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Authors: MARASLIS Athanasios, KOUROUNAKIS Nicos

Produced and published by:

DIGIT.B1 *Advisory Services*

CABRERO MORENO Daniel	Head of Section (Advisory Services)
KOUROUNAKIS Nicos	Senior Consultant, Methodology Lead
BEGHAIN Olivier	Senior Consultant
BERGHMANS Marc	Senior Consultant
KIPS Bert	Senior Consultant
KUMMER Laurent	Senior Consultant
VAROTTO Anita	Design and Production
COOPER GUMIEL Veronica	Design and Graphics

DIGIT.B1 *Architecture office, Consultancy, Innovation and Relationship Management*

VEKEMANS Tom	Head of Unit
SILVA MENDES Pedro	Deputy Head of Unit

Email: EC-PM2@ec.europa.eu

Contributions to the PM² Methodology and this Guide:
See Appendix A: Contributions and Acknowledgements.

Table of Contents

1 PM² Guide Introduction

This guide provides an introduction to the PM² Project Management Methodology. This guide has been kept as light as possible while still ensuring that it provides adequate information to help you both understand and use the PM² Methodology effectively.

This guide is published:

- For entry-level Project Management staff wishing to learn more about Project Management and the PM² Methodology.
- For experienced Project Managers (PMs) and staff who wish to learn more about the PM² Methodology.
- As a reference for using the PM² Methodology.
- As a source of information that will enable Project Managers (PMs) to start using effectively the PM² artefacts in their projects.

This guide provides:

- A common vocabulary (glossary) which makes it easier for project teams to communicate and apply Project Management concepts.
- Best practice information. It's up to the Project Manager (PM) and project team to choose those PM² practices that will bring the most value to their projects.
- Links to PM² resources (online resources, artefact templates and examples).
- References and suggestions for further readings on related Project Management subjects.

1.1 About PM²

PM² is the official Project Management Methodology of the European Commission. The purpose of PM² is to enable Project Managers (PMs) deliver solutions and benefits to the organisation through the effective management of project work. It's a methodology created by the EC specifically for the EU Institutions and for the purpose of facilitating the management of the complete lifecycle of projects within the EU Institutions.

PM² incorporates elements from a wide range of globally accepted project management best practices, described in standards and methodologies such as PMBOK, PRINCE2, IPMA-ICB, CMMi, TEMPO as well as operational experience from the different DGs and relevant EC Communications.

PM² is a light and easy to implement methodology, it's compliant with EC Governance Structures, and allows project teams to tailor the methodology to their specific needs. PM² is fully supported through a comprehensive training programme, CoP workshops, coaching sessions, online documentation and an active Community of Practice.

PM² enhances project management effectiveness by:

- Improving communication and information dissemination.
- Clarifying expectations as early as possible in the project.
- 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 domain specific methodologies *(e.g. Agile@EC for IT Projects).*

The PM² Methodology provides:

- A project Governance Structure.
- PM² process guidelines.
- Artefact Templates.
- Guidelines for using the Artefacts.
- A set of effective Mindsets.

1.2 Evolution of PM²

The PM² methodology was developed in 2007 and the first version was released via the PM² Wiki in 2008. For a comparison between the PM² Guide 2nd Edition and the current Edition see Appendix E.4.

Year	Description
2007	Introduction of Roles and Responsibilities for IT Projects
2008	Adoption of Roles and Responsibilities by CTI and Introduction of PM²
2009	Pilot implementation of PM²
2010	Project Management courses (GESPRO I & II) aligned to PM²
2011	Endorsement of PM² by CTI. PM² rolled out to several DGs
2012	Introduction of PM² Training Programme for IT Projects
2012	Release of the PM² Guide, 1st Edition (PDF)
2012	Introduction of PM² Training Courses for Business Managers (Q4)
2012	Adoption of the PM² Training Programme from DG HR (Q4)
2013	Release of the PM² Methodology V.2 and the PM² Guide, 2nd Edition (Q1)
2013	Introduction of PM² Certification Level-1 (Q2)
2013	Introduction of PM² Training Courses for Management (Q2)
2013	Introduction of PM² Certification Level-2 (Q4)
2014	Release of Agile@EC (Q2)
2014	Announcement of the Agile@EC Training and Certification Programme (Q4)
2015	Release of the Agile@EC Guide, 1st Edition (Q2)
2015	Release of the updated PM² Training Programme (Q2)
2015	Release of the PM² Methodology Guide V.2.5 (Q3)

1.3 The Centre of Excellence in PM² (CoEPM²)

The purpose of the CoEPM² is to provide the European Commission and EU Institutions with high quality Project Management infrastructure, support and consulting services which enable the effective and efficient management of project work, serving the objectives of the institutions and respecting the interests and needs of EU citizens.

In order to achieve this goal the CoEPM² provides a complete offering which includes:

- PM² Methodology for Project Management.
- Agile@EC for Agile Teams.
- Guidelines for Programme and Portfolio Management.
- PM Publications (8 printed, PDF and online publications).
- Training & Certification programme.
- Community of Practice Events (PM CoP).
- Definition of a PM Career Path and Evolution.
- Establishment and Coordination of an EU wide Project Support Network (PSN).
- Open PM² Initiative – provide access of the offering to affiliated EU Institutions, Member States and EU Citizens.

1.3.1 CoEPM²- Advisory Services

- PM² Info Sessions.
- PM² Coaching for Senior Management, Business Managers, Project Managers, Project Teams.
- Custom PM² Trainings.
- Agile@EC Coaching: for Agile Teams, Project Managers, Business Managers.
- Project Quality Reviews.
- Support the roll-out (adoption) of the PM² Methodology in DGs and Institutions.
- Consulting for the set-up of a local Project Support Office (PSO).
- Onsite Certification Exams.
- PM Maturity Assessments.

1.3.2 PM² Support

PM² is supported centrally and internally by the European Commission. The objective is to:

- Provide a high quality and complete offering.
- Support the PM² users (Project Managers (PMs) and project teams).
- Promote the PM² offering throughout the European Institutions.
- Continuously improve and enhance the PM² offering.

To support PM², the following activities are also undertaken:

- Maintenance of the PM² Wiki.
- Maintenance of a PM² forum to share best practice information.
- Publication of relevant articles and event announcements on the EC Yammer.
- Organisation of Community of Practice events, short seminars, etc.
- Publication of PM² info sheets (e.g. Quick Start Guide and Artefacts Checklist).
- Introductory and advanced PM² presentations.

The PM² Wiki provides a central and online location for all PM² information, publications, trainings, etc.

1.3.3 PM² Community of Practice (PM² CoP)

The Project Management Methodology Community of Practice (PM² CoP) aims to promote and improve Project Management within EU Institutions. It is open to all persons interested in the promotion and the improvement of Project Management within EU Institutions. The PM² CoP is facilitated by SG, DG HR and DIGIT.

Community of Practice Links

- PM² CoP Home http://intracomm.ec.testa.eu/CoP/
- Contact EC-PM2@ec.europa.eu

There are a number of advantages in joining the PM² CoP:

- Stay up to date with related news.
- Network with other PM² CoP members.
- Learn about the upcoming events, trainings, etc.
- Attend the CoP lunch time events, providing short trainings and workshops.
- Access presentations from past events (slides and videos).

1.3.4 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 CoEPM². The PM² Project Support Network (PSN) aims to become a decentralized Project Management support network, providing guidance and support to PM² users for both the PM² Methodology and for the effective use of Project Management Tools & Techniques. This PSN network will:

- Promote the exchange and sharing of knowledge, experiences and best practices.
- Enable the collection of feedback for the improvement and evolution of the PM² Methodology.
- Allow the LSPOs to support each other as a community.
- Be coordinated and supported by the CoEPM².
- Depend on the contributions of PM² champions (individuals and organisations).

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2 Project Management

This section introduces basic project management concepts and provides the context for understanding better 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. This product may be similar to another product but there will always be a certain level of uniqueness.
- The output of a project 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.

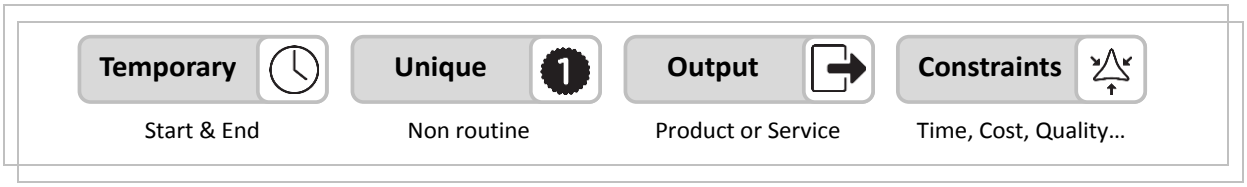

Fig 2.1 Key project characteristics

The end of the project is when the objectives of the project 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 in nature to normal day-to-day work (operations) and require a special temporary organisation in order to:

- Define the project scope and the end deliverables (products or services).
- Create a business justification for an investment (define the business 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.
- Daily monitor and control of the project (progress, changes, risks, issues, quality, etc.).
- Handover the deliverables and administratively close the project.

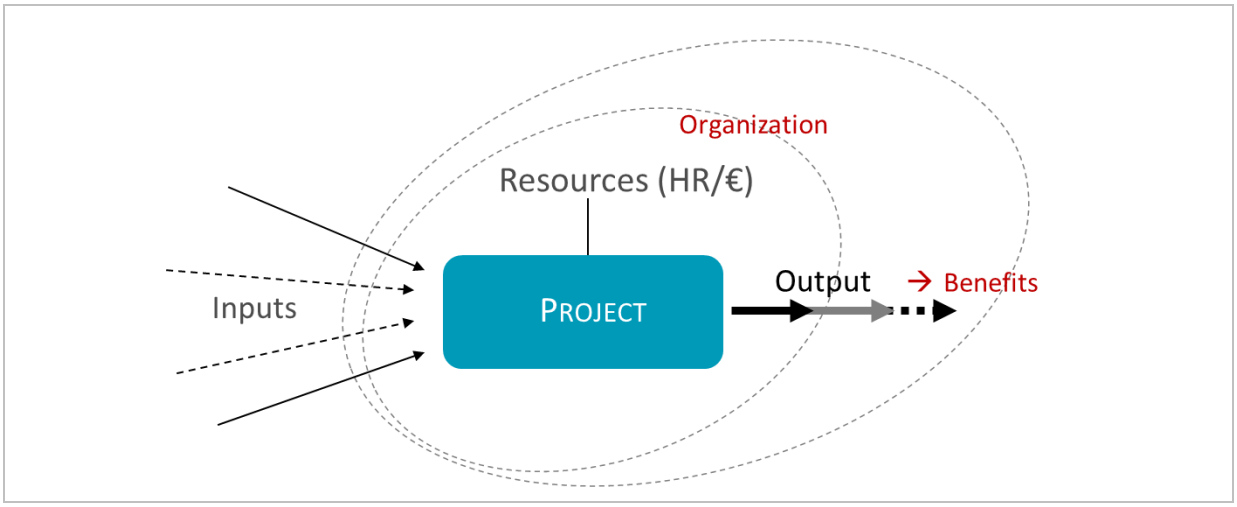

Fig 2.2 Projects as a transformation process

2.1.2 Why we do Projects

The goal of projects is to introduce a new or change to a product or service, which will bring about benefits through change 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 transformation process, turning ideas into reality.

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 why projects are initiated:

- A client may request a new product or service.
- A market demand or opportunity for a new product or service.
- A change in legislation or organisational need.
- Make use of a new technology to reduce costs.
- React to a new product or service.
- A merger of two or more departments demands 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.
- A proof of concept project.
- 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 the management and execution of the project (managers and team members) to understand the relationship between project outputs, outcomes and benefits, and clearly identify them for their projects. This will allow them to balance their efforts, to not lose sight of the original purpose of the project, and to 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 an outcome, while benefits are the measurable improvements resulting from an outcome. Note that project outcomes and benefits are often realized only after the project has closed.

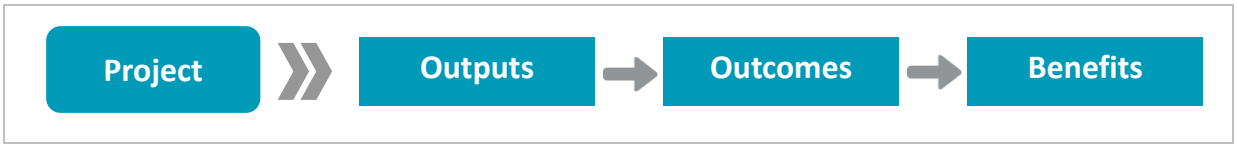

Fig 2.3 Project outputs, outcomes and benefits

The table below provides 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 forecast. • Capable of an in-depth control over contractor work and deliverables.
Project Benefits	• Decreased project cost overruns by 30% • Increased productivity 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. In terms of using PM², a Project Manager (PM) should use (and perhaps further customise) those parts of the PM² Methodology that contribute to the effective management of a project.

2.2.2 Project Documentation

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

- Help people think something through: documentation sharpens thinking through having to put down vague thoughts and plans into writing.
- Process to crystallise planning
- Define the project scope for approval: ensure agreement by all project stakeholders and project team members (i.e. everybody shares the same expectations on what is to be delivered, what to do, when to do it, etc.).
- Provide a clear picture of the project requirements to all the stakeholders.
- Facilitate communication with internal or external groups.
- Offer a baseline for the monitoring & controlling of the project's progress.
- Document important decisions made.
- Provide the information required in order to be able to respond to official audits.
- Support organisational memory and act as a historical reference which can be used to increase the chances of success of future projects.

Note that project documentation should adhere to the organisation's and the project's quality standards regarding format, style, etc., but above all, it should fulfil its purpose which is to document and communicate the analyses, decisions and plans while providing a "productive" reading experience to the reader.

2.2.3 The Project Support Office (PSO)

A Project Support Office (PSO) is an organisational body (or entity) providing supporting project management services. The responsibilities of a PSO can range from providing simple Project Management support functions to facilitating the linking of projects to strategic goals. Not all organisations have a PSO.
A PSO can offer:

- Administrative support, assistance and training to Project Managers (PMs) and other staff.
- Collection, analysis and reporting of project progress information.
- Assistance with using a Project Management Information System (PMIS), project scheduling, resource planning and coordination.
- Maintenance of a central project repository (Project Documents, Risks, Lessons Learned).
- Coordination of Configuration Management and Quality Assurance activities.
- Monitoring the adherence to Methodology guidelines and other organisational standards.
- Tailoring of the Project Management methodology with new best practices, and helping project teams implement it effectively in their projects.

2.2.4 Programme Management

A programme is defined as a group of related projects grouped together so as to facilitate a level of management which will enable the achievement of additional objectives and benefits which may not be available from managing these projects individually.

Programmes, like projects, are a means 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 in order to achieve better financial and resource control, and to facilitate their effective management in terms of meeting strategic objectives. The projects or programmes of the portfolio may not necessarily be dependent 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 the definition and management of projects 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 around their work.

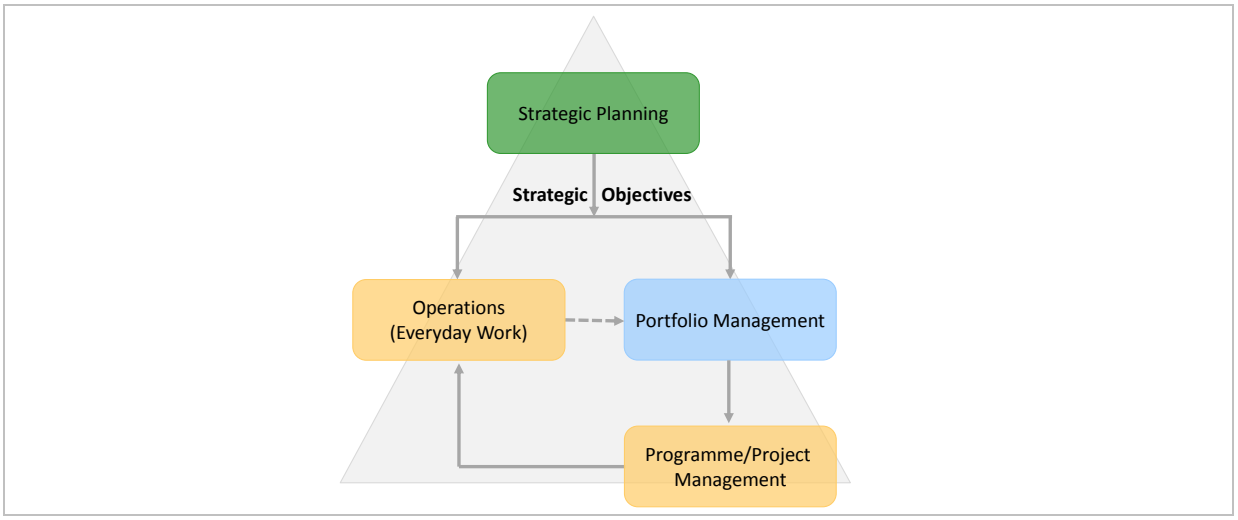

Fig 2.4 Relationships between strategy, project, programme, portfolio and operations

2.2.6 Projects vs. Operations

Projects are temporary endeavours and therefore should have a definite start and end. A project should be deemed as completed when it's 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 move from the project into the operations (maintenance) mode.

In most projects, the operations period begins after the main products of the project have been produced and have been 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 side.
- 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 The EC Project Environment

2.3.1 Project Organisations

It would be convenient to assume that Project Managers (PMs) at the EC operate in a homogenous environment and with the same levels of authority and responsibility. This is generally not the case.

There are typically a few variants of project organisations, however, as EC projects exist somewhere between these organisations, the typical project 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 organisation structure, project work is integrated in the work performed by the permanent organisation. Project members and other resources are "borrowed" from multiple functional organisations (e.g. Directorates/Units/Sectors). Usually, the Project Manager (PM) has limited authority and needs to involve Senior Management to manage important project issues, while the project's 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 organized 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. In coexistence with the functional hierarchy, additional temporary project organisations are created to achieve specific project goals and work. The Project Manager (PM) role is recognized as a central and key role for the success of the project, while the Project Steering Committee (PSC) typically delegates adequate authority and responsibility to the Project Manager (PM) and the Business Manager (BM) 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 the level of authority and autonomy given to the project organisation.

2.3.2 Typical Expectations from 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 practiced to build up knowledge and experience.

How does someone become an effective Project Manager (PM)? Here are a few suggestions:

- Understand how projects are handled within the organisation (ask colleagues).
- Review any project methodologies, standards, frameworks that exist in your organisation.
- Follow a Project Management course (e.g. courses from the PM² Training Programme).
- Practice Project Management and examine how you manage your project today, what you are doing well and where you can make improvements.
- Become an active member of the PM² Community of Practice (CoP) and attend events, actively participate in the discussions and learn from questions asked by other Project Managers (PMs).
- Talk to other more experienced Project Managers (PMs) on 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 or what can be improved.

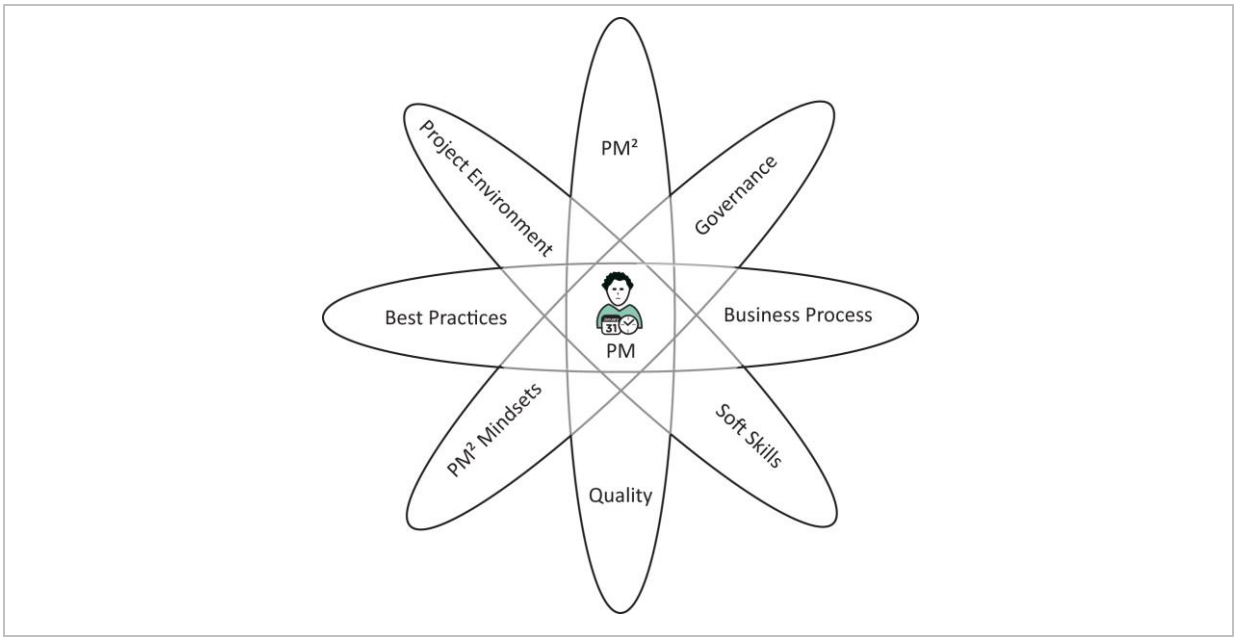

Fig 2.5 What Project Managers (PMs) should understand.

2.3.3 Competences for 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 competences include the contextual and the 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.).
- Domain knowledge (e.g. IT, Policy, etc.).
- Organisational policies and standards (e.g. security, enterpriser architecture, audits, etc.).
- How the end product or service will be maintained after it is delivered.

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

The table below lists the main behavioural and contextual competences:

Behavioural Competences	Contextual Competences
• Leadership • Engagement & Motivation • Self-Control • Assertiveness • Relaxation • Openness, Creativity • Results orientation • Efficiency • Consultation • Negotiation • Managing Conflict & Crisis • Reliability • Values appreciation and Ethics	• Project Orientation • Programme Orientation • Portfolio Orientation • Strategy Implementation • Permanent Organisation • Personnel Management • Business Systems • Products & Technology • Security • Safety & Environment • Finance • Legal *Source: IPMA-ICB*

The above competencies 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, progress over safety etc.) lies in our values and ethics. Therefore, Values appreciation and Ethics has a prominent position compared to the rest because it is our ethical profile that guides us 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 demonstrating our competencies should be done in an effective, consistent and situational specific manner, 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. In other words, to manage the project in the right way. This becomes a challenging goal for Project Managers (PMs) which often face tensions between making decisions based on goals and values, and by finding the right balance of duty towards the various stakeholders and their interests.

These tensions are easier to manage when Project Managers (PMs) have achieved a clear awareness and 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 F.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).

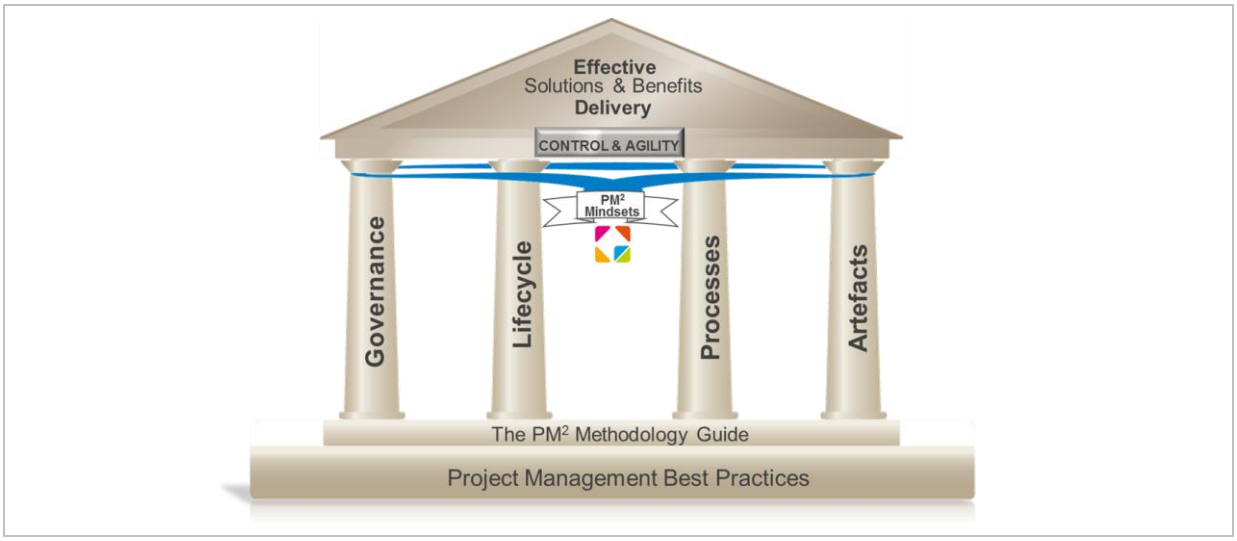

Fig 3.1 The house of PM²

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 all PM² project teams. The PM² Mindsets are presented in Section 3.4.

3.2 The PM² Lifecycle

The PM² project lifecycle is presented below:

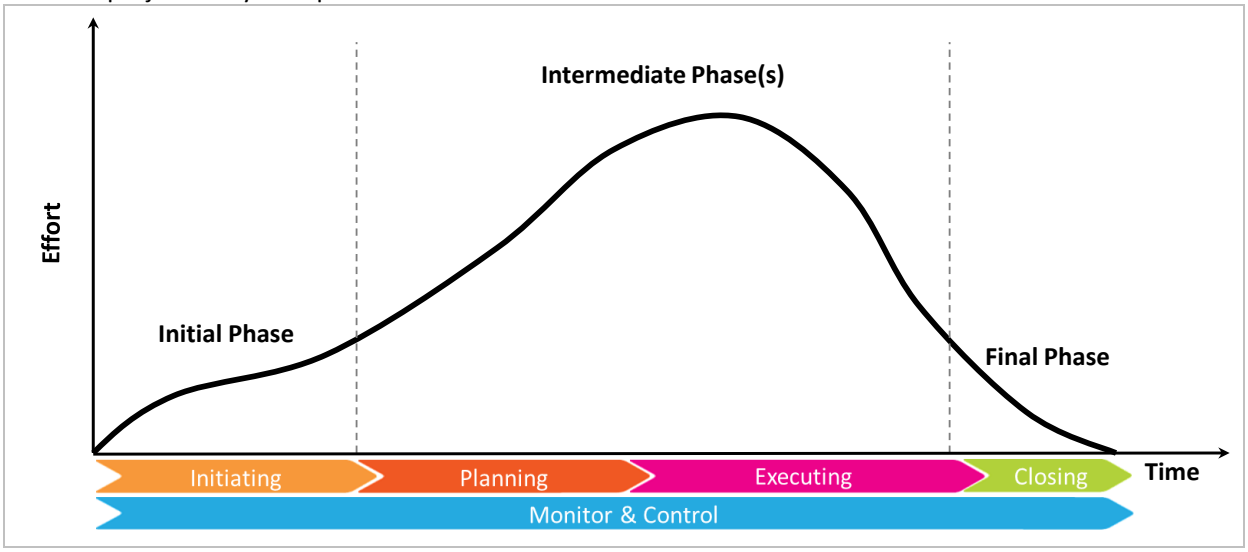

Fig 3.2 The PM² project lifecycle

The Initiating Phase is usually where the least proportion of resources is used.

The Planning Phase is an important phase as its outputs are the detailed project description and project plan, both of which determine the work that takes place in the following project phases. Some projects rush this Planning Phase so they can start working on the deliverables. This is one of the most common and costly mistakes project teams make and is often the root cause of project failure. Inexperienced Project

Managers (PMs) and team members fail to see the importance of the work performed in the Planning Phase. They start working on products that are not adequately defined or planned and the result is the delivery of unusable products of poor quality or of little value to the end user.

As you can see, the largest proportion of resources in a project is used during the Executing Phase. This is where the team members do the work as they create the project deliverables.

The Closing Phase is concerned with shutting down the project correctly, releasing the resources and handing over the completed products, as well as capturing the lessons that were learned during the course of the project.

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 and produce the project's deliverables.
4. Closing	Formal project acceptance, report on the project's performance and administratively close the project.
Monitor & Control: Monitor and control (throughout the project) all project work and project 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 in a PM² project is the Initiating Phase. The purpose of this phase is to define what the project will do (formulate the objective of the project), 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.

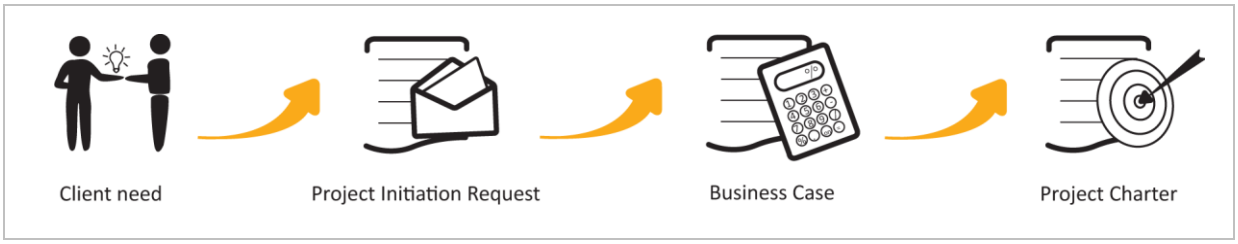

Fig 3.3 Overview of Initiating Phase

The following activities are done in the Initiating Phase:

- Creation of the Project Initiation Request. This contains information such as: Requestor information, business needs and desired project outcomes.
- Creation of the Business Case. This document provides the project justification and defines budgetary requirements. Typical document sections are the business context, problem descriptions, project description, possible alternative solutions, costs, timescale
- Creation of the Project Charter. This document provides more detail information regarding the project definition in terms of scope, cost, time, and risk, as well as information such as milestones, deliverables and project organisation.

The Business Case and Project Charter provide the necessary definition and direction for the project and they will continue to be referenced and used throughout the duration of the project by the Project Manager (PM) and the Project Core Team (PCT).

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

3.2.2 Planning Phase

During the Planning Phase, the objective of the project is verified, elaborated and developed into a workable plan for execution. This involves the following:

- Elaborating the project scope and determining the appropriate approach for the project.
- Developing the schedule for the various tasks and estimating the necessary resources.
- Developing the various plans for the project.

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

In the Planning Phase the following key activities are undertaken:

- Running of the Planning Kick-off Meeting to officially start the Planning Phase.
- Creating the Project Handbook which defines the management approach for the project.
- Finalising the Project Stakeholder Matrix (identify 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.

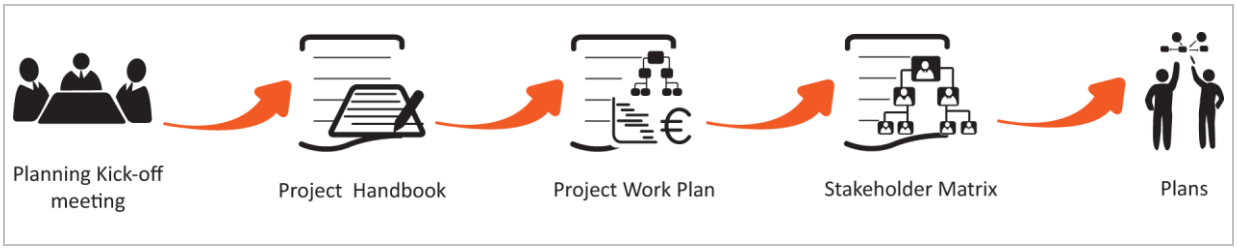

Fig 3.4 Overview of Planning Phase

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

3.2.3 Executing Phase

During the Executing Phase, the following activities are performed:

- Running the Executing Kick-off Meeting.
- Distributing information as described in 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, resolving conflicts, and issues.
- Producing the project deliverables in accordance with the project plans.
- Handing over the deliverables as described in the Deliverables Acceptance Management Plan.

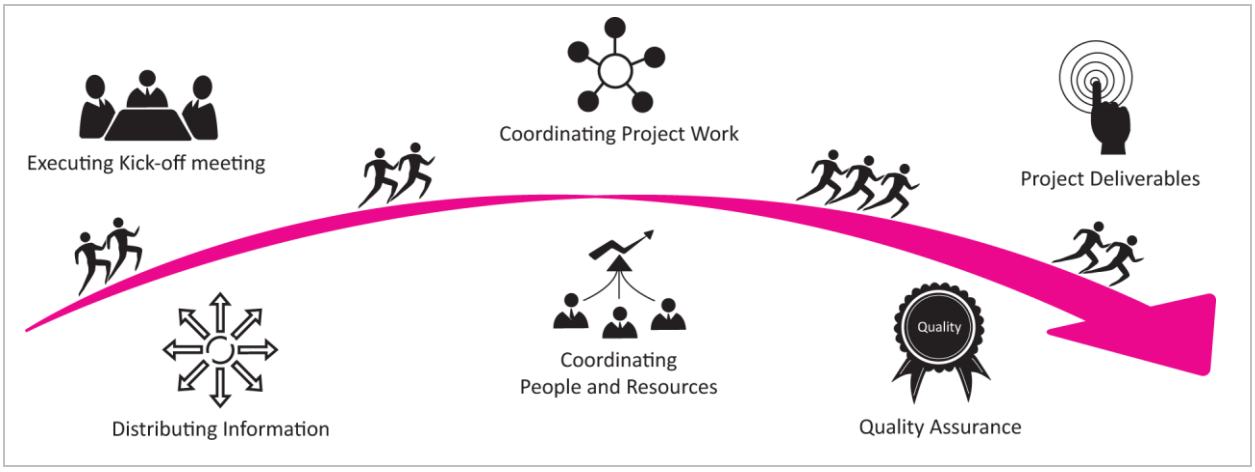

Fig 3.5 Overview of Executing Phase

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 the on-going project activities (where we are in relation to the plan), and monitoring the project variables (cost, time, effort) against the project plans. Controlling is about identifying corrective actions to address deviations from plans, and address issues and risks properly.

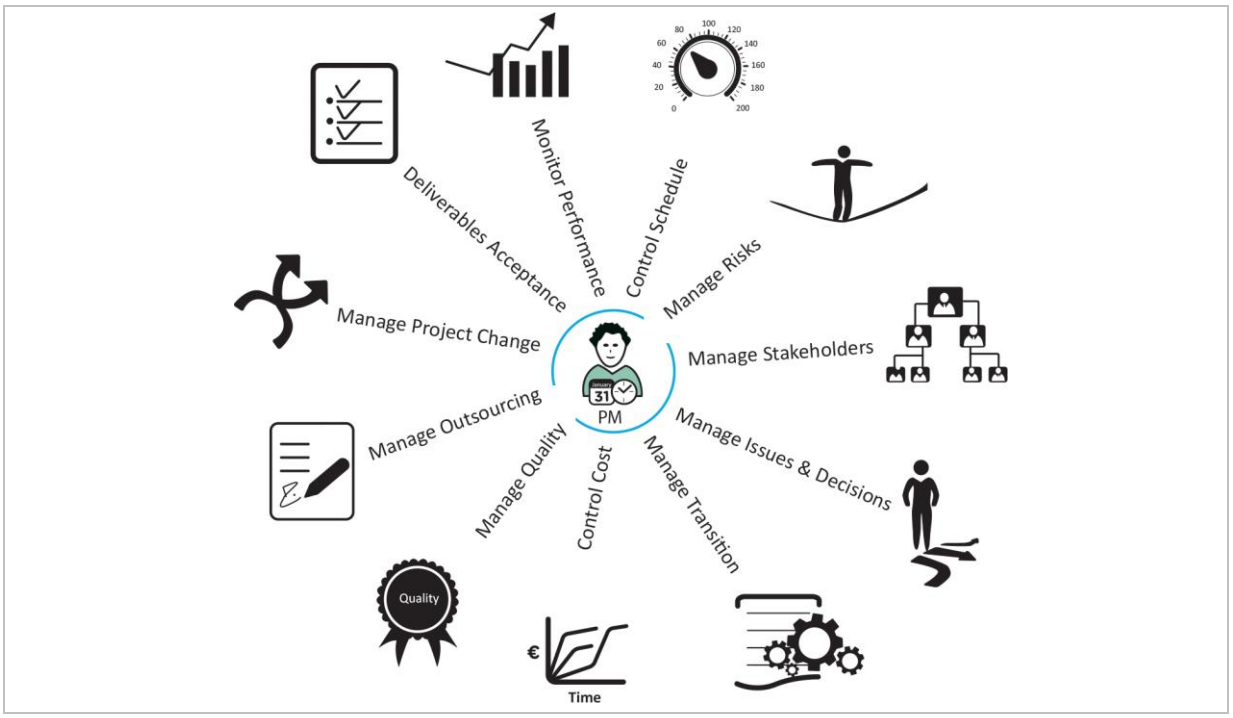

Fig 3.6 Monitor & Control activities

3.2.5 Closing Phase

During the Closing Phase of the project, 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 which includes information regarding the 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.

During the Closing Phase, the following activities are performed:

- Finalising of 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 Closing Phase

3.2.6 Phase Gates and Approvals

At the end of each phase, the project passes through an approval gate. The objective of the approval gates is to ensure that the Project Steering Committee (PSC) reviews the project before it moves onto the next phase. These check points contribute to the overall Project Management quality and allow the project to proceed in a controlled manner.

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 projects 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 designated as the main driver 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 to the project phases:

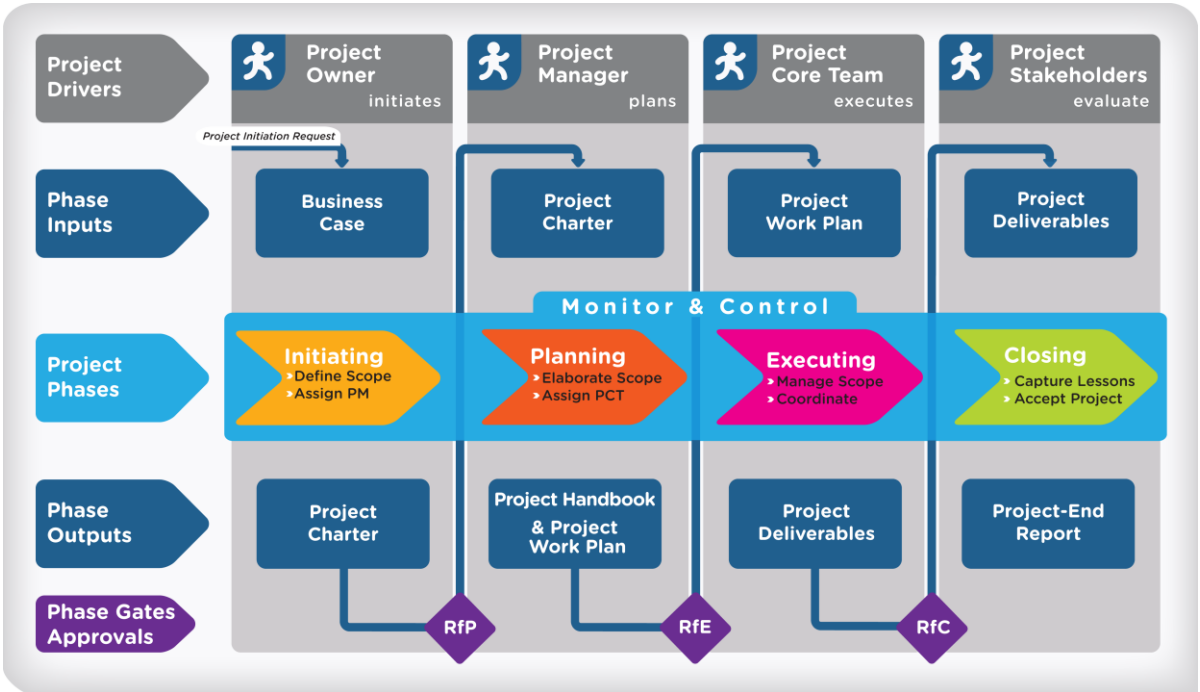

Fig 3.8 PM² Swimlane Diagram

Document	Description
Project Initiation Request	Formalises the project and captures the project concept.
Business Case	Captures the reasoning for the project, provides justification and establishes the budgetary constraints.
Project Charter	Presents the scope statement and the high-level requirements.
Project Handbook	Presents the project management objectives, the overall management approach and rules, and documents the roles and responsibilities present in the project.
Project Work Plan	Organizes the work needed to achieve the project scope. Includes the Work Breakdown, the Effort & Cost Estimations and the Project Schedule.
Project Deliverables	The complete set of project deliverables as described in the project plans. These are evaluated before their final acceptance.
Project-End Report	Summarizes the project experience, the project performance, the lessons learned and the successful project practices or 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 longer than 4-5 weeks, and more than 2-3 people are involved.
- runs within the European Institutions (or similar environments).
- can be audited by IAS (internal audits).
- requires clearly defined governance and roles and responsibilities assignments.
- requires budget & scope approvals.
- 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 collaboration between several DGs or EU Institutions.
- contributes to the raising of the Project Management Maturity of the organisation.

When most of these characteristics are present, then a project can be managed as a PM² project.

3.5 PM² Mindsets

The PM² Methodology processes, artefacts, tools and techniques, help project teams take decisions on trade-offs between the project dimensions of time, cost, scope and quality. On the other hand, the PM² Mindsets present those attitudes and behaviours which help project teams focus on what is really important in achieving project goals. Together they help with navigating through the complexities of managing projects at the EC 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 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, but also in the planning and implementation of the organisational changes needed to realise 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 at the European Commission.
8. Are **inspired** by the PM² Guidelines on Ethics and Professional Conduct (see Appendix F: Ethics and Conduct)

Project Managers (PMs) and project teams who practice PM² also ask the following important **IAQs**[1]:

- **Do we know what we are doing?** Tip: Develop a clear and shared project vision. Manage using a holistic approach and optimize the whole project, not just parts. Follow a process but stay Agile and frequently "remember why" you were 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 overall 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 do, and make sure others know as well. 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 effort and EC funds and avoid high risk behaviours and tactics. Always keep in mind that it's not just about the end-result, it matters how you get there. Manage your projects with 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 for the same goal. Real teamwork really works! Foster clear, effective and frequent communication.
- **Should I be involved**? Tip: Contribute from any position. Be proud of the skills, the value, and the 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 on-going self-improvement and organisational improvement through the gathering and sharing of knowledge. Project teams should reflect on how to become more effective, and adjust their behaviour accordingly.
- **Is there life after project**? Tip: The product (or service) lifecycle has just begun! Make sure you have contributed to its success.

The PM² Mindsets become the glue that holds together the PM² processes and practices 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 & behaviours.

3.6 Tailoring and Customisation

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

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

However, as every project is unique, additional customisations may also be required. These take place at the project level and reflect the specific management needs of the project.

For tailoring and customisation, the following guidelines need to be taken into account:

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

[1] **IAQs** – Infrequently Asked Questions.

3.7 PM² and Agile Management

PM² recognizes the complex and uncertain nature of many types of projects 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 European Commission, these challenges include coordination between Agile and non-Agile teams, compliance with IT Governance and Audit requirements, as well as Enterprise Architecture and interoperability constraints.

PM² provides an enterprise aware wrapper for Agile teams to help them be policy, process and audit compliant. It allows project teams to achieve the desired agility while still accommodating tight procurement and audit requirements, work with contractors, collaborate with other projects and DGs, and coordinate with Programme and Portfolio levels.

What is Agile?

Agile is an approach described by a set of principles and practices for managing projects, which promotes adaptive planning, evolutionary development, early delivery, continuous improvement and encourages rapid and flexible response to change.

Agile appreciates the inherent uncertainty of project environment and creates organisation that is highly adaptive using short feedback loops to quickly respond to changes of product requirements and constantly improve all its processes.

Key characteristics of Agile are:

- Focus on delivering value early and frequently.
- Decisions are based on what is known.
- Close collaboration between all parties involved.
- Continuous stakeholder involvement at all levels.
- Plans created with the involvement of team members.
- Incremental development with short cycles.
- Scope management by continuous (re)prioritisation of the work items.
- Embracing change, continuous learning and improvement.
- Just enough documentation and control.

Agile@EC is an offering aiming to enable and support the use of Agile practices in projects of the European Commission. Although such practices already exist, it would take more care to ensure their success. This is due to the scale and interdependencies in the EC ecosystem, mentioned earlier.

Agile@EC provides:

- Agile@EC Roles & Responsibilities (as an extension to the PM² Governance).
- Integration with the overall PM² project Lifecycle.
- Agile Themes and Guidelines.
- A set of suggested Agile Artefacts (as an extension to the PM² Artefacts).
- Guidelines for using the Artefacts.
- An Agile Glossary.
- Agile Tools & Techniques.

For more information about Agile@EC, please visit: http://intracomm.ec.testa.eu/Agile/.

4 Project Organisation and Roles

4.1 Project stakeholders

Project stakeholders are people (or groups) who can affect or can be affected by both the activities performed during the life of a project, or/and by the project's output(s) and outcome(s). Stakeholders can be directly involved in a project's work, or can be members of other internal organisations, or even be external to the performing organisation (e.g. suppliers, users, EU citizens).

Depending on the complexity and scope of a project there may be few or a large number of stakeholders, however, the more people the project impacts, the more likely it is that a project will affect people who have some power or influence over the project. These people can be useful supporters of the projects, or may become blockers. 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.

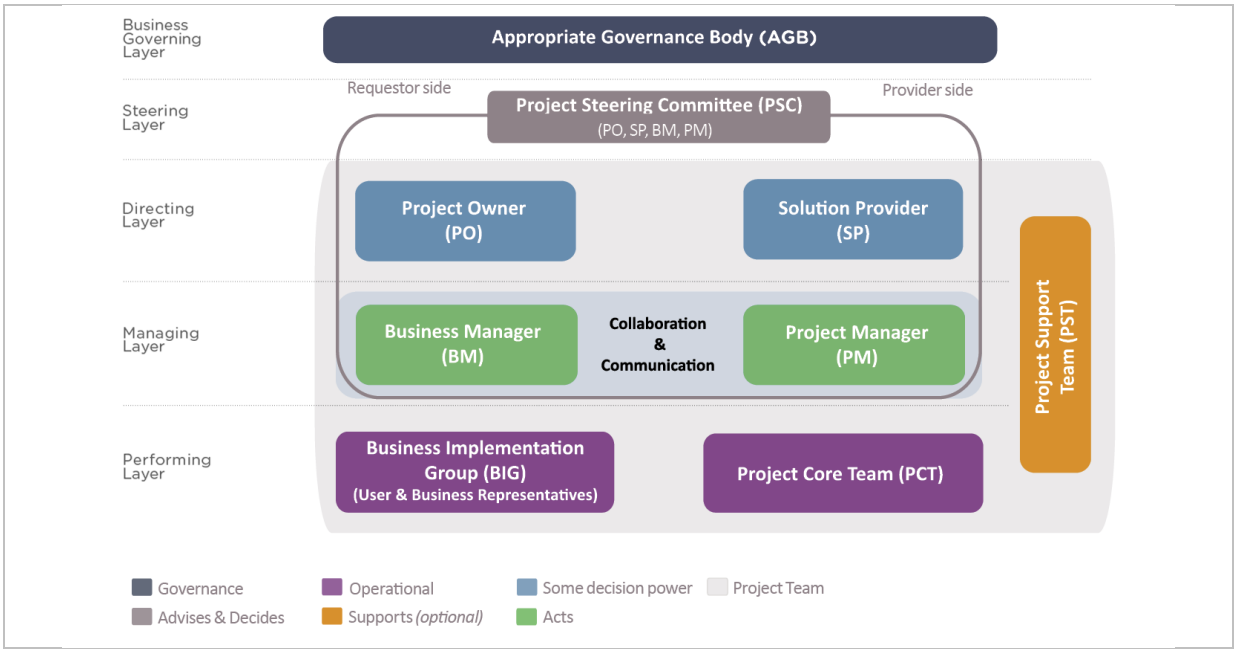

Fig 4.1 Project Organisation

Note that there is only one Project Team comprised of the people assuming the roles defined in the Performing, Managing and Directing Layers which need to work as a whole team for the success of the project.

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 Directors 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 comprised of the roles 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 realize the project's objectives. The Directing Layer is comprised of the roles of Project Owner (PO) and Solution Provider (SP).

Managing Layer

The Managing Layer focuses on the day-to-day project realisation by organising, monitoring, and controlling the project work to produce the intended deliverables and implement them into the business organisation. Members of the Managing Layer report to the Directing Layer. The Managing Layer is comprised of 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 executes the project work, producing the intended deliverables and implementing them into the business organisation. Members of the Performing Layer report to the Managing Layer. The Performing Layer is comprised of 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 the portfolio delivery performance, keeping each portfolio focused towards its objectives.
- Optimise and manage portfolio resources and benefits.

4.4 Project Steering Committee (PSC)

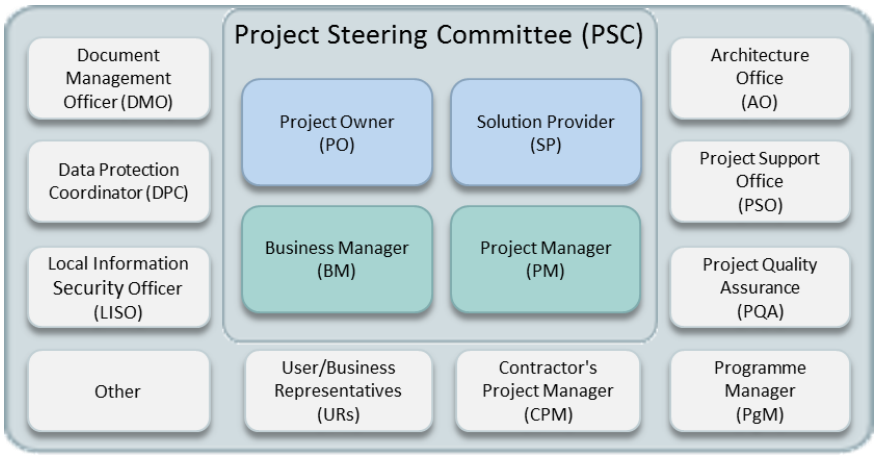

Fig 4.2 Project Steering Committee (PSC): permanent and optional roles

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 PSC; Is the key decision-maker and accountable for the success of the project.
Business Manager (BM)	As a delegate of the Project Owner (PO) is responsible for coordinating the activities of the business side for the project; Collaborates with the Project Manager (PM).
Solution Provider (SP)	Assumes the overall accountability for the 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 towards its objectives.
- Ensures adherence to organisation policies and directions (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 to the Executing phase, based on the Project Handbook and Project Work Plan.
- Authorises plan deviations, scope changes with high project impact and decides on recommendations.
- Arbitrates on conflicts and negotiates solutions to escalated issues.
- Drives and manages change in the organisation caused by the project.
- Approves and signs-off all key management milestone artefacts (Business Case, Project Charter, Project Work Plan, etc.).

Optional Project Steering Committee (PSC) members:

Other roles can also participate in the Project Steering Committee (PSC) as per the project's needs. Some of these roles are shown in the table below:

Roles	Description
User Representatives (UR)	Represents the interests of the users to the project, ensuring that project deliverables are fit for business 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 of information systems.
Project Support Office (PSO)	Administers PSC meetings and project documentation, produces consolidated reporting in large projects.
Project Quality Assurance (PQA)	Responsible for quality assurance and auditing.
Document Management Officer (DMO)	Assures a coherent implementation of the document management roles.
Data Protection Coordinator (DPC)	Consults and advises on data protection aspects.
Local Information Security Officer (LISO)	Consults and advises on security aspects.

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 accountable for project success.

Responsibilities:

- Acts as the project champion promoting the success of the project.
- 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 assures project outcomes are in-line with business objectives and priorities.
- Mobilises the necessary resources for the project in accordance to the budget.
- Monitors project progress regularly.
- Coordinates resolution of issues and conflicts.
- Ensures that the project outcome meets the business expectations.
- Drives organisational change and monitors proper evolution and change implementation.
- Approves and signs-off 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 the project deliverables.

Responsibilities:

- Represents the interests of those designing, delivering, procuring, and implementing the project's deliverables.
- May help the Project Owner (PO) to define the Business Case and objectives for the project.
- Agrees on objectives for the supplier activities and approves the contractor's deliverables for the project (if applicable).
- Assumes the 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) on a daily basis within the project and collaborates closely with the Project Manager (PM).

Responsibilities:

- Assists the Project Owner (PO) on the specification of the project and the main business objectives.
- Establishes and guarantees an efficient collaboration 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 need
- Manages the business side activities of the project and assures that the required business resources are made available.
- Devises the best track for business change or reengineering actions, when needed.
- Ensures that the business organisation is ready to accommodate the project's deliverables when made available by the provider organisation.
- Leads the implementation of the business changes within the users 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).
- Daily manages and coordinates the Project Core Team (PCT) 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's expectations.

- Is responsible to create all the management artefacts (except 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 a controlled evolution of products under version control, by implementing the Project Change Management Plan.
- Compares project actuals and expenditures to what was planned and reports project progress accordingly to the Project Steering Committee (PSC).
- 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 from the business and user groups. The Business Implementation Group (BIG) is responsible for implementing the business changes that need to be in place in order 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 implementation to the ongoing operations and existing business processes, the people and the culture of the organisation.
- Participates in the design or updating of any affected business processes.
- Prepares the affected business area for the upcoming change
- Advises the Business Manager (BM) concerning the readiness of the organisation to change
- Embeds the project deliverables into the business operations and implements organisational change activities that fall under the scope of the project.

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: Represent the interests of the end-users in the project. User Representatives (URs) are part of the Business Implementation Group (BIG). Involving the User Representatives (URs) throughout the project is important, as they gain visibility of project activities, a sense of ownership and motivation, which ensures that the deliverables are fit for business purpose.

Responsibilities:

- Helps to define business needs and requirements.
- Ensures that the project specifications and deliverables meet the needs of all users.
- Approves on behalf of the users the project specification and acceptance criteria.
- Communicates and prioritises user opinions in Project Steering Committee (PSC) decisions on whether to implement recommendations on proposed changes.
- Participates in demonstrations and pilot phases as needed.
- Performs the user acceptance tests.
- Signs off documents related to the users (documentation, requirements, etc.).
- Guarantees the stability of the business 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: Consists of the specialist roles responsible for the creation of the project deliverables. The composition and structure of the Project Core Team (PCT) depends on the size and type of the project (e.g. IT project, policy development project, etc.) and is defined by the Project Manager (PM).

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

- Contributes in the elaboration of the project scope and the planning of the project activities.
- Performs the project activities according to the project work plan and schedule.
- Produces project deliverables
- Provides information to the Project Manager (PM) regarding 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 useful lessons learned for the organisation.

Besides the specialist roles that create the project deliverables, there are two specific roles in the Project Core Team (PCT) 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 PM	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 performed 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 (PM)	Provider	Individual	Optional role	-

Description: In large projects the Project Manager (PM) might find it useful to delegate a part of the project management tasks to an assistant. This Assistant Project Manager (APM) works closely together with the Project Manager (PM) in realizing the project objectives and acts as their backup. Although the Project Manager (PM) can delegate certain tasks to the Assistant project Manager (APM), the Project Manager (PM) remains responsible for the correct execution of these 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 in support of work execution.
- Assists with the organisation of project meetings and creating agendas and the meeting minutes.
- Gathers status information, actuals and forecasts of work packages.
- Proactively detects quality or scheduling issues and proposes preventive actions.
- Prepares or assists in the preparation of the project status reports.
- Supports the risk and change management process, updates the Risk and Change Logs.
- Coordinates deliverable acceptance with internal and external users and stakeholders.
- Establishes the routine project communications to inform project stakeholders.

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 roles responsible for providing support to the project. The composition and structure of the Project Support Team (PST) depends on the size of the project and is defined by the Project Manager (PM). The Project Support Team (PST) role may be assumed by team members, a specific team or be provided as horizontal services by the organisation.

Responsibilities:

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

Examples of roles comprising the 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 Project Core Team.

Responsibilities:

- Advises on project management tools, guidance and administrative services.
- Administers Project Steering Committee (PSC) meetings.
- Produces consolidated reporting to the Project Steering Committee (PSC).
- Manages internal communication.
- Establishes standards, tools, procedures and methods for use on the project.
- Administers Project Management aspects such as document change control, baseline of plans, etc.
- Can play the role of the 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: Assures the 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 the project quality.
- Reviews project management processes and artefacts (e.g. 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 the appointment.

4.12 RAM (RASCI) – Documenting Responsibilities Assignments

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

RASCI		Description
R	**R**esponsible	Does the work. Others can be delegated 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 to complete the task.
C	**C**onsulted	"Those whose roles are sought" and with whom there is a 2-way communication.
I	**I**nformed	These roles will be 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 for 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 within the hands of the Business Manager (BM).
- **Consulted**: The Project Steering Committee (PSC), 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

The following diagram provides an overview of the activities and the artefacts created during the Initiating Phase.

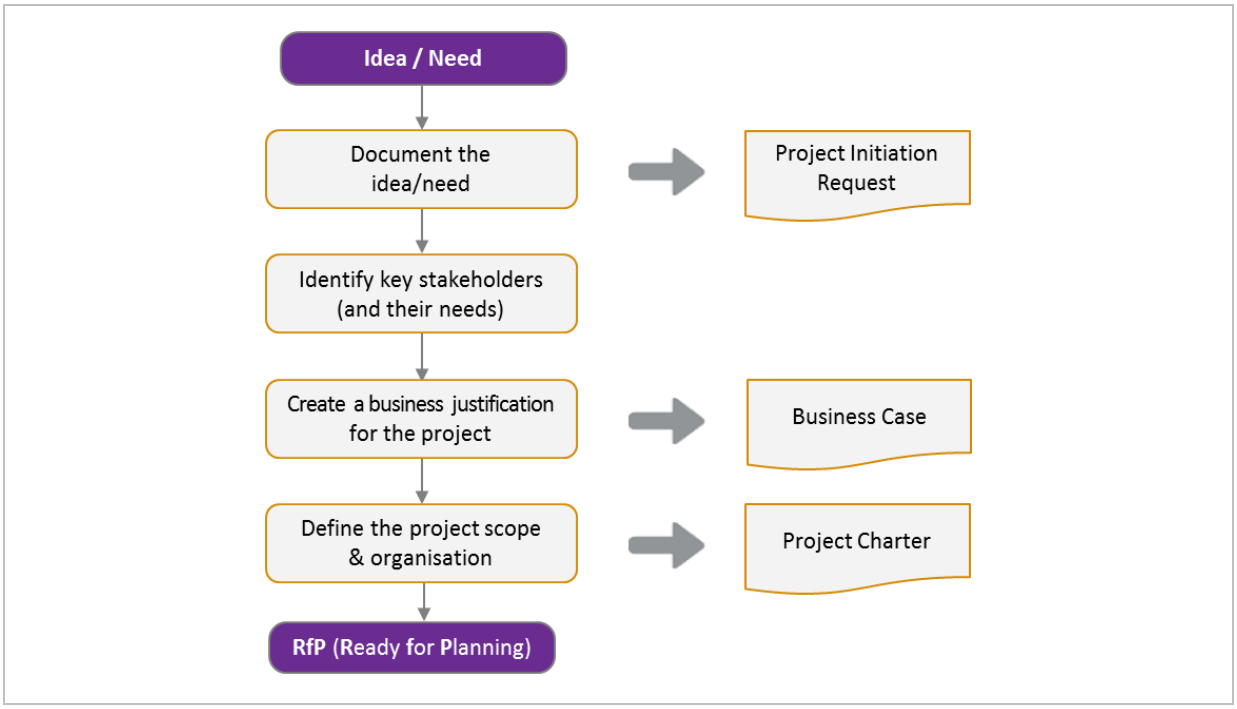

Fig 5.1 Initiating Phase: Activities and main outputs

The three main artefacts of the Initiating Phase are the Project Initiation Request, the Business Case, and the Project Charter. Some of the Project Logs are also setup during the Initiating Phase (i.e. Risk Log, Issue Log, Decision Log) while other logs (i.e. Change Log) are generally setup during the Planning Phase.

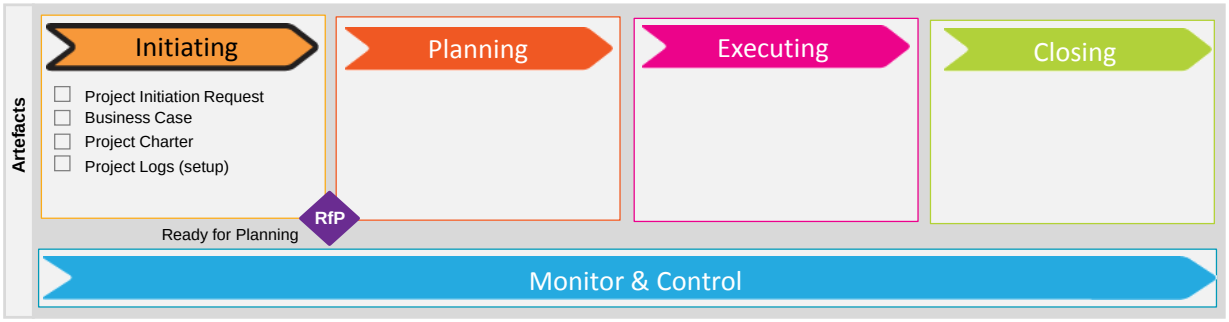

Fig 5.2 Initiating Phase Artefacts

Phase Gate: RfP (Ready for Planning)

This is the first Approval/Phase-Gate. The Project Steering Committee (PSC) approves the Project Charter and the Project Manager (PM) determines whether the project is ready to move to the Planning Phase. In case the PSC rejects the Project Charter, proceed directly to the Closing Phase.

5.1 Initiating Kick-off Meeting

This is an informal meeting usually between the project Initiator, the (future) Project Owner (PO) and others who can potentially contribute in the creation of the Initiating Phase documents. The goal of this meeting is to bring into the discussion some pre-project information and discuss the next steps (i.e. the creation of the Project Initiation Request and the Business Case).

The output of this meeting is usually a decision to move forward with the creation of the Project Initiation Request and some preliminary information which will provide the basis for the Initiating Phase documents. Lessons learned from previous similar projects can be used as input to this meeting.

5.2 Project Initiation Request

The Project Initiation Request is the starting point for a project and formalises its initiation. By completing a Project Initiation Request, the Project Owner (PO) ensures that the current context/situation (i.e. problem, need or opportunity) and the desired future outcome (of the project) are captured on paper and can be used as a base for further exploration.

Key Participants	Description
Initiator	Anyone can initiate a project request.
Project Owner (PO)	The main beneficiary of the project's outputs usually nominates a person as the Project Owner (PO).
Solution Provider (SP)	The DG that will deliver the project is accountable and will nominate a person to act as the Solution Provider (SP). It's common to assign the role of the Solution Provider (SP) to a Business Analyst at this stage.
PSC or other Appropriate Governance Body	The appropriate decision maker (approver) is usually a preliminary Project Steering Committee (PSC) or a higher level Appropriate Governance Body (AGB).

Inputs

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

Steps

1. The Initiator completes the Project Initiation Request.
2. Depending on the size of the project and the approval process of the organisation, the approval can be informal (i.e. the Project Owner (PO) accepts it) or more formal, in which case, an appropriate body needs to review it and approve it.
3. The Project Initiation Request contains the following information:
   - **Project Title.**
   - **Estimated Effort/Cost:** A high level estimate in effort or/and Euros.
   - **Type of Delivery:** Expected or most suited form of delivering the project (e.g. In-house, Outsourced, Mixed, Not-known).
   - **Context/Situation:** Description of the reason why the project should be initiated.
   - **Legal Basis:** How this request is connected to legislative initiatives of the organisation.
   - **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 by which the project's success will be evaluated.
   - **Assumptions:** Description of the key assumptions that are considered for the project at this stage.
   - **Constraints:** Description of the key constraints that are considered for the project at this stage.
   - **Risks:** Description of the key risks that are considered for the project at this stage.
4. Once the Project Initiation Request is approved, the project needs to be further defined with a preliminary project scope statement in the Business Case and further elaborated in the Project Charter.
5. The Project Manager (PM) and the Project Core Team (PCT) will be assigned at a later stage, by the Solution Provider (SP).
6. 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 during the period between the Initiating Phase and launch of the Planning Phase (in particular the Planning Kick-off Meeting).

The lifecycle of the Project Initiating Request ends with the creation of the Business Case, that is, all information of the Project Initiation Request is copied over and further detailed in the Business Case and the Project Charter. The figure below shows this relationship. On the other hand however, the Business Case and Project Charter remain live documents and their lifecycle ends with the end of the project.

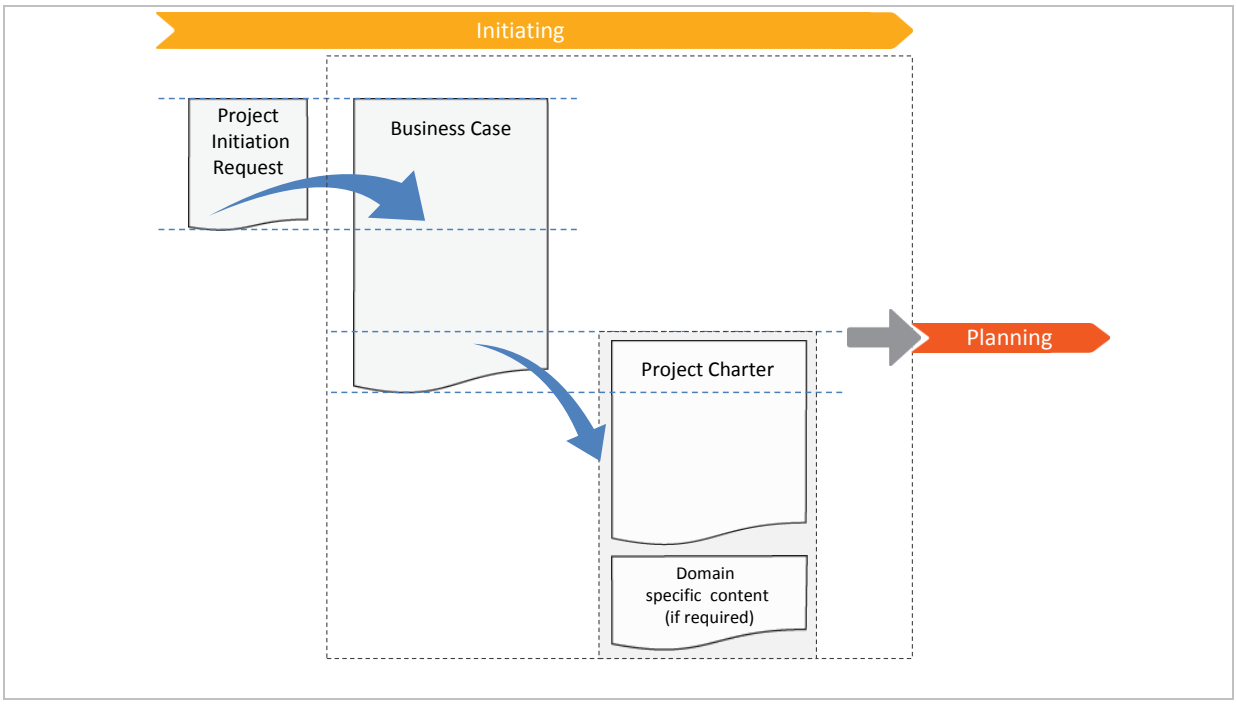

Fig 5.3 Relationship between the Initiating Phase Artefacts

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.

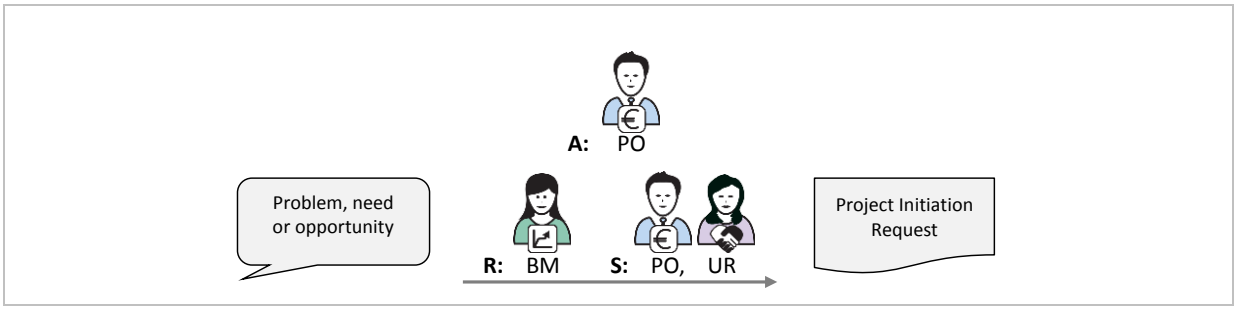

Fig 5.4 Project Initiation Request – Inputs and main roles

Outputs

- Project Initiation Request.

PM² Template?

☑

5.3 Business Case

The purpose of the Business Case is to capture the reasoning for the project, to provide a justification for the investment in time and effort and establishes its budgetary needs. It provides contextual information to the (budgetary) decision makers on the project's benefits and is used to determine whether the project is worth doing or not.

The Business Case typically contains an analysis of the necessary effort and costs to be incurred in the project as well as the benefits that the project will bring. In the case of larger projects addressing a political context, the Business Case will have to 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, the cost/schedule within the budget/timeline, and whether the project remains 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 the creation of 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 Governance Body.

Inputs

- The Project Initiation Request is the key input.

Guidelines

- The form and depth of analysis required for this artefact depends on the level of investment required for the project. The senior management will challenge the estimations and assumptions in relation to the amount of investment in the project.
- Consider various alternatives that fulfil this business need and recommend one of these alternatives.
- Describe the overall approach as to how the project will be executed (project strategy).
- Identify measurable criteria that will be used to determine if the project was a success.
- In the case of a project performed under contract (as a result of a bid award, for example), then the Business Case is formed using the Request for Proposal, the response to this Request for Proposal and the subsequent contract.

Steps

1. The Business Manager (BM) drafts the Business Case based on the information captured in the Project Initiation Request. The main aspects of the project to be analysed at this stage are:
    - Worthiness of the project, supported by collected data.
    - Project dependencies must be identified and established.
    - Project positioning regarding the overall organisational strategy.
    - Possible alternative solutions to the described contest to address. An assessment based on the Strengths, Weaknesses, Opportunities and Threats of each alternative (i.e. SWOT Analysis) should be performed and presented. A single alternative must be chosen and a justification should be given why this is the recommended solution.
    - Solution related elements such as a Benefits Analysis, Total Cost of Ownership and Opportunity Costs may also be elaborated depending on the size of the project.
    - Funding requirements and risks must also be identified and considered.
    - If applicable, competitive offerings and an assessment of the proposed solution against these offerings should be also presented.
2. The Project Owner (PO) sends the Business Case to the Appropriate Governance Body (AGB).
3. The DG's Appropriate Governance Body (AGB) evaluates the Business Case and makes a decision 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.

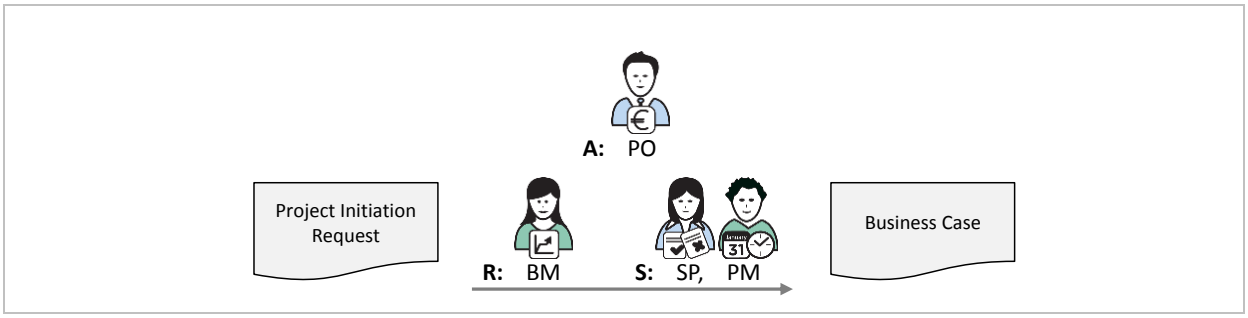

Fig 5.5 Business Case – Inputs and main roles

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

Outputs

- Business Case.

PM² Template?

☑

5.4 Project Charter

The Project Charter provides a high-level basis for the more detailed project requirements. It captures the "essence" of the envisaged solution in the form of high-level requirements and constraints that gives the reader an overview of the final project deliverable(s).

It serves as a key decision element to the project-approval process and is, therefore, closely related to the Business Case. It communicates the fundamentals "why and what" for the project and is a gauge against which all future decisions should be validated. Although the Project Charter can be initiated by the Business Manager (BM), as the project is being established, this artefact becomes the responsibility of the Project Manager (PM).

Key Participants	Description
Project Manager (PM)	Responsible for the development of the Project Charter. Should also be supported by the Business Manager (BM).
Project Owner (PO)	Accountable for the Project Charter.
PSC or other Governance Body	The appropriate decision (approver) maker is usually a preliminary Project Steering Committee (PSC) or a higher level Governance Body.

Inputs

- Project Initiation Request.
- Business Case.

Guidelines

- It is generally a good practice to keep the Project Charter brief in order to be able to release it to project stakeholders as soon as possible, and to make it easy for them to review and understand.
- This can be achieved by including project stakeholders' needs and features at a high level, thus avoiding documentation of detailed requirements.
- Detailed requirements may be captured in the other requirements artefacts (e.g. in a Requirements Document), or in the Project Charter's appendix.
- 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 will participate in drafting the Project Charter. The Project Manager (PM) is responsible for delivering the document that must include the project scope statement.
2. The main project stakeholders review the Project Charter and the Project Owner (PO) approves it.
3. Once it is approved, it will be used as a key decision element in the project-approval process and is, therefore, closely related to the Business Case.
4. The Project Owner (PO) sends the Project Charter to the appropriate decision making body for a decision.
5. The Appropriate Governance Body (AGB) 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

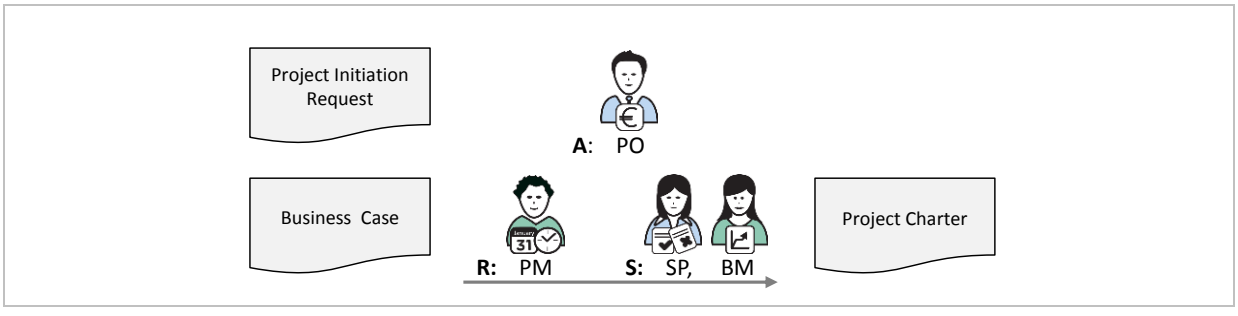

Fig 5.6 Project Charter – Inputs and main roles

Outputs **PM² Template?**

- Project Charter ☑

6 Planning Phase

During the Planning Phase, the scope of the project is verified, elaborated and further developed into a workable plan for implementation. In practical terms during this Planning Phase:

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

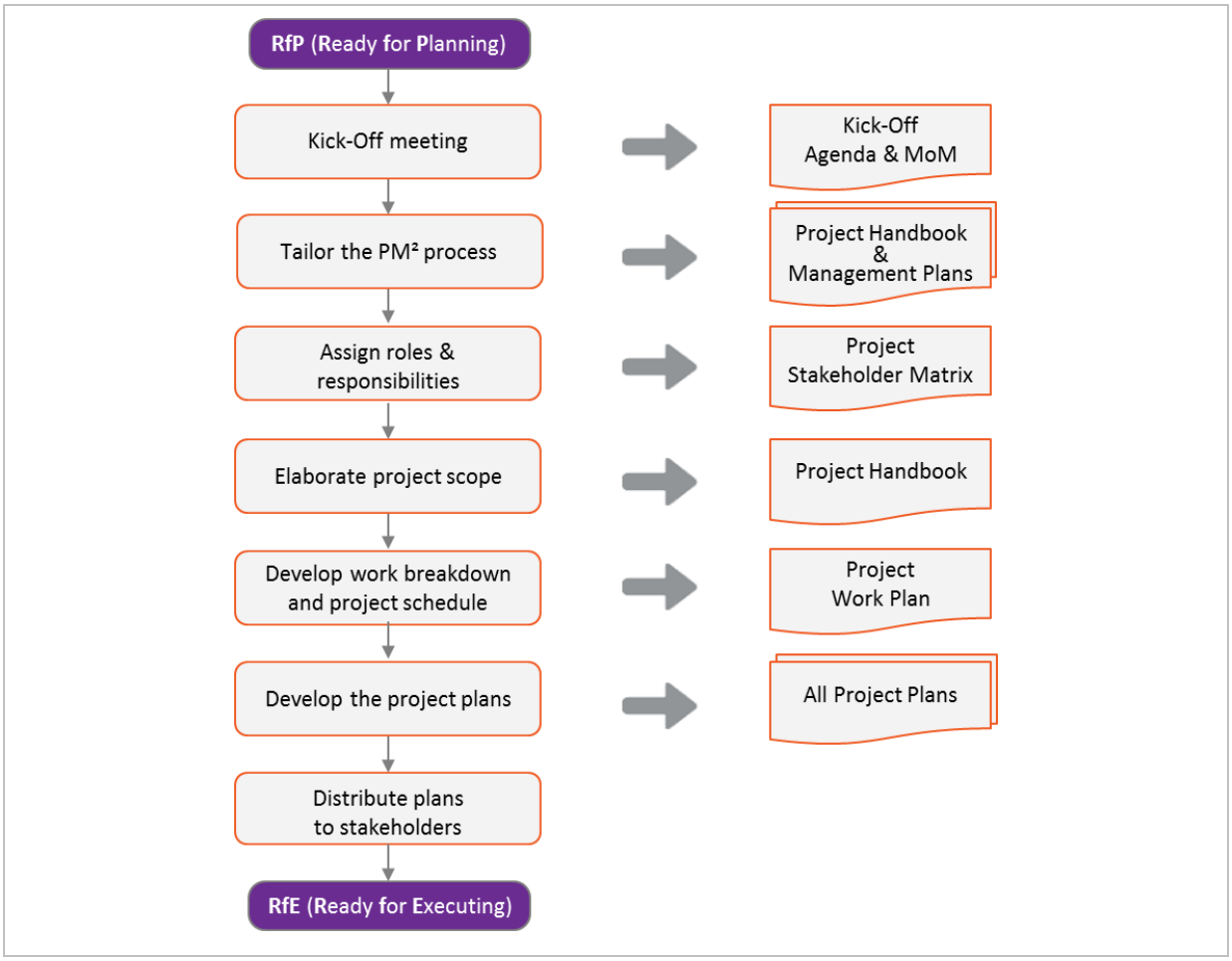

Fig 6.1 Planning Phase: Activities and main outputs

The majority 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 (Standard) Plans	These plans define the processes to be used (e.g. Risk Management Plan). PM² provides these plans along with guidelines for their tailoring and customization to the project context and needs.
Project (Specific) Plans	These plans are specific to the project (e.g. Project Work Plan) and are built based on the 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 of the project (e.g. system models (IT Projects), architectural layouts (moving projects), etc.

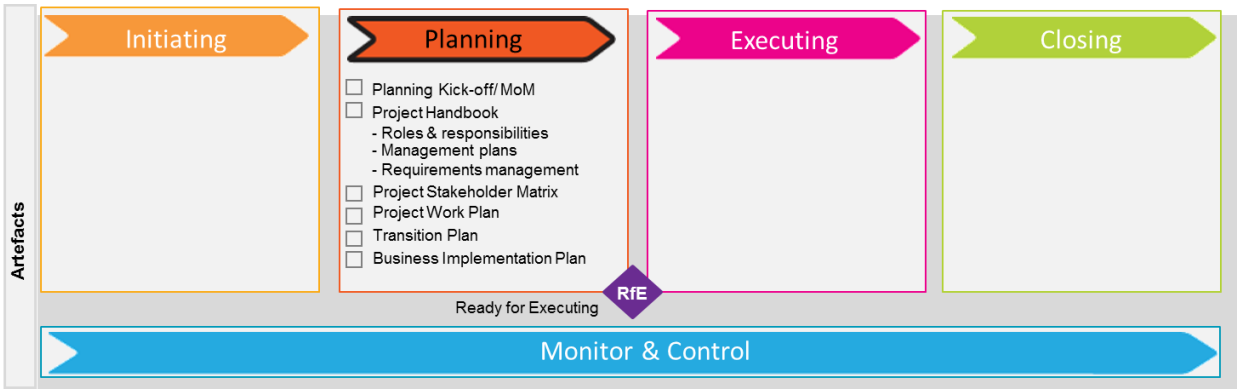

Fig 6.2 Planning Phase artefacts

Phase Gate: RfE (Ready for Executing)

The Planning artefacts have to be approved by the Project Owner (PO), and he makes a decision, in collaboration with the Solution Provider (SP) and the Project Manager (PM), whether the project is ready to move to the Executing Phase, or not.

In the case where major deviations from the approved documents of the Initiating Phase are identified (e.g. Project Charter), then the Project Manager (PM) is required to 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 is initialised with an official Planning Kick-off Meeting. The aim of the Planning Kick-off Meeting is to clearly understand the project scope, set the expectations of all the key project stakeholders, identify project risks and discuss the project plans for the project. At this early stage, past experiences, and especially Lessons Learned documents from previous similar projects will provide significant help to the team.

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

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 project's needs).

Inputs

- Business Case.
- Project Charter.

Steps

Before the Planning Kick-off Meeting:

1. Plan the meeting.
2. Determine the Planning Kick-off Meeting Agenda and the points to be discussed.
3. Send out the Meeting Agenda in advance.
4. Ensure presence of the participants.
5. Prepare any logistical needs, documentation or hand-outs that will help 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.
   - Be able to compile and send out the Minutes of Meeting to the participants.
3. Walk the participants through the Project Charter in order to understand the project scope.
4. Outline the goals, expectations and activities for the Planning Phase, and discuss the high-level project timeline.
5. Communicate and discuss the roles and responsibilities for the project.
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 of 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 (input from the Project Support Office).
12. Any other points (questions & answers).
13. Summarise (decisions, actions, and risks).
14. Communicate next steps.

After the Planning Kick-off Meeting:

1. Communicate the outputs of the meeting (Minutes of Meeting) as defined in the Project Communications Management Plan.
2. The Minutes of Meeting should include:
   - A summary of project issues raised in the meeting. These are also logged in the Issue Log.
   - A summary of decisions taken in the meeting. These are also logged in the Decision Log.
   - A summary of project risks raised in the meeting. These are also logged in the Risk Log.
   - Any (proposed) 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

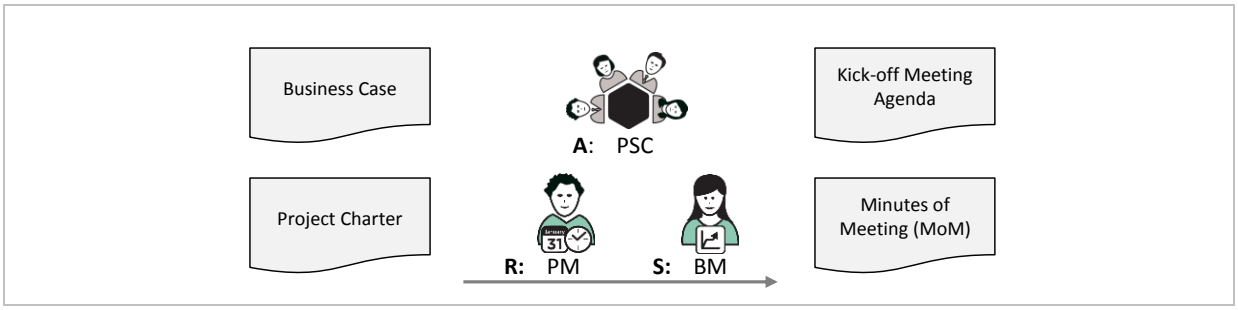

Fig 6.3 Planning Kick-off Meeting – Inputs/Outputs and main roles

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

6.2 Project Handbook

The Project Handbook summarizes the project objectives and documents the selected approach for implementing 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 customized or/and tailored.

The Project Handbook and the Project Work Plan become 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 this artefact.
Business Manager (BM)	Is involved in defining the key elements of the document.
Other project stakeholders	The relevant project stakeholders review this deliverable.
Project Core Team (PCT)	The Project Core Team (PCT) is consulted.

Inputs

- Business Case & Project Charter.
- Planning Kick-off MoM.

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 becomes 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 that can save effort, cost, and time for this project (see the Project Charter).
3. Summarize 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 to the PM² Methodology.
6. Outline the selected delivery approach and its lifecycle (including project specific stages/iterations).
7. Define the specific project management rules that will be applied in the project (agreeable 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

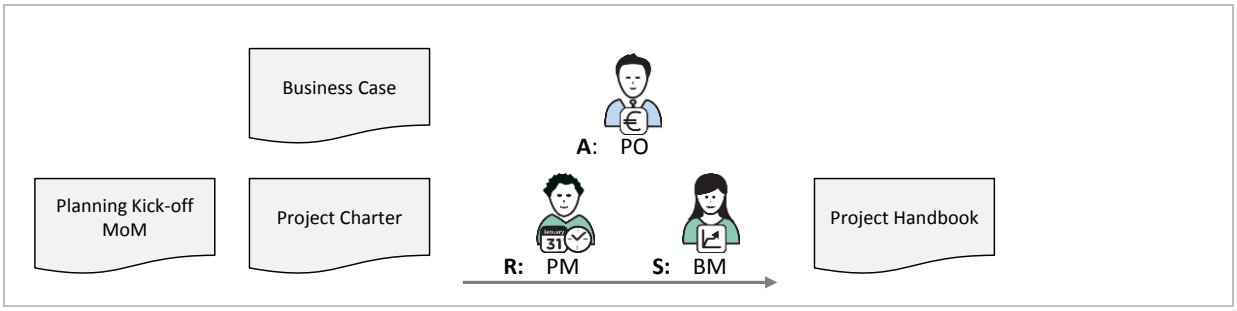

Fig 6.4 Project Handbook – Inputs and main roles

Outputs **PM² Template?**

- Project Handbook. ☑

6.2.1 Project Roles & Responsibilities

The main purpose of the Project Roles and Responsibilities section of the Project Handbook is to document the project 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 the Project Roles and Responsibilities section, the Project Stakeholder Matrix can be then tailored and names 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:

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

Note that a summary of each management plan is already included in the Project Handbook, which might be sufficient for normal projects. In case a more extensive and detailed plan is needed, a separate 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. PM² provides templates and guidelines for all of these plans; however, in contrast to the management plans which only require light customizations and tailoring, these plans usually need to be built from scratch as their content is specific to the project. The optimal set and level of detail included in these Project Plans depends on the type, size and complexity of the project, the project management context and environment, but also on the experience and competences of the project team.

All Project Plans that will be used in the project should be listed in the Project Handbook. The following sections present a complete description of the recommended project plans with steps and guidelines for their development.

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, these artefacts should also 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 (IT projects), architectural layouts (renovation/moving projects), laws/policies (policy projects) etc.

6.2.5 Other

Escalation Procedure

An escalation procedure and tolerances should be defined (and tailored) in the Project Handbook, which can be referenced by other documents (i.e. the Management Plans) to ensure that a consistent escalation approach is documented in one central place.

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 in order to ensure that the appropriate level of management is involved (or at least informed) if an issue cannot be resolved at a lower level.

Requirements Management

This is a section describing what tools and techniques will be used for collecting and managing the requirements of the project. It also lists which documents (plans, logs, etc.) will be generated and used during the project. It clearly defines the roles and responsibilities involved in the Requirements Management process as well as the communication strategy and the relationships with the Change Management Plan and the Quality Management Plan.

In the case where Requirements Management is complicated with multiple stakeholders involved, then a separate Requirements Management Plan can be created.

Resource Needs

The Project Handbook needs to define how the resources (people and material), affected to the project through the Project Charter, will be put in use to serve the project 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 needed skills need to be acquired, the process also has to be described in this section of the Handbook. Finally, the way resources will be released at the end of the project (or when their work is complete) has to be formalized here.

The need for hardware, material and other assets needed for the work will be described here as well. Procurement rules might come from specialized sourcing departments or any other established procurement rules.

Outsourcing Needs

If the decision is made to outsource parts of the project work, it is important to add a section on Outsourcing Planning to the Project Handbook.

The Outsourcing Planning ensures that any products or services outsourced outside the organisation fulfil the project needs. It identifies the contracting strategies that will be used, outlines the scope of products and/or services to be contracted and identifies responsibilities for the full contract lifecycle.
This section should describe what items will be outsourced and under which conditions, who can sign the contracts, negotiate with suppliers, approve the purchases. It should also provide a timeline for contracted activities and deliverables and identify any documentation deliverable expected from the contractors.

Note that relevant EC procurement processes might supersede this plan. In this case the reference to the EC procedures must be provided.

Business Implementation

It is important to plan how the end-product(s) or service(s) will be integrated in the current business environment, what changes it will bring to it and how the project team needs to prepare that implementation. This plan can be divided in two separate views: One from the business (client) and one from the project team.

The business view can be summarized in a Business Implementation Plan. In case of large projects or high impact on existing processes a separate document can be created. The Business Implementation Plan is usually prepared by the Business Manager(BM) and will outline all the organisational change management activities that the business needs to go through, to implement (or integrate) the new product or service (like training, moving, communicating, etc.). This will largely increase the adoption of the change and thus the chances to harvest the expected benefits of the project.

On the other side, the Project Manager needs to prepare for a smooth transition from the current status towards the new status. This is done with a Transition Plan. For large or complicated transition a separate document can be created. The plan contains all the necessary actions to be performed (in the correct order) and also foresees a return to the current situation in case the transition is unsuccessful.

6.3 Project Stakeholder Matrix

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

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

Key Participants	Description
Business Manager (BM)	Support the Project Manager (PM) particularly regarding the requestor side stakeholders.
Project Manager (PM)	Prepares this artefact.
Other project stakeholders	Relevant project stakeholders are consulted.

Inputs

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

Guidelines

PM² provides a Project Stakeholder Matrix template. The template includes the standard project roles organized in 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 functions (e.g. User, Functional Architect, Analyst).

Steps

1. Based on the organisational structure for this project, identify all the persons that will have a role in the project delivery.
2. Associate all the persons with a specific role assigned for the project according to 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

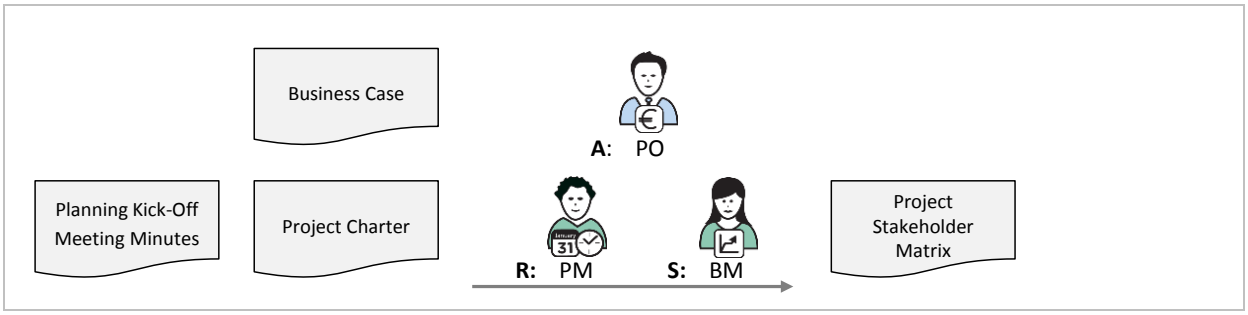

Fig 6.5 Project Stakeholder Matrix - Inputs and main roles

Outputs

- Project Stakeholder Matrix

PM² Template?

☑

6.4 Project Work Plan

The Project Work Plan identifies and organises the project into activities, sub-tasks, and work packages needed to achieve the project goals. It establishes a base to estimate the duration of the project, determine the required resources and schedule the work. Once the tasks are scheduled, the Project Work Plan will be used as the basis to monitor the progress and control the project.

Key Participants	Description
Project Manager (PM)	Is responsible for the coordination of all activities involved in the development of the Project Work plan (i.e. work breakdown, estimation of cost/effort and scheduling of the project activities).
Project Core Team (PCT)	The Project Core Team (PCT) supports the PM in this activity.
Project Support Office (PSO)	The PSO may also provide technical advice (e.g. for scheduling).

Inputs

- Business Case & Project Charter.

Guidelines

The Project Work Plan is comprised of three parts:

1. **Work Breakdown:** The Work Breakdown is a hierarchical decomposition of all the work that must be done to meet the needs of the customer.
2. **Effort & Cost Estimates**: Estimate resource needs (e.g. type, skills, etc.) and effort duration for each project task depending upon resource availability and capability. This will be an input to the development of the schedule.
3. **Project Schedule:** The schedule will be used to plan and implement the project tasks and monitor the progress of the project.

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

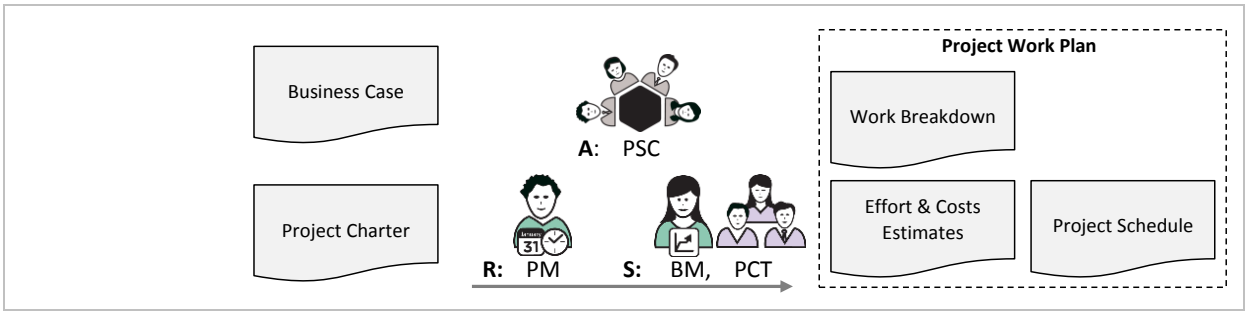

Fig 6.6 Project Work Plan – Inputs and main roles

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

6.4.1 Work Breakdown

The objective is to break down the project into smaller and more manageable components such as deliverables, work packages, activities, and tasks. Each lower level of the representation 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 breakdown techniques described in more detail in the PM² Tools & Techniques publication.

Inputs

- Business Case & Project Charter.
- Project Requirements.

Outputs

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

6.4.2 Effort & Costs Estimates

The objective is to estimate the effort for each project task of the Work Breakdown based on resource availability and capability. This will be an input to the development of the schedule. Effort and cost estimating techniques are described in more detail in the PM² Tools and Techniques document.

Inputs

- Project Work Plan (Work Breakdown).

Outputs

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

6.4.3 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 for the entire project upfront or for portions thereof, such as individual stages or iterations. The Project Manager (PM) uses the produced schedule to assign and coordinate the implementation of the project tasks, and to monitor and control project progress. Project scheduling techniques are described in more detail in the PM² Tools and Techniques document.

Inputs

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

Outputs

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

6.5 Transition Plan

The Transition Plan defines the pre-requisites of rolling out the new "solution". This is useful to ensure the smooth transition from the "project" to the "going live" mode.

Participants	Description
Project Manager (PM)	Prepares this document.
Project Core Team (PCT)	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

The steps to be followed for developing the Transition Plan are the following:

4. Identify the roles and responsibilities of all aspects of the transition process.
5. Document the prerequisites of what must be completed before transition can start.
6. Define what must be achieved in order for the transition to be concluded.
7. Develop a schedule for all transition activities.
8. Determine any backups needed prior to the start of any transitioning activities.
9. Define what needs to be prepared in the environment (e.g. necessary testing etc.).
10. Analyse any system and data conversion impact.
11. Determine any coordination need between teams.
12. Define any transfer of responsibility for the deliverables from the Project Core Team (PCT) to the Project Owner (PO) and support staff.
13. Ensure that maintenance support is foreseen.
14. Define the formal approval of business interruptions by the Project Owner (PO).
15. Ensure that business interruptions are communicated in a timely fashion.
16. Ensure that a formal announcement of the transition is planned.

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

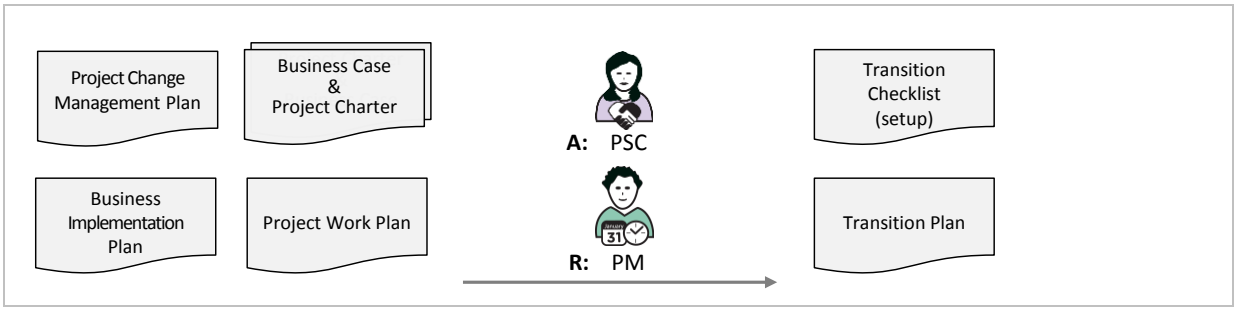

Fig 6.15 Transition Plan – Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Implementation Management		Transition Plan		Transition Checklist	

Outputs

- Transition Plan.
- Transition Checklist (setup).

PM² Template?

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6.6 Business Implementation Plan

The Business Implementation Plan outlines the impact of the project on the organisation along with the change management activities that need to take place. The organisation must assure that the normal operations are not disrupted by the project, and that the project outputs are effectively integrated into the organisation. A change management plan is devised to ensure the above and increase the chances of achieving the desired project outcomes and benefits.

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

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 for the impact analysis and are involved in the execution of the business implementation activities.
Project Owner (PO)	Reviews and approves the document.

Inputs

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

Steps

1. Understand the current/future states and analyse the impact of the project implementation to the business, the processes, the people and the culture of the organisation.
2. Plan the redesigning or updating of any affected business processes.
3. Devise a communications strategy and define activities for change management.
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 those change implementation (and change sustaining activities) to be implemented by the permanent organisation at a post-project stage or 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

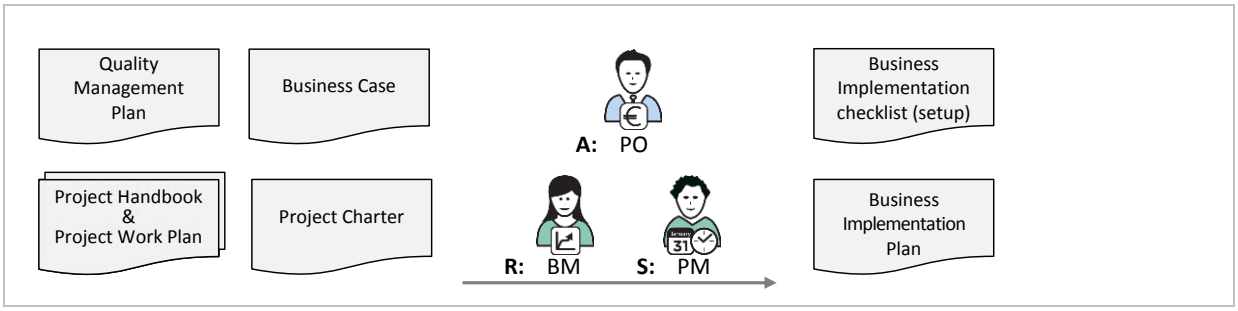

Fig 6.14 Business Implementation Plan – Inputs and main roles

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

Outputs

- Business Implementation Plan.
- Business Implementation Checklist (setup).

PM² Template?

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7 Executing Phase

During the Executing Phase the Project Core Team (PCT) executes the work as 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 Management Plan).

- The Executing Phase starts with a Kick-off Meeting that aims to bring everyone involved in the project on the same page regarding the activities and expectations of 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.

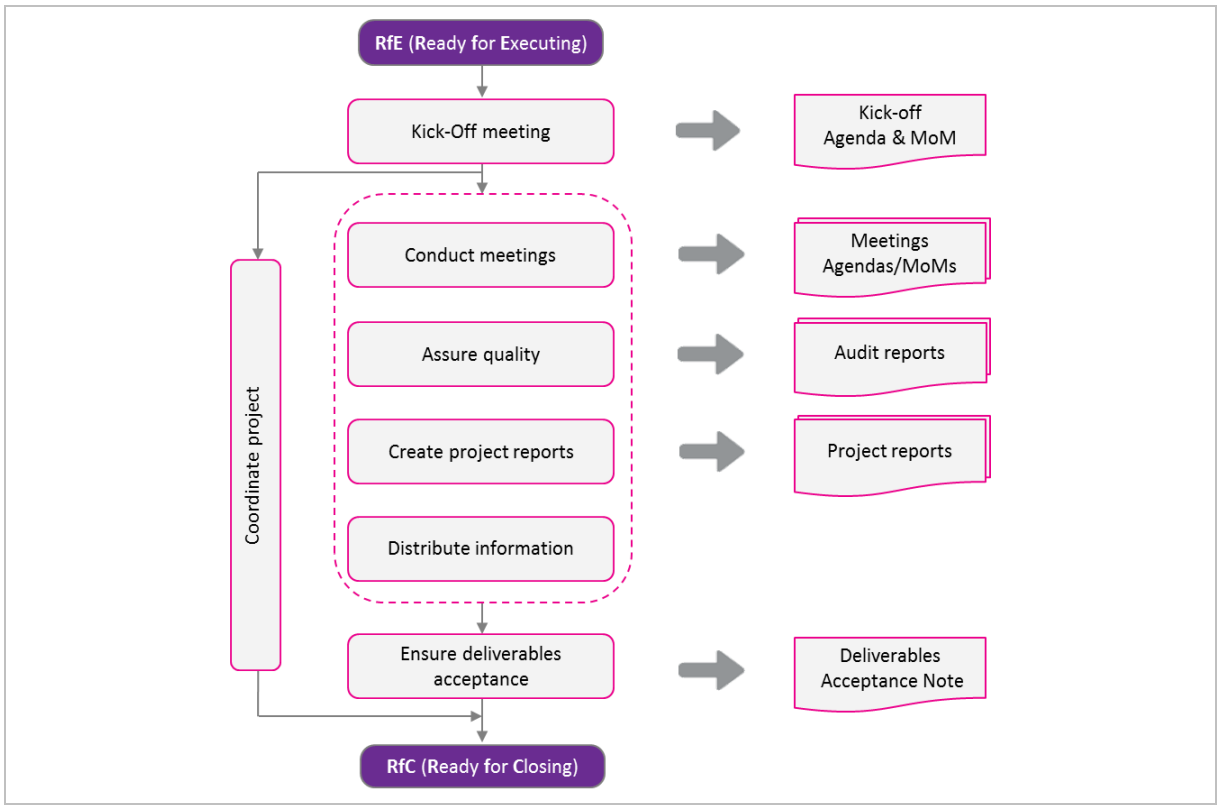

Fig 7.1 Executing Phase: Activities and main outputs

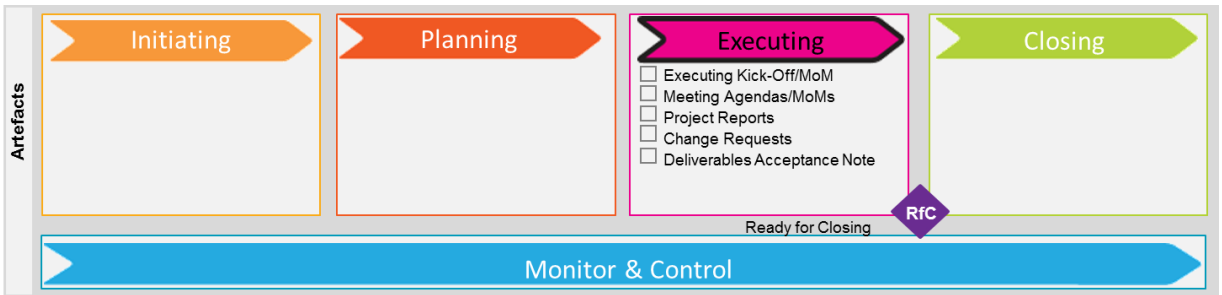

Fig 7.2 Executing Phase artefacts

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 the above have been satisfied the project is ready to move to the Closing Phase.

7.1 Executing Kick-off Meeting

The Executing Phase is launched 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 document(s).

Steps

Before the Executing Kick-off Meeting:

1. Plan the meeting.
2. Determine the Executing Kick-off Meeting Agenda and 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. Prepare any logistic needs, documentation or hand-outs that will facilitate 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 at the appropriate level of detail.
3. Present the Communications Management Plan.
4. Agree on the conflict resolution process.
5. Present the escalation procedure (in case conflicts or issues arise).
6. Present the Project Stakeholder Matrix.
7. Present the Risk Management, Issue Management, Project Change Management processes and the Quality Assurance & Control activities.
8. Clarify the expectations for the Project Core Team (PCT).
9. Communicate the team ground rules for working (communications via email, meetings, phone, meeting minutes to be produced, availability hours etc.).

After the Executing Kick-off Meeting:

Communicate the meeting minutes. The Minutes of Meeting should include:

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

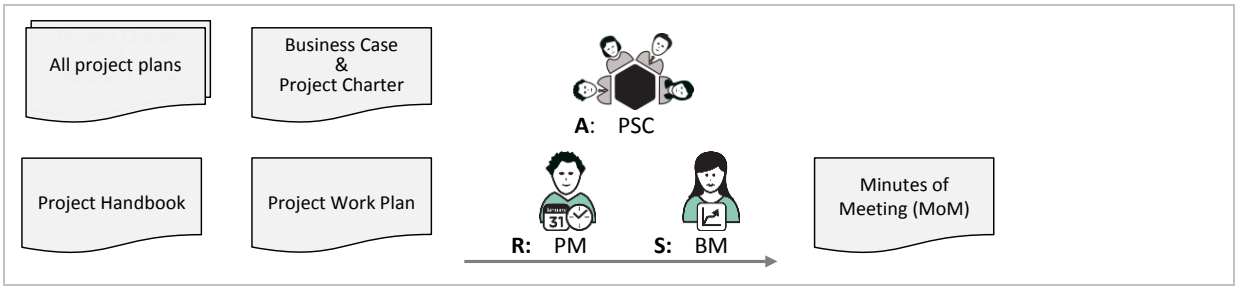

Fig 7.3 Executing Kick-off Meeting – Inputs/Outputs and main roles

Outputs

- Minutes of Meeting (MoM).

PM² Template?

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7.2 Project Coordination

The objective of project coordination is to facilitate the project's progress through the continuous provision of information to the Project Core Team (PCT) and the support of the completion of assigned work.

Project coordination includes the allocation of project resources to activities, performing continuous quality checks of the interim results of work, 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 application of appropriate people management techniques.

Key Participants	Description
Project Manager (PM)	Responsible for all project coordination activities.
Assistant Project Manager (APM)	Supports (if applicable).
Business Manager (BM)	Can support (or contribute to) this activity 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 the closing of the project; however, the intensity of project coordination peeks during the Executing Phase.

Steps

1. Manage and direct the 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) for the purposes of facilitating 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

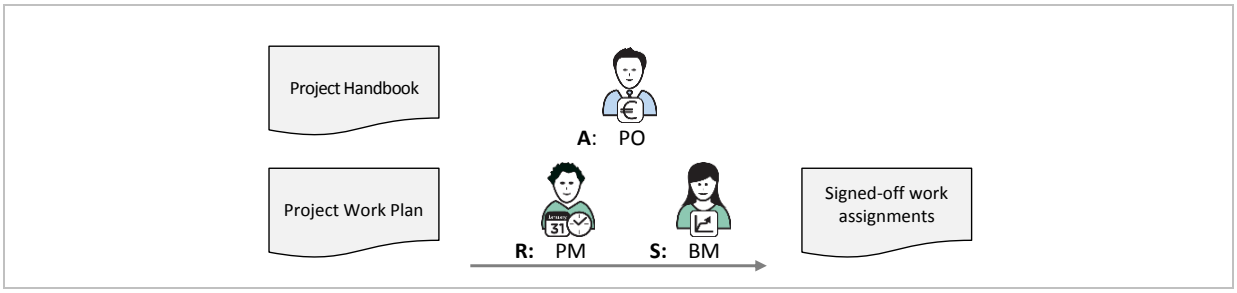

Fig 7.4 Project Coordination – Inputs/Outputs and main roles

Outputs

- Signed-off work assignments.

7.3 Quality Assurance

Quality Assurance (QA) is the activity of providing the evidence needed to establish quality in work and therefore provide enough 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 a Project Quality Assurance (PQA) person, and by various project roles (e.g. Project Core Team (PCT), Business Manager (BM), Solution Provider (SP))
- Externally: audits by external (to the project) entities.

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

Inputs

- Quality Management Plan.
- Project Work Plan.

Guidelines

1. The Project Manager (PM) ensures that Quality Assurance activities are performed.
2. These Quality Assurance activities must be part of the Project Work Plan.
3. The Project Quality Assurance (PQA) establishes quality assurance standards, reviews outputs and project deliverables.
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**

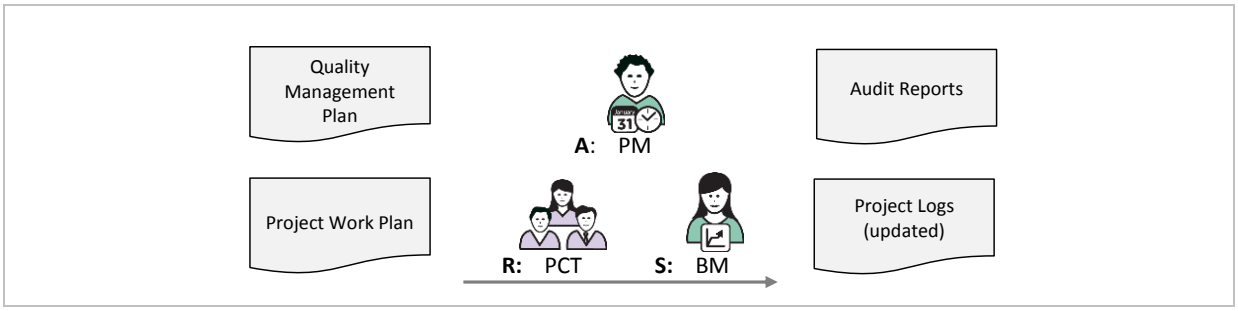

Fig 7.5 Quality Assurance – Inputs/Outputs and main roles

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

- Audit Reports.
- Project Logs (updated).
- Quality Review Report

PM² Template?

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☑

7.4 Project Reporting

The purpose of all Project Reports is to document and summarize the status of various dimensions of the project progress for the purpose of communicating it with 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.
The reports may also contain agreed project quality indicators and metrics for quantifying progress and forecasts on project evolution. The Project Manager (PM) reports the status (and forecasts) of the project to the project stakeholders with the appropriate level of detail. The formal communication of the reports is performed via appropriate project follow-up meetings and progress review meetings and via the Information Distribution activity as per the Communications Management Plan.

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

Inputs

- Project Handbook.
- Project Work Plan.
- Communications Management Plan.
- Project Logs.
- Project Checklists.
- The outputs from Monitor Project Performance.

Guidelines

Project Reports become an important input for project controlling and decision making during the project. They are also an input to the Project-End Review and an important means of capturing historical information, and therefore, should be properly archived during the closing phase.

Project Reports should be tailored to every project's needs as they should serve the information and communication needs of the projects.

Steps

1. Define in the Project Handbook all the reports to be used in the project. PM² provides templates for the Status and Progress Reports.
2. Make sure that the report templates used are effective in satisfying their purpose.
3. Make sure that content, information granularity (level of detail) and format of the report is well thought 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

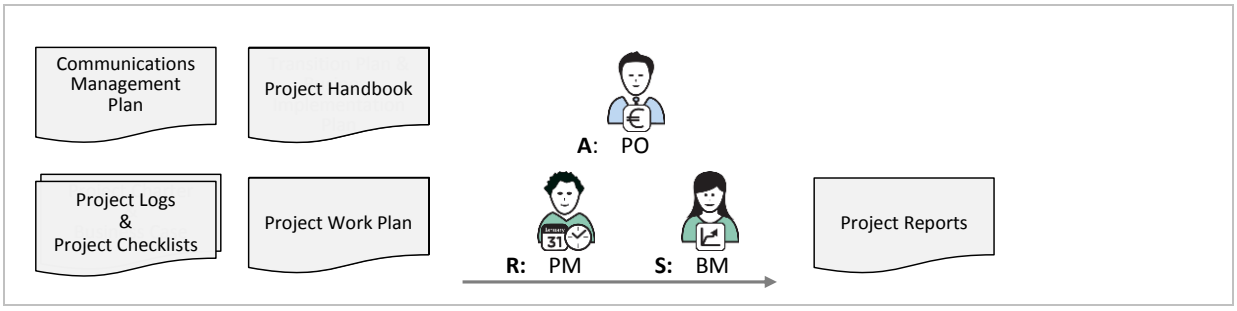

Fig 7.6 Project Reporting – Inputs and main roles.

The following are examples of PM² reports:

- The Project Status Report.
- The Project Progress Report.
- The 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 submitted to the Project Steering Committee (PSC) and other stakeholders on a regular basis (as per the Communications Management Plan).

The Project Status Report should provide summary information regarding the project performance (rather than detailed task-level information) on a frequent time-base, as stated in the Communication Plan. The report includes tracking information for the cost, schedule, scope/changes, risks, issues, and reports on the status of important milestones for the current reporting period and provides forecasts for future performing periods.

The Project Progress Report

The Project Progress Report provides a high-level overview of the entire project and its actual status. The report 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, then a Project Progress Report can be used for the approval of the project for the next year. However if the vision/scope of the project has changed, an updated Project Charter should (also) be submitted.

The Quality Review Report

The Quality Review Report is produced by the Project Manager (PM) after evaluating the results of the quality assurance activities and the effectiveness of the project quality management process in all relevant project dimensions (i.e. scope, time, cost, quality, project organisation, communication, risks, contracts, and client satisfaction, etc.).

This report should provide an overview of the status of all project quality management activities and present the major quality assurance and control results, non-conformities, opportunities for improvement, recommendations and remediation/improvement actions and their impact and status. The report should also report on the status of important project configuration (assurance and control) activities. 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 applicable) and should be submitted on a regular basis (as agreed) to the Project Manager (PM). The report presents the status for the current reporting period and provides forecasts for future performing periods, along with information on new risks, disputes, and issues. Project Manager (PM) should include summary/highlights of these reports in the Project Status Report.

Custom or Ad-Hoc Reports

Reports should serve the particular needs of the projects. Therefore, if a certain custom report needs to be defined during the planning phase then this should be documented in the Project Handbook. Such custom reports could be domain specific (e.g. IT domain) or project specific (i.e. related to the particularities of the project organisation or the project management approach).

Similarly, if during the project an explicit communication/reporting need arises, then Ad-Hoc reports can also be generated to address this need.

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

7.5 Information Distribution

The purpose of information distribution is to facilitate the regular communication of project information to the project stakeholders as per the Communications Management Plan and the emerging needs of the project.

Key Participants	Description
Project Support Office (PSO)	Manages internal communication and administers Project Management aspects such as document change control, baseline of plans, etc.
Project Manager (PM)	Responsible that the Project Core Team (PCT) has all the necessary information to execute its tasks.
Other project stakeholders	Informed about the project and they also inform the project team for any external (to the project) factors 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 executing of the project plans, is communicated to appropriate parties at the right time and in the appropriate format.
- When meetings are used for information distribution, arrange the frequency of meetings taking into account the timetable for the project and the need for regular communication.
- Ensure alignment of stakeholders by communicating Status and Progress Reports on how the project is evolving in comparison to its baseline schedule and budget.

Steps

1. Execute the Communications Management Plan.
2. Communicate updates of the Project Work Plan.
3. Communicate any changes/updates to any of the key project documents and logs.
4. Send out the Project Reports as per the Communication Management Plan.

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

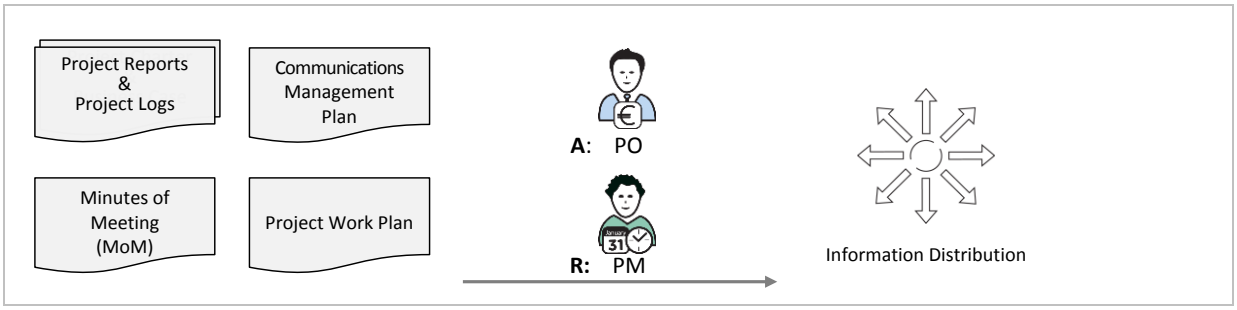

Fig 7.7 Information Distribution – Inputs/Outputs and main roles

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8 Monitor & Control

Monitor & Control transcends all project phases. It includes all activities performed 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

- Monitor the on-going project activities.
- Measure the project dimensions (scope, schedule, cost and quality) and compare them against the Project Plan and the project performance baseline (check current status compared to the plans).

Control

- Identify, plan and implement actions to address issues and risks.
- Apply integrated change control so only approved changes are implemented.

Monitor & Control Activities and Artefacts

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

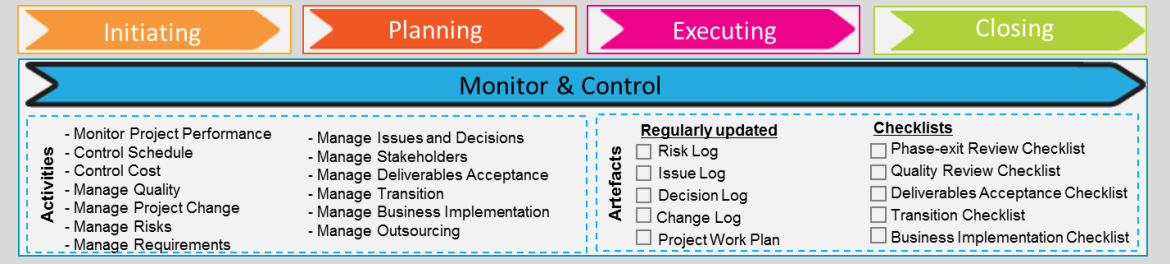

Fig 8.1 Monitor & Control: Activities and main artefacts

Regularly updated:

- The Project Logs are regularly updated as new information becomes available at any time during the project (e.g. new issues can be raised and new information can be added to existing issues in the issue log).

Checklists:

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

In the following sections, the Monitor & Control activities are presented. These activities are executed according to the Project Management Plans which have been developed (i.e. PM² templates tailored and customized) during the Planning Phase. The effective execution of these plans is the responsibility of the Project Manager (PM).

8.1 Monitor Project Performance

The objective of monitoring the project performance is to be in a position to know whether the project is advancing satisfactorily. The Project Manager (PM) tracks project dimensions (scope, schedule, cost and quality), monitors risks, project change and overall project performance, and should be in a position to report and forecast project evolution to the project stakeholders.

This information is then made available (distributed) to the necessary 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 with information concerning 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. Use the baselined Project Work Plan as a reference for monitoring. The critical path and related issues are a subject of particular attention.
2. The Project Core Team (PCT) exchanges information regularly with the Project Manager (PM) about current status and next steps of the project 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 tasks running or planned.
   - Key outputs:
     - Deliverables completed and verified.
     - Milestones achieved as planned.
   - Resource utilisation/consumption:
     - Resources used as planned.
     - Costs as budgeted.
   - Status of key logs:
     - Risks and Issues status and progress.
     - 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

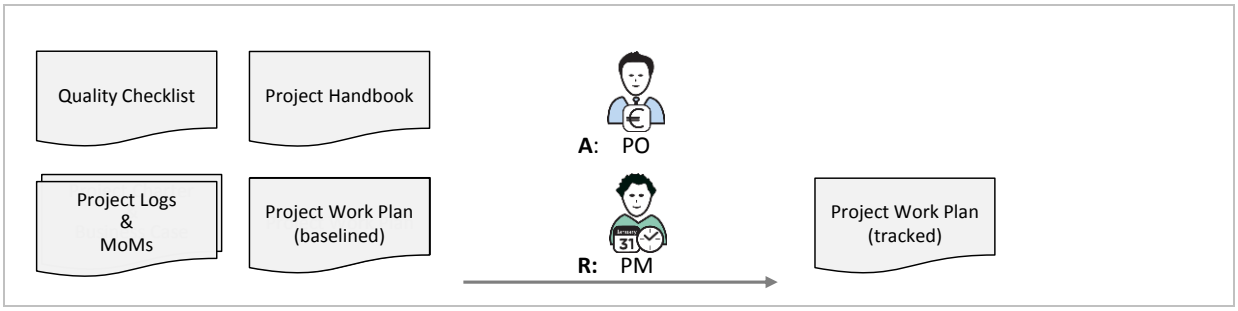

Fig 8.2 Monitor Project Performance – Inputs/Outputs and main roles

Outputs

- Project Work Plan (tracked).

PM² Template?

☑

8.2 Control Schedule

The purpose of schedule control is to ensure that project tasks are executed as scheduled and that project deadlines are achieved. The Project Manager (PM) monitors the schedule regularly and tracks the difference between planned, actual and forecasted schedule/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. In this case, affected project stakeholders should also be notified.

Key Participants	Description
Project Manager (PM)	Responsible to monitor and control the work schedule.
Project Core Team (PCT)	Reports periodically or upon request the status of their work.

Inputs

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

Steps

1. Track the evolution of tasks in the project 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 in order 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) attempts to conform to the baselined schedule and quality while performing the tasks assigned to them.
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 on 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

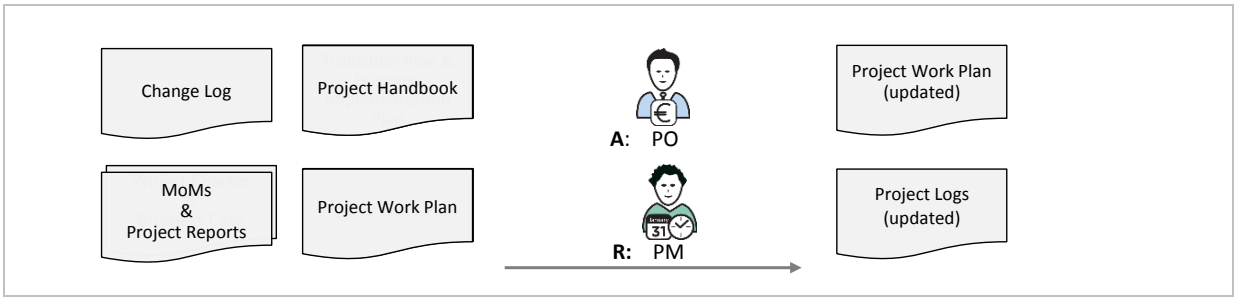

Fig 8.3 Control Schedule – Inputs/Outputs and main roles

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 they are in-line with the cost/effort base-line and overall project budget constraints. The Project Manager (PM) monitors the budget regularly 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. In the case where considerable cost overruns are foreseen, then these need to be justified, reported to and approved by the Project Owner (PO) or Appropriate Governance Body (AGB).

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

Key Participants	Description
Project Manager (PM)	Responsible to monitor & control 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 controlling periods).

Steps

1. Track the effort/overall budget consumption in the project as defined in the Project Handbook.
2. Review the project budget with the Project Owner (PO) regularly.
3. Evaluate and communicate the deviations between budgeted cost and actual project costs. Important deviations 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 target.
5. In the case where the project budget needs to be considerably revised, then this needs to be justified and documented (e.g. in the Project Progress Report) and a 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's schedule, risk or quality, this needs to 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

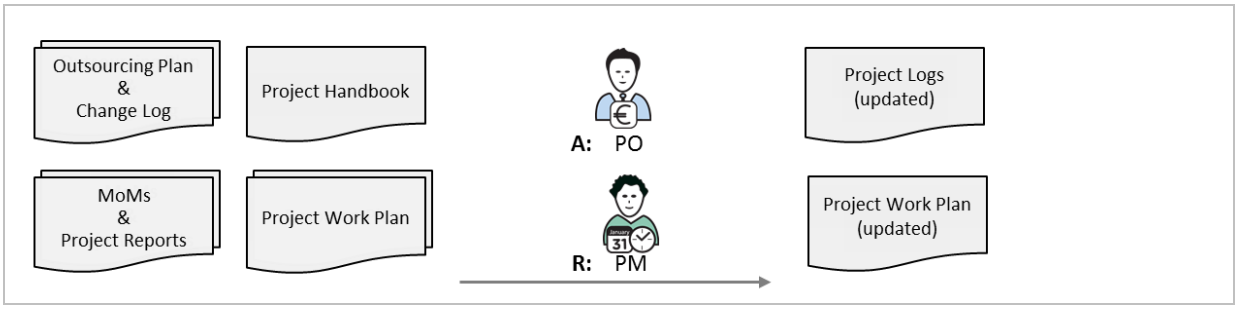

Fig 8.4 Control Cost– Inputs/Outputs and main roles

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 very early in the project lifecycle (initiating phase) while identifying project expectations and requirements, and ends with capturing stakeholders' overall project experience and satisfaction (closing phase).

The responsibility for this activity belongs to the Project Manager (PM); however, the Project Steering Committee (PSC) should be actively involved, and in particular the Business Manager (BM) who should help to manage those stakeholders closer to the requestor side (e.g. users).

Key Participants	Description
Project Manager (PM)	Responsible to manage the 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 the key project stakeholders.
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 re-strategize and manage accordingly. A one-off analysis exercise is not enough, especially for longer term or/and complex projects. Use the Stakeholders Checklist to verify if there are specific actions to be taken at any moment in the project.
4. Ensure that any planned stakeholder management activities are time-bound and focused. Keep in mind that the contribution/involvement of the various stakeholders may be different in each of the phases of a project.
5. The Communications Management Plan should be aligned with Stakeholder Management needs, particularly with those related to 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

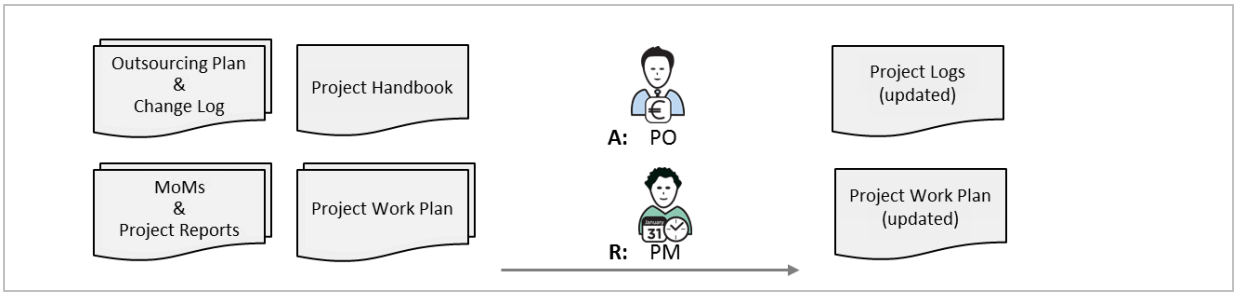

Fig 8.5 Manage stakeholders - Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Stakeholder Management	Business Case Project Charter	Project Stakeholder Matrix Communications Management Plan		Stakeholder Matrix Issue & Decision 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, validating requirements and controlling their implementation and change. Managing requirements 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 Requirement Management Process can be tailored and customized 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, categorize and prioritise the requirements. These can be standalone documents or an annex to the Project Charter.

Key Participants	Description
Project Manager (PM)	Manages the requirements.
Business Manager (BM)	Is the source of the requirements and approves them.
User Representatives (UR)	Participate in the requirement gathering.
Business Analyst (BA) as part of the Project Core Team (PCT)	Documents the requirements.

Inputs

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

Guidelines

- A requirement is a capability that a product or service is required to have in order to satisfy the stakeholder's need(s).
- High-level requirements may also be referred to as business requirements, usually expressed initially in the Project Initiation Request, the Business Case and in the Project Charter.
- Further detailing of the requirements result in the 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 graphic, 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 start of the project, it still is the Project Manager's (PMs) responsibility to ensure their proper management.

Steps

1. **Specify Requirements:** gather the project requirements together with the project stakeholders and document them unambiguously in the Requirements Artefacts. Structure them by adding relevant metadata.
2. **Evaluate Requirements:** the project team assesses the feasibility, consistency and completeness of the requirements, and estimates the effort/costs to realise them. The Project Manager (PM) balances the list of requirements with the other project constraints (budget, time, etc.) and proposes them to the project stakeholders.
3. **Approve Requirements:** the Project Manager (PM) negotiates and agrees the requirements that will be realized during the project with key stakeholders, such as the Project Owner (PO) or the Business manager (BM). The approved requirements become the baseline of the project's scope.
4. **Monitor Requirements Implementation:** the Project Manager (PM) continuously monitors the implementation of the requirements by the Project Core Team (PCT), besides the discovery of new requirements or changes to existing requirements.
5. **Validate Implemented Requirements:** when the requirements are implemented the solution is validated by the business user in order 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

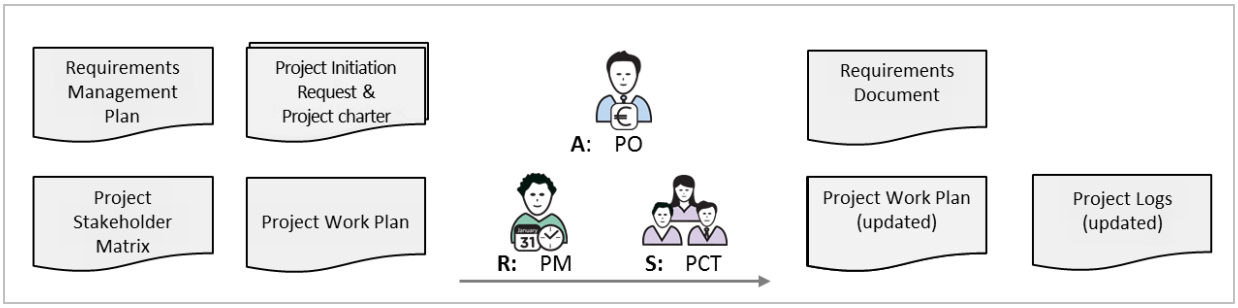

Fig 8.14 Manage requirements - Inputs/Outputs and main roles

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

Outputs

- Requirements Document

PM² Template?

-

8.6 Manage Project Change

Project change management defines the activities related to identifying, documenting, assessing, approving, prioritising, 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 of the project.

The Project Change Management Process can be tailored and customized 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 the project changes and serves as a means to track and communicate them to the Project Owner (PO) and/or Project Steering Committee (PSC) for approval.

Key Participants	Description
Project Manager (PM)	Monitors and controls the project changes.
Project Owner (PO) and/or PSC	Approve or reject the project changes.
Project Core Team (PCT)	Involved in the analysis of the project changes (estimating the effort required to implement the changes).
Stakeholders	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

6. **Change Identification:** The purpose of this step is to facilitate the identification and documentation of change requests. The Project Manager (PM) ensures that a Change Request is appropriately documented (i.e. Change Request Form and Change Log).
7. **Change Assessment and Action Recommendation:** 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 that change request (i.e. against other change requests).
8. **Change Approval:** The purpose of this step is to achieve a decision regarding the approval for the implementation of the change, according to the project's escalation procedure (i.e. 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 to be considered: Approve, Reject, Postpone, or Merge the change request. The decision details are documented in the Change Log and communicated to the requestor.
9. **Change Implementation:** For the approved or merged changes, the Project Manager (PM) should incorporate the actions related to these changes into the Project Work Plan and update related documentation and logs (i.e. Risk, Issue, Change and Decision Logs).
10. **Change Control:** The purpose of this step is to monitor and control project changes, to be able to easily communicate them to the several project decision layers, for approval or status updates. The Project Manager (PM) should collect any changes to the project or related actions and control the status of each change management activity.
    All project stakeholders affected by project changes are kept informed and the Change Log is 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

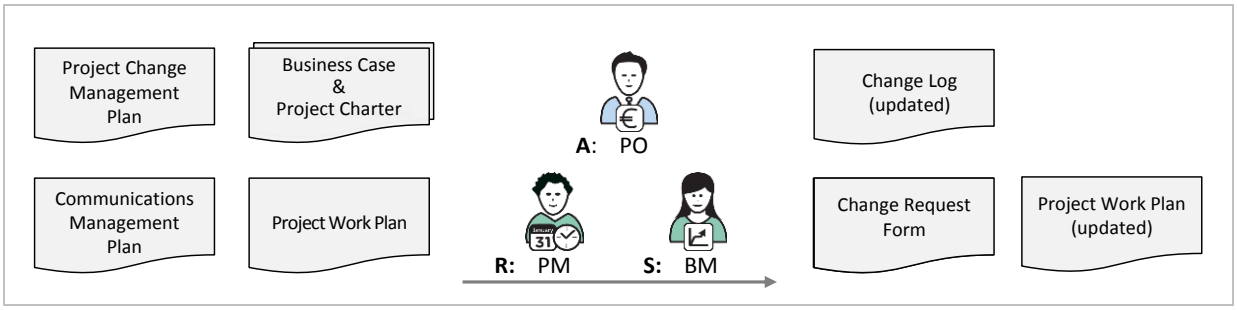

Fig 8.6 Manage Project Change - Inputs/Outputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Project Change Management		Project Change Management Plan	Project Reports Change Request	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 the Appendix B: Project Management Plans and Logs.

8.7 Manage Risks

Risk management is a continuous and systematic process for identifying, assessing, and managing risks in line with the accepted risk appetite. The management of project risks provides increased visibility and confidence in dealing with uncertainty and proactively supports the achievement of the project objectives.

The Risk Management Process can be tailored and customized 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, the relevant risk response actions and responsibilities.

Key Participants	Description
Project Manager (PM)	Monitors and controls the risks.
Other project stakeholders	Informed about the critical risks.
Project Core Team (PCT)	Involved in risk identification and risk response execution.
Other stakeholders	May also identify and communicate risks in their respective areas.

Inputs

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

Steps

1. Ensure that risk management activities are executed as per the Risk Management Plan. The Project Steering Committee (PSC) also monitors projects with high-risk exposure.
2. Perform **Risks Identification**: The purpose is to facilitate the identification and documentation of 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. Perform **Risk Assessment**: The purpose is to assess the severity of the identified risks in terms of their impact on the project objectives. This assessment is necessary before any risk response planning can be done. The medium/high risks are dealt with at a higher priority level.
4. Perform **Risk Response Development**: The purpose is to select the best strategy and identify and plan the actions to manage the risks.
5. **Risk Control**: The purpose is to monitor and control the implementation of the risk response activities.
6. Update the Project Work Plan with explicit risk response tasks if the size and number of these tasks is significant.
7. Report regularly to the Project Steering Committee (PSC) 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

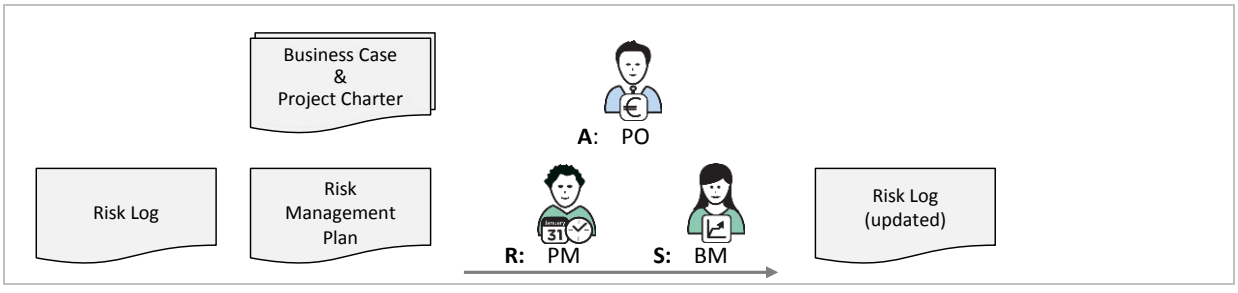

Fig 8.7 Manage Risks - Inputs/Outputs and main roles

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

Outputs

- Risk Log (updated).

PM² Template?

☑

Project Risk Log

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

8.8 Manage Issues and Decisions

The Project Manager (PM) manages project issues and decision. 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 (i.e. Risks, Changes).

Key Participants	Description
Project Manager (PM)	Monitors issues and decides how to manage these issues.
Project Core Team (PCT)	Reviews, takes action and resolves pending issues.
Other project stakeholders	They are informed about important issues and make the 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 executed as per the Issues Management Process.
2. Identify issues and add them to the Issue Log.
3. Escalate the most important issues (high Size or Impact) to the Project Steering Committee (PSC), or follow the defined escalation procedure and thresholds.
4. Update the Project Work Plan appropriately with explicit 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.
7. Report regularly the status to the project stakeholders (as per the Communications Plan).

Steps (to manage decisions)

1. Document decisions taken during the project (particularly during the Executing Phase).
2. Decisions are often linked to the resolution of other log items (i.e. Risks, Issues, and Changes).
3. Depending on their importance, decisions are taken by the Project Manager (PM) or escalated to the Project Steering Committee (PSC).
4. The Project Manager (PM) reports regularly the status of decisions to the project stakeholders.

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

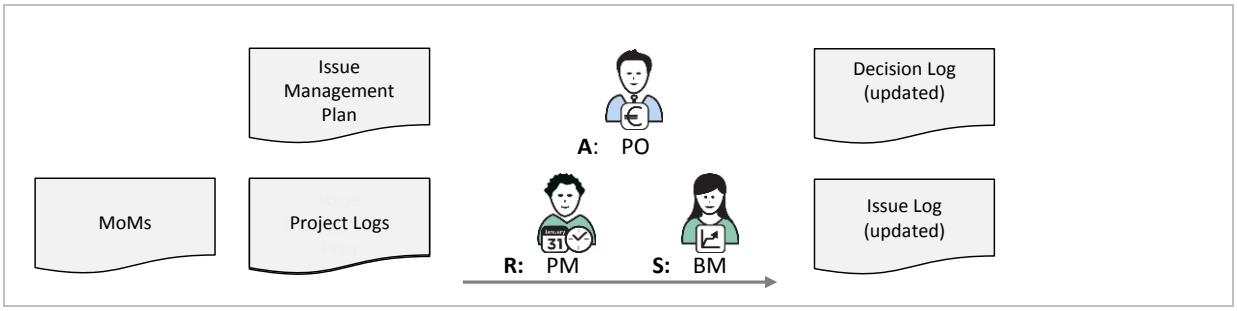

Fig 8.8 Manage Issues and Decisions – Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Issue Management		Issue Management Plan	Project Reports	Project Logs	Project-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 the Appendix B: Project Management Plans and Logs.

8.9 Manage Quality

Project quality management aims to ensure that the current project will meet 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 till the point of the final project acceptance (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 all quality controls are executed and requested.
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 Management Plan.

Steps

1. Define, agree and achieve the project quality characteristics considering project needs, constraints, and cost/benefits analysis.
2. Plan and perform quality assurance and control activities.
3. Verify that the configuration management procedure is being followed.
4. Achieve the active involvement of 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 in both the process and the deliverables.
7. Ensure that all deliverables are accepted by the relevant stakeholders based on a pre-defined/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

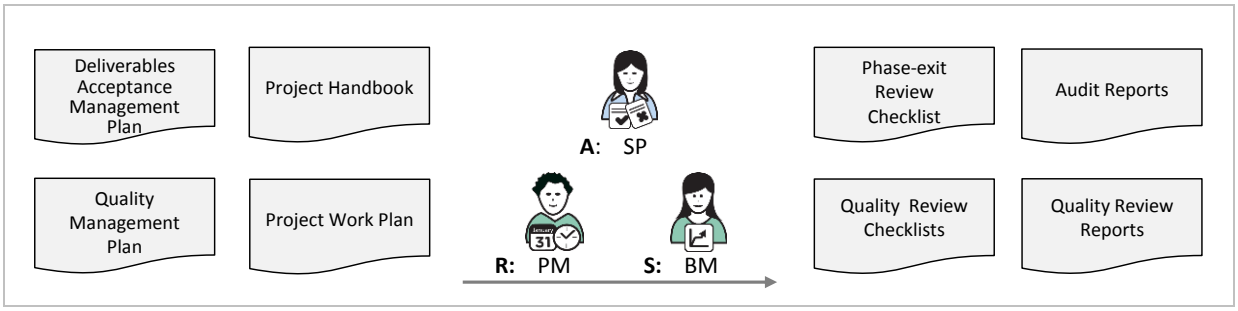

Fig 8.9 Manage Quality - Inputs/Outputs and main roles

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. The deliverables acceptance control ensures that these deliverables meet the predefined objectives and set of criteria defined in the Deliverables Acceptance Management Plan so that the project requestor can formally accept them.

Note that the final project acceptance which is concerned with the acceptance of the overall project, takes place in the Closing Phase.

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

Inputs

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

Steps

1. The Project Manager (PM) ensures:
   - The application of the acceptance procedures and guidelines for performing the acceptance.
   - The provision of the necessary environments, materials and information.
2. The Project Steering Committee (PSC) approves the application of the documented acceptance strategy as well as the acceptance schedule.
3. The project deliverables are accepted if the acceptance activities (as described in the Deliverables Acceptance Management Plan) are successfully performed and within pre-specified tolerances.
4. The project deliverables may be conditionally accepted even with a set of known defects or issues, provided that these are documented and that there is a plan for addressing them.
5. The Business Manager (BM) provides business knowledgeable resources to perform the user-acceptance.
6. The Project Manager (PM) ensures that in addition to the main deliverables any supporting deliverables (such as documentation) are also supplied (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:

- User's manual: a stakeholder with business knowledge representing the business organisation (User Representatives (URs)).
- Operations manual: a stakeholder from the support and maintenance organisation
- Training materials: a stakeholder from the organisation responsible for training.
- Release notes: a stakeholder from the service operations organisation.

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

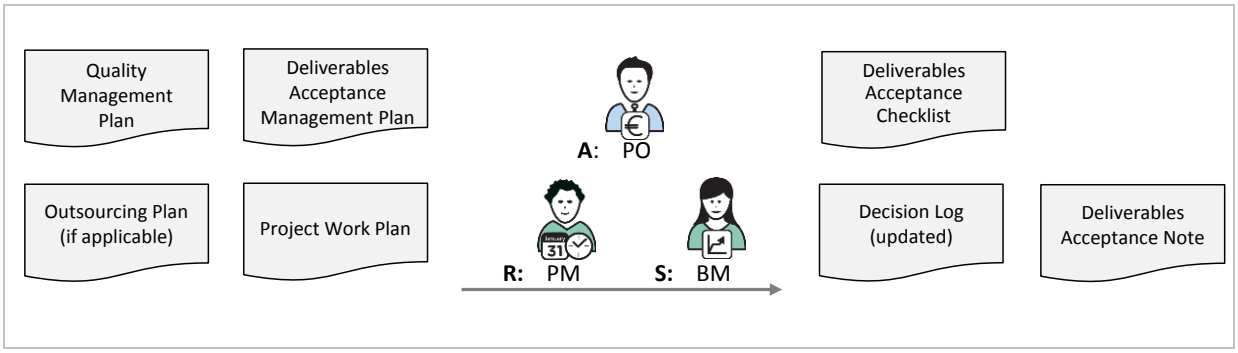

Fig 8.10 Manage Deliverables Acceptance - Inputs/Outputs and main roles

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

Outputs	**PM² Template?**
• Deliverables Acceptance Checklist.	☑
• Decision Log (updated)	☑
• Deliverables Acceptance Note.	-

8.11 Manage Transition

Managing transition 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 a close collaboration with the Business Manager (BM) to ensure the proper transfer of the project deliverables to the ownership of the business.

Key Participants	Description
Project Manager (PM)	Monitors and controls the transition to production.
Quality Assurance (PQA)	Executes the tasks under the lead of the Project Manager (PM).
Other project stakeholders	Informed about the progress and contribute as appropriate.
Project Owner (PO)	Provisionally accepts the product before transition is completed.

Inputs

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

Steps

1. Ensure that the project acceptance criteria are met (hence, all requirements are met and the deliverables are fully operational).
2. Ensure that the Transition Plan is carried out effectively. In cases where no formal Transition Plan exists, the Project Manager (PM) needs to:
   - Identify the various roles and stakeholders that are responsible for the transition process.
   - Identify what must be achieved before the transition can be considered completed.
   - Ensure that any data backups and rollback scenarios are executed if needed.
   - Ensure that any business implementation activities are executed and user training is done.
   - Ensure that delivery of product or service is coordinated, communicated and accepted.
   - Ensure that all maintenance and support activities begin as planned (if applicable).
   - Ensure that all relevant documentation and other material are handed over.
3. Ensure that the Project Owner (PO) has provisionally accepted the deliverables before the transition is completed.
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

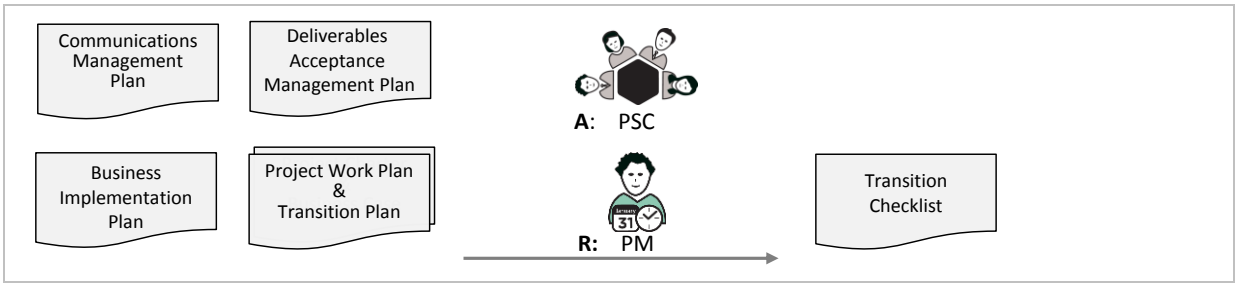

Fig 8.12 Manage Transition - Inputs/Outputs and main roles

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

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

8.12 Manage Business Implementation

The effective execution of all business implementation activities is also critical for smooth operations after the project outputs have been delivered to the stakeholder/user community. To this extend, the business implementation activities are complementary to the transition activities.

Note that business implementation activities will almost always be required long after the project has concluded, so it's a good practice to also define post-project change activities. In this case, the implementation of these activities falls outside the domain of responsibility of the project, and therefore, become the responsibility of the permanent organisation and are implemented as part of on-going 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 tracking.

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. defined, estimated, and scheduled).
3. Manage the execution of all business implementation activities:
   - Redesign or update any affected business processes.
   - Implement the communications activities defined in the Business Implementation Plan.
   - Implement the planned organisational change management activities.
   - Manage the effective completion of any training.
   - Manage any business continuity plans for business critical systems.
4. Report any changes and the status of the business implementation activities.

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

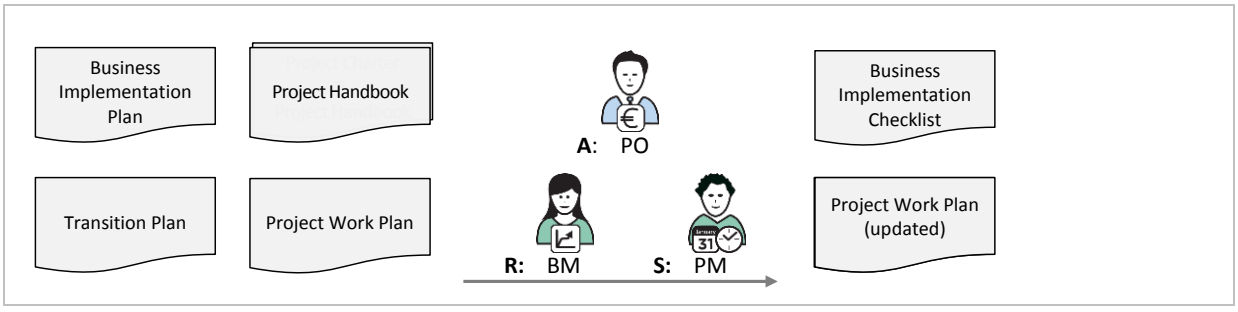

Fig 8.11 Manage Business Implementation – Inputs/Outputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Implementation Management		Business Implementation Plan Transition Plan		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 and works with the Contractor's Project Manager (CPM) to ensure the Contractor delivers acceptable quality of work as defined in the Outsourcing Plan.

Key Participants	Description
Project Manager (PM)	Responsible to manage the contractor(s).
Contractor's PM (CPM)	Delivers 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 organisational Processes and Standards and to the criteria defined for the project.
2. They also ensure that contracts clearly define the expectations for both parties.
3. The Project Manager (PM) ensures that the way of working detailed in the Outsourcing Plan for the specific project is applied.
4. The Project Manager (PM) and/or Project Steering Committee (PSC) validate interim and final deliverables and/or milestones according to criteria agreed and as defined in the Outsourcing Plan.
5. The Project Manager (PM) ensures that the required formal sign-offs are done in a timely manner and according to the organisational standards.
6. The Project Manager (PM) monitors costs and schedules.
7. The Contractor's Project Manager (CPM) reports the project status and progress to the Project Manager (PM) and to 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

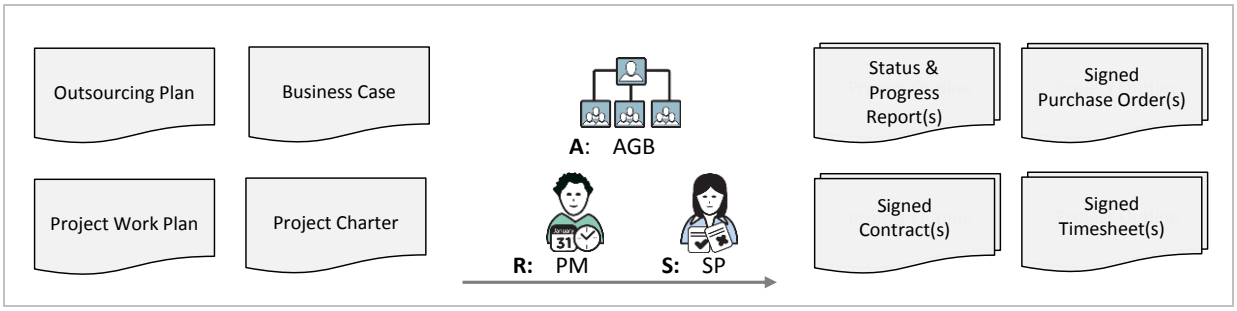

Fig 8.13 Manage Outsourcing - Inputs/Outputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Outsourcing Management		Outsourcing Plan		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's final approval for administrative closure by the Project Owner (PO). 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 or challenges faced during the project, and 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.

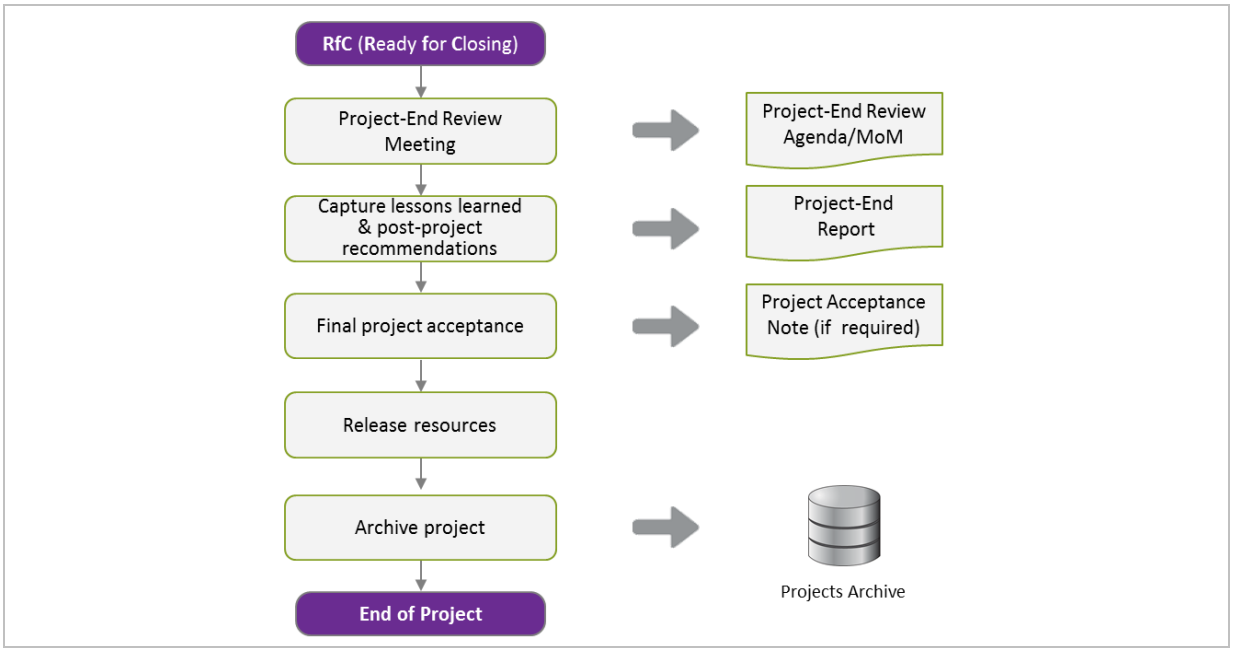

Fig 9.1 Closing Phase: Activities and main outputs

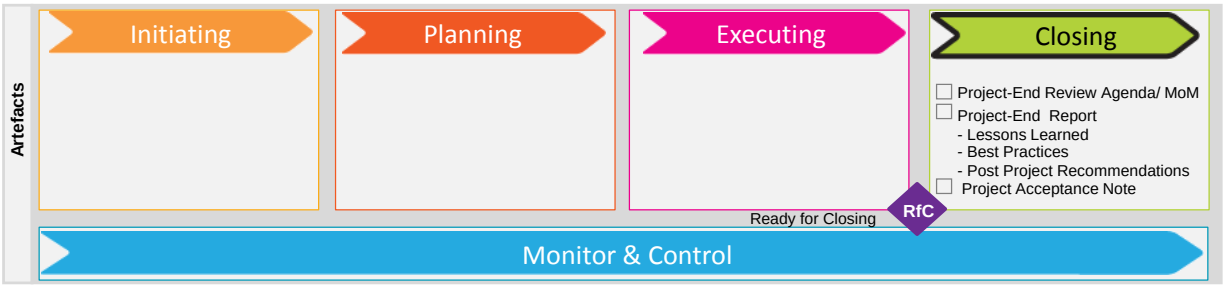

Fig 9.2 Closing Phase Artefacts

Project-End Review

- The Closing Phase is initialised with an official Project-End Review Meeting.
- This meeting launches the closing of the project once the project executing is completed, and 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 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 as completed. The goal of this meeting 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.

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

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

Inputs (used for this meeting)

- 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 determine the Meeting Agenda and the points to be discussed.
2. Send out the Project-End Review Meeting Agenda in advance.
3. Prepare any logistical needs, documentation or hand-outs that will facilitate the meeting.
4. Ensure the presence of the 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 they were addressed.
6. Discuss Lessons Learned and Best Practices that might 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 outputs of the meeting to the relevant stakeholders.

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

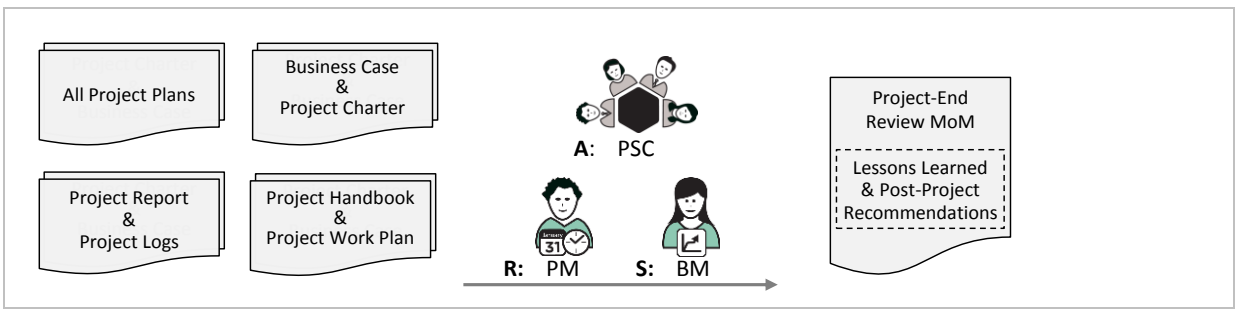

Fig 9.3 Project-End Review Meeting – Inputs and main roles

Outputs **PM² Template?**

- Project-End Review MoM. ☑

9.2 Lessons Learned and Post-Project Recommendations

The purpose of a formalized Lessons Learned and Post-Project Recommendations is to allow projects/project teams as well as the permanent organisation as a whole to benefit from the experience acquired during the project. It's also important to capture ideas and recommendations for post-project work related to the operations of the product/service, such as extensions, maintenance, ideas for follow-up projects, etc.

Note that as improvement opportunities or post-project recommendations can be identified throughout the project, they should be captured in some form, because, particularly for longer projects, these ideas may get lost by the time the project reaches the Closing Phase.

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

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

Due to the individual nature of projects, the Lessons Learned process cannot be a generic process. However, there are common aspects of projects 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 performed as part of the Project-End Review Meeting (and optionally at the end of project phases or major milestones).
- It may be preferable to have someone that hasn't been intimately involved in the project facilitating the Lessons Learned so that the Project Manager (PM) can contribute as a participant.
- Facilitate the discussion through the various aspects of the project in a somewhat organized manner in order to cover all aspects of the project. This could be based on project phases, categories of activities, etc.
- Organize improvement ideas into groups to help the team better visualize the appropriate next steps required to actually implement those improvement ideas.
- In some cases it makes sense to break the Lessons Learned into multiple sessions to focus on specific topics (e.g., technical issues, business implementation, etc.).
- Invite the Project Steering Committee (PSC) as they 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 experience is summarised in a report. Best practices, lessons learned, pitfalls and solutions to particular problems are documented in this report and they should be used as a knowledge base for future projects.

Key Participants	Description
Project Manager (PM)	Writes this 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

The Project Manager (PM) with the help of relevant stakeholders 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 Project Core Team (PCT) and of the participating organisation as a whole.
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 with 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

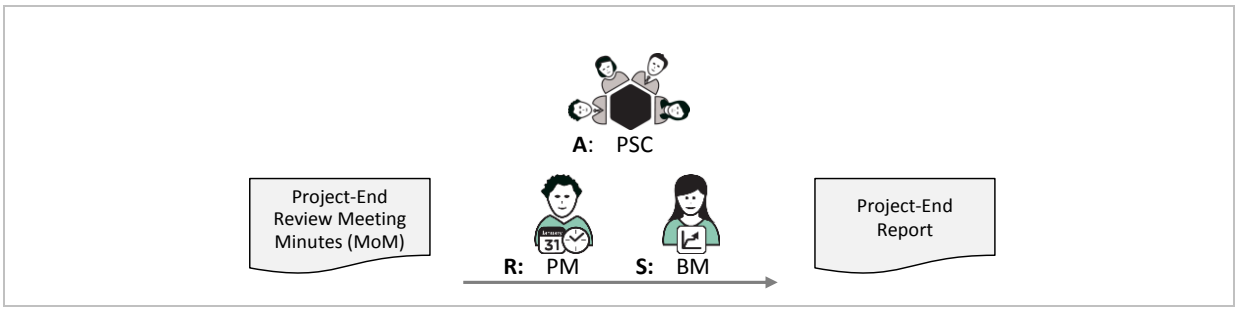

Fig 9.4 Project-End Report - Inputs and main roles

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, 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) performs the final project acceptance. The formal project closure terminates the project mode and allows the operations mode to commence.

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

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 the 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 filed.
4. Ensures that the project is approved and accepted by the project stakeholders.
5. Ensures that the Project Owner (PO) undersigns project approval and finalises project closure.
6. Validates that all contractual obligations are fulfilled.

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

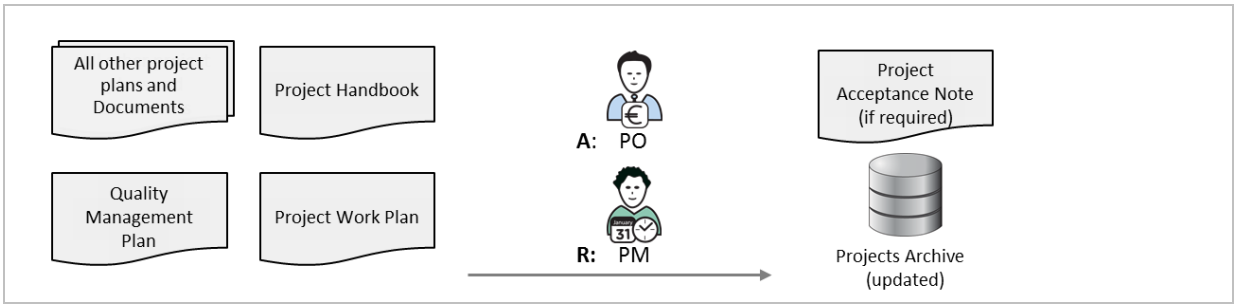

Fig 9.5 Administrative Closure – Inputs/Outputs and main roles

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 staff and consultants involved in the creation of the PM² Project Management Methodology and wishes to acknowledge their contribution and support.

The following individuals served as leaders for the creation and evolution of the PM² Methodology, and were contributors of text, concepts and expert knowledge:

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KOUROUNAKIS Nicos

BERLAIRE Philippe

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MARTINI Marco

CALAMITA Valter

OLEKSY Henri

DAMAS Pierre André

SUTHERLAND-SHERRIFF Sarah

D'ELIA Sandro

VOICU Denisa

DZHUMALIEVA Stefka

RUSTANOWICZ Michal

PECA Viorel

MARTINEZ RODRIGUEZ Eva

LECOMTE Marie-Véronique

SEQUEIRA Luis

MARTA Ana

CRESPO GAMBADE Pablo

KIPS Bert

VAROTTO Anita

BERGHMANS Marc

KUMMER Laurent

WILLIAMS Kory

KOENS Maarten

MERGUERIAN George

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Appendix B: Project Management Plans and Logs

B.1 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 the relevant risk response actions.

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

Key Participants	Description
Project Manager (PM)	Prepares this artefact.
Business Manager (BM)	Is consulted for the elaboration of this artefact.
Project Owner (PO) and/or PSC	Approves this artefact.

Inputs

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

Guidelines

- Review the guidelines in the Risk Management Plan template to get a better understanding on how to tailor and customise risk management for your project.
- Ensure that there is no duplication of information contained in other management plans (e.g. Change Management Plan or Issue Management Plan).
- In the case where certain processes are already described in the Project Handbook (e.g. escalation process) reference to them to avoid duplication and simply document any deviations or elaborations.
- Ensure that the Document Approver and Reviewers are clearly indicated in the plan's (document) header.

Steps

1. Review the risk management process provided in the Risk Management Plan template and tailor it to the project's needs (e.g. delete or add steps or activities, extend or change the activities description or the related responsibilities, etc.).
2. 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.).
3. Customize (if needed) the scale used for the assessment of risks (i.e. likelihood, impact and overall risk level).
4. Decide (with the involvement of key stakeholders) on the project risk appetite (the amount of risk stakeholders are prepared to accept when trying to achieve project objectives) and document it in the Risk Management Plan.
5. Decide on the frequency of reassessing the Risk Log considering project or organisational specific conditions and policies.
6. Specify the escalation and communication procedure for risks that need special attention (e.g. which project stakeholders need to be informed if critical risks are triggered).
7. Customize the applicable risk response strategies (e.g. Avoid, Transfer/Share, Reduce, and Accept) based on the risk type and project's risk appetite.
8. Establish in what detail risk response actions need to be described in the action plan section of the Risk Log (e.g. action description, action owner, planned effort etc.), considering that activities with considerable effort should be included in the Project Work Plan.

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

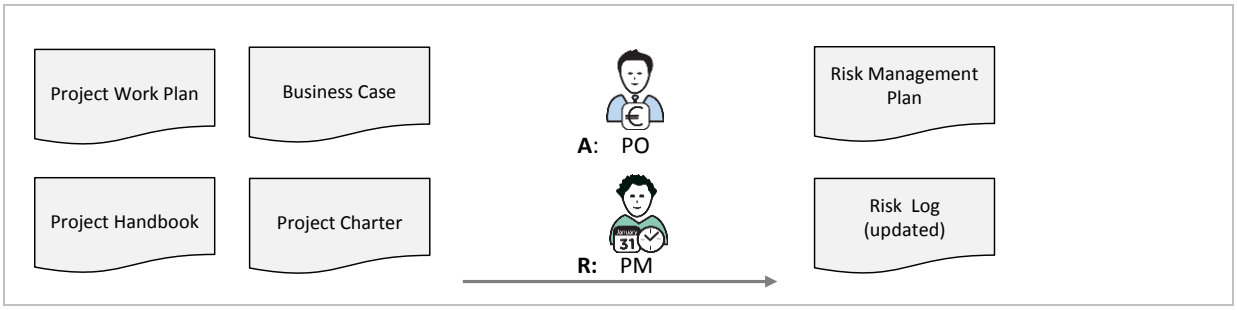

Fig B.1 Risk Management Plan – Inputs and main roles

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

Outputs

- Risk Management Plan.
- Risk Log (updated).

PM² Template?

☑

☑

B.2 Issue Management Plan

The Issue Management Plan defines and documents the activities, the roles and responsibilities of those involved in identifying, assessing, assigning, resolving and controlling project issues. Issues are defined as unplanned project related events that happened and 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. Relevant decisions can be also 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 trace all key decisions and planned actions. It also helps monitor who is responsible for solving specific issues by a target date. It brings visibility to issues, accountability as to how they are acted upon, and ensures they are appropriately managed and resolved.

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

Inputs

- Project Charter.
- Project Handbook.
- Project Work Plan.

Guidelines

- Review the guidelines in the Issue Management Plan template to get a better understanding on how to tailor and customise the issue management for your project.
- Ensure that there is no duplication of information contained in other management plans (e.g. Project Change Management Plan, Risk Management Plan).
- In the case where certain processes are already described in the Project Handbook (e.g. Escalation Process) reference to them to avoid duplication and simply document any deviations or elaborations.
- Ensure that issues can be traced back to related risks and changes (and vice versa).
- Ensure that the issue management process is communicated to the project team and other stakeholders.
- Ensure that the Document Approver and Reviewers are clearly indicated in the plan's (document) header.

Steps

1. Review the issue management process provided in the Issue Management Plan template and tailor it to the project's needs (e.g. delete or add steps or activities, extend or change the activities description or the related responsibilities, etc.).
2. Define what is considered an issue for the project and customise the possible issue categories relevant to the project.
3. Define all artefacts, tools and techniques that will be used to identify, assess, assign, resolve and monitor issues (e.g. the Issue Log).
4. 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 follow-up meetings).
5. Tailor (if needed) the Issue Log to reflect any customisations to the scales of urgency, impact and priority.
6. Define which issues (depending on their category, urgency and impact) can be handled at the Project Management level and which ones need to be escalated.
7. Describe the issue control activity, their frequency and supporting tools and techniques (e.g. review of issues in project follow-up meetings based on the Issue Log or the Project Status Reports).
8. Specify the procedure to update Lessons Learned after issue resolution is achieved.

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

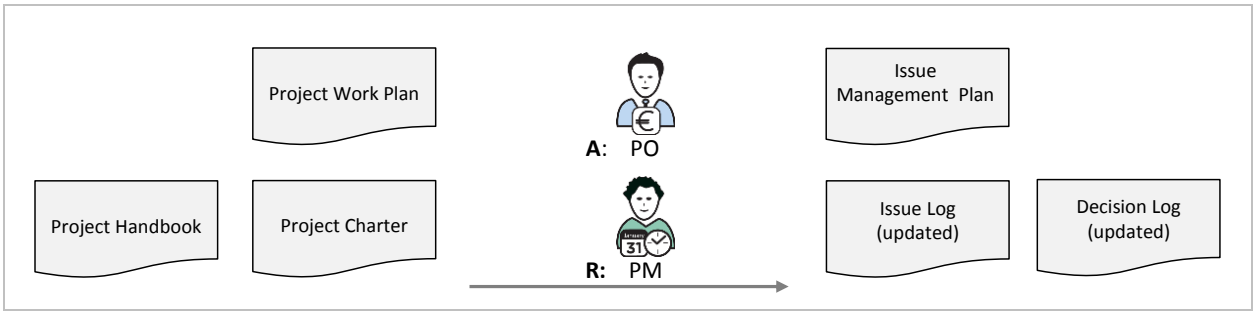

Fig B.2 Issue Management Plan – Inputs and main roles

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

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

B.3 Project Change Management Plan

The Project Change Management Plan defines and documents the change process for a project. It defines the activities, the roles involved and their responsibilities in identifying, documenting, assessing, approving, prioritising, implementing, controlling and communicating 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 in 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 and trace all related decisions and planned actions.

Key Participants	Description
Project Owner (PO) and/or PSC	Approve(s) this artefact.
Project Manager (PM)	Prepares this artefact.
Business Manager (BM)	Is consulted for the elaboration of this artefact.

Inputs

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

Guidelines

- Review the guidelines in the Project Change Management Plan template to get a better understanding on how to tailor and customise the change management for your project.
- Ensure that there is no duplication of information contained in other management plans (e.g. Communication Management Plan, Quality Management Plan, etc.).
- In the case where certain processes are already described in the Project Handbook (e.g. Escalation Process) reference to them to avoid duplication and simply document any deviations.
- If there is a need to define different steps depending on the type of a change, its urgency or impact, then customize the change management process and document it appropriately.
- Ensure that the Document Approver and Reviewers are clearly indicated in the plan's (document) header.

Steps

1. Review the change management process provided in the Project Change Management Plan template and tailor it to the project's needs (e.g. delete or add steps or activities, extend or change the activities description or the related responsibilities, etc.).
2. Clarify the scope of change management for the project.
3. Define what is considered a change for the project and define/customise the possible change types relevant to the project.
4. Define all artefacts and the tools and techniques that will be used to identify and assess changes (e.g. the Change Request Form, the Project Change Log).
5. Define who is responsible for the approval of changes for the various impact levels.
6. Tailor (if needed) the Change Log and customize it to reflect any customisations of the Project Change Management Plan (e.g. scales of urgency, impact and priority of the change).
7. Describe the change monitoring and control activities, their frequency and supporting tools and techniques, e.g. review of changes on a pre-defined period based on the Change Log.

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

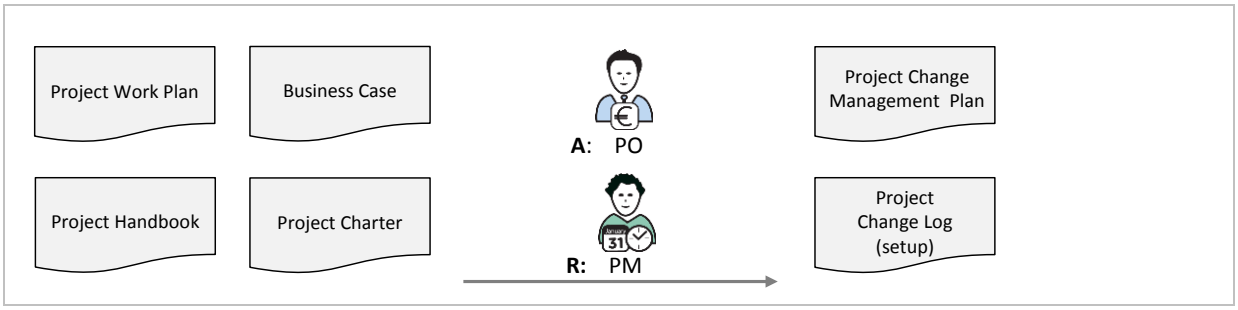

Fig B.3 Project Change Management Plan – Inputs and main roles

Related Artefacts	**Initiating**	**Planning**	**Executing**	**Monitor & Control**	**Closing**
Project Change Management		Project Change Management Plan	Project Reports Change Requests	Change Log Project Logs Project Work Plan	

Outputs **PM² Template?**

- Project Change Management Plan. ☑
- Project Change Log (setup). ☑

B.4 Quality Management Plan

The 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 performed throughout the project.

Any quality activities related to project management artefacts are documented in the Quality Management Plan, while quality assurance and control activities related to project deliverables are documented in the Deliverables Acceptance Management Plan. In the case where no formal Deliverables Acceptance Management Plan exists, then the Deliverables Acceptance activities can be described in the Quality Management Plan (or in the Project Handbook).

Planning and executing quality assurance and control activities may be seen as an 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 also be defined based on which the project will be evaluated, so 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. ensuring that the correct versions are delivered, prevent unauthorised changes, provide artefacts traceability etc.).

Key Participants	Description
Project Manager (PM)	Prepares this artefact. 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, the quality assurance and control activities, and the associated metrics.

Inputs

- Project Charter.
- Project Handbook.
- Project Work Plan.

Guidelines

- Review the guidelines in the Quality Management Plan template to get a better understanding on how to tailor and customise quality management for your project.
- Ensure that there is no duplication of information contained in other management plans or/and that relevant plans are referenced appropriately (e.g. Deliverables Acceptance Management Plan).
- In the case where certain processes are already described in the Project Handbook (e.g. Escalation Process) reference to them to avoid duplication and simply document any deviations or elaborations.
- Ensure that quality assurance and control activities are traceable back to specific work packages (or tasks) in the Project Work Plan.
- Define approvals for phases or key milestones (based on predetermined quality criteria) for quality control.
- Ensure that the document Approver and Reviewers are clearly indicated in the plan's (document) header.

Steps

1. Review the quality management process provided in the Quality Management Plan template and tailor it to the project's needs (e.g. delete or add steps or activities, extend or change the activities description or the related responsibilities, etc.).
2. Determine the quality management objectives and characteristics by reviewing the project deliverables, success criteria, approach and other specific requirements (e.g., security requirements) as described in the Project Charter and Project Handbook.
3. Define all artefacts and the tools and techniques that will be used for quality planning and for quality assurance and control (e.g. the Quality Review Checklist).
4. Determine if a Project Quality Assurance (PQA) or other independent entity is required to perform quality assurance activities.

5. Define the roles and responsibilities for the quality process participants (RAM/RASCI) and ensure that these are agreed by and communicated to all involved.
6. Review the quality characteristics with relevant stakeholders. Request them to suggest quality assurance and control activities that should be applied to the project.
7. Compile the quality assurance and control activities and determine their frequency and timetable. Additionally, design metrics along with acceptance tolerances for evaluating these activities.
8. Tailor the Quality Review Checklist based on the quality control activities defined for the project.
9. Present the planned activities, frequency and metrics to the Project Steering Committee (PSC) and request their approval.
10. Define the quality and configuration procedures and records that provide evidence that the quality and configuration management activities have been executed as planned.
11. After validation, update all relevant activities in the Project Work Plan and communicate the plan to the relevant stakeholders.

Steps (specific for configuration management)

1. Review the configuration management process provided in the Quality Management Plan template and tailor it to the project's needs (e.g. delete or add steps or activities, extend or change the activities description or the related responsibilities, etc.).
2. Define what is considered a configuration item for the project, based on project deliverables and artefacts, and identify its attributes.
3. Identify who is responsible for performing changes to the configuration items and for maintaining and controlling their releases.
4. Document how the configuration items will be maintained. Depending on the complexity of the project, a configuration management log can be used to control changes to the configuration items.
5. Describe the naming conventions to be used in project documentation, folders and emails.
6. Define the structure of the project folders and the procedures and the rights related to changing/updating any project artefacts.
7. Define any procedures related to creating copies of project data, retention periods, storage devices and sanitization/elimination of data (if required).

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

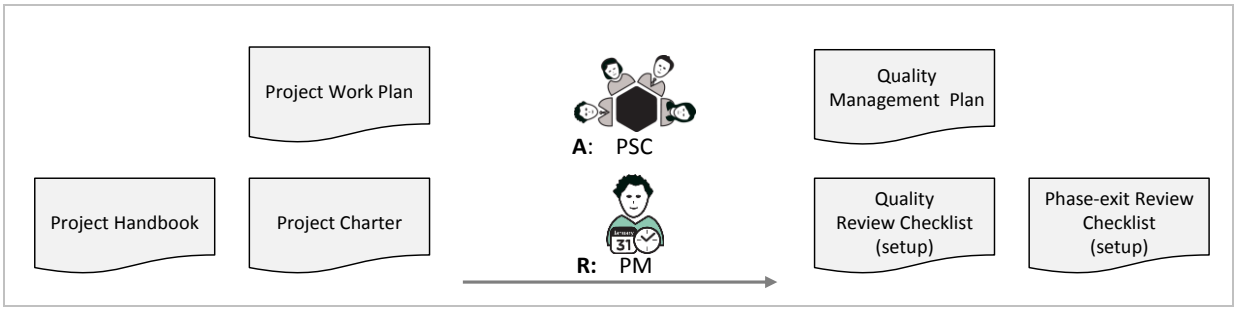

Fig B.4 Quality Management Plan – Inputs and main roles

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

- Quality Management Plan.
- Quality Review Checklist (setup).
- Phase-exit Review Checklist (setup).

PM² Template?

☑
☑
☑

B.6 Deliverables Acceptance Management Plan

The Deliverables Acceptance Management Plan is one of the quality management artefacts and defines and documents the deliverables acceptance approach, activities, responsibilities and success criteria along with acceptance tolerances.

The Deliverables Acceptance Management Plan gives emphasis to the importance of planning and agreeing on acceptance activities and criteria, so that the Project Owner (PO) can formally accept deliverables based on objective criteria.

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

Key Participants	Description
Project Steering Committee (PSC)	Approve this artefact.
Project Manager (PM)	Prepares this artefact. 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 requirements, activities and the associated metrics.

Inputs

- Project Charter.
- Project Handbook.
- Project Work Plan.
- Quality Management Plan.

Guidelines

- Review the guidelines in the Deliverables Acceptance Management Plan template to get a better understanding on how to tailor and customise deliverables acceptance for your project.
- Ensure that there is no duplication of information contained in other management plans (e.g. Quality Management Plan).
- In the case where certain processes are already described in the Project Handbook (e.g. Escalation Process) reference to them to avoid duplication and simply document any deviations.
- Ensure that all project deliverables are identified, e.g. related documentation such as users' manual and other supporting material.
- The Project Work Plan should include the resources required for the deliverables acceptance activities.
- The Project Manager (PM) should ensure that the Deliverables Acceptance Management Plan is reviewed and agreed on by all relevant stakeholders, e.g. by the Project Steering Committee (PSC).
- Ensure that the Document Approver and Reviewers are clearly indicated in the document's header.

Steps

1. Review the deliverables acceptance activities provided in the Deliverables Acceptance Management Plan template and tailor it to the project's needs (e.g. delete or add steps or activities, extend or change the activities description or the related responsibilities, etc.).
2. Define all artefacts and the tools and techniques that will be used to manage deliverables acceptance (e.g. the Deliverables Acceptance Checklist).
3. Determine if a Project Quality Assurance (PQA) or other independent resource / entity are required to perform any deliverables acceptance activities.
4. Get the agreement on acceptance criteria of the project and define the activities to achieve their validation. For example, in case of an IT project, consider the need of involving the Test Manager.
5. Define clear roles and responsibilities for the acceptance strategy for a given deliverable:
   - Determine the responsibilities for the activities leading to the acceptance of the deliverable;
   - Define the responsibilities for the provision of the necessary resources;
   - Identify the appropriate stakeholders to validate if deliverables meet the predefined objectives and verify if specific knowledge is required;
   - Identify who will perform the final acceptance of project deliverables.
6. Meet with the Business Manager (BM) to agree on the acceptance criteria along with the acceptance tolerances and acceptance schedule.

7. Tailor the Deliverables Acceptance Checklist based on the activities defined in the Deliverables Acceptance Management Plan.
8. Submit the Deliverables Acceptance Management Plan for the Project Steering Committee (PSC) approval.
9. Update the deliverables acceptance activities into the Project Work Plan.

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

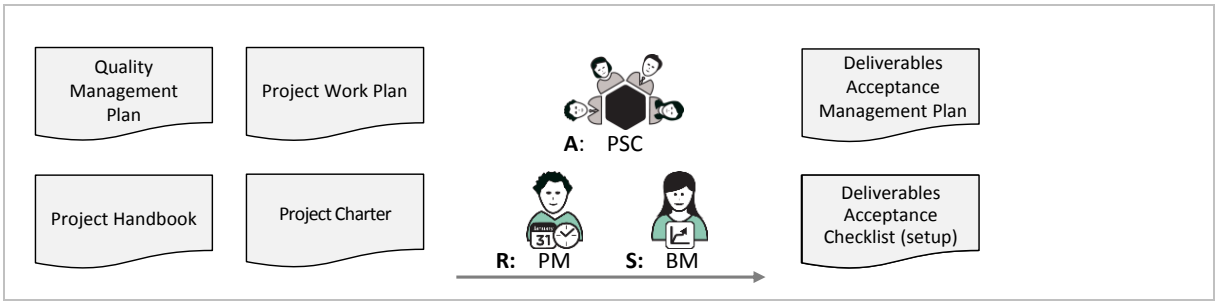

Fig B.6 Deliverables Acceptance Management Plan – Inputs and main roles

Related Artefacts	Initiating	Planning	Executing	Monitor & Control	Closing
Quality Management		Deliverables Acceptance Management Plan	Deliverables Acceptance Note	Deliverables Acceptance Checklist Decision Log	

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

B.5 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 the communication items content, format, frequency, the audience and expected results. It also defines how to communicate project status and the assignment of activities to the various stakeholders, and the communication strategy for each stakeholder, based on their interests, expectations and influence in the project.

Key Participants	Description
Project Manager (PM)	Prepares this artefact.
Business Manager (BM)	Gives supports for this artefact.

Inputs

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

Guidelines

- Review the guidelines in the Communications Management Plan template to get a better understanding on how to tailor and customise the communication management plan.
- Ensure that there is no duplication of information contained in other management plans (e.g. Quality Management Plan, Risk Management Plan and Deliverables Management Plan).
- In the case where certain processes are already described in the Project Handbook (e.g. escalation process) reference to them to avoid duplication and simply document any deviations or elaborations.
- When determining the audience and strategy for each communication, the Project Manager (PM) should consider internal and external organisations to the project and should document their interests and impact on project success.
- Ensure that the Document Approver and Reviewers are clearly indicated in the plan's (document) header.

Steps

1. Review the communication management plan template provided and tailor and customize it to the project's information and communication needs.
2. Define all artefacts (e.g. Project Reports) and means to collect, analyse and distribute project information and manage stakeholders' expectations.
3. Identify project stakeholders groups based on the Project Stakeholder Matrix.
4. For each target group, determine what information needs to be communicated, the purpose of the communication.
5. Determine the frequency of the communication items.
6. Decide on the format and media of the communication (e.g. reports, presentations, meetings, emails, calls).
7. Determine who will be responsible for each communication item and identify the expected results.

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

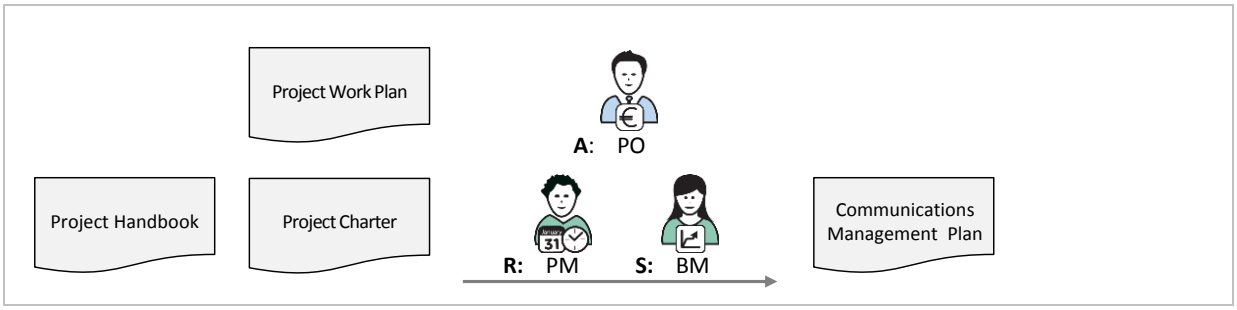

Fig B.5 Communications Management Plan – Inputs and main roles

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

Outputs

- Communications Management Plan.

PM² Template?

☑

B.7 Change Log

This Change Log has the following structure (also see the PM² Change Log template).

Change Identification and Description	
ID	The change identifier. It should be numbered sequentially.
Category	Categorizes the changes.
Change Name	Short name for (describing) the change.
Change Description & Details	A description of the change details and consequences of doing nothing.
Status	The change status can be any of the following: **Submitted:** this is the initial status. Use this while the change is being defined. **Investigating:** use this to initiate an investigation. This will require an investigator to be selected and to initiate a task assignment. **Waiting for Approval:** use this to initiate approval. Before doing this, make sure that the investigation is complete and that the estimations shown are correct. **Approved:** this status is set when the approval process is successfully completed. **Rejected**: this status is set when the approval process leads to rejection. **Postponed:** this status is set for postponing the action indefinitely. **Merged:** this status indicates that this change has been merged into some other change so it is no longer being actively handled. Merging is common when large numbers of changes are being used. **Implemented:** this status indicates that this change is already updated in the Work Plan.
Requested by	The name of the person requesting the change.
Identification Date	The date that the change has been raised.
Change Assessment and Action Description	
Action Details (effort & responsible)	Description of the recommended action, steps, deliverables, timescale, resources and effort involved.
Size	Change size represents the effort related to the change implementation. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Priority	A numeric value denoting the priority of the change. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Target Date	The date that the project change is expected to be delivered.
Change Approval	
Approved by	Person / Committee that approved the change.
Approval Date	Date that the project change is approved.
Escalation	To be escalated to the Directing or Steering Layers: **Yes** or **No**.
Change Implementation	
Actual Delivery Date	The date that the project change will be delivered.
Traceability/Comments	The ID(s) of the task (in the Project Work Plan) implementing the change, or/and the IDs of related issue, risk or decisions log entries. Any additional information related to the change (activities).

B.8 Risk Log

This Risk Log has the following structure (also see the PM² Risk Log template).

Risk Identification and Description	
ID	The risk identifier. It should be numbered sequentially.
Category	Categories of risks related to the area affected by the risk (e.g. Business, IT, People & Organisation, External and Legal).
Risk Name	A short title for the risk.
Risk Description & Details	A description of the risk that may occur in the project and its causes. What kind of problems will the risk result in 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 identified. **Investigating:** use this to initiate an investigation. This will require an investigator to be selected and to initiate a task assignment. **Waiting for Approval:** use this to initiate approval. Before doing this, make sure that the investigation is complete and that the estimations shown are correct. **Approved:** this status is set when the approval process is successfully completed. **Rejected:** this status is set when the approval process leads to rejection. **Closed:** this status is set when the risk has been managed (e.g. mitigation actions have be implemented) and it isn't anymore a risk for the project.
Identified By	The person who identifies the risk.
Identification Date	The date when the risk was identified.
Risk Assessment	
Likelihood (L)	A numeric 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 numeric value denoting the severity of the impact of the risk (should it occur). The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Risk Level (L*I)	The risk level is the product of the likelihood and impact (**RL=L*I**).
Risk Owner	The person accountable for the management and monitoring of this risk.
Escalation	To be escalated to the Directing or Steering Layers: **Yes** or **No**.
Risk Response	
Risk Response Strategy	The available strategies to deal with the identified risks are: - **Avoid:** risk avoidance, working the project or project plan around those conditions or activities which 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 can also be defined in case the risk occurs (active acceptance); - **Transfer/Share:** transfer or share a risk with other entities, e.g. through insurances, sub-contracting etc.
Action Details (effort & responsible)	Description of the action: objective of the action, scope, deliverables, person responsible and effort estimates.
Target Date	The date that the action is expected to be implemented.
Traceability/Comments	The ID(s) of the task (in the Project Work Plan) implementing the risk actions, or/and the IDs of related change, issue or decisions log entries. Any additional information related to the risk approval (e.g. date) or related to the risk actions (activities).

B.9 Issue Log

This Issue Log has the following structure (also see the PM² Issue Log template).

Issue Identification and Description	
ID	The issue identifier. It should be numbered sequentially.
Category	Categories of issues related to the area affected by the issue (e.g. Business, IT, People & Organisation, External and Legal).
Issue Name	Short name for (describing) the issue.
Issue Description & Details	A description of the issue and consequences of doing nothing.
Status	The issue status can be any of the following: **Open: the issue has been identified and requires resolution. This status remains until the issue is fully resolved.** **Postponed:** this status is set for postponing the issue due to other priorities. **Resolved:** this status indicates that all necessary actions are completed and the issue is resolved. **Closed:** this status indicates the closing of the issue once the work is completed and verified.
Identified By	The name of the person who identifies the issue.
Identification Date	The date that the issue has been raised.
Issue Assessment and Action Description	
Action Details (effort & responsible)	Description of the recommended action, steps, deliverables, timescale, resources and effort involved.
Urgency	A numeric value denoting the urgency of the issue. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Impact	A numeric value denoting the severity/impact of the issue. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Size	Issue size represents the effort related to the issue resolution. The possible values are: **5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low**
Target Date	The date that the issue is expected to be resolved.
Issue Owner	The person accountable for the effective issue resolution.
Escalation	To be escalated to the Directing or Steering Layers: **Yes** or **No**.
Traceability/Comments	The ID(s) of the task (in the Project Work Plan) implementing the issue actions, or/and the IDs of related change, risk or decisions log entries. Any additional information related to the issue actions (e.g. activities, approvals).

B.10 Decision Log

This Decision Log has the following structure (also see the PM² Decision Log template).

Decision Identification	
ID	The decision identifier. It should be numbered sequentially.
Identified by (Initiator)	The name of the person who identifies the need of the decision.
Traceability/Comments	The IDs of related change, risk or issues log entries. Any additional
Category	Categories of decisions related to the area affected by the decision (e.g. Business, IT, People & Organisation, External and Legal).
Decision Name	Short name for (describing) the decision.
Decision Description	A description of the decision details and impact, if applicable.
Persons present during decision	Decision taken during a meeting, or by responsible persons.
Ownership	
Decision Owner	The person accountable for the decision.
Decision Date	Date when the decision was taken
Escalation	To be escalated to the Directing or Steering Layers: **Yes** or **No**.
Decision Implementation	
Date of decision application	As from when is this decision applicable.
Decision communicated to:	Group, teams, audience to whom the decision should be communicated.

Appendix C: PM² for IT Projects

PM² and RUP@EC

IT projects are a category of projects where PM² can be used in combination with software engineering methodologies (e.g. RUP@EC and Agile RUP@EC). Additionally, the official EC IT Governance applies and some additional roles are further specified and described.

The Rational Unified Process® is a Software Engineering Process; it captures many of the best practices in modern software development. It provides a disciplined approach to assigning tasks and responsibilities within a development organisation. Its goal is to ensure the production of high-quality software that meets the needs of its end-users, within a predictable schedule and budget.

The Rational Unified Process (RUP) is maintained by Rational® Software and tailored for use within the EC. RUP@EC is the standard software development methodology within the EC as defined in the IT Governance Communication of 2004. The Unified Process fits small development teams as well as large development organisations.

The Rational Unified Process (RUP) enhances team productivity, by providing every team member with easy access to a knowledge base with guidelines, templates and tool mentors for all critical development activities. By having all team members accessing the same knowledge base for requirements, design, test, Project Management, or configuration management, it ensures that all team members share a common language, process and view of how to develop software.

How PM² complements the RUP@EC PM discipline

Activities that are performed during a software development project lifecycle are grouped within RUP@EC into what is called *Disciplines*. There are 9 disciplines within RUP@EC and the *Project Management* discipline is one of them. PM² extends this *Project Management* discipline.

RUP@EC is a software engineering process and therefore suitable for software development projects, while PM² covers both the IT and business projects. The RUP@EC Project Management discipline focuses on key aspects of an iterative development process:

- Risk management.
- Iterative planning and executing.
- Generating value for the end customer.

There are also several Project Management considerations that fall outside the focus of the RUP@EC Project Management discipline that the PM² method can support and therefore compliment RUP@EC. Management subjects such as:

- Managing people: Hiring, training, and coaching.
- Managing the budget: Defining, allocating, etc.
- Managing contracts: With suppliers and customers.
- Business subjects such as:
    - Alignment of the IT and Business sides of projects.
    - Managing the business implementation aspects.

Note for RUP@EC (software development) Projects:

If the project involves software development, then in accordance with IT Governance, the following documents are mandatory:

- The Project Charter documents the project's scope and is created early in the RUP@EC Inception Phase (see section 5.4 Project Charter).
- The Architecture Overview.
- The Operational Model.

The Project Charter also serves as input to use-case modelling discipline, and is updated and maintained as needed throughout the project.
If the project involves software development that follows RUP@EC, then:

- The Business Case is developed during the RUP@EC Inception Phase.
- t is approved at the lifecycle milestones of RUP@EC.
- It is updated on an ad-hoc basis as a result of some assessment at further milestones.

Project Vision Document (deprecated)

The Project Vision Document was a document used for all IT development and maintenance projects in accordance with the IT Governance Communication up until November 2013. The Project Vision Document provided the project definition and was submitted to Corporate Project Office (CPO) for approval.

Since Jan 1st 2014, the Vision Document is replaced by the Project Charter which is a common template for any type of projects (i.e. IT, business projects, etc.). All IT specific sections of the Vision Document are now covered by the two new IT Governance documents of Architecture Overview and Operational Model. For more information on these two documents, please reference RUP@EC.

The IT Project Governance

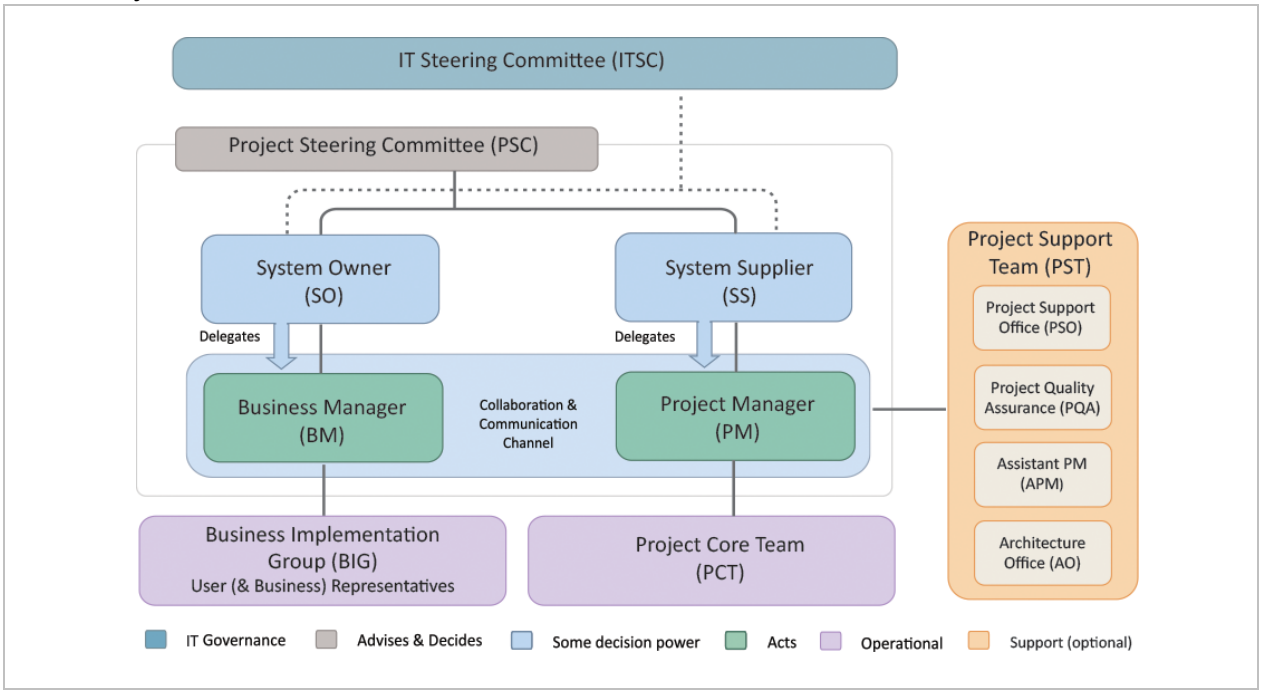

Fig.C.1 IT Projects Steering Committee

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:

- The PST roles may be assumed by specific teams or team members.
- The PST role may be provided as horizontal services by the organisation.

Responsibilities:

- Provides administrative support for the project.
- Defines requirements for reporting and communications.

Role Descriptions for the Members of the PST-IT

For IT projects, the members of the PST-IT are described below:

Roles	Description
Project Support Office (PSO)	Might be very useful for large projects
Project Quality Assurance (PQA)	Responsible for quality assurance and auditing aspects
Assistant Project Manager (APM)	Is a delegate from the Project Manager (PM)
Architecture Office (AO)	Plays an advisor role on architecture aspects

The Role of the Architecture Office is described below:

Architecture Office (AO)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Architecture Office (AO)	Provider	Individual/Group	Optional role	On Request

Description: Advises project teams on architectural aspects of information systems.

Responsibilities:

- Develops architecture standards for all projects.
- Approves application and system architecture orientations of the various projects.
- Advises on architectural aspects of:
  - Application Architecture
  - IT Systems Architecture

Role Descriptions for the Members of the PCT-IT

For IT projects, the members of the PCT-IT are described below:

Roles	Description
Development Team (DT)	Responsible for the development of the IT deliverables.
Application Management Team (AMT)	Responsible for the operations and management of the IT solutions. In many IT projects, the Development Team (DT) and Application Management Team (AMT) are the same team.
System Support Team (SST)	Responsible for the hosting of the IT deliverables.
Contractor's Project Manager (CPM)	Responsible for any subcontracting efforts involved in the project.

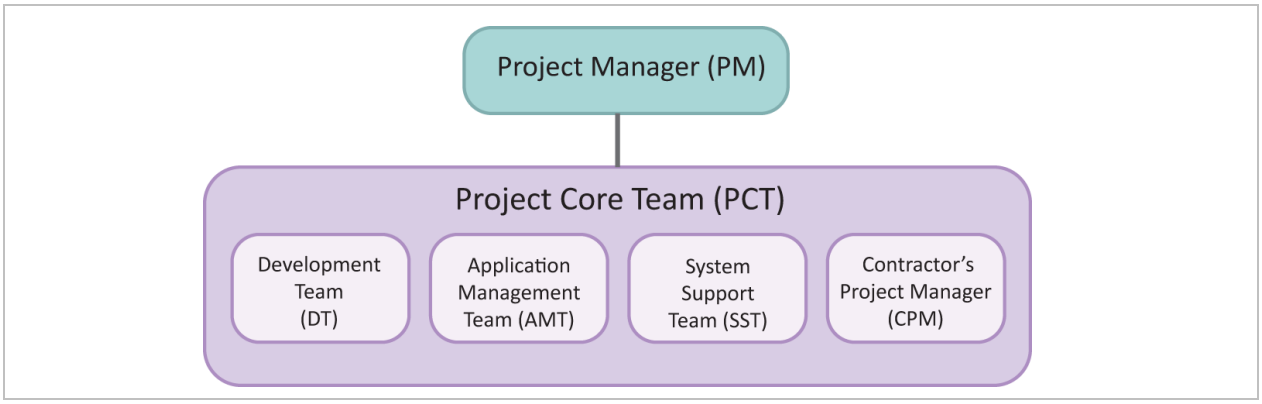

Fig.C.2 IT Project Core Team (PCT–IT)

Development Team (DT)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Development Team (DT)	Provider	Group	Key role	On Request

Description: Team that develops information systems, typically composed of team members with profiles like analyst, programmer, tester, etc.

Responsibilities:

- Provides the service to the DG's user groups based on the agreed SLA, the quality plans and standards of the DG during project developments and major evolutions.
- Develops and performs major software upgrades of the specific IT application.

Application Management Team (AMT)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Application Management Team	Provider	Group	Key role	On Request

Description: Team that manages and supports information management applications and keeps them up-and-running according to a service level agreement (SLA).

Responsibilities:

- Ensures the day-to-day running of the specific IT applications.
- Provides the service to users based on the SLA, the quality plans and standards of the DG.
- Performs upgrades of the specific IT application software in production after new releases are tested and accepted by the impacted DG user community.

Systems Support Team (SST)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Systems Support Team	Provider	Group	Key role	On Request

Description: Team that supports the system infrastructure for information systems, typically focused on hardware, operating systems, networks, databases, etc. This role can be assumed by the Data Centre or the local operations team.

Responsibilities:

- Ensures the day-to-day running of the system (hardware and software) in order to provide services to the user community as specified in the service level agreement (SLA).
- Maintains the hardware structure and in accordance with the user's needs.
- To perform updates of the software (operating systems, etc.).

Agile Project Core Team (A-PCT)

The roles and responsibilities that are defined in Agile@EC to organise and manage the Agile Project Core Team (A-PCT) are presented below.

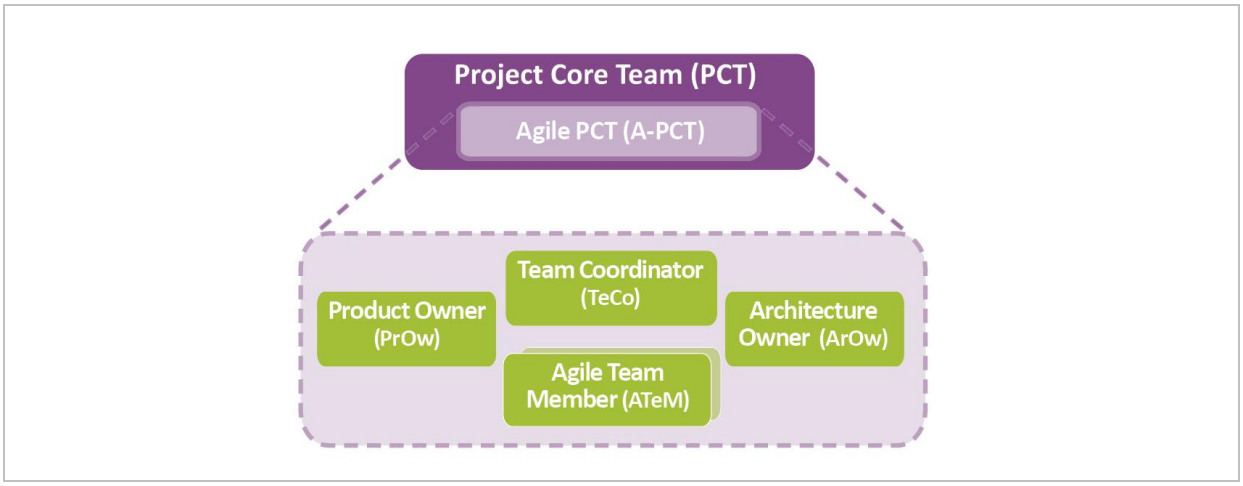

Fig.C.3 Main Roles of the Agile Project Core Team (A-PCT)

The following sections describe the core Roles & Responsibilities of the Agile Project Core Team (A-PCT).

Team Coordinator (TeCo)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Team Coordinator (TeCo)	Provider	Individual	Key role	On-demand

Description: The Team Coordinator (TeCo) acts as a facilitator and team coach whose main purpose is to create and maintain the conditions (e.g. resources, issue resolution) to allow the team to be focused on achieving specific objectives and being successful. This role's responsibilities typically focus on the development aspects of the project's work. The Team Coordinator (TeCo) facilitates or guides the team in performing technical management activities instead of taking on "alone" these responsibilities.

Responsibilities:

- Ensures the effectiveness and continuous improvement of the way the Agile Project Core Team (A-PCT) works.
- Facilitates the collaborative and cooperative working environment within the Agile Project Core Team (A-PCT).

- Coordinates the planning and estimation activities, as well as the work progress report with the Project Manager (PM).
- Ensures that the Project Core Team can be fully dedicated to delivery-related activities and on achieving the defined specific goals.
- Facilitates the decision making within the Agile Project Core Team (A-PCT).
- Works actively to identify and remove all obstacles preventing the team to achieve the iteration objectives.

Product Owner (PrOw)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Product Owner (PrOw)	Provider	Individual	Key role	On-demand

Description: The Product Owner (PrOw) represents mainly client and end-users concerns. This role should develop deep understanding of the needs and desires of the stakeholders. This understanding allows the Product Owner (PrOw) to better capture and set priorities for the work items. This role can be seen as the "one voice of the stakeholders" within the project organisation team and ideally should work in the same physical environment of the rest of team.

Responsibilities:

- Prioritizes continuously the requirements to be addressed by Agile Project Core Team (A-PCT) in alignment with the feedback from both the stakeholders community and the Project Core Team (PCT).
- Clarifies domain-related questions that Agile Project Core Team (A-PCT) may have or ensures that a channel with the relevant stakeholders is open for collaboration and clarification.
- Facilitates requirements gathering and modelling sessions.
- Ensures that the stakeholder's community is represented in them.
- Facilitates the presentation of project's intermediate outputs to the stakeholder community (demos).
- Ensures that the stakeholders understand the benefits achieved by the agile approach followed by the Agile Project Core Team (A-PCT).

Architecture Owner (ArOw)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Architecture Owner (ArOw)	Provider	Individual	Key role	On-demand

Description: The Architecture Owner (ArOw) is the solution architect responsible for the architecture decisions for the Agile Project Core Team (A-PCT). The Architecture Owner (ArOw) facilitates the creation and evolution of the overall solution design and ensures that the solution takes into account existing or planned investments made in other information systems/components. Architecture is a key source of project risk, and someone needs to be responsible for ensuring the team mitigates that risk. Although the Architecture Owner (ArOw) can be typically the senior developer on the team (sometimes could also be referred to as the technical architect, software architect, or solution architect), it is not a hierarchical position to which other team members report. The Architecture Owner (ArOw) is expected to sign up and deliver work like any other team member. The Architecture Owner (ArOw) should have a technical background as well as a very good understanding of the business domain.

Responsibilities:

- Guides the creation and evolution of the architecture of the IS that the team is working on, avoiding dictating the architectural direction in favour of a collaborative, team-based approach. Note that the Architecture Owner (ArOw) is not solely responsible for the architecture but leads the technical discussions.
- Leads the initial architecture envisioning effort at the beginning of the project and support the initial requirements envisioning effort (particularly when it comes to understanding and evolving the non-functional requirements for the IS), focusing on the project lifecycle and also on the evolution and maintainability of the IS.
- Ensures the alignment of the architecture of the IS with the guidelines and recommendations of the Architecture Office (AO) and support of established Enterprise Architecture principles.

- Leverages existing and/or planned IT investments in the organisation by continuously promoting a culture of reuse and interoperability within the Project Core Team (PCT).
- Contributes to the organisation's set of reusable IT assets by considering the overall domain which the IS will support and the IT strategy of the organisation.
- Informs the Team Coordinator (TeCo) and the Project Manager (PM) of the main architectural risks and contribute to define the adequate risk management strategy.

Agile Team Member (ATeM)

Role	Requestor or Provider	Group or Individual role	Role Type	PSC Participation
Agile Team Member (ATeM)	Provider	Individual	Key role	On-demand

Description: The Agile Team Member (ATeM) focuses on producing the actual IS that is part of the project's solution to the stakeholders needs. This role encompasses different disciplines of IS development such as architecture, analysis, design, programming, testing, planning and estimation. Thus, an Agile Team Member (ATeM) has cross-disciplinary skills, the degree of specialization in each discipline varying from individual to individual. The main message is that an Agile Team Member (ATeM) has the ability to collaborate with the rest of the Agile Project Core Team (A-PCT) members, independently of the background and experience in a skills-growing environment. The Agile Team Members role can be seen as the generalization of the more traditional, highly specialized roles of the developer, analyst and tester.

Responsibilities:

- Participates in planning and estimation of iterations, releases.
- Participates in the solution architecture design.
- Develops part of the information system, in collaboration with the solution architecture design.
- Tests developments.
- Provides progress information to the Team Coordinator.
- Communicates and collaborate with the rest of the Agile Project Core Team (A-PCT).

Project Mode vs. Operations Mode

The term Project Mode is used a number of times in this guide and refers to the project organisation while the project is running.

The Project Mode diagram describes the governance model in project mode.

- It shows the project organisation while the project is running.
- Once the project is closed, the project organisation is disbanded.

The Operation Mode diagram describes the governance model in operations mode.

- Operations mode is also known as corrective maintenance mode.
- The Business Manager is responsible from a business/DG point of view while the IT Service Manager is responsible for providing support and maintenance updates.

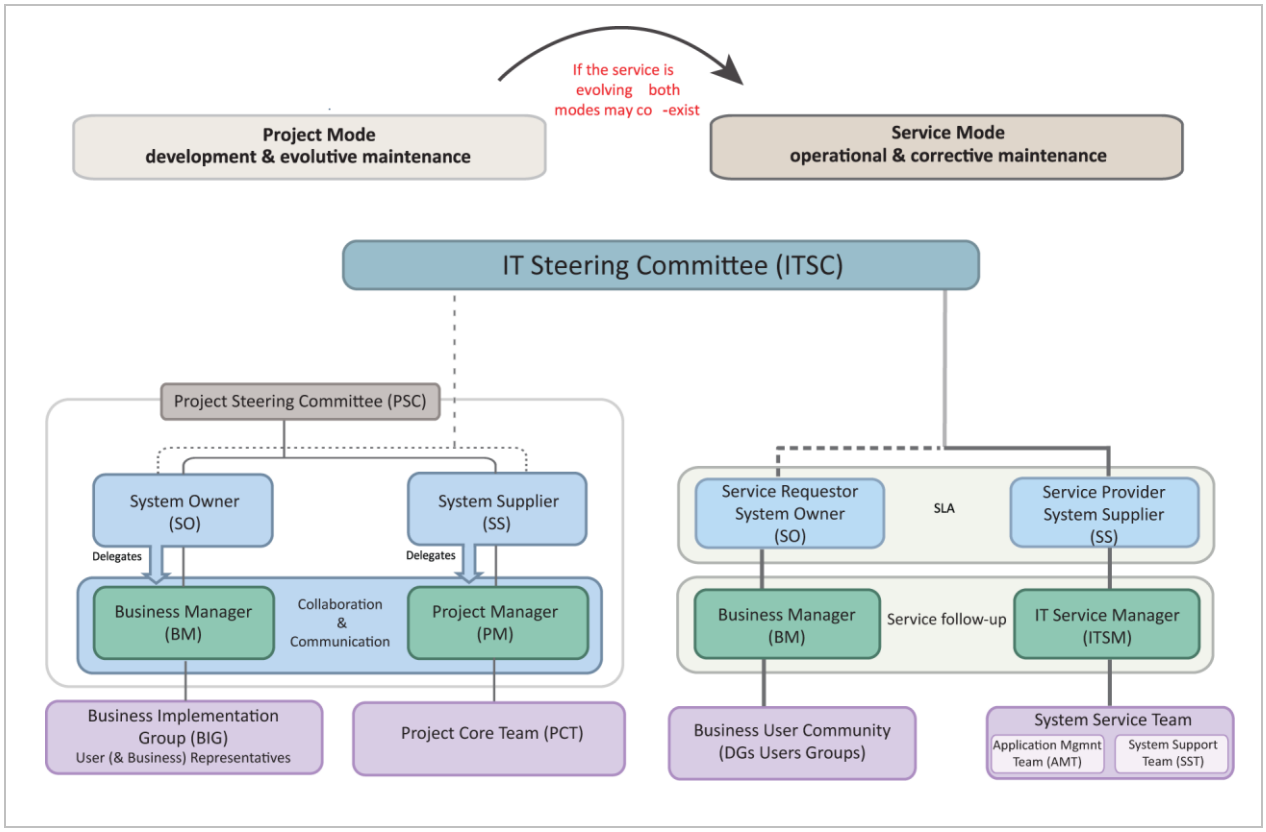

Fig C.4 Project Mode vs Operations Mode

Relevant note on outsourcing IT Projects

- Identify any hardware/software compatibility issues that may have an impact. It is necessary to ensure that the development platform which the contractor is using is compatible with the other platforms of the project.
- List the required capabilities of the software. The capabilities should be determined before evaluating possible contractors. A detailed statement of requirements should be part of the contract (i.e. the system must be able to handle 100 concurrent users).
- Estimate data volumes to be handled after the system is running for several years. (i.e. after 5 years the system should support 10 million records).
- List any scalability needs for the system (in terms of users and data to handle).
- Describe the potential contractors' method (support) of handling errors or bugs in the software, as well as the unit's method. If a bug is reported after the product is in production, describe how the contractor will handle the problem.
- Possible updates to the software and access to backup copies should be considered before signing the contract so that they can be included.
- Determine who retains the ownership of the code and the product after the delivery of the product.

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Appendix D: Other Roles Involved

The term "Other Roles" is used to group any Standard Commission Roles that do not appear as key roles in the organisation of a project.

The key roles are the ones appearing as mandatory roles in the Project Steering Committee (PSC) and in the two modes: the ***Project Mode*** and the ***Operations Mode***.

The Standard Commission Roles and their responsibilities are defined in the official European Commission communications. These roles may also appear in the DGs list of functions and posts. Such roles may be horizontal, defined once for all the projects of each DG and they exist beyond the scope of any single project. The table below presents the Other Commission Roles likely to be involved:

Roles	Description
Data Controller	Assumes accountability for personal data processing according to the Data Protection Regulation 45(2001).
Data Owner	Ensures the consistency and validity of the information in his domain according to the Security decision C(2006)3602.
Data Protection Officer (DPO)	Nominated by the DG to ensure the application of the personal data protection principles in the institution.
System Security Officer (SSO)	Ensures that the security of an information system is consistent with the principles of the Security Decision C(2006)3602.
Information Resource Manager (IRM)	Acts as the IT service provider within a DG, provisioning IT resources and supporting the IT systems and infrastructure.

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Appendix E: Additional Resources

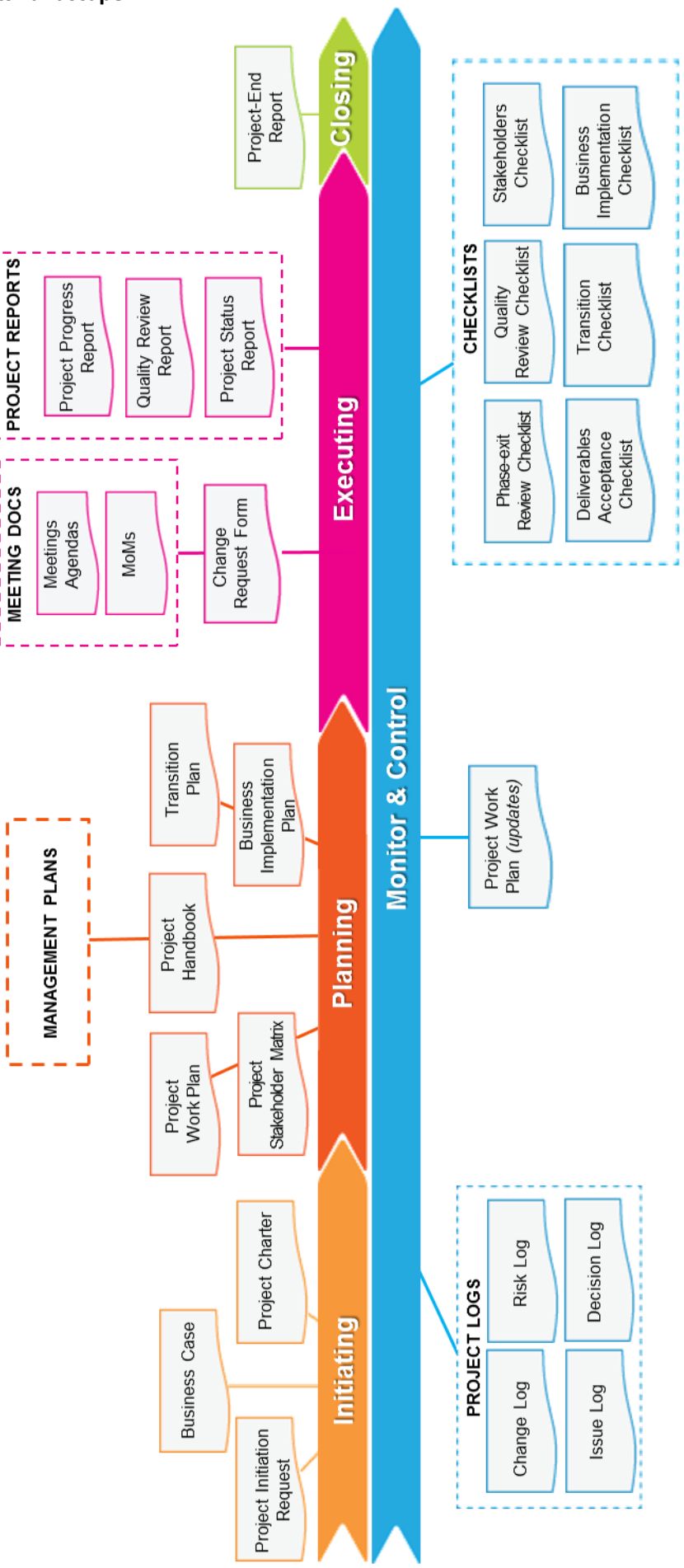
E.1 PM² Artefacts & Activities Summary Tables and Diagrams

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

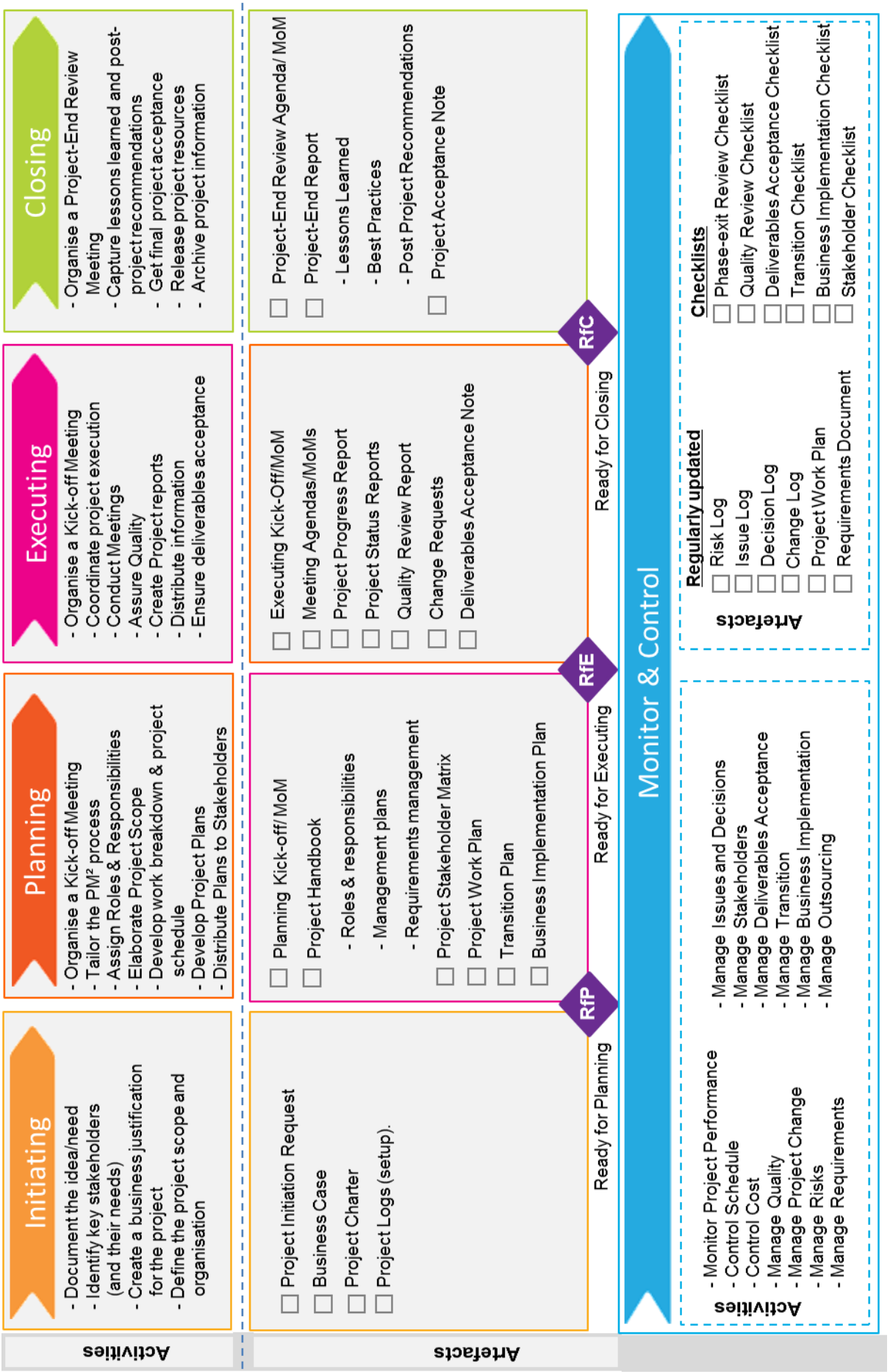
Initiating	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
Project Initiation Request	I	n.a.	**A/S**	**R**	**S**/C	I	n.a.	n.a.
Business Case	I	C	**A**	**R**	C	**S**	**S**	n.a.
Project Charter	I	C	**A**	**S**	C	**S**	**R**	C
Planning	**AGB**	**PSC**	**PO**	**BM**	**UR**	**SP**	**PM**	**PCT**
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
Transition Plan	I	**A**	C	C	C	C	**R**	C
Business Implementation Plan	I	I	**A**	**R**	C	I	**S**	I
Outsourcing Plan *(when standalone)*	**A**	C	C	C	I	**S**	**R**	I
Management Plans *(when standalone)*								
Communications Management Plan	I	I	**A**	**S**	C	I	**R**	C
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
Deliverables Acceptance Mgt Plan	I	**A**	C	**S**	I	C	**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**	**S**/C	C	I	**R**	C
Manage Stakeholders	I	I	**A**	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



E.2 Quick Start Guide

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 literature. Keep in mind, however, that you don't have to become an expert before you can start applying the basics of PM² on your projects. All you need is a brief introduction to the PM² Methodology and then you can continue by following the 7 steps of this Quick Start Guide.

You can also consult the CoEPM² Team and request guidance in rolling out PM² in your organisation.

1. Define the Project Governance and Create a Business Case

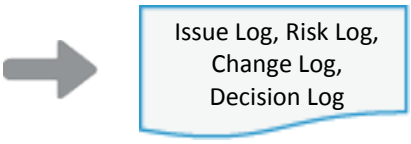
- Define the Project Steering Committee
- Provide the justification for the project, capture the business and establish its budget constraints

2. Identify stakeholders and create the Project Charter

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

3. Setup the Project Logs

- Setup the Risk Log, Issue Log, Decision Log and, Change Log
- These will be used to document the management of Risks, Issues and Scope changes

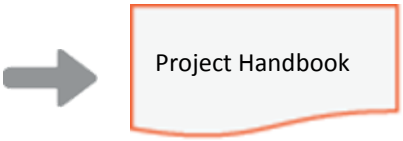


4. Kick-off the Project Planning with a Meeting

- Invite all necessary participants
- Go over the Project Charter and ensure a common understanding
- Communicate the next steps for the planning phase

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 that require information during the project



6. Create the Project Work Plan

- Break down the work that needs to be done in 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)

E.3 Useful Resources

PM² Wiki and the PM² CoP

- The PM² Wiki details the PM² approach and provides one central place for PM² information e.g. PM² Workflow Model, Artefact information, Guidelines, Templates, Tools, etc.
  Link PM² Wiki: http://intracomm.ec.testa.eu/PM2

- The PM² CoP Wiki provides information about the PM² events, presentations and seminars.
  Link PM² CoP: http://intracomm.ec.testa.eu/CoP

The PM² Guide (pdf)

This guide documents the PM² Project Management Methodology. It has been kept as light as possible while still ensuring that it provides adequate information to help you both understand and use PM² effectively. You can download the pdf version of the guide from the PM² wiki:
http://intracomm.ec.testa.eu/PM2/Guide

PM² Training

- Follow the PM² Project Management training program
- Complete IT, Business and Management training paths are available
- Register via the Syslog application: www.cc.cec/di/syslog_formation/catalogue/catalogue.cfm
- Access the list of courses here: http://intracomm.ec.testa.eu/PM2/Training

PM² Support, Coaching and Workshops

- DIGIT.B1 CoEPM² Team will provide the necessary support to help you start with PM²
- Get advice on how to tailor your PM² rollout plan
- Learn about PM², the PM² artefacts and get practical advice
- Take advantage of the opportunity to discuss specific project management issues, ask questions

E.4 Comparison between the PM² Guide v2 and v2.5 Editions

This section presents the most important updates of the PM² Guide v2.5. The changes are presented in the table below where each row presents a noteworthy change, along with the section it is found in (for both versions), as well as the type of change (i.e. new, updated, moved or deleted). Minor updates such as spelling corrections or formatting changes are not mentioned.

Version 2	Version 2.5	Action	Details
-	1.3	new	Added a section on the PM² Centre of Excellence (CoEPM²).
-	1.3.4	new	Added a section on the Project Support Network (PSN).
2.2.3	2.2.3	updated	Renamed Project Management Office (PMO) to Project Support Office (PSO).
2.3.3	2.3.3	updated	Update the section on the Competences for Project Managers.
-	3.4	new	Added a section on What is a PM² project.
-	3.6	new	Added a section on PM² Tailoring and Customisation.
3.5	3.7	updated	Updated the section on PM² and Agile Management to be fully aligned with the new Agile@EC Guide.
4.2	4.2	updated	Added the definitions of the different Governance Layers.
4.3	4.3	updated	Added a description of the Appropriate Governance Body (AGB).
4.3	4.4	updated	Update the description of the Project Steering Committee (PSC).
4.3.2	4.7	updated	Update the description of the Business Manager (BM) role.
4.3.4	4.8	updated	Update the description of the Project Manager (PM) role.
4.6	4.10	updated	Update the description of the Project Core Team (PCT) role and added a description for the Assistant Project Manager (APM) role.
4.7	4.11	updated	Update the description of the Project Support Team (PST) role.
6.2	6.2	updated	Updated the description of the Project Handbook and reorganised the section. The main management processes can now be summarised here instead of creating standalone Management Plans (e.g. Risk Management).
6.4.1	-	deleted	Moved to the PM² Tools & Techniques publication.
6.4.2	-	deleted	Moved to the PM² Tools & Techniques publication.
6.4.3	-	deleted	Moved to the PM² Tools & Techniques publication.
6.5	-	deleted	The information captured in the Resource Plan has now been merged into the Project Handbook and Project Work Plan.
6.6, 6.7, 6.8, 6.9, 6.10, 6.11	Appendix B	moved	The descriptions of the six Management Plans have been moved to the Appendix B.
6.14	-	deleted	The outsourcing plan can now be summarised in the Project Handbook instead of creating a standalone plan.
-	8.4	new	Added a section on Managing Stakeholders. A new Stakeholders Checklist has also been created.
-	8.5	new	Added a section on Managing Requirements.
Appendix C	Appendix C	updated	The introduction of this section has been updated, a section has been added describing the Agile Project Core Team (A-PCT) roles, and a note has been added to the end of the appendix on outsourcing of IT projects.
-	Appendix D	new	Added section about other (EC) roles that are sometimes involved in projects.
Appendix D1	Appendix E1	updated	The PM² Artefacts Landscape has been updated.

Appendix D1	Appendix E1	updated	The Overview of PM² Activities & Artefacts has been updated.
Appendix D2	Appendix E2	updated	The quick start guide has been updated.
Appendix E	Appendix F	updated	Minor updates in the code of Ethics.
-	Appendix F.2	new	Added a section on Personal and Professional Virtues.
Appendix F	Appendix G	updated	Several terms in the glossary have been updated.

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Appendix F: Ethics and Conduct

F.1. PM² Code of Professional Conduct

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

A conduct is a mode of personal behaviour especially as based on moral principles, while, 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 conduct themselves with respect towards them.

- **INDEPENDENCE:** staff conduct and decision-making should be determined by the need to serve the common good and the public interest, and never by any other interests whether private or otherwise or as a result, for example, of political pressure.
- **IMPARTIALITY:** in any decisions staff are called upon to make, their approach should be unbiased.
- **OBJECTIVITY:** when drawing conclusions, these should be balanced and based on a thorough analysis of the facts and the legal background.
- **LOYALTY**: loyalty towards the Commission is essential for maintaining its independence and achieving its mission. 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. You also need to know and respect the legal obligations and administrative rules and procedures in force.

The summary of the Key Principles can be defined as **INTEGRITY**, which means adhering consistently 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 conduct as a professional exercising actively 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 provide reasons for any decision openly.
- **TEAMWORK** and **CONFLICT RESOLUTON**: working together to achieve common goals by finding workable solutions through better mutual understanding.
- **POLITENESS** and **CLEAR COMMUNICATION**: engaging colleagues by showing respect and encouraging efficiency through clarity of instructions.

EC Useful Resources and Reference Documents

General

- Staff Regulations (**http://www.cc.cec/statut/_en/tit12.htm**)
- Communication from VP 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 Public and Media

- Code of Good Administrative Behaviour – 2000/633/CE (http://eur-lex.europa.eu/LexUriServ/site/en/oj/2000/l_267/l_26720001020en00630066.pdf)
- General guidelines for 'Staff as Ambassadors' – SEC(2007)912/9
- Social Media Guidelines for all staff – Administrative Notice n° 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 n° 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 n° 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 VP Kinnock to the Commission on how to enhance effective application of Whistleblowing rules and protection of Whistleblowers – SEC(2004)151/2

Conflict of interests

- Financial regulation – Art 57
- 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

F.2. Personal and Professional Virtues

A virtue is a strength (or excellence) for 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 it is subjective, will vary with individuals and their respective circumstances and should be determined by good judgement. The emphasis on the moral virtues is placed on the proper control of one's disposition and actions, for the purpose of helping them discover the right principles of conduct, to know what they ought to do in given situations, as a means toward the achievement of some higher and more inclusive goal.

The virtue of **Prudence** refers to our ability to carefully consider how we can achieve our best interest that contributes to our well-being. Prudence is characterized as an "executive disposition" because its outcome is something to be executed. It can be examined on two levels: the level of purpose (can we set worthy goals?) and the level of deliberation (are we able to carefully consider the course and the means of our actions so as to attain the desirable goals?).

Judgement refers to our ability to evaluate what is true and what is not. Judgement 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 Judgement (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 correctly the circumstances, to understand the relationships between things, to analyse and synthesize. 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 well-being.

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). Courageous is someone who 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. Aristotle defines Fairness as the mother of all virtues ("superior to all virtues and excellent"). Besides, for one to be really they have to have all virtues.

The virtue of **Generosity** (or Liberality) 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 knowledge 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 his 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). Rude is the person who enjoys conflict, without taking into consideration whether it displeases or embarrasses others. Obsequious is the person who demonstrates servitude and is mostly interested in being likeable to others, and 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, regarding 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 it 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 the great honours while they actually deserve them, whereas a vain person believes that they deserve great honour while they actually do not deserve them. The magnanimous (magnum=great) consider they deserve the greatest goods (wealth, influence, prestige, distinctions etc.) when they indeed deserve them.

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

Behavioural Competency	Virtues
Leadership	All
Engagement and Motivation	Humour, Fairness
Self-Control	Calmness, Temperance, Courage
Assertiveness	Courage, Judgement, Prudence
Relaxation	Calmness, Temperance, Courage, Humour
Openness	Fairness, Friendliness, Honesty
Creativity	Courage, Generosity, Insightfulness
Results Orientation	Prudence
Efficiency	Prudence, Generosity
Consultation	Friendliness, Insightfulness
Negotiation	Courage, Fairness, Magnificence
Conflict & Crisis	Judgement, Honour
Reliability	Prudence, Honour
Values Appreciation	Insightfulness, Friendliness, Fairness, Honesty, Honour

Although all virtues affect more or less all competencies, the virtues of Judgment, Prudence and Insightfulness are considered as comparatively more important for the Contextual Competencies, while the ethical virtues are considered as comparatively more important for the Behavioural Competencies.

Appendix G: Glossary

A	
Accept (risk response strategy)	Accept is a risk response strategy that consists in accepting the potential loss if the 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	Acceptance is the act of approving (sign-off) deliverables if they meet the defined acceptance criteria, by the Project Owner, in the end of the executing phase (deliverables acceptance) and closing phase (project final acceptance).
Acceptance Criteria	Acceptance criteria are 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)	Accountable role is the person/group/entity that is ultimately answerable for the correct and full completion of the deliverable or task and normally delegates the work to those responsible and approves project key milestones and deliverables. There is just one accountable person/group/entity per activity/task.
Achievements	Achievements are the successful accomplishment of project outputs, by executing project activities.
Activity	Activity is a set of tasks/work belonging to a process/work package in a project with measurable outputs and limited duration.
Actual Effort	Actual effort is the amount of work in cost (euros) or effort (Man-days) actually incurred until a given point in time (e.g. until the end of last week). Also known as Actual Effort or Actual Cost (AC) or Actual Cost of the Work Performed (ACWP).
Administrative Closure	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 all resources formally released.
Agile Project Management	Agile is an approach described by a set of working principles and practices, which promotes an iterative delivery approach, collaboration of self-organized teams, and process adaptability throughout the duration of the project.
Application Management Team (AMT)	Application Management Team (AMT) is comprised of members with skills regarding the operation and maintenance of the IT-specific application software. This team can consist of internal (DG) or external people and is made up of profiles such as operator, programmer, tester (or similar).
Appropriate Governance Body (AGB) Role	Appropriate Governance Body role is the group/entity responsible for the strategic planning and portfolio management at DG or corporate level and it can be set for a specific domain or appear in different stages of the governance process.
Approval	Approval is a formal acceptance (positive decision) of something, such as a deliverable, an artefact, a project change or a risk response strategy.
Architecture Office (AO)	Architecture Office (AO) plays an advisor role to the project teams on architecture aspects (e.g., Application Architecture and IT Systems Architecture). They develop architecture standards for projects.
Artefacts	Artefacts are tangible outputs of the project management activities such as Project Management Plans, Project Work Plan, Meeting Minutes, Logs, Checklists, Reports, Business Case and Project Charter.
Assistant Project Manager (APM)	Assistant Project Manager is an optional PM² role. The Assistant Project Manager (PM) (APM) assists the Project Manager (PM) on project management/administration activities.

Assumption	A hypothesis or unconfirmed data accepted as is, in order to proceed with project planning even if it can have an influence on the project. Developing different scenarios that match the various different outcomes of an assumption is risk management.
Audit	Audit is an independent evaluation of an organisation, process, project or deliverables to provide an appropriate level of assurance.
Authority	Authority is the right to give orders, make and enforce decisions, apply project resources, and sign approvals.
Avoid (risk response strategy)	Avoid is a risk response strategy that consists in changing project conditions, plans, activities or even scope to render the risk irrelevant to the project (i.e. Impact=0 or Likelihood=0%).

B	
Backup	Backup is the process of copying data to a separate storage device in order to protect it against unavailability or corruption of the original data.
Baseline	A Baseline is a desired value of a project dimension (scope, budget, schedule, etc.) or plan that we agree to freeze and that will serve as a reference during the project execution. During the course of the project, new baselines can be defined following the appropriate change management process.
Benefit	A benefit is a positive effect resulting from a project (seen as positive by one or more stakeholders). Benefits should be measurable.
Best Practice	Best practice refers to a method or technique established through experience and research that has consistently shown results superior to those achieved with other means.
Bottom-up (technique)	Bottom-up is 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 project budget is the approved annual allocation of European Commission financial resources to a specific project/objective.
Budget Lines	Budget lines are financial resources specific to a DG that can be associated to a program, an action/decision, a directive, a project, a task relating to the Administrative Autonomy of the EC, an EC' prerogative, among others. This term is often used as a synonymous of funding sources.
Budget Performance	Budget performance or Cost Performance Index (CPI) is an indicator of project cost efficiency of work accomplished to date and it is the ratio (percentage) of the earned value (progress) and the actual effort (Ratio= Progress/Actual effort *100). If this indicator is lesser 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 Business Case is a document that provides contextual information to the decision makers on the project's costs and benefits, strategic alignment and/or business problems the project intend to solve. It captures the reasoning for the project, presents different alternative solutions, provides the justification for the investment in time and effort and establishes its budgetary needs.
Business Continuity Planning (BCP)	Business continuity planning is a process that identifies all critical functions, services and activities that must be accomplished to enable an organization 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 for Business continuity management covers the Disaster Recovery Plans which are dedicated to the recovery of ICT systems and activities in case of their major disruptions.
Business Governing Layer	The Business Governing Layer is composed by European Commission Decision Bodies from several business domains responsible for governing the project. Also see the definition for "Appropriate Governance Body (AGB)".

Business Implementation Group (BIG)	The Business Implementation Group consists of representatives from the business (customer) and user groups. The BIG is responsible for representing the receiving organisation during various phases of the project, specifically during business implementation of the solution and user acceptance activities.
Business Implementation Management	Business implementation management consists in planning, executing and controlling those activities that support the organisational changes that need to be in place so that (project) deliverables are integrated effectively into every day work.
Business Implementation Plan	The Business Implementation Plan outlines the impact of the project and its deliverables on the requestor organisation along with the change management activities that need to take place. The organisation must assure that the normal operations are not disrupted by the project, and that the project outputs are effectively integrated into the organisation. A change management plan is devised to ensure the above and increase the chances of achieving the desired project outcomes and benefits.
Business Manager (BM)	The Business Manager is a delegate of the Project Owner (PO) and acts on a daily basis on his/her behalf. The Business Manager (BM) also assists the Project Owner (PO) on the specification of the project and the main business objectives and works very closely with the Project Manager (PM).
Business Objectives	Business objectives are 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 organization 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	A capability describes 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	Capability Maturity Model Integration (CMMI) defines 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	A change is the act, process or result of the transition from an existent state to a new one.
Change Control	Change control is an activity in the PM² Change Management Process for the purpose of evaluating, accepting or rejecting 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. At the European Commission this role is often performed by the Project Steering Committee.
Change Log	A Change Log is a register of project changes used for logging, assessing, monitoring, controlling and tracking change requests and decisions. It also serves as a means of communicating them to the Project Owner and/or Project Steering Committee.
Change Request	A Change Request is 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 request for a change 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 change status represents the status of a change request logged in the change log. It can assume the following values: Submitted, Investigating, Waiting for Approval, Approved, Rejected, Postponed, Merged, and Implemented.

Client	See *Requestor Side*.
Closing Phase	The closing phase is the final phase of the project. 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 and the project is administratively closed.
Communications Management Plan	The Communications Management Plan artefact provides a description of the communication needs and expectations for the project. It defines and documents the communication items content, format, frequency, the audience and expected results. It also defines how to communicate project status and the assignment of activities to the various stakeholders, and the communication strategy for each stakeholder, based on their interests, expectations and influence in the project.
Community of Practice (CoP)	A Community of Practice can be described as a group of people who share a common interest and/or a profession. DIGIT PM² team regularly runs Project Management Community of Practice events for all EC staff interested in the promotion and improvement of project management in the Commission
Competency	Competency refers to the skill and capacity required to complete (project) activities. If project team members do not possess the required competencies, then the performance of any activity/project can be jeopardised. When such a mismatch is identified, training, coaching, hiring of consultants, adaptation of the project schedule or even scope change must be considered.
Compliance	Compliance means conforming to applicable standards, methodologies and project requirements (e.g. quality requirements), laws, business rules etc.
Configuration Item	Configuration item is 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	Configuration management refers to a discipline that provides control of the assets used by the project (e.g. artefacts, deliverables, hardware, etc.).
Context	Context is the overall set of organisational (internal) and external factors that influence or determine the project need and urgency.
Contingency Plan	A contingency plan states 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)	The Contractor's Project Manager is a role performed by a resource from the contractor side and consists in managing the daily progress of the outsourced activities in order to deliver the 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 project status and progress.
Constraint	Constraint is an internal or external limitation to a project that will affect its performance in terms of time, cost or quality.
Consulted Role (RASCI)	Consulted role is the person/group/entity that provides input for an activity as a contributor, an expert, a reviewer, or other.
Corrective Actions	Corrective actions are 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 are 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 the 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	Critical path is 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 methodology tailoring.

D	
Dashboard	A 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 and show the status of such project variables as budget, schedule, quality, scope, risk, etc. and allow you to drill down for more information.
Data Controller	The Data Controller is a standard Commission role that is accountable for the personal data processing according to the Data Protection Regulation 45/2001.
Data Owner	Data Owner is one of the standard Commission roles that concerns with data security. The Data Owner ensures the consistency, validity and security needs of the information in his/her local domain of responsibility.
Data Protection Coordinator (DPC)	The Data Protection Coordinator is nominated by the Director General and assures a coherent implementation of Regulation 45/2001 in the DG. Data Protection Coordinator provides advice and assistance to all responsible, and specifically assists Data Controllers in the DG 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 DG, and liaise and cooperate with the DPO. They also represent the DG in the network of coordinators, which is chaired by the DPO.
Data Protection Officer (DPO)	Each institution has one or more Data Protection Officer 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 the European Data Protection Supervisor and respond to requests from the European Data Protection Supervisor. In critical situations they may investigate matters and incidents (own initiative).
Decision Log	The Decision Log contains a summary of project decisions taken. It brings visibility to decisions and accountability as to how and by whom they are taken, as well as to whom they should be communicated.
Deliverables	Deliverables are agreed, verifiable project outputs which will results in an outcome for the receiving party.
Deliverables Acceptance Management	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	The Deliverables Acceptance Management Plan is one of the quality management artefacts and defines and documents the deliverables acceptance approach, activities, responsibilities and acceptance criteria along with acceptance tolerances.
Deliverable-based Breakdown	Deliverable-based breakdown is a technique to represent and organise project work by deliverables and then the work needed to produce them is defined and organized under these deliverables.
Dependencies	Dependencies are 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 Development Team is a role applicable to projects with an IT component and consists of members with required development skills (programmers, analysts, testers…) and application knowledge for the project; it is part of the Project Core Team. A Development Team can either be internal (DG) IT Team or outsourced to an external contractor team.
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 realize the project's objectives. The Directing Layer is comprised of the roles of Project Owner (PO) and Solution Provider (SP).
Document Management Officer (DMO)	Document Management Officer is a role that assures a coherent implementation of the Document Management Roles in the DG.
Domain	A subject area with common requirements, terminology, and metadata. At the Commission, it's the highest grouping level for the DGs activities.
Domain Specific Artefacts	The domain specific artefacts are specific to the domain of the project 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, these artefacts should also 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 (IT Projects), Architectural Layouts (Renovation/Moving Projects), Laws/Policies (Policy Projects) etc.

E	
Earned Value (EV)	Earned Value is 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
EC Procurement Process	EC procurement process is a detailed procurement process that is available to projects. The EC procurement process supersedes the Outsourcing Plan.
Escalation	Escalation is an activity that request 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 escalation (senior decision layers need to be involved).
Executing Phase	The executing phase is 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	A feature is 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 and is obtained from the Project Owner (PO), after consulting the Project Steering Committee, through a formal project final acceptance sign-off.
Findings	Findings are results from an 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 judgement.
Full-Time-Equivalent (FTE)	One FTE indicates the equivalent work of one full-time person on the project (in man-weeks, man-months or man-years). A half FTE indicates the equivalent work of a half-time person, and so on.

Functionality	Functionality is the set of capabilities associated with a product or service. In an IT context, the ability of a program 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.
Function Point Analysis (FPA)	Function Point Analysis is an estimating technique that is used in IT projects only when gathering requirements. It breaks the system up into smaller components so they can be better understood and analysed. It is one of the approaches listed in the PM² Guide that can be used for estimating time and cost for each activity.

G	
Gantt Chart	Gantt chart is a type of bar chart that illustrates a project schedule. This chart may show information such as activities, start and end, duration and relation between activities.
Goal	A goal is the result or achievement toward which effort is directed. Goals are broad statements of achievable outcomes, consistent with the mission statement of a program or Organisation.
Governance	Governance is the act of governing and is therefore concerned with how decisions will be made. In the Commission, governance is a process to develop a more strategic approach to projects/programmes, in order to achieve an efficient use of the Commission's resources and investments and to ensure that business needs are supported by efficient tools. This process is performed by the Governance Bodies (please see "Appropriate Governance Body Role" definition). The PM² methodology describes the governance at project level, which supports project governance model, project lifecycle and a set of processes and related artefacts.

H	
Hybrid estimation (technique)	Hybrid estimation is an approach for estimating project work that contains aspects of both bottom-up and top-down techniques.

I	
Impact (risk, issue or change)	Impact is the measure of the effect of a risk, issue or change on the objectives and activities of a project.
Impact (of a project)	Impact is the measure of the effect of a project (permanent or temporary changes) on the organisation (processes, policies, technology, culture and people) or on the external environment.
Information Distribution	Information distribution is an activity performed during the executing phase that aims to regularly communicate project information to project stakeholders, based on the Communications Management Plan.
Information Resource Manager (IRM)	Information Resource Manager is a horizontal function in a DG and it is not directly applicable in the Project Management lifecycle. IRM may be the Solution Provider (SP) for a project with an IT component and as such manage the Project Manager (PM).
Information System (IS)	The 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.
Information Systems Project Management Board (ISPMB)	The Information Systems Project Management Board is composed of 7 DGs Resources Directors and chaired by DIGIT Director General. The ISPMB has the mandate of examine all new IT project proposals with a projected TCO over 500 k€; advise on corporate and other solutions for DGs' business needs; provide early warning to the High Level Committee on IT (HLCIT) and, if necessary, to the ABM+IT steering committee, on difficulties encountered with IT projects.

Information Systems Security Policy (ISSP)	The European Commission has formulated the Information Systems Security Policy to define the basic rules necessary for securing the information systems of the Commission, and provide a framework to allow all the General Directorates, Offices, Delegations, temporary settlements of the Commission to derive specific security policies and plans to meet their specific security requirements without compromising productivity.
Informed Role (RASCI table)	The informed role is the person/group/entity that is informed of the status or outputs of activities (kept up to date). This role is a one-way communication.
Infrastructure Costs	Infrastructure costs are the costs related to equipment, materials, facilities, hardware, among others, required to deliver, support, operate and maintain the delivered solution.
Initiating Phase	The initiating phase is the first phase in a PM² project. Its purpose is (1) to define what the project will do (formulate the objective of the project), (2) to get the project off to a good start by performing some initial planning, and (3) to provide and present the necessary information to get approval to continue to the next phase.
IPMA-ICB	International Project Management Association – Competence Baseline is a framework that documents an approach to project management broken down into 46 competence elements, covering technical, behavioural and contextual competences.
Ishikawa Diagram	An Ishikawa diagram (also called a fishbone diagram or cause-and-effect diagram) shows the causes of a specific event and is very useful when investigating issues. This diagram helps to describe the problem/issue, and to identify potential causes and categorise them, etc.
Issue	An issue is 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 will be entered into the Issue Log, examined and sorted. An issue can be raised by anyone and it is better to solve the root cause to ensure that the issue will not re-occur.
Issue Log	An issue Log is the register (log file) used to capture and maintain information on all of the issues that are being managed formally. 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	Issue management consists in the activities related to identifying, documenting, assessing, prioritising, assigning, resolving and controlling issues.
Issue Management Plan	The Issue Management Plan defines and documents the activities, the roles and responsibilities of those involved in identifying, assessing, assigning, resolving and controlling project issues.
Issue Status	Issue status represents the stage in which issue is within the issue management process and can assume the following status: Open: the issue has been identified but no decision yet on how to resolve it. Postponed: this status is set for postponing the issue due to other priorities. Resolved: indicates that all necessary actions are completed and issue is solved.
IT Steering Committee (ITSC)	In the European Commission, the IT Steering Committee provides governance for IT projects at Programme level while the Project Steering Committee provides guidance at Project level. The IT Steering Committee approves and commits resources for the portfolio of projects and information systems in the DG.

K	
Kick-Off Meeting	A kick off meeting is normally 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 Key performance indicator is a quantifiable value used to compare performance (how efficient) in achieving a project/service/deliverables/process/activity objective.

L	
Lessons Learned	Lessons learned is 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 reported in the Project-End Report.
LISO	The Local Information Security Officer consults, gives advice, and assists with security aspects concerning the project. They can participate on the Project Steering Committee and they collaborate with the Data Protection Coordinator (DPC).
Log	A log is a register of project events and actions related to project risks, changes, issues and decisions. These files 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 macro-process is a set of processes related to a sub-domain. It corresponds to a grouping of activities according to common business logic. Sometimes the consolidation process corresponds to the sequential execution of many processes.
Major Risk	A major risk is a risk that can jeopardize the realisation of project objectives or major milestones and which its risk level (combination of its impact and likelihood) falls into the upper end of the scale of the risk assessment matrix.
Managing Layer	The Managing Layer is focused on the day-to-day project realisation by organising, monitoring, and controlling the project work to produce the intended deliverables and implement them into the business organisation. Members of the Managing Layer report to the Directing Layer. The Managing Layer is comprised of the roles of Business Manager (BM) and Project Manager (PM).
Methodology	Methodology is 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 metric is a quantifiable value that allows the measurement of the achievement of a project/service/deliverables/process/activity objective. Metrics should be specific, measurable, actionable, relevant and timely captured. Metrics provide important information for project control (e.g. risk, budget, issues, motivation and quality).
Milestones	A milestone is a significant point or special event in a project that receives special attention. In PM² we refer to management milestone artefacts as they are off special interest to the Project Steering Committee (PSC). Milestone can also be used to mark key deliverables, control points, acceptance of the final outputs to closing the project.
Minutes of Meeting (MoM)	The minutes of meeting is a summary of what was discussed in a meeting such as project issues, decisions taken and risks and can be used as an input to the following meetings.

Mitigation	Mitigation is an action performed to: (1) lower the chances of a risk occurring, and (2) reduce the effect of the risk on the project by minimising the impact of the risk if it occurs. Please see "Reduce" (risk response strategy) definition.
Monitor & Control	Monitor & Control is a group of continuous activities that spans the life of a project. All those activities are focused on measuring the correct execution of the project against the agreed baselines by the use of key metrics like costs, time, quality indicators, and by taking corrective actions if the execution goes too far off the plans.

N	
Non-compliance	Non-compliance is the failure to comply with project requirements.
Non-conformities	Non-conformities are the non-fulfilment of project requirements (the requirements that are not met).

O	
Objective	A target or metric that a person or organization seeks to meet. It can be the desired output of a change/project. As much as possible, objectives should be Specific, Measurable, Attainable, Relevant and Time-bounded (SMART).
Operations	Operations are the day-to-day activities performed by the permanent organisation to deliver services or products.
Opportunity	Opportunity is a favourable condition that can be exploit (suggest the implementation of actions) to result in a positive change/an improvement in the project environment.
Organisational - based Breakdown	Organisational-based breakdown is a technique to represent and organise project work by organisational entities (e.g. DGs), and the deliverables and project work are defined and grouped in lower levels.
Outcomes	Outcomes are project results after the project has been closed and they represent the change that the original purpose of the project wanted to implement.
Outputs	See "Deliverables" definition.
Outsourcing Plan	The Outsourcing Plan describes the contracting strategies that will be used to outsource any services or products outside the European Commission to fulfil the project needs, outlines the scope of products and/or services to be contracted and identifies responsibilities for the full contract lifecycle. This plan also includes the criteria for evaluating the contractors' service and deliverables.
Outsourcing Management	Outsourcing management consists in the activities of defining the services/products to be outsourced, their requirements and the procurement strategy, selecting the contractor, monitoring the quality of the service and evaluating/accepting interim and final deliverables and/or milestones according to agreed criteria.
Owner	Owner is the person/entity that is the ultimate 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	The purpose of the Pareto Chart is to categorise (highlight) the cumulative percentage of contribution of causes (issues, cost, …) according to the frequency that they occur. The Pareto Principle states that generally 80% of the effects come from 20% of the causes. One can then focus on those occurrences with high frequency and attempt to find a resolution for them first. This technique is known as Pareto Analysis.
Peer Review	Peer review is an impartial review/evaluation of a project deliverable or artefact performed by an expert or a group of experts in the same domain.
Performing Layer	The Performing Layer is composed by the Business Implementation Group (business and user representatives) and the Project Core Team. This is an operational layer, where most of the project activities are performed.

Phase-Exit Review Checklists	Phase-Exit Review Checklists are spread sheet based checklists that are used by the Project Manager (PM) to ensure that all the necessary items are in place before the project proceeds to the next phase or the project is closed. These checklists are concerned with checking key information in each phase and gathering lessons.
Phase Gates	Phase gates are 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 onto the next phase. These check points contribute to the overall project management quality and allow the project to proceed in a controlled manner.
Phase Input	Phase input represents the information that will be used in the phase activities and was produced before.
Phase Output	Phase output represents the information produced during the phase.
Plan	A Plan is a written projection of project activities and resources needed when executing a process, e.g. for risk management, change management or transition. A project plan should reply to the questions what, when, how and by whom.
Planned Effort	The planned effort is the amount of work in cost (euros) or effort (Man-days) planned to be performed until this moment (consider 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 planning phase of the project is where the subject of the project is verified and developed into a workable plan for implementation. The various standard and specific plans are created for the project in this phase.
PM² Mindsets	The PM² Mindsets present those attitudes and behaviours which help project teams focus on what is really important in achieving project goals.
PM² Certification Programme	The PM² CertiPro is designed as a knowledge and experience based project management certification for European Commission staff involved in project related work. PM²-CertiPro offers 2 Certification Levels: PM² Certified (Knowledge based) and PM² Practitioner (Experience based).
PM² Training Programme	The European Commission (EC) Training Services offers a complete training programme in Project Management (PM² TrainiPro). Staff can choose between project management courses organized in 4 groups and 2 levels and learn the project management processes, tools and techniques necessary for managing EC IT and non-IT projects effectively.
PMBOK	PMBOK stands for Project Management Body of Knowledge and is a guide that describes a set of standard terminology, practices and guidelines for project management, published by the Project Management Institute (PMI).
Portfolio (of projects)	Portfolio is a collection of projects, programmes and other activities, which are grouped together in order to achieve better financial and resource control, and to facilitate their effective management in terms of meeting strategic objectives. The projects or programmes of the portfolio may not necessarily be dependent 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.
Post-Project	Post-project represents the period after the project has been closed and includes the 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 on-going operations or future projects. These activities are usually defined in the Business Implementation Plan or recommended in the Project-End Report.
Post-Project Recommendations	Post-project recommendations are suggested courses of actions to improve project deliverables after the project has been closed and they are related to the operation of the product/service, such as extensions, updates, maintenance, ideas for follow-up projects, etc. These recommendations should be part of the Project-End Report.
Pre-Project	Pre-project represents the period before the official start of a project (i.e. before the approval of the Business Case) and includes the set of activities performed and information gathered related to an idea/need for a project.
PRINCE2	PRINCE2 is a process-driven Project Management method that supports selected aspects of Project Management. The acronym stands for Projects IN a Controlled Environment and it covers the organisation, management and control of projects.
Priority	Priority is a numeric value given to a project item (requirement, risk, task…) to classify its relative importance in comparison to other items.
Problem	A problem is an existent 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 decomposed into sub-processes, and can show operation of a function, system or service, and may also be used to link or compose organisations, functions, services, and other processes.
Process Categories	Process categories are the categories of the European Commission processes and they are classified into 18 process categories/domains as follows: Asset Management, Audit, Internal Communication, External Communication, Document Management, Financial Management, Grant Management, Human Resources, IT, Legislation Lifecycle, Statistics Management, Case Management, Trans-European Services and Infrastructure Management, Structured Data Exchange Management (Star Systems), Crisis Management (Alert systems), Procurement, Programme Management and Strategic Planning.
Products	A Product is the tangible output of a Project in the PM² methodology. For a business, a product might be a good they manufacture and sell to customers.
Programme	The programme often refers to the collection of projects aimed towards a common goal. A group of related projects managed in a coordinated way to obtain benefits and control not able to be derived from managing them individually. Programmes may also include elements of related work outside the scope of the discrete projects in the programme.
Programme Management	Programme management is the process of managing several inter-dependent (related) projects to better achieve the programme's strategic objectives and benefits.
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 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 performed 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 project change is a modification in the project environment (scope, schedule, resources, costs, risks, quality, artefacts, etc.) and 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 project baselines (scope, scheduling, staffing or budget).
Project Change Management Plan	The Project Change Management Plan defines and documents the change process for a project. It defines the activities, the roles involved and their responsibilities in identifying, documenting, assessing, approving, prioritising, implementing, controlling and communicating project changes.
Project Charter	The Project Charter is 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 regarding 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 that formally authorizes the existence of the project, the project team, and provides the project manager with the authority to use organizational resources to project activities. The final responsibility of correctness of the Project Charter is with the Project Manager.
Project Coordination	Project coordination is the process of managing and directing project activities and stakeholders, which includes the allocation of project resources to activities, performing continuous quality checks of the interim results of work, ongoing communication with all project members, as well as the continuous motivation of all those involved in the project through leadership, negotiations, conflict resolution and application of appropriate people management techniques.
Project Core Team (PCT)	The Project Core Team is a group on the provider side of the project that performs the day-to-day project activities under the coordination of the Project Manager. They play a key role in the successful completion of the project.
Project Drivers	Project drivers are those roles which lead the key activities in each phase of a PM² project. The project drivers differ from phase to phase.
Project-End Report	The Project-End Report is created in the Closing Phase by the Project Manager and summarises the project experience, performance, the lessons learned and the successful project practices and pitfalls.
Project-End Review Meeting	This meeting takes place in the Closing Phase. The aim of the Project-End Review Meeting 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 this meeting is documented in the Project-End Review MoM.
Project Handbook	The Project Handbook establishes 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 & responsibilities, approach and the artefacts to be used.
Project Initiation Request	The Project Initiation Request is 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 the implementation of a solution.
Project Lifecycle	The Project Lifecycle is the time between the start and the close of the project and includes 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 performs the final acceptance. The formal project closure terminates the project mode and allows the operations mode to start.
Project Management	Project management is the application of knowledge, skills and techniques for successfully manage work and resources to achieve project objectives and organisational goals.
PM² Project Management Methodology	PM² is the official project management methodology of the European Commission (EC) and aims to enable EC Project Managers to deliver solutions and benefits to the EC through the effective management of project work. It's a

	methodology created by the EC specifically for managing projects in the context of the European Institutions and for the purpose of facilitating the management of the complete lifecycle of projects.
Project Management Information System (PMIS)	The Project Management Information System is an application system used to support the PM² methodology and the management of projects at the European Commission. It is intended to support projects through all PM² phases (supplying templates and instructions) and be able to consolidate information for reporting and monitoring purposes.
Project Management Plans	Project Management Plans are used to define project management processes to be applied to the project such as Project Change Management Plan, Risk Management Plan, Quality Management Plan, Issues Management Plan, Communications Management Plan and Deliverables Acceptance Management Plan.
Project Manager (PM)	The Project Manager is a role in the project that is appointed by the Project Steering Committee to manage the daily progress of the project to deliver the outputs within the agreed constraints. The Project Manager also manages the Project Core Team on a daily basis.
Project Mode	Project mode refers to the project organisation while the project is running. Once the project is completed (closed), it moves from Project to Operations.
Project Owner (PO)	The Project Owner is the project sponsor promoting the success of the project. He/She 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 requestor DG.
Project Performance	Project performance is 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 project phase is a collection of project activities; it is a component of the project lifecycle. PM² has four sequential phases, which are Initiating, Planning, Executing and Closing. The Monitor & Control activities happen throughout the complete project.
Project Progress Report	The Project Progress Report is an artefact created by the Project Manager that aims to inform the Project Steering Committee on how the project is progressing compared to the baselines and Project Charter. It covers the status of the deliverables, effort, risks, major issues, actions, achievements, 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. each 1 to 2 months) and contains just a one-page summary of the Project Status. Please see also the "Project Status Report" definition.
Project Quality Assurance (PQA)	The Project Quality Assurance role is responsible for quality assurance and auditing aspects and they are optional members of the Project Steering Committee. This role helps the Project Manager in creating the Quality Management Plan.
Project Reporting	Project reporting is an activity performed by the Project Manager with the purpose of documenting and summarising the status of various dimensions of the project progress and communicating it to the 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.
Project Specific Plans	Project Specific Plans document and detail activities and resources of the project based on the project needs (e.g. Project Work Plan, Business Implementation Plan, Transition Plan and Outsourcing Plan).
Project Stakeholder Matrix	The Project Stakeholder Matrix lists all the people involved in the project (all known people from the requestor and provider side of the project) and clarifies their role(s) in the project.

Project Status Report	The Project Status Report is a frequent report (e.g. each 1 to 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 see the "Project Progress Report" definition.
Project Steering Committee (PSC)	The Project Steering Committee is responsible for monitoring the correct execution of the project. This Committee defines the main orientations 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 stakeholders groups should be represented in the Project Steering Committee.
Project Success Factors (PSF)	Project Success Factors are those elements within the structure and context of the project that are necessary to achieve success. The elements can be compared to hygiene factors in that their presence will not guarantee success but their absence will significantly increase the probability of failure.
Project Support Office (PSO)	The Project Support Office is an organisational body (or entity) providing project management services that may be linked to a specific project or be provided as a horizontal service by the organisation. The responsibilities of a PSO can range from providing simple project management support functions to facilitating the link of projects to strategic goals/corporate benefits by sharing resources, methodologies, tools and techniques. The PSO may advice the Project Manager (PM) on tools, methodology and administrative services, as well as the PSO 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)	The Project Support Team is composed by the Project Support Office (PSO), by the Project Quality Assurance (PQA) and by the Architecture Office (AO). The PST roles may be specific to a project or be provided as horizontal services by the organisation. This team offers administrative support to the project organisation and defines requirements to projects (e.g. related to reporting, methodology, quality, architecture, etc.).
Project Variables	These are the essential four baselined metrics under watch in the Monitor & Control activities: the cost, the schedule, the scope and the quality.
Project Vision Document	The Project Vision Document is an old version of an IT governance artefact and has been replaced by the Project Charter and by the Architecture Overview. Also see the "Project Charter" definition.
Project Work Plan	The 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	The Provider Side includes the resources of the project that develop and implement the solution, i.e. the Solution Provider, the Project Manager and the Project Core Team.

Q	
Quality	Quality in a project refers to the perception of the degree to which deliverables meet the stakeholders' requirements.
Quality Assurance (QA)	Quality assurance is the activity of providing the evidence needed to establish quality in work and therefore provide enough confidence that the project will satisfy the desired scope and quality requirements within the project constraints.
Quality Characteristics	Quality characteristics are the quality requirements for the project, based on the project objectives, approach, deliverables, expected benefits and resources available. Quality characteristics are then translated into criteria that will be used to evaluate deliverables and artefacts compliance against the expected outputs.

Quality Control	Quality control is the activity of monitoring and consolidating results from the quality assurance activities in order to assess compliance and performance, recommend necessary changes, and plan new or refine existing quality assurance activities.
Quality Management	Quality management consists in performing quality planning, quality assurance, quality control and quality improvement up till the point of the final project acceptance (Closing Phase). Quality management aims to ensure that the current project will meet the expected results in the most efficient way and that deliverables will be accepted by the relevant stakeholders.
Quality Management Plan	The 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 performed throughout the project.
Quality Record	A quality record is the output of a quality management activity and is the evidence that this activity has been performed.
Quality Review Checklist	The Quality Review Checklist is a tool used throughout the project (when performing quality control) to check if the quality management activities have been performed as defined in the Quality Management Plan.

R	
RASCI	The acronym RASCI comes from the words: Responsible, Accountable, Supports, Consulted and Informed and is also known as the Responsibility Assignment Matrix (RAM). Please see "Responsibility Assignment Matrix" definition.
Rational Unified Process (RUP / RUP@EC)	The Rational Unified Process (RUP) is an iterative software development process framework. RUP is an adaptable process framework, intended to be tailored to suit the project or organisation. RUP@EC is a tailored version of RUP for use in the Commission.
Ready for Closing (RfC)	Ready for Closing is 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)	Ready for Executing is the second phase/approval gate at the end of the Planning Phase, where the planning artefacts have to be approved by the Project Owner and, in collaboration with the Solution Provider and the Project Manager (PM), make a decision on whether the project is ready to move to the Executing Phase, or not.
Ready for Planning (RfP)	Ready for Planning is the first phase/approval gate at the end of the Initiating Phase and 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	Recommendation is the suggested course of action to improve a process/control/output and is associated to a finding resulting from a review/audit.
Reduce (risk response strategy)	Reduce is 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 that the residual risk can be accepted, or at least as much as feasible towards that level.
Requestor Side	Also referred to as *Client Side*. The requestor side includes the resources belonging to the organisation that requested the project and where the solution will be delivered, such as the Project Owner (PO), the Business Manager (BM) and the Business Implementation Group (BIG).
Requirement	It is 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 properly fulfil the customer's demands.
Residual Risk	Residual risk is the one that remains after the implementation of the risk response strategy or after considering existing controls.
Resource	A resource is an asset or object needed to achieve project objectives, e.g. people, budget, software, hardware, facilities, equipment and materials.
Responsibility Assignment Matrix (RAM)	Responsibility Assignment Matrix is also known as RASCI pronounced "rasky". It is a way of showing the structure and clarifying roles and responsibilities for an activity and to help ensuring that each component of the project work is assigned to a person or a team.
Responsible Role (RASCI table)	Responsible role is the person/group/entity that have to perform the tasks or ensure that they are done while others can support it (also do part of the work) or be consulted (review or approve the work).
Reviewer	The reviewer is a person who formally assesses and validates an artefact or deliverable.
Risk	A risk is uncertain event or set of events (positive or negative) that, should it occur, will have an effect on the achievement of the 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	Risk appetite is the level of risk the European Commission is prepared to accept in the pursuit of its objectives.
Risk Assessment	Risk assessment is the evaluation performed by taking into account the risk appetite, the existent vulnerabilities, the probability of an identified event to occur and the impact in project objectives if this event happens. Each risk level is calculated and then risks are prioritised.
Risk Assessment Thresholds Matrix	Risk Assessment Thresholds Matrix represents the different combinations of likelihood and impact of project risks in a scale between 1 to 25 and defining bands of risk level that suggest risk response strategies.
Risk Impact	The risk impact is the potential consequence should the risk materialise. It can be both quantitative and qualitative in nature.
Risk Likelihood	The risk likelihood is the estimated probability that the risk will materialise even after taking account of the mitigating measures put in place (the residual risk).
Risk Level	The risk level is the result of the combination of the likelihood that a risk occurs with its impact should it occur. (RL=L*I).
Risk Log	A Risk Log acts as a central repository for all risks identified by the project or organisation and, for each risk, includes information such as risk likelihood, impact, risk response strategy, risk owner and so on. A Risk Log can also be referred to as a Risk Register or Risk List (RUP).
Risk Management	Risk management is 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	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 risk level bands, 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 the relevant risk response actions.
Risk Owner	The Risk Owner is the person accountable for the management and monitoring of a particular risk.
Risk Reserve	Risk reserve is the amount of budget or time estimated and allocated to implement project risk response strategies.

Risk Response Strategy	The risk response strategy is the selected strategy to manage a risk. There are four strategies to be considered as risk responses: Avoid, Transfer or Share, Reduce or Accept a risk.
Risk Status	The risk status represents the status of a risk logged in the Risk Log. It can assume the following statuses: Proposed, Investigating, Waiting for Approval, Approved, Rejected, Closed.
Root Cause	Root cause is the original/primary cause of an issue.

S	
Schedule	A schedule is part of the PM² Project Work Plan and 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.
Schedule Control	Schedule control is an activity that consists in monitoring schedule and tracking the differences between planned, actual and forecasted schedule/deadlines. It also includes the assessment of the impact of changes on the schedule and the incorporation of these changes into the Project Work Plan.
Schedule Performance	Schedule performance is an indicator of project schedule efficiency and it is the ratio (percentage) of the earned value (progress) and the planned effort (Ratio= Progress/Planned effort/ *100). If this indicator is lesser than 100% it means that the project is behind schedule; if higher than 100% it means that the project is ahead of schedule. Also known as Scheduling Performance Index (SPI).
Scope Statement	The scope statement describes what needs to be accomplished in a project. It states the major project objectives, deliverables and constraints (e.g. deadlines). The project scope is first defined in the Business Case and then elaborated in the Project Charter. A good scope statement should include a brief description of the justification, objectives, outputs, constraints, assumptions and exclusions.
Services	Services are intangible project outputs that enable the requestor to achieve the desirable outcomes.
Service Mode	Service mode represents 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 systems lifecycle. The service mode is also known as operational & corrective maintenance mode.
Share (risk response strategy)	Share is a risk response strategy to reduce the likelihood or impact of a risk by sharing a portion of the risk with other organisations, e.g. by outsourcing activities, sharing investments or signing fix price arrangements with the provider.
Service Level Agreement (SLA)	A service-level agreement is usually a part of a service contract where the service KPIs targets are defined and agreed between two parties.
Situation	A situation is a set of problems, needs and opportunities that affect the existing state.
Solution	A solution is a set of products and/or services that solves a business problem or meets a business need.
Solution Development Costs	Solution development costs are the costs of the external Human Resources (non EC officials) required to develop project deliverables.
Solution Maintenance Costs	Solution maintenance costs are the costs of external Human Resources (non EC officials) required to maintain project deliverables (changes to project deliverables).
Solution Provider (SP)	The Solution Provider assumes the overall accountability for the deliverables and services requested by the Project Owner. He is typically a Head of Unit.
Specification	A specification is a complete, testable and documented set of requirements to be satisfied by a solution. Specifications can be described e.g. in Use Cases, Business

	Rules, Story Boards, etc...
Stage-based Breakdown	Stage-based breakdown is a technique to represent and organise project work in sequential phases or stages/iterations.
Stakeholder	A stakeholder is any individual, group or organisation that can affect, be (positively or negatively) affected by, or perceive itself to be affected by the project. A stakeholder can also exert influence over the project and its deliverables.
Stakeholders Checklist	A checklist to assist when dealing with stakeholders during the lifecycle of the project.
Stakeholder Need	A stakeholder need is 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	The Steering layer provides general project direction and guidance, keeping the project focused towards its objectives. It reports to the Appropriate Governance Body (AGB), which operates on a more strategic level. The Steering Layer is comprised of the Project Steering Committee (PSC) roles.
Success Criteria	Success criteria are 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 ideally SMART (Specific, Measurable, Achievable, Relevant and Time-bounded).
Support Costs	Support costs are the costs of external Human Resources (non EC officials) required to support 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)	Supports role is the person/group/entity that works with the person responsible and performs part of the activity. Unlike the consulted role, the support role helps to complete the activity.
SWOT Analysis	A SWOT analysis is a method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project. Generally it begins with specifying the objective of the project and identifying the internal (Strengths & Weaknesses) and external factors (Opportunities and Threats) that are favourable and unfavourable to achieve that objective.
System Security Officer (SSO)	The System Security Officer ensures that the security of the specific system is consistent with the principles of the Security decision C(2006)3602.
System Support Team (SST)	The System Support Team is responsible for the hosting of the IT deliverables. They ensure the day-to-day running of the system (hardware/software) in order to provide services to the user community as specified in the SLA.

T	
Tailoring	Tailoring of the PM² Methodology refers to adapting the methodology to the particular environment and needs of the organisation (e.g. DG, 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 the tailoring of 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.
Template	A template is a pre-developed document or file having 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 used.
TEMPO	TEMPO is the name of the project method that is tailored and used by the DG-TAXUD. From a PM² point of view, the TEMPO method provides a thorough guideline for outsourcing.
Test Defects Report	Test Defect Report is specific of a project with an IT component. This report is the output of testing activities and can provide important information on what needs to be done to complete the deliverables under review.
Threshold	A threshold is a value or interval of values at which a specific action is triggered.
Test Manager	The Test Manager (role) is responsible for the collection and reporting of the tests as well has leading a testing team. This role is assumed by the Assistant Project Manager (APM) if no Test Manager has been defined.
Tolerance	A tolerance is 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 escalate this issue to the above level. Without tolerance, every issue would be escalated immediately and the Project Steering Committee would end up running the project.
Top-down (technique)	Top-down is an approach for 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)	The Total Cost of Ownership defines the total estimated cost to deliver the project outcomes, normally in a five year period estimation.
Total Planned Effort at Completion	The Total Planned Effort at Completion is the total budget allocated to a project (baseline of project total costs). Also known as Budget at Completion (BAC).
Traceability	Traceability is the ability to verify the history, location, or application of an item by means of documented recorded identification.
Training Costs	The Human Resources costs required to provide training to the requestor side (end-users, …) or to teams that will support and maintain the solution.
Transfer (risk response strategy)	Transfer is a risk response strategy that consists in transmitting the risk to a third party e.g. through insurances or outsourcing activities. This strategy does not relieve the European Commission of a risk, but can reduce the financial impact if the risk occurs. There is always still a level of residual risk since the ultimate responsibility for the project risks remains with the Commission.
Transition Management	Transition management is 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	The Transition Plan defines the pre-requisites of rolling out the new "solution". This is useful to ensure the smooth transition from the project to the operations mode.

U	
Urgency	Urgency is a measure of the time that will take until the issue will affect project objectives or activities.
User Acceptance Test (UAT)	User acceptance testing consists in the testing of a set of requirements to ensure that a deliverable meets user expectations. Usually these tests are already described in a test plan.
User Representatives (URs)	User Representatives is a role that represents the interests of the users to the project and ensure that the project specifications and deliverables meet the needs of all users. They can perform user acceptance tests and may be a member of the Project Steering Committee.

W	
Work-based Breakdown	Work-based breakdown is a technique to represent and organize project work by grouping work (e.g. work packages) that is further decomposed into smaller portions of work (i.e. tasks).
Work Breakdown	The work breakdown is part of the Project Work Plan and consists of a hierarchical description of all that must be done by the project team to meet the needs of the requestor. The work breakdown is a deliverable-oriented hierarchical decomposition of the project into smaller and more manageable components such as deliverables, work packages, activities, and tasks. Each lower level of the representation 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	Work package is a work component of the project work breakdown. It represents a group of project work.