detailed task-level information). It should include tracking information on costs, scheduling, scope/changes, risks, and issues, report on the status of important milestones for the current reporting period, and provide forecasts for future reporting periods.

The Project Progress Report

The Project Progress Report gives a high-level overview of the project and its status. It includes a project overview (project stakeholders, milestones and deliverables, project plan, budget and costs) and further project details (scope changes, major risks/issues and actions taken, achievements).

If a project is a multi-annual project and its overall vision/scope did not change, the Project Progress Report can be used to get the project approved for the following year. However, if the project's vision/scope has changed, an updated Project Charter should be submitted.

The Quality Review Report

The Project Manager (PM) produces a Quality Review Report after evaluating the results of quality assurance activities and the effectiveness of the project's quality management process for all aspects of the project (i.e. scope, time, cost, quality, project organisation, communication, risks, contracts, client satisfaction, etc.).

The Quality Review Report should give an overview of the status of all project quality management activities and present the main quality assurance and control results, non-conformities, opportunities for improvement, recommendations and remediation/improvement actions, and their impact and status. It should also report on the status of important project configuration activities (assurance and control). The main input to the Quality Review Report is the Quality Review Checklist.

Contractor Status Report

The Contractor Status Report is filled out by the contractor (if there is one) and should be regularly submitted to the Project Manager (PM) (as agreed). The report presents the project status for the current reporting period and provides forecasts for future reporting periods, as well as information on any new risks, disputes, and issues. The Project Manager (PM) should include a summary/highlights of Contractor Status Reports in the Project Status Report.

Custom or Ad Hoc Reports

Reports should serve the project's particular needs. If it is decided that a custom report is needed, this should be defined during the Planning Phase and should be documented in the Project Handbook. Custom reports could be domain-specific (e.g. IT-related) or project-specific (i.e. related to the particularities of the project organisation or the project management approach).

Similarly, if an explicit communication/reporting need arises during the project, an Ad Hoc Report can be produced to address this need.

Outputs	PM² Template?
• Project Status Report	☑
• Project Progress Report	☑
• Quality Review Report	☑
• Contractor Status Report	-
• Custom or Ad Hoc Reports	-

7.5 Information Distribution

The purpose of information distribution is to regularly inform project stakeholders about relevant project information, as per the Communications Management Plan and project stakeholder needs.

Key Participants	Description
Project Support Office (PSO)	Manages internal communication and assists in activities such as document change control, baselining of plans, etc.
Project Manager (PM)	Responsible for ensuring that the Project Core Team (PCT) has all the necessary information to carry out its tasks.
Other project stakeholders	Are kept informed about the project, and in turn inform the project team about any factors external to the project that might influence the project.

Inputs

- Communications Management Plan.
- Project Work Plan.
- Project Reports and Project Logs.
- Minutes of Meeting (MoM).

Guidelines

- Relevant information resulting from the execution of project plans should be communicated to appropriate parties at the right time and in the appropriate format.
- If meetings are used to distribute information, make sure that they are frequent enough to serve the communication needs of the project stakeholders.
- Keep stakeholders well-informed by regularly sending them Status and Progress Reports on how the project is evolving in comparison with the baseline schedule and budget.

Steps

1. Carry out the tasks detailed in the Communications Management Plan.
2. Inform stakeholders about updates to the Project Work Plan.
3. Communicate any changes/updates to any key project documents and logs.
4. Send out the Project Reports as per the Communications Management Plan.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Information Distribution	I	I	**A**	C	I	I	**R**	C

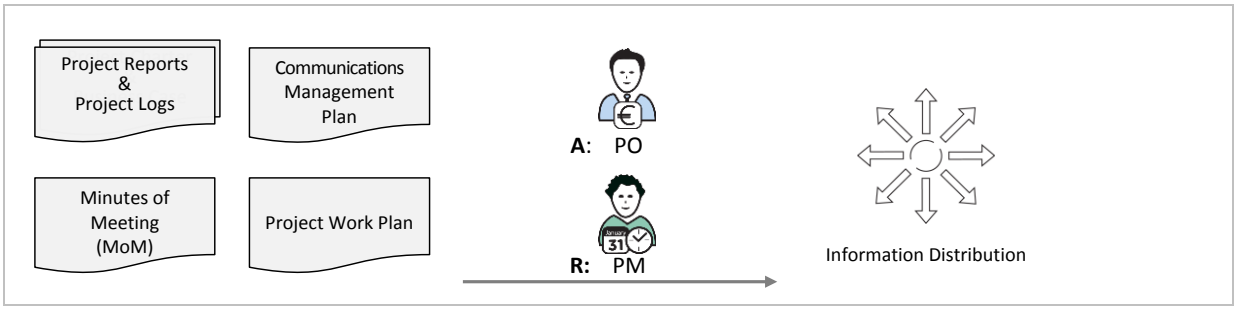

Fig 7.7 Information Distribution — Inputs/Outputs and main roles

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8 Monitor & Control

Monitor & Control activities transcend all project phases. They include all activities carried out to monitor the project's performance and identify/rectify any deviations from the project plans in order to meet the project's objectives. This includes planning and implementing corrective or preventive actions to address existing or potential problems.

The key Monitor & Control activities are grouped below:

Monitor

- Monitoring ongoing project activities.
- Measuring the project dimensions (scope, schedule, cost and quality) and comparing them against the Project Plan and the project performance baseline.

Control

- Identifying, planning and implementing actions to address issues and risks.
- Applying integrated change control so that only approved changes are implemented.

Monitor & Control Activities and Artefacts

The following diagram gives an overview of Monitor & Control activities and main artefacts.

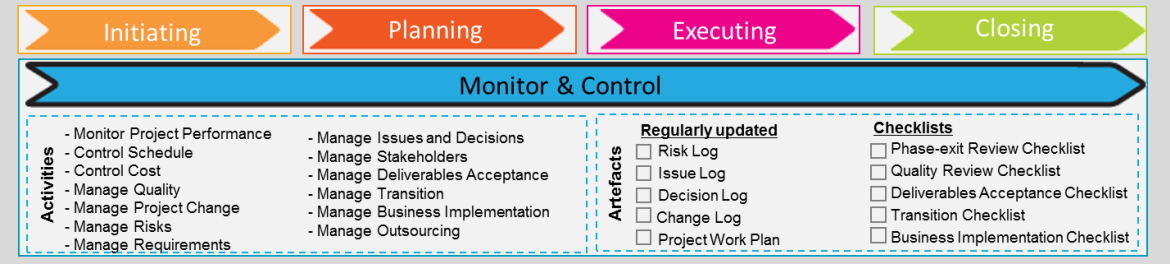

Fig 8.1: Monitor & Control: activities and main artefacts

The Project Logs are regularly updated as new information becomes available (e.g. new issues can arise and new information can be added to existing issues in the Issue Log).

Checklists

- There are a number of checklists that can be used to help the Project Manager (PM) better control the project.
- Checklists provided: Phase-exit Review Checklist, Quality Review Checklist, Deliverables Acceptance Checklist, Transition Checklist, Stakeholders Checklist and Business Implementation Checklist.

The Monitor & Control activities are presented in the following sections. These activities are carried out based on the Project Management Plans that were developed during the Planning Phase (i.e. tailored and customised PM² templates). The effective execution of these plans is ultimately the responsibility of the Project Manager (PM).

8.1 Monitor Project Performance

The objective of monitoring project performance is to know if the project is progressing as it should. The Project Manager (PM) tracks the project dimensions (scope, schedule, cost and quality), monitors risks, project change and overall project performance, and should be able to report on and forecast the project's evolution to project stakeholders.

This information is then made available (distributed) to the relevant stakeholders, as defined in the Communications Management Plan.

Key Participants	Description
Project Manager (PM)	Responsible for all project monitoring activities.
Project Core Team (PCT)	Contributes information on project progress.

Inputs

- Project Handbook.
- Project Work Plan (baselined)
- Project Logs (Risk Log, Issue Log, Decision Log, Project Change Log).
- Quality Checklists.
- Minutes of Meetings (MoMs from past meetings).
- Input from the Contractor's Project Manager (CPM) (if applicable).

Steps

1. The baselined Project Work Plan is used as a reference for monitoring. The critical path and related issues should get particular attention.
2. The Project Core Team (PCT) regularly exchanges information about the current status and project's next steps with the Project Manager, through formal and informal meetings.
3. The Project Manager (PM) gathers information and monitors progress, such as:
   - Tasks
     - Status of critical path tasks.
     - Start, end and progress of the ongoing (or planned) tasks.
   - Key outputs
     - Completed and verified deliverables.
     - Milestones achieved as planned.
   - Resource utilisation/consumption
     - Resources used as planned.
     - Costs as budgeted.
   - Status of key logs
     - Status and evolution of risks and issues.
     - Changes to the initial scope and plan.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Monitor Project Performance	I	I	**A**	C	C	I	**R**	C

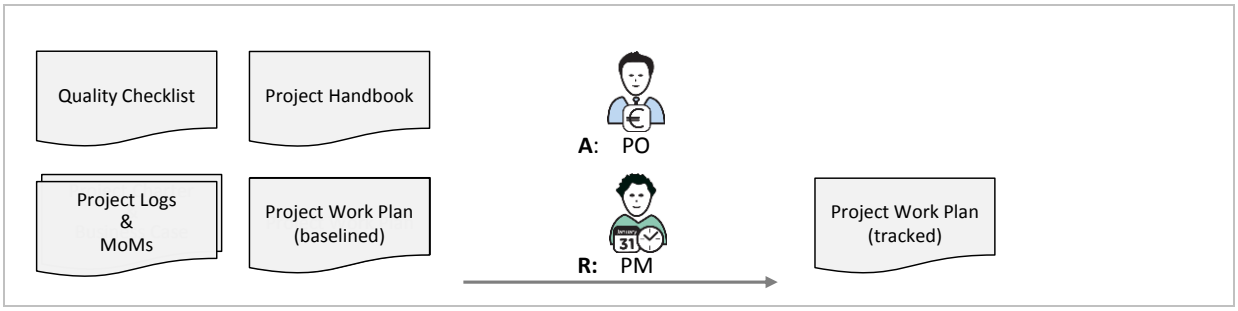

Fig 8.2 Monitor Project Performance — Inputs/Outputs and main roles

Outputs

- Project Work Plan (tracked)

PM² Template?

☑

8.2 Control Schedule

The purpose of schedule control is to ensure that project tasks are carried out as scheduled and that project deadlines are achieved. The Project Manager (PM) regularly monitors the schedule and tracks the difference between planned, actual and forecasted activities/deadlines.

Changes to tasks (i.e. required effort or start/end dates) which have an impact on the overall project schedule are compiled and incorporated into the Project Work Plan (updated schedule status). If the schedule is at risk or considerable delays are foreseen, the Project Steering Committee (PSC) needs to be informed and corrective actions need to be devised, agreed and implemented. If this happens, affected project stakeholders should also be notified.

Key Participants	Description
Project Manager (PM)	Responsible for monitoring and controlling the work schedule.
Project Core Team (PCT)	Reports on the status of their work, periodically or upon request.

Inputs

- Project Handbook.
- Project Work Plan.
- Change Log (and other relevant Project Logs).
- Minutes of Meetings and Project Reports (from previous reporting periods).

Steps

1. Track the evolution of project tasks as defined in the Project Handbook.
2. Update the project schedule to reflect actual task status.
3. Review the Project Work Plan on a regular basis to identify potential sources of delays.
4. Track project changes, issues and risks, and monitor their impact on the project schedule.
5. The Project Core Team (PCT) attempt to keep to the baselined schedule and quality standards.
6. Devise, agree and implement corrective actions if the schedule status has significant (or critical) deviations from the planned schedule.
7. Inform all affected project stakeholders about changes to the project schedule and/or tasks.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Control Schedule	I	I	**A**	C	C	I	**R**	C

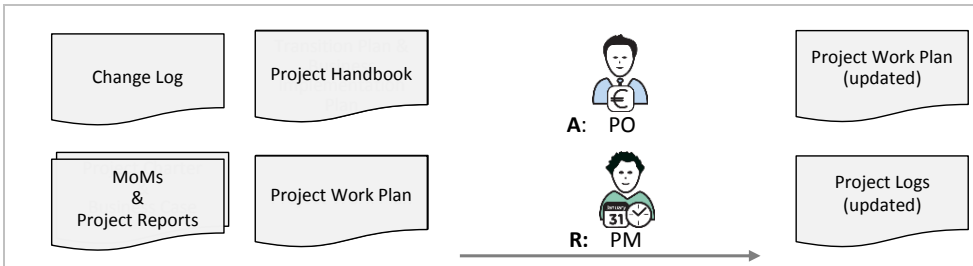

Fig 8.3 Control Schedule — Inputs/Outputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Schedule Management	Project Charter	Project Handbook Project Work Plan	Project Reports	Project Work Plan	Project-End Report

Outputs

- Project Work Plan (updated)
- Project Logs (updated)

PM² Template?

☑
☑

8.3 Control Cost

The purpose of cost control is to manage the project costs so that they are in line with the cost/effort baseline and overall project budget constraints. The Project Manager (PM) regularly monitors the budget and tracks the difference between budgeted, actual and forecasted costs.

If the project budget is at risk, the Project Steering Committee (PSC) needs to be informed and corrective actions need to be devised, agreed and implemented. If considerable cost overruns are foreseen, these need to be justified, reported to and approved by the Project Owner (PO) or the Appropriate Governance Body (AGB).

Note: The project budget must have been approved by the Project Owner (PO) at the beginning of the project.

Key Participants	Description
Project Manager (PM)	Responsible for monitoring and controlling the budget.
Project Owner (PO)	Owns and approves the budgeted costs.

Inputs

- Project Handbook
- Project Work Plan
- Outsourcing Plan (if applicable)
- Change Log (and other relevant Project Logs)
- Minutes of Meetings and Project Reports (from previous reporting periods)

Steps

1. Track the project's effort/overall budget consumption as defined in the Project Handbook.
2. Regularly review the project budget with the Project Owner (PO).
3. Evaluate and communicate any differences between budgeted and actual project costs. Significant differences require the Project Owner's (PO) review and approval.
4. Devise and plan the implementation of corrective actions that will bring the budget back on track.
5. If the project budget needs to be considerably revised, this must be justified and documented (e.g. in the Project Progress Report). Formal approval from the Appropriate Governance Body (AGB) is required before the affected plans can be re-baselined.
6. If there is an impact on the project schedule, risks or quality, this must be reviewed and approved by the Project Owner (PO) and communicated to any affected project stakeholders.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Control Cost	I	I	**A**	C	C	I	**R**	C

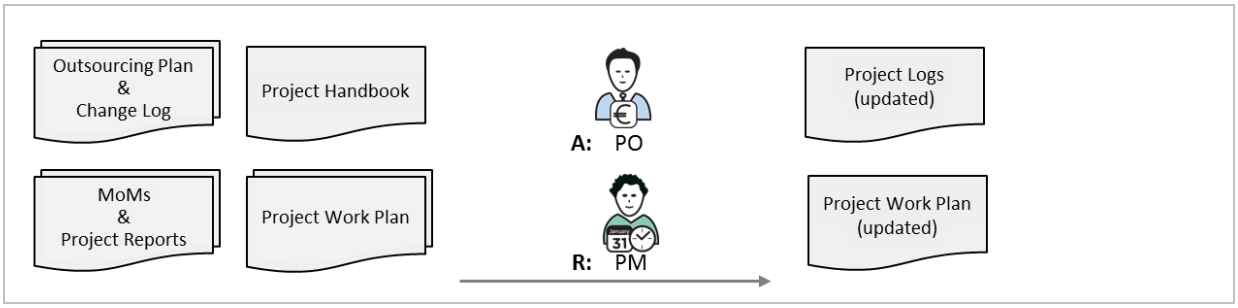

Fig 8.4: Control Cost – Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Cost Management	Business Case Project Charter	Project Handbook Project Work Plan	Project Reports	Project Work Plan Project Logs	Project-End Report

Outputs	**PM² Template?**
• Project Work Plan (updated)	☑
• Project Logs (updated)	☑

8.4 Manage Stakeholders

Managing project stakeholders is a critical project management activity which begins early in the project lifecycle when project expectations and requirements are identified (in the Initiating Phase), and ends with recording stakeholders' overall project experience and satisfaction (in the Closing Phase).

Responsibility for this activity belongs to the Project Manager (PM). however, the Project Steering Committee (PSC) should also be involved, in particular the Business Manager (BM) who should help manage stakeholders on the requestor side (e.g. users).

Key Participants	Description
Project Manager (PM)	Responsible for managing project stakeholders.
Business Manager (BM)	Supports the Project Manager in this activity.

Inputs

- Project Handbook.
- Project Stakeholder Matrix.
- Communications Management Plan.
- Deliverables Acceptance & Transition Plans.
- Business Implementation Plan.

Steps

1. Analyse the expectations, attitudes, level of interest and influence of key project stakeholders. Beware of stakeholders who are less than enthusiastic or are opposed to the project.
2. Devise appropriate communication and management strategies, with the purpose of achieving stakeholder involvement and contribution.
3. Continually monitor how stakeholders are reacting or changing their attitudes and manage accordingly. A one-off analysis exercise is not enough, especially for longer term and/or complex projects. Use the Stakeholders Checklist to verify if there are specific actions to be taken at specific moments in the project.
4. Ensure that any planned stakeholder management activities are time-bound and focused. Keep in mind that the contribution/involvement of various stakeholders may be different for each project phase.
5. The Communications Management Plan should be aligned with Stakeholder Management needs, particularly in the areas of project acceptance, transition, and business implementation.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Manage Stakeholders	I	I	**A**	**S**/C	I	C	**R**	I

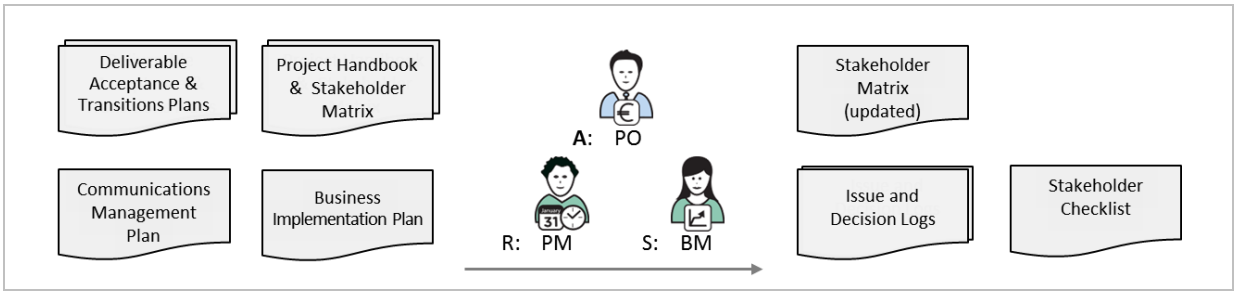

Fig 8.5: Manage Stakeholders— Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Stakeholder Management	Business Case Project Charter	Project Stakeholder Matrix Communications Management Plan	Project Reports	Project Logs Stakeholders Checklist	Project-End Report

Outputs	**PM² Template?**
• Project Stakeholder Matrix (updated)	☑
• Issue and Decision Logs (updated)	☑
• Stakeholders Checklist	☑

8.5 Manage Requirements

Requirements Management is the process of gathering, documenting and validating requirements, and managing their implementation and change. It is a process that runs continuously throughout the project life cycle and relates to other project management processes, such as quality and change management.

The Requirements Management process can be tailored and customised to a project's needs and can be documented either in a Requirements Management Plan or in the Project Handbook. Separate requirements documents are used to specify, categorise and prioritise the requirements. These can be standalone documents or an annex to the Project Charter.

Key Participants	Description
Project Manager (PM)	Responsible for the requirements management process.
Business Manager (BM)	Provides information for the drafting of their requirements and approves them.
User Representatives (UR)	Participate in the gathering and validation of the requirements.
Business Analyst (BA) *(member of the Project Core Team (PCT))*	Responsible for many of the requirements management activities (e.g. requirements documentation, specification, etc.).

Inputs

- Project Initiation Request, Business Case and Project Charter.
- Requirements Management Plan.
- Project Stakeholder Matrix.

Guidelines

- A requirement is a capability that a product or service must have in order to satisfy a stakeholder's need(s).
- High-level requirements may also be referred to as business requirements, and are usually initially specified in the Project Initiation Request, the Business Case and the Project Charter.
- Further detailing the requirements leads to the development of lower-level requirements, which can be described in a variety of formats (e.g. text, use cases or user stories, models, business processes, sketches or graphics, etc.) and are documented in various requirements artefacts.
- The agreed and approved requirements of all stakeholders constitute the project's baseline scope.
- Any change to the baselined requirements should follow the change management process described in the Change Management Plan.
- For each identified requirement there should be a corresponding test to validate its acceptance in the appropriate document (Deliverable Acceptance Checklist or Quality Review Checklist).
- Non-ambiguous terms should be used and technology- or solution-oriented statements should be avoided, as requirements should describe the need, not the solution.
- Even if requirements have been gathered before the project starts, it still is the Project Manager's (PMs) responsibility to ensure their proper management.

Steps

1. **Specify the requirements:** together with the project stakeholders, gather the project requirements and document them clearly in the Requirements Artefacts. Structure them by adding relevant metadata.
2. **Evaluate the requirements:** the project team assesses the feasibility, consistency and completeness of the requirements, and estimates the effort/costs needed to implement them. The Project Manager (PM) balances the list of requirements against project constraints (budget, time, etc.) and makes a proposal to the project stakeholders.
3. **Approve the requirements:** the Project Manager (PM) and key stakeholders (such as the Project Owner (PO) or Business Manager (BM)) negotiate and agree on the requirements for the project.
4. **Monitor requirements implementation:** the Project Manager (PM) continuously monitors the Project Core Team's (PCT) implementation of the requirements, adds new requirements and changes existing ones where needed.
5. **Validate the implemented requirements:** when the requirements are implemented, the solution is validated by User Representatives (URs) to assess if the initial business need is satisfied. Formal acceptance of the project deliverables should comply with the Deliverables Acceptance process.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Manage Requirements	I	I	**A**	C	C	I	R	S

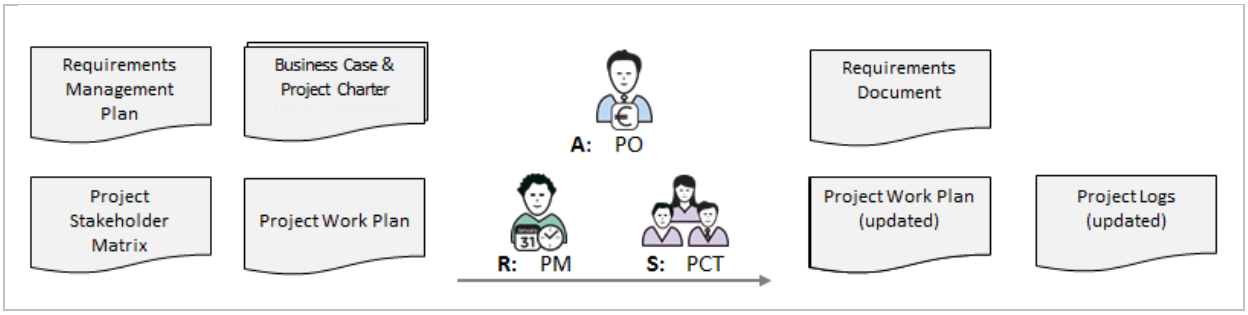

Fig 8.6 Manage Requirements — Inputs/Outputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Requirements Management	Project Initiation Request Project Charter	Requirements Management Plan Deliverables Acceptance Plan Project Stakeholder Matrix	Change Requests	Requirements Document Project Work Plan Project Logs	Project-End Report

Outputs	**PM² Template?**
• Requirements Document	-
• Change Log (updated)	☑
• Project Work Plan (updated)	☑

8.6 Manage Project Change

Project change management defines the activities related to identifying, documenting, assessing, prioritising, approving, planning and controlling project changes, and communicating them to all relevant stakeholders. Changes can be requested (or identified and raised) throughout the project lifecycle by any project stakeholder and can be related to a change in the project scope, requirements, deliverables and features, quality characteristics, or milestones.

The Project Change Management Process can be tailored and customised to a project's needs and can be documented either in a Project Change Management Plan or in the Project Handbook. A Change Log is used to monitor and control all project changes. This helps tracking changes and communicating them to the Project Owner (PO) and/or the Project Steering Committee (PSC) for approval.

Key Participants	Description
Project Manager (PM)	Monitors and controls the project changes.
Project Owner (PO) and/or Project Steering Committee (PSC)	Approves or rejects the project changes.
Project Core Team (PCT)	Is involved in analysing the requested project changes (estimating the effort required to implement the changes).
Stakeholders	Are informed about the approved project changes and may introduce new project changes.

Inputs

- Business Case & Project Charter.
- Project Change Management Process.
- Project Work Plan.
- Communications Management Plan.
- Relevant logs (e.g. the Issue Log for managing changes related to issue resolution).

Steps

1. **Identify the change:** The purpose of this step is to identify and document change requests. The Project Manager (PM) ensures that a Change Request is appropriately documented (i.e. via a Change Request Form and in the Change Log).
2. **Assess the change and recommend action:** The purpose of this step is to a) assess whether this request is indeed a project change, b) consider the impact of not implementing the proposed change, c) estimate the size of the identified change based on its impact on the project objectives, schedule, cost and effort, and d) decide on a priority for the implementation of the change request (i.e. against other change requests).
3. **Approve the change:** The purpose of this step is to reach a decision regarding the approval of the change based on the project's escalation procedure (i.e. the change must be reviewed by the appropriate decision makers within the Managing/Directing/Steering Layers as defined by the project's Governance Model).
   There are four possible decisions: approve, reject, postpone or merge the change request. The decision details are documented in the Change Log and communicated to the requestor.
4. **Implement the change:** For approved or merged changes, the Project Manager (PM) should incorporate actions related to them into the Project Work Plan and update the related documentation and logs (i.e. Risk, Issue, Change and Decision Logs and other plans).
5. **Control the change:** The purpose of this step is to monitor and control project changes, to be able to easily communicate them to the various project decision layers for approval or status updates. The Project Manager (PM) should collect information on any project changes and related actions and control the status of each change management activity.
   All stakeholders affected by the project changes should be kept informed and the Change Log should be kept up-to-date.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Manage Project Change	I	C	**A**	**S**	I	I	**R**	C

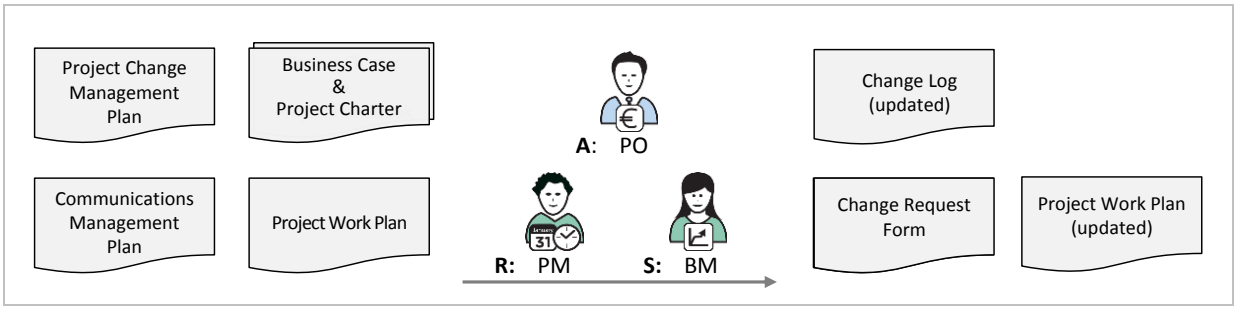

Fig 8.7 Manage Project Change — Inputs/Outputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Project Change Management	Project Charter	Project Change Management Plan	Change Request Project Reports	Change Log Project Work Plan	Project-End Report

Outputs	**PM² Template?**
• Change Request Form	☑
• Change Log (updated)	☑
• Project Work Plan (updated)	☑

Project Change Log

The structure of the Change Log is presented in Appendix B: Project Management Plans and Logs.

8.7 Manage Risk

Risk management is a continuous and systematic process for identifying, assessing, and managing risks to be in line with the accepted risk appetite. Risk management improves project teams' ability and confidence to handle uncertainty. It focuses on handling proactively any event that might threaten project objectives.

The Risk Management Process can be tailored and customised to a project's needs and can be documented either in a Risk Management Plan or in the Project Handbook. A Risk Log is used to document and communicate the risks and relevant risk response actions and responsibilities.

Key Participants	Description
Project Manager (PM)	Monitors and controls the risks.
Other project stakeholders	Are informed of the critical risks.
Project Core Team (PCT)	Is involved in identifying and responding to risks.
Other stakeholders	May identify and communicate risks in their areas of expertise.

Inputs

- Business Case & Project Charter.
- Risk Management Process.
- Risk Log.

Steps

1. Ensure that risk management activities are carried out as per the Risk Management Plan. The Project Steering Committee (PSC) is responsible for monitoring projects with high-risk exposure.
2. **Identify risks**: The purpose is to identify and document the risks that can impact the project's objectives. Note that new risks may arise at any point during the project and should be added to the Risk Log for further analysis/action.
3. Carry out a **risk assessment**: The purpose is to assess the likelihood and the severity of the impact on project objectives of each risks. This assessment is necessary before any risk response can be planned. Medium/high risks are dealt with at a higher priority level.
4. **Develop a risk response strategy**: The purpose is to choose the best possible strategy and to identify and plan actions to manage the risks.
5. **Control risk response activities**: The purpose is to monitor and control the implementation of risk response activities, as well as revise/update the Risk Log based on a regular reassessment.
6. Update the Project Work Plan with clear risk response tasks if the size and number of these tasks is significant.
7. Regularly report to the Project Steering Committee (PSC) on the status of risk-related activities.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Manage Risks	I	C	**A**	**S**/C	C	I	**R**	C

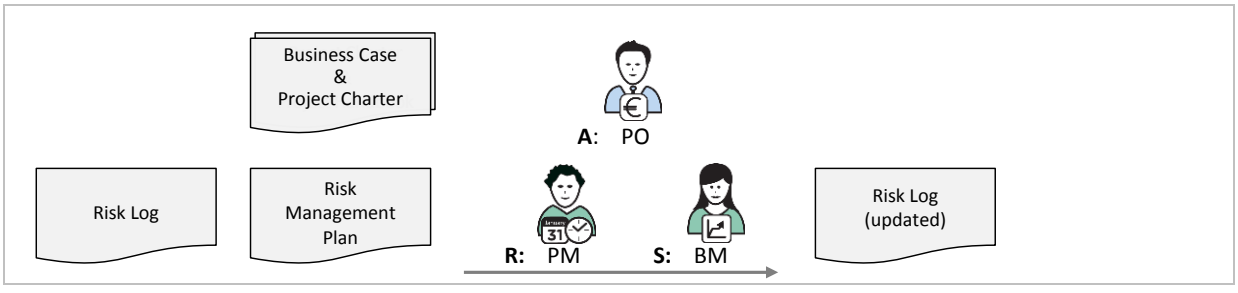

Fig 8.8: Manage Risk - Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Risk Management	Project Charter	Risk Management Plan	Project Reports	Project Logs Project Work Plan	Project-End Report

Outputs

- Risk Log (updated)

PM² Template?

☑

Project Risk Log

The structure of the Risk Log is presented in Appendix B: Project Management Plans and Logs.

8.8 Manage Issues and Decisions

The Project Manager (PM) manages project issues and decisions. Issues are identified, evaluated and assigned for resolution to relevant project stakeholders as per the Issue Management process, which can be documented either in an Issue Management Plan or in the Project Handbook. The Issue Log is used to manage project issues while the Decision Log is used to document all relevant decisions. Note that issues and decisions are often linked to the resolution of other log items (e.g. risks, changes).

Key Participants	Description
Project Manager (PM)	Monitors issues and decides how to manage them.
Project Core Team (PCT)	Reviews, takes action and resolves pending issues.
Other project stakeholders	Are informed about important issues and make critical and important decisions.

Inputs

- Issue Management Process.
- Project Logs.
- Minutes of Meetings.

Steps (to manage project issues):

1. Ensure that issue management activities are carried out as per the Issues Management Process.
2. Identify issues and add them to the Issue Log.
3. Escalate the most important issues (of large size or high impact) to the Project Steering Committee (PSC), or follow the defined escalation procedure and thresholds.
4. Update the Project Work Plan appropriately with clear issue management activities if the size and number of issues/actions is significant.
5. Monitor and control the resolution of issues.
6. Update the Issue Log regularly with new issues as they arise. Close resolved issues.
7. Regularly report on the status to project stakeholders (as per the Communications Plan).

Steps (to manage decisions):

1. Document decisions taken during the project (particularly during the Executing Phase).
2. Link decisions to the resolution of other log items (e.g. risks, issues, and changes).
3. The Project Manager (PM) implements the decision or escalates it to the Project Steering Committee (PSC), depending on its importance.
4. The Project Manager (PM) regularly reports on the status of decisions to project stakeholders.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Manage Issues and Decisions	I	I	**A**	**S**	C	I	**R**	C

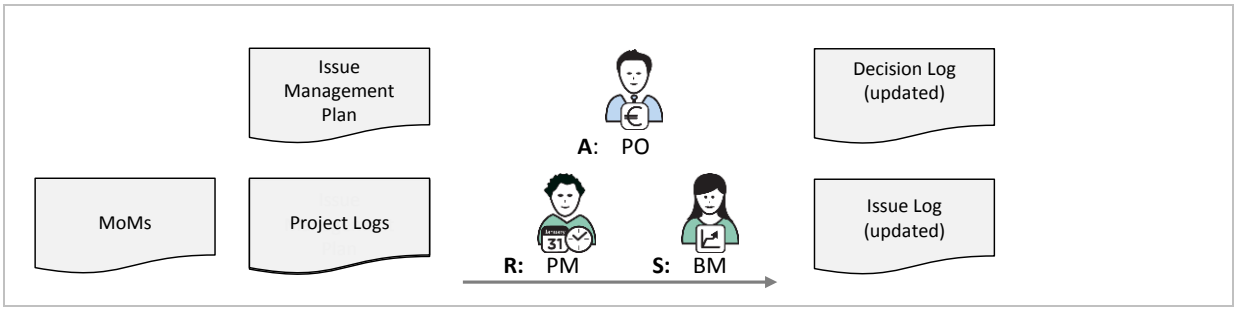

Fig 8.9: Manage Issues and Decisions - Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Issue Management		Issue Management Plan	Project Reports	Project Logs Project Work Plan	Project-End Report

Outputs	**PM² Template?**
• Issue Log (updated)	☑
• Decision Log (updated)	☑

Project Issue and Decision Logs

The structure of the Issue and Decision Log is presented in Appendix B: Project Management Plans and Logs.

8.9 Manage Quality

Project quality management aims to ensure that the project will achieve the expected results in the most efficient way and that deliverables will be accepted by the relevant stakeholders. It involves overseeing all activities needed to maintain a desired level of excellence. This includes performing quality planning, quality assurance, quality control and quality improvement up until the project's final acceptance (in the Closing Phase). Configuration management will help project stakeholders to manage project artefacts and deliverables effectively and to provide a single reliable reference to them, ensuring that the correct versions are delivered to the project requestor/client.

The Project Manager (PM) must ensure that the objectives, approach, requirements, activities, metrics and responsibilities of the project's quality management process are clearly defined and documented in the Quality Management Plan.

Key Participants	Description
Project Manager (PM)	Ensures that all quality controls are carried out as planned.
Project Quality Assurance (PQA)	Reviews project quality.
Project Core Team (PCT)	Assists with Quality Control.

Inputs

- Project Handbook.
- Project Work Plan.
- Quality Management Plan.
- Deliverables Acceptance Plan.

Steps

1. Define, agree and achieve project quality characteristics, considering project needs, constraints, and a cost/benefit analysis.
2. Plan and perform quality assurance and control activities.
3. Verify that the configuration management procedure is being followed.
4. Actively involve the whole project team and relevant stakeholders.
5. Identify any non-conformity, analyse the root cause, and implement corrective actions.
6. Identify opportunities for quality improvements to both the process and the deliverables.
7. Ensure that all deliverables are accepted by the relevant stakeholders based on a predefined/documented quality/acceptance criteria and the agreed acceptance process.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Manage Quality	I	I	I	**S**/C	C	**A**	**R**	C

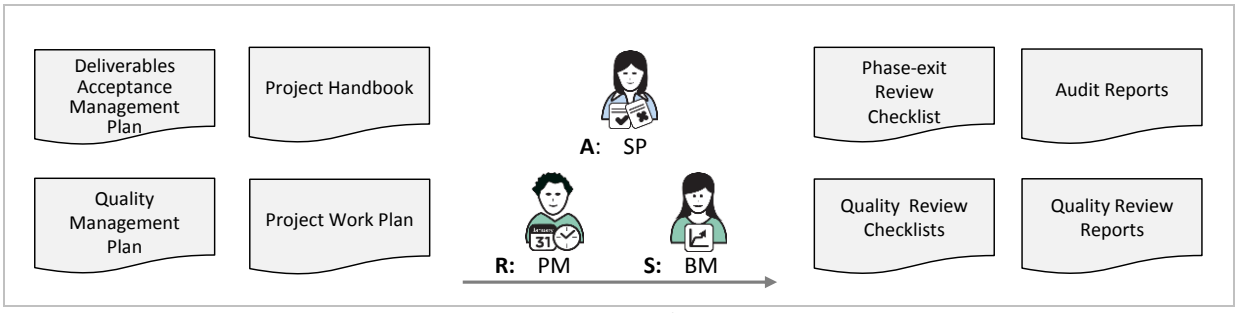

Fig 8.10: Manage Quality - Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Quality Management	Project Charter	Quality Management Plan	Quality Review Reports Audit Reports	Quality Review Checklist Phase-exit Review Checklist Project Logs	Project-End Report Project Acceptance Note

Outputs	**PM² Template?**
• Quality Review Checklist	☑
• Phase-exit Review Checklist	☑
• Quality Review Reports	-
• Audit Reports	-

8.10 Manage Deliverables Acceptance

A project may produce one or more deliverables. Each of these deliverables must be formally accepted. Deliverables acceptance management ensures that these deliverables meet the predefined objectives and criteria defined in the Deliverables Acceptance Plan so that the project requestor can formally accept them.

Note that final project acceptance takes place in the Closing Phase.

Key Participants	Description
Project Manager (PM)	Responsible for deliverables acceptance management.
Project Quality Assurance (PQA)	Assists the Project Manager (PM) and performs most of the quality controls.
Project Steering Committee (PSC)	Is responsible for the general project acceptance strategy.
Project Owner (PO)	Is responsible for the final acceptance of the project's deliverables.

Inputs

- Deliverables Acceptance Plan
- Project Work Plan
- Quality Management Plan
- Outsourcing Plan (if applicable)

Steps

1. The Project Manager (PM) ensures that:
   - the acceptance procedures and guidelines are applied.
   - the necessary environments (e.g. space, infrastructure, tools, etc.), materials and information are provided.
2. The Project Steering Committee (PSC) approves the application of the documented acceptance strategy and the acceptance schedule.
3. The project deliverables are accepted if the acceptance activities (as described in the Deliverables Acceptance Plan) are successfully carried out within a pre-specified tolerance range.
4. Project deliverables may be conditionally accepted even with a set of known defects or issues if these are documented and if there is a plan for addressing them.
5. The Business Manager (BM) provides (qualified) resources to support users' acceptance of the deliverables.
6. The Project Manager (PM) ensures that supporting deliverables (such as documentation) are supplied in addition to the main deliverables (e.g. in the case of an Information System such deliverables can include the End-User Support Material, User's Manual, Operations Manual, Training Materials, Release Notes, etc.)
7. The Project Owner (PO) formally accepts the project's deliverables.

Note: When domain-specific (e.g. technical) documentation is delivered for acceptance, it needs to be reviewed by a subject area expert/representative. For example:

- A stakeholder with business knowledge representing the business organisation (e.g. a User Representatives (URs)) should review the User's Manual.
- A stakeholder from the support and maintenance organisation should review an Operations Manual.
- A stakeholder from the organisation responsible for training should review training materials.
- A stakeholder from the service operations organisation should review release notes.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Manage Deliverables Acceptance	I	I	**A**	**S**	C	C	**R**	C

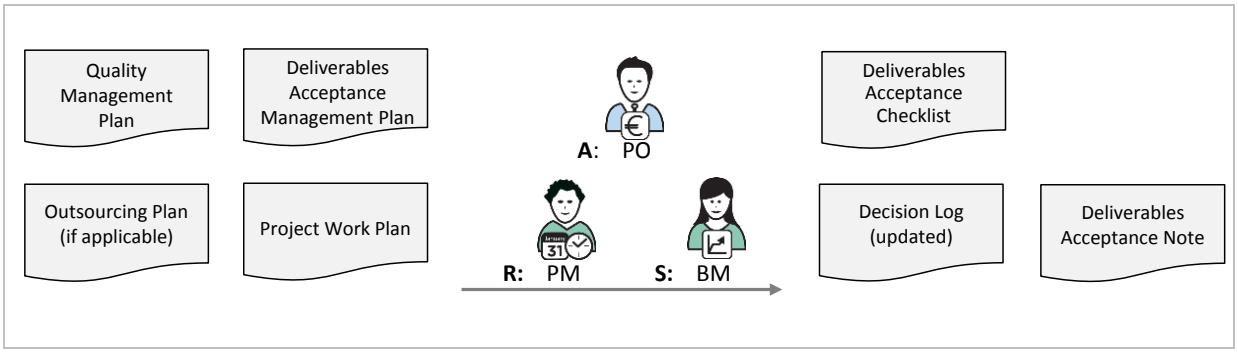

Fig 8.11: Manage Deliverables Acceptance - Inputs/Outputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Acceptance Management	Project Charter	Deliverables Acceptance Plan	Deliverables Acceptance Note	Deliverables Acceptance Checklist Decision Log	Project-End Report

Outputs	**PM² Template?**
• Deliverables Acceptance Checklist	☑
• Decision Log	☑
• Deliverables Acceptance Note	-

8.11 Manage Transition

Transition management ensures that the transition from the old state to the new state (i.e. using the new product/service) is done in a controlled and smooth way. It includes the management of any relevant communication activities and requires close cooperation with the Business Manager (BM) to ensure the correct transfer of project deliverables to the client organisation.

Key Participants	Description
Project Manager (PM)	Monitors and controls the transition.
Quality Assurance (PQA)	Carries out the tasks under the leadership of the Project Manager (PM).
Other project stakeholders	Are informed about progress and contribute as appropriate.
Project Owner (PO)	Provisionally accepts the product before the transition is complete.

Inputs

- Transition Plan.
- Project Work Plan.
- Communications Management Plan.
- Deliverables Acceptance Plan.
- Business Implementation Plan.

Steps

1. Ensure that the project acceptance criteria are met (and hence all requirements are met and the deliverables are fully operational).
2. Ensure that the Transition Plan is carried out effectively. If there is no formal Transition Plan, the Project Manager (PM) needs to:
   - Identify the various roles and stakeholders responsible for the transition process.
   - Identify what must be achieved before the transition can be considered complete.
   - Ensure that any data backups and rollback scenarios are executed if needed.
   - Ensure that business implementation activities are carried out and user training is delivered.
   - Ensure that the delivery of the project's outputs is coordinated, communicated and accepted.
   - Ensure that all maintenance and support activities begin as planned (if applicable).
   - Ensure that all relevant documentation and other materials are handed over.
3. Ensure that the Project Owner (PO) has provisionally accepted the deliverables before the transition is complete.
4. Ensure that the ownership and responsibility of project deliverables is transferred to the Project Owner (PO).
5. Ensure that the relevant acceptance document(s) are completed.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Manage Transition	I	**A**	C	C	C	C	**R**	C

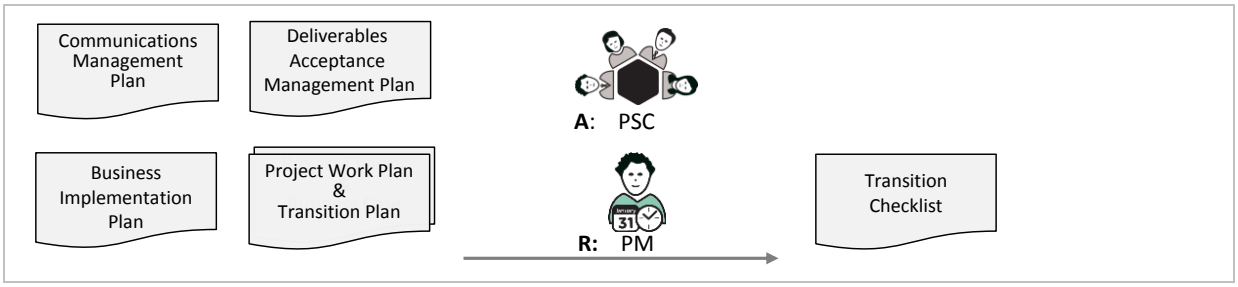

Fig 8.12 Manage Transition - Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Implementation Management	Project Charter	Transition Plan	Project Reports	Transition Checklist Sign-off Documents	Project-End Report

Outputs	**PM² Template?**
• Transition Checklist.	☑
• Any other records/reports planned for this activity.	-
• Any acceptance documents (subject to contractual agreements).	-

8.12 Manage Business Implementation

The effective execution of all business implementation activities is critical for smooth operations even after the project's outputs have been delivered to the stakeholder/user community. In this way, business implementation activities are complementary to transition activities.

Note that business implementation activities will almost always be required long after the project has ended, so it is good practice to also define post-project change activities. The implementation of these activities falls outside the project's scope of responsibilities, and they therefore become the responsibility of the permanent organisation and are carried out as part of ongoing operations or future projects.

Key Participants	Description
Business Manager (BM)	Manages the business implementation activities.
Project Manager (PM)	Supports the Business Manager (BM) in this activity. Updates the Project Work Plan with any activity changes/updates and progress.

Inputs

- Business Implementation Plan
- Project Handbook
- Project Work Plan
- Transition Plan

Steps

1. Ensure that the Business Implementation Plan is complete and realistic.
2. Ensure that all business implementation activities that fall under the responsibility of the project are part of the Project Work Plan (i.e. are defined and scheduled, and the necessary resources are estimated).
3. Focus on the project business implementation activities, that is, those activities that will be implemented during the project's duration and clearly fall under the project's budget and control.
4. Manage the execution of all (project) business implementation activities:
   - Redesign or update any affected business processes.
   - Implement the communication activities defined in the Business Implementation Plan.
   - Implement the planned organisational change management activities.
   - Ensure that all training activities are completed.
   - Manage business continuity plans for business-critical systems.
5. Report on the status of business implementation activities, including any changes.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Manage Business Implementation	I	I	**A**	**R**	C	I	**S**	I

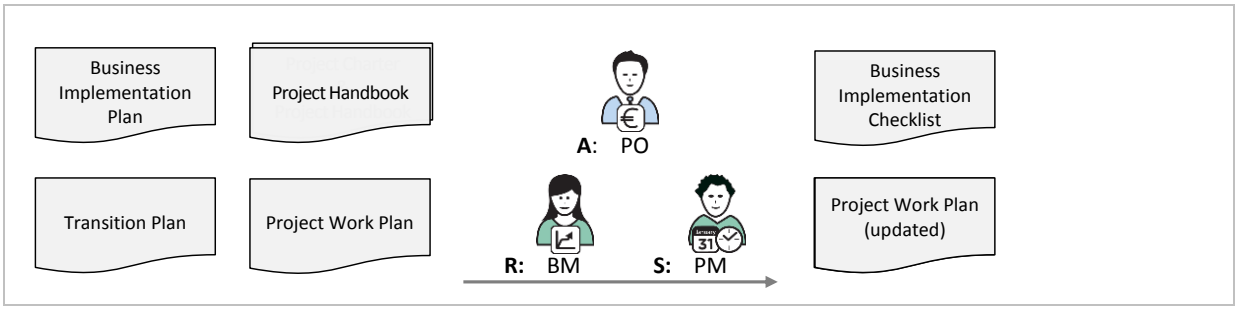

Fig 8.13: Manage Business Implementation - Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Implementation Management		Business Implementation Plan Transition Plan	Project Reports	Project Work Plan Business Implementation Checklist	Project-End Report (Post-project Recommendations)

Outputs	**PM² Template?**
• Business Implementation Checklist	☑
• Project Work Plan (updated)	☑

8.13 Manage Outsourcing

The Project Manager (PM) liaises with the relevant procurement authorities to define the most appropriate contracting strategy, outlines the scope of products and/or services to be contracted out, and works with the Contractor's Project Manager (CPM) to ensure that the contractor delivers the expected quality of work as defined in the Outsourcing Plan.

Key Participants	Description
Project Manager (PM)	Responsible for managing the contractor(s).
Contractor's Project Manager (CPM)	Delivers an acceptable quality of services as defined/requested.
Project Quality Assurance (PQA)	Performs most of the quality controls.

Inputs

- Outsourcing Plan.
- Business Case & Project Charter.
- Project Work Plan.

Steps

1. The Project Steering Committee (PSC) ensures that the contractor is chosen according to the organisation's Processes and Standards and based on the criteria defined for the project.
2. It also ensures that contracts clearly define the expectations for both parties.
3. The Project Manager (PM) ensures that the working methods detailed in the project's Outsourcing Plan are applied.
4. The Project Manager (PM) and/or Project Steering Committee (PSC) validate interim and final deliverables and/or milestones based on agreed criteria and as defined in the Outsourcing Plan.
5. The Project Manager (PM) ensures that the required formal approval is done on time and according to organisational standards.
6. The Project Manager (PM) monitors costs and schedules.
7. The Project Manager (PM) manages changes to the outsourced work.
8. The Contractor's Project Manager (CPM) reports on the project status and progress to the Project Manager (PM) and the Project Steering Committee (PSC) if necessary.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Manage Outsourcing	**A**	C	C	C	I	**S**	**R**	I

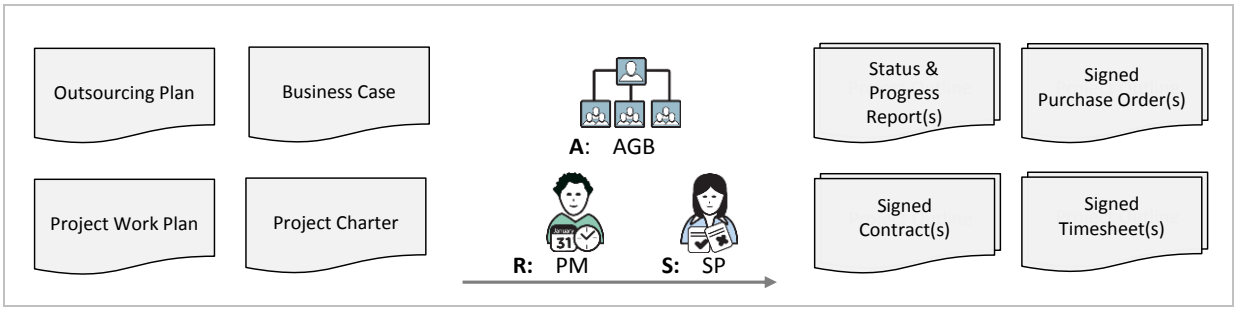

Fig 8.14: Manage Outsourcing - Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Outsourcing Management		Project Handbook Outsourcing Plan Deliverables Acceptance Plan	Project Reports	Outsourcing Management artefacts	Project-End Report

Outputs	**PM² Template?**
• Status and progress report(s)	☑
• Signed contract(s)	-
• Signed purchase order(s)	-
• Signed timesheet(s)	-

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9 Closing Phase

The Closing Phase starts with the Project-End Review Meeting and ends with the Project Owner's (PO) final approval which is the project's administrative closure. During the Closing Phase, the project's activities are 100 % completed, the project's final state is documented, and the finished deliverables are officially transferred to the custody and control of the Project Owner (PO).

During this phase, the Project Manager (PM) and project team:

- Finalise all activities across all deliverables to formally close the project.
- Meet to discuss the project's performance, problems and challenges faced during the project, and to exchange Best Practices and Lessons Learned.
- The Lessons Learned and Post-Project Recommendations are captured in the Project-End Report and this, along with the final project documentation, is added to a project archive (knowledge database) for future reference.

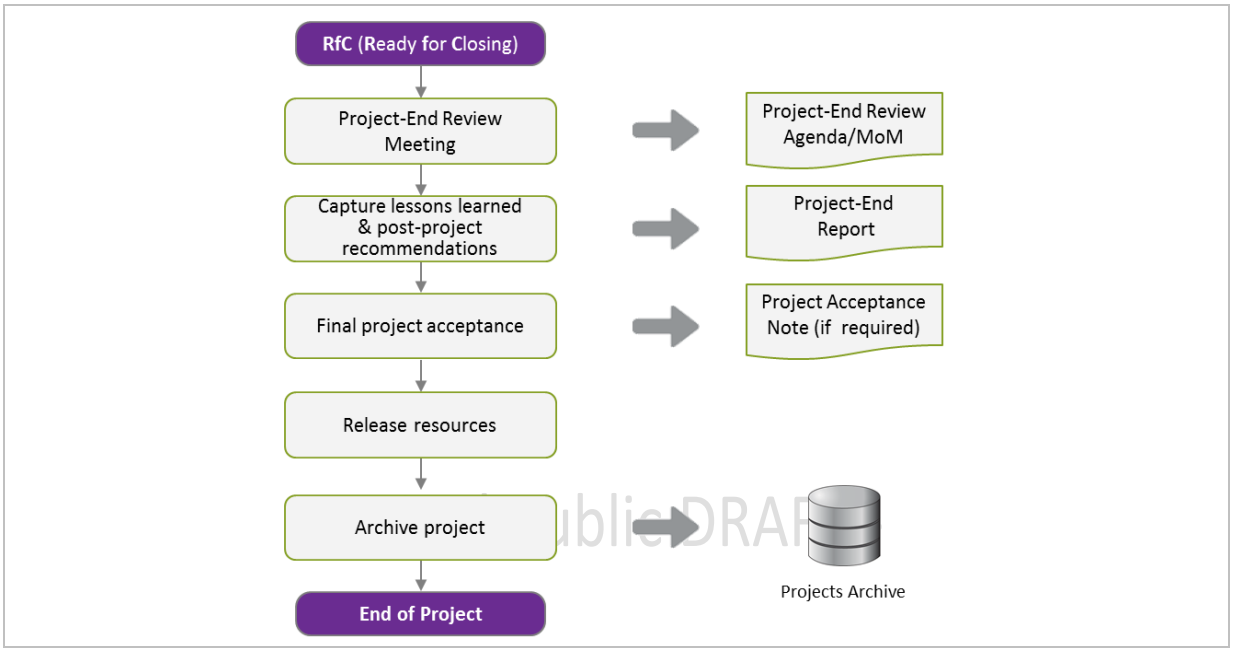

Fig 9.1: Closing Phase: activities and main outputs

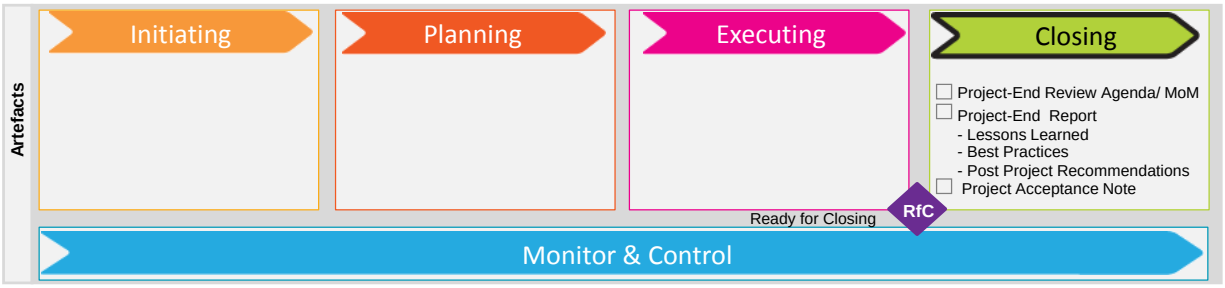

Fig 9.2: Closing Phase artefacts

Project-End Review Meeting

- The Closing Phase starts with an official Project-End Review Meeting.
- This meeting starts the official closing of the project. The finished deliverables are transferred to the care, custody, and control of the Project Owner (PO) and the requestor/client organisation.

Project-End Report

- The Project-End Report is created after the Project-End Review Meeting.
- Best Practices, pitfalls and solutions to particular problems are documented in this report and they should be used as a knowledge base for future projects.

Administrative Closure

- The Project Manager (PM) ensures that the project is approved and accepted by relevant stakeholders.
- All documentation and records are reviewed, organised and securely archived with the help of the Project Support Office (PSO). Resources are released and the project is closed.

9.1 Project-End Review Meeting

The Project-End Review Meeting launches the Closing Phase of the project after the Executing Phase has been deemed complete. The goal of this meeting is to ensure that project members discuss the project experience so that Lessons Learned and Best Practices are captured. Ideas and recommendations for post-project work should also be discussed.

Key Participants	Description
Project Manager (PM)	Is the organiser.
Project Core Team (PCT)	Must be present.
Project Owner (PO)	Must be present.
Project Quality Assurance (PQA)	Should attend.
Business Manager (BM)	Represents the business side and the stakeholders.

The contribution of other supporting or optional roles may also be valuable.

Inputs

- Business Case & Project Charter
- Project Handbook & Project Work Plan
- All Project Plans (particularly the Transition & Business Implementation Plans)
- Relevant Project Reports and Logs

Steps

Before the Project-End Review Meeting:

1. Plan the meeting and decide on the Meeting Agenda and the points to be discussed.
2. Send out the Meeting Agenda in advance.
3. Address any logistical needs, and prepare documentation or hand-outs needed for the meeting.
4. Ensure the presence of participants, and that they come prepared.
5. Bring relevant information and documents to the meeting.

During the Project-End Review Meeting:

1. The Project Owner (PO) will normally express the organisation's appreciation to the whole project team and key project stakeholders.
2. Ensure that Meeting Minutes are taken.
3. Present project statistics and data on performance and achievements.
4. Discuss the overall project experience.
5. Discuss problems and challenges faced during project and the way in which they were addressed.
6. Discuss Lessons Learned and Best Practices that may be useful for future projects.

After the Project-End Review Meeting:

1. Compile Lessons Learned and Post-Project Recommendations.
2. Produce the Project-End Report.
3. Communicate the results of the meeting to relevant stakeholders.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project-End Review Meeting	I	**A**	C	**S**	C	C	**R**	C

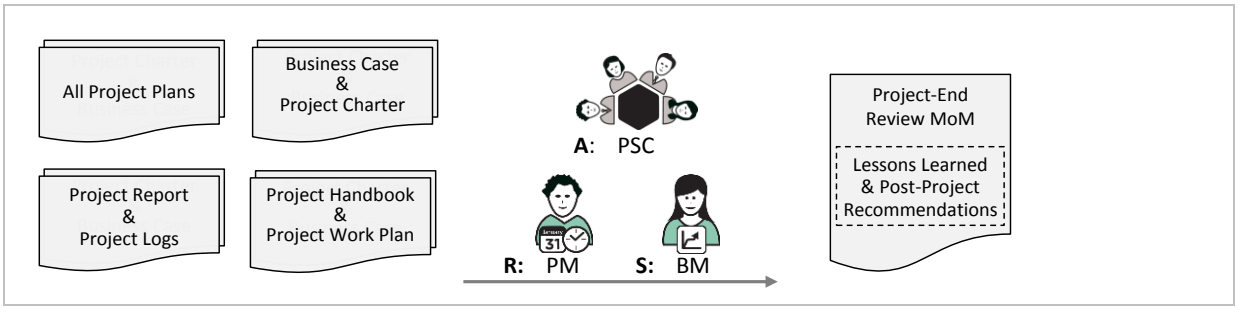

Fig 9.3: Project-End Review Meeting — Inputs and main roles

Outputs **PM² Template?**

- Project-End Review Meeting Minutes ☑

9.2 Lessons Learned and Post-Project Recommendations

The purpose of formal Lessons Learned and Post-Project Recommendations is to make it possible for projects teams and the permanent organisation as a whole to benefit from the experience acquired during the project. It is also important to capture ideas and recommendations for post-project work related to the operation of the product/service delivered, such as extensions, maintenance, ideas for follow-up projects, etc.

Note that improvement opportunities and post-project recommendations should be captured in some form as they come up throughout the project, because the ideas might get lost by the time the project reaches the Closing Phase, particularly in longer projects.

There are many benefits of formalising Lessons Learned and Post-Project Recommendations. Project team members share their perspectives and provide feedback and useful insights which the requestor/client side can use to manage post-project activities more effectively.

Key Participants	Description
Project Manager (PM)	Is the organiser.
Project Core Team (PCT)	Must be present.
Business Manager (BM)	Represents the requestor's point of view.
Other project stakeholders	As needed.

Because all projects are different, the Lessons Learned process cannot be generic. However, projects have common aspects which can be discussed: project definition and planning (scope, deliverables, resources, etc.), project communications, project documentation, change control, risk/issue management, decision making, successes, mistakes and failures, team dynamics, overall project performance.

Guidelines:

- The Lessons Learned session should be a part of the Project-End Review Meeting (though one could be organised at the end of project phases or major milestones).
- It may be preferable to have someone who has not been intimately involved in the project facilitating the Lessons Learned session, so that the Project Manager (PM) can contribute as a participant.
- The discussion should be facilitated to cover all of the project's various aspects in a somewhat organised way. This could be based on project phases, categories of activities, etc.
- Improvement ideas should be organised into groups to help the team better visualise the appropriate next steps required to implement them.
- In some cases it could make sense to break up the Lessons Learned into multiple sessions, to focus on specific topics (e.g. technical issues, business implementation, etc.).
- The Project Steering Committee (PSC) should be invited to the Lessons Learned session as it can transfer the lessons learned to other projects.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Lessons Learned and Post-project Recommendations	I	**A**	C	**S**	C	C	**R**	C

9.3 Project-End Report

Following the Project-End Review Meeting, the project's overall experience is summarised in a report. Best practices, lessons learned, pitfalls and solutions to particular problems are documented in this report and should be used as a knowledge base for future projects.

Key Participants	Description
Project Manager (PM)	Writes the report.
Project Quality Assurance (PQA)	Provides input and assistance.
Project Core Team (PCT)	Provides input and assistance.

Inputs

- Project-End Review Meeting Minutes (MoM)
- Other useful information can be found in:
  - Minutes of Meeting (of various project meetings)
  - Project Reports
  - Quality Assurance and Quality Control outputs

Steps

With the help of relevant stakeholders, the Project Manager (PM) addresses the following subjects:

1. Project effectiveness.
2. Cost, Schedule, Scope, and Quality Management.
3. Risk Management.
4. Issue Management.
5. Project Change Management.
6. Communications Management.
7. Human resources and stakeholder management.
8. Deliverables Acceptance.
9. Business Implementation and Project Transition.
10. The performance of the Project Core Team (PCT) and of the participating organisation.
11. Best Practices and Lessons Learned.
12. Post-Project Recommendations.

This document should be part of a central project repository or knowledge database describing project experiences, best practices and common pitfalls.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project-End Report	I	**A**	C	**S**	C	C	**R**	C

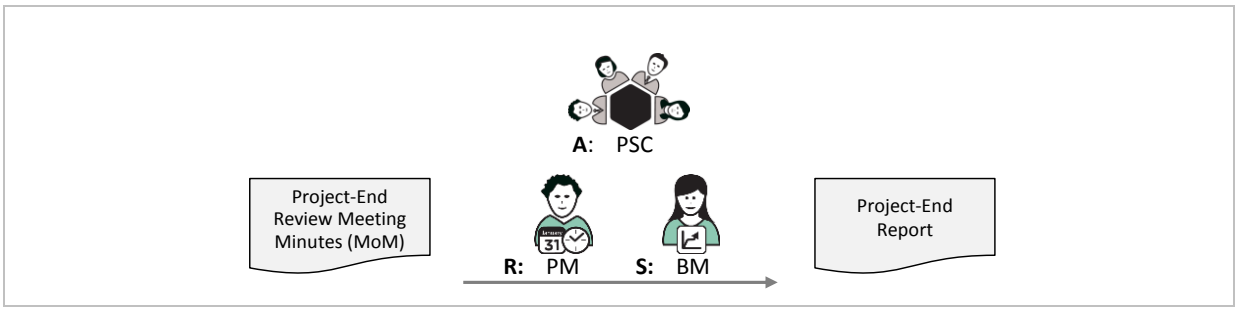

Fig 9.4: Project-End Report — Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Communications Management		Communications & Quality Management Plan	Project Reports	Project Checklists Project Logs	Project-End Report

Outputs

- Project-End Report

PM² Template?

☑

9.4 Administrative Closure

The Project Manager (PM) ensures that all project deliverables have been accepted by the relevant stakeholders and that all project documentation and records are up-to-date, reviewed, organised and securely archived with the help of the Project Support Office (PSO). The Project Team is officially dissolved and all resources are released.

The project is officially closed once all Closing Phase activities are completed and the Project Owner (PO) approves the project. Formal project closure terminates 'project mode' and allows 'operations mode' to commence.

Key Participants	Description
Project Manager (PM)	Oversees all closure activities and ensures that the project resources are released.
Other project stakeholders	Approve and accept the project.
Project Support Office (PSO)	Assists in reviewing, organising and archiving all project documentation.
Project Owner (PO)	Has final approval of the project.

Inputs

- Project Handbook
- Project Work Plan
- Quality Management Plan
- All other project plans and documents

Steps

The Project Manager (PM):

1. Ensures that all documentation and records are reviewed, organised and archived.
2. Releases all resources.
3. Ensures that the project metrics are defined to document the state at which the project was handed over to operations, and that they are recorded.
4. Ensures that the project is approved and accepted by the project stakeholders.
5. Ensures that the Project Owner (PO) gives final project approval and closes the project.
6. Verifies that all contractual obligations have been fulfilled.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Administrative Closure	I	C	**A**	C	I	C	**R**	I

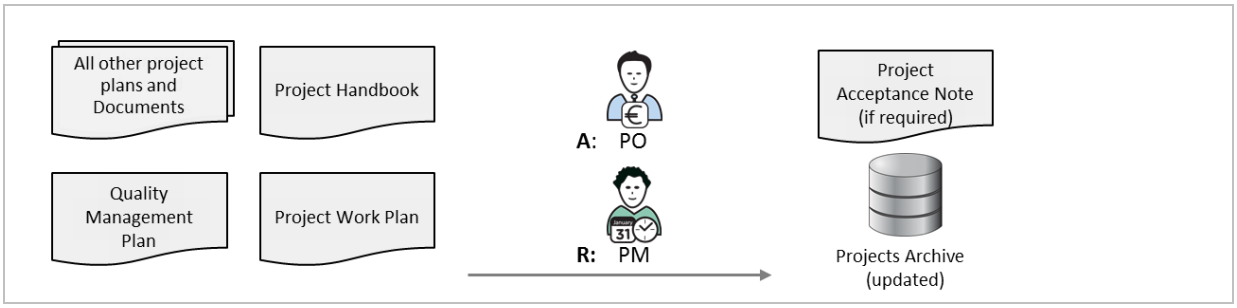

Fig 9.5: Administrative Closure — Inputs/Outputs and main roles

Outputs

- Projects Archive (updated)
- Project Acceptance Note (if required)

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Appendix A: Contributions and Acknowledgements

The European Commission is grateful to all those who have contributed in the development of the PM² Project Management Methodology and wishes to acknowledge their contribution and support. In alphabetical order:

1. The following people provided leadership and sponsorship for the PM² and Open PM² initiatives:

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Appendix B: Project Management Plans and Logs

B.1 Requirements Management Plan

The Requirements Management Plan defines and documents the requirements management approach, process steps, responsibilities as well as tools, techniques and artefacts that will be used. Note that requirements themselves are documented and managed in separate artefact(s) (e.g. requirements matrix).

Effective requirements management is a critical success factor for projects, as requirements are the starting point for all project work, and affect the project risk, duration and budget.

The Requirements Management Plan can be tailored and customised to the project's needs. In the absence of a more specialised role, the Project Manager (PM) is responsible for executing the process from project initiation until all requirements have been implemented and validated.

Key Participants	Description
Project Manager (PM)	Prepares this artefact.
Business Manager (BM)	Is consulted for the tailoring and elaboration of this artefact.

Inputs

- Project Charter
- Project Handbook
- Project Stakeholder Matrix

Guidelines

- Check if a requirements management process already exists at the organisational level.
- Tailor the Requirements Management Plan to the project's needs. Create it as a standalone document or as a section within the Project Handbook.
- Requirements are traditionally defined in detail early in the project lifecycle. However, depending on the type, scope and chosen project strategy, the requirements management process may need to accommodate a more agile definition and elaboration of requirements, therefore allowing for frequent and less formal requirements management cycles.
- Define what a requirement is, and what the possible states of its lifecycle are.
- Ensure that the requirements management process is aligned with the change management process, and that requirement changes are traced to the project's deliverables and activities.
- Define the roles and responsibilities for each process step. Define clearly who is responsible for approving and validating the implementation of new requirements.
- Define the tools and techniques that will be used to identify, evaluate, prioritize and manage requirements (e.g. brainstorming sessions, prototyping, MoSCoW, etc.).
- Define the possible formats of representation of requirements for the project (e.g. text, use cases, diagrams, user stories, etc.)
- Define the artefacts and repositories used for the documentation and management of the requirements (e.g. specification document or requirements management matrix).
- Define the requirements validation process and make sure it is aligned with the overall deliverables acceptance process.
- Ensure that the requirements management process is communicated to the project stakeholders.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Requirements Management Plan	I	I	**A**	C	C	I	R	S

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Requirements Management	Project Charter	Project Handbook Requirements Management Plan Deliverables Acceptance Plan	Change Requests	Requirements Document(s) Project Work Plan Project Logs	Project-End Report

Artefact	PM² Template?
• Requirements Management Plan	☑

B.2 Project Change Management Plan

The Project Change Management Plan defines and documents the change process for a project. It defines the activities, roles and responsibilities related to identifying, documenting, assessing, approving, prioritising, implementing, controlling and communicating requested project changes.

Project change management brings transparency, accountability and traceability to all project changes implemented after the project scope and project plans have been baselined. The escalation procedure ensures that changes with a significant impact on any of the project dimensions (i.e. scope, time, cost, quality or risk) are properly assessed and approved by the appropriate level of authority. The Project Change Log is used to document requested changes and trace all related decisions and planned actions.

Key Participants	Description
Project Owner (PO)	Approve(s) the Project Change Management Plan.
Project Manager (PM)	Prepares the Project Change Management Plan.
Business Manager (BM)	Is consulted for the elaboration of this artefact.

Inputs

- Business Case & Project Charter
- Project Handbook
- Project Work Plan

Guidelines

- Check if a project change management process exists already at the organisational level.
- Tailor the Project Change Management Plan to the project's needs (e.g. define different steps depending on the type of change, its urgency or impact). Create it as a standalone document or as a section within the Project Handbook.
- Ensure that there is no duplication of information contained in other management plans or the Project Handbook (e.g. the escalation procedure).
- Define what is considered to be a change for the project, as well as the possible types of changes.
- Define the artefacts and the tools and techniques that will be used to identify and assess changes (e.g. the Change Request Form, or the Project Change Log).
- Define who is responsible for approving changes at the various impact levels, and how this decision is communicated to the rest of the team.
- Tailor the Change Log (if needed) and customise it to reflect any customisations of the Project Change Management Plan (e.g. scales of urgency, change impact and priority).
- Describe the change monitoring and control activities, their frequency and supporting tools and techniques, e.g. review of changes at a predefined frequency based on the Change Log.
- Ensure that the change management process is communicated to the project team and stakeholders.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Change Management Plan	I	I	**A**	C	I	I	**R**	I

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Project Change Management	Project Charter	Project Handbook Project Change Management Plan	Project Reports Change Requests	Change Log Project Logs Project Work Plan	Project-End Report

Artefact	PM² Template?
• Project Change Management Plan	☑
• Change Log (setup)	☑

B.3 Risk Management Plan

The Risk Management Plan defines and documents the Risk Management Process for a project. It describes how risks will be identified and assessed, what tools and techniques can be used, what are the evaluation scales and tolerances, the relevant roles and responsibilities, how often risks need to be revisited, etc. The Risk Management Plan also defines the risk monitoring and escalation process as well as the structure of the Risk Log which is used to document and communicate the risks and their response actions.

Risk management brings visibility to risks and accountability as to how they are handled, and ensures that project risks are proactively dealt with and regularly monitored and controlled.

Key Participants	Description
Project Manager (PM)	Prepares the Risk Management Plan.
Business Manager (BM)	Is consulted for the elaboration of this artefact.
Project Owner (PO)	Approves the Risk Management Plan.

Inputs

- Business Case & Project Charter
- Project Handbook
- Project Work Plan

Guidelines

- Check if a risk management process exists already at the organisational level.
- Tailor the Risk Management Plan to the project's needs (e.g. delete/add steps or activities, expand on or change the activities' description or related responsibilities, etc.). Create it as a standalone document or as a section within the Project Handbook.
- Ensure that there is no duplication of information contained in other management plans or the Project Handbook (e.g. the escalation procedure).
- Define the tools and techniques that will be used to identify, assess and monitor risks (e.g. Risks Database, Risk Breakdown Structure, the Risk Log, etc.).
- Customise the scales used for assessing risks (i.e. likelihood, impact and overall risk level).
- Determine (with the involvement of key stakeholders) the project's risk appetite (the amount of risk that stakeholders are prepared to accept).
- Decide on how frequently the Risk Log should be reassessed, considering both project and organisational specific conditions and policies.
- Specify the escalation and communication procedures for risks that need special attention (e.g. which project stakeholders need to be informed if critical risks are triggered).
- Customise the applicable risk response strategies (e.g. avoid, transfer/share, reduce, and accept).
- Determine the level of detail with which risk response actions should be described in the Risk Log (e.g. action description, action owner, planned effort, etc.). Note that activities that need considerable effort should be included in the Project Work Plan.
- Ensure that the risk management process is communicated to the project team and stakeholders.

RAM (RASCI)	AGB	PSC	PO	BM	UR	SP	PM	PCT
Risk Management Plan	I	C	**A**	C	I	I	**R**	I

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Risk Management	Project Charter	Project Handbook Risk Management Plan	Project Reports	Risk Log Project Logs	Project-End Report

Artefact	PM² Template?
• Risk Management Plan	☑
• Risk Log	☑

B.4 Issue Management Plan

The Issue Management Plan defines and documents the activities, roles and responsibilities related to identifying, assessing, assigning, resolving and controlling project issues. Issues are defined as unplanned project-related events that require a project management action.

The issue management process helps the Project Manager (PM) to assess and act upon issues that have a potential impact on project scope, time, cost, quality, risk or stakeholder satisfaction. Related decisions can be logged in a Decision Log, which brings visibility to decisions and accountability as to how and by whom they are taken, and to whom they should be communicated.

An Issue Log is used to document the identification, evaluation and assignment of issues and to trace all key decisions and planned actions. It also helps monitor who is responsible for solving specific issues by a certain deadline. It brings visibility and accountability as to how issues are acted upon, and ensures that they are properly managed and resolved.

Key Participants	Description
Project Manager (PM)	Prepares the Issue Management Plan.
Business Manager (BM)	Is consulted for the elaboration of this artefact.

Inputs

- Project Charter
- Project Handbook
- Project Work Plan

Guidelines

- Check if an issue management process exists already at the organisational level.
- Tailor the Issue Management Plan to the project's needs. Create it as a standalone document or as a section within the Project Handbook.
- Ensure that there is no duplication of information contained in other management plans or the Project Handbook (e.g. the escalation procedure).
- Define what is considered an issue for the project and customise the possible issue categories relevant to the project.
- Define all artefacts, tools and techniques that will be used to identify, assess, assign, resolve and monitor issues (e.g. the Issue Log, root cause analysis, etc.).
- Specify how new issues can be identified and their status communicated, and when new and open issues (and pending decisions) can be discussed (e.g. in project Status Meetings).
- Customise the Issue Log to reflect any changes to the scales of urgency, impact and priority.
- Define which issues (depending on their category, urgency and impact) can be handled at the (Project) Management Layer and which ones need to be escalated.
- Describe the issue control activities, their frequency, and supporting tools and techniques (e.g. a review of issues in project follow-up meetings based on the Issue Log or Project Status Reports).
- Define how issues will be linked to their source, to related decisions, actions, risks and changes.
- Specify the procedure for updating the Lessons Learned after an issue is resolved.
- Ensure that the issue management process is communicated to the project team and stakeholders.

RAM/RASCI	AGB	PSC	PO	BM	UR	SP	PM	PCT
Issue Management Plan	I	I	**A**	C	C	I	**R**	C

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Issue Management	Project Charter	Project Handbook Issue Management Plan	Project Reports	Issue Log Decision Log	Project-End Report

Artefact	PM² Template?
• Issue Management Plan	☑
• Issue Log	☑
• Decision Log	☑

B.5 Quality Management Plan

The Quality Management Plan defines and documents the project's quality requirements, the quality management approach, process and responsibilities. It also outlines the quality assurance and control activities carried out throughout the project.

Planning and executing quality assurance and control activities may be seen as a significant investment of time and effort, and therefore the desired balance between the planned quality, cost, time and risk should be carefully evaluated and considered. Appropriate quality metrics should be defined and later used to evaluate the project management quality. All quality-related activities should be well designed and planned.

A configuration management procedure is also documented in the Quality Management Plan. Configuration management helps project teams handle project artefacts and deliverables effectively (e.g. to ensure that the correct versions are delivered, to prevent unauthorised changes, and to provide artefact traceability).

Key Participants	Description
Project Manager (PM)	Prepares the Quality Management Plan. May also be supported by other roles such as the Project Quality Assurance (PQA), Project Support Office (PSO) and other project stakeholders.
Business Manager (BM)	Reviews and validates the quality requirements, quality assurance and control activities, and the associated metrics.

Inputs

- Project Charter
- Project Handbook
- Project Work Plan

Guidelines

- Check if a quality management process exists already at the organisational level.
- Tailor the Quality Management Plan to the project's needs. Create it as a standalone document or as a section within the Project Handbook.
- Determine the quality management objectives and characteristics by reviewing project deliverables, success criteria, approach and other specific requirements (e.g. security requirements) as described in the Project Charter and Project Handbook.
- Ensure that there is no duplication of information contained in other management plans or the Project Handbook (e.g. the escalation procedure).
- Define approval criteria for phase exit reviews or for other key project management milestones.
- Define all artefacts, and the tools and techniques that will be used for quality planning and quality assurance and control (e.g. the Quality Review Checklist).
- Determine the quality assurance and control activities and define their frequency and timetable. Additionally, design metrics and acceptance tolerances for evaluating these activities.
- Determine if a Project Quality Assurance (PQA) role (or other independent entity) is required to carry out quality assurance activities.
- Define the roles and responsibilities for the quality process and ensure that these roles are agreed by and communicated to all stakeholders involved.
- Review the quality characteristics with relevant stakeholders. Ask them to suggest quality assurance and control activities for the specific project.
- Define the quality and configuration procedures and records which show that quality and configuration management activities have been carried out as planned.
- Tailor the Quality Review Checklist based on the quality control activities defined for the project.
- Ensure that quality assurance and control activities are traceable back to specific work activities in the Project Work Plan.
- Ensure that the document's reviewers and approver are clearly identified.
- Present the planned activities and timetable to the Project Steering Committee (PSC) for approval.
- Communicate the approved plan to the project team and relevant stakeholders.

Guidelines (specific for configuration management)

- Review the configuration management process set out in the Quality Management Plan and tailor it to the project's needs (e.g. delete or add steps or activities, expand on or change the activities' description, related responsibilities, etc.).
- Define what is considered to be a configuration item for the project based on project deliverables and artefacts, and identify its attributes.
- Identify who is responsible for changes to the configuration items and for maintaining and controlling their versions and releases.
- Define the artefacts and the tools and techniques that will be used to manage the configuration items.
- Depending on the project's complexity, a configuration management log can be used to control changes to the configuration items.
- Describe the naming conventions to be used in project documentation, folders and emails.
- Define the structure of project folders and the procedures and rights related to reviewing changing/updating any project artefacts. Ensure that restricted access and confidentiality rules are correctly implemented.
- Define any procedures related to creating copies of project data, retention periods, storage devices and sanitisation/deletion of data (if required).
- Ensure that the configuration management procedure is communicated to the project team.
- Key information on configuration management may also be summarised in the Project Handbook.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Quality Management Plan	I	**A**	C	C	C	C	**R**	C

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Quality Management	Project Charter	Project Handbook Quality Management Plan	Quality Review Reports Audit Reports	Quality Review Checklist Project Logs Phase-exit Review Checklist	Project-End Report Project Acceptance Note

Artefact	**PM² Template?**
• Quality Management Plan	☑
• Quality Review Checklist	☑
• Phase-exit Review Checklist	☑

B.6 Communications Management Plan

The Communications Management Plan helps to ensure that all project stakeholders have the information they need to perform their roles throughout the project. Planning and executing project communication activities is essential for project success.

The Communications Management Plan defines and documents communication activities, their goals, content, format, frequency, and audience. It also defines how to communicate project status and the assignment of activities to the various stakeholders, and includes a communication strategy for each key stakeholder, based on their interests, expectations and influence in the project.

Key Participants	Description
Project Manager (PM)	Prepares the Communication Management Plan.
Business Manager (BM)	Provides input and assists in its creation.

Inputs

- Project Charter
- Project Handbook
- Project Stakeholder Matrix
- Project Work Plan

Guidelines

- Review the guidelines set out in the Communications Management Plan template to get a better understanding of how to tailor and customise the Communication Management Plan.
- Ensure that there is no duplication of communication activities described in other management plans such as the Quality Management Plan, the Risk Management Plan, etc.
- If certain processes are already described in the Project Handbook (e.g. the escalation process), reference them to avoid duplication and simply document any changes.
- Identify project stakeholder groups based on the Project Stakeholder Matrix.
- When determining the strategy for each communication activity, consider the interests and influence of both internal and external organisations to the project.
- For each target group, determine what information needs to be communicated, and the purpose of the communication.
- Define all artefacts (e.g. Project Reports) and means to collect, analyse and distribute project information and manage stakeholders' expectations.
- Determine the frequency of the communication activities, their format and the media to be used for the communications (e.g. reports, presentations, meetings, emails, calls).
- Determine who will be responsible for each communication activity and describe the expected results.
- Ensure that the communication management plan is communicated to the project stakeholders.

RAM (RASCI)	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Communications Management Plan	I	I	**A**	**S**	C	I	**R**	C

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Communications Management	Project Charter	Project Stakeholder Matrix Communications Management Plan	Project Reports	Project Logs	Project-End Report

Artefact	PM² Template?
• Communications Management Plan	☑

B.7 Change Log

The PM² Change Log has the following structure:

Change Identification and Description	
ID	The change identifier.
Category	Categorises the change.
Title	Short title that describes the requested change.
Description	A more detailed description of the requested change and the impact of not implementing the change.
Status	The status of the change can be any of the following: **Submitted:** this is the initial status. Use this while the requested change is still being specified. **Assessing:** use this status to initiate an assessment. **Waiting for approval:** use this to initiate approval. Before doing this, make sure that the investigation is complete and that the estimates shown are correct. **Approved:** this status is set once the change has been approved. **Rejected**: this status is set if the change was rejected. **Postponed:** this status is set if the change is postponed indefinitely. **Merged:** this status indicates that the change has been merged into some other change so it is no longer being actively handled. Merging is common when there are many changes. **Implemented:** this status indicates that the work implementing this change has been incorporated into the Project Work Plan.
Requested by	The name of the person requesting the change.
Date Identified (or Submission Date)	The initial submission date of the change request.
Change Assessment and Action Description	
Action Details (effort & responsible)	Description of the recommended action, including steps, deliverables, timescale, resources and effort involved.
Size	The effort required to implement the change. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Priority	A numerical value denoting the agreed priority of the change. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Target Delivery Date	The target date for the change to be delivered.
Change Approval	
Escalation	Escalation to the Directing or Steering layer is needed? (**Yes** or **No**).
Decision	The decision taken.
Decided by	Person or committee that denied or approved the change.
Decision Date	Date on which the decision was made.
Change Implementation	
Actual Delivery Date	The date on which the change was actually delivered.
Traceability and Comments	The ID(s) of the tasks (in the Project Work Plan) that implement the change, and/or the IDs of related issues, risks or decisions. Also include any additional information/comments related to the issue.

B.8 Risk Log

The PM² Risk Log has the following structure:

Risk Identification and Description	
ID	The risk identifier.
Category	Risk category related to the area affected by the risk (e.g. business, IT, people & organisation, external or legal).
Title	A short title for the risk.
Description	A description of the risk, its causes, the kinds of problems that it could result in (potential effects), and risk dependencies.
Status	The risk status can be any of the following: **Proposed:** this is the initial status. Use this while the risk is still being specified. **Assessing:** use this status to initiate an assessment. **Waiting for Approval:** use this to request approval. Before doing this, make sure that the assessment is complete and that the estimates are reliable. **Approved:** this status is set once the risk possibility has been accepted. **Rejected:** this status is set if the risk was rejected as not relevant. **Closed:** this status is set once the risk has been managed (e.g. mitigation actions have be implemented) and it is not a risk for the project anymore.
Identified by	The person who identified the risk.
Identification date	The date on which the risk was identified.
Risk Assessment	
Likelihood (L)	A numerical value denoting the estimate of the probability that the risk will occur. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Impact (I)	A numerical value denoting the severity of the risk's impact (should it occur). The possible values are (negative risks): **-5=Very high, -4=High, -3=Medium, -2=Low, -1=Very low** **Note**: use same scale but positive values for positive risks (opportunities).
Risk Level (L*I)	The risk level is the product of the likelihood and impact (**RL=L*I**).
Risk owner	The person accountable for managing and monitoring the risk.
Escalation	Whether or not the risk is to be escalated to the Directing or Steering Layers (**Yes** or **No)**.
Risk Response	
Risk response Strategy	The possible strategies to deal with the identified (negative) risks are: - **Avoid:** risk avoidance, modifying the project or project plan to eliminate the conditions or activities that introduce the risk. - **Reduce:** risk mitigation or reduction through the proactive implementation of risk reduction activities. - **Accept:** acceptance of the risk. In this case, contingency plans should be defined in case the risk occurs (active acceptance). - **Transfer/Share:** transfer or share the risk with other entities, e.g. through insurance, subcontracting etc.
Action details (effort & responsible)	Description of the mitigation action(s), including its objective, scope, deliverables, and the person responsible and estimated effort needed.
Target date	The date on which the action is expected to be implemented.
Traceability/Comments	The ID(s) of the tasks (in the Project Work Plan) that implement the risk response actions, and/or the IDs of related changes, issues or decisions (log entries). Also include any additional information/comments related to the risk.

B.9 Issue Log

The PM² Issue Log has the following structure:

Issue Identification and Description	
ID	The issue identifier.
Category	Issue category related to the area affected by the issue (e.g. business, IT, people & organisation, external or legal).
Title	Short title for the issue.
Description	A description of the issue and its impact.
Status	The issue status can be any of the following: **Open:** the issue has been identified and requires attention and, if possible, a resolution. **Postponed:** this status is set if resolving the issue is postponed due to other priorities. **Resolved:** this status indicates that all necessary actions are completed and the issue is resolved. **Closed:** this status indicates that all work is completed and verified. The issue can then be marked as closed.
Identified by	The name of the person who identified the issue.
Identification date	The date on which the issue was raised.
Issue Assessment and Action Description	
Action details (effort & responsible)	Description of the recommended action, and the steps, deliverables, timescale, resources and effort involved.
Urgency	A numerical value denoting how urgent the issue is. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Impact	A numerical value denoting the issue's impact. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Size	Issue size represents the effort needed to resolve the issue. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Target date	The date on which the issue is expected to be resolved.
Issue owner	The person accountable for resolving the issue.
Escalation	Whether or not the issue is to be escalated to the Directing or Steering Layers (**Yes** or **No)**.
Traceability/Comments	The ID(s) of the tasks (in the Project Work Plan) that implement the issue actions, and/or the IDs of related changes, risks or decisions (Log entries). Also include any additional information/comments related to the issue.

B.10 Decision Log

The PM² Issue Log has the following structure:

Decision Identification	
ID	The decision identifier.
Category	Decision category related to the area affected by the decision (e.g. business, IT, people & organisation, external or legal).
Title	Short title for the decision.
Description	A description of the decision's details and impact, if applicable.
Identified by	The name of the person who identified the need for a decision.
People present	Log the names of those present when then decision was made.
Comments	The IDs of related Change, Risk or Issue Log entries and any additional information related to the decision.
Ownership	
Decision owner	The person accountable for the decision.
Decision date	Date on which the decision was taken.
Escalation	Whether or not the decision is to be escalated to the Directing or Steering Layers (**Yes** or **No)**.
Decision Implementation	
Date of Application	The date on which the decision is applicable.
Decision communicated to:	The group, teams and other audiences to whom the decision should be communicated.

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Appendix C: Project Management Tools & Techniques

This section introduces a number of commonly used Project Management Tools & Techniques useful for dealing with various project management challenges. Each Tool & Technique is summarised in a few paragraphs and provides a simple and high-level overview of that tool or technique.

Note that the set of tools presented is not an exhaustive list of Project Management Tools & Techniques available. Relevant sources for further reading and exploration are also presented at the end of this section.

C1. PESTEL Analysis

The PESTEL Analysis is used to understand how the environment might impact a project or an objective. PESTEL stands for: Political, Economic, Social, Technological, Environmental, and Legal factors. A PESTEL analysis helps identify the external factors that influence an organisation, and therefore, could have an impact on the objectives, planning or execution of projects.

This type of analysis is particularly important in the context of business justification and risk management and will feed the process of designing a plan comprehensive enough to identify and tackle potential risk scenarios (threats/opportunities) arising from outside the organisation or project.

C2. Make or Buy Analysis

A Make or Buy Analysis helps the organisation to take an informed decision about what to outsource and what not to outsource. Portfolio managers and project sponsors are often faced with the dilemma to make or buy, considering the availability and skills of resources at hand.

The various factors to be considered for a Make or Buy Analysis include cost comparison, technology and business processes, supplier related information, and support systems.

Potential reasons for a make decision include cost effectiveness, Intellectual property concerns, quality control issues or supplier unreliability issues.

Potential reasons for buy decision include cost considerations, lack of technical expertise, suppliers' technical experience and/or insufficient in-house resources.

C3. Stakeholder Interest/Influence Matrix (SIIM)

This technique is used to facilitate and document the analysis of the interest and influence of each stakeholder in the project. It is of utmost importance to know the stakeholders and their relevance for the project in order to identify project champions and possible detractors. As the document makes reference to people within your organization, care should be used to keep the information confidential.

Interest indicates the level of interest a stakeholder has for the project. Interest is measured as the degree of enthusiasm displayed by the stakeholder in support of the project. Stakeholders can be positive, neutral or negative towards the project.

Influence indicates the power the stakeholder has over the planning and implementation of activities. The higher a stakeholder's power of decision, the higher his influence. Most often the person(s) who can make decisions on project funding and/or resources have a high influence.

C4. Risk Likelihood/Impact Matrix

The Risk Likelihood/Impact Matrix (sometimes called the Likelihood-Impact Matrix) is used in the qualitative assessment of risks, after the project risks have been identified. The matrix is designed as a tool to supplement the risk log or risk register.

The Risk Likelihood/Impact Matrix is based on two criteria: the likelihood that a risk will materialise and the potential impact caused by the risk event. Most commonly five bands are used for each of the dimensions of the matrix: 1=Very low, 2=Low, 3=Medium, 4=High, 5=Very high.

The two factors are then combined by multiplying their values, and the result is called Risk Level. Measured on a relative scale from 1 to 25, the Risk Level will trigger different risk response strategies.

The cells of the matrix are painted in different colours to indicate the criticality of the risk, typically Green for low-level risks (risk level <=2), Yellow for medium level risks (risk level between 3 and 16), and Red for high level risks (risk level >=20).

Based on the risk appetite of the organisation, adequate risk response strategies can be developed for each identified risk (avoid/accept/reduce/transfer/share).

C5. Work Breakdown Structure (WBS)

A WBS is a hierarchical division of the project into smaller work components that can be used to assign work or to estimate effort and cost. A well-made WBS should be easy to understand, be complete, and should facilitate progress monitoring during execution. The most commonly used WBS decomposition techniques include breaking the project by phases or stages, by deliverables or outputs, by work packages or based on the organisation, its departments and business units.

The WBS constitutes a good basis to the PM for assigning different responsibilities to team members. Each task in the WBS can then be further defined: work can be estimated, risks and dependencies can be identified, and resources can be mobilized.

C6. Deliverables Breakdown Structure (DBS)

Deliverables Breakdown Structure (DBS) is an essential part of Product Based Planning. It can be used to identify and document the deliverables of a project (both project deliverables and project management deliverable) and their interdependencies. This results in a hierarchical tree of deliverables and sub-deliverables (physical, functional or conceptual) that make up the entire project which helps the project team to identify the full set of deliverables that comprise the project.

A DBS is similar to a WBS, but is used at a different step in the planning process. The PBS can precede the WBS and identifies the desired outputs (deliverables) which are then used in the creation of the WBS (identification of tasks and activities required to deliver these outputs).

You could say that the DBS defines what the project will produce (as a whole and as parts), and the WBS defines what work needs to be done to produce them.

C7. Effort and Cost Estimates

The Effort and Cost Estimates technique derives from the Work Breakdown Structure (WBS): each work item (task) is estimated in terms of effort and cost. Effort is typically measured in person days or person months. This work is done in close cooperation with the task owners or other experts within the Project Core Team (PCT), to ensure more precise estimates and buy-in from the team members in charge of executing the work.

A high quality Work Breakdown Structure (WBS) forms the basis for high quality estimates.

C8. Three-Point Estimates using PERT

The Three-Point Estimate is part of the PERT (Project Evaluation and Review Technique) toolset, and is commonly used, in conjunctions with Network Diagrams, to provide a weighted average of activity duration or cost. The expected duration/cost and standard deviation of a project's duration or cost is calculated based on three data points, namely an optimistic estimate of duration or cost, a most likely estimate, and a pessimistic estimate.

These estimates are then weighed to provide a weighted average of the effort, cost or duration. In addition, these estimates can be used to calculate a standard deviation, used to estimate confidence levels of the weighted average per activity as well as to build simple statistical models of task time and cost. This method can be applied to forecast and mitigate risk and to assign buffers/contingencies to tasks.

Involving experts increases the accuracy of the three-point estimates and reduces the degree of uncertainty of the project.

C9. Project Scheduling

Project Scheduling aims to identify dependencies between tasks, to assign resources for each task, to identify task start and end dates, and to work out the overall project duration.

Scheduling can be done for the entire project upfront or for portions thereof, such as individual stages or iterations. Different scheduling methods and representations can be used: a list of dates/deadlines, a milestone plan, bar charts, network diagrams and linked bar charts (Gantt charts), all of which can be seen complementary to each other.

Once approved, the project schedule is baselined – any further change to the schedule needs to follow the change management process and the corresponding governance arrangements.

C10. Resource Levelling

Resource Levelling is a technique used to analyse the unbalanced use of project resources and to resolve conflicts related to resource allocation (i.e. human resources, material or equipment).

Resource Levelling focuses on an efficient/optimal resource allocation in order for the project to be completed within the defined timeline. Project Managers (PMs) analyse dependencies between projects or activities to ensure that activities can be executed in a timely manner. Taking into account the identified constraints, resources levelling can be performed. Resource levelling can for example require the delay of specific tasks until resources are available.

Some IT tools, such as Microsoft Project, provide functionality to automatically level resources by making one of the three project constraints (cost, scope or time) variable.

C11. Gantt Charts

A Gantt Chart is a common project management technique used to represent the schedule, phases and activities of a project in a single visual (generally a type of horizontal bar chart). It focuses on project sequence, duration, dependencies and status in a manner that is easy to understand.

A Gantt Chart represents the order in which activities need to be carried out and provides an overview of the progress that have been achieved at any point in time. A Gantt Chart is used to communicate a project schedule in a visual way, but is also used to show progress made and current schedule status by adding percent-complete shadings and a vertical "today" line. The main strength of this technique is the ability to clearly display the status of each activity at a glance.

C12. Critical Path Method (CPM)

The Critical Path Method (CPM) is a modelling technique that uses a mathematically based algorithm to calculate the total duration of a project. CPM calculates the longest necessary path (longest unavoidable duration) of planned activities from beginning to the end of the project, otherwise known as the critical path of the project. This technique helps to understand which activities have a critical influence on the overall duration of the project.

Since the critical path represents the longest necessary path of activities, it also represents the shortest possible duration of the project to completion. Based on this information, activities can be prioritised in order to shorten the duration of the critical path by pruning the critical path activities, performing more activities in parallel or adding more resources.

C13. Critical Chain Method (CCM)

The Critical Chain Method (CCM) is a modelling technique used to plan and schedule a set of activities or projects. It is similar to the Critical Path Method (CPM), but takes into account resources and their levelling, as well as the behaviour of the Project Manager (PM) when estimating duration of activities in a project.

The technique is based on the observation that activity time estimates for projects are close to double the time required to complete the activities. reasons that lead to a delay can include not taking advantage of the early finish of an activity, pacing of the team members to fill the time available for the completion of a task, waiting until the last moment to really focus on the task at hand, etc.

The CCM assumes that a Project Manager's estimates of duration for activities are padded, and immediately proceeds to reduce them. Additional buffers (project buffer, feeding buffer, resource buffer) are then added to account for the reduction in project estimates.

C14. Earned Value Management (EVM)

Earned Value Management (EVM) is a technique used to monitor and control the performance of projects, providing an objective view of performance based on the project financials. Both cost and value are measured in terms of cost units (e.g. person days or euro). EVM provides relatively objective metrics – or Key Performance Indicators (KPIs) – to proactively manage project performance. Some indicators reflect on progress made so far, or deviations from the plan from a cost or work value point of view, while other

indicators focus on forecasting total budget deviation, or on productivity required to complete the project on schedule.

C15. Pareto Analysis

The Pareto Analysis is a formal technique to identify those issues that cause the majority of problems in a project. The Pareto principle states that generally 80% of the effects come from 20% of the causes (e.g. 80% of costs may be attributed to 20% of activities. 80% of risk effects may be attributed to just 20% of identified risks).

By focusing on these top issues (the 20%), the Pareto Analysis can be useful for risk or quality management as it helps to focus on those risks or quality issues with the highest impact on a project, therefore facilitating the prioritization of necessary mitigation or contingency actions.

C16. Lessons Learned

Capturing Lessons Learned is a way of identifying development / improvement areas within a project for the purpose of helping similar projects avoid certain pitfalls in the future. Information that can be captured includes lessons learned from our management of risks, quality issues, outsourcing or contractor issues, change requests, etc.

The project team can capture ideas through brainstorming sessions, reviewing project reports and logs, sending project questionnaires, etc., during the lifecycle of the project. The Project Manager (PM) will group and prioritise lessons learned in order to understand key potential improvement areas.

To avoid making the same mistakes twice, Lessons learned should be shared with other project managers. In some cases, Lessons Learned can lead to process improvements, improved checklists and templates, or improved training courses.

Appendix D: PM² and Portfolio Management

Project Portfolio Management (PPM) is about connecting the strategic layer to the implementation layer, through selecting the right mix of projects and programmes, prioritizing them, ensuring adequate organisational capacity to execute them, and regularly collecting information to support portfolio decision-making and optimisation.

The Portfolio Management layer is where priorities are identified, project investments are authorised and resources are committed. Project Portfolio Management (PPM) includes both the composition and management of the realisation of the portfolio goals, including portfolio communication and stakeholder management.

A Project Portfolio is a collection of projects, programmes and other activities grouped together for the purpose of managing effectively the realisation of strategic objectives, and for better financial and resource control.

Project Portfolio Management becomes an important enabler for both good project management and strategy implementation. The implementation of project portfolio management principles, methods helps organisations to:

- Link portfolio management governance and activities with the PM² Methodology.
- Link projects to strategic objectives.
- Build discipline into the project evaluation and selection process.
- Prioritise project proposals across a common set of criteria, rather than a subjective perception of value.
- Allocate resources to projects that are aligned with strategic direction.
- Minimise risks and optimise resources across programmes and projects.
- Report portfolio performance and benefits to senior management based on accurate and comparable data.

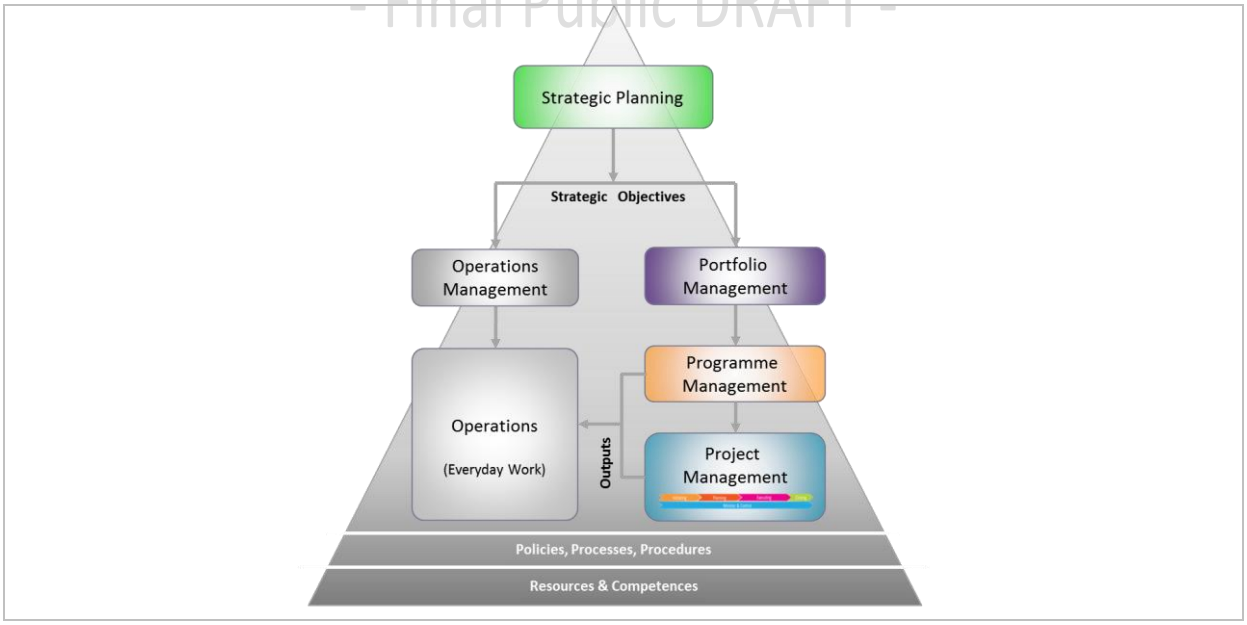

Fig. D.1: Relationship between strategy, operations, portfolio, programme and project management

D1. PM² Portfolio Management Model

Portfolio management encompasses a range of activities which are organised in 4 processes.

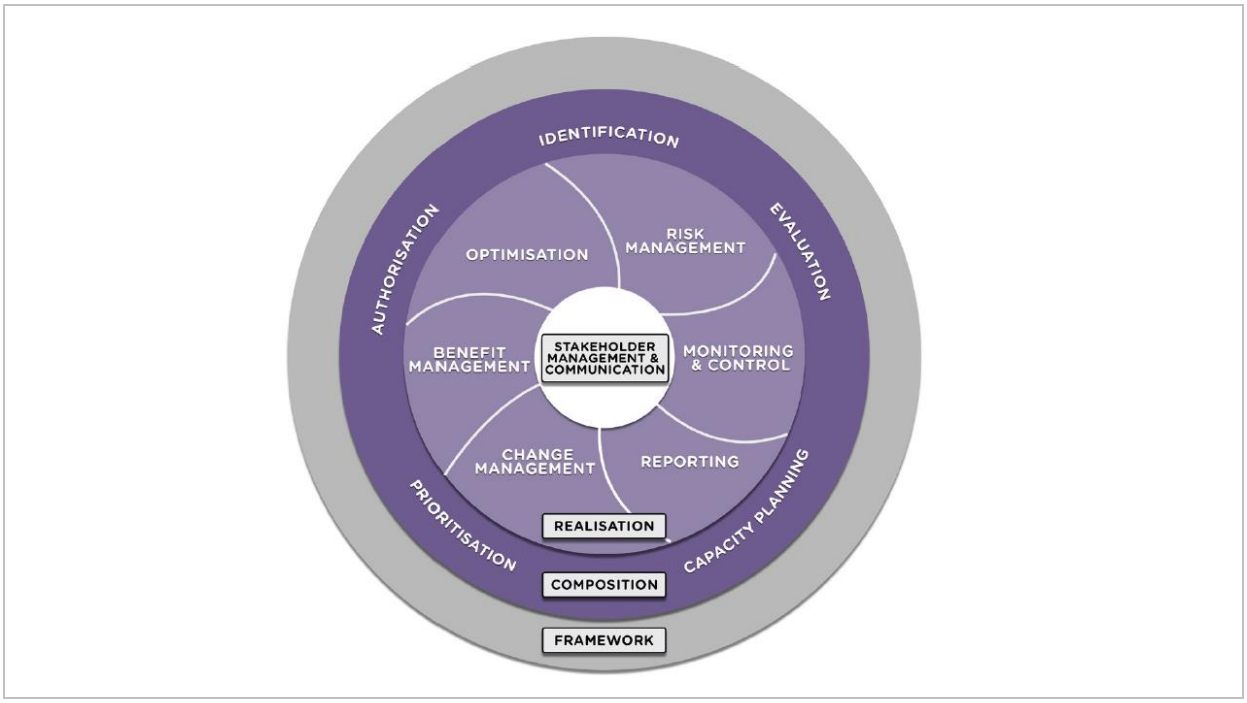

Fig. D.2: PM² Portfolio Management Process Model

Portfolio Framework

Defines the way the organisation will address portfolio management by defining the portfolio structure, the governance bodies and their responsibilities, together with the necessary processes.

Portfolio Composition

Is the process containing the activities to evaluate portfolio candidates, make investment decisions and allocate resources. These are recurrent activities that are regularly performed depending on the needs of the organisation.

Portfolio Realisation

Is the continuous process in which the authorised programmes and projects are managed towards realizing the objectives. Although programmes and projects have a temporary nature, these activities are performed continuously until the portfolio ceases to exist.

Stakeholder Management & Communication

Is the continuous process of analysing and interacting with the different stakeholders to ensure effective involvement in the composition and realisation of the portfolio.

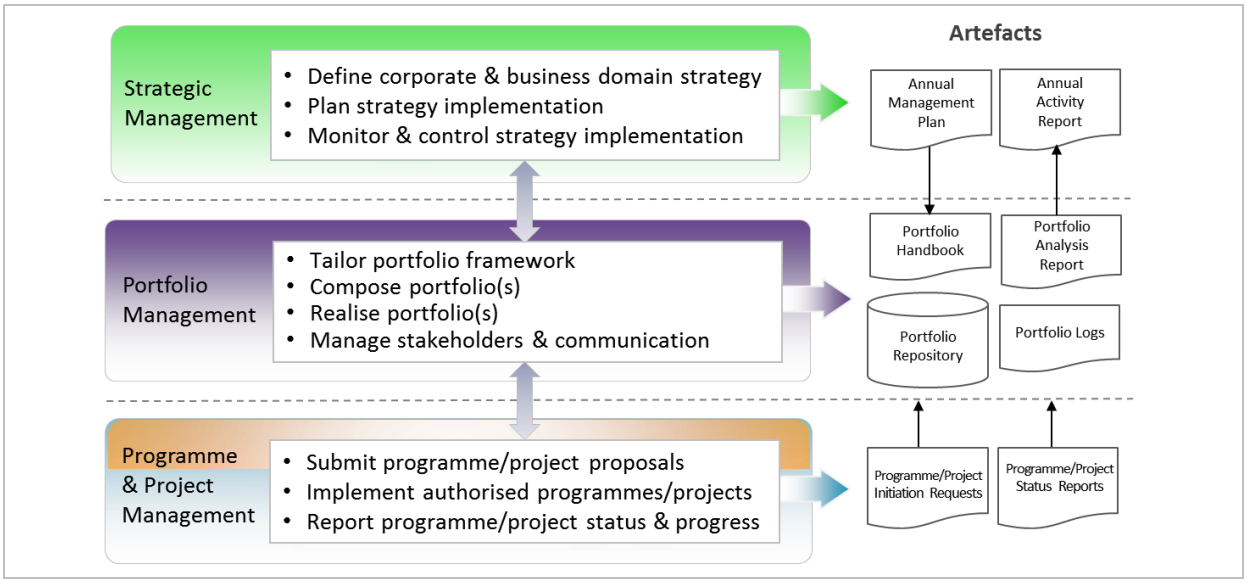

Fig. D.3: High Level representation of the Management Layers, Activities and Artefacts

The Portfolio Composition feeds the continuous processes of Portfolio Realisation, both being managed within the predefined Portfolio Framework the results of which are communicated by executing the relevant septs of the Portfolio Communication and Stakeholder Management process.

D3. Portfolio Framework Definition

Define the structure of portfolios, the project categories and evaluation criteria, the governance bodies and their responsibilities, together with the necessary processes, in order to have a complete portfolio management framework. The portfolio framework needs to be tailored to the organisation's and the portfolio's specific needs, but also revisited from time to time to improve the framework addressing the evolving needs of the organisation. The main steps of this process are:

- Define Portfolio Characteristics and Project Categories.
- Define Portfolio Metrics.
- Define Selection and Reporting Frequency.
- Define Portfolio Processes and Governance Bodies.

D4. Portfolio Composition

The Portfolio Composition process contains the activities to evaluate programmes and projects candidates, take investment decisions and allocate resources. These are recurrent activities that are performed once every quarter or once every year, depending on the needs and flexibility of the organisation. The main steps are:

- Projects Identification.
- Projects Categorisation.
- Projects Evaluation.
- Portfolio Capacity Planning.
- Projects Prioritization.
- Projects Authorisation.

D5. Portfolio Realisation

The Portfolio Realisation process is about managing the authorised programmes and projects towards realizing the objectives until they are closed or removed from the portfolio. Although programmes and projects have a temporary nature, these activities are performed continuously until the portfolio ceases to exist. The main steps are:

- Portfolio Monitoring & Control.
- Portfolio Risk Management.
- Portfolio Optimization & Benefits Management.
- Portfolio Change Management.
- Portfolio Reporting.

D6. Portfolio Stakeholder Management & Communication

The Portfolio Stakeholder Management and Communication and process is about planning and managing the identification and analysis of the portfolio stakeholders and managing their expectations. The purpose is to develop a consistent way of communication with the portfolio stakeholders, and detail in a Portfolio Communication Plan the purpose, frequency and the distribution list of each portfolio communication or report. The main steps are:

- Define Portfolio Communication Plan.
- Manage Portfolio Stakeholders and Communications.

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Appendix E: PM² and Agile

Agile is a collective term used to refer to project methods, in which requirements and solutions evolve through collaboration between self-organising, cross-functional teams. It promotes adaptive planning, evolutionary development, early delivery, continuous improvement and encourages rapid and flexible response to change.

PM² supports the use of Agile practices in projects. And although such practices often already exist in several isolated parts of organisations, it takes a holistic approach and coordinated effort to ensure their success. This is particularly true for larger organisations, where unlike practising Agile in small organisations, there is a need to enable the collaboration between Agile and other (traditional) project approaches, and to comply with the expectations of various governance layers, enterprise architecture and interoperability requirements. Agile PM² aims to provide this support to those who are already applying Agile, or are willing to apply Agile approaches to their projects.

Agile approaches yield impressive results when used in the right context and implemented by the right teams. However, organisations and teams often face challenges related to:

- working in an Agile way while complying with Organisational processes, structures and rules, including organisational wide governance and budgeting rules, programme structures, architecture and interoperability constraints.
- how to use Agile in large or non-collocated teams, or when some of those teams are applying an Agile approach but others are not.

The Agile extension to PM² is designed to help with these challenges. Moreover, incorporating Agile into the overall PM² framework, project management community and culture creates the foundations for organisational agility and organisational learning and improvement.

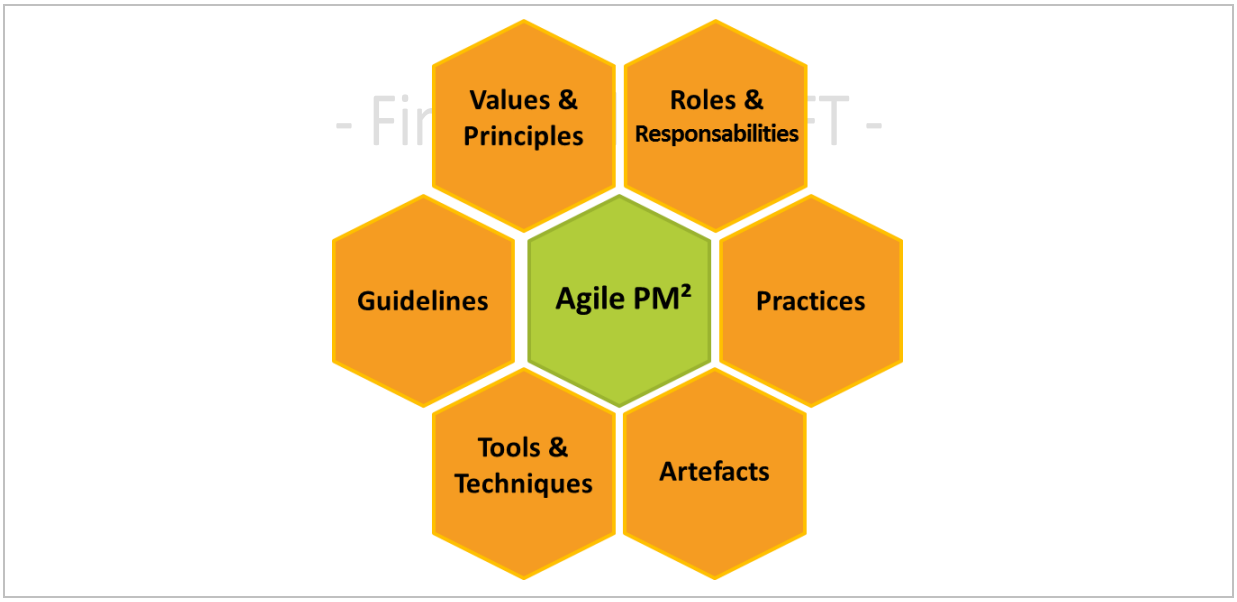

Fig. E.1: The elements of Agile PM²

E1. Agile PM² Principles

In order to help people gain a better understanding of what Agile is all about, the members of the Agile Alliance created the Agile Manifesto, describing what they mean by Agile in 4 value statements and 12 principles. Agile PM² has adopted these values and principles (with some minor modifications).

The four values comprising the Agile Manifesto are:

1. Individuals and interactions *over* processes and tools.
2. Working solutions *over* comprehensive documentation.
3. Stakeholder collaboration *over* contract negotiation.
4. Responding to change *over* following a plan.

The 12 Agile principles are:

1. The highest priority is to satisfy the client through early and continuous delivery of valuable solutions.
2. Requirement changes are welcome, even late in the solution delivery life cycle.
3. Deliver value frequently through working solutions.
4. Business people and project team must work together throughout the project.
5. Create teams with motivated individuals. Give them the environment and support they need to self-organise, and trust them to get the job done.
6. The most efficient and effective method of communication is face-to-face conversation.
7. The primary measure of progress is the usefulness of what has been delivered.
8. Continuous attention on quality.
9. Simplicity – the art of maximising the amount of work not done — is essential.
10. At regular intervals, the team reflects on how to improve, then tunes and adjusts its behaviour accordingly.
11. Agile processes promote sustainable development. Project stakeholders should be able to maintain a constant working pace indefinitely.
12. Agile practices should be enterprise-aware, taking into consideration organisational governance requirements, enterprise architecture, and interoperability. Agile teams should be able to collaborate effectively with teams and stakeholders following alternative approaches.

E2. Agile & PM²

Agile PM² is a well-balanced approach, enabling delivery teams to work autonomously while ensuring conformity with the enterprise structures and operations. PM² has built-in flexibility that makes it easier to adopt Agile practices. At the same time, the need for the Agile teams to take into account the higher-level governance constraints can be fully satisfied by its alignment with PM².

The Agile extension to PM² provides:

- Agile roles & responsibilities (as an extension to the PM² governance).
- integration with the overall PM² project lifecycle.
- a set of suggested Agile artefacts (as an extension to the PM² artefacts).

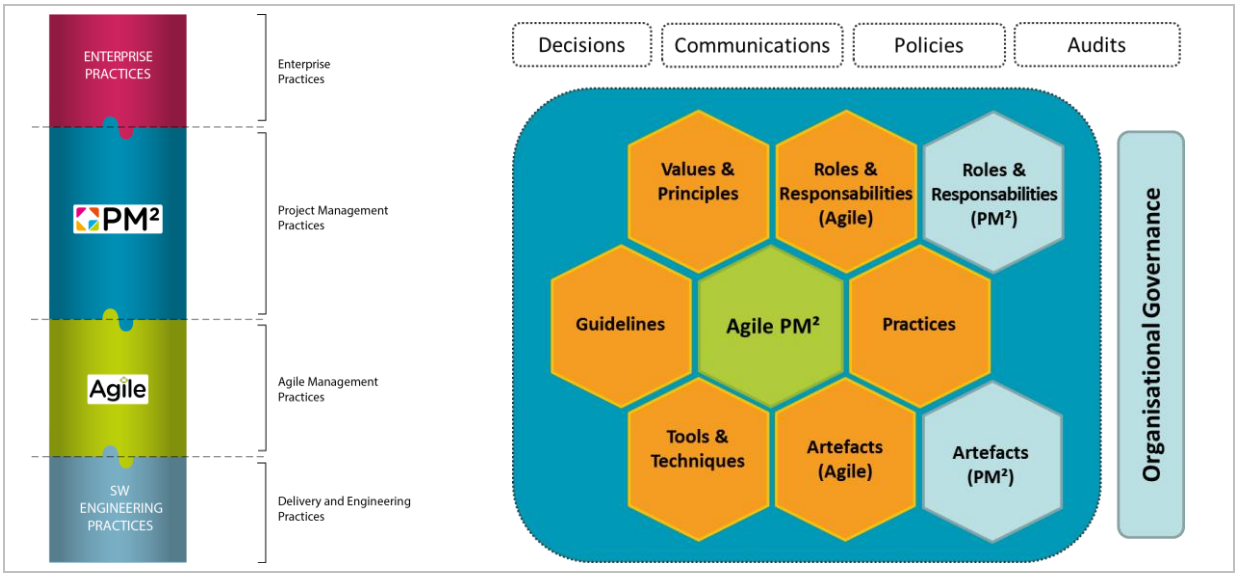

Fig. E.2: The positioning of Agile PM² within the Organisation

Figure E.2 shows how PM² and Agile are connected to Enterprise Practices (e.g. Strategic Governance, Portfolio Management, etc.), and Delivery and Engineering Practices. When the Agile approach is selected for a PM² project, the delivery (or parts of it) is carried out in an Agile way, while the Agile roles and artefacts simply compliment and extend the standard ones from PM².

PM² provides the appropriate governance framework, which reflects the governance needs of the organisation as a whole, but also enables the Project Core Teams (PCT) to harness the benefits of self-organisation. For this purpose, Agile PM² sets out a way to organise those Project Core Team (PCT) members that work in an Agile way. A set of additional roles & responsibilities are set out for Agile teams.

The Figure below shows how the Agile teams fit into the overall PM² project organisation.

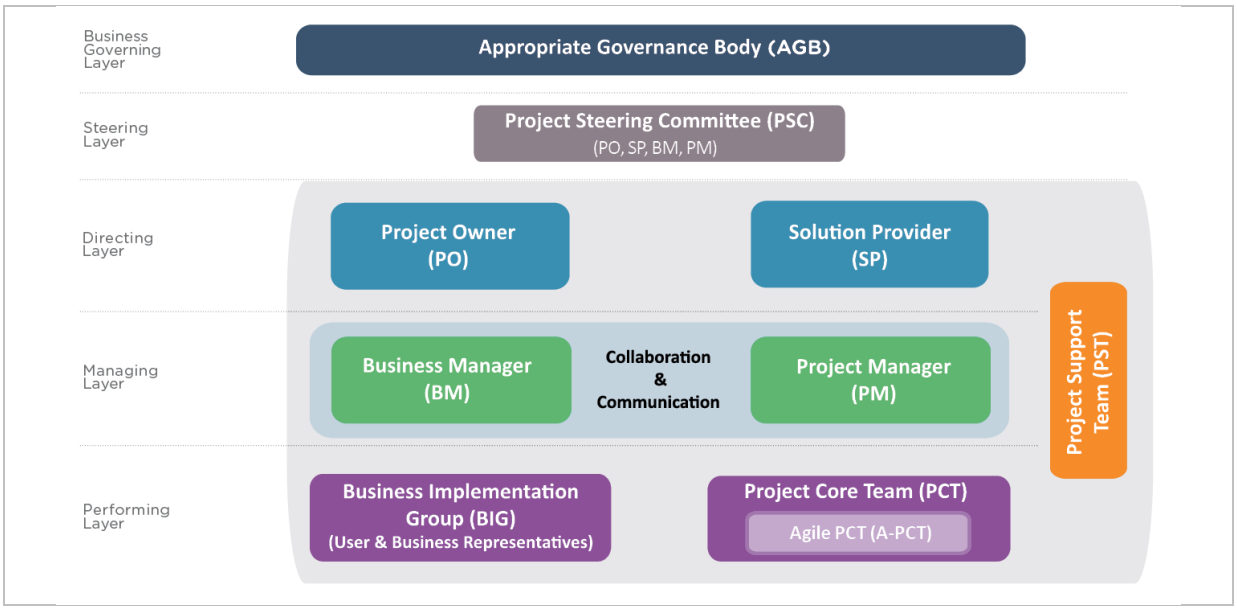

Fig. E.3: Agile Teams in the context of the PM² project organisation

PM² projects pass through four distinct phases. While the characteristics of some of these phases (e.g. planning) may not be as tangible at the level of Agile teams as they are at the overall project level, they still exist and it is important for project team members and stakeholders to have a common understanding of them. In Agile, typical project activities do not have a sequential character, but are executed within every iteration: planning, analysing, implementing, testing and reviewing are done in every iteration with some Agile practices having a special time slot for planning and reviewing.

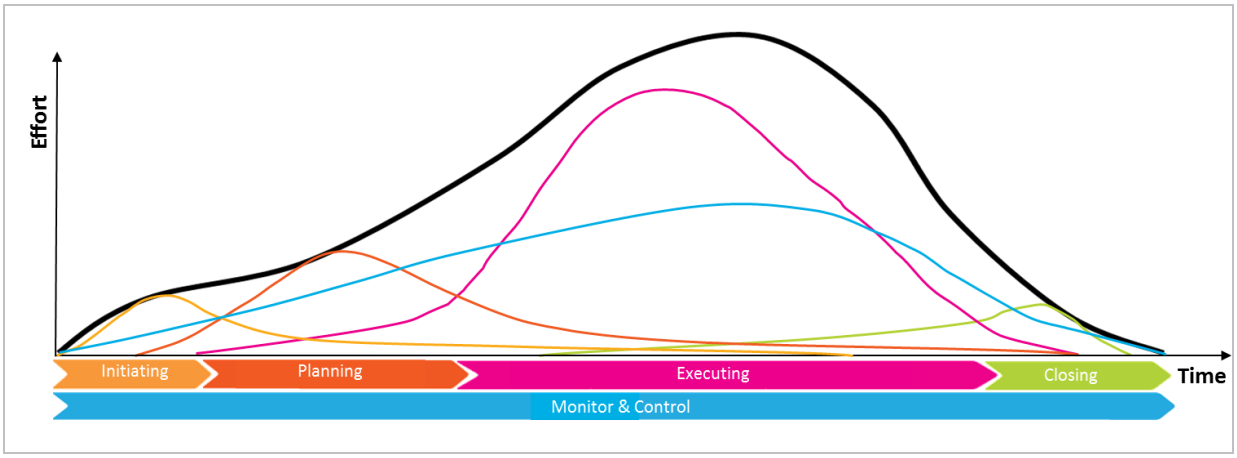

Fig. E.4: The PM² project life cycle with iterations: overlapping of phase-related activities

The combination of the high-level phases and lower level iteration cycles results in an effort/time curve with greater overlap between activities over time, spanning multiple phases of the project.

The Agile PM² has iteration cycles at three levels – daily cycles, iterations, and releases. Regardless of their duration, these cycles follow what is known as the Agile PM² 'CIR' rhythm (**C**oordinate, **I**mplement, **R**eview).

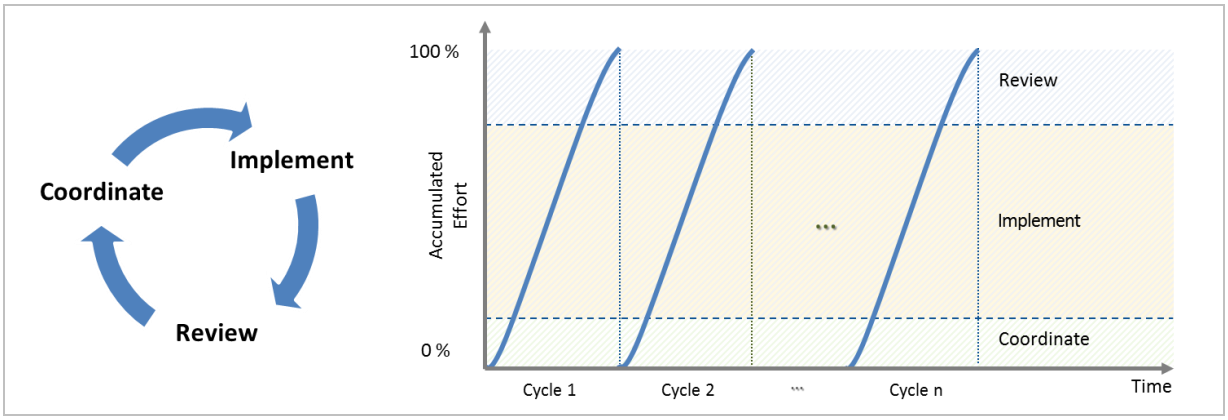

Fig. E.5: The Agile PM² CIR rhythm

At the beginning of the project, the key concern is to understand what to build by determining an overall vision and identifying the stakeholders and their success criteria. In the middle of the project, the focus of the domain-specific activities shift towards incrementally building the solution as a progressively better understanding is achieved of what needs to be done and how. As the project nears completion, the focus shifts to ensuring that the solution is well-integrated into the overall project deliverables and that it contributes to the realisation of the benefits desired by the requestor organisation.

Releases and Iterations

An Agile iteration is a period of time within a project in which the Agile Project Core Team (A-PCT) produces a stable, potentially demonstrable version of part of the solution, together with any other supporting documentation necessary to use this release.

Iterations are often timeboxed (i.e. fixed iteration duration), and is strictly planned. The objectives of iterations are well-defined and should implement the highest-priority Work Items and address the most critical risks. the evaluation criteria are established. and the tasks and responsibilities of participants are made clear. Additionally, progress transparency is assured through agreed metrics and methods for measuring.

Each iteration produces a product increment which brings it one step closer to the final product. Instead of producing the product one part after another, the whole products is evolving through each cycle using the CIR rhythm.

From an Agile perspective, projects may have many releases as a result of the incremental progress achieved in one or more iterations.

Releases and Release Planning enable the Agile Project Core Team to define and manage the efforts and dependencies associated with each increment. The stable, demonstrable output of the releases enables teams to demonstrate tangible progress to stakeholders and get feedback at an early stage so that they can improve their understanding of what needs to be done and how to do it.

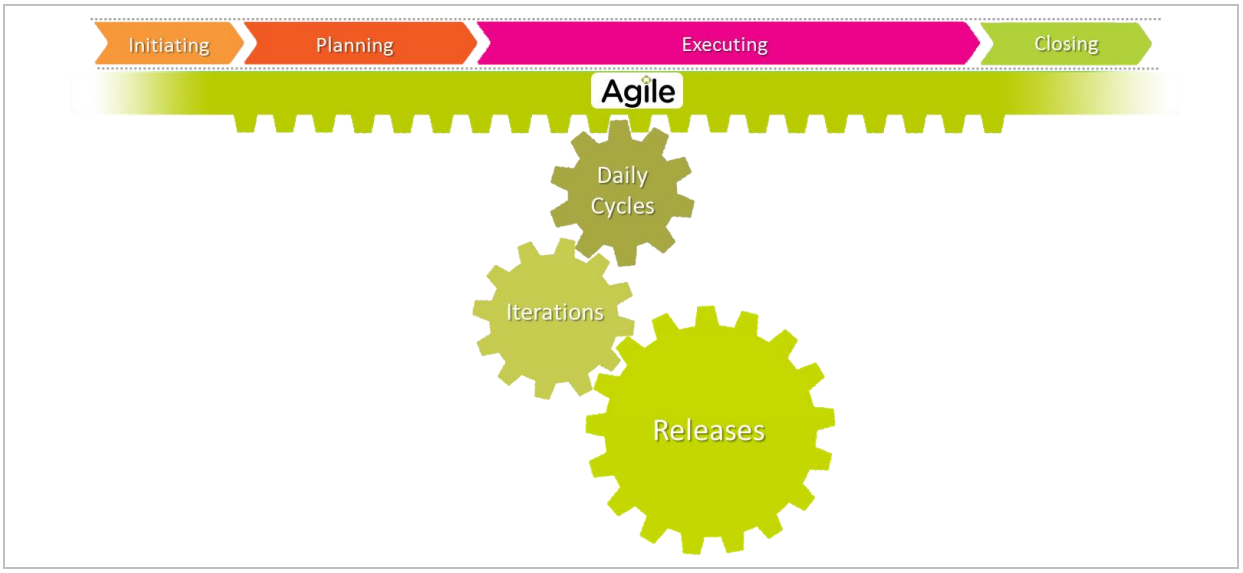

Fig. E.6: From project phases to daily cycles

E.3 The Agile PM² Mindsets

PM² promotes a set of mindsets that aims to integrate and complement the four pillars of PM² (governance, lifecycle, processes, and artefacts). These mindsets present useful reminders of effective attitudes & behaviours, help project teams define and focus on what is (really) important for project success, and help project teams (re)position project goals in the wider organisational context.

The purpose of the mindsets is to help project teams navigate through the complexities of managing projects at the EC and provide a common set of beliefs and values for all project teams. Further to the PM² mindsets:

Additional mindsets:

- There is no such thing as an 'Agile project'. There are only 'projects'.
- Agile team members are members of the overall PM² Project Core Team (PCT).
- Agile roles are not people. The roles are fulfilled by people.
- There are clients and users.
- Be serial in the large, and iterative in the small.
- Speak Agile, but also speak 'organisation'.
- Be as Agile as needed and as Agile as possible within the constraints of your organisation.
- 'Celebrate failure' as a way to openly discuss mistakes and accelerate learning.

Ongoing Goals

- Fulfil the project mission.
- Grow team members' skills.
- Enhance existing infrastructure.
- Improve team process and environment.
- Leverage existing infrastructure.
- Address risk.
- Achieve, flow of value, where the customer defines value.
- Continual reduction of waste that is impeding flow.
- Promote transparency, enabling team members to continually improve the two previous goals.

Rights of everyone:

- To be treated with respect.
- To be provided with suitable working conditions/environment necessary to perform the job.
    - Be informed about the business context.
    - Have decisions taken in a timely manner.
    - Obtain the identified required resources.
    - Respected commitments, both within the team and at the overall project and organisational scope.
- Actively participate in planning and estimation of activities, commit to deliver within the quality and organisational standards.
- To have a continuous learning environment, where skills development is perceived as bringing benefits to the individual, the team, and the overall organisation. Mistakes are seen as opportunities to learn and improve.

E.4 Agile PM² Artefacts

Documenting the work planned and performed by the Agile teams is critical in increasing transparency and coordination between the different layers of the PM² project organisation (i.e. between the directing, managing and performing layers).

A set of artefacts support the use of Agile PM². These artefacts capture and document information regarding the management approach, regarding specific (implementation) activities, milestones, issues and progress reporting.

These artefacts are grouped in three categories: Agile-specific artefacts, coordination & reporting artefacts, and project governance artefacts.

Artefact Type	Description
Project Governance Artefacts	Provide the information requested by Organisational and Project Governance. They are comprised of the Business Case, Project Charter (and Architecture Overview and Operational model (for IT systems)).
Agile Specific Artefacts	Capture information regarding the planning of specific (implementation) processes, activities, releases, iterations and other milestones.
Coordination & Reporting Artefacts	Capture the information needed to coordinate the overall project activities with those undertaken by the Agile team, and to ensure that the Project Manager (PM) has visibility of the Agile-specific activities, issues, milestones and progress.

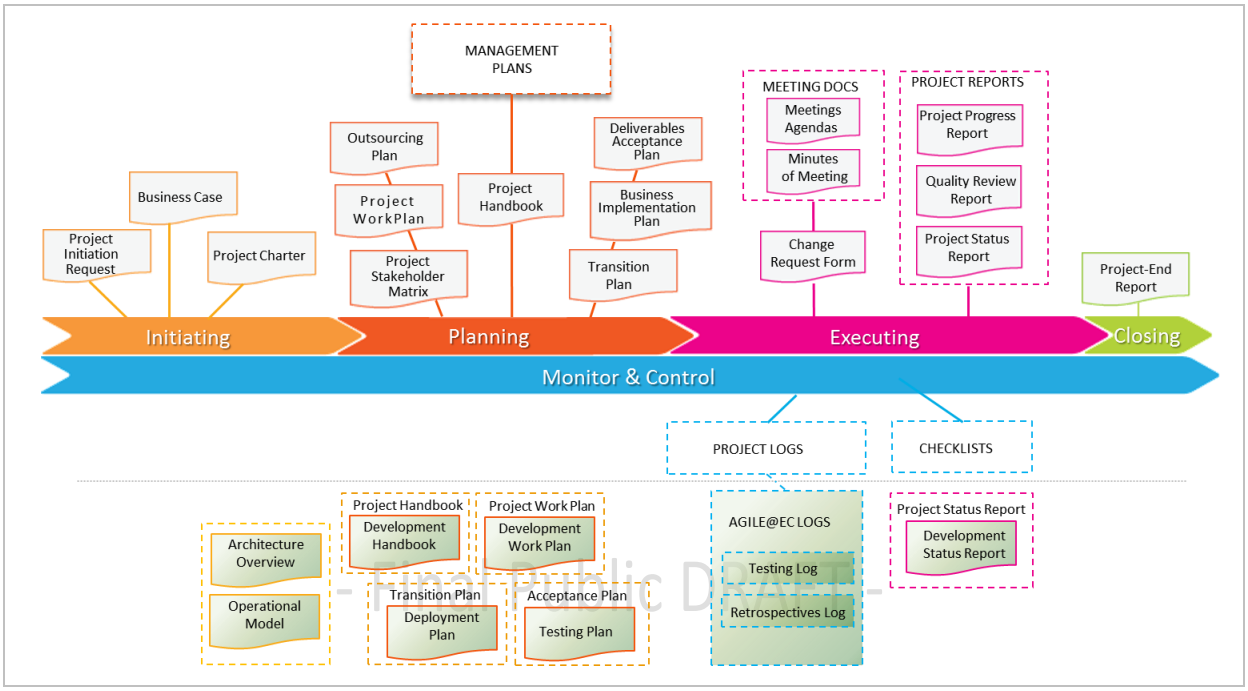

Fig. E.7: Agile PM² Artefacts Landscape

A summary representation of the key Agile activities and artefacts for each project phase is shown in figures E.7 and E.8. Note that, just like any other Agile deliverable, artefacts are delivered in an incremental and iterative way.

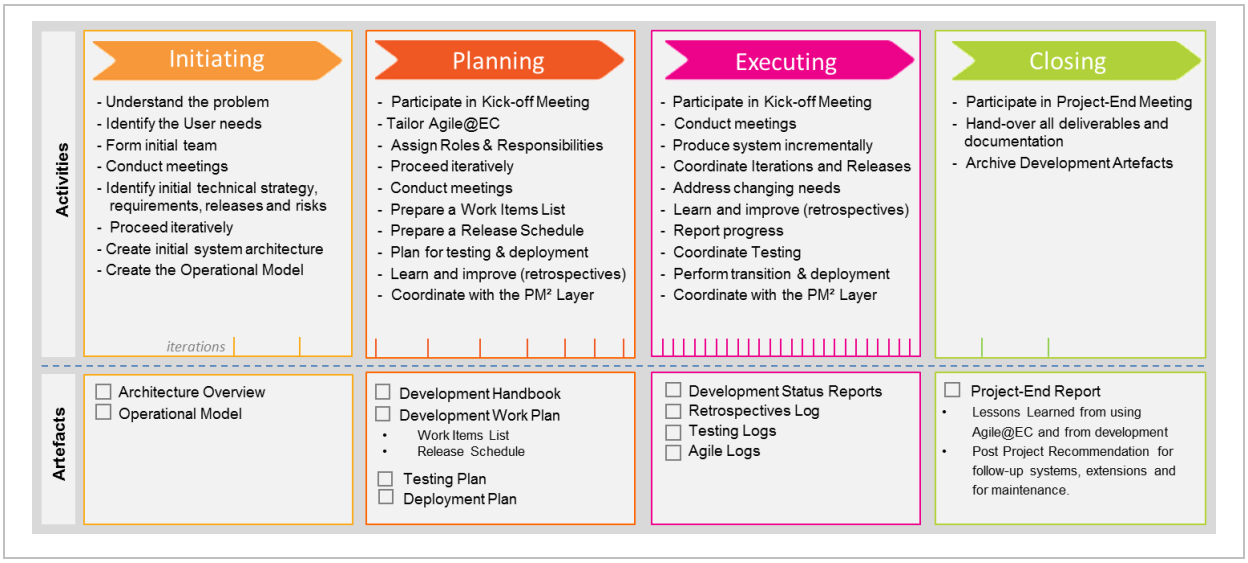

Fig. E.8: An overview of the Agile@EC Actives and artefacts in each phase

E.5 Agile PM² Roles

Agile Project Core Team (A-PCT)

The roles and responsibilities defined in Agile PM² as responsible for organising and managing the Agile Project Core Team (A-PCT) are presented below.

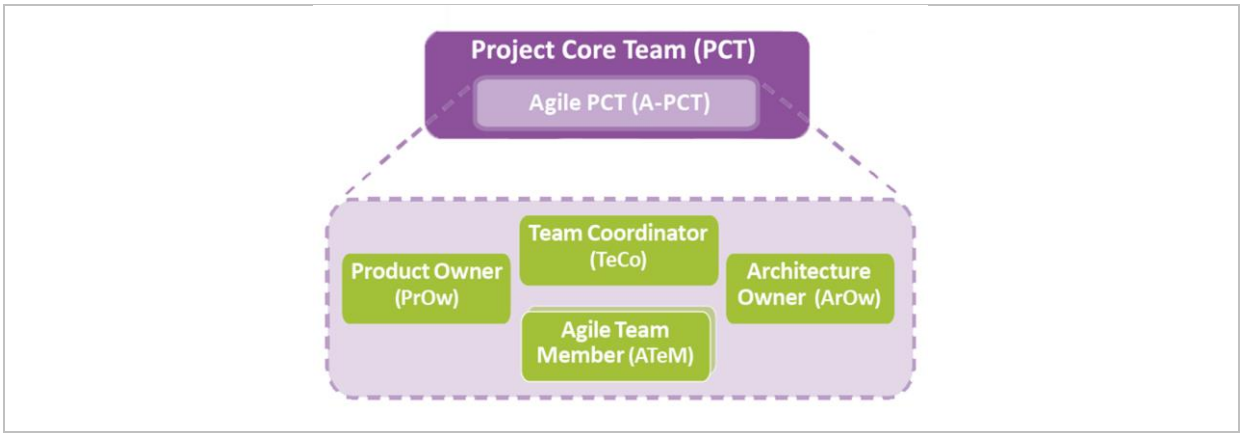

Fig E.9: Main roles of the Agile Project Core Team (A-PCT)

Team Coordinator (TeCo)

The Team Coordinator (TeCo) acts as a facilitator and team coach whose main purpose is to create and maintain the conditions that enable the team to focus on achieving specific objectives.

Product Owner (PrOw)

The Product Owner (PrOw) represents the client and the end-user. They develop a deep understanding of stakeholder needs in order to better identify and set work priorities.

Architecture Owner (ArOw)

The Architecture Owner (ArOw) is the solution architect responsible for architecture-related decisions made in the Agile Project Core Team (A-PCT). The Architecture Owner (ArOw) facilitates the creation and development of the overall solution design and ensures that the solution takes into account existing and planned investments made into other information systems/components.

Agile Team Member (ATeM)

The Agile Team Members (ATeM) focus on producing the project's solution as per the stakeholder needs. This role encompasses different disciplines which mean that the Agile Team must therefore have cross-disciplinary skills. They must also have the ability to work together with the rest of the Agile Project Core Team (A-PCT) members, independently of their background and experience.

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Appendix F: Additional Resources

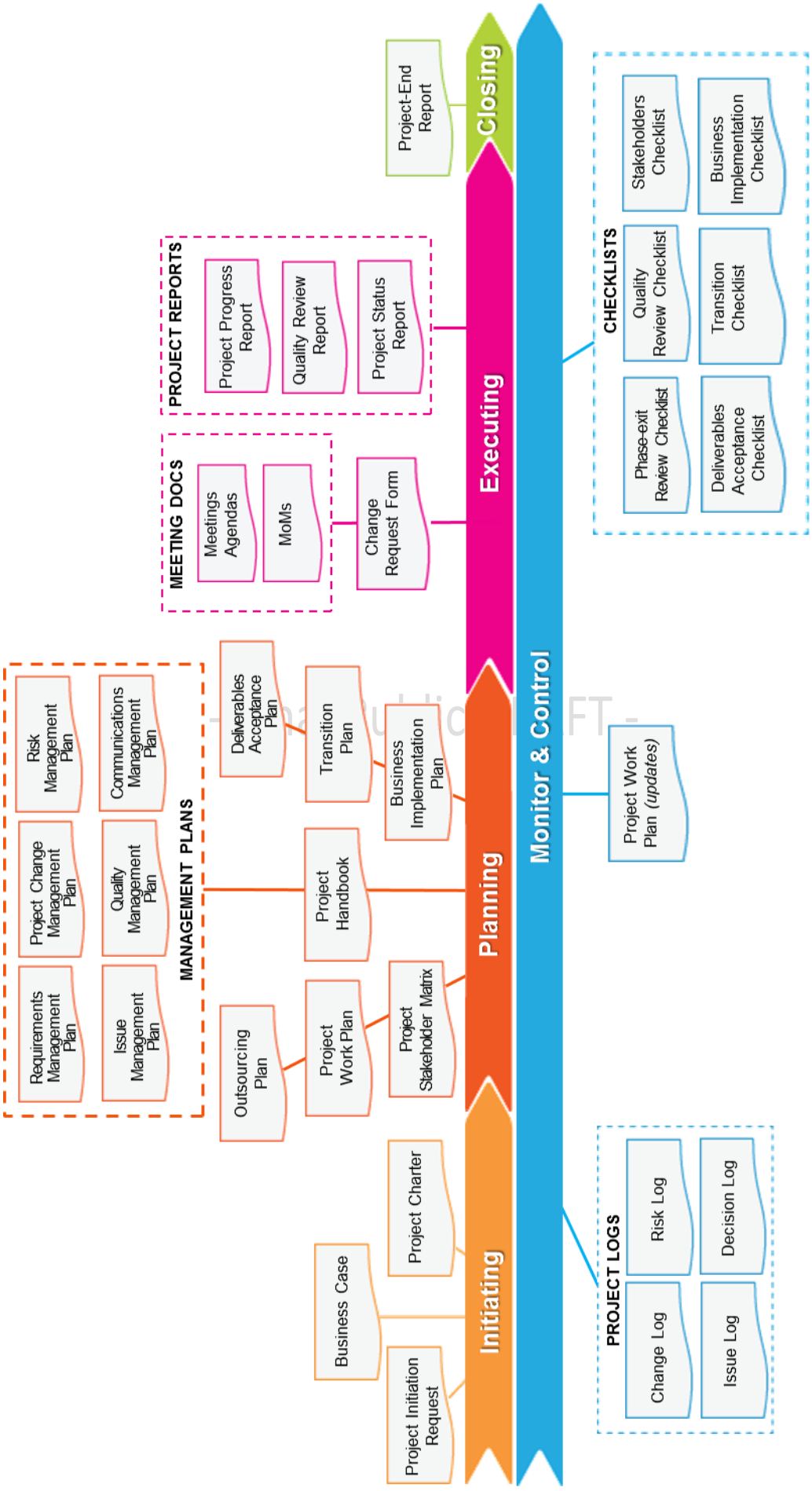
F.1 PM² Artefacts & Activities Summary Tables and Diagrams

RAM (RASCI) (Responsible, Accountable, Supports, Consulted, Informed)

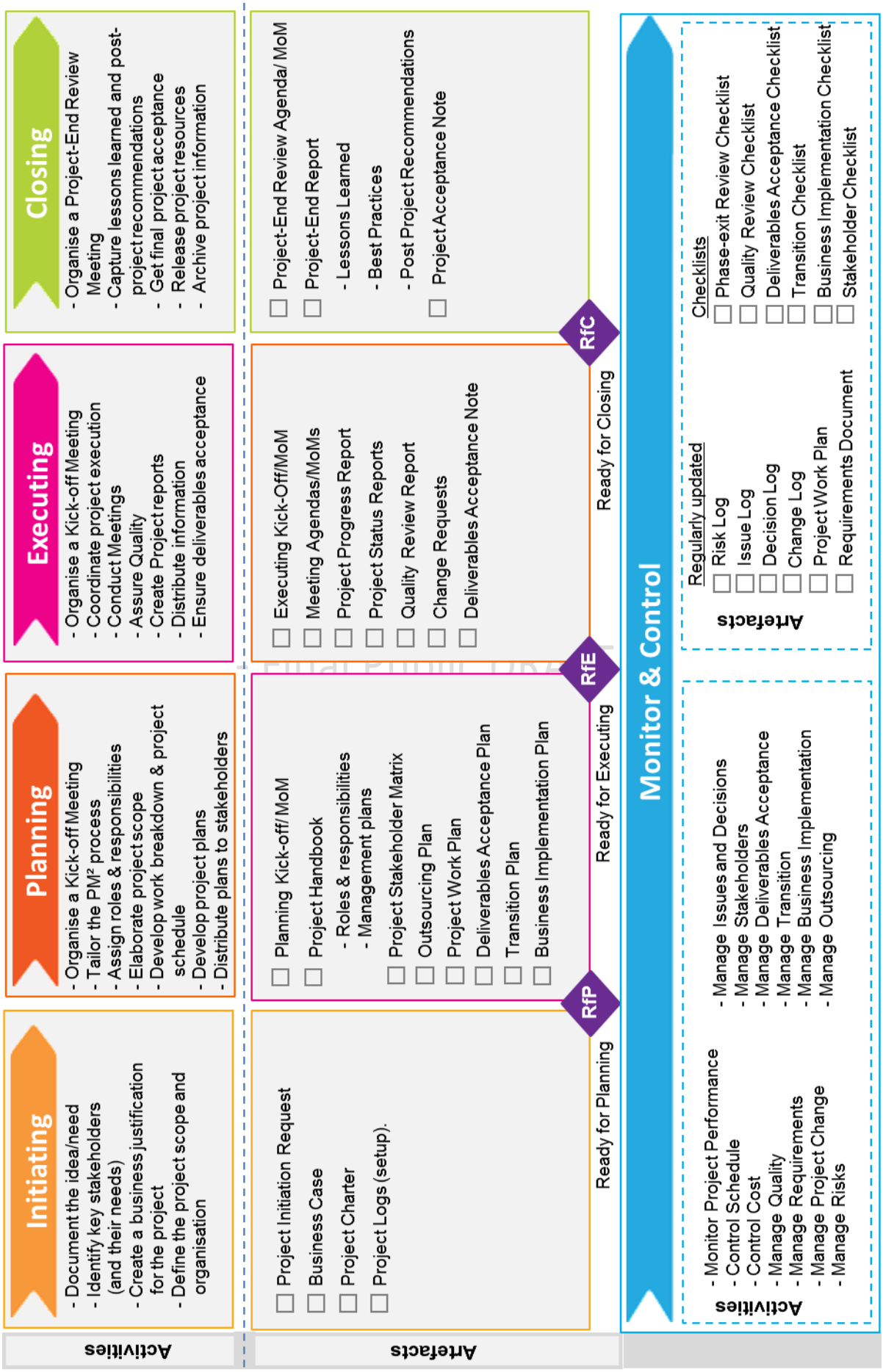
Initiating	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Initiation Request	I	n.a.	**A/S**	**R**	**S**/C	I	n.a.	n.a.
Business Case	I	C	**A**	**R**	C	**S**	**S**	n.a.
Project Charter	I	C	**A**	**S**	C	**S**	**R**	C
Planning	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Planning Kick-off Meeting	I	**A**	C	**S**	C	C	**R**	C
Project Handbook	I	I	**A**	**S**	C	I	**R**	C
Project Stakeholder Matrix	I	I	**A**	**S**	C	I	**R**	C
Project Work Plan	I	**A**	C	**S**/C	C	C	**R**	**S**/C
Outsourcing Plan	**A**	C	C	C	I	**S**	**R**	I
Deliverables Acceptance Plan	I	**A**	C	**S**	I	C	**R**	C
Transition Plan	I	**A**	C	C	C	C	**R**	C
Business Implementation Plan	I	I	**A**	**R**	C	I	**S**	I
Management Plans								
Requirements Management Plan	I	I	**A**	C	C	I	**R**	S
Project Change Management Plan	I	I	**A**	C	I	I	**R**	I
Risk Management Plan	I	C	**A**	C	I	I	**R**	I
Issue Management Plan	I	I	**A**	C	C	I	**R**	C
Quality Management Plan	I	**A**	C	C	C	C	**R**	C
Communications Management Plan	I	I	**A**	**S**	C	I	**R**	C
Executing	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Executing Kick-off Meeting	I	**A**	C	**S**/C	C	C	**R**	C
Project Coordination	I	I	**A**	**S**	I	I	**R**	I
Quality Assurance	I	I	I	**S**	C	I	**A**	**R**
Project Reporting	I	I	**A**	**S**/C	I/C	I/C	**R**	C
Information Distribution	I	I	**A**	C	I	I	**R**	C
Monitor & Control	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Monitor Project Performance	I	I	**A**	C	C	I	**R**	C
Control Schedule	I	I	**A**	C	C	I	**R**	C
Control Cost	I	I	**A**	C	C	I	**R**	C
Manage Stakeholders	I	I	**A**	S/C	I	C	**R**	I
Manage Requirements	I	I	**A**	C	C	I	**R**	S
Manage Project Changes	I	C	**A**	**S**	I	I	**R**	C
Manage Risks	I	C	**A**	**S**/C	C	I	**R**	C
Manage Issues & Decisions	I	I	**A**	**S**	C	I	**R**	C
Manage Quality	I	I	I	**S**/C	C	**A**	**R**	C
Manage Deliverables Acceptance	I	I	**A**	**S**	C	C	**R**	C
Manage Business Implementation	I	I	**A**	**R**	C	I	**S**	I
Manage Transition	I	**A**	C	C	C	C	**R**	C
Manage Outsourcing	**A**	C	C	C	I	**S**	**R**	I
Closing	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project-End Review Meeting	I	**A**	C	**S**	C	C	**R**	C
Project-End Report	I	**A**	C	**S**	C	C	**R**	C
Administrative Closure	I	C	**A**	C	I	C	**R**	I

AGB (Appropriate Governance Body)
PSC (Project Steering Committee)
PO (Project Owner)
BM (Business Manager)
UR (User Representatives)
SP (Solution Provider)
PM (Project Manager)
PCT (Project Core team)

The PM² Artefacts Landscape



Overview of PM² Activities & Artefacts



F.2 Getting Started with PM² - Quick Start Tips

The purpose of this quick start guide is to help you get started with applying PM². Naturally, you will want to start by learning more about the PM² Methodology and review the available PM² material. Keep in mind, however, that you don't have to become an expert before you can start applying the basics of PM² in your projects. All you need is a brief introduction to the PM² Methodology and then you can continue by following the seven Quick Start steps:

1. Define the Project Governance and Create a Business Case

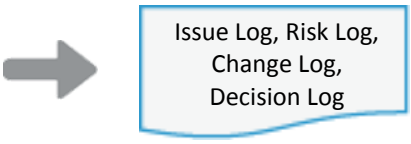
- Set up the Project Steering Committee (PSC)
- Provide justification for the project, describe its scope and set out the budgetary constraints

2. Identify stakeholders and create the Project Charter

- Define the project scope
- Identify the stakeholders who should contribute to the Project Charter
- Identify and document high-level requirements, assumptions and constraints
- Decide on a project approach and estimate required resources, costs and timing

3. Set up the Project Logs

- Set up the Risk Log, Issue Log, Decision Log and Change Log
- These will be used to document the management of risks, issues and changes to project scope

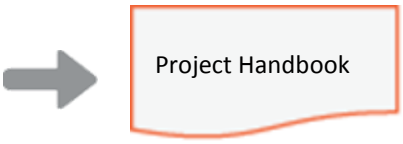


4. Kick-off the Project Planning with a Meeting

- Invite the right people
- Go over the Project Charter and ensure a common understanding
- Communicate the next steps for the planning of the project

5. Tailor the Project Management approach

- Decide which planning documents to use and how they should be tailored
- Define rules, assign team responsibilities and define a conflict resolution process
- Identify all stakeholders who require information during the project



6. Create the Project Work Plan

- Break down the work that needs to be done into smaller and more manageable pieces (create the Work Breakdown)
- Estimate the effort and cost for each piece of work
- Create a work schedule (identify dependencies, assign resources and dates)

F.3 Useful Online Resources

The PM² Guide (PDF)

You can download the pdf version of the PM² Guide - Open Edition from the PM² website or the EU Bookshop.

PM² Website and PM² Wiki

The PM² website details the PM² approach and provides one central place for PM² information

PM² Support

Join the Open PM² Community on Join-up and stay informed.

- Discuss specific project management issues, ask questions and share experiences.
- Learn about PM², the PM² artefacts and processes.
- Receive support to help you start using PM².
- Tap into the knowledge of more experienced PM² Practitioners.
- Receive guidance in rolling out PM² in your organisation.
- Provide feedback and share your own experience form using PM².

Open PM² Online Resources:

- http://europa.eu/pm2
- https://joinup.ec.europa.eu/community/opm2
- https://webgate.ec.europa.eu/fpfis/wikis/display/openPM2/
- https://ec.europa.eu/eusurvey/runner/openpm2-contact

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Appendix G: Ethics and Conduct

G.1. PM² Code of Professional Conduct

Many organisations provide a code of ethics and conduct that members are required to respect. The purpose is to help people navigate through the complexities of professional reality, and remind them which attitudes and behaviours are aligned with a commonly accepted set of professional values.

Conduct means personal behaviour based on moral principles. Professionalism is the skill, good judgment, and polite behaviour that is expected from a person who is trained to do a job well. This section provides a useful reminder of the key principles that PM² practitioners (and project team members) should be aware of and respect.

- **INDEPENDENCE:** staff conduct and decision making should be determined by the need to serve the common good and public interest, and never by any other interests whether private or as a result of, for example, political pressure.
- **IMPARTIALITY:** staff members should be unbiased in any decisions they are called upon to make.
- **OBJECTIVITY:** any conclusions drawn should be balanced and based on a thorough analysis of the facts and legal background.
- **LOYALTY**: loyalty towards the Commission is essential for maintaining its independence and achieving its objectives. It is also necessary for the functioning of each service.

Putting these principles into practice requires:

- **CIRCUMSPECTION**: which is about stopping and reflecting on the possible consequences and implications of potential actions, showing a degree of moderation and a sense of proportion and propriety.
- **RESPONSIBILITY**: which is about carrying out those tasks entrusted to you as dutifully as possible and looking for solutions when difficulties are encountered. It is also important to know and respect the legal obligations and administrative rules and procedures in force.

The key principles can be summarised as **INTEGRITY**, which means consistently adhering to ethical principles and making sound decisions based on these.

In addition to the aforementioned code of ethics, every practitioner of the PM² Project Management Methodology should act based on the following values:

- **LAWFULNESS** and **ACCOUNTABILITY**: act in accordance with the law and hold yourself accountable for decisions and acts.
- **FAIRNESS**: fairness is our duty to make decisions impartially and objectively, and free from self-interest, prejudice and favouritism.
- **NON-DISCRIMINATION** and **EQUAL TREATMENT**: respect the principle of non-discrimination and, in particular, guarantee equal treatment for members of the public irrespective of nationality, gender, racial or ethnic origin, religion or beliefs, disability, age or sexual orientation.
- **PROPORTIONALITY** and **CONSISTENCY**: ensure that the measures taken are proportional to the aim pursued and be consistent in your behaviour.
- **RESPECT** and **LEADERSHIP**: exercise the power of your position with responsibility and promote ethical principles and professional conduct by leadership and example.
- **HONESTY** and **OPENESS**: declare any private interests and openly provide reasons for any decision.
- **TEAMWORK** and **CONFLICT RESOLUTON**: work together to achieve common goals by finding workable solutions through better mutual understanding.
- **POLITENESS** and **CLEAR COMMUNICATION**: engage colleagues by showing respect and encouraging efficiency through clarity of instructions.

Useful Resources and References (European Commission)

General

- EC Staff Regulations
- Communication from former Vice-President Kallas to the Commission on enhancing the environment for professional ethics — SEC(2008) 301
- Public service principles for the EU civil service — European Ombudsman 2012

Relations with the public and media

- Code of Good Administrative Behaviour — 2000/633/CE
- General guidelines for 'Staff as Ambassadors' — SEC(2007) 912/9
- Social Media Guidelines for all staff — Administrative Notice No 34/2011

Gifts

- Communication from Vice-President Šefčovič to the Commission on Guidelines on Gifts and Hospitality for staff members — SEC(2012) 167

Outside activities

- Commission decision on outside activities and assignments — C(2004)1597
- Practical guidance for staff wishing to engage in volunteer activities — Administrative Information No 22/2011

Use of ICT services

- Communication from the President on Commission policy on the internal use of email –— SEC(2009) 1412
- Acceptable use of the Commission's ICT services — Administrative Notice No 45/2006

Financial Liability

- Guidelines for applying Article 22 of the Staff Regulations (financial liability of officials) — SEC(2004) 730/5

Harassment

- Commission decision on the European Commission policy on protecting the dignity of the person and preventing psychological harassment and sexual harassment — C(2006)1624/3

Whistleblowing

- Communication from former Vice-President Kinnock to the Commission on how to enhance effective application of whistleblowing rules and protection of whistle-blowers — SEC(2004) 151/2

Conflicts of interest

- EC Financial regulation — Article 57
- EC Mission guide — point 6: Expenses paid by organisers

Disciplinary issues

- General implementing provisions on the conduct of administrative inquires and disciplinary procedures — C(2004)1588

G.2. Personal and Professional Virtues

A virtue is a strength (or excellence) of the person who possesses it, and is expressed as the healthy mean between the extremes of excess and deficiency — a mean that is not universal but subjective, will vary between individuals and their respective circumstances and should be determined by good judgment. The emphasis on moral virtues is placed on the proper control of one's disposition and actions, for the purpose of helping us discover the right principles of conduct, to know what we ought to do in given situations, as a means toward the achievement of some higher and more inclusive goal.

The virtue of **prudence (practical wisdom)** refers to our ability to carefully consider how we can achieve our goal. Prudence is characterised as an 'executive disposition' because its outcome is something to be executed. It can be examined on two levels: the level of purpose (our ability to set worthy goals) and the level of deliberation (our ability to carefully consider the course and the means of our actions so as to achieve the desired goals).

Judgment refers to our ability to evaluate what is true and what is not. Judgment forms our perception about things around us. Therefore, it strongly affects our prudence, which in turn determines our actions. When there is a deficiency in our judgment (e.g. due to emotional factors or past experiences), we may consider as true something that is not and vice versa (e.g. consider an act as fair while it is unfair).

It is through intuitive insight that the mind grasps the principles of conduct that may point the way toward success and happiness. The virtue of **insightfulness** refers to our ability to perceive things correctly, to examine circumstances correctly, to understand the relationships between things, to analyse and synthesise. It determines our capacity to learn what is the right thing to do and what is not, and to transfer this knowledge to various contexts in order to achieve our best interest that contributes to our wellbeing.

The virtue of **courage** refers to the management of risk taking, and it is described as the productive mean between cowardice (a deficiency) and audacity or fearlessness (an excess). A courageous person pursues (not necessarily without fear) the right goals, for the right reasons, in the right way, at the right time and for the right amount of time. Therefore, a person who is courageous acts and endures whatever is logically required for the attainment of a worthy goal. Courage (which always involves a risk) is a necessary means for the further development of one's capacities.

The virtue of **honour** refers to our disposition to seek honours and recognition from others. This virtue is defined as the mean between lack of ambition (when we seek less honours and recognition than we deserve or we have no desire for honours) and over-ambitiousness (when we have an excessive desire for honours or when we seek more honours and recognition than we deserve).

Honesty refers to our ability to tell the truth about ourselves and demonstrate to others who we really are, without denying or exaggerating our qualities. This virtue is the mean between self-deprecation (deficiency) and boastfulness (excess).

The virtue of **fairness** refers to our disposition to act in such a way that allows benefit and damage to be fairly distributed to those who deserve them, either between ourselves and others or amongst others. Fairness is the mother of all virtues, and for one to be truly fair they have all virtues developed *('Fairness is superior to all virtues and excellent - Aristotle').*

The virtue of **generosity** refers to the management of things that are of value (e.g. time, money, knowledge, information, other assets, etc.). It is defined as the productive mean between stinginess (deficiency) and wastefulness (excess). For example, knowledge needs to be shared with the right person, at the right time, in the right quantity, and in the right way, in order for it to be used in a productive way. Therefore, in meeting the needs of others, the amount of one's generosity should be governed not only by their ability to give but also by whether this amount will be in harmony with the long-term interests of those being served. One should follow the guidance of reason, as generosity is something that needs to be exercised with wisdom if it is to promote one's own and others' good.

The virtue of **friendliness** refers to the management of our amicability in our interactions with others. It is defined as the mean between rudeness (deficiency) and obsequiousness (excess). A rude person enjoys conflict, without taking into consideration whether it displeases or embarrasses others. An obsequious person demonstrates servitude and is mostly interested in being likeable to others, avoiding conflict even at great personal cost.

The virtue of **humour** is described as the mean between boorishness and buffoonery. The boorish person does not enjoy humour, might even be unduly upset or annoyed by it. On the other hand, the buffoon is someone who enjoys humour in excess, expresses it in an unproductive way, with inappropriate timing or frequency, possibly causing annoyance to others.

The virtue of **calmness** refers to the management of anger. It is the mean between spiritlessness and irritability. Spiritlessness refers to the lack of anger (deficiency), while irritability refers to the excess of anger, in its duration, intensity and frequency. The calm person desires to remain calm and not get carried away by passion or rage, but always within reasonable limits.

The virtue of **temperance** refers to the management of our desires and is the mean between insensibility and intemperance. A temperate person is one who desires moderately and reasonably all those pleasures that promote health and wellness.

The virtue of **magnificence** is defined as the mean between paltriness and vulgarity. Paltriness prevails when someone contributes to a cause with a miserly disposition. On the contrary, vulgarity is displayed when someone contributes excessively, much more than is required or expected.

The virtue of **magnanimity** is defined as the mean between meekness and vanity. A meek person believes that they do not deserve great honours while they actually do deserve them, whereas a vain person believes that they deserve great honours while they actually do not deserve them. The magnanimous (magnum=great) consider they deserve the greatest goods (wealth, influence, prestige, distinctions etc.) when they do indeed deserve them.

The following table shows the relation of the aforementioned virtues to the various behavioural competencies.

Competency	Key Virtues
Leadership	All
Relationships and engagement	Judgment, Friendliness, Generosity, Honesty, Honour, Fairness
Self-reflection and-self management	Courage, Judgment, Prudence, Temperance, Calmness
Change and transformation	Judgment, Prudence, Courage
Personal communication	Fairness, Friendliness, Generosity, Honesty, Humour
Resourcefulness	Courage, Prudence, Generosity, Insightfulness
Results Orientation	Prudence, Judgment, Temperance, Honour
Teamwork	Generosity, Humour, Fairness, Friendliness
Negotiation	Prudence, Judgement, Courage, Fairness, Magnificence
Conflict and Crisis	All
Personal Integrity and reliability	Prudence, Courage, Honour, Fairness, Honesty
Culture and values	Fairness, Judgment, Prudence, Courage

Although all virtues affect more or less all competencies, the virtues of judgment, prudence and insightfulness are considered as comparatively more important for perspective competencies, while the ethical virtues are considered as comparatively more important for people competencies.

Appendix H: Glossary

A	
Accept (risk response strategy)	A risk response strategy that consists of accepting a potential loss if a risk occurs. When accepting risks, there are two possible reactions, i.e. passive acceptance (no special action required, only continue to monitor the risk) or active acceptance, which implies the development of a contingency plan.
Acceptance	The act of approving (signing-off) deliverables if they meet the defined acceptance criteria. It is the Project Owner (PO) who accepts the deliverables, during or at the end of the Executing Phase (deliverables acceptance) and during the Closing Phase (final project acceptance).
Acceptance Criteria	A prioritised list of criteria (requirements) that the final deliverables must meet before the Project Owner (PO) can accept them. Acceptance criteria are documented in the Deliverables Acceptance Management Plan.
Accountable Role (RASCI table)	The person/group/entity that is ultimately responsible for the correct and full completion of the deliverable or task. They usually delegate the work and approve key project milestones and deliverables. There is only one accountable person/group/entity per activity/task.
Achievements	The successful accomplishment of project outputs as a result of carrying out project activities.
Activity	A set of tasks/work belonging to a process/work package in a project, with measurable outputs and limited duration.
Actual Effort	The amount of work in cost (euros) or effort (person-days) actually incurred until a given point in time (e.g. until the end of last week). Also known as Actual Effort, Actual Cost (AC) or Actual Cost of the Work Performed (ACWP).
Administrative Closure	Takes place during the Closing Phase of a project. The Project Manager (PM) ensures that the project has been fully and formally accepted by the Project Owner (PO), that all documentation and records are reviewed, organised and securely archived, and that all resources are formally released.
Agile project management	A project management approach with a specific set of working principles and practices. It promotes an iterative delivery approach, cooperation of self-organised teams, and process adaptability.
Appropriate Governance Body (AGB) Role	The group/entity responsible for strategic planning and portfolio management at senior management or corporate level. It can be set for a specific domain or appear in different stages of the governance process.
Approval	A formal acceptance of (positive decision on) something, such as a deliverable, an artefact, a project change or a risk response strategy.
Architecture Office (AO)	Advises project teams on architecture aspects (e.g. Application Architecture and IT Systems Architecture). Develops architecture standards for projects.
Artefacts	Tangible outputs of project management activities, such as Project Management Plans, the Project Work Plan, Meeting Minutes, Logs, Checklists, Reports, the Business Case and Project Charter.
Assistant Project Manager (APM)	An optional PM² role that assists the Project Manager (PM) in project management/administration activities.
Assumption	A hypothesis or unconfirmed information that is considered to be true, in order to proceed with an activity (e.g. project planning). Developing different scenarios that match the various outcomes of an assumption is called risk management.
Audit	An independent evaluation of an organisation, process, project or deliverable to provide an appropriate level of assurance as to compliance with quality standards.
Authority	The right to give orders, make and enforce decisions, apply project resources, and sign approvals.

Avoid (risk response strategy)	A risk response strategy that consists of changing project conditions, plans, activities or even scope to render the risk irrelevant to the project (i.e. Impact=0 and/or Likelihood=0 %).

B	
Backup	The process of copying data to a separate storage device in order to protect the original against unavailability or corruption.
Baseline	A desired value of a project dimension (scope, budget, schedule, etc.) or plan that is agreed on and will serve as a reference during the project's execution. During the course of the project, new baselines can be defined following the appropriate change management process.
Benefit	A positive effect resulting from a project (seen as positive by one or more stakeholders). Benefits should be measurable.
Best Practice	A method or technique established through experience and research that has consistently shown results superior to those achieved with other means.
Bottom-up (technique)	An approach for identifying project work elements and estimating their effort/cost based on detailed work activities. These estimates are then consolidated (rolled-up) to derive the total project cost/effort.
Budget	The approved annual allocation of the organisation's financial resources to a specific project/objective.
Budget Lines	Financial resources specific to an organisation or unit. They can be associated with a programme, an action/decision, a directive, a project, a task. The term is often used as a synonym for funding sources.
Budget Performance	Budget performance or the Cost Performance Index (CPI) is an indicator of the cost efficiency of project work accomplished to date. It is the ratio (percentage) of the earned value (progress) and the actual effort (Ratio= Progress/Actual effort *100). If this indicator is less than 100 % it means that the project is over budget; if it is higher than 100 % it means that the project is under budget.
Business Case	A document that provides contextual information on the project's costs and benefits, strategic alignment, and/or the issues that the project intends to solve. It includes the reasoning behind the project, presents different alternative solutions, justifies the investment in time and effort, and sets out the budgetary needs.
Business Continuity Planning (BCP)	A process that identifies all critical functions, services and activities that must be accomplished to enable an organisation or a functional area to continue business functions during a time of disaster or serious disruption (e.g. power outages, natural disasters, accidents, acts of sabotage, or other incidents). The overall scope of Business Continuity Management covers the Disaster Recovery Plans which are dedicated to the recovery of ICT systems and activities in cases of major disruptions.
Business Governing Layer	Composed of the organisation's decision bodies from several business domains responsible for governing the project. Also see the definition of 'Appropriate Governance Body (AGB)'.
Business Implementation Group (BIG)	Consists of representatives of business (customer) and user groups. It represents the requestor organisation during various phases of the project, specifically during implementation of the solution and user acceptance activities.
Business Implementation Management	Consists of planning, executing and controlling activities that support the organisational changes that need to be in place so that (project) deliverables are effectively integrated into every day work and benefits can be achieved.
Business Implementation Plan	Outlines the project's impact and deliverables for the requestor organisation along with the change management activities that need to take place. The organisation must ensure that the project does not disrupt normal operations, and that project outputs are effectively integrated into the organisation. A change management plan is devised to ensure this and to increase the chances of achieving the desired project outcomes and benefits.

Business Manager (BM)	A representative of the Project Owner (PO) acting on his/her behalf. The Business Manager (BM) also assists the Project Owner (PO) in specifying the project's main objectives and works very closely with the Project Manager (PM).
Business Objectives	The objectives of a business process or of the business as a whole — they translate organisational goals into desired business outcomes and connect organisational goals with project objectives.
Business Process	A set of defined ad hoc or sequenced activities performed in a repeatable pattern by an organisation in order to fulfil a business need; processes can be triggered by events and may have multiple possible outcomes; a successful outcome of a process will deliver value to one or more customers of the process.

C	
Capability	An existing or needed, single or combined ability of people, information systems or devices which can support certain activity, process or function.
Capability Maturity Model Integration (CMMI)	A model of maturity of the capability of certain business processes to help organisations see their current level of maturity in relation to where they want to be.
Change	The act, process or result of the transition from an existing state to a new one.
Change Control	An activity in the PM² Change Management Process that aims to evaluate, accept or reject project changes using a Change Log.
Change Control Board (CCB)	The Change Control Board (CCB) or Change Advisory Board (CAB) is a role for a designated group of stakeholders that is responsible for reviewing, evaluating, approving, or rejecting change requests for the project. In an organisation, this role maybe performed by the Project Steering Committee.
Change Log	A register of project changes used for logging, assessing, monitoring, controlling and tracking change requests and decisions. It also serves as a way of communicating changes to the Project Owner and/or Project Steering Committee.
Change Request	A request to change some aspect of the agreed baseline of a project (i.e. scope, requirements, deliverables, resources, costs, timeframe or quality characteristics). A change request can be formally submitted via a Change Request Form, or can be identified and raised during meetings as a result of decisions, issues or risks and documented in the Change Log.
Change Status	The status of a change request logged in the Change Log. It may have the following values: Submitted, Investigating, Waiting for Approval, Approved, Rejected, Postponed, Merged, or Implemented.
Client	See *Requestor Side*.
Closing Phase	A project's final phase. During this phase, project activities are completed and documented, lessons learned are discussed and documented, the finished deliverables are transferred to the care, custody, and control of the Project Owner, project resources are released and the project is administratively closed.
Communication Management Plan	Provides a description of the communication needs and expectations for the project. It defines and documents the content, format, frequency, audience and expected results of communication activities . It also defines how to communicate the project status and the assignment of activities to various stakeholders, and the communication strategy for each stakeholder, based on their interests in, expectations of and influence on the project.
Community of Practice (CoP)	Can be described as a group of people who share a common interest and/or a profession and which come together as a group to exchange information and experiences. A CoP can be internal to an organisation or involving professionals from different organisations.

Competency	The skill and capacity required to complete (project) activities. If project team members do not possess the required competencies, then the performance of the activity/project can be jeopardised. When such a mismatch is identified, training, coaching, hiring of consultants, adaptation of the project schedule or even a change in scope must be considered.
Compliance	Conforming to applicable standards, methodologies and project requirements (e.g. quality requirements), laws, business rules, etc.
Configuration Item	Any project asset (deliverable, artefact, requirement, service, hardware, data, tool, etc.) that needs to be managed in order to deliver a project output.
Configuration Management	A discipline that provides control of the assets used by the project (e.g. artefacts, deliverables, hardware, etc.).
Context	The overall set of organisational (internal) and external factors that influence or determine the need for the project and its urgency.
Contingency Plan	The actions to follow in order to minimise the impact of a risk after it has occurred (i.e. proactive acceptance of the consequences).
Contractor's Project Manager (CPM)	A role performed by a resource from the contractor side. The Contractor's Project Manager manages the daily progress of the outsourced activities in order to deliver an acceptable quality of services and/or deliverables as defined in the contract. The Contractor's Project Manager works with the Project Manager and regularly reports on project status and progress.
Constraint	An internal or external limitation to a project that will affect its performance in terms of time, cost or quality.
Consulted Role (RASCI)	The person/group/entity that provides input for an activity as a contributor, an expert, a reviewer, or other.
Corrective Actions	Actions planned (and implemented) as part of project controlling for the purpose of bringing the project back on track when significant deviations from the project's baselines have been identified.
Cost Control	Cost control is about controlling the project's actual costs so they are in line with the baseline budget. The Project Manager monitors costs regularly, tracks the difference between budgeted, actual and forecasted costs, and plans the implementation of any necessary corrective actions that will bring the project back on budget.
Critical Path	The longest path (sequence of activities) needed to deliver project outputs.
Customisation	Customisation of the PM² Methodology refers to defining specific project management parameters in order to address the particularities and needs of the project. It usually involves defining thresholds, scales and other parameters in the PM² defined processes (e.g. defining a risk as major when its impact is deemed as medium or higher) , as well as any minor changes to the artefacts (e.g. renaming a section, etc.). Note that changes to the methodology are not considered customisations but tailoring. See: Tailoring.

D	
Dashboard	Provides an overview of key performance indicators (KPIs) relevant to a particular objective. A project dashboard could provide a one screen overview of your project, show the status of project variables such as budget, schedule, quality, scope, risk, etc., and allow you to access more information if needed.

Data Protection Coordinator (DPC)	Nominated by the senior management ior corporate level to ensure the coherent implementation of and compliance with specific data protection regulations. The Data Protection Coordinator provides advice and assistance to all responsible, and specifically assists Data Controllers in the organisation in their notifications to the Data Protection Officer (DPO). Data Protection Coordinators set up the inventory of applications for the processing of personal data in the organisation, and liaise and cooperate with the DPO. They also represent the organisation in the network of coordinators, which is chaired by the DPO.
Data Protection Officer (DPO)	Each organisation may have one or more Data Protection Officers to ensure the application of the principles of personal data protection in the institution. Each DPO keeps a register of all personal data processing operations in their institution. They provide advice and make recommendations on rights and obligations. They notify risky processing of personal data to a supervisor and respond to requests. In critical situations, they may investigate matters and incidents (own initiative).
Decision Log	Contains a summary of project decisions taken. It brings visibility to decisions and tracks responsiblity for how and by whom they are taken, when decisions are implemented as well as to whom they should be communicated.
Deliverables	Agreed, verifiable project outputs which will result in an outcome for the receiving party.
Deliverables Acceptance Management	Consists of planning, executing and controlling the activities that lead to deliverables acceptance, including defining acceptance criteria, planning and performing acceptance activities (e.g. acceptance testing), and formally approving project deliverables.
Deliverables Acceptance Management Plan	One of the quality management artefacts. It defines and documents the deliverables acceptance approach, activities, responsibilities and acceptance criteria along with acceptance tolerance levels.
Deliverable-based Breakdown	A technique used to represent and organise project work based on deliverables. The work needed to produce them is then also defined and organised by deliverable.
Dependencies	Relations between events (decisions, problems, activities, processes, projects, etc.) that influence project performance and outcomes and should be taken into account when planning project activities.
Development Team (DT)	A role applicable to projects with an IT component. It consists of members with the required development skills (programmers, analysts, testers, etc.) and application knowledge for the project. It is part of the Project Core Team. A Development Team can be either an internal IT Team or belong to an external contractor.
Directing Layer	Champions the project and owns its Business Case. It mobilises the necessary resources and monitors the project's performance in order to realise the project's objectives. The Directing Layer is comprised of the roles of Project Owner (PO) and Solution Provider (SP).
Document Management Officer (DMO)	A role that ensures the coherent implementation of Document Management in the organisation.
Domain	A subject area with common requirements, terminology, and metadata. In an organisation, it is the highest-level grouping of organisation's activities.
Domain-specific Artefacts	Artefacts specific to the domain of the project; they are often an integral part of the project's planning and of the overall project documentation. PM² does not provide templates for domain-specific artefacts, but these artefacts do need to be identified and listed in the Project Handbook as they are part of the project's planning (phase) outputs. Examples of such artefacts are: system designs (for IT projects), architectural layouts (for renovation/moving projects), laws/policies (for policy projects), etc.

E	
Earned Value (EV)	A way of representing project progress (percentage of the original budget that has been earned by actual work completed). EV= (Planned Effort) x (% of completion). Also known as Budget Cost of the Work Performed (BCWP).
EC	European Commission
Organisational Procurement Process	A detailed procurement process, provided at the organisational level and which is also available to projects. It complement or supersedes the Outsourcing Plan.
Escalation	An activity that requests additional resources to meet a result/output. There are two types of escalation, functional (if more competencies/a higher level of expertise are needed) or hierarchic (senior decision layers need to be involved).
Executing Phase	One of the phases in a PM² project. It is where the project activities are carried out as defined in the project plans and the project deliverables are produced.

F	
Feature	An externally observable characteristic or set of characteristics provided by the solution that fulfils partially or entirely a stakeholder need and is used to perform a set of user tasks/function(s).
Final Acceptance	The final acceptance of project deliverables is performed during the Closing Phase by the Project Owner (PO), after consulting the Project Steering Committee, through a formal project final acceptance sign-off.
Findings	The results of the evaluation of a process or criteria, based on relevant evidence, which compares the current state against the defined criteria (objectives of the evaluation) along with professional judgment.
Full-Time-Equivalent (FTE)	One FTE is the equivalent work of one full-time person on the project (in man-weeks, man-months or man-years). A half FTE is the equivalent work of a half-time person, and so on.
Functionality	The set of capabilities associated with a product or service. In an IT context, it is the ability of a programme or application system to provide a function to execute a set of user tasks. Functionality is the particular use or set of uses for which something is designed.

G	
Gantt Chart	A type of bar chart that represents a project schedule. It may show information such as activities, start and end, duration and relation between activities.
Goal	The result or achievement toward which effort is directed. Goals are broad statements of achievable outcomes, consistent with the mission statement of a programme or organisation.
Governance	The act of governing. Governance is therefore concerned with how decisions are made. Governance is a process of developing a more strategic approach to projects/programmes, in order to use resources and investments more efficiently and to ensure that business needs are supported by efficient tools. This process is performed by the Governance Bodies (see the 'Appropriate Governance Body Role' definition). The PM² Methodology describes project-level governance and includes the project governance model, project lifecycle and a set of processes and related artefacts.

I	
Impact (risk, issue or change)	The measure of the effect of a risk, issue or change on the objectives and activities of a project.
Impact (of a	The measure of the effect of a project (permanent or temporary changes) on the

project)	organisation (processes, policies, technology, culture and people) or on the external environment.
Information Distribution	An activity performed during the Executing Phase, aiming to regularly communicate project information to project stakeholders, based on the Communications Management Plan.
Information Resource Manager (IRM)	A horizontal function in an organisation, not directly applicable to the Project Management lifecycle. The Solution Provider (SP) may be the IRM for a project with an IT component and as such would manage the Project Manager (PM).
Information System (IS)	A system, whether automated or manual, that includes people, machines, and/or methods organised to collect, process, transmit, and disseminate data that represent user information.
Informed Role (RASCI table)	The person/group/entity that is informed of the status or outputs of activities (kept up-to-date). This role involves only one-way communication.
Infrastructure Costs	Costs related to, for example, the equipment, materials, facilities and hardware required to deliver, support, operate and maintain the delivered solution.
Initiating Phase	The first phase of a PM² project. Its purpose is (1) to define what the project will do (formulate the objectives of the project), (2) to get the project off to a good start by doing some initial planning, and (3) to provide and present the necessary information to get approval to continue to the next phase.
IPMA-ICB	The International Project Management Association — International Competence Baseline (IPMA-ICB) is a framework that documents an approach to project management broken down into 46 competence elements, covering technical, behavioural and contextual competences.
Ishikawa Diagram	A diagram that shows the causes of a specific event and is very useful when investigating issues and risks. (also called a fishbone diagram or cause-and-effect diagram) It helps to describe the problem/issue/risk, and to identify potential causes and categorise them.
Issue	Any unplanned event related to the project that has already happened and requires the intervention of the Project Manager (PM) or higher management. All issues that need to be handled formally should be recorderd in the Issue Log, examined and sorted. Anyone can raise an issue. It is best to solve the root cause to ensure that the issue does not re-occur.
Issue Log	The register (log file) used to capture and maintain information on all issues that are being formally managed. The Project Manager (PM) monitors the Issue Log on a regular basis. The structure of the Issue Log is defined in the Issue Management Plan.
Issue Management	Consists of activities related to identifying, documenting, assessing, prioritising, assigning, resolving and controlling issues.
Issue Management Plan	Defines and documents the activities, roles and responsibilities involved in identifying, assessing, assigning, resolving and controlling project issues.
Issue Status	Issue status represents the stage at which issue is within the issue management process. It can assume the following values: • Open: the issue has been identified but there is no decision yet on how to resolve it. • Postponed: this status is set to postpone the issue due to other priorities. • Resolved: indicates that all necessary actions are completed and the issue is solved.

K	
Kick-off Meeting	Usually the first meeting with the project team and the requestor of the project. In a PM² project, there are two Kick-off meetings: 1) at the start of the Planning Phase and 2) at the start of the Executing Phase.
Key Performance Indicator (KPI)	A quantifiable value used to compare performance in achieving the objective of a project/service/deliverable/process/activity.

L	
Lessons Learned	A repository of insights gained during a project that can be usefully applied in future projects. It helps to avoid possible mistakes and to repeat positive actions in future projects. Lessons Learned are discussed at least in the Project-End Review Meeting (and optionally at the end of project phases or major milestones) and are reported in the Project-End Report.
LISO	The Local Information Security Officer consults, gives advice on, and assists with security aspects related to the project. They can participate in the Project Steering Committee and may work with the Data Protection Coordinator (DPC).
Log	A register of project events and actions related to project risks, changes, issues and decisions. Logs are used by the Project Manager (PM) during the project (i.e. Issue Log, Risk Log, Change Log and Decision Log).

M	
Macro-Process	A set of processes related to a sub-domain. It corresponds to a grouping of activities based on common business logic. Sometimes the consolidation process corresponds to the sequential execution of many processes.
Major Risk	A risk that can jeopardise the realisation of project objectives or major milestones and whose risk level (combination of its impact and likelihood) is usually unacceptable and therefore needs risk mitigation, transfer or avoidance.
Managing Layer	Focuses on day-to-day project realisation by planning, organising, monitoring, and controlling project work to produce the intended deliverables and implement them in the business organisation. Members of the Managing Layer report to the Directing Layer. The Managing Layer is composed of the roles of Business Manager (BM) and Project Manager (PM).
Methodology	Generally a written guideline that can be used to produce something. It includes specific components, such as phases, tasks, methods, techniques and tools. PM² is a methodology for Project Management.
Metric	A quantifiable value that makes it possible to measure the achievement of a project/service/deliverable/process/activity objective. Metrics should be specific, measurable, actionable, relevant and captured at the right time. They provide important information for project management (e.g. risk, budget, schedule, issues, motivation and quality).
Milestones	A significant point or special event in a project that receives special attention. In PM², there are management milestone artefacts that are of special interest to the Project Steering Committee (PSC). Milestones can also be used to mark key deliverables, control points, the acceptance of final outputs, and closing the project.
Minutes of Meeting (MoM)	A summary of what was discussed in a meeting, including project issues, decisions taken, and risks identified. It can be used as an input into subsequent meetings.
Mitigation	An action carried out to: (1) lower the chances of a risk occurring, and (2) reduce the effect of the risk on the project by minimising its impact if it occurs. See the 'Reduce' (risk response strategy) definition.
Monitor & Control	A group of continuous activities that spans the life of a project. These activities measure the correct execution of the project against the agreed baselines, by using key metrics like cost, time and quality indicators, and by taking corrective and preventive action if the execution goes too far off plan.

N	
Non-compliance	Failure to comply with project requirements or regulatory requirements imposed by public authorities as govenements the EU, FDA, and other regulatory bodies.

Non-conformities	The non-fulfilment of project requirements (the requirements that are not met).

O	
Objective	A target or metric that a person or organisation seeks to meet. It can be the desired output of a change/project. As far as possible, objectives should be Specific, Measurable, Attainable/Achievable, Relevant/Realistic and Time-bound (SMART).
Operations	The day-to-day activities performed by the permanent organisation to deliver services or products.
Opportunity	A favourable condition that can be exploited to result in a positive change/an improvement in the project environment.
Organisational - based Breakdown	A technique used to represent and organise project work by organisational entities (e.g. business units). Deliverables and project work are defined by and grouped in lower levels.
Outcomes	The direct results of the usage (implementation) of project outputs by the customer. Outcomes allow the organisation to achieve the intended benefits.
Outputs	See the 'Deliverables' definition.
Outsourcing Plan	Describes the contracting strategies that will be used to outsource services or products outside the organisation to fulfil the project needs. It outlines the scope of products and/or services to be contracted and identifies responsibilities for the full contract lifecycle. It also includes the criteria for evaluating the contractors' service and deliverables.
Outsourcing Management	Consists of defining the services/products to be outsourced, their requirements and the procurement strategy, selecting the contractor, monitoring service quality and evaluating/accepting interim and final deliverables and/or milestones based on agreed criteria.
Owner	The person/entity that is ultimately responsible for something such as a project, a deliverable, a process, an action, a risk, an issue or a decision.

P	
Pareto Chart Pareto Diagram Pareto Analysis	The purpose of the Pareto Chart is to categorise (highlight) the cumulative percentage of the contribution of causes (issues, cost, etc.) according to the frequency with which they occur. The Pareto Principle states that generally 80% of effects come from 20% of causes. Using the Pareto Chart one can focus on the causes that have a high frequency and attempt to find a resolution for them first. This technique is known as Pareto Analysis.
Peer Review	An impartial review/evaluation of a project deliverable or artefact carried out by an expert or a group of experts working in the same domain.
Performing Layer	An operational layer, where most of the project activities are carried out. It is composed of the Business Implementation Group (business and User Representatives) and the Project Core Team.
Phase-Exit Review Checklists	Spreadsheet-based checklists that the Project Manager (PM) uses to ensure that all the necessary items are in place before the project proceeds to the next phase or is closed. The checklists are used to check key information in each phase and to gather Lessons Learned.
Phase Gates	Approval gates during the project lifecycle (Ready for Planning, Ready for Executing, Ready for Closing). The objective of the approval gates is to ensure that the Project Steering Committee (PSC) reviews the project before it moves to the next phase. These checkpoints contribute to overall project management quality and make it possible for the project to proceed in a controlled way.
Phase Input	Information that will be used in the activities of the next phase and was produced before.

Phase Output	Information produced during the phase.
Plan	A written projection of project activities and resources needed to execute a process, e.g. for risk management, change management or transition. A project plan should answer the four basic questions: what, when, how and by whom.
Planned Effort	The amount of work in cost (euros) or effort (man-days) planned to be carried out until a point in time (e.g. until the end of last week). An approved cost estimate of the resources scheduled in a time-phased cumulative baseline. Also known as Budget Cost of Work Scheduled (BCWS) or Planned Value (PV).
Planning Phase	The phase in which the subject of the project is verified and developed into a workable plan for implementation. The various standard and specific plans for the project are created in this phase.
PM² Mindsets	Present those attitudes and behaviours which help project teams focus on what is really important for achieving project goals.
PM² Certification Programme (PM²-CertiPro)	A knowledge and experience-based project management certification programme for European Institution's staff involved in project-related work. PM²-CertiPro offers two certification Levels: PM² Certified (knowledge-based) and PM² Practitioner (experience-based).
PM² Training Programme (PM² TrainiPro)	The European Commission's training services offer a complete Project Management training programme (PM² TrainiPro). Staff can choose between project management courses organised in four groups and two levels.
PMBOK	The Project Management Body of Knowledge (The PMBOK® Guide) is a guide that describes a set of standard terminology, practices and guidelines for project management. It is published by the Project Management Institute (PMI).
Portfolio (of projects)	A collection of projects, programmes and other activities grouped together in order to ensure better financial and resource control, and to facilitate their effective management in terms of meeting strategic objectives.
Post-project	The period after the project has been closed. It includes a set of activities to maintain, improve, extend and support project deliverables after they have been delivered to the stakeholders/user community. Post-project activities are the responsibility of the permanent organisation and are implemented as part of ongoing operations or future projects. These activities are usually defined in the Business Implementation Plan or recommended in the Project-End Report.
Post-project Recommendations	Suggested courses of action to improve project deliverables after the project has been closed. They are related to the operation of the product/service, and include extensions, updates, maintenance, ideas for follow-up projects, etc. They should be part of the Project-End Report.
Pre-project	The period before the project officially starts (i.e. before the Business Case is approved). It includes activities and information gathering related to the idea/need for the project.
PRINCE2	A process-driven Project Management method that supports selected aspects of Project Management. The acronym stands for 'projects in a controlled environment'. PRINCE2 covers the planning, organisation, management and control of projects.
Priority	A numerical value given to a project item (requirement, risk, task, etc.) to classify its relative importance in comparison with other items.
Problem	An existing state that can potentially affect the organisation's goals.
Procedure	A set of established steps and instructions that specify how to perform a specific activity, as part of a process.

Process	Processes represent an organised sequence of activities that together achieve a specified outcome. A process can be broken down into sub-processes, and can show operation of a function, system or service. It may also be used to link or make up organisations, functions, services, and other processes.
Process Categories	The organisation's processes can be classified into different process categories/domains. Examples are: asset management, audit, internal communication, external communication, document management, financial management, grant management, human resources, IT, legislation lifecycle, statistics management, case management, crisis management (alert systems), procurement, programme management and strategic planning.
Product	The tangible output of a project using the PM² Methodology. For a business, a product might be a good they manufacture and sell to customers.
Programme	A collection of projects aimed towards a common goal. A group of related projects managed in a coordinated way to obtain benefits that could not be achieved from their individual management. Programmes may also include elements of related work outside the scope of its projects.
Programme Management	The process of managing several inter-dependent (related) projects to better achieve the programme's strategic objectives and benefits.
Project	A temporary organisational structure which is setup to create a unique product or service (output) within certain constraints such as time, cost, and quality. Temporary means that every project has a definite beginning and a definite ending. Unique means that the product or service is different in some distinguishing way from existing products and services. Projects are run by people, constrained by limited resources, and planned, executed and controlled. Projects are often critical components of the performing organisations' business strategy.
Project Change	A modification to the project environment (scope, schedule, resources, costs, risks, quality, artefacts, etc.). It can result e.g. from a scope change, a new requirement (quality, etc.), an identified issue, a preventive action to reduce the risk level, or from a decision taken to change any of the project baselines (scope, scheduling, staffing or budget).
Project Change Management Plan	Defines and documents the change process for a project. It defines the activities, roles and responsibilities involved in identifying, documenting, assessing, approving, prioritising, implementing, controlling and communicating project changes.
Project Charter	A document that captures the 'essence' of the envisaged solution in the form of high-level needs and features that gives the reader an overview of the final project deliverable(s). It includes information on the project scope, cost, time and risks, as well as information such as milestones, deliverables and project organisation and approach. It is a document initiated by the business sponsor or Project Owner who formally authorises the project, and provides the Project Manager with the authority to use organisational resources for project activities. Final responsibility for the Project Charter lies with the Project Manager.
Project Coordination	The process of managing and directing project activities and stakeholders. It includes the allocation of project resources to activities, performing continuous quality checks of the interim results of work, ongoing communication with all project members, and the continuous motivation of all involved in the project through leadership, negotiations, conflict resolution and application of appropriate people management techniques.
Project Core Team (PCT)	A group on the provider side of the project that carries out the day-to-day project activities under the coordination of the Project Manager. It plays a key role in the successful completion of the project.
Project Drivers	The roles that lead the key activities in each phase of a PM² project. The project drivers differ from phase to phase.

Project-End Report	Summarises the project experience, performance, lessons learned, successful project practices and pitfalls. It is created in the Closing Phase by the Project Manager.
Project-End Review Meeting	This meeting takes place during the Closing Phase. Its aim is to ensure that project members discuss the project experience so that lessons learned and best practices are captured. In addition, ideas and recommendations for post-project work should also be discussed. The result of the meeting is documented in the Project-End Review Meeting Minutes and in the Project-End Report.
Project Handbook	This document sets out the high-level approach for implementing the project objectives. It is one of the first artefacts created in the Planning Phase and it identifies the project standards, roles and responsibilities, management approach and artefacts to be used.
Project Initiation Request	The starting point for documenting a project proposal. It gives a high-level overview of the current situation (needs, problems and opportunities), desired outcomes and the estimated effort, impact, risks, constraints and assumptions associated with implementing a solution.
Project Lifecycle	The time between the start and the close of the project, including the initiating, planning, executing and closing phases. The project lifecycle starts with an informal initiating Kick-off Meeting and ends once the Closing Phase activities are completed and the Project Owner (PO) formaly accepts the overall project.
Project Management	The application of knowledge, skills and techniques to successfully manage work and resources to achieve project objectives and organisational goals.
PM² Project Management Methodology	The European Commission's official project management methodology developed primarily for European Institutions and aims to enable Project Managers to deliver solutions and benefits to their organisationsthrough the effective management of project work. It's a methodology created by the European Commission.
Project Management Information System (PMIS)	An application system used to support the PM² Methodology and the management of projects in an organisation. It aims to support projects through all PM² phases (supplying templates and instructions) and makes it possible to consolidate information for reporting and monitoring purposes.
Project Management Plans	Used to define project management processes to be applied to the project, such as the Project Change Management Plan, Risk Management Plan, Quality Management Plan, Issues Management Plan, Communications Management Plan and Requirements Management Plan. These plans are part of, or referenced from, the Project Handbook.
Project Manager (PM)	A project role appointed by the Project Steering Committee to manage the project's daily progress, to deliver the outputs within the agreed constraints. The Project Manager manages the Project Core Team on a daily basis.
Project Mode	The project organisation while there is a project open. Project mode can exist in parallel with the service/operations mode.
Project Owner (PO)	The project sponsor promoting the success of the project. S/he sets the business goals and provides leadership and strategic direction for the project. The Project Owner ensures that the project meets its goals and approves the project deliverables. The Project Owner is typically a Head of Unit or Director from the requesting organisation.
Project Performance	The state of project variables (i.e. cost, schedule, scope and quality) throughout the project, compared with the baselined Project Work Plan. The evolution of these variables is tracked by agreed metrics.
Project Phase	A collection of project activities and a component of the project lifecycle. PM² has four sequential phases: Initiation, Planning, Executing and Closing. Monitor & Control is not a project phase. Its activities happen throughout the complete project lifecycle.

Project Progress Report	An artefact created by the Project Manager to inform the Project Steering Committee on how the project is progressing compared to the baselines and the Project Charter. It covers the status of the deliverables, effort, risks, major issues, actions, achievements, and scope changes. The difference between the Project Progress Report and the Project Status Report is that the Project Status Report is sent much more frequently (e.g. every one or two months) and contains just a one-page summary of the Project Status. See also the 'Project Status Report' definition.
Project Quality Assurance (PQA)	The role that is responsible for quality assurance and auditing aspects. The role is an optional member of the Project Steering Committee and helps the Project Manager in creating the Quality Management Plan.
Project Reporting	An activity carried out by the Project Manager to document and summarise the status of various dimensions of project progress and to communicate this to relevant stakeholders. Project reports typically provide information on scope, schedule, cost, and quality, but often also include relevant information on risks, issues, project changes and contract management issues.
Project- Specific Plans	Document and detail the project's activities and resources based on project needs (e.g. the Project Work Plan, Business Implementation Plan, Transition Plan and Outsourcing Plan).
Project Stakeholder Matrix	Lists all the people, groups or organisations involved in the project (all known people, groups or organisations from the requestor and provider sides) and clarifies their roles.
Project Status Report	A frequent report (e.g. every 1-2 months) that is sent to the Project Steering Committee and contains just a one-page summary of the project status. The frequency and format of this report is defined in the Communications Management Plan. Please also see the 'Project Progress Report' definition.
Project Steering Committee (PSC)	Responsible for monitoring the correct execution of the project. It defines the project direction and coordinates the project's main tasks. It validates the human and financial resources allocated to the project as well as the main project deliverables. All stakeholder groups should be represented in the Project Steering Committee.
Project Success Factors (PSF)	The elements within the structure and context of the project that are necessary to achieve success. Their presence will not guarantee success but their absence will significantly increase the probability of failure.
Project Support Office (PSO)	An organisational body (or entity) that provides project management services that may be linked to a specific project or be provided as a horizontal service by the organisation. A PSO's responsibilities can range from providing simple project management support to linking projects to strategic goals/corporate benefits by sharing resources, methodologies, tools and techniques. The PSO may advise the Project Manager (PM) on tools, methodology and administrative services, and may administer the Project Steering Committees, produce consolidated reporting, and act as the custodian of the master copies of projects artefacts.
Project Support Team (PST)	Composed of the Project Support Office (PSO), by the Project Quality Assurance (PQA) person/entity and the Architecture Office (AO). The PST roles may be specific to a project or be provided as horizontal services by the organisation. The PST offers administrative support to the project and defines project requirements (e.g. related to reporting, methodology, quality, architecture, etc.).
Project Variables	The four essential baselined metrics monitored in the Monitor & Control processes: cost, schedule, scope and quality.
Project Work Plan	Identifies and organises the project into activities, tasks, and work packages needed to achieve the project objectives. It establishes a base to estimate the duration of the project, determine the required resources, and schedule the work.

Provider Side	Includes the project resources that develop and implement the solution, i.e. the Solution Provider, the Project Manager and the Project Core Team.

Q	
Quality	ISO definition of quality: *"The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs".*
Quality Assurance (QA)	The activity of providing the evidence needed to establish the quality of project work and therefore provide enough confidence that the project will satisfy the desired scope and quality requirements within the project's constraints.
Quality Characteristics	The quality requirements for the project, based on the project objectives, approach, deliverables, expected benefits and resources available. Quality characteristics are translated into criteria that will be used to evaluate deliverables' and artefacts' alignment with expected outputs.
Quality Control	The activity of monitoring and consolidating results of quality assurance activities in order to assess compliance and performance, recommend necessary changes, and plan new or refine existing quality assurance activities.
Quality Management (QC)	Consists of carrying out quality planning, quality assurance, quality control and quality improvement up until final project acceptance (Closing Phase). Quality management aims to ensure that the current project will meet the expected results in the most efficient way, is compliant with any relevant governmental and industry standard and that deliverables will be accepted by the relevant stakeholders.
Quality Management Plan	Defines and documents the project's quality requirements, the quality management approach, process and responsibilities for the project, and outlines the quality assurance and control activities carried out throughout the project.
Quality Record	The output of a quality management activity and the evidence that this activity has been performed.
Quality Review Checklist	A tool used throughout the project (when performing quality control) to check if quality management activities have been performed as defined in the Quality Management Plan.

R	
RASCI	The acronym RASCI means: Responsible, Accountable, Supports, Consulted and Informed. It is also known as the Responsibility Assignment Matrix (RAM). See the 'Responsibility Assignment Matrix' definition.
Ready for Closing (RfC)	The last phase/approval gate at the end of the Executing Phase, where the Project Steering Committee verifies that all planned activities have been carried out, all requirements have been met, and that the project's output(s) have been fully delivered and accepted by the Business Manager (BM) and the User Representatives.
Ready for Executing (RfE)	The second phase/approval gate at the end of the Planning Phase, where the Project Owner must approve the planning artefacts and, working with the Solution Provider and the Project Manager (PM), must make a decision on whether the project is ready to move to the Executing Phase, or not.
Ready for Planning (RfP)	The first phase/approval gate at the end of the Initiating Phase. Includes the approval of the Project Charter by the Project Steering Committee (PSC). At this gate, the Project Manager (PM) determines whether the project is ready to move to the Planning Phase.
Recommendation	The suggested course of action to improve a process/control/output. It is associated with a finding resulting from a review/audit.
Reduce (risk response strategy)	A risk response strategy to mitigate the impact or probability of a risk through the proactive implementation of risk reduction activities (e.g. controls) to a level where the residual risk can be accepted, or at least as much as is possible towards this level.

Requestor Side	Also referred to as the *client side*. It includes the resources belonging to the requestor organisation where the solution will be delivered, such as the Project Owner (PO), the Business Manager (BM) and Business Implementation Group (BIG).
Requirement	A capability that a product or service (what the project is supposed to deliver) is required to have in order to satisfy the stakeholders' needs. It is an agreement between the customer(s) and the project team on what to do. It is a test that the end-product of the project has to pass in order to fulfil the customer's demands.
Residual Risk	The risk that remains after the risk response strategy is implemented or after existing controls are considered.
Resource	An asset or object needed to achieve project objectives, e.g. people, budget, software, hardware, facilities, equipment and materials.
Responsibility Assignment Matrix (RAM)	Also known as RASCI, pronounced 'rasky'. It is a way of showing the structure and clarifying roles and responsibilities for an activity and of ensuring that each component of the project's work is assigned to a person or a team.
Responsible Role (RASCI table)	The person/group/entity that has to perform the tasks or ensure that they are done. Others can support this role (or do part of the work) or be consulted (review or approve the work).
Reviewer	A person who formally assesses and validates an artefact or deliverable.
Risk	An uncertain event or set of events (positive or negative) that, should it occur, will have an effect on the achievement of project objectives. A risk is generally measured by a combination of the likelihood (probability of the risk happening) and the impact on the project.
Risk Appetite	The level of risk that an organisation is prepared to accept in the pursuit of its objectives.
Risk Assessment	An evaluation performed by taking into account the risk appetite, existing vulnerabilities, the probability of an identified event occurring, and the impact on project objectives if this event happens. Each risk level is calculated and then risks are prioritised.
Risk Assessment (Likelihood/Impact) Matrix	Shows the different combinations of likelihood and impact of project risks on a scale between 1 to 25 and defines bands of risk level that suggest risk response strategies.
Risk Impact	The potential consequence should the risk materialise. It can be both quantitative and qualitative in nature.
Risk Likelihood	The estimated probability that the risk will materialise even after taking account of the mitigating measures put in place (see also: residual risk).
Risk Level (RL)	The result of the combination of the likelihood (L) that a risk occurs with its impact (I) should it occur. (RL=L*I).
Risk Log	A central repository for all risks identified by the project or organisation. For each risk, it includes information such as risk likelihood, impact, level, risk response strategies, and risk owner. A Risk Log can also be referred to as a Risk Register or Risk List (RUP).
Risk Management	A continuous, proactive and systematic process for identifying, assessing and managing risks in line with the accepted risk levels, carried out throughout the project to provide reasonable assurance as regards the achievement of project objectives.
Risk Management Plan	Defines and documents the Risk Management Process for a project. It describes how risks will be identified and assessed, what tools and techniques can be used, what are the evaluation risk level bands, the relevant roles and responsibilities, how often risks need to be revisited, etc. It also defines the risk monitoring and escalation process as well as the structure of the Risk Log which is used to document and communicate the risks and the relevant risk response actions.
Risk Owner	The person accountable for the management and monitoring of a particular risk.

Risk Reserve	The amount of budget or time estimated and allocated to implement project risk response strategies.
Risk Response Strategy	The selected strategy to manage a risk. There are four strategies to be considered as risk responses: avoid, transfer or share, reduce or accept.
Risk Status	The status of a risk logged in the Risk Log. It can assume the following values: proposed, investigating, waiting for approval, approved, rejected, closed.
Root Cause	The original/primary cause of an issue or a risk.

S	
Schedule	Part of the PM² Project Work Plan. It consists of a time-based plan of project milestones, activities, tasks and deliverables, with start and end dates, linked by dependencies and with resources allocated to each task. A schedule is often presented in a Gantt chart. (see: Gantt chart)
Schedule Control	An activity that consists of monitoring the schedule and tracking the differences between the planned, actual and forecasted schedule/deadlines. It also includes an assessment of the impact of changes on the schedule and the incorporation of these changes into the Project Work Plan.
Schedule Performance	An indicator of project schedule efficiency. It is the ratio (percentage) of the earned value (progress) and the planned effort (Ratio= Progress/Planned effort/ *100). If this indicator is less than 100 % it means that the project is behind schedule; if it is higher than 100 % it means that the project is ahead of schedule. Also known as the Scheduling Performance Index (SPI).
Scope Statement	A short description of what needs to be accomplished in a project. It states the major project objectives, deliverables and justification in one or two phrases. The project scope is first defined in the Business Case and then elaborated in the Project Charter.
Services	Intangible project outputs that enable the requestor to achieve the desirable outcomes.
Service Mode	A temporary organisation/governance structure created to maintain, improve, extend and support information systems after they have been delivered to the stakeholders/user community and until the end of the information system's lifecycle. The service mode is also known as 'operational and corrective maintenance mode'.
Share (risk response strategy)	A risk response strategy to reduce the likelihood or impact of a risk by transferring or sharing a portion of the risk with other organisations, e.g. by partnering with another organisation in a type of joint venture construction sharing profit and loss.
Service- Level Agreement (SLA)	Usually part of a service contract where KPI targets are defined as to the level of service agreed. An SLA is agreed between two parties.
Situation	A set of problems, needs and opportunities that affect the existing state.
Solution	A set of products and/or services that allows the requestor side to solve a business problem, to meet a business need or to grab an opportunity.
Solution Development Costs	The costs of the resources required to develop project deliverables.
Solution Maintenance Costs	The costs of resources required to maintain project deliverables (changes to project deliverables).
Solution Provider (SP)	Assumes overall accountability for the deliverables and services requested by the Project Owner. S/he is typically a Head of Unit.
Specification	A complete, testable and documented set of requirements to be satisfied by a specific solution. Specifications can be described e.g. in use cases, business rules, story boards, etc.

Stage-based Breakdown	A technique used to represent and organise project work in sequential phases or stages/iterations.
Stakeholder	are people (or groups) who can affect or be affected by the activities carried out during a project's lifecycle and/or by the project's output(s) and outcome(s). A stakeholder can exert influence over the project and its deliverables.
Stakeholders Checklist	A checklist to help deal with stakeholders during the lifecycle of the project.
Stakeholder Need	A desirable or mandatory capability requested by an individual or a group of people that will be used as primary input to define the high-level features of a solution.
Steering Layer	Provides general project direction and guidance, keeping the project focused on its objectives. It reports to the Appropriate Governance Body (AGB), which operates on a more strategic level. The Steering Layer is composed of the Project Steering Committee (PSC) roles.
Success Criteria	Qualitative or quantitative standards by which the success of a project is judged. Success criteria are measurements established to determine whether the project has satisfied its objectives and met the requirements. Success criteria can be qualitative or quantitative, and are ideally SMART (Specific, Measurable, Achievable, Relevant and Time-bound). Do not confuse Success criteria and Benefits. While Success Criteria can be measured at project closure, Benefits are often achieved long after project closure.
Support Costs	The costs required to support the use of the project deliverables after the project has ended.
Support Layer	Consists of the roles responsible for providing support to the project. The composition and structure of this layer depends on the size of the project and is defined by the Project Manager (PM). The support roles may be assumed by specific teams or team members, or may be provided as horizontal services by the organisation.
Supports Role (RASCI table)	The person/group/entity that works with the person responsible and carries out part of the activity. Unlike the consulted role, the support role helps to complete the activity.
SWOT Analysis	A method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project. It generally begins with specifying the objective of the project and then identifies the internal (strengths & weaknesses) and external (opportunities and threats) factors that are favourable and unfavourable to achieving the objective.

T	
Tailoring	Tailoring of the PM² Methodology refers to adapting it to a specific environment and needs of the organisation (e.g. the organisation, Unit, or project organisation). It usually involves tailoring one or more of the four pillars of the methodology (e.g. changing the project governance (adding or removing roles or changing their responsibilities), adding or removing steps in the PM² defined processes, adding or removing sections in the PM² artefacts (adding stages to a phase, etc.). The results of tailoring the methodology should be reflected/documented in the PM² Management Plans and in the Project Handbook. Note that significant deviations from the PM² Methodology should be avoided. See also: Customisation.
Template	A pre-developed document or file with a pre-set format, used as a starting point for structuring and presenting information so that the format does not have to be recreated each time it is needed.
Threshold	A value or interval of values at which a specific action is triggered.

Test Manager	Responsible for collecting and reporting on tests, as well as leading a testing team. The role is assumed by the Assistant Project Manager (APM) if a Test Manager has not been appointed.
Tolerance	The allowable deviation above and below a certain target for time, cost and other project variables such as quality, scope and risks. If the deviation goes above or below the agreed levels then the current management level escalates the issue to a higher level. Without tolerance, every issue would be escalated immediately and the Project Steering Committee would end up running the project.
Top-down (technique)	An approach to estimating project work that begins at the goal level and partitions work down to the finest levels of definition until the participants are satisfied that the project has been defined in adequate detail.
Total Cost of Ownership (TCO)	Defines the total estimated cost to deliver the project outcomes. It is usually estimated for a five-year period.
Total Planned Effort at Completion	The total budget allocated to a project (baseline of project total costs). Also known as Budget at Completion (BAC).
Traceability	The ability to verify the history, location, or application of an item by means of documented recorded identification.
Training Costs	The human resource costs required to provide training to the requestor side (end-users, etc.) or to teams that will support and maintain the solution.
Transfer (risk response strategy)	A risk response strategy that consists of transferring the risk to a third party e.g. through insurances or outsourcing activities. This strategy does not relieve the organisation of a risk, but it may reduce the probability (e.g. outsourcing to a specialist party) and it can reduce the financial impact if the risk occurs. There is always a level of residual risk since the ultimate responsibility for the project risks remains with the organisation.
Transition Management	The process of managing and controlling the activities that lead the change from the old state to the new state when the deliverables are complete (delivering the solution to the requestor).
Transition Plan	Defines the pre-requisites of rolling out the new solution. This is useful to ensure a smooth transition from project- to operations mode.

U	
Urgency	A measure of the time that it will take until an issue affects project objectives or activities.
User Acceptance Test (UAT)	The testing of a set of requirements to ensure that a deliverable meets user expectations. These tests are usually already described in a test plan.
User Representatives (URs)	A role that represents the interests of the project users and ensures that the project specifications and deliverables meet the needs of all users. User Representatives can perform formal deliverable acceptance, like e.g. a user acceptance test (UAT), and may include members of the Project Steering Committee.

W	
Work-based Breakdown	A technique used to represent and organise project work by grouping work (e.g. work packages) that is further broken down into smaller portions of work (i.e. tasks).
Work Breakdown	Part of the Project Work Plan. It consists of a hierarchical description of all work that must be done by the project team to meet the needs of the requestor. The work breakdown is a deliverable-oriented hierarchical breakdown of the project into smaller and more manageable components such as deliverables, work packages, activities and tasks. Each lower level offers a finer level of detail of the deliverables and work that all together define the project output(s) and the work involved to produce them.
Work Package	A work component of the project work breakdown. It represents a group of project work described in activities and tasks.

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