

COURSEWARE

Certified PM² Practitioner by PM² GROUP Courseware

Elisabet Duocastella i Pla

Certified PM² Practitioner by
PM² GROUP Courseware

Colophon

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Publisher about the Courseware

The Courseware was created by experts from the industry who served as the author(s) for this publication. The input for the material is based on existing publications and the experience and expertise of the author(s). The material has been revised by trainers who also have experience working with the material. Close attention was also paid to the key learning points to ensure what needs to be mastered.

The objective of the courseware is to provide maximum support to the trainer and to the student, during his or her training. The material has a modular structure and according to the author(s) has the highest success rate should the student opt for examination. The Courseware is also accredited for this reason, wherever applicable.

In order to satisfy the requirements for accreditation the material must meet certain quality standards. The structure, the use of certain terms, diagrams and references are all part of this accreditation. Additionally, the material must be made available to each student in order to obtain full accreditation. To optimally support the trainer and the participant of the training assignments, practice exams and results are provided with the material.

Direct reference to advised literature is also regularly covered in the sheets so that students can find additional information concerning a particular topic. The decision to leave out notes pages from the Courseware was to encourage students to take notes throughout the material.

Although the courseware is complete, the possibility that the trainer deviates from the structure of the sheets or chooses to not refer to all the sheets or commands does exist. The student always has the possibility to cover these topics and go through them on their own time. It is recommended to follow the structure of the courseware and publications for maximum exam preparation.

The courseware and the recommended literature are the perfect combination to learn and understand the theory.

-- Van Haren Publishing

Other publications by Van Haren Publishing

Van Haren Publishing (VHP) specializes in titles on Best Practices, methods and standards within four domains:

- IT and IT Management
- Architecture (Enterprise and IT)
- Business Management and
- Project Management

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Topics are (per domain):

IT and IT Management

ABC of ICT
ASL®
CATS CM®
CMMI®
COBIT®
e-CF
ISO/IEC 20000
ISO/IEC 27001/27002
ISPL
IT4IT®
IT-CMF™
IT Service CMM
ITIL®
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Enterprise Architecture

ArchiMate®
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Business Management

BABOK® Guide
BiSL® and BiSL® Next
BRMBOK™
BTF
EFQM
eSCM
IACCM
ISA-95
ISO 9000/9001
OPBOK
SixSigma
SOX
SqEME®

Project Management

A4-Projectmanagement
DSDM/Atern
ICB / NCB
ISO 21500
MINCE®
M_o_R®
MSP®
P3O®
PMBOK® Guide
Praxis®
PRINCE2®

For the latest information on VHP publications, visit our website: www.vanharen.net.

Author about this Courseware

Dear students, welcome to the PM² Practitioner Certification Preparation Course. Welcome back to all of you who already have your PM² Foundation Certification and welcome abroad to all of you who are taking directly your PM² Practitioner Certification. A warm welcome from a project management enthusiast.

This course is entirely built with the purpose of preparing you to obtain your PM² Practitioner Certification. Avoiding scope creep was a priority, so the course includes what you need for the certification, and no more than that.

For all of you that already know PM² you will have the chance to apply it to real projects and for those how are new we will walk you first through the methodology and end at the same point.

The material in front of you is articulated around these objectives:

- Giving you a deep view of PM² in the context of general project management.
- Teaching you the fundamentals of the PM² in preparation for the practitioner certification exam.
- Helping you concretely manage projects by discussing advanced project management techniques and putting them in the context of PM².
- Getting you to deeply understand PM² methodology so that you are able to apply, tailor and integrate it into real-world project environments.

As the PM² Practitioner Certification validates not only your theoretical knowledge, but also your practical ability to integrate PM² principles into projects' real-world environments, the exam is case-based. Therefore, the training combines theoretical explanations with project examples, points of reflection, guided activities, and questions.

- Theoretical explanations: the PM² methodology, the templates, checklists, and tools & templates will guide you throughout the course.
- Project examples: the course introduces two examples so that they can be developed using PM² best practices. One is a real example of a university project of engineering students using PM². And the other is a fake project related to the European Parliament elections.

- Reflection and guided activities: questioning and putting into practice the acquired knowledge, mainly based on the project examples.
- Questions: a set of case-based questions based on real experiences and contexts in which PM² best practices must be applied. You will find sixteen different scenarios with the aim of covering a high variety of sectors.

One of the challenges of this training is to cope with the diverse needs between students with or without prior PM² knowledge. To support this the course slides have distinct colors: orange slides for the foundation concepts and blue slides for the practitioner concepts. But don't worry, your trainer will take care of combining them and making sure you acquire the required knowledge.

I wouldn't like to finish without pointing out that if you are reading this text, it is because you are aware of PM² relevance and importance. PM² has not only filled an existing gap for simple, effective, and easily adaptable project management methodologies, but also does it with the full recognition of the European Commission.

Finally, I hope you all enjoy the course as much as I enjoyed preparing it.

So, let's start your certification challenge and have fun all together managing projects with PM².

Ready to start your PM² Practitioner journey !

Elisabet Duocastella Pla

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Self-Reflection of understanding Diagram

‘What you do not measure, you cannot control.’ – Tom Peters

Fill in this diagram to self-evaluate your understanding of the material. This is an evaluation of how well you know the material and how well you understand it. In order to pass the exam successfully you should be aiming to reach the higher end of Level 3. If you really want to become a pro, then you should be aiming for Level 4. Your overall level of understanding will naturally follow the learning curve. So, it’s important to keep track of where you are at each point of the training and address any areas of difficulty.

Based on where you are within the Self-Reflection of Understanding diagram you can evaluate the progress of your own training.

<i>Level of Understanding</i>	<i>Before Training (Pre-knowledge)</i>	<i>Training Part 1 (1st Half)</i>	<i>Training Part 2 (2nd Half)</i>	<i>After studying / reading the book</i>	<i>After exercises and the Practice exam</i>
<i>Level 4 I can explain the content and apply it .</i>					
<i>Level 3 I get it! I am right where I am supposed to be.</i>					<i>Ready for the exam!</i>
<i>Level 2 I almost have it but could use more practice.</i>					
<i>Level 1 I am learning but don’t quite get it yet.</i>					

(Self-Reflection of Understanding Diagram)

Write down the problem areas that you are still having difficulty with so that you can consolidate them yourself, or with your trainer. After you have had a look at these, then you should evaluate to see if you now have a better understanding of where you actually are on the learning curve.

Troubleshooting

Problem areas:

Topic:

Part 1

Part 2

You have gone through the book and studied.

You have answered the questions and done the practice exam.

Timetable

4 Days Training (32 hours)

Training for students without a PM² certification

Day 1

Morning

- 0. Course presentation + Foundation test (2h 20min)
- 1. PM² Proposal (20 min)
- 2. Project Management Fundamentals (1h)

Afternoon

- 2. Project Management Fundamentals + test (1h 20min)
 - 3. PM² Key Concepts + test (2h 20min)
-

Day 2

Morning

- 4. Governance Model + test (3h 40min)

Afternoon

- 5. Initiating Phase + test (3h 40min)
-

Day 3

Morning

- 6. Planning Phase + test (3h 40min)

Afternoon

- 6. Planning Phase + test (40min)
 - 7. Executing Phase + test (3h)
-

Day 4

Morning

- 8. Closing Phase + test (1h 20min)
- 9. Monitor and control + test (2h 20min)

Afternoon

- 9. Monitor and control + test (2h 20min)
- 10. Certification process (30min)
- 11. Next steps & Wrap Up (30min)

3 Days Training (24 hours)

Training for students with a PM² certification (PM² Foundation Certification or PM² Alliance: Essentials[®], Advanced[®], Expert[®] or Trainer[®]).

Day 1

Morning

- 0. Course presentation + Foundation test (1h 20min)
- 1. PM² Proposal (10 min)
- 2. Project Management Fundamentals (2h 10min)

Afternoon

- 3. PM² Key Concepts + test (1h 40min)
- 4. Governance Model + test (2h)

Day 2

Morning

- 5. Initiating Phase + test (3h)

Afternoon

- 6. Planning Phase + test (3h 40min)

Day 3

Morning

- 7. Executing Phase + test (1h 20min)
- 8. Closing Phase + test (1h)
- 9. Monitor and control + test (1h 20min)

Afternoon

- 9. Monitor and control + test (2h 20min)
- 10. Certification process (30min)
- 11. Next steps & Wrap Up (30min)

Certification syllabus PM² Practitioner

1. Certification details

Best Practice context

PM² is a project management methodology developed by the European Commission to enable project managers to deliver solutions and benefits to their organizations. It has been designed with the needs of European Union Institutions and projects in mind but is transferable to any organization.

PM² is a light and easy-to-implement methodology that can be tailored to the specific needs of project teams. It is supported by a comprehensive training programme and an active community.

Certification definition

The PM² Practitioner certification is an advanced level within the PM² Group certification program. Building on the foundational principles established in the PM² Foundation certification, the Practitioner level delves deeper into the application, tailoring, and integration of the PM² methodology into real-world project environments.

Candidates achieving the PM² Practitioner certification have demonstrated not only an in-depth understanding of the PM² methodology but also a proven that they know how to apply and adapt the methodology to a variety of complex projects. This certification equips professionals with the tools and techniques necessary to manage projects in alignment with the European Commission's best practices.

Candidates aspiring for the PM² Practitioner certification are expected to have prior foundational knowledge of PM² and real-world project management experience. The certification not only validates their theoretical knowledge but also their practical ability to integrate PM² principles into diverse project scenarios.

Certification requirements

To be eligible for the PM² Practitioner certification, candidates external to the EU Commission must meet the following requirements:

1. PM² Foundation Certificate by: All aspirants should have successfully completed and obtained the PM² Foundation certificate from the PM² group or the center of excellence of the EU Commission, indicating foundational knowledge and understanding of the PM² methodology.
2. Accredited Course Completion: Candidates must have undertaken and successfully completed an accredited PM² Practitioner course. This ensures they have received consistent and high-quality training aligned with the European Commission's expectations.
3. Project Management Experience: Applicants must have a minimum of 12 months of verifiable project management experience in a professional setting within the last 5 years.
4. PM² Practitioner Exam: After successfully meeting the above requirements, candidates are permitted to sit for the PM² Practitioner exam. Achieving a passing score on this exam is the final step in obtaining the PM² Practitioner certification.

EU staff can become certified by following the internal PM² Practitioner evaluation process of the European Commission's Centre of Excellence in PM² (CoEPM²).

Note that requirement one can be substituted with the following certificates: PRINCE2® 6th or 7th Edition (Foundation or Practitioner) by PeopleCert®; Project Management Professional (PMP®) or Certified Associate in Project Management (CAPM®) by PMI International®; IPMA Level A, B, C or D®; P3.express® Practitioner by OMIMO®, or PM² Essentials, Advanced, Expert or Trainer by PM² Alliance.

Validity of the certification

The certification is valid for 3 years.

2. Certification exam details

Exam format

The general exam regulations apply to this exam; you can read them here([link](#)).

Number of questions	60 questions
Passing score	65 %
Exam type	multiple choice case-based questions
Exam time	120 minutes
Question cognition levels	Bloom level 1 - 4
Allowed material	open book
Base language	Base language: English
Attempts per voucher	1 attempt for the main exam

Invigilation	Online recorded invigilation In-person invigilation
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Exam Syllabus

Candidates must read the Certification Syllabus to get a complete overview of the reference materials for each exam category.

Category	Document reference	Weight	Level of cognition
1. The role of Project Management in a Business context <ul style="list-style-type: none"> Assess the relationship between projects, programmes, portfolios, and business as usual Analyzing the difference between project and operations in a business. Assess the functional, projectized and matrix structure in context. 	2.1.1 / 2.1.3 2.2.4 / 2.2.5 / 2.2.6 2.3.1 / 2.3.2. / 2.3.3	3	Bloom level 1 - 4
2. Key concepts relating to PM ² <ul style="list-style-type: none"> Apply and assess the overall use of PM² project phases in different contexts. Assess the suitability of PM² for different projects. Apply the PM² Mindset to different situations. Assess tailoring possibilities in different contexts. 	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 Appendix E.1 & F	6	Bloom level 1 - 4
3. Project Governance <ul style="list-style-type: none"> Assess the layers in the project organization in different contexts. Assess the roles in the project organization in different contexts. Assess the provider and requestor side of a project. 	4.1 / 4.2 / 4.3 / 4.4 / 4.5 / 4.6 / 4.7 / 4.8 / 4.9 / 4.10 Appendix E.1	7	Bloom level 1 - 4
4. Apply and assess Initiating Phase in different contexts while demonstrating an understanding of. <ul style="list-style-type: none"> Project initiation request Business Case Project Charter Phase Gate Ready for Planning Technique SWOT analysis Technique PESTEL Analysis 	3.2.1 / 3.3 5.1 / 5.2 / 5.3 / 5.4 / 5.5 Appendix C.1 / C.2 / Appendix E.1	8	Bloom level 1 - 4

<ul style="list-style-type: none"> • Technique Make or Buy Analysis 	Appendix G SWOT Analysis	
5. Apply and assess Planning Phase in different contexts while demonstrating an understanding of <ul style="list-style-type: none"> • Project Handbook • Project stakeholder Matrix • Project Work Plan • Outsourcing Plan • Deliverables Acceptance Plan • Transition Plan • Business Implementation Plan • Phase Gate Ready for Executing • Planning and estimation techniques (Work Breakdown Structure, Effort and Cost Estimations, Three-point Estimates, Gantt Charts, Critical Path Method, Resource Levelling, Critical Chain Method) 	3.2.2 / 3.3 11 6.1 / 6.2 / 6.3 / 6.4 / 6.5 / 6.6 / 6.7 / 6.8 / 6.9 Appendix B / C.3 / C.5 / C.7 / C.8 / C.11 / C.12 / C.13 / C.14 / E1	Bloom level 1 - 4
6. Apply and assess Executing Phase in different contexts while demonstrating an understanding of <ul style="list-style-type: none"> • Project coordination • Quality assurance • Project reporting • Information distribution • Phase Gate Ready for Closure • Techniques for managing stakeholders - Stakeholder Interest/Influence Matrix (SIIM) • Techniques for reporting - Earned Value Management 	3.2.3 / 3.3 8 7.1 / 7.2 / 7.3 / 7.4 / 7.5 / 7.6 Appendix C.3 / C.12 / E.1	Bloom level 1 - 4
7. Apply and assess Closing Phase in different contexts while demonstrating an understanding of <ul style="list-style-type: none"> • Lessons learned • Project-End Reports • Administrative closure 	3.2.4 / 3.3 6 8.1 / 8.2 / 8.3 / 8.4 Appendix E.1	Bloom level 1 - 4
8. Apply and assess monitor and control activities in different contexts. <ul style="list-style-type: none"> • Apply monitor and control activities showing an understanding of <ul style="list-style-type: none"> ○ Monitoring project performance ○ Schedule control ○ Cost control • Assess and Apply risk and issue management in different contexts showing an understanding of <ul style="list-style-type: none"> ○ Risk Management process ○ Risk Management Plan and Risk Log 	3.2.5 / 3.3 11 9.1 / 9.2 / 9.3 / 9.4 / 9.5 / 9.6 / 9.7 / 9.8 / 9.9 / 9.10 / 9.11 / 9.12 / 9.13 Appendix B.1 / B.2 / B.3 / B.4 / B.5 / B.6 / B.7 / B.8 / B.9 / B.10	Bloom level 1 - 4

<ul style="list-style-type: none"> ○ Risk response strategies ○ Issue Management Plan and Issue and Decision Log ○ Technique PESTEL Analysis ○ Technique Risk Likelihood/Impact Matrix ○ Technique Pareto Analysis ○ Technique Decision Trees ● Assess and apply change, quality, and requirements management in different contexts showing an understanding of <ul style="list-style-type: none"> ○ Project Change Management Plan and Change Log ○ Quality Management Plan ○ Requirements Management Plan ○ Deliverable Acceptance Plan ○ Change Management Process ○ The relationship between Quality Assurance and Management of Quality ○ The relationship between management of requirement, project change and deliverable acceptance ● Assess and apply communication and stakeholder management in different context showing an understanding of <ul style="list-style-type: none"> ○ Communication Management Plan ○ The Project Stakeholder Matrix in PM² ○ Stakeholder Checklist ○ Techniques for managing stakeholders - Stakeholder Interest/Influence Matrix (SIIM) 	E.1 / C.4 / C.9 / C.16 Appendix G Issue, Risk & Risk Response Strategies	
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Literature

The knowledge tested in this exam is based on the following literature. It is advised to study the following materials:

Title: PM² Project management Methodology Guide 3.1
ISBN: 978-92-68-10314-2
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Welcome to PM² Practitioner



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0. COURSE PRESENTATION

Training presentation



COU SEWARE

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This courseware is intended for trainers and project professionals to help them understand how to manage projects with PM². It is based on the version 3.1 of the PM² Methodology Guide and the official open-source material published by the European Commission and available at <https://europa.eu/pm2>

PM² Copyright notice:

PM² is an open-source project management methodology created and supported by the European Commission. The methodology guide and this training material are published under the EUPL license. (https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/eupl_v1.2_en.pdf)

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Our coming days



- ✓ Mobile phone policy
- ✓ Breaks
- ✓ Activities
- ✓ Dynamics
- ✓ Safety



COURSE GOAL

- ✓ A depth understanding of the PM² methodology and how to apply, tailor and integrate it into real-world project environments.
- ✓ It requires **prior fundamental knowledge** of PM² methodology and **real-world project management experience**.



PM² GROUP



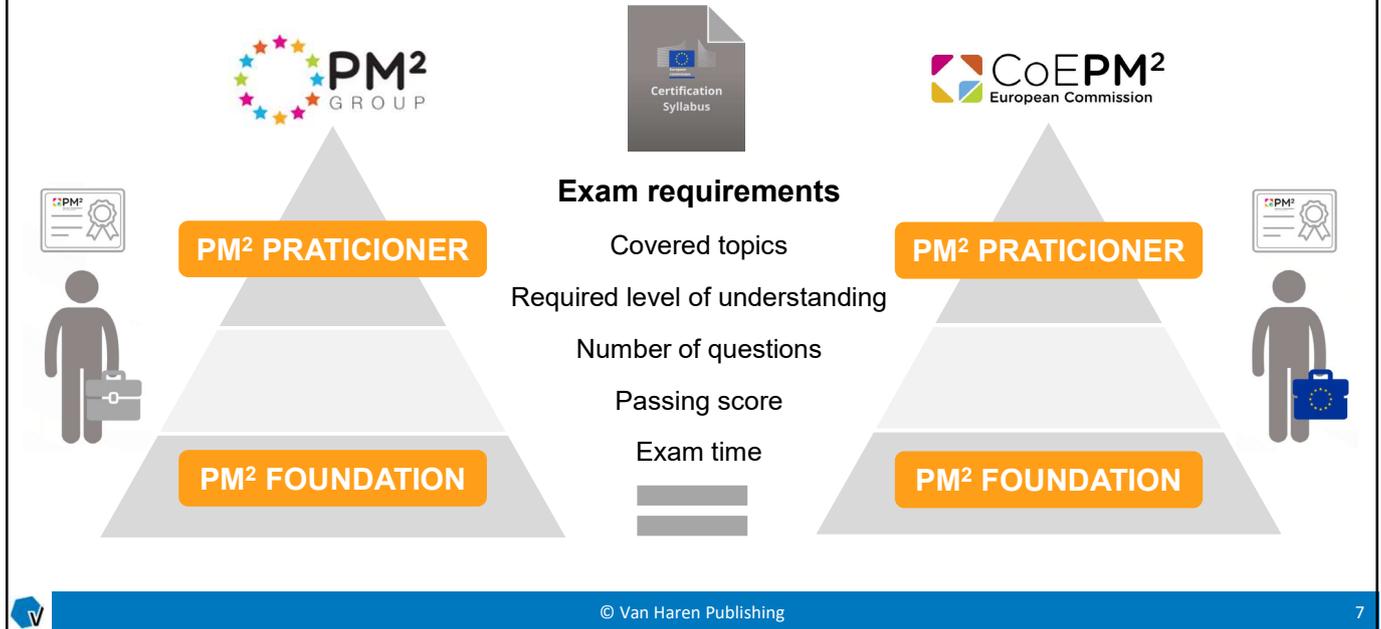
The organisation is a non-profit cooperation. Members commit to contribute and promote PM² in public/private cooperation and endorse the PM² GROUP certification program.

PM² GROUP is a coalition of European companies that aim to facilitate the adoption and proper usage of PM² in accordance with the European Commission.

This collaboration included end-user organisations and professionals, consultancy and training organisations, and an examination and certification institute, that together form an eco-system that is built around the PM² GROUP certification.



PM² GROUP CERTIFICATION SCHEME



CERTIFICATION REQUIREMENTS

1. PM² Foundation Certificate (*1)
2. Accredited Course Completion
3. 1Y Project Management Experience
4. PM² Practitioner Exam

(*1) Alternative certifications:

- PMI: CAPM® or PMP®
- OMIMO: P3.Express Practitioner®
- AXELOS: Prince2 Foundation® or Practitioner® (6th o 7th Ed)
- IPMA: level A®, B®, C® or D®
- PM² Alliance: Essentials®, Advanced®, Expert® or Trainer®



Presentation



Course schedule

- **Day 1:**
 - 0. Course presentation
 - 1. PM² Proposal
 - 2. Project Management fundamentals
 - 3. PM² Key concepts
 - 4. Governance model
- **Day 2:**
 - 5. Initiating Phase
 - 6. Planning Phase
- **Day 3:**
 - 7. Executing Phase
 - 8. Closing Phase
 - 9. Monitor and control activities
 - 10. Certification process
 - 11. Next steps & Wrap Up





Course schedule

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Executing

LAYOUT

-  • Processes
-  • Artifacts
-  • Tools & techniques
-  • Multiple choice question
-  • Timed activity
-  • Reflect
-  • Example/Case study
-  • Glossary/Definition

PM² FOUNDATION ASSESSMENT

FOUNDATION

GOVERNANCE MODEL

PRACTITIONER

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PM² MATERIAL



A copy of the PM² Guide V3.0.1 is included in this courseware. For the best experience we recommend downloading the latest versions of the PM² guide and the artefacts that can be found on the European Commission website: <https://europa.eu/pm2>



+ tips, tools & techniques and translated versions of PM²!



? PM² FOUNDATION ASSESSMENT

PM² Foundation certification assessment



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? PM² FOUNDATION ASSESSMENT

- ✓ Q01. Which of the following statements is FALSE?
- a) Communications Management Plan can be standalone or part of the Project Handbook.
 - b) The Project Stakeholder Matrix lists all (key) project stakeholders.
 - c) The Project Work Plan consists of three parts: WBS; Effort & Costs Estimates; Schedule.
 - d) The Deliverables Acceptance Plan defines transitioning from the old to the new state.



? PM² FOUNDATION ASSESSMENT

- ✓ Q02. Which of these is NOT one of the PM² Management Plans?
- a) Issue Management Plan
 - b) Requirements Management Plan
 - c) Users Needs Management Plan
 - d) Communications Management Plan



? PM² FOUNDATION ASSESSMENT

- ✓ Q03. Expected benefits are the measurable improvements resulting from the project outcomes.
- a) True
 - b) False



? PM² FOUNDATION ASSESSMENT

- ✓ Q04. Which of the following statements is CORRECT?
- a) PM² tailoring & customization is documented in the Project Charter.
 - b) The Business Case is a key output of the Planning Phase.
 - c) PM² doesn't provide a structure to support Agile teams.
 - d) PM² Project Management Methodology was designed without adaptation.



? PM² FOUNDATION ASSESSMENT

- ✓ Q05. Which of the following statements is CORRECT?
- a) The Project Core Team drives and manages the organisational change caused by the project.
 - b) The Business Governing Layer determines the organisation vision and strategy.
 - c) The Project Steering Committee authorises the project to continue based on the Project Work Plan.
 - d) The Appropriate Governance Body provides general project direction and guidance.



? PM² FOUNDATION ASSESSMENT

- ✓ Q06. The Project Steering Committee (PSC) is Responsible (RASCI:R) for Manage Risks.
- a) True
 - b) False



? PM² FOUNDATION ASSESSMENT

- ✓ Q07. PMs who practice PM² understand that the methodologies are there to serve projects and not the other way around.
- a) True
 - b) False



? PM² FOUNDATION ASSESSMENT

- ✓ Q08. Only one of these is a PM2 Project Log. Which one?
- a) Roles Log
 - b) Communications Log
 - c) Decision Log
 - d) Quality Log



? PM² FOUNDATION ASSESSMENT

- ✓ Q09. Which of the following statements is CORRECT?
- a) A project ends when the project manager decides that it should.
 - b) A project can be temporary or permanent.
 - c) The Project Owner approves the project closing.
 - d) The Project-End Review Meeting is the last activity of the project.



? PM² FOUNDATION ASSESSMENT

- ✓ Q10. Which of the following statements is FALSE?
- a) The Project Handbook is created during the Planning Phase.
 - b) Controlling is about measuring ongoing project activities.
 - c) The Business Case is created during the Initiating Phase.
 - d) Ready for Executing phase gate occurs at the end of the Planning Phase.



PM² FOUNDATION ASSESSMENT

PM² Foundation certification assessment



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READY TO START YOUR PM² PRACTITIONER JOURNEY

Let's start !



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1. PM² PROPOSAL

“PM² is a light and easy-to-implement methodology which project teams can tailor to their specific needs”.

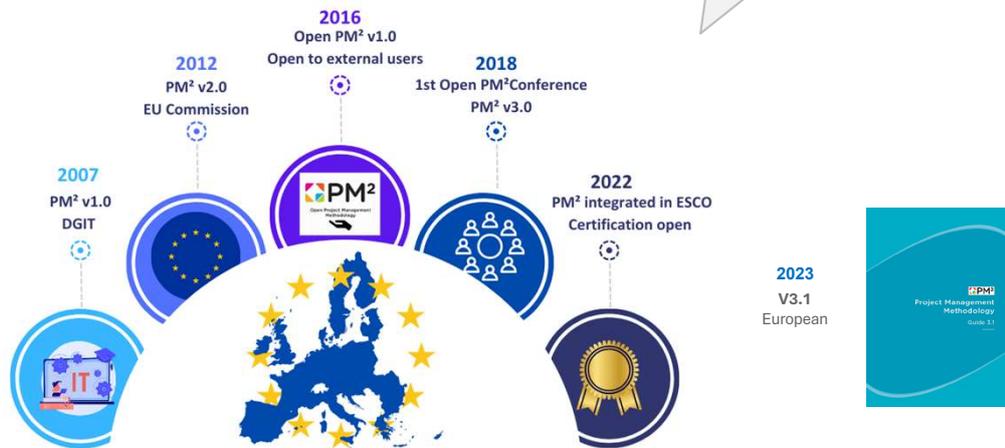
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PM² HISTORY

PM² History

Europe & the World



Author: Natacha Brenner



CHARACTERISTICS

European focused

Open source & free

Concise & light

Evolutive

Others

- Simple: based on internationally recognized best practices
- Flexible
- Common language and a shared approach
- Provides a robust project governance model



PM² OFFERING



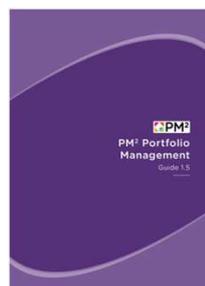
PM² Project Management Methodology Guide 3.1



PM² Project management Tools & Techniques Guide 2.4



PM² Agile Guide 3.0.1



PM² Portfolio Management Guide 1.5



PM² Programme Management Guide 1.0



2. PROJECT MANAGEMENT IN A BUSINESS CONTEXT



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PROJECT

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



PM² Guide: Fig 2.1 Key project characteristics



PROJECT



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



A temporary endeavour undertaken to create a unique product, service, or result.



A temporary Organization that is created for the purpose of delivering one or more business products according to an agreed business case.



A project is defined as a unique, temporary, multidisciplinary and organised endeavour to realise agreed deliverables within pre-defined requirements and constraints.



PROJECT

Project deliverables or outputs are merely a means to an end.

The real **purpose** of a project is to achieve certain **outcomes** that will yield measurable benefits (IMPACT)



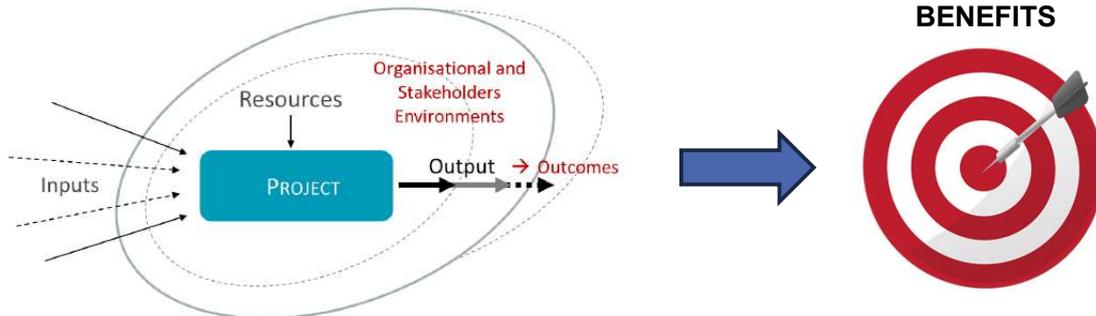
PM² Guide: Fig 2.3 Project outputs, outcomes and benefits.

★ Note that project outcomes and benefits are often realized only after the project has closed.



PROJECT

- ✓ A project is a transformational process which turns ideas “**outcomes**” into reality.
- ✓ The “outcomes” always have an expected “**benefit**” to achieve.



PM² Guide: Fig 2.2 A project is a transformational process which turns ideas into reality.



PROJECT

Case study:



“The Grey Party”
2024 European
Parliament elections in
Spain.

Duration: Jan~Jun 2024

Budget: 1M€

Scope:

- Candidates list
- Electoral program
- Electoral campaign
- Website update

European Parliament 2024 - 2029



 **PROJECT**



“The Grey Party” 2024 European Parliament elections in Spain.

The “Grey Party” was created in 2012. Unlike other political parties, it has a unique identity shared by all the parties of the member states that comprise it. They are governing some of the main European cities (Porto, Milano, Thessalonica, Barcelona, Nicosia, . . .).

The party’s purpose is to introduce “technocracy” at the European governments to avoid another financial crisis like the 2008 one. These are the countries which have a Grey Party: Spain, Portugal, Italy, Malta, Greece, Slovenia, Croatia, Cyprus.

At their 2024 Annual European Congress, on January 12th, the European Executive Commission approves running to the 2024 European Parliament elections. The agreed European electoral program is:

- Implement symmetry within the political economies of all the member states.
- Restructuring of EU bodies (simplification and reduction).
- Compulsory competence to exercise politics.
- Priority in creating youth employment.

All countries will start their individual European Parliament elections project. The election date will vary between June 6th to June 9th and the first plenary session of the new legislative term will take place from 16 to 19 July in Strasbourg.



 **PROJECT**

“The Grey Party” 2024 European Parliament elections in Spain



Project

“The Grey Party” 2024 European elections in Spain
Jan '24 ~ Jun '24 1M€

Outputs

Candidates - Electoral program - Electoral campaign
Minimum of 6 seats (10% of Spain’s seats)

Outcomes

Implement “The Grey Party” Spanish electoral program

Benefits

Economical & political stability in Spain & Europe



PROJECT

The Vasa Swedish warship (1626~1628)



[https://en.wikipedia.org/wiki/Vasa_\(ship\)](https://en.wikipedia.org/wiki/Vasa_(ship))

King of Sweden Gustavus Adolphus as part of a military expansion initiated a war with Poland-Lithuania (1621–1629). One of the initiatives was to renew the current Swedish fleet which was small and obsolete to a larger and armed one.

He ordered the construction of the Vasa warship.



PM² Guide: Fig 2.3 Project outputs, outcomes and benefits.



PORTFOLIO, PROGRAMME & PROJECT



A project portfolio is a collection of projects, programmes and other activities, which are grouped together to allow better control over their financial and other resources and to facilitate their effective management in terms of Meeting strategic objectives.



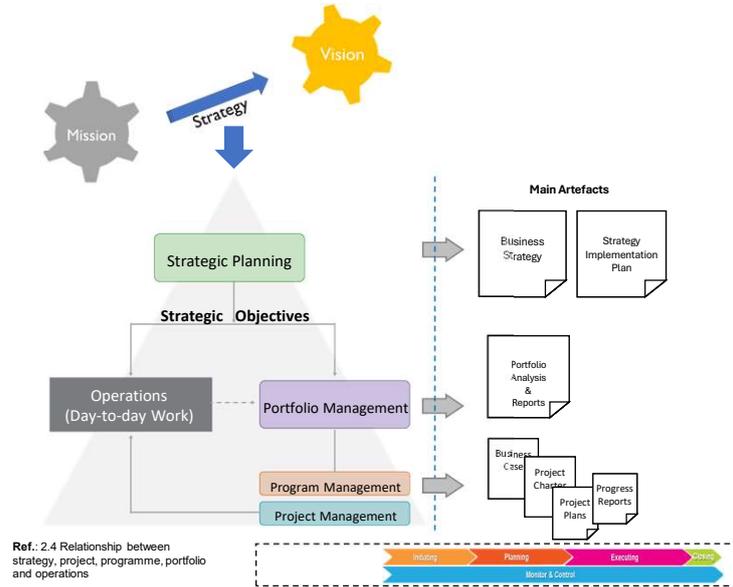
A programme is defined as a number of related projects grouped together to facilitate a level of management which allows objectives and benefits to be achieved that would have been impossible if the projects were managed individually.



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



PORTFOLIO, PROGRAMME & PROJECT RELATIONSHIP



Ref.: 2.4 Relationship between strategy, project, programme, portfolio and operations



PORTFOLIO, PROGRAMME & PROJECT

“The Grey Party” 2024 European elections

Member states with “The Grey Party” parties that are running for the European elections:

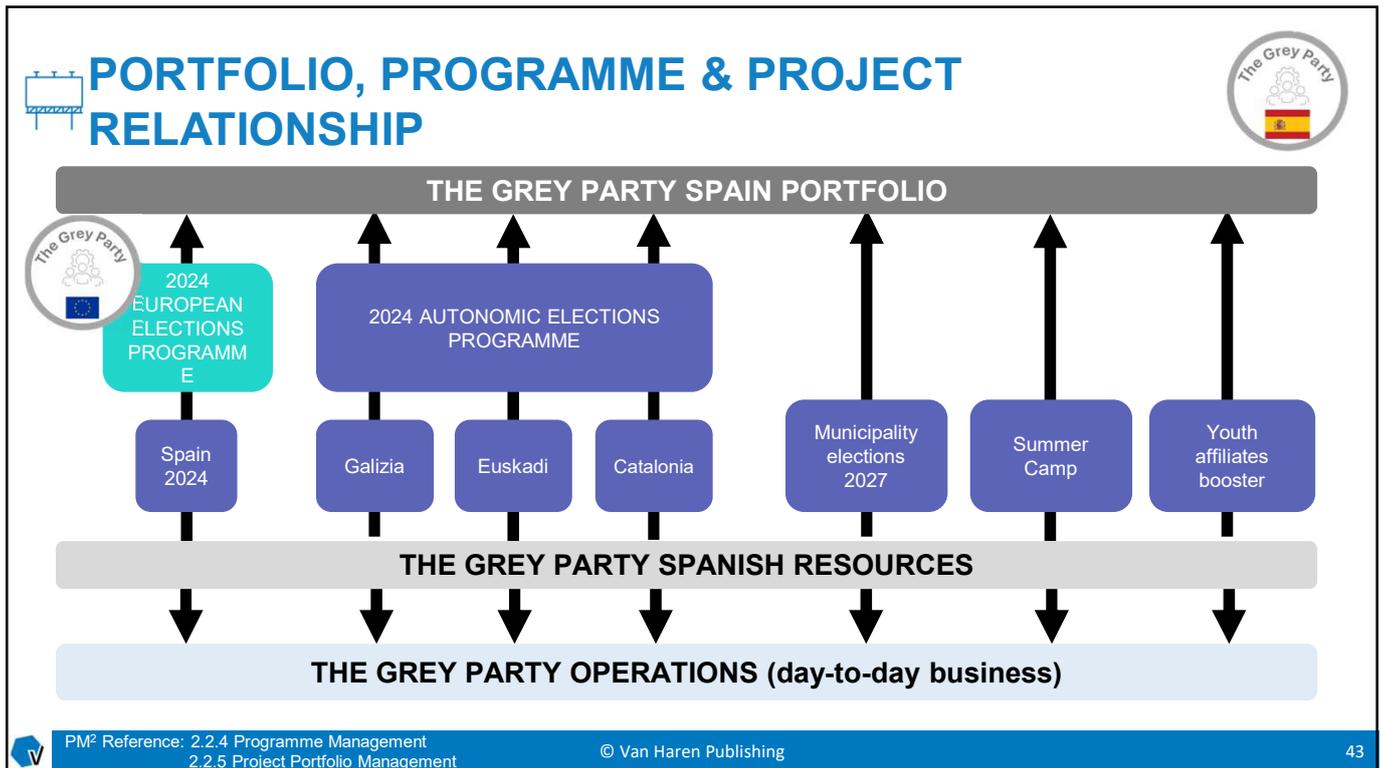
- Chipre
- Croatia
- Greece
- Italy
- Malta
- Portugal
- Slovenia
- Spain

Each state member is running its own electoral campaign project.



Is there any relationship between the eight campaign projects?





PROJECTS vs OPERATIONS (on going day-to-day operations)

PROJECTS



- Change
- Temporary
- Beginning and end
- Cross-functional
- Unique
- Uncertainty
- Effectiveness

OPERATIONS



- Kaizen
- Permanent
- Repetitive cycles
- Function oriented
- Repetitive
- Certainty
- Efficiency

PROJECTS vs OPERATIONS (on going day-to-day operations)

How to recognize that a project has slipped into **operations mode**?

- Project deliverables or main ones are produced and accepted by the client.
- Project outputs or main output are in use.
- Support is provided to end users.
- Maintenance activities are undertaken.
- Minor updates (improvements) are planned and implemented over time.



PROJECTS vs OPERATIONS (on going day-to-day operations)



“The grey party” 2024 European Parliament elections in Spain

Operations:

- Attend the first plenary session of the new legislative term that will take place from 16 to 19 July in Strasbourg.
- Form a new political group, if not possible discuss which one to join.
- Join meetings with other political groups to discuss possible candidates to Parliament chair positions.





PROJECTS vs OPERATIONS (on going day-to-day operations)

PROJECT

Create a new type of bread.



- Change
- Temporary
- Beginning and end
- Cross-functional
- Unique
- Uncertainty
- Effectiveness

OPERATIONS

Selling bread everyday



- Kaizen
- Permanent
- Repetitive cycles
- Function oriented
- Repetitive
- Certainty
- Efficiency



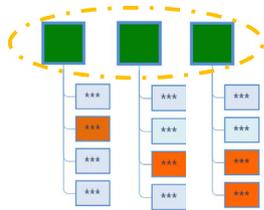
PROJECT ENVIRONMENT

Projects are affected by their environment, both external and internal.



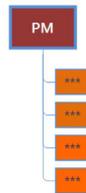
PROJECT ENVIRONMENT

■ Functional manager
 ■ PM Project Manager
 ■ Project staff



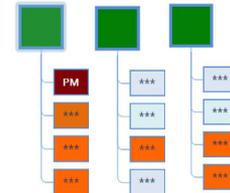
Functional

- Project work integrated within the organisation permanent work.
- Working by isolated branches.
- Project Coordination is shared across the functional managers.



Projectised

- All work is organised and performed within temporary project organisations.
- Project manager have full authority and responsibility.
- At the end of the project the resources are reassigned or returned to a resource pool.



Matrix

- A blended organisational structure.
- PM role is recognised as central and key to the project success.
- The PSC delegates enough authority and responsibility to the PM and BM.
- Can be weak, balanced and strong.



PROJECT ENVIRONMENT

Functional

- Public administration.
- Small organisations.
- Family business.
- Non mature organisations.



Projectised

- Consultant organisations.
- Highly strategic projects.



Matrix

- Most organisations.



PROJECT ENVIRONMENT

Project Management Competences



Ref.: 2.5. What Project Manager (PMs) need to understand.

People Competences	Perspective Competences
<ul style="list-style-type: none"> • Self-reflection and self-management • Personal integrity and reliability • Personal communication • Relationships and engagement • Leadership • Teamwork • Conflict and crisis management • Resourcefulness • Negotiation • Results orientation 	<ul style="list-style-type: none"> • Strategy • Governance, structures and processes • Compliance, standards and regulations • Power and interest • Change and transformation • Culture and values

Source: IPMA-ICB (adapted)



PROJECT ENVIRONMENT

Project Management Competences



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People competences

Perspective competences



? QUESTIONS

Q01. After the success in the European elections, “The Grey Party” has decided to improve its European website including a specific section on its work in the European Union. As part of this initiative, you are asked to manage the project.

Which of the following scenarios best represents this as a project rather than operations?

- a) The initiative should be managed as business as usual, as it's a minor change at an existing website, and the IT department alone can handle it.
- b) A temporary cross-functional team will be formed to manage the project, including a defined start and end date for this transition.
- c) The supplier service team will provide it as part of the website service level agreement tasks.
- d) A temporary cross-functional team will be formed to manage the project, which will be continuous because web pages require constant updates to adapt to the needs of users.



? QUESTIONS

Q02. BUFU, an automotive manufacturing company, has decided to drastically improve the production productivity through several key 4.0 Industry initiatives: global traceability system, automated production control system, automated stock control, production visualization . . . Lola has been assigned as head of all these initiatives.

How should Lola ensure these initiatives are aligned within the organization strategy?

- a) Assigning each initiative to an external contractor, as subject matter experts they will know better how to manage them.
- b) Assigning the responsibility to department managers and the strategy alignment will be done at the executive boards' reviews.
- c) Assigning a project manager for each initiative. Making sure all projects are integrated into the company's portfolio.
- d) Establishing a programme for the 4.0 Industry and assigning a project manager for each initiative. Making sure the program is integrated into the company's portfolio.



? QUESTIONS

Q03. “The Italian Grey Party” is a political party organization where projects are handled by cross-functional teams, where each team member must report to its department head and the project manager. Jacopo, after managing projects for more than ten years, has been promoted and asked to improve the projects effectiveness.

Which would be Jacopo’s best option ?

- a) Change to a functional structure to improve the current communication complexity.
- b) Change to a strong matrix structure to improve the current communication complexity.
- c) Change to a strong matrix structure to strengthen the project manager responsibility and the control over the projects’ progress.
- d) Change to a projectized structure, managing all work within temporary project organisations.



? QUESTIONS

Q04. COMTEK is a company that offers modular construction solutions for aeronautics, defense, hospital, social development, logistics and distribution, as unique projects. Even if COMTEK main business is based on projects, projects don’t have an assigned project manager. The lack of this assignment creates a chaotic situation, that the person responsible for the purchase tries to solve by being the contact person with the customer.

Which is COMTEK current organization structure, and the possible root cause of this situation?

- a) A functional structure, the root cause is that’s it’s a family business with a siloed organization.
- b) A functional structure, the root cause is due to a lack of awareness of project management.
- c) A projectized structure and the root cause is a low project management maturity level.
- d) A matrix structure and the root cause the lack of project managers due to a high staff turnover rate.



? QUESTIONS

Q05. Family Foundation DNA is improving the well-being and integral development of children, teenagers and families. Family fostering, attention to woman and service for victims of sexual abused are the main services they offer. The activity is maintained mainly by annual grants from several public administrations. Each grant is managed as a project.

Which of the following scenarios best represents this as a project rather than operations?

- a) The grants are not projects, just the way the organisations day-to-day business or projects are financed.
- b) As a project, each grant is required to track expenses and report whether the defined objectives have been achieved or not.
- c) As a project each grant can be audited.
- d) As a project several cross-functional teams will be created to respond to all the activities that are financed with the grant.



? QUESTIONS

Q06. Tariq works at BRICKS², a well-known company at the Heavy Clay Sector. They currently have three projects at Tunisia, four at USA, two at Mexico, one at Iraq, one at France, two at Peru and three at Spain. Tariq has been recently promoted as CPO (Chief Project Officer) to solve an endemic problem at all projects, constant delays and cost overruns due to mismanagement of key resources between projects.

Which should be the first step Tariq should do to start solving this situation?

- a) Assign himself as project manager to all the projects and maintain a strict control.
- b) Strongly motivate the project managers and carry out team-building activities to improve the trust between them.
- c) Start managing all the projects as a portfolio, as all resources are shared among the organisation.
- d) Create programmes, one for each country where they are developing projects, to improve their alignment with the organisation strategy.



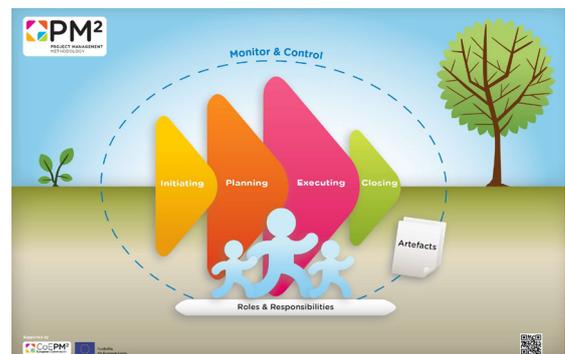


GLOSSARY

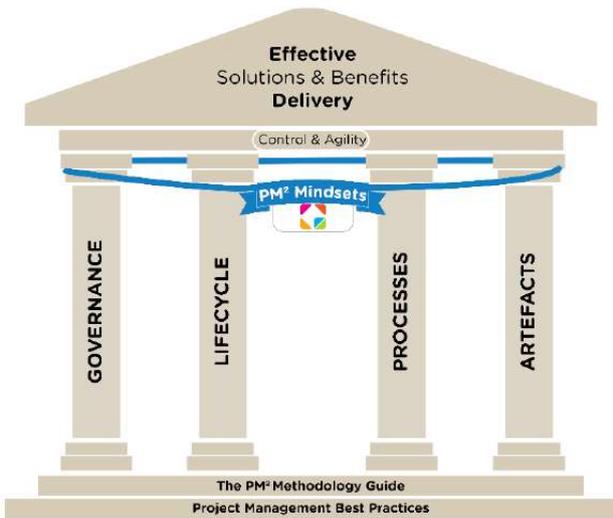
- PM² Project
- PM² Output
- PM² Outcomes
- PM² Benefits
- PM² Portfolio
- PM² Programme
- PM² Operations
- PM² Functional
- PM² Projectised
- PM² Matrix: weak, balanced, strong
- PM² People competences
- PM² Perspective competences



3. PM² KEY CONCEPTS



THE HOUSE OF PM²



PM² Guide: Fig 3.1 The house of PM²

PM² is built on **Project Management best practices.**

4 pillars

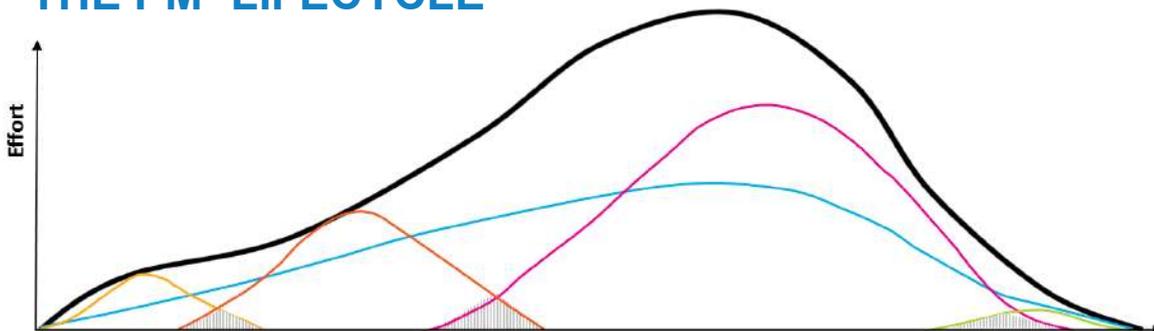
- ✓ Governance
- ✓ Lifecycle
- ✓ Processes
- ✓ Artefacts

+ Mindsets

Deliver **effective** Solutions & Benefits



THE PM² LIFECYCLE



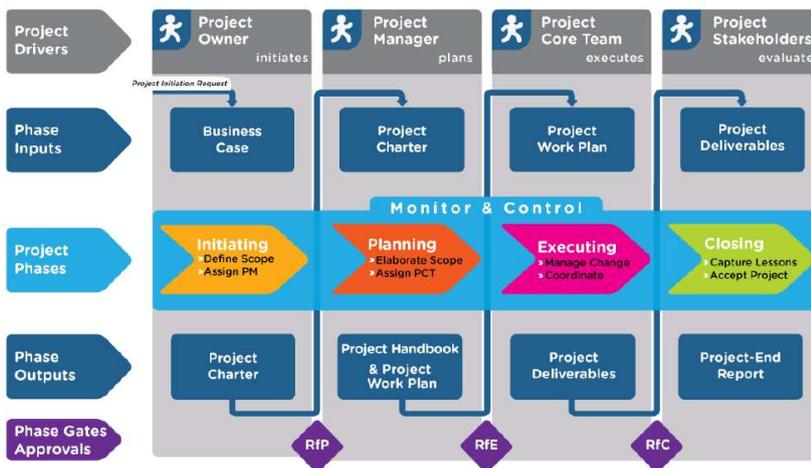
PM² Guide: Fig 3.2 The PM² project lifecycle: indicative overlap of phase activities and cumulative effort.

Initiating	Planning	Executing	Closing
Desired outcomes Business Case Get the project off to a good start.	Assign the core team. Elaborate the project scope. Plan the work.	Coordinate the execution of project plans. Produce deliverables.	Project formal acceptance. Project closing.
Monitor & Control			
Oversee all project work and management activities over the duration of the project: monitor project performance, measure progress, manage changes, address risks and issues, identify corrective actions etc.			



THE PM² LIFECYCLE

PM² Phase Drivers and Key Artefacts

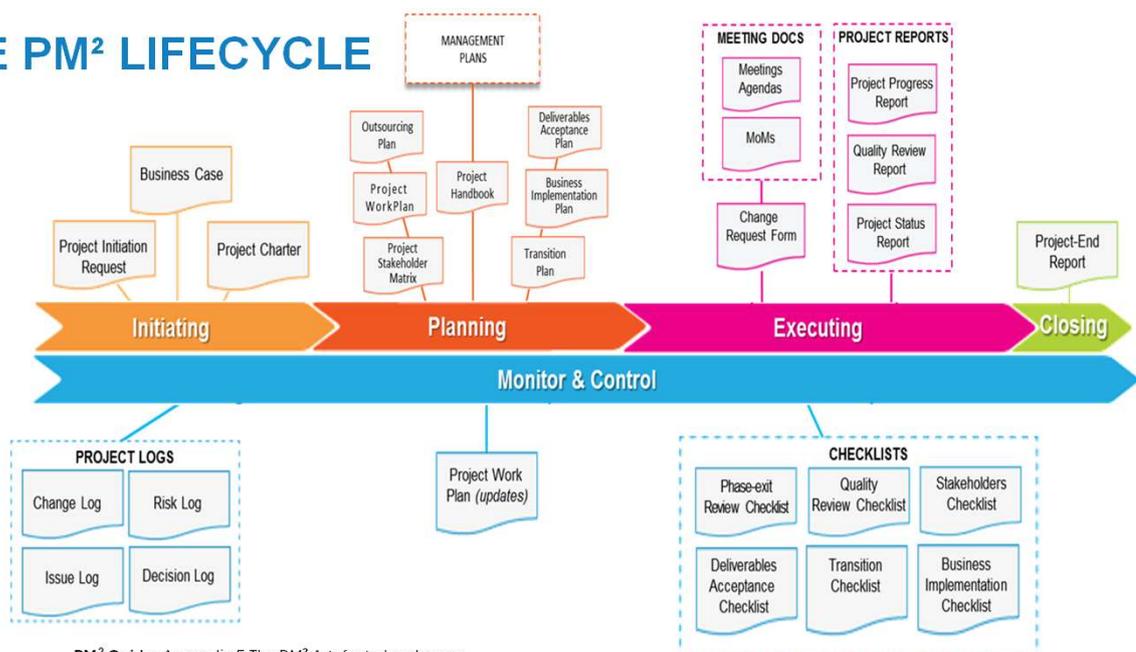


PM² Guide: Fig 3.8 PM² Swimlane Diagram

- **Project Initiation Request:** formalises the need & captures the context.
- **Business Case:** captures the reason behind the project and & selects the best solution.
- **Project Charter:** authorises the project start.
- **Project Handbook:** how the project will be managed & RAM.
- **Project Work Plan:** what will be done.
- **Project Deliverables:** product work done.
- **Project-End Report:** project performance & experience summary, with lessons learned.



THE PM² LIFECYCLE



PM² Guide: Appendix E The PM² Artefacts Landscape





THE PM² LIFECYCLE

“The Grey Party” 2024 European Parliament elections in Spain”



- **Jan 12th** : The Grey Party European Congress → the party European Executive Commission approves running to the 2024 European Parliament elections.
- **Jan 15th** : The Grey Party 2024 European elections in Spain project starts.
- **Feb 19th** : The planning phase starts.
- **Mar 25th** : The executing phase starts. It will be divided between two sub-phases: Pre-campaign and Campaign.
- **Jun 17th** : The closing phase starts, once analysed the election's results.
- **Jun 29th** : Project closure, before the first plenary session.



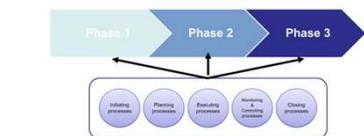
THE PM² LIFECYCLE



Project lifecycle based on 4 phases (initiating, planning, executing, closing) and a group of transversal activities (monitor & control).



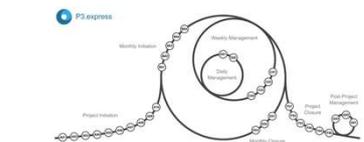
Not possible to have a unique project cycle, but each project phase should have 5 process groups (initiating, planning, executing, monitoring & controlling, closing).



A lifecycle has the following stages: pre-project, initiation stage, subsequent stage(s) and final stage. And there will always be a minimum of two: the initiation and final one.



7 groups of activities (Project initiation, Monthly Initiation, Weekly Management, Daily Management, Monthly Closure, Project Closure, Post-Project Management).



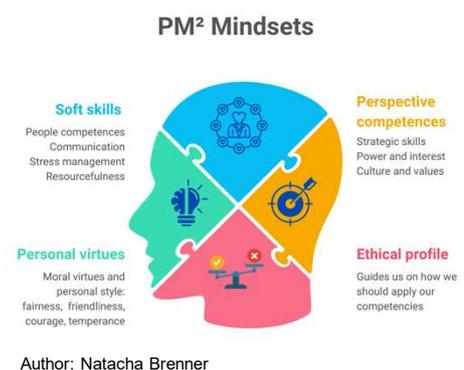
WHAT IS A PM² PROJECT?

- It's a project, not operations.
- Minimum 4–5 weeks duration & more than 2–3 people.
- Within an organization.
- Requires a governance structure.
- Requires budget & scope approval.
- Includes more than just construction/delivery activities.
- Includes transition & business implementation activities.
- Requires documentation, transparency & reporting.
- Requires control & traceability.
- Has a broad base of internal (and external) stakeholders.
- It's cross-functional.
- Contributes to raising the organisation's project management maturity.



PM² MINDSETS

Altogether, the Mindsets offer PM² a "personality" with which PM² Project Managers can associate and reinforce our sense of community: PM² is OUR methodology.



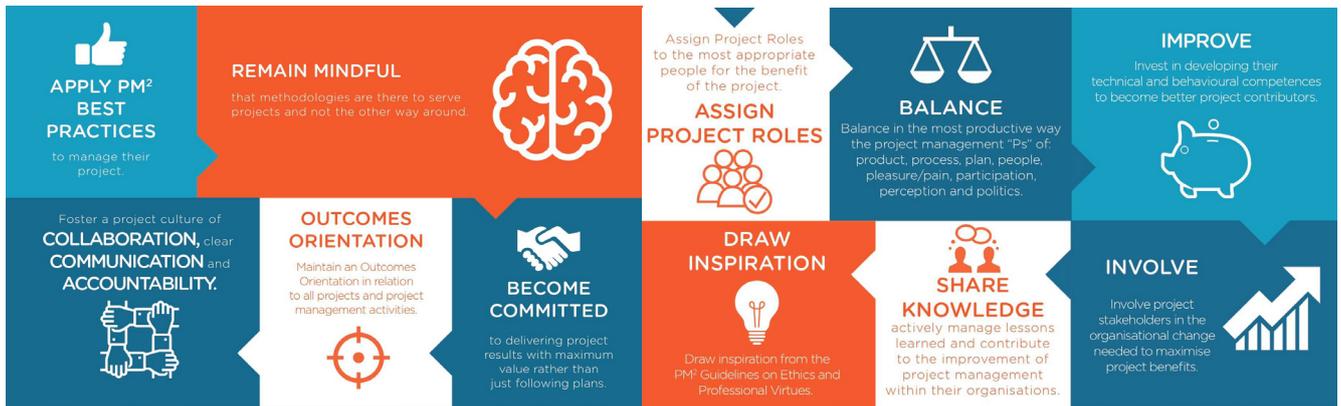
The PM² Mindsets are reminders of effective behaviours and attitudes. They provide a common set of beliefs and values for all PM² teams, helping them navigate through the complexities of project reality.



PM² MINDSETS

PM² Mindsets

for project teams that practise PM²



PM² MINDSETS

Infrequently Asked Questions (IAQs)

- Do we know what we are doing?
- Do we know why we are doing it? Does anyone really care?
- Are the right people involved?
- Do we know who is doing what?
- Deliver at any cost or risk?

- Is this important?
- Is this a task for “them” or for “us”?
- Should I be involved?
- Have we improved?
- Is there life after the project?



4. GOVERNANCE MODEL



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COU SEWARE

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GOVERNANCE MODEL

Determines the vision and strategy for the organisation.

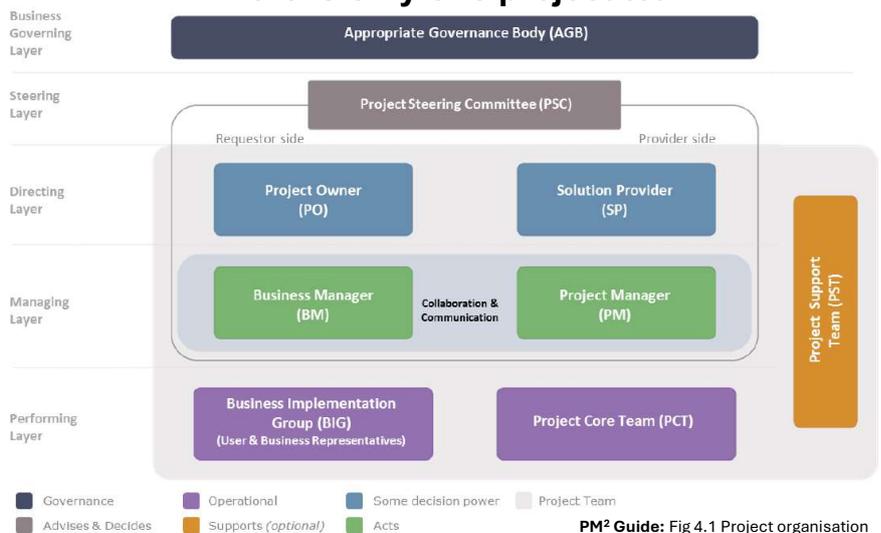
Champions the project and owns its Business Case.

Provides general project direction and guidance.

Focuses on the day-to-day project management.

Carries out the project work.

There is only one project team



PM² Guide: Fig 4.1 Project organisation



RESPONSIBILITY ASSIGNMENT MATRIX

Roles & responsibilities

- **Accountable:** is ultimately answerable for the correct and full completion of the deliverable or task. Only one accountable per activity/task.
- **Responsible:** has to perform the tasks or ensure that they are done. Only one responsible.
- **Supports:** works with the responsible and carries out part of the activity.
- **Consulted:** provides input for an activity as a contributor, an expert, a reviewer, or other.
- **Informed:** is regularly informed. Only one-way communication.

Initiating	AGB	PSC	PO	BM	BIG	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	A	C	S	C	S	R	C
Planning	AGB	PSC	PO	BM	BIG	SP	PM	PCT
Planning Kick-off Meeting	I	A	C	S	C	C	R	C
Project Handbook	I	I	A	S	C	I	R	C
Project Stakeholder Matrix	I	I	A	S	C	I	R	C
Project Work Plan	I	A	C	S/C	C	C	R	S/C
Outsourcing Plan		A	C	C	I	S	R	I
Deliverables Acceptance Plan	I	A	C	S	I	C	R	C
Transition Plan	I	A	C	C	C	C	R	C
Business Implementation Plan	I	I	A	R	C	I	S	I
Management Plans								
Requirements Management Plan	I	I	A	C	C	I	R	S
Project Change Management Plan	I	I	A	C	I	I	R	I
Risk Management Plan	I	C	A	C	I	I	R	I
Issue Management Plan	I	I	A	C	C	I	R	C
Quality Management Plan	I	A	C	C	C	C	R	C
Communications Management Plan	I	I	A	S	C	I	R	C
Executing	AGB	PSC	PO	BM	BIG	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	BIG	SP	PM	PCT
Monitor Project Performance	I	I	A	C	C	I	R	C
Control Schedule	I	I	A	C	C	I	R	C
Control Cost	I	I	A	C	C	I	R	C
Manage Stakeholders	I	I	A	S/C	I	C	R	I
Manage Requirements	I	I	A	C	C	I	R	S
Manage Project Changes	I	C	A	S	I	I	R	C
Manage Risks	I	C	A	S/C	C	I	R	C
Manage Issues & Decisions	I	I	A	S	C	I	R	C
Manage Quality	I	I	I	S/C	C	A	R	C
Manage Deliverables Acceptance	I	I	A	S	C	C	R	C
Manage Business Implementation	I	I	A	R	C	I	S	I
Manage Transition	I	A	C	C	C	C	R	C
Manage Outsourcing		A	C	C	C	I	S	R
Closing	AGB	PSC	PO	BM	BIG	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

PM² Guide: RAM (RASCI)



LAYERS AND ROLES

Business Governing Layer

Determines the vision and strategy for the organization as a whole. It consists of one or more management committees operating at a high or the highest management level. It is here that priorities are defined, investment decisions are made, and resources are allocated.

Appropriate Governance Body AGB

- Defines the corporate and business domain strategy.
- Portfolio management to achieve the strategic objectives.
 - Programs and projects for implementation management.
 - Resources optimization.
 - Monitors and controls portfolio delivery performance.

REQUESTOR + PROVIDER SIDE



LAYERS AND ROLES

Business Governing Layer

Appropriate Governance Body AGB

Initiating: Project Initiation Request, Business Case & Project Charter, approvers depending on the project.

Planning: Outsourcing Plan accountable

Monitor & Control:

- Phase gate approvers at major changes at the Business Case & Project Charter.
- Control Costs: reported or approvers at considerable foreseen costs overruns.
- Is not part of the escalation process (issues, risk, changes, . . .).

Responsibility:

- **Accountable:** manage outsourcing.
- **NO responsible, support or consulted role.**

REQUESTOR +
PROVIDER SIDE



FEDERAL
COMMITTEE



LAYERS AND ROLES

Steering Layer

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

Project Steering Committee PSC

- Champions the project and raises awareness of it at a senior level.
- Guides and promotes the successful execution of the project at a strategic level, keeping the project focused on its objectives.
- Ensures adherence to the organization's policies and rules Provides high-level monitoring and control of the project.
- Deals with escalated issues and conflicts.
- Drives and manages organizational change related to the project's outcomes.

REQUESTOR +
PROVIDER SIDE



LAYERS AND ROLES

Steering Layer

Project Steering Committee PSC

REQUESTOR + PROVIDER SIDE

Initiating: Business Case approvers.

Planning: provides the general project acceptance strategy

Monitor & Control:

- Phase gate approvers unless performed by the AGB.
- Authorizes deviations and scope changes with a high project impact and has the final say on decisions.
- Informed when the schedule or budget is on risk.
- Involved in stakeholder management.
- High level changes approval.
- Monitors projects with a high-risk exposure level.
- Ensure contractors are selected according organization standards & that contract defines both parts expectations.
- Might validate contractors' deliverables.

Closing: invited to the learned lessons.



LAYERS AND ROLES

Steering Layer

Project Steering Committee PSC

REQUESTOR + PROVIDER SIDE

Responsibility

Accountable:

- Project Charter
- Kick-off & Project End Review Mtg
- Project Work Plan
- Deliverables Acceptance Plan
- Quality Management Plan
- Transition Plan & Manage Transition
- Project-End Report

Shared responsibility between the requestor & provider side artefacts.

Consulted:

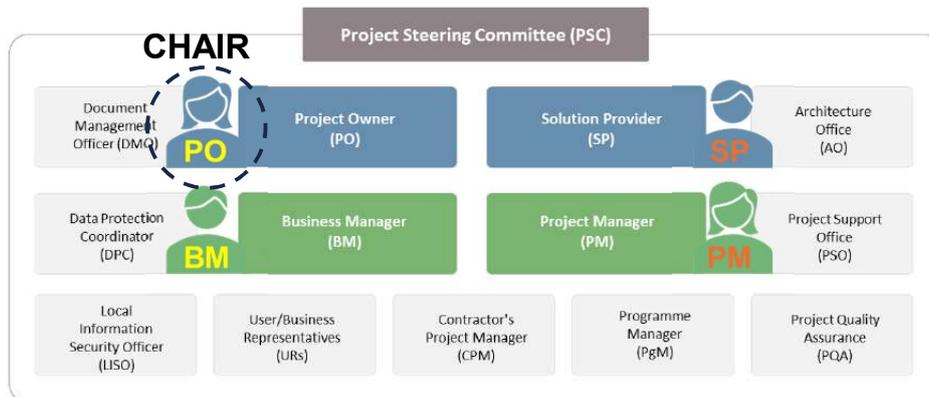
- Business Case, Outsourcing Plan, Risk Management Plan, Manage Project Changes, Manage Risks, Manage Outsourcing, Administrative Closure

NO responsible or support



LAYERS AND ROLES

Project Steering Committee PSC



LAYERS AND ROLES

Directing Layer

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

Project Owner

- The project client, SPONSOR.
- Sets the business objectives and ensures that project outcomes are in line with business objectives and priorities.
- Accountable for the overall project's success.
- Owner of the project's outputs (product or service).
- Contact person with the AGB.

Requestor side



Solution Provider

- Overall accountability of the project deliverables.
- Represents the interests who provide the project (internal & external).
- Support the Project Owner in defining the project's business objectives.

Provider side



LAYERS AND ROLES

Directing Layer

Project Owner

REQUESTOR
SIDE

Initiating:

- Attends Initiating Meeting if he/she is not the initiator.
- Nominated by the output's main beneficiary.
- Anyone can initiate a Project Initiation Report, usually the PO delegates the creation to the Business Manager.
- Approves the Project Initiation Report & Project Charter (~~Business Case~~).



Planning:

- Attends Planning Kick-off Meeting & Reviews the Business Implementation Plan.

Monitor & Control:

- Provisionally accepts the product before the transition is complete & approves the deliverables.
- Reported or approves considerable foreseen costs overruns.
- Approves changes.

Closing:

- Attends the Project-End Review Meeting and expresses gratitude to all the team.
- Project final approval and closure.



LAYERS AND ROLES

Directing Layer

Project Owner

REQUESTOR SIDE

Responsibility

Accountable:

- Project Initiation Request
- Business Case
- Project Handbook
- Project Stakeholder Matrix
- Business Implementation Plan
- All MNG Plan unless ~~Quality~~
- All Executing unless ~~kick-off & QA~~
- All M&C unless ~~Quality, Transition & Outsourcing~~
- Administrative Closure

**NO responsible
NO consulted**



**European
Executive
Commission
President**

Support:

- Project Initiation Request



LAYERS AND ROLES

Directing Layer

Solution Provider

Initiating:

- Nominated by the organisational unit carrying out the project work.
- Nominates the Project Manager.

Planning:

- Attends the Planning Kick-off Meeting.
- Reviews the Outsourcing Plan.

Responsibility

Accountable:

- Manage Quality

Support:

- Business Case
- Project Charter
- Outsourcing Plan
- Manage Outsourcing

NO responsible

**PROVIDER
SIDE**



**Electoral Guarantees
Commission Director**



LAYERS AND ROLES

Managing Layer

Day-to-day project management. It organizes, monitors and controls work to produce the intended deliverables and implement them in the business organization. Roles of Business Manager (BM) and Project Manager (PM).

Business Manager

- Acts on a daily basis on behalf of the Project Owner.
- Drives the definition of business and project objectives.
- Manages the business activities & coordinates the User Representatives.
- Leads the implementation of the business changes.
- Ensures that the client is ready to use the outputs.
- Ensures that the outputs produce the expected results (outcomes and benefits).

**Requestor
side**



Project Manager

- Assumes responsibility for project deliverables.
- Proposes and executes the project plans as approved.
- Manages and coordinates the Project Core Team. Ensures that project objectives are achieved.
- Ensures the interoperability and integration of the different project related deliverables, systems, services and applications.

**Provider
side**



LAYERS AND ROLES

Managing Layer

Business Manager

Initiating:

- Creates the Business Case.
- Initiates the Project Charter & consults the main project stakeholders.

Planning:

- Attends the Planning Kick-off Meeting.
- Involved in defining the Project Handbook key elements.
- Assists at identifying the stakeholders.
- Reviews & validates the deliverables acceptance requirements.

Executing: can support the project coordination.

Monitor & Control:

- Help manage the stakeholders on the requestor side.
- Approves the requirements.
- Provides resources to support the users' deliverables acceptance.

Closing: attends the Project-End Review Meeting representing the business side & stakeholders.

REQUESTOR
SIDE



LAYERS AND ROLES

Managing Layer

Business Manager

Responsibility

NO Accountable

Responsible:

- Project Initiation Request
- Business Case
- Business Implementation Plan
- Manage Business Implementation

REQUESTOR
SIDE



European
Executive
Commission
Secretary



LAYERS AND ROLES

Managing Layer

Project Manager

Initiating: typically assigned after the Business Case approval, if assigned before supports the Business Manager at its creation.

Planning: assists the Business Manager at the Business Implementation Plan

Executing: responsible to assure the Project Owner has accepted all the Deliverables.

Monitor & Control: responsible of the effective execution of these processes.

Closing: ensures that the project is approved and accepted by the relevant stakeholders.

Ready for *:** assesses if the project is ready to start the next phase.

Accountable: Quality Assurance

Responsible: everything unless

~~Project Initiation Request (n.a)~~

~~Business *** – support~~

PROVIDER SIDE



**Electoral
Guarantees
Commission
Project Manager**



LAYERS AND ROLES

Performing Layer

The Performing Layer carries out the project work. It produces the deliverables and implements them in the business organization. Members of the Performing Layer report to the Managing Layer. Roles of the Business Implementation Group (BIG) and the Project Core Team (PCT).

Business Implementation Group

- Analyses the impact of the project on the ongoing operations.
- Participates in the design & update of affected business processes.
- Prepares them for the upcoming change.
- Advises the Business Manager (BM) on the Supports the organizational change activities & advises the organization's readiness for change.

Requestor side



Project Core Team

- Supports the project scope and planning project activities developing.
- Carries out the project work, the deliverables.
- Informs the project activities progress.
- Participates in project meetings and helps resolve issues.
- Participates in the Project-End Review Meeting during the collection of Lessons Learned.

Provider side



LAYERS AND ROLES

Performing Layer

Business Implementation Group

Planning:

- Attends the Planning Kick-off Meeting.
- Assist to include the business implementation activities.

Responsibilities

Support: Project Initiation Request

User representatives

Represent the interest of the project's end-users and are part of the Business Implementation Group.

- Help define the business needs & requirements.
- Attends the Planning Kick-off Meeting.
- Assess if the solution satisfies the initial business need.

REQUESTOR SIDE



European Parliament
Candidates
Voters (UR)



LAYERS AND ROLES

Performing Layer

Project Core Team

Responsibilities

Planning: attends the Planning Kick-off Meeting.

Executing: attends the Executing Kick-off Meeting.

Monitor & Control:

- Contributes information on project progress.
- Works to keep the baselines.
- Analyses the project changes.
- Identifies and responses to risks.
- Takes actions to resolve pending issues.
- Assists with Quality Control.

Closing:

- Attends the Project-End Review Meeting.
- Contributes experience & perspectives of lessons learned.
- Provides inputs to the Project-End Report.

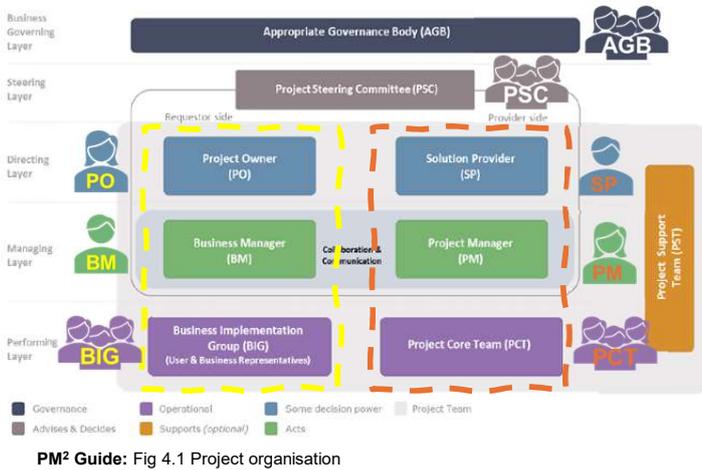
PROVIDER SIDE



Electoral programs tech.
Electoral campaign tech.
Communication tech.
Social media tech.



GOVERNANCE MODEL



PM² Guide: Fig 4.1 Project organisation

SAME ORGANISATION

REQUESTOR SIDE (CLIENT): includes the resources belonging to the organisation that requested the project and where the solution will be delivered.



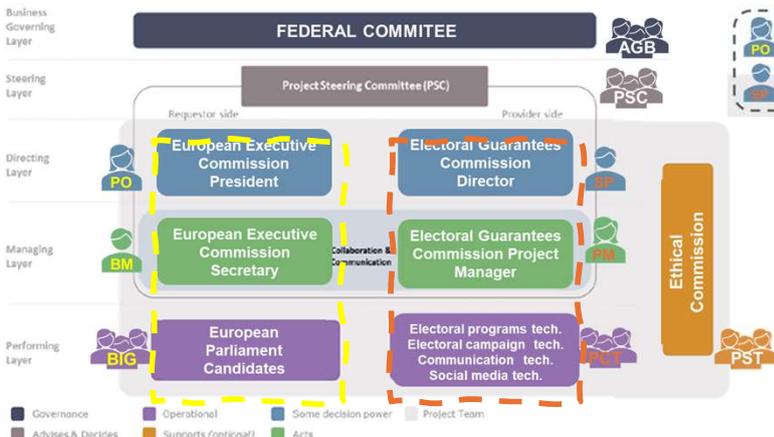
PROVIDER SIDE: includes the resources of the project that develop and implement the solution.

In PM² the provider is **INTERNAL** to the organisation and different from any external contractor.



GOVERNANCE MODEL

“THE GREY PARTY” 2024 EUROPEAN PARLINTAMENT ELECTIONS IN SPAIN



PM² Guide: Fig 4.1 Project organisation

REQUESTOR SIDE (CLIENT):

The Grey Party (Spain)



= ORGANISATION

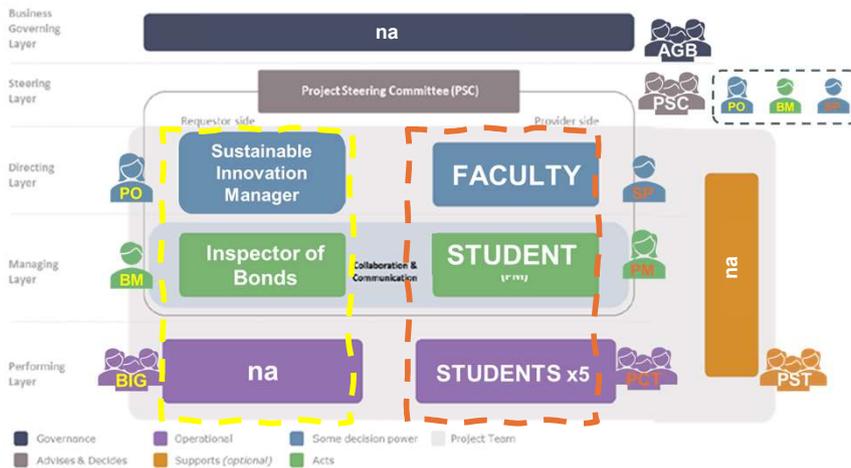
PROVIDER SIDE:

The Grey Party (Spain)



GOVERNANCE MODEL

UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT



PM² Guide: Fig 4.1 Project organisation

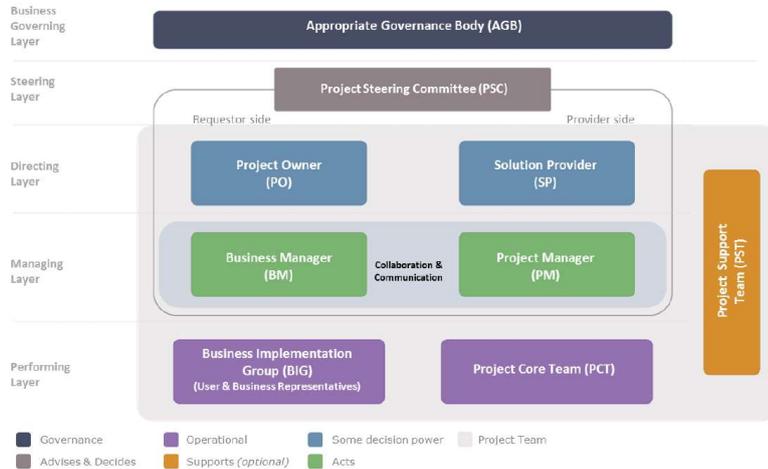
GOVERNANCE MODEL

UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT

Initiating	EC	PSC	PO	BM	SP	PM	PCT	Monitor & Control	AGB	PSC	PO	BM	SP	PM	PCT
Project Initiation Request	n.a.	n.a.	A	R	S/C	I	I	x Team Ready for ***	n.a.	n.a.	I	I	A	S/C	R
x Team - Project Charter	n.a.	A	C	C	S/C	n.a.	R	Monitor Project Performance	n.a.	I	I	I	A	S/C	R
Planning	AGB	PSC	PO	BM	SP	PM	PCT	Control Schedule	n.a.	I	I	I	A	S/C	R
x Team Planning Kick-off Meeting	n.a.	n.a.	n.a.	n.a.	A	R	S	Manage Risks	n.a.	I	I	I	A	S/C	R
Project Handbook	n.a.	A	C	C	R	I	I	Manage Quality	n.a.	I	I	I	A	S/C	R
x Team Project Stakeholder Matrix	n.a.	A	I	I	S/C	S/C	R	Manage PCT Communications	n.a.	I	I	I	A	R	S/C
x Team Project Work Plan	n.a.	A	I	I	S/C	S/C	R	Manage Project Changes	n.a.	I	I	I	A	R	S/C
Deliverables Acceptance Plan	n.a.	A	C	C	R	I	I	Manage Issues	n.a.	I	I	I	A	R	S/C
x Team Risk Management Plan	n.a.	A	I	I	S/C	S/C	R	Manage Deliverables Acceptance	n.a.	I	I	I	A	R	S/C
Executing	AGB	PSC	PO	BM	SP	PM	PCT	Closing	AGB	PSC	PO	BM	SP	PM	PCT
x Team Executing Kick-off Meeting	n.a.	n.a.	n.a.	n.a.	A	R	S	x Team Closing Kick-off Meeting	n.a.	n.a.	n.a.	n.a.	A	R	S/C
Project coordination	n.a.	I	I	I	A	R	S	x Team - Challenge presentation	A	n.a.	C	C	S/C	S/C	R
Quality Assurance	n.a.	I	I	I	A	S/C	R	x Team - Project-End Report	n.a.	A	I	I	S/C	S/C	R
Information Distribution	n.a.	I	I	I	A	R	C								
x Team Sprint Backlog	n.a.	I	I	I	A	S/C	R								
x Team Project Status Report	n.a.	I	I	I	A	S/C	R								
x Team Executing Increments	n.a.	I	A	S/C	S/C	S/C	R								
x Team Challenge final report & product	A	n.a.	C	C	S/C	S/C	R								

A: Project Owner → Solution provider
R: Project Manager → Project core team.

GOVERNANCE MODEL



PM² Guide: Fig 4.1 Project organisation

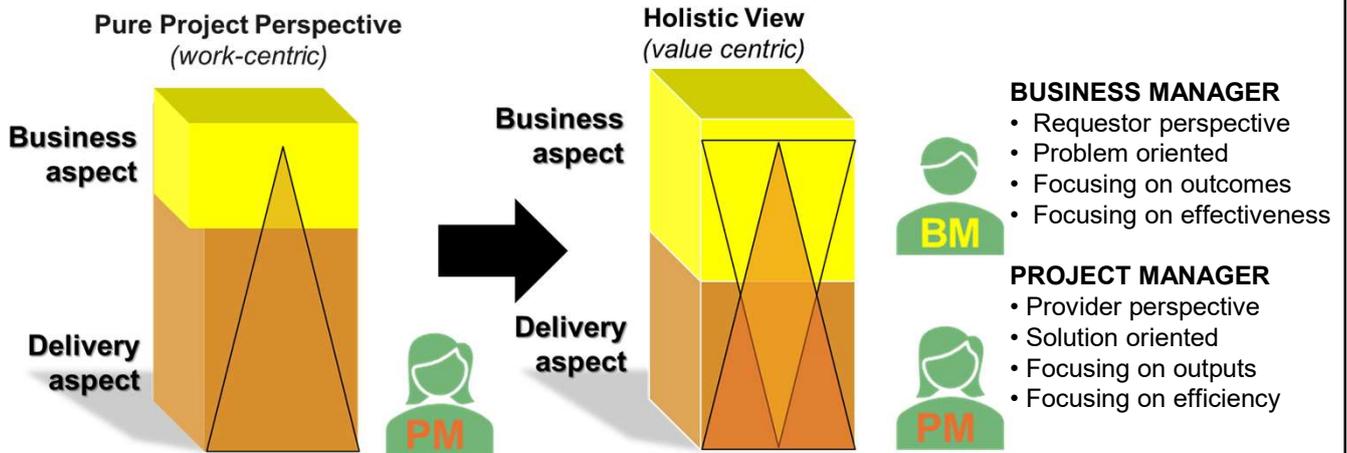
BUILD A GOVERNANCE MODEL

- Select a familiar project and build a governance model.
- Discuss the possible gaps or contradictions.



PERSPECTIVE

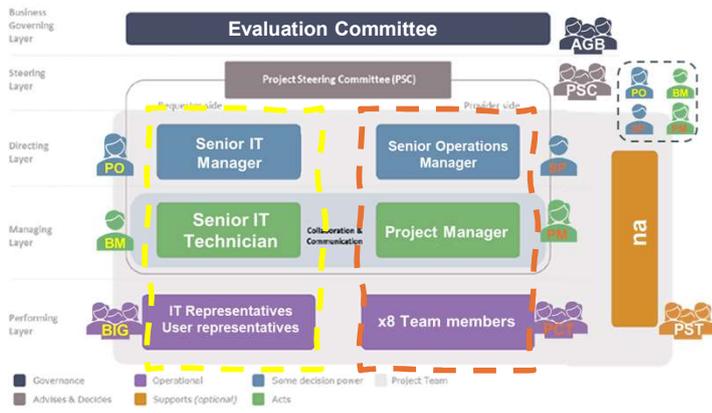
Business Manager & Project Manager working as team with a shared mindset.



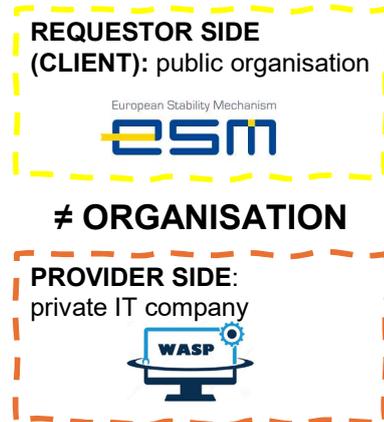


GOVERNANCE MODEL

DEVELOP A NEW WEBSITE FOR THE ESM (European Stability Mechanism)

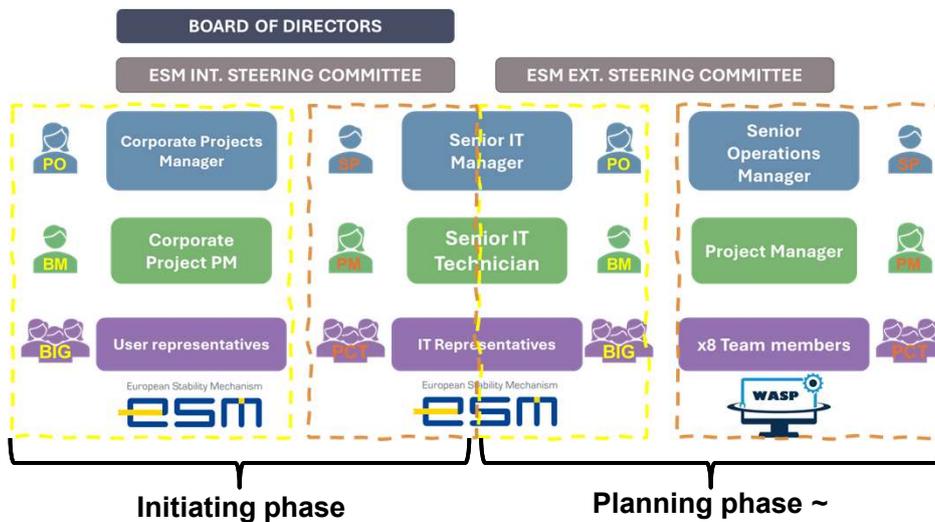


PM² Guide: Fig 4.1 Project organisation



GOVERNANCE MODEL

DEVELOP A NEW WEBSITE FOR THE ESM (European Stability Mechanism)



? QUESTIONS

Q12. Chen is a project manager at the UPF Engineering Grade – Project Management Subject. The project just started last week and even if he has sent several emails to the Business Manager, she is not responding. He is quite nervous as he must submit the Project Charter next Monday.

What is an appropriate way to respond to this issue?

- a) Request a meeting with top-management to discuss this issue.
- b) Ask the solution provider to support you with this issue, as there is no more you can do.
- c) Accept the situation as it is, assuming that the Business Manager will finally answer.
- d) Contact the Business Manager through another channel, for example calling her.



? QUESTIONS

Q13. “The Grey Party 2024 Parliament Elections in Greece” project is halfway done when the management layer identifies an opportunity that was not part of the planned scope. Convinced of the value it will bring to the project, they approve the additional budget. As a project goes on, it is clear that the additional budget was not available and that this has led to delays, and even the completion of the project is at stake.

Which is the root cause of this scenario based on the PM² methodology?

- a) The root cause relies on the Management Layer taking decisions that should have been done by the Directing Layer.
- b) The root cause relies on the Performing Layer that hasn't been able to execute the project within the approved budget.
- c) The root cause relies on the Management Layer that didn't correctly forecast the opportunity cost.
- d) The root cause relies on the Steering Layer for not providing adequate guidance to the Management Layer.



? QUESTIONS

Q14. Miguel is the Project Manager of “The Grey Party 2024 Parliament Elections in Spain”. This project is the most critical for the party’s strategic goals. Miguel is on the process of forming the project team, and he has several candidates for the electoral campaign specialist role.

Which would be his best option?

- a) Laura, she’s the one with less experience but she’s available immediately. She’s a quick learner and comes recommended by a senior executive.
- b) Any candidate recommended by senior management would be fine, the project is crucial, so we need their support.
- c) Gloria, she has the exact expertise required for the project. Although her incorporation should be negotiated with her functional manager, who is very protective of his team.
- d) Yolanda, she’s highly experienced and is well known for her results in past projects. She is currently engaged in another project, but she has expressed her interest to be part of the project.



? QUESTIONS

Q15. You are leading a strategic initiative to merge the two main technological systems into one at BIG. The Project Owner assigned is a high-ranking executive with limited time, but who serves on the board of directors. To ensure the project guidance and strategic direction a Project Steering Committee has been established comprising the Project Owner, the Solution provider and yourself.

As the project progresses it is notable that the dedication of the project owner is impacting the strategic decision making and causing significant delays. As the Project Manager, which of all the following options, which would be the best to solve the situation?

- a) The main issue is that the decision-making process is not aligned with the Project Owner timings.
- b) The main issue is the lack of engagement of the Project Owner with the project. You would recommend a change.
- c) The main issue is the composition of the Project Steering Committee, additional members from the key departments should be added to support the Project Owner.
- d) The main issue is the lack of a Business Manager at the Project Steering Committee. You would recommend this role to be assigned at the PSC as soon as possible.



? QUESTIONS

Q16. At the project “Develop a new website for the ESM (European Stability Mechanism)” during the Project Steering Committees the Project Owner keeps arising concerns related to the technical aspects of the project, which are continuously interfering with the project progress.

As the project manager how should you deal with this issue ?

- a) Accept the situation as it is, as the Project Owner is the project champion and can make these kind of comments.
- b) Ask the Solution Provider to politely remind the Project Owner that the technical issues rely on the provider side.
- c) Politely ask the Project Owner not to discuss this kind of technical issues at the Project Steering Committee and follow the meeting agenda.
- d) Modify the Project Handbook including a rule that does not allow technical discussions at the PSC meetings.



? QUESTIONS

Q17. Shannon is the Business Manager of a social project at SCOCCKERKIDS which aims to improve school attendance ratio in the marginal neighborhoods of her city through sport activities as soccer. She's facing problems as neither the Business Implementation Group or herself are taking part of the requirements identification and evaluation. She is quite worried that the final delivers might not fulfill the user's needs.

Which might be the reason of this situation ?

- a) The requirements management plan has not been developed and the project manager is just improvising.
- b) The project manager is taking over the requestor side responsibilities.
- c) The project manager is working with a holistic perspective.
- d) Managing the requirements is the project manager responsibility, everything is correct.



GLOSSARY

-  Requester Side
-  Provider Side
-  Business Governing Layer
-  Steering Layer
-  Directing Layer
-  Managing Layer
-  Performing Layer
-  Responsibility Assignment Matrix
-  Appropriate Governance Body AGB
-  Project Steering Committee PSC
-  Project Owner PO
-  Business Manager BM
-  Business Implementation Group BIG
-  User Representatives UR
-  Solution Provider SP
-  Project Manager PM
-  Project Core Team PCT



PM² MINDSETS

1



This is not an agile project. I don't need to care about delivering value.

2



I only work with the best team members.

3



Why do we need to celebrate the project end with a party?

4



The client has requested another change. We won't finish the project as planned.

5



This team member is not performing correctly, we might have to reassign him to another project.

6



Why should we improve if it's working well?



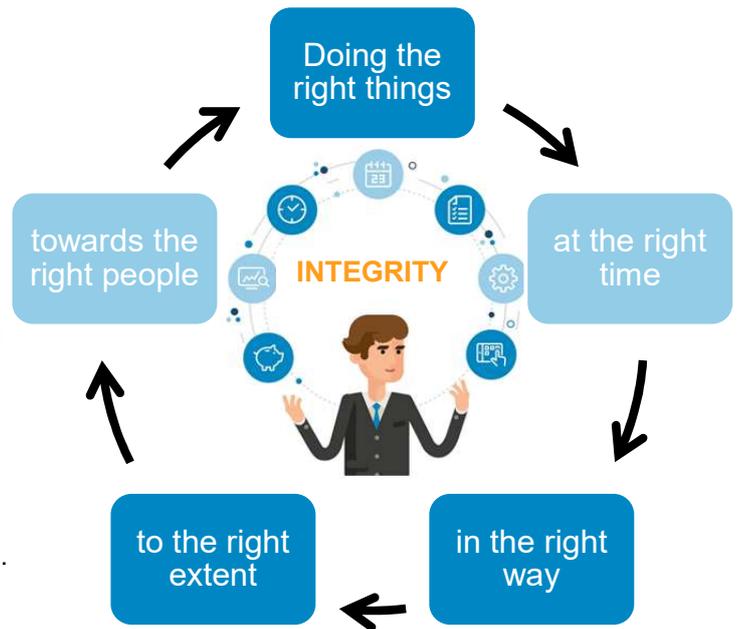
ETHICS AND CONDUCT

Key PM² practitioners' principles

- **Independence:** decision should be determined only by the need to serve the common good and public interest.
- **Impartiality:** decisions should be unbiased.
- **Objectivity:** all conclusions should be based and balanced through facts analysis.
- **Loyalty:** towards the organization.

Putting them into practice requires:

- **Circumspection:** the quality of balancing between your actions and the consequences.
- **Responsibility:** carrying out your tasks entrusted as dutifully as possible.



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TAILORING AND CUSTOMIZATION



Changing specific parts of the methodology

- Process steps.
- Content of artefacts.
- Distribution of responsibilities.



Changing parameters

- Escalation thresholds.
- Risk tolerances.



TAILORING AND CUSTOMIZATION

PM² is a light and easy-to implement methodology which **project team can tailor to their specific needs.**



- First, **understand** purpose and value of the methodology.
- Don't cut, scale **down**.
- **Balance** the control gained against effort required
- Eliminate waste but **respect** the integrity of the methodology.
- The methodology was designed as a **whole**, avoid unnecessary deviations.

Tailoring: Organization → Project → Ongoing improvement



TAILORING AND CUSTOMIZATION

Elements to consider at tailoring:

- **Product:** criticality or complexity level, industry market, . . .
- **Project team:** size, experience, . .
- **Organisation:** culture, maturity, type, . . .
- **Project size:** duration, cost, . . .
- **Stakeholders:** number, type, . . .
- **Internal or external project**



TAILORING AND CUSTOMIZATION

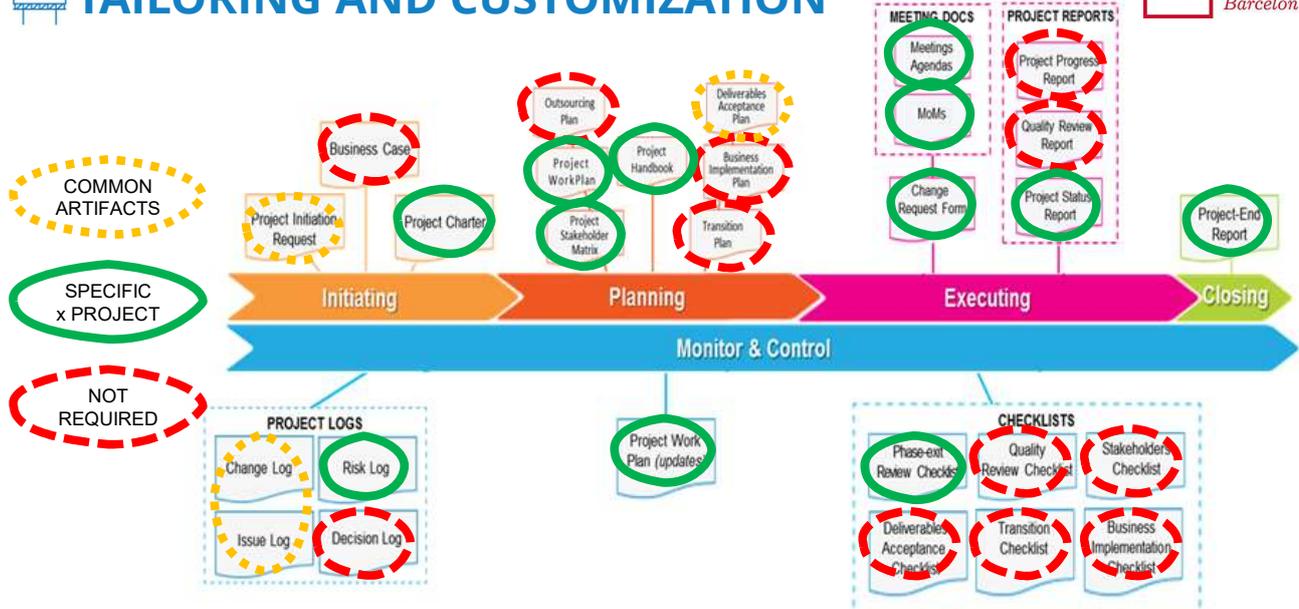
UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT

Engineering students to manage a real project during a 3 months project management subject.

- **Product:** technological challenges (software development, data visualization, data improvement, chatbot, . . .).
- **Project team:** 6 students per project, x20 projects, no previous project management experience.
- **Organisations:**
 - CLIENT: public organisation
 - PROVIDER: public university
- **Project size:** 3 months duration, no cost.
- **External project:** the client is a public administration organization.



TAILORING AND CUSTOMIZATION



QUESTIONS

Q07. You are volunteering at an NGO as a project management consultant. You are advising them to implement PM² methodology. There is no way they can understand the relevance of the closing phase if all the work is already finished and approved.

Which would be the best response to convince them?

- a) You give up, it is not the most important phase of the methodology and is all right to skip it.
- b) All projects need to end with a celebration, we can't miss this part.
- c) All projects need a formal finished deliverables transferring to the product owner, as well as gathering the project experience as a way to transfer the gained knowledge.
- d) The project closing is relevant as all team members and key participants work must be appreciated.



QUESTIONS

Q08. At the new eve party with your friends, you start to organize the annual 10-day summer vacation. We've been organizing the summer vacations all together for more than 10 years and we usually are a group of around 30~40 from ten different families. The project has an approved budget and a detailed planning.

Would you recommend them using the PM² methodology?

- a) I would highly recommend them to use PM² methodology, as it's clearly a project.
- b) I would recommend them to use PM² methodology, as it's clearly a project which accomplishes with the main characteristics: duration, team size, approve budget & scope . . .
- c) I would recommend them to use another methodology as the project only has a duration of ten days.
- d) I would recommend them to use another methodology (P3. express or micro P3.express) as the project is not organized within an organisaton.



? QUESTIONS

Q09. Hadiza is managing a small recycling project at her local municipality. The project duration is estimated to be 4 weeks and with a team of 2 members.

Would you recommend Hadiza to use PM² methodology?

- a) No, it can't be considered a project as the duration is lower than 6 weeks.
- b) No, the project duration and team size is not aligned with PM² criteria. Other methodologies would be more suitable, as micro P3.express.
- c) Yes, as the project meets PM² applicable criteria.
- d) Yes, PM² methodology is meant to be used at all public bodies..



? QUESTIONS

Q10. Tomiko, one of your team leads, comes to you for your advice. She has gone through a hiring process for a new financial and has doubts about the final candidate. The process has been completely transparent and has been carried out online. The doubt comes because once she has contacted the best candidate, she finds out the candidate has a partial blindness. These condition requires a special hardware at the workplace and also podotactile pavement, which the company does not have. This expense was not considered, and she does not know what to do. What would you recommend her?

- a) Not much to be done here, your company can't assume this extra cost.
- b) This is not my problem, you such be asking to HR.
- c) To hold the final interview online and if selected for the position develop a temporary remote work arrangement until the company can be ready to adapt to all the required requirements.
- d) To skip this candidate and hold the final interview with the second best candidate.



QUESTIONS

Q11. Lucile has been assigned as a project manager at a small-size project. After successfully gained her PM² Practitioner Certification she's been asked to implement PM² methodology. Which could her best option?

- Scale down the artefact's contents, for example eliminate the Business Case "possible alternatives", that will not provide value in such a small project.
- Combine the Project Owner and the Business Manager, as it's going to be more effective.
- Combine some of the management process, for example: combine the "specify the requirements" and "evaluate the requirements" into one. For small-sized projects it will be more effective.
- Create stand alone artefacts for all the management plans.



GLOSSARY

- | | |
|---|--|
|  Governance |  Stakeholders |
|  Lifecycle |  Independence |
|  Processes |  Impartiality |
|  Artefacts |  Objectivity |
|  Mindset |  Loyalty |
|  Initiating |  Circumspection |
|  Planning |  Responsibility |
|  Executing | |
|  Closing | |
|  Monitor & Control | |
|  Project Owner | |
|  Project Manager | |
|  Project Core Team | |



5. INITIATING PHASE

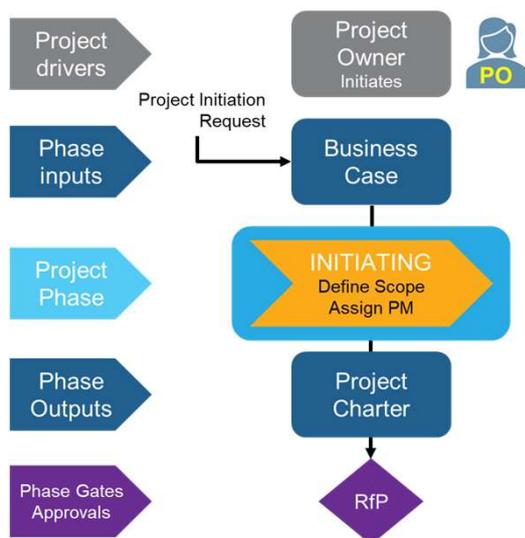


COU SEWARE

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Initiating

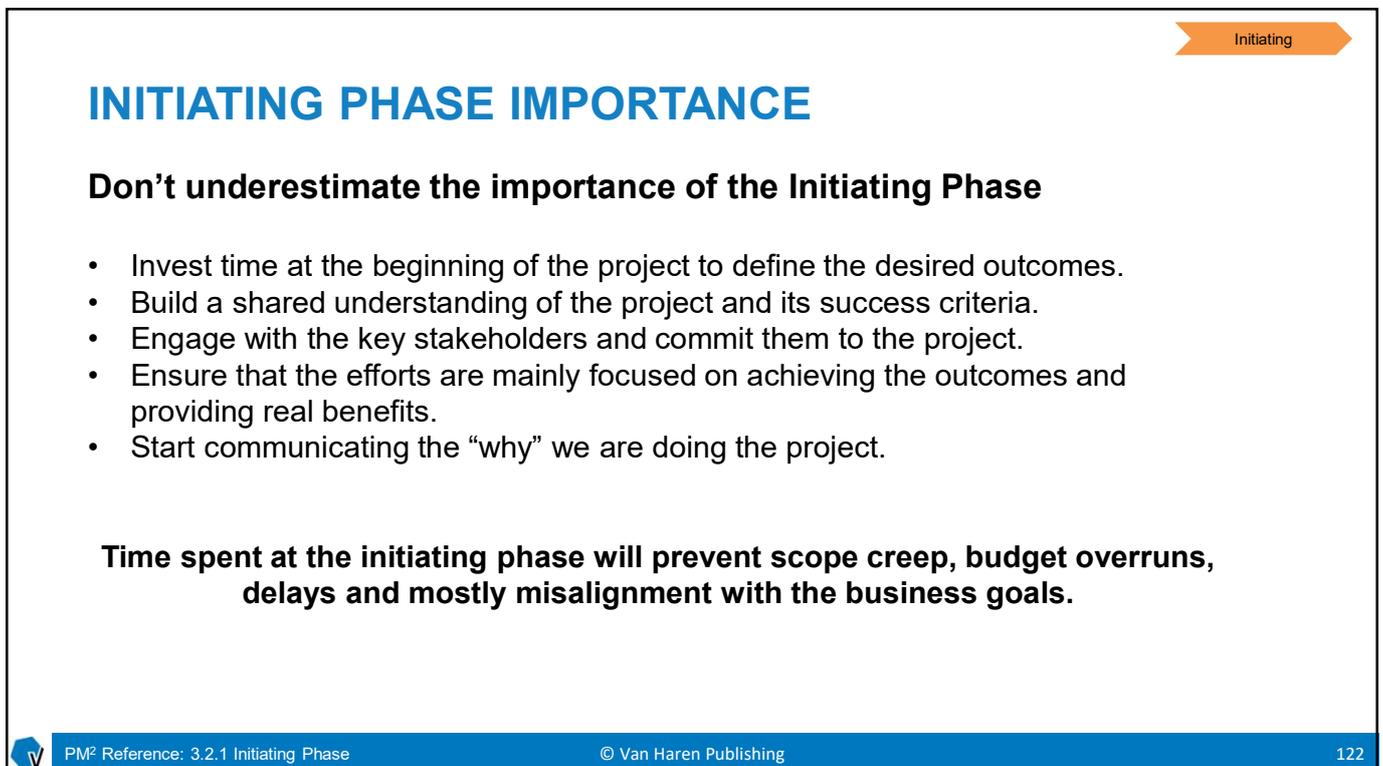
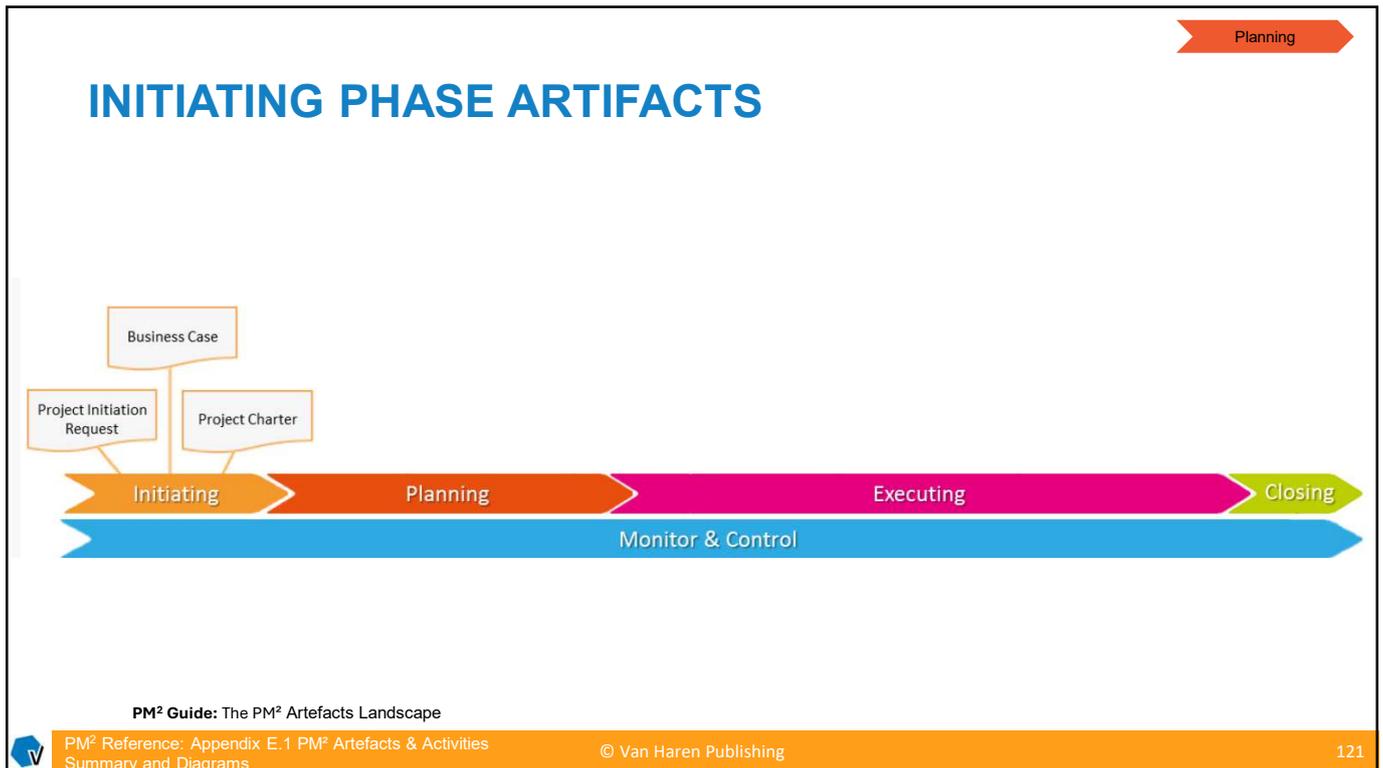
INITIATING PHASE LANDSCAPE



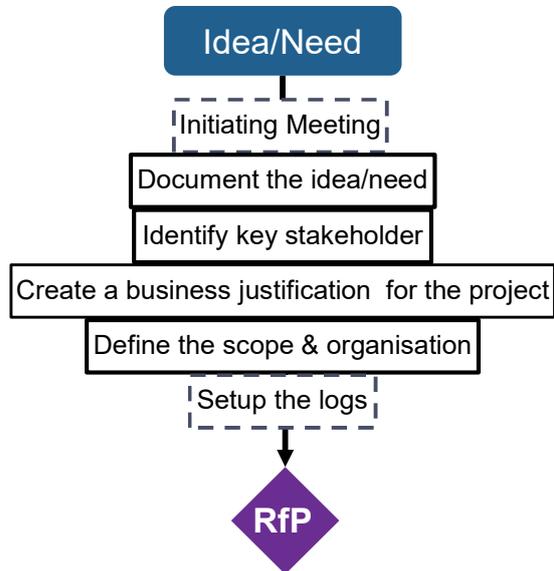
Purpose

- The **problem/opportunity/call** is analysed.
- The organisation **capacity** is assessed.
- **Business justification** is obtained.
- Ensure the project is **aligned with the organization strategy**.
- Some **preliminary planning** is performed.
- **Project structure** is drafted, and stakeholders are identified.
- The project **success criteria** are defined and approved.
- **Approval to continue** with the activities of the next phase is required.





INITIATING PHASE STEPS



PM² **Project Initiation Request**

PM² **Business Case**

PM² **Project Charter**

PM² **Decision, Issue & Risk Log**

PM² **Phase Exit Review Checklist**



PROJECT INITIATION REPORT

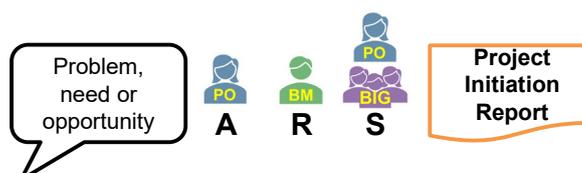
It's the starting point for documenting a project proposal.

PURPOSE

- The project formal starting point.
- Ensure that the problem/need/opportunity as well as the desired outcomes are formally captured.
- Outlines the project's relevance to the organisation's strategic direction.

STEPS

1. Initiating Meeting if the initiator is not the PO.
2. The PO nominates the BM.
3. The organisation unit nominates a SP.
4. The BM drafts the PIR.
5. Submit to approval to PO or AGB.



PROJECT INITIATION REPORT

CONTENTS

- **Project title**
- **Sensitivity**
- **Defined roles:** Initiator, Project Owner, Solution Provider, Approving Authority
- **Delivery:** request & target date, estimated effort, delivery type
- **Context**
- **Legal basis**
- **Outcomes & Impact**
- **Success Criteria**
- **Assumptions & Constraints**
- **Risks**

GUIDELINES

- **Formal (AGB) or informal (PO)** approval depends on the project size and the organisation approval process.
- All relevant information should be included but only at **high level**.

The lifecycle of the Project Initiating Request ends with the creation of the Business Case and Project Charter.



PROJECT INITIATION REPORT



“The Grey Party” 2024 European Parliament elections in Spain

STEPS

1. Initiating Meeting between the AGB and the nominated PO
2. The PO nominates the BM.
3. The BM drafts the PIR.
4. The EEC nominates a SP.
5. Submit to approval to the AGB.

ROLES

- Approver:** Federal Committee (AGB)
- Accountable:** EEC President (PO)
- Responsible:** EEC Secretary (BM)
- Support:** “potential” candidates & PO EEC European Executive Commission (Spain)

Key points:

- **Legal basis** – first time running to a European elections, EU elections regulation.
- **Impact** – the project is critical and strategic but also has a high impact on the organisation as there are three autonomic elections before.



QUESTIONS

Q18. At INNOVA, a leading IA technology company, they started two years ago an Open Innovation process. This process has led to an increase in the number of projects being initiated and there is an internal discussion whether it has been a complete success or not. Even if the company revenue has increased, at the same time other serious problems have appeared. Problems as resource overallocation and a higher project failure rate. The CEO wants to change to Open Innovation policy restricting the ability to start a Project Initiation Request to only the management team, changing the current open policy which allows anyone to issue a PIR.

Which would be the best way to address this situation ?

- Recommend to increase the allocated resources at the Project Management Office and not modify the current policy.
- Recommend to keep the open current policy. Improving the project evaluation and approval process.
- Support the CEO decision, managers are more aware of the company strategy and will make better PIR proposals.
- Recommend to include a screening process to filter the PIR.



PESTEL ANALYSIS



The PESTEL Analysis is used to **understand how the environment might impact a project or an objective.**

PESTEL stands for: **Political, Economic, Social, Technological, Environmental and Legal.**

A PESTEL analysis helps identify the **external factors that influence an organisation**, and therefore, could have an impact on the objectives, planning or execution of projects.

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



Initiating

PESTEL ANALYSIS

P

- Political stability
- Government policy
- Tax policy
- Foreign trade policy
- Corruption
- Labour law
- Trade restrictions

E

- Economic growth
- Exchange rates
- Interest rates
- Inflation rates
- Unemployment rates
- Disposable income

S

- Population growth rate
- Age Distribution
- Career attitudes
- Lifestyle attitudes
- Safety emphasis
- Health consciousness
- Cultural barriers

T

- Technology incentives
- Level of innovation
- Automation
- R&D activity
- Technological awareness
- Technological change

L

- Employment laws
- Consumer protection laws
- Copyright and patent laws
- Health & safety laws
- Discrimination laws
- Antitrust laws

E

- Environmental policies
- Climate change
- Pressure from NGO's
- Climate
- Weather

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Initiating

PROJECT INITIATION REPORT + PESTEL

“The Grey Party” 2024 European Parliament elections in Spain

The Grey Party - Spain
European Executive Commission

Project Initiation Request

2024 European Parliament elections

Date: 16/01/2024
 Doc. Version: 1.0
 Template version: 3.0.3

BUILD THE PROJECT INITIATION REQUEST

- Based on all provided information.
- Use the **PESTEL** tool to analyse the risks, assumptions and constraints.
- To make it more real you can transfer the project to your European country.
- Keep the essence of “The Grey Party” and the same constraints.

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QUESTION

Q19. COMTEK is a company that offers modular construction solutions for aeronautics, defense, hospital, social development, logistics and distribution, as unique projects. They have a major modular project for Country Y that would mean entering the South American market for the first time. Celina has been assigned as the project business manager.

Which technique would be the most suitable to analyse this new environment and its impact on the project?

- A SWOT analysis, that will assess the Strengths, weakness, opportunities and threats of the project environment.
- A BANI analysis, that will assess the Brittle, Anxious, Non-Linear, and Incomprehensible of the project environment.
- A VUCA analysis, that will assess the volatility, uncertainty, complexity and ambiguity of the project environment.
- A PESTEL analysis, that will be assess the impact of political, economic, social, technological, environmental and legal factors on the project.



BUSINESS CASE

Provides contextual information to the decision makers (cost, duration, strategic alignment, what it solves). Captures the project reason.

PURPOSE

- Ensure that the investment has value and importance, it's **feasible** and **aligned with the strategy**.
- Enough capability and capacity** to deliver the benefits.
- The resources are working on the highest value opportunities.

STEPS

- The BM drafts the Business Case based on the PIR.
- The PO evaluates and approves or rejects its.
- Submits to approval to the AGB if required (described at the PIR).

Project
Initiation
Request



A



R



S

Business
Case



BUSINESS CASE

CONTENTS

- **PIR** information
- **Context:** current situation description, impact and interrelations & interdependencies.
- **Expected Outcomes**
- **Possible Alternatives:** 3 alternatives and the chosen one.
- **Solution Description:** *legal basis, benefits, success criteria*, scope, solution impact, deliverables, *assumptions, constraints, risks*, cost, roadmaps, synergies
- **Governance**

GUIDELINES

- The analysis depth depends on the investment level.
- Consider several scenarios to deliver the need/problem/opportunity.
- For projects carried out under a contract as an input use the Contract and the Request for Proposal.

The Business Case must be updated as required to maintain the business justification.

BUSINESS CASE



“The Grey Party” 2024 European Parliament elections in Spain

Context

Currently governing at Barcelona, Tarragona, Valencia, Alicante, Málaga & Sevilla. 2nd political force in the Mediterranean area, and the 3rd-4th in the rest of the country.

Impact

It's a real challenge to manage four elections within six months.

Alternatives

- Do nothing
- Re-using the 2023 general elections program & campaign
- Develop a new electoral program & campaign internally
- Develop a new electoral program & campaign with external support

ROLES

Approver: Federal Committee (AGB)
Accountable: EEC President (PO)
Responsible: EEC Secretary (BM)
Support: EGC Director (SP) & EGC PM
 EEC European Executive Commission (Spain)
 EGC Electoral Guarantee Commission (Spain)

Success criteria:
 minimum of 6 seats



QUESTIONS

Q20. BRICKS² has recently implemented PM² Methodology to increase the Project success rate, but after one year there has been no improvement. The CEO decides to hire you as a consultant to improve this situation. After a preliminary review, you have identified many project that lack a clear alignment with the organization strategic goals, which failed to deliver the expected outcomes and benefits. Your proposal includes improving the current initiating phase processes, which artefact would you prioritize for improving this lack of strategic alignment.

- a) Business Case: refine the template to ensure a detailed analysis of the project alignment with the company strategy.
- b) Project Charter: refine the template to more detail on the success criteria.
- c) Project Initiation Request: refine the template to include more detail at the impact and outcomes.
- d) Project Charter: refine the template to ensure a detailed analysis of the project alignment with the company strategy.



SWOT ANALYSIS



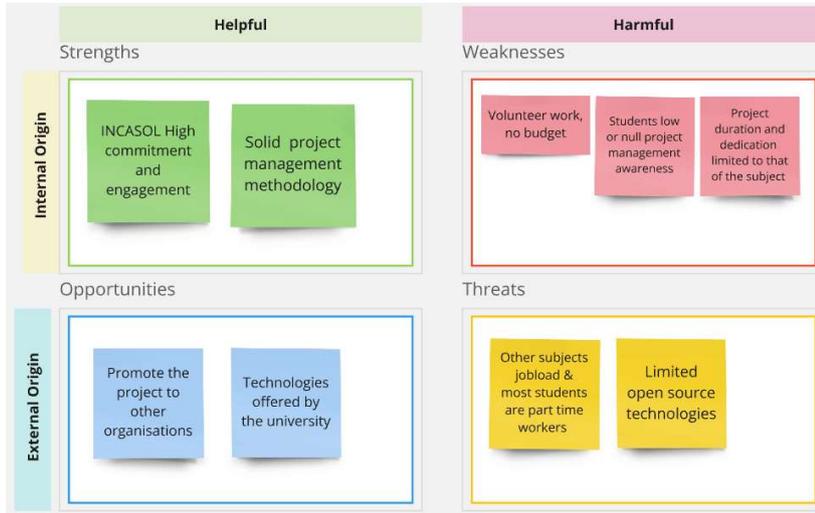
A SWOT analysis is a method used to evaluate the Strengths, Weaknesses, Opportunities and Threats involved in a project. It generally begins by specifying the objective of the project and then identifies the internal (strengths and weaknesses) and external (opportunities and threats) factors that are favourable or unfavourable to achieving the objective.

Used at the Business Case to choose the best solution.



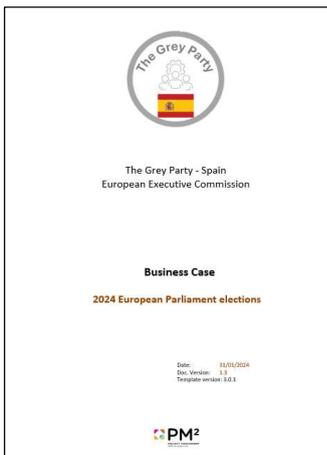
SWOT ANALYSIS

UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT



BUSINESS CASE & SWOT

“The Grey Party” 2024 European Parliament elections in Spain



ANALYSE THE ALTERNATIVES

- Based on all provided information.
- Use the SWOT to analyse one of the alternatives.
- Share the results.
- Decide all together the best alternative.



QUESTIONS

Q21. TRANSPOWER is a power transmission company working exclusively for the automotive sector. TRANSPOWER is a leader and expert at power transmission, but the automotive sector recession due to the electric car batteries uncertainty, has highly reduced the number of projects. Laia has been nominated as a Project Manager of the first project of the bicycle sector, where the company is considering to expand its operations. She's supporting the Business Manager at the SWOT analysis of the Business Case.

Based on this scenario, which identified Opportunity best suits to be included at this SWOT analysis ?

- A strong financial position with access to capital for investing in new projects.
- DOORS reputation and power transmission expertise at the automotive sector that can be easily transferred to the bicycle sector.
- Competitive sector with a lot a strong companies
- Since the COVID19 there has been a global shift to bicycles.



PROJECT CHARTER

The charter is a key element of the project approval process (along with the Business Case). It includes the **what, how and when fundamentals of the project**.

PURPOSE

- Provide a basis for detailed planning.
- Understandable overview of the final Project deliverables.
- Formally authorise the project existence.
- Provides the Project Manager authority.

STEPS

1. The BM consults the main key stakeholders.
2. The PM drafts the Project Charter.
3. The main stakeholders review the PC & the PSC accepts.
4. If required to approve by the AGP the PO sends it.



PROJECT CHARTER

CONTENTS

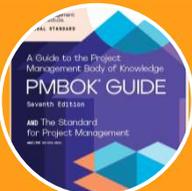
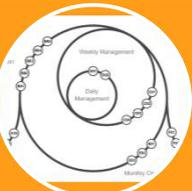
- **Executive summary**
- **Business Case** considerations
- **Project Description**
 - Scope
 - *Success criteria*
 - Stakeholders and user needs
 - *Deliverables*
 - Features
 - *Constraints / Assumptions / Risks*
- **Cost, timing & resources**
- **Approach**
 - Methodology
 - Change Management
- **Governance & Stakeholders**

GUIDELINES

- The project charter should be brief.
- High-level, no detail.
- If required, details can be captured at other artefacts (Requirements Document).
- All stakeholders inputs must be considered, but not accepted.
- Keep it updated and distributed.

The project manager is responsible to complete it and submit it to approval.

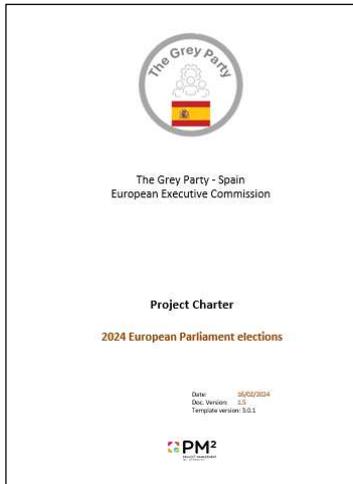
PROJECT CHARTER

 <p>PROJECT CHARTER</p> <ul style="list-style-type: none"> • Executive summary • Project Description • Cost, timing & resources • Approach • Governance & Stakeholders 	 <p>PROJECT CHARTER</p> <ul style="list-style-type: none"> • Project purpose • Objectives and success criteria • Requirements • Description • Risk • Milestone schedule • Preapproved financial resources • Key stakeholder list • Approval requirements • Exit criteria • Assigned PM • Sponsor 	 <p>PROJECT BRIEF</p> <ul style="list-style-type: none"> • Project definition <ul style="list-style-type: none"> • Background • Objectives • Outcomes • Scope & exclusions • Constraints & assumptions • Tolerances • User & stakeholders • Outline business case • Product description • Approach • Team structure & roles • References 	 <p>PROJECT DESCRIPTION</p> <ul style="list-style-type: none"> • Purpose and expected benefits • Expected cost & duration • Requirements & quality expectations • Stakeholder list
---	--	---	--

PROJECT CHARTER



“The Grey Party” 2024 European Parliament elections in Spain



- **Scope:** Candidates list (61 candidates maximum), electoral program, electoral campaign, website update
- **Success criteria:** achieve a minimum of 6 seats
- **Stakeholders and user needs:** each relevant politician in the organization has their own interests. Interest of the main regional parties:
 - Catalan regional party: 6 candidates, 2 at the top 5.
 - Valencia regional party: 6 candidates, 2 at the top 5.
 - Andalusia regional party: 6 candidates, 2 at the top 5.
- **Constraints:**
 - April 17th – Election campaign starts
 - May 7th – Candidates list presentation
 - June 9th – Election’s day



PROJECT CHARTER



“The Grey Party” 2024 European Parliament elections in Spain

• Milestones



• Assumptions:

- Achieve the minimum strategic results at the autonomic elections.
- Political stability at the Spanish government

• Risks:

- Alliances between other political parties
- Attract recognized and reputable candidates

• Governance



• Costs:

- Electoral program: 250.000€
- Electoral campaign: 700.000€
- Website update: 50.000€



? QUESTIONS

Q22. Vasili is the Project Manager of Project XYZ, he has just completed the 60 pages Project Charter, asked the main Stakeholders to review it and has handed it to the Project Owner to submit it to the Project Steering Committee approval.

Which statement defines the next step the Project Owner should take?

- a) Ask the project manager to review the Project Charter, as it doesn't accomplish with the defined guidelines.
- b) Review yourself the Project Charter, as the PSC charmain, before submitting it to the PSC approval.
- c) Such a heavy Project Charter means its technically complex, so you ask the Solution Provider to review it beforehand, before submitting it to the PSC approval.
- d) You complain to the Solution Provider, as the Project Charter doesn't accomplish with the defined guidelines of a maximum of 5 pages.



MAKE OR BUY ANALYSIS



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

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

**Changes in the external environment
might trigger the question of Make or Buy.**



MAKE OR BUY ANALYSIS



Steps

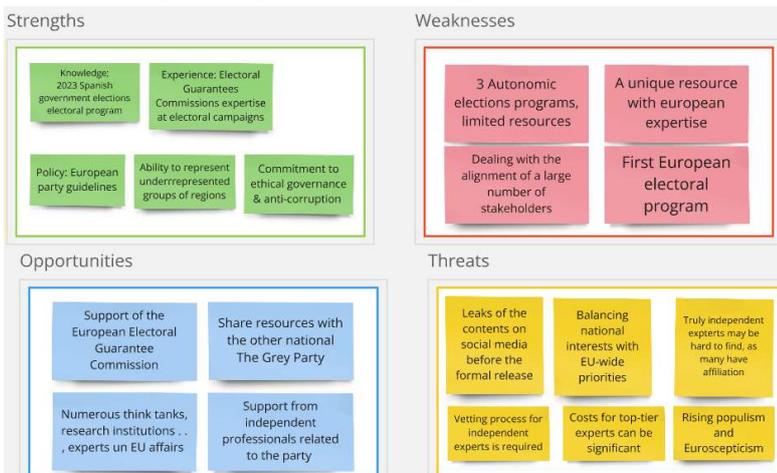
1. Preparation
2. Data Collection
 - Cost factors
 - Technology and Business Processes
 - Supply Factors
 - Support Systems
3. Data Analysis and Decision
4. Feedback



MAKE OR BUY ANALYSIS



“The Grey Party” 2024 European Parliament elections in Spain



MAKE OR BUY

- Based on the previous information & the SWOT.
- Analyse the task “Develop a new electoral program” with the Make or Buy Analysis.
- Decide a make or buy decision.



QUESTION

Q23. At INNOVA, a leading IA technology company, is developing a new project that requires high-technology, the company is aware that the required expertise might not be fully available internally. The Project Owner has made clear that the deadlines are key in this project, as well as high-quality standards and protecting the intellectual rights.

How would you proceed with this lack of resources ?

- a) Cancel the project, given the lack of internal expertise and the guideline to protect the intellectual rights are not feasible within the deadline.
- b) Proceed with an in-house development, there is no other way to keep the high-quality standards and protect the intellectual rights.
- c) Outsource the high-technology development, deadlines are relevant and there is no time to train our internal resources.
- d) Conduct a make-or-buy analysis to make a well-informed decision, even if it might delay the project.



Phase Gate RfP (Ready for Planning)

Approval gates at the end of the Initiating Phase to **approve moving to the Planning Phase.**

PURPOSE

- Ensure the project is ready to start the Planning Phase.
- Control the project quality.

STEPS

1. The PM assess whether is ready to commence the Planning Phase.
2. If the Business Case and the Project Charter are approved the PM seeks the PSC to approve the phase gate.

If the Business Case or Project Charter is not approved, the project proceeds directly to the Closing Phase for Lessons Learned and archiving

Business Case

Project Charter



Phase Exit Review Checklist

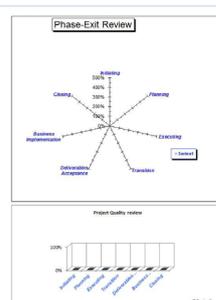




Phase Gate RfP (Ready for Planning)



Phase-Exit Review				
DD / Date:	Name of the DD and who is responsible for the project?			
Project Name:	Name of the project			
Project Owner:	Name of the Project Owner			
Business Manager:	Name of the Business Manager			
Solution Provider:	Name of the Solution Provider			
Project Manager:	Name of the Project Manager			
Business Name:	Name of the project and/or the business function			
Review Date:	dd/mm/yyyy			
Overall Compliance (%)	0/00			
Overall Phase-Exit Review Status:	Red			
Area	Phase-Exit Review Status	Overall % of Compliance	Date	Already performed?
Initiating	0%	0%	11/07/2018	Yes
Planning	0%	0%		No
Executing	0%	0%		No
Closing	0%	0%		No



Initiating Phase-Exit Checks				Date:	dd/mm/yyyy
#	Description	Answer	Score	Comments	
1	Has a Project Initiation Request been documented and approved?	No	0		
2	Are the project context, scope, deliverables and expected outcomes documented?	No	0	<Add a justification here>	
3	Has a Project Owner (PO) been identified?	No	0		
4	Are project benefits and success criteria documented?	No	0		
5	Are the benefits and success criteria measurable?	No	0		
6	Have all the key project stakeholders been identified?	No	0		
7	Are all the initial roles and responsibilities defined?	No	0		
8	Has the Project Steering Committee (PSC) been established?	No	0		
9	Have at least 4 alternative solutions been analysed e.g. using a SWOT analysis?	No	0		
10	Are major assumptions, constraints and risks identified?	No	0		
11	Have project synergies and dependencies been analysed?	No	0		
12	Has the project Total Cost of Ownership (TCO) been estimated in FTE and €?	No	0		
13	Are both requestor and solution provider costs included in the project TCO?	No	0		
14	Are project funding sources (budget lines) identified for each cost element?	No	0		
15	Have project savings been estimated in FTE and €?	No	0		
16	Has a Business Case been documented and approved by the Project Owner (PO)?	No	0		
17	Is there a Project Manager (PM) assigned to the project?	No	0		
18	Are requestor needs documented and linked to project deliverables?	No	0		
19	Is project roadmap (start and end dates) for major milestones and deliverables documented?	No	0		
20	Is project approach / methodology identified?	No	0		
21	Are Risk, Issue and Decision Logs setup?	No	0		
22	Have the identified risks an associated response strategy been approved?	No	0		
23	Are major resources needed to execute the project identified as well as requirements detailed?	No	0		
24	Have security, document management and data protection constraints been assessed?	No	0		
25	Has a Project Charter been documented and approved by the Project Steering Committee (PSC)?	No	0		
26	Is the project currently delivering to schedule?	No	0		
27	Is the budget allocated sufficient at this point of the project?	No	0		
28	Is the project ready to proceed to the Planning Phase?	No	0		
Total score for compliance		0	0		



PM² Reference: 5.5 Phase Gate RfP (OPM2-27.MC.CH.L.v3.0.1).Phase Exit Review Checklist.

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QUESTIONS

Q24. Peter has been nominated as the Project manager of a Traceability System at BUFU UK. He has been supporting the Business Manager with the Business Case and has just submitted to Project Charter to the Project Owner. He has been invited to attend a virtual meeting with the BM, PO and AGB to discuss the Project Charter approval. At the end of the meeting the AGB decides not to approve the Project Charter as it has been decided to move on a global Traceability System for all the overseas companies.

How should Peter proceed ?

- a) The project should proceed directly to the Closing Phase for its completion.
- b) The project should be terminated immediately, as a new PIR will be submitted.
- c) Continue with the project, all the required changes to adapt to the new requirements will be done at the planning phase.
- d) Continue with the project, you are sure the AGB will see the benefits of a local development and all the work done can't be effortless.



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 **GLOSSARY**

- PM² Initiating Phase
- PM² Project Initiation Request (PIR)
- PM² Business Case (BC)
- PM² Project Charter (PC)
- PM² Ready for Planning (RfP)
- PM² Success criteria
- PM² Phase Exit Review Checklist
- PM² Decision Log
- PM² Issues Log
- PM² Risk Log
- PM² PESTEL Analysis
- PM² SWOT Analysis
- PM² Make or Buy Analysis

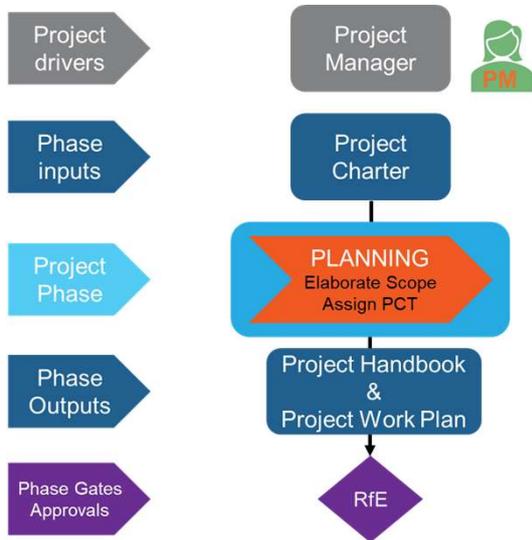


6. PLANNING PHASE



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PLANNING PHASE LANDSCAPE

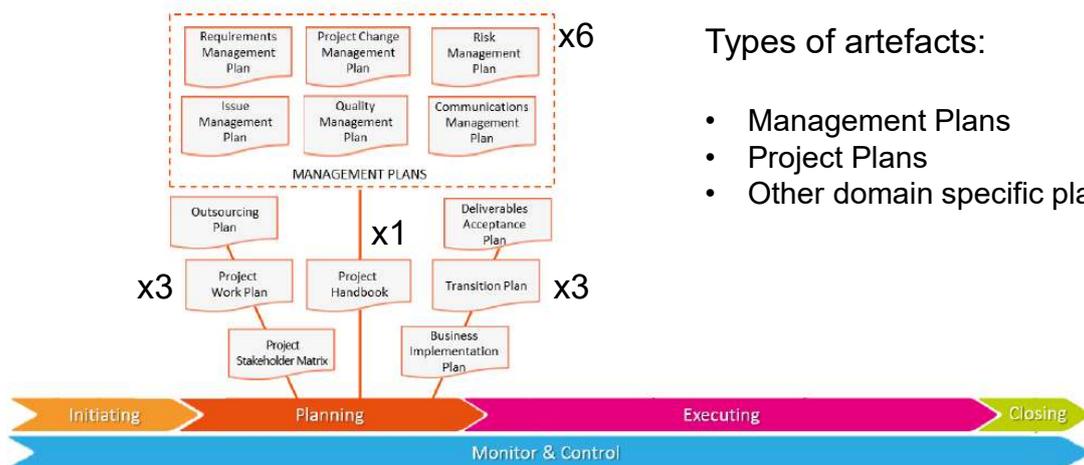


Purpose

- Verify the project subject.
- Develop a workable plan for implementation.
 - Elaborate scope into more manageable parts.
 - Develop a schedule.
 - Define roles and responsibilities.
 - Create all the project plans.
- Create a common understanding of the project.



PLANNING PHASE ARTIFACTS



Types of artefacts:

- Management Plans
- Project Plans
- Other domain specific plans



PLANNING PHASE IMPORTANCE

Don't over plan, avoid paralysis by analysis !!

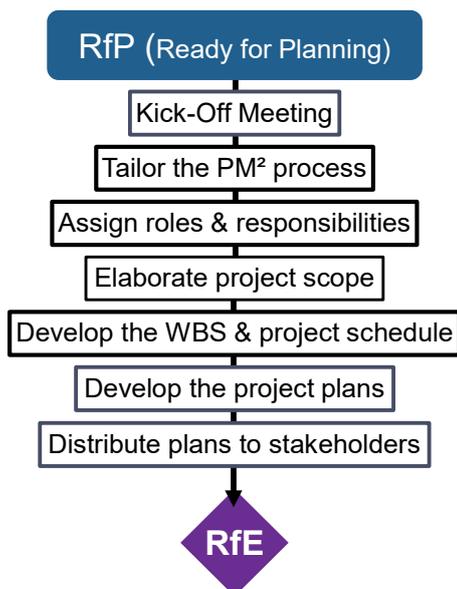
- Keep in mind that projects and uncertainty go together hand in hand.
- Keep the plan realistic but also feasible.
- Buffers, margin, risk analysis . . . are as important as a good plan.
- Remain mindful that the methodology serves the project, tailor and adapt it to the project needs.
- Don't forget the "soft skills" as communications, issues, conflicts . . .
- And keep simple.

"If everything is going exactly to plan, something somewhere is going massively wrong."

Icekahlua



PLANNING PHASE STEPS



PM² Kick-Off Agenda & MoM

PM² Project Handbook & Management Plans

PM² Project Stakeholder Matrix

PM² Project Work Plan

PM² Project Work Plan

PM² All Project Plans

PM² Phase Exit Review Checklist



PLANNING KICK-OFF MEETING

Official start of the planning phase, explaining the project to the team.

PURPOSE

- Everybody understanding the project scope.
- Clarify stakeholders' expectations.
- Identify project risks,
- Discuss the required plans.
- Gather information of past projects.

STEPS

1. Plan the meeting.
2. Go through all the Project Charter.
3. Discuss the needed project plans.
4. Discuss supporting tools.
5. Summarise decisions and communicate next steps.
6. Distribute the MoM within 2days.

Business Case &
Project Charter



Kick-Off
Meeting
Agenda

Minutes of
Meeting
(MoM)



PLANNING KICK-OFF MEETING

CONTENTS

- **No specific contents.**
- **Agenda:**
 - Date/Time/Location/Coordinator
 - Participants
 - Meeting objectives
 - Agenda items/Time/Owner
 - Related documents
- **MoM:**
 - Date/Time/Location/Coordinator
 - Attendees
 - Meeting Agenda/Summary
 - Decisions taken/To Do Items
 - Proposed Agenda for Next Meeting
 - Related documents

GUIDELINES

- **Key participants:** PM, PCT, BIG, URs. SP, PO, BM, PMA* & PSO*.
- Any **issue, risk or decision** should be recorded at the relevant **logs**.

* *Required if part of the project.*





MEETINGS

STEPS

- **Before the meeting**
 - Plan the meeting and set the Meeting Agenda with the points to be discussed.
 - Send out the Meeting Agenda in advance.
 - Address logistical needs and prepare documentation or hand-outs for the meeting.
 - Make sure participants will be present and fully prepared.
- **During the meeting**
 - Introduce the meeting and participants.
 - Ensure someone is designated to take the Minutes of Meeting (MoM).
 - Facilitate the meeting so that everyone can participate.
 - Summarise the decisions taken.
- **After the meeting**
 - Distribute the Minutes of Meeting to the appropriate stakeholders as soon as possible (within 2 days is considered as a best practice).



QUESTIONS

Q25. Laia, a project manager at TRANSPOWER is about the Planning Kick-off meeting for the first project of the bicycle sector that the organisation is facing. It's a strategic project as the organisation is aiming to enter the bicycle sector to overcome the loss of income caused by the recession in the automobile sector.

The meeting is about to start when she receive a message from the Project Owner telling her that she won't be able to attend but hoping you the best at the meeting.

How should Laia deal with this situation?

- a) Conduct the meeting without the Project Owner, the project is too strategic to postpone the meeting and all the other stakeholders have confirmed their attendance.
- b) Conduct the meeting without the Project Owner, the Project Owner is not relevant as the meeting will be focussed on the technical specifications differences between the automotive and the bicycle sector.
- c) Cancel the meeting, the Project Owner is a key participant, and her attendance is required to engage the stakeholders to ensure alignment and understanding.
- d) Cancel the meeting, the Project Owner is a key participant due the project strategic value.



PROJECT HANDBOOK

The central reference for the key elements of the project management.

PURPOSE

- The basis on which the project is managed and executed.
- Key reference for all the project stakeholders.
- Summarises the project goal and success criteria.

STEPS

1. Search possible reusable components from past projects.
2. Define the required customisation based on the organisation standard Project Handbook.
3. Decide the required management plans.
4. Elaborate the Project Handbook.

Planning Kick-Off Meeting Agenda

Business Case + Project Charter



Project Handbook



PROJECT HANDBOOK

CONTENTS

- **Project overview**
 - CSF & objectives
 - Stakeholders & constraints
- **Project approach:**
 - Lifecycle & tailoring
 - Conflict resolution & escalation
- **Project processes**
 - Risk, Issue, Requirements, Change, Quality, **Configuration**, **Communication**, Deliverable Acceptance, Transition, Business Implementation, **Resource**
- **Project progress measurement**
 - Progress Measuring, Reports, Checklists
- **Project roles & responsibilities**
 - RASCI. Roles & responsibilities

GUIDELINES

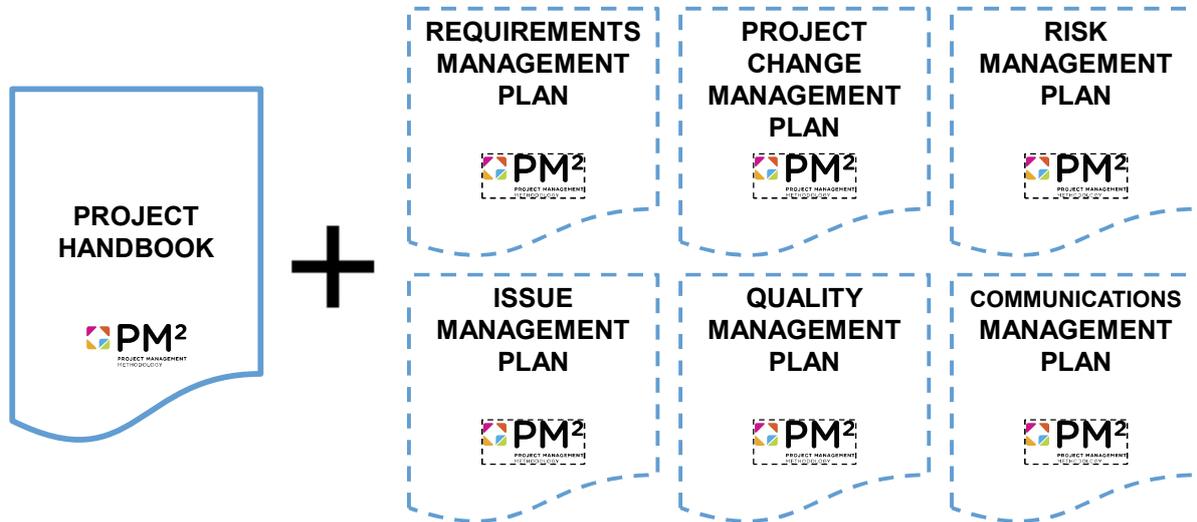
- The **Planning Kick-Off Meeting minutes** is a basis to define the Project Handbook.
- Should be **updated regularly**.
- The project management plans are part of the Project Handbook.
- Point of reference at the Closing Phase.

Should be usable and accessible for all the project stakeholders.





PROJECT MANAGEMENT PLANS



PM² Reference: 6.2.2. Project Management Plans

Appendix B: Project Management Plans and Logs

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QUESTIONS

Q26. Sally has just joined a social project at SCOCCKERKIDS. The project is in the middle of the executing phase, and she has already been assigned to several tasks, so she has gone through the Project Work Plan. Once she starts working on the tasks, she identifies a relevant threat but doesn't know how to proceed.

Which key artefact did Sally miss to review as a newcomer?

- a) Project Handbook
- b) Project Charter
- c) Business Case
- d) Risk Management Plan



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? QUESTIONS

Q27. Deepak works at Family Foundation DNA as a project manager and has recently earned his PM² Practitioner certification. The organisation has asked him to improve a recurrent problem, most of the high management level stakeholders don't read the project documents and the risk management maturity is quite low. As one of the first steps he decides to document the risks management processes at the Risk Management Plan and then copy the most relevant elements at the Project Handbook.

Is Deepak's approach at solving this problem appropriate?

- No, duplicating information is not only unnecessary but can also lead to inconsistencies over time. Deepak should describe the detailed risk management processes only at the Risk Management Plan.
- Yes, tailoring the project documentation is a recommended practice to provide each stakeholder with its reading habits preferences.
- No, Deepak should engage the high management level to change their mind and increase their reading habits.
- Yes, documenting the risk management processes in both documents ensures that the information reaches each stakeholders needs with a comprehensive coverage.



PROJECT STAKEHOLDER MATRIX

List of all the people, groups or organisations involved in the project and their roles.

PURPOSE

- Identify all the project stakeholders.
- Gather all stakeholders' information in one unique file.
- Support the stakeholders' engagement.

STEPS

- Identify everybody that will be in the project and assign them a role.
- Fill the Data Sheet for the 3~5 most important stakeholders.

Planning Kick-Off Meeting Agenda

Business Case + Project Charter



Project Stakeholder Matrix

Stakeholders Checklist



PROJECT STAKEHOLDER MATRIX

CONTENTS

- **All stakeholders:**
 - Organisation, Dept/Unit, Team, Name, Notes, Impact, Roles & Contact Info
- **Key stakeholders:**
 - Personal information
 - Communication preference
 - Concerns and needs
 - Involvement during phases
 - Influence
 - Risk Appetite

GUIDELINES

- Respect **privacy and personal data rights** regulation..
- Place access restrictions if needed.

The Project Stakeholder Matrix is not an engagement plan.

STAKEHOLDER INTEREST/INFLUENCE MATRIX (SIIM)



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

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

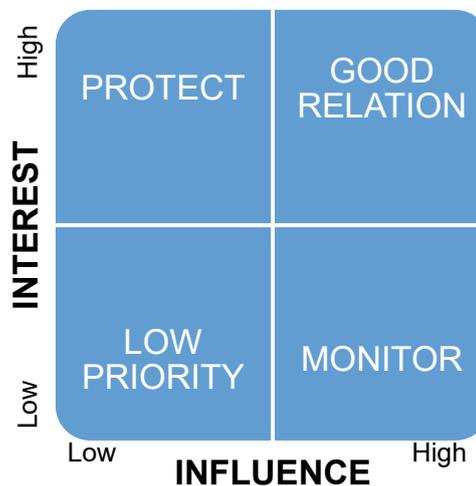
Influence indicates the power the stakeholder has over the planning and implementation of activities. The higher a stakeholder's power of decision, the higher their influence. Most often the person(s) who can make decisions on project funding and/or resources has a high influence.



STAKEHOLDER INTEREST/INFLUENCE MATRIX (SIIM)

Steps:

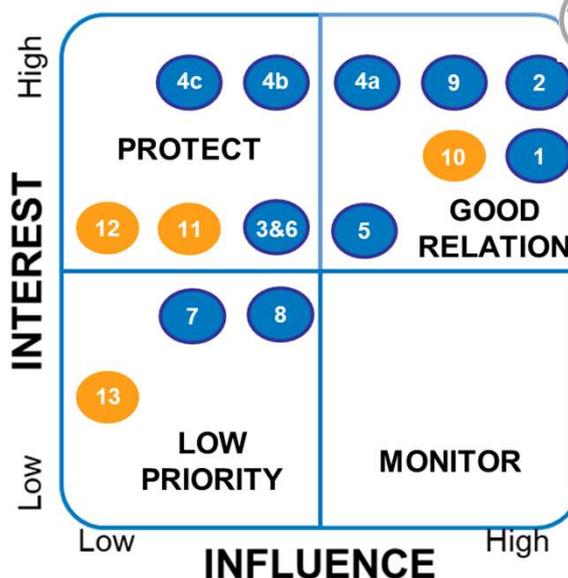
1. List the stakeholders for the project.
2. For each stakeholder access the **importance** of the project.
3. For each stakeholder access the **influence** he has on the project.
4. **Plot the position** in the matrix as shown hereafter.
5. Read the **specification** for every stakeholder.



STAKEHOLDER INTEREST/INFLUENCE MATRIX (SIIM)

“The Grey Party” 2024 European Parliament elections in Spain

1. AGB – Federal Committee
2. PO – European Executive Commission President
3. BM - European Executive Commission Secretary
4. BIG – European Parliament Candidates
 - 4a Catalan-Valencia-Andalusia
 - 4b Galizia – Euskadi – Madrid
 - 4c Others
5. SP Electoral Guaranteed Commission Director
6. PM Electoral Guaranteed Commission PM
7. PCT Technicians team
8. PST Ethical Commission
9. Grey Party Mayors (Barcelona, Tarragona, Valencia . . .)
10. Programme Manager
11. PO other countries The Grey Party
12. Spain The Grey Party members & supporters
13. Voters



QUESTIONS

Q28. Elon is the project manager at strategic initiative to merge two main technological systems into one at BIG. He's a junior project manager so this project is a real challenge for him. Everything was fine and under control until the executing phase start. Since then, he is facing a lot of issues and problems with several stakeholders he didn't identify as relevant at the Project Stakeholder Matrix. This is taking most of his time.

Which is most likely to be the cause of this situation?

- a) This project is a challenge for Elon as he's a junior project manager, handling a strategic should not be a junior project manager responsibility.
- b) Due to he's inexperience he most probable incorrectly analysed the stakeholders.
- c) Elon did not consider that stakeholders at the monitor quadrant can become blockers if their interest is activated, which has happened once work has started.
- d) Elon is focusing his stakeholder management only at the stakeholders with more interest.



PROJECT WORK PLAN

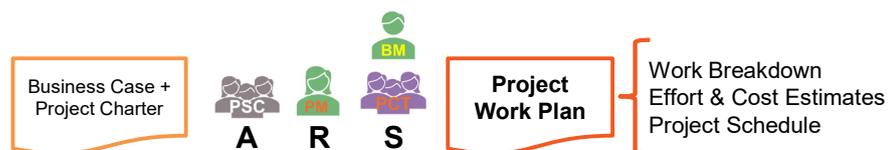
Identifies and organizes the project work needed to achieve the project goals.

PURPOSE

- Defines **what** has to be done, by **whom**, **when** and **how much**.
- Establish a basis to estimate the project duration, resources and schedule.
- Establish as a basis for the project progress monitoring and controlling.

STEPS

1. Develop the Work Breakdown.
2. Develop the Effort & Cost Estimates.
3. Develop the Project Schedule.



PROJECT WORK PLAN

CONTENTS

- **Introduction**
- **Work Breakdown**
- **Effort & Cost Estimates**
 - Estimates
 - Resource needs
- **Project Schedule**

GUIDELINES

- Break the project into **smaller** and more **manageable components**.
- **Activities & tasks** are part of the WBS. Schedule can be:
 - Done **entire upfront**
 - **Progressively** developed
- Should be **baselined** and **kept up-to-date**.

Don't forget the WBS should fit for the project performance monitor & control.



QUESTIONS

Q29. SCOCCKERKIDS which aims to improve school attendance ratio in marginal neighborhoods through sport activities as soccer has been using the Logical Framework Approach to manage their projects, but they have recently decided to transition to PM². Once tailored and implemented everybody is getting confused regarding the task responsibility and assignment. They don't know if they have to refer to the Consolidated Responsibilities Assignment Matrix of the Project Handbook, the Effort & Cost Estimates of the Project Work Plan or to their department own roles and responsibility matrix.

Which would be the best way to explain the difference between the responsibilities described at the Project Handbook and the Project Work Plan ?

- a) Both the Project Handbook and the Project Work Plan are defining the same responsibilities, the difference is that the Project Work Plan has the task detail.
- b) As the project Governance Structure is unique, the defined roles and responsibilities are unique and shared between the two documents.
- c) To avoid confusion the best is to look at their department roles and responsibility matrix.
- d) The Project Handbook defines the project management roles and responsibilities. and the Project Work Plan defines the product/service task responsibility.





WORK BREAKDOWN STRUCTURE



A Work Breakdown Structure (WBS) is a **hierarchical division of the project** into **smaller work components** that can be used to assign work or to estimate effort and cost.

A well-made Work Breakdown Structure (WBS) **should be easy to understand, be complete, and should facilitate progress monitoring** during execution. Commonly used techniques include breaking down the project by **phases or stages, deliverables or outputs, by work packages, or based on the organisation, its departments and business units.**

The Work Breakdown Structure (WBS) constitutes a good basis for the Project Manager (PM) in assigning different responsibilities to team members. Each **task** in the structure can then be further defined: work can be estimated, risks and dependencies can be identified, and resources can be mobilised.



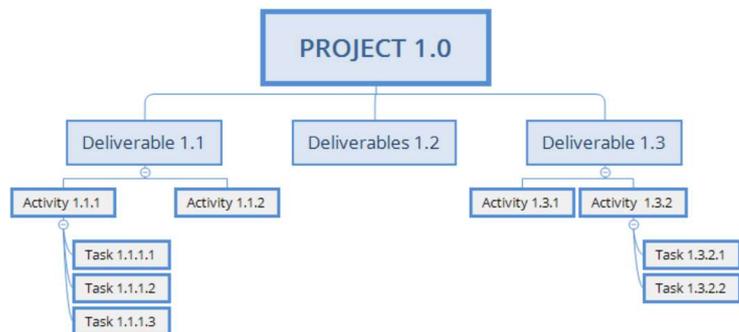
WORK BREAKDOWN STRUCTURE

BREAKDOWN MODEL

- Stages
- Outputs
- Work Packages
- Organisation

STEPS

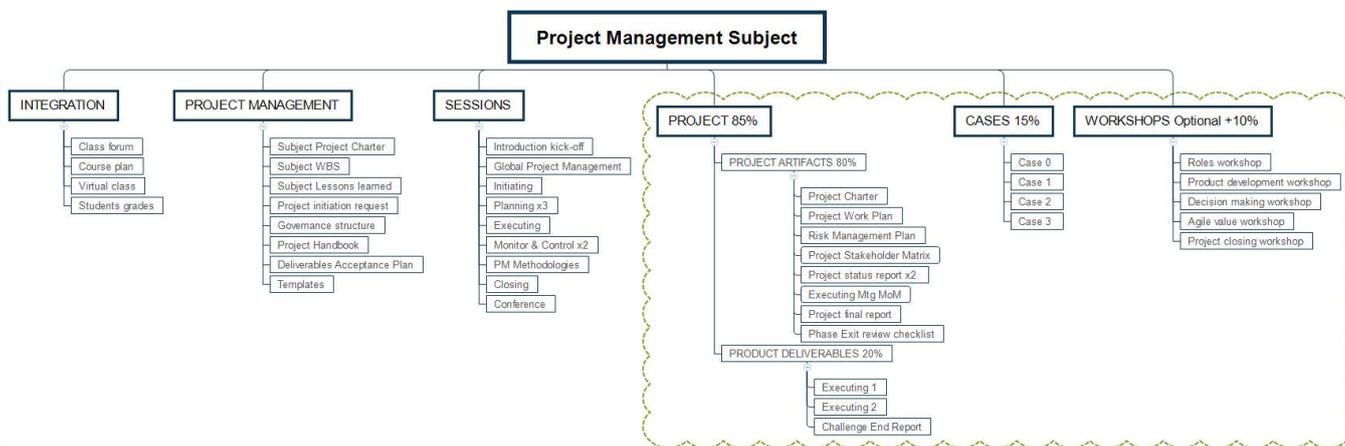
1. Identify project goal
2. Determine the breakdown model
3. Divide the work components
4. Review the WBS





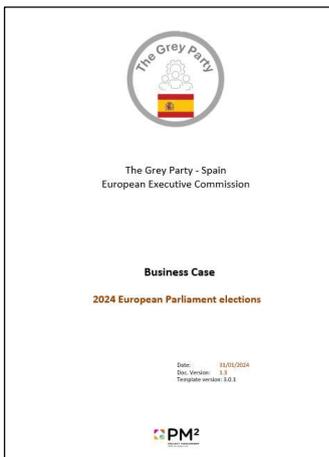
WORK BREAKDOWN STRUCTURE

UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT



WORK BREAKDOWN STRUCTURE

“The Grey Party” 2024 European Parliament elections in Spain



DEVELOP THE WORK BREAKDOWN STRUCTURE

- Use the information of the Initiating Phase as a start point.
- Decide the WBS model/structure.
- Develop the WBS.
- Don't forget the project management branch.





EFFORT AND COST ESTIMATES



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

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



EFFORT AND COST ESTIMATES

APPROACHES

- Expert advice.
- Historical information.
- Similarity to other tasks.
- Function Point Analysis method (IT projects).
- Other tools.
- Resource cost information (pricelists, outsourcing contracts...).



- PM coordinates



- Task owner – estimates or validates

STEPS

- | | |
|--|-----------------------------|
| 1. Lowest level of the WBS | 5. Estimate the likely cost |
| 2. Estimate the likely amount of effort | 6. Add non people cost |
| 3. Include contingency | 7. Finalise the estimate |
| 4. Task owner validate the effort estimate | |





EFFORT AND COST ESTIMATES

Which estimation approach would you use? Challenges at the estimation ?



A family is buying a dog for the first time, and they need to estimate the dog weight.



A project manager working at the City Hall needs to do an initial cost estimate for a famous architect pedestrian bridge for the city



A contractor need to estimate the cost of all the EV Charging installation for the Paris Network. Experience with similar projects.



QUESTIONS

Q30. Laia, a project manager at TRANSPOWER, is dealing with a strategic project. It's the organisation first project at the bicycle sector, which is similar to the automobile sector, but with substantial challenges. As a project manager, Laia is a very suspicious and finds it difficult to delegate. Because of this, she ends up doing all the project estimates herself. As the project manager, she claims that she is fully entitled to make the estimates on her own and with the experience she has (more than 20 years working at TRANSPOWER), this is not a problem.

Is this statement correct?

- No. as a project manager she not a technical expert. All estimations should be done the project core team, who are the technical experts.
- Yes, based on the experience Laia is the most appropriate person to handle the estimates.
- No, all estimation should be based on historical data and not on expert advice.
- No, these estimates are a challenge as it's a new kind of project. The best is to seek for external expert advice and compare it with the organisation historical information.





THREE-POINT ESTIMATES



The Three-Point Estimate is commonly used, to provide a weighted average of activity duration or cost. It is primarily a quantitative risk assessment technique that makes use of a stochastic approach rather than a deterministic one (e.g. single point estimates). The **expected duration/cost and standard deviation** of a project's duration or cost **is calculated based on three data points**, namely an **optimistic** estimate of duration or cost, a **most likely** estimate and a **pessimistic** estimate. These estimates are then weighed to provide a weighted average of the effort, cost or duration.

In addition, these estimates can be used to calculate a standard deviation, to estimate confidence levels of the weighted average per activity, and to **build simple statistical models** of a task's time and cost. This method can be applied **to forecast and mitigate risk and** to assign buffers/contingencies to tasks.



THREE-POINT ESTIMATES

$$E_{\text{Expected Duration}} = (O_{\text{Optimistic}} + 4M_{\text{Most Likely}} + P_{\text{Pessimistic}}) / 6$$

$$SD_{\text{Standard Deviation}} = (P_{\text{Pessimistic}} - O_{\text{Optimistic}}) / 6 \times P_{\text{Pessimistic}}$$

Optimistic value: minimum cost or effort (less than 1% Po)

Most likely value: most probable cost or effort

Pessimistic value: maximum cost or effort (less than 1% Po)

Assumption: all estimates based on the same level of effort

Standard deviation: uncertainties of the estimate variation, not risks.



QUESTIONS

Q31. Tariq, a project manager at BRICKS², is working on a critical hollow brick turnkey project with a traditional tunnel kiln. BRICKS² has recently implemented PM² Methodology and the project core team has handled him a Three-Point Estimate of the most critical tasks to better plan and allocate resources during the on-site work.

Based on these estimates Tariq would also like to know which task has more uncertainty. Which would be the task with more uncertainty ?

- a) Task A
- b) Task B
- c) Task C
- d) Task D

	Optimistic	Most likely	Pessimistic
Task A	10 weeks	14 weeks	20 weeks
Task B	11 weeks	16 weeks	25 weeks
Task C	8 weeks	13 weeks	16 weeks
Task D	8 weeks	15 weeks	24 weeks



RESOURCE LEVELING



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

Resource Levelling focuses on an **efficient/optimal resource allocation** in order for the project to be completed within the defined timeline. Project Managers (PMs) analyse dependencies between projects or activities to ensure that activities can be executed in a timely manner.

Considering the identified constraints, Resource Levelling can be performed. Resource Levelling can for example require the delay of specific tasks until resources are available, via resource reallocation.



? QUESTIONS

Q32. Lucile has newly been assigned as project manager of a well underway software development project. During her first days she receives continuous complains of the project core team of over-allocation at several key resources. Given this situation, Lucile begins to analyze the current situation of the project, and reading previous Project Status and Progress Reports, she realizes that this situation has happened several times and that it has put at risk several times not only the quality of the work but also on-time delivery to the client.

Given the situation, what could have been done differently in the planning phase to prevent the over-allocation of the resources ?

- Implement resource leveling by adjusting the tasks start and finish date based on the resource availability.
- Increase the outsourcing workload to balance with the project core team workload.
- Use the organisation policy to keep activities maximum duration at 1 week.
- Plan the activities so that all of them have the same duration, to facilitate the resource allocation.



GANTT CHARTS



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

A Gantt Chart represents the order in which activities need to be carried out and provides an overview of the progress that has been achieved at any point in time.

A Gantt Chart is used to **communicate a project schedule in a visual way** but is also used to show **progress made and current schedule status** by adding percent-complete shadings and a vertical “today” line. The main strength of this technique is the ability to clearly display the status of each activity at a glance.



CRITICAL PATH METHOD (CPM)



The Critical Path Method (CPM) is a modelling technique that uses a mathematically based algorithm to **calculate the total duration of a project**.

It calculates the **longest necessary path** (i.e. the longest unavoidable duration) of planned activities from beginning to the end of the project, otherwise known as the critical path of the project.

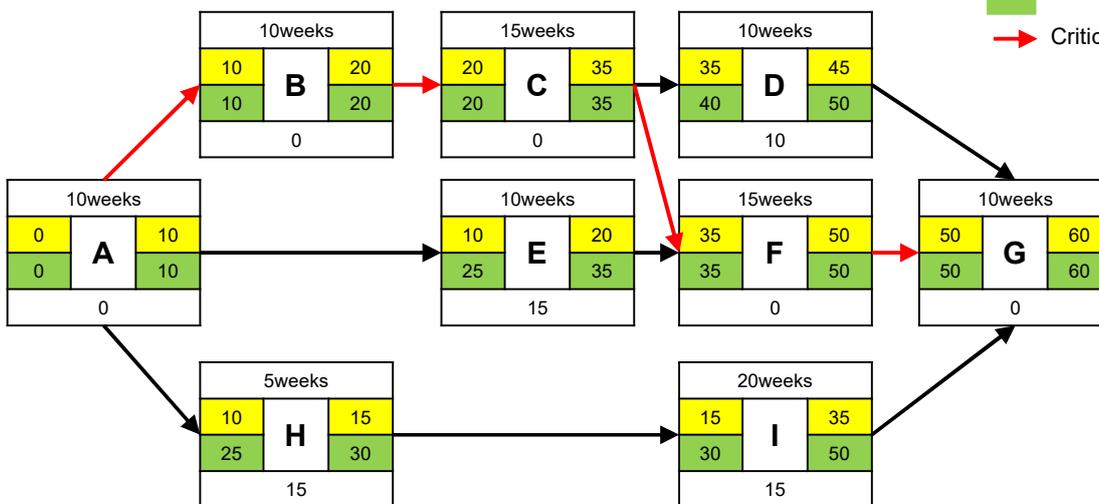
This technique helps to understand which activities have a **critical influence on the overall duration of the project**.

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



CRITICAL PATH METHOD (CPM)

- Early start & finish
- Late start & finish
- Critical path



QUESTIONS

Q33. Celina is the project manager at COMTEK of a modular construction hospital at country GGG for the ministry of Defence. It includes various tasks as preparation of the modular components, transportation to GGG, site preparation, foundation laying, local staff contracting, modular construction, facilities installation, interiors, testing . . . As part of the planning Celina has prepared a complete schedule. Once the modular components have arrived to GGG she receives an email from the ministry of Defence requesting to move the project deadline several weeks in advance.

Which of the following actions would be the most effective to reach this duration compression given the fact that the project has a limited budget ?

- Immediately send technical workers to replace the local staff, to improve the efficiency.
- Increase the workforce of the local staff, to speed up the project completion.
- Focus on adding resource to activities on the critical path that have potential to reduce the project duration.
- Focus on adding more excavators at the site preparation and cranes for the modular construction, as these are the critical resources.



CRITICAL CHAIN METHOD (CMM)



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

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

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



CRITICAL CHAIN METHOD (CMM)

Reasons for delay CMM avoids

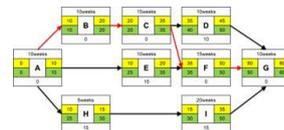
- Multitasking
- Student syndrome
- Parkinson Law
- Early finish

STEPS

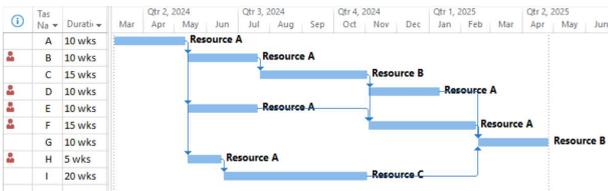
1. Build a CPM network diagram
2. Assign resources to tasks and level resources
3. Reduce activity estimates 50%
4. Add buffers to the schedule
 - Project buffer 25%: end of the project
 - Feeding buffers 25%: divided between the non critical chains



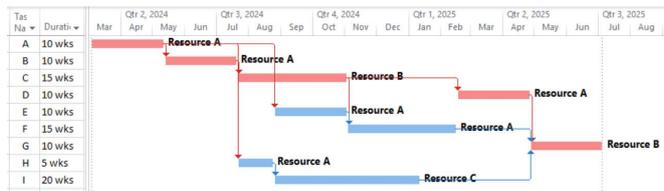
CRITICAL CHAIN METHOD (CMM)



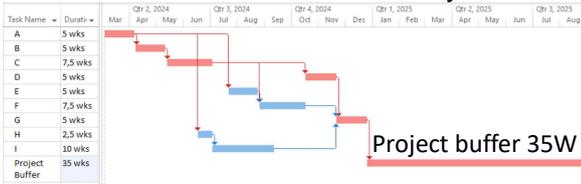
60 weeks CPM ABCFG



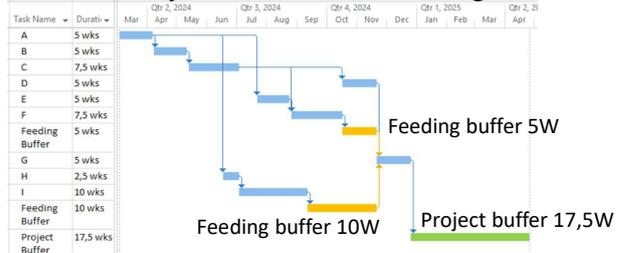
70 weeks Resource levelling ABCDG



70 weeks Duration 50% lower + Project buffer 50%



52,5 weeks Project buffer 25% + Feeding buffer



OUTSOURCING PLAN

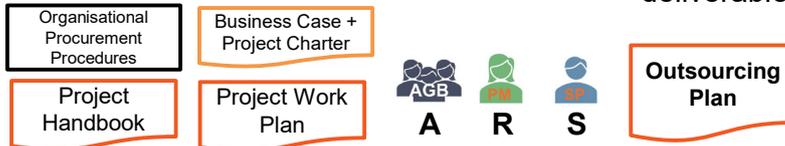
Defines the what and how for any outsourced products or services.

PURPOSE

- Ensures that outsourced items fulfils the project needs.
- Ensure the contractor commitment with the project.

STEPS

1. Identify what has to be outsourced.
2. List the evaluation criteria.
3. Identify the delivery method.
4. Provide a timeline.
5. Define roles & responsibilities.
6. Identify all contractors expected deliverables.



OUTSOURCING PLAN

CONTENTS

- **Procurement description:** procured items, training & manuals, ownership rights, compatibility, other requirements.
- **Procurement method:** method, schedule of delivery, quality management and **post-delivery** support
- **Evaluation criteria:** criteria & technical capabilities.
- **Governance:** contractor interface, responsibility for signing & approval.

GUIDELINES

- **Selecting criteria:** capability, previous experience, other relevant items.
- The **Solution Provider reviews** the plan.
- Must be compliant with the organisation **rules & procedures**.
- Confirm any constraints (pre-agreements, preferred suppliers . . .).
- **Deliverables Acceptance Process** should be documented at the contract.

Ensure there is no influence at the contracting decision.

? QUESTIONS

Q34. Panagiotis is the project manager at the “Develop a new website for the ESM (European Stability Mechanism)”. He works at WASP an IT Development organisation. For the first time on a project, he must outsource part of the work and therefore he has no previous experience in procurement.

What of the following is not a critical element that must be included or managed in the Outsourcing Plan ?

- a) Identify any constraints that may affect the outsourcing process.
- b) Detailed selection evaluation criteria for the suppliers.
- c) An exhaustive list of potential suppliers.
- d) Integration management to ensure that the outsourced work fits seamlessly into the project.



? QUESTIONS

Q35. Peter is the project manager at BUFU UK Traceability System project. He has just left a meeting in which BUFU Headquarters has shown the new production plant visualization policy. Peter is mostly concerned about a new standard that establishes a maximum height of 1,5m in any new acquired machine. He's wondering whether or not to include it at the project Outsourcing Plan?

Which would be the best way to act based on this new organization standard?

- a) The maximum height should be included at the evaluation criteria for contractors of the Outsourcing Plan. But not as a mandatory requirement, as it's likely that most suppliers might not be able to comply it.
- b) The best Peter can do is discuss it informally with the Business Manager and then take a decision.
- c) All organisational standards must be met, the maximum height must be included one of the screening system criteria, as part of the Evaluation Criteria of the Outsourcing Plan.
- d) The standard is meaningless, suppliers cannot be asked to reduce the height of their machines to this value. It is not necessary to add the standard at the Outsourcing Plan.



DELIVERABLES ACCEPTANCE PLAN

Documents the agreed criteria and approach fore deliverables acceptance.

PURPOSE

- Increase the chance that the deliverables will be accepted by the client side.
- Resources involved in the acceptance will be used in an efficient way.

STEPS

1. Define the approach, schedule & tools.
2. Define the **non-acceptance** process.
3. Define the level of formality.
4. Define the roles & responsibilities.
5. Tailor the Deliverables Acceptance Checklist.



DELIVERABLES ACCEPTANCE PLAN

CONTENTS

- **Deliverables acceptance objectives**
- **Deliverables acceptance approach**
- **Define acceptance criteria & activities**
 - Acceptance criteria
 - Acceptance activities
 - Processes, tools & techniques
 - Resources & expertise
- **Perform acceptance activities**
- **Accept/Reject deliverables**
 - Provisional acceptance
 - Deliverables acceptance note
- **Final project acceptance**

GUIDELINES

- Ensure there is **no duplication information** at other plans.
- The deliverables acceptance **activities** must be included at the **Project Work Plan**.
- Deliverables acceptance activities may happen at **any time** of the executing phase.

For small or simple projects, the approach can be documented in the Project Handbook. However, for complex or high-risk projects a standalone document is advised.



DELIVERABLES ACCEPTANCE PLAN

UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT



Acceptance Criteria

- **All deliverables:** format, contents, knowledge
- **Project Charter video:**

Accept/Reject deliverables

	Deliverable result
Formally accept	A+ (10), A (9), B (8), C+ (7), C (6), C- (5)
Provisionally accept	D (4), D- (3)
Reject	E (less than 3)

	Excellent	Good	Fair	Insufficient
Project Core Team presentation	All PCT members are introduced.	Some PCT members are introduced	Only one PCT member is introduced	No presentation
Project Title			The project title is stated	The project title is no stated
Executive summary	The project is described including scope, schedule and cost and it's well understood.	The project is described including scope, schedule and cost.	The project is described including only two: scope, schedule or cost.	The project is described including only one: scope, schedule or cost.



QUESTIONS

Q36. Inma, a senior project manager at INNOVA, is the project manager of a new product development project. The Business Implementation Group has approached her as they have identified a key requirement related with the compliance with EU AI Act (the first regulation on artificial intelligence), Biometric identification and categorization of people. The requirement has gone through the requirement management processes and has formally been accepted.

Where should Inma document the required tests to validate the requirement acceptance ?

- The tests should be incorporated at the Quality Management Plan, as the Project Core Team manages the requirement's quality.
- The tests should be incorporated at the Deliverables Acceptance Plan, as the client side is responsible of the requirements acceptance.
- The tests should be incorporated at the Project Final Report, as an evidence that they have been done.
- The tests should be incorporated at the next Project Progress Report, as an evidence that the requirement has been implemented.



TRANSITION PLAN

Defines the pre-requisites of rolling out the new solution (project outputs).

PURPOSE

- Define the transitioning from the old state to the new one.
- Minimise the impact on the business during the transition.
- Ensure a smooth transition.
- Key preparation to achieve the project benefits.

STEPS

1. Identify the transition roles & responsibilities.
2. Document what has to be done before and during the transition.
3. Define and schedule the responsibility transfer from the SP to the PO.
4. Tailor the Transition Plan Checklist.



TRANSITION PLAN

CONTENTS

- **Introduction**
- **Transition goals & activities**
- **Communication**
- **Specific transition activities**
 - Required backups
 - Environment management
 - Acceptance clearance
 - Testing
 - System & data conversion
 - Training
 - Maintenance & support
- **Transfer of responsibility**
- **Rollback scenario & plan**
- **Transition Checklist**

GUIDELINES

- Identify potential **business interruptions**
- Ensure **operations & maintenance** needs are defined.
- **Formal announcement** of the start and end.

All transition activities are part of the Project Work Plan

QUESTION

Q37. Elon, the project manager of BIG strategic initiative to merge two main technological systems into one has successfully finished the project. All requirements were achieved, and the merged system implementation tests were completed with no issues. But the users are struggling due to insufficient training, delays in the suggested improvements and nobody really seems to be happy with the project outputs.

Which of the following is most likely to be the main reason of the current challenges after the project implementation?

- Clearly there was insufficient project change management, as the users are still resistant to the new merged systems.
- The project core team focused on the technical solution but neglected the interface usability.
- Lack of a dedicated transition management plan to seamlessly integrate the merged systems into the business operations.
- The most likely reason is an insufficient requirements gathering as the users are struggling with the merged systems use.



BUSINESS IMPLEMENTATION PLAN

Outlines the impact of the project & outlines the required change management activities.

PURPOSE

- Increase the chance of achieving the outcomes and benefits.
- Support the resistance to the status change.
- Ensure the project outputs are integrated.

STEPS

- Analyse the project impact (processes, cultures & peoples).
- Define the change management activities & communication strategy.
- Determine training needs.
- Identify the post-project activities.
- Tailor the Business Implementation Plan Checklist.



BUSINESS IMPLEMENTATION PLAN

CONTENTS

- **Impact on processes**
- **Impact on people**
- **Impact on the organisational culture**
- **Strategies & activities**
 - Communications strategies
 - Timing & milestones
 - Project promotion activities
 - Change activities
 - Benefits tracking
- **Training needs & activities**

GUIDELINES

- Integrate business implementation activities in the **Project Work Plan**.
- Identify **potential resistance sources** to the desired change.
- The organisation must ensure all the project outputs are effectively integrated into the organisation.

The Business Implementation activities can be part of the project or as a separate one.



QUESTIONS

Q38. FoodFoodCoop is cooperative located in Paris that has successfully created and implemented a member-owned and operated food store as an alternative to commercial profit-oriented business. The project manager, planned a transition with a one month overlap between the project end and the operations start to smoothly introduce the new status to all 700 members that contribute with their labour.

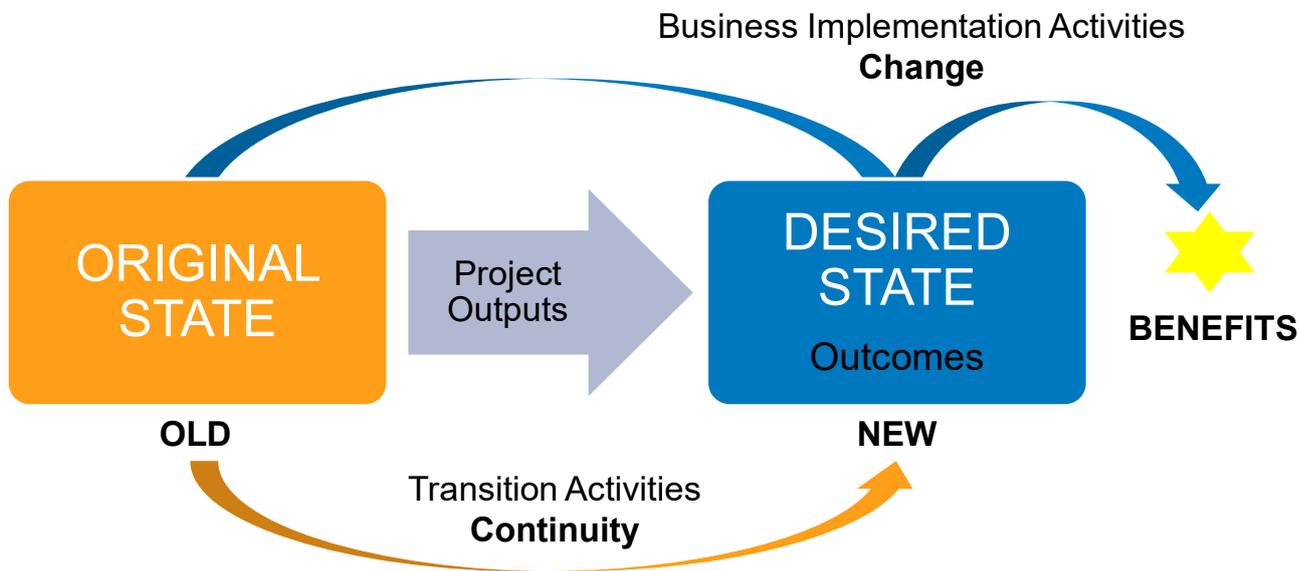
Six months after one of the key benefits, the sales ratio per member is far to be achieved. The Appropriate Governance Body is struggling to solve, and they ask advise to Arzella, a PM² Practitioner certified member of the cooperative as a project management expert.

Based on the best management practices which would be your first guess?

- a) A change management plan to increase the chances of achieving the desired project outcomes and benefits was not planned.
- b) The benefits set by the Appropriate Governance Body were unrealistic and need to be updated.
- c) The project was not aligned with the members requirements.
- d) The continuity was not planned, the pre-requisites of rolling out the new solution where not set.



TRANSITION vs BUSINESS IMPLEMENTATION PLAN



TRANSITION & BUSINESS IMPLEMENTATION PLAN

1

We don't need a rollback scenario; nothing can go wrong. They are just asking one to annoy me.

2

Why should I care about the project delivering value, I'm the project manager.

3

Why is the client complaining, I explained them how to operate the new system. It's their problem if they were not listening.

4

I'm supposed to deliver the project as it was requested. Once the project finishes, I'm not responsible anymore.





Phase Gate RfE (Ready for Executing)

Approval gates at the end of the Planning Phase to approve moving to the Executing Phase.

PURPOSE

- Ensure the project is ready to start the Executing Phase.
- Control the project quality.

If the major deviations at the approved Business Case or Project Charter, the AGM must additionally approve.

STEPS

1. The PM assess whether is ready to commence the Executing Phase.
2. The PM seeks the PSC to approve the phase gate.

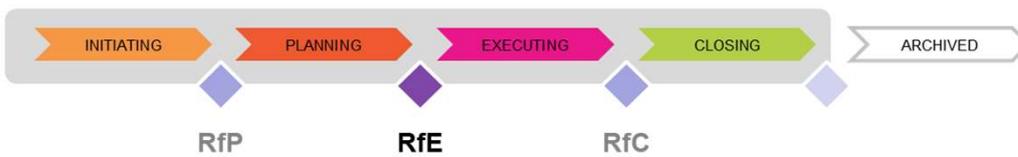
All Planning Phase artefacts



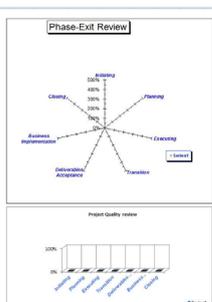
Phase Exit Review Checklist



Phase Gate RfE (Ready for Executing)



Phase Exit Review				
DD / Date:	Name of the PM, and unit responsible for the project			
Project Name:	Name of the project			
Project Owner:	Name of the Project Manager			
Business Manager:	Name of the Business Manager			
Deliverable Provided:	Name of the deliverable provided			
Project Manager:	Name of the Project Manager			
Reviewer Name:	Name of the person performing the review			
Review Date:	Date of the review			
Overall Compliance (0-100):	0.00			
Overall Phase-Exit Review Status:	Red			



Planning Phase-Exit Checks				Date:	#/min/ass
#	Description	% of Phase Compliance	Answer	Score	Comments
1	Is the Stakeholder Matrix complete with all the relevant stakeholders' names and contact details?		No	0	
2	Are all project roles and responsibilities detailed?		No	0	
3	Is the project scope broken-down in manageable components that allow accurate estimation of resources, work effort and duration?		No	0	
4	Is it clear the link between project scope / deliverables and work packages / activities / tasks?		No	0	
5	Are project management and business implementation activities considered in the Project Work Plan?		No	0	
6	Are all the activities / tasks assigned to someone?		No	0	
7	Were all the activities / tasks and related effort validated by the task owner / domain expert?		No	0	
8	Are all project costs / effort estimated and detailed at task level?		No	0	
9	Are all project work packages, activities and tasks scheduled?		No	0	
10	Is the critical path identified?		No	0	
11	Are project performance indicators and metrics defined?		No	0	
12	Is the Project Work Plan baselined and approved by the Project Steering Committee (PSC)?		No	0	
13	Are all the communication items (e.g. meetings and reports) defined as well as their frequency?		No	0	
14	Has a Communications Management Plan been documented, as a separate document or included in the Handbook?		No	0	
15	Is the project management approach detailed and documented in a Project Handbook?		No	0	
16	Has an escalation process been documented and tailored to risk, issues and change management?		No	0	
17	Has a Project Change Management Plan been documented, as a separate document or included in the Handbook?		No	0	
18	Are the risk assessment thresholds defined, including the risk appetite?		No	0	
19	Is a Risk Management Plan documented, as a separate document or included in the Handbook?		No	0	
20	Is an Issue Management Plan documented, as a separate document or included in the Handbook?		No	0	
21	Is there a Change Log in place?		No	0	
22	Were quality requirements, assurance activities and metrics defined and approved by the Project Steering Committee?		No	0	
23	Has a Quality Management Plan been documented, as a separate document or included in the Handbook?		No	0	
24	Are all the deliverables acceptance criteria, activities and metrics defined and approved by the Project Owner?		No	0	
25	Has a Deliverables Acceptance Management Plan been documented, as a separate document or included in the Project Handbook?		No	0	
26	Has a configuration management procedure been documented?		No	0	
27	Are the project management processes communicated to the Project Core Team (CT) and to the major stakeholders?		No	0	
28	Are all types of resources (people, software, infrastructure, facilities, outsourcers, materials, services,...) identified and their effort and period estimated?		No	0	



QUESTIONS

Q39. According to your organisation methodology, which is based on PM², the project Planning Phase is completed and ready to transition to the Execution Phase. Tomiko, the project manager, realizes that due to an external factor that has been identified in this phase there is a major deviation from the approved Business Case.

What is the next step Tomiko has to take before moving to the Executing Phase?

- a) Asses if the Planning Phase goals have been achieved with the Phase Exit Review Checklist and request the approval of the Project Steering Committee to move to the Executing Phase.
- b) Due these major deviation at the Business Case, Tomiko has to asses if the project goals have been archived, request the approval of the Project Steering Committee and also an additional approval from the Appropriate Governance Body.
- c) Before moving to the Executing Phase the Business Case must be revised by the Project Steering Committee. Tomiko should hold a meeting to handle this issue before assessing of the Planning Phase goals have been archived.
- d) The issue with the Business Case will be handled once the Planning Phase is accepted as part of the Executing activities. Tomiko should asses if the Planning Phase goals have been achieve or not.



PLANNING PHASE

“The plan is nothing,
planning is everything”

Eisenhower





GLOSSARY

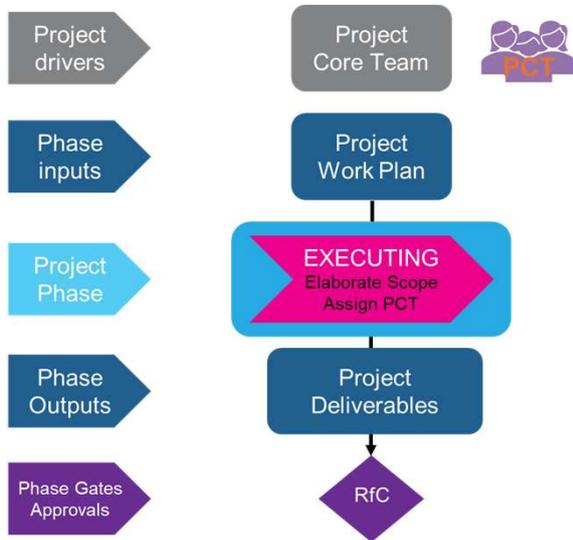
- PM² Planning Phase
- PM² Planning Kick-off Meeting
- PM² Project Handbook
- PM² Requirement Management Plan
- PM² Project Change Management Plan
- PM² Risk Management Plan
- PM² Quality Management Plan
- PM² Issue Management Plan
- PM² Communications Management Plan
- PM² Project Stakeholder Matrix
- PM² Project Work Plan
- PM² Outsourcing Plan
- PM² Deliverables Acceptance Plan
- PM² Deliverables Acceptance Plan
- PM² Deliverables Acceptance Checklist
- PM² Transition Plan
- PM² Transition Checklist
- PM² Business Implementation Plan
- PM² Business Implementation Checklist
- PM² Ready for Executing (RfE)
- PM² Phase Exit Review Checklist
- PM² Work Breakdown Structure
- PM² Effort and Costs Estimates
- PM² Three-Point Estimates
- PM² Resource Leveling
- PM² Critical Path Method (CPM)
- PM² Critical Chain Method (CMM)



7. EXECUTING PHASE



EXECUTING PHASE LANDSCAPE



Purpose

- Carry the project activities as defined.
- Produce the project deliverables & ensure they are accepted.
- Coordinate the project core team.
- Inform the stakeholders about the project performance.



Executing

EXECUTING PHASE ARTIFACTS

No mandatory artefacts

- Signed-off work assignments
- Audit Reports
- Contractor Status Report



PM² Guide: The PM² Artefacts Landscape

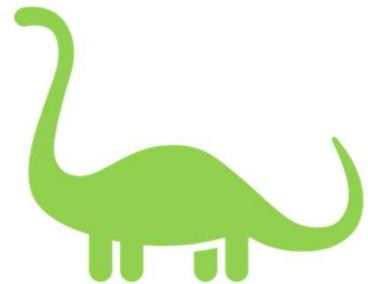


EXECUTING PHASE IMPORTANCE

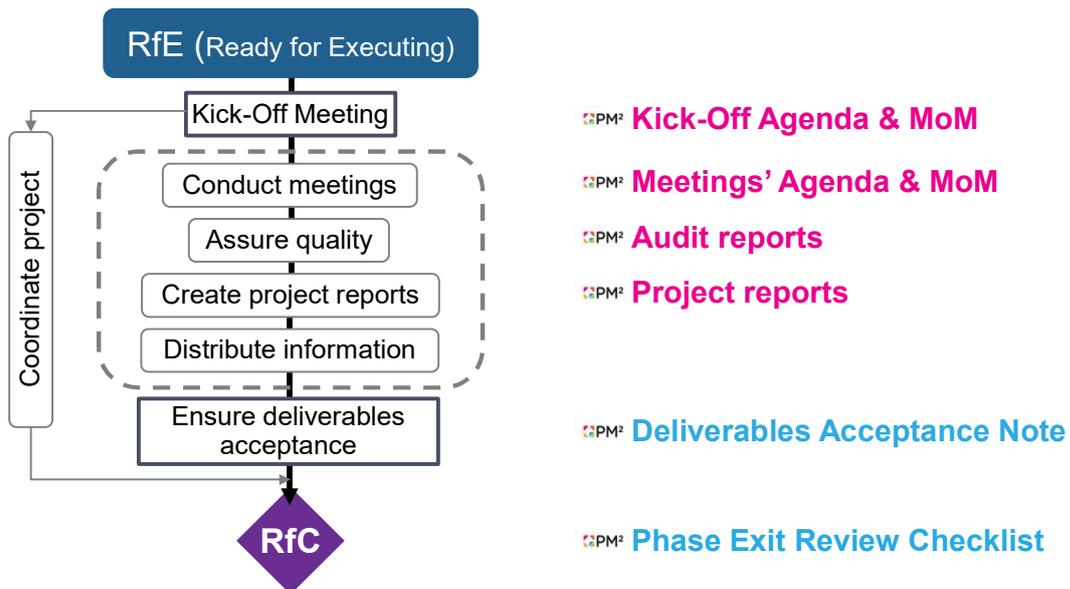
Follow the plans but always delivering value !!!

- The dinosaur (the project) starts walking at the executing phase, planning in advanced is the best to keep it on the track.
- We should follow the plans, but the goal of the project is delivering value/benefit. If required request for changes.
- This is the most time and cost consuming phase.
- The project manager needs to coordinates the team.
- And keep the stakeholders engaged.

- ALL DELIVERABLES ARE PRODUCED.



EXECUTING PHASE STEPS





EXECUTING KICK-OFF MEETING

Official start of the executing phase, ensure the team is aware of the what and how.

PURPOSE

- Start the execution with the project core team.
- Ensure the team understands what must to be delivered and at which way.

STEPS

1. Plan the meeting.
2. Present the Project Handbook and Project Work Plan (and all the standalone plans).
3. Clarify the team expectations.
4. Agree on the team's ground rules.
5. Distribute the MoM within 2days.



EXECUTING KICK-OFF MEETING

CONTENTS

- **No specific contents.**
- **Agenda:**
 - Date/Time/Location/Coordinator
 - Participants
 - Meeting objectives
 - Agenda items/Time/Owner
 - Related documents
- **MoM:**
 - Date/Time/Location/Coordinator
 - Attendees
 - Meeting Agenda/Summary
 - Decisions taken/To Do Items
 - Proposed Agenda for Next Meeting
 - Related documents

GUIDELINES

- **Key participants:** PM, PCT, *PMA** & *PSO**.
- Any **issue, risk or decision** should be recorded at the relevant **logs**.

* *Required if part of the project.*



PROJECT COORDINATION

The process of managing and directing project activities and stakeholders.

PURPOSE

- Keep the team involved in the project.
- Support the team at the completion of the assigned work.
- Manage the project core team.

STEPS

1. Assign tasks to the PCT.
2. Provide information of the project progress.
3. Verify tasks completion.
4. Accept interim work deliverables.



PROJECT COORDINATION

GUIDELINES

- Coordination of the team.
- Provide leadership and motivate the project core team.
- Manage the team dynamics.
- Provide leadership and motivate the team.
- Ensure smooth collaboration among team members using conflict resolution, negotiating and people management techniques.

**Project Coordination goes through all the project life-cycle.
The intensity peaks at the executing phase.**





FSNPA Model of Team Performance (Tuckman's Model)



The FSNPA model was developed by Bruce Tuckman in 1965. He stated that any groups goes through **five different phases of team building** before it can start performing effectively. It is important for a project manager to understand these stages in order to guide the group towards an improved project team performance.

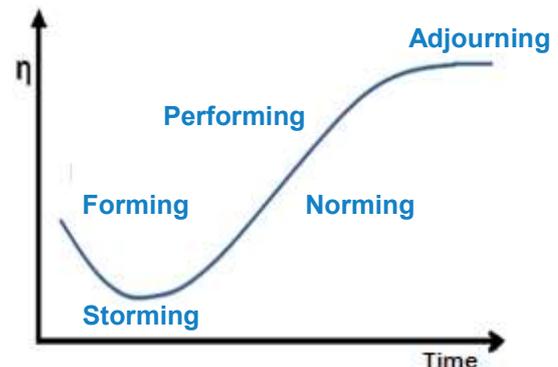
Forming: team members meet each other.

Storming: differences and conflicts arise between members.

Norming: Teams settle down differences and start contributing.

Performing: The team performance level is at its peak and team members are highly motivated.

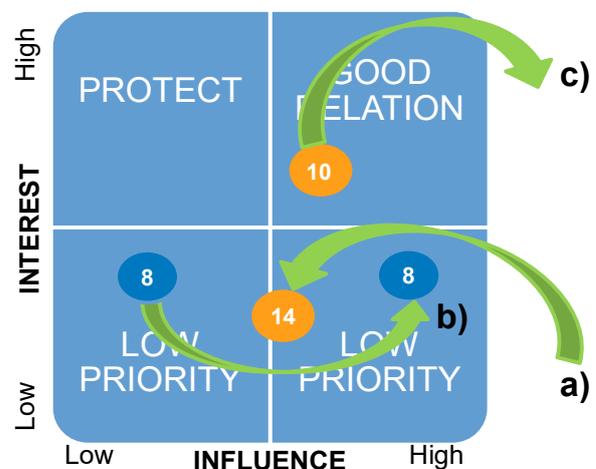
Adjourning: Team members separate from each other after completion of the project



STAKEHOLDER INTEREST/INFLUENCE MATRIX (SIIM)

Managing the stakeholders through all the project

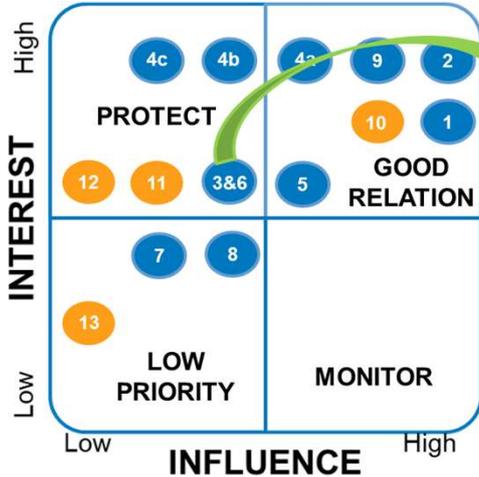
- Identify **new stakeholders**, analyse them using the SIIM.
- Identify **changes** at stakeholders' interest or influence level.
- Identify changes at the team members, especially the abrupt **dismissals** and **resignations**.





STAKEHOLDER INTEREST/INFLUENCE MATRIX (SIIM)

“The Grey Party” 2024 European Parliament elections in Spain



Shortly after the project started, the business manager's interest in the project begins to wane. The project manager notices this and starts paying attention. Speaks to him often but doesn't realize what's going on until someone mentions that he has met with a competing political party.

The project manager immediately speaks with the Product Owner, but just a week later he resigns from his position to join the competing political party.

Is there anything the project manager could have done differently? How and how much will it impact the project ?



QUESTIONS

Q40. FoodFoodCoop is cooperative located in Paris that has successfully created and implemented a member-owned and operated food store as an alternative to commercial profit-oriented business. One the benefits the cooperative wants to achieve with this project is to revitalize the surrounding old neighborhood and promote food sovereignty by creating activities for the residents. Halfway through the project the old neighborhood community elects a new president. The project continues as planned and ends successfully.

Despite the programming and promotion of activities for the residents, the residents don't attend them and the objective of revitalizing the neighborhood is not being achieved.

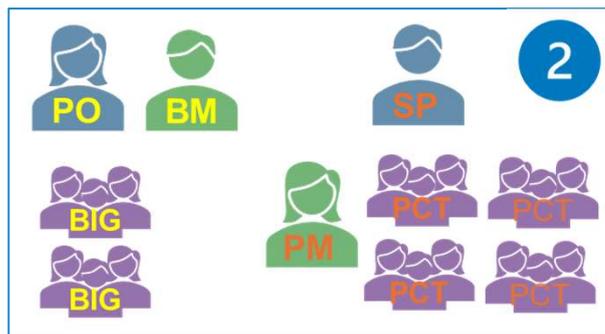
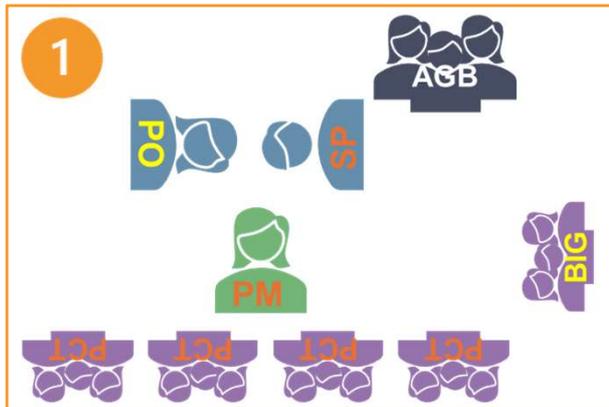
Is there anything the Project Manager could have done differently to anticipate the outcomes of the project bien achieved ?

- a) The PM should have focused more on marketing efforts towards the old neighborhood community.
- b) Achieving the project outcomes is not the PM responsibility, the project was a success, so it was well managed.
- c) Not really, the PM has no influence over the old neighborhood community.
- d) The PM should have analysed the stakeholders during all the project. And also, at the appearance of a new stakeholder (the new community president), re-engaging and understanding any priority or expectations changes.



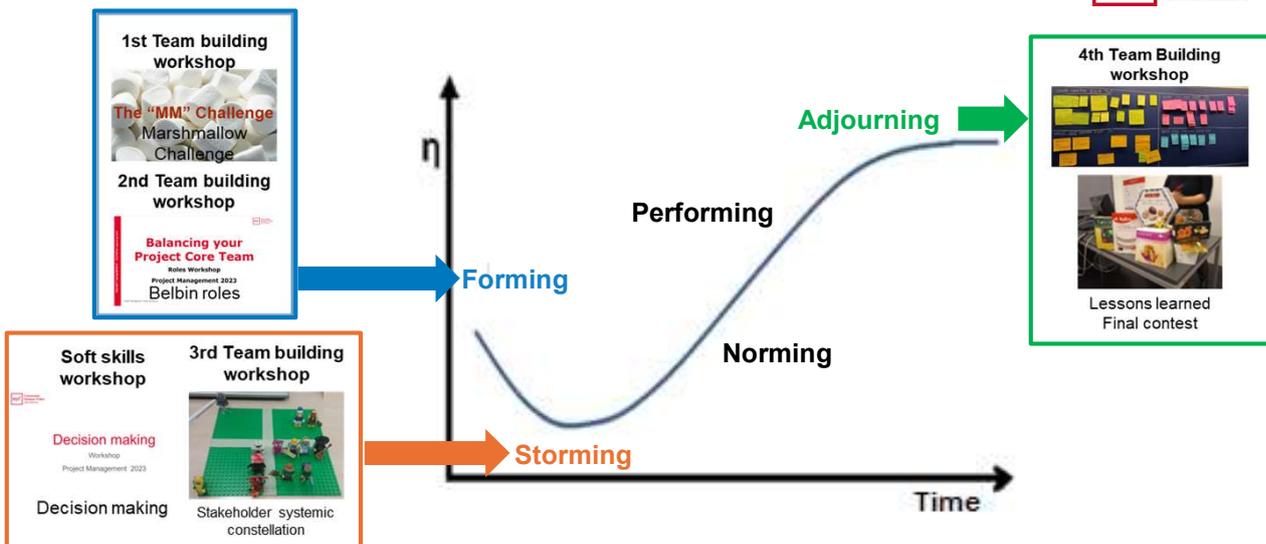
PROJECT COORDINATION

Analyse the team dynamics of each project and which challenges the project manager might face.



PROJECT COORDINATION

UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT



QUESTIONS

Q41. Deepak works at Family Foundation DNA and he's currently managing a project to create a Psychological care from a gender perspective online training for Universities. He's managing a multicultural team with a great diversity of specialist technicians (educational, psychologist, gender, Scrom ...).

Which is the best way Deepak can assure that during the transition from the Planning to the Executing Phase the team remains on track ?

- a) As the project manager he should undertake the critical tasks.
- b) Delegate the responsibility to assign the tasks to the educational specialist, as the project is focused for a university, he'll better understand the requirements.
- c) Assign tasks based on the team members expertise and the project work plan, while coordinating their execution and monitoring the progress to ensure the goals achievement.
- d) Clearly explain to the team how you will monitor the completion of assigned tasks, requesting a daily report.



QUALITY ASSURANCE

Gathering evidence that proves the project work is following the established quality standards.

PURPOSE

- Assure the process quality.
- Verify the performance and compliance of project (and project management) activities with the defined quality requirements.

GUIDELINES

- The project quality assurance (PQA) establishes the QA standards & reviews the project outputs.
- Main QA activities are Audits.
- The QA activities are part of the Project Work Plan.
- The Project Core Team must adhere to the quality standards.



QUESTION

Q42. SCOCCKERKIDS which aims to improve school attendance ratio in marginal neighborhoods through sport activities is dealing with a project at Sao Paolo for the first time. Sally, the project manager, has based the quality management plan on similar projects plans. Although this measure, the main KPIs the Sports sessions assistants and % of girls at the sessions, are not being achieved.

Which should be the first action Sally, the project manager, should take ?

- Gather evidence of whether the project is following the quality management plan and other organisation standards or not.
- Improve the current quality management plan as its clear that the measure of using the previous plans is not effective.
- Ask the PQA to perform a quality audit to the related processes.
- Carry out a quality circle, a continuous improvement activity, with the team to improve the related processes.



PROJECT REPORTING

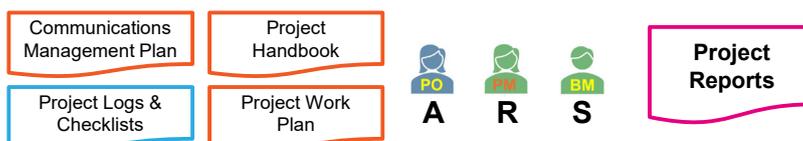
Document & summarise the project progress to communicate it to relevant stakeholders.

PURPOSE

- Communicate project performance consolidated information to the appropriate stakeholders.
- Input for project control and decision-making.

STEPS

- List all the required reports in the Project Handbook and/or Communications Management Plan.
- Ensure the reports are fit for purpose .
- Create Ad Hoc reports to address specific reporting needs (crisis . . .).



PROJECT REPORTING

REPORTS

- **Project Status Report:** one page report of the project status.
- **Project Progress Report:** high-level overview of the entire project.
- **Quality Review Report:** overview of the quality management activities statuses.
- **Contractor Status Report:** status of the contractor work and forecasts
- **Custom or Ad Hoc Reports:** any other required report defined at the Planning Phase,

GUIDELINES

- Tailored to the stakeholders needs of information and communication (content, form, detail, formal/informal, . . .).
- Information: scope, schedule, effort/cost, quality, risks, issues, project changes and outsourcing.
- May also contain indicators (EVM) and metrics.

The Communication Management Plan defines meeting frequency, reports type, distribution list . . .

PROJECT REPORTING

Project Progress Report

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Project Status Report

The screenshot shows a 'Project Status Report' template for a project named '<Name>'. It includes a progress bar with phases: Initiating, Planning, Executing, and Closing. The 'Overall Status' is Green/Yellow/Red. Key sections include:

- Project Progress:** A bar chart showing the project's current phase (Executing) and a red arrow pointing to the 'Monitor & Control' stage.
- Project Indicators:** A list of metrics such as Baseline delivery date, Forecasted delivery date, Variance, Cost, Spent, and Forecasted workdays.
- Milestones:** A list of project milestones with their status (Green/Yellow/Red).
- Risks:** A list of risks with their severity and category.
- Issues:** A list of issues with their urgency, size, and severity.

? QUESTIONS

Q43. Vasili is the Project Manager of Project XYZ, its complex technical project with a budget of 1,500,000€ and more than 40 different stakeholders. Due to these circumstances Vasili has taken very seriously the reporting strategy, creating ten stakeholders' groups to address the specific reporting needs. And has also created five different reporting categories and a specific reporting template for each.

It's been a month since the executing phase started, and the situation is chaotic. Stakeholders are receiving reports that they don't understand, with too much detailed information and no relevant for them, and even in different formats.

What should Vasili do to improve this situation?

- Simplify the reporting strategy, by adopting the same project comprehensive reporting template used at the standard projects at the firm.
- Modify the reporting strategy, by eliminating most of the reports and increasing the number of meetings for a better comprehension.
- Most likely the reports were mixed up in the distribution. Make sure the PSO understands well the strategy.
- Simplify the reporting strategy, combining some of the categories or groups, as well as changing the templates to focus on the essential relevant information required.



EARNED VALUE MANAGEMENT (EVM)



Earned Value Management is a technique used to **monitor and control the performance of projects**, providing an **objective view of performance** based on the project financials. Both **cost and value are measured in terms of cost units**. Provides relatively objective metrics—or key performance indicators—to proactively manage project performance. Some indicators reflect on progress or deviations, while other indicators focus on forecasting total budget deviation. or on the productivity levels required to complete the project on schedule.

The principal metrics being used are the **Planned Value**, the **Actual Cost**, and the **Earned Value**. Through the combination of the above metrics we can have various KPIs, e.g. **Schedule Variance** and **Schedule performance Index**, **Cost Variance** and **Cost Performance Index** or even more advanced ones for forecasting future project performance, like the **Estimate at Completion**, the **Estimate to Complete** and the **To Complete Performance Index**.



EARNED VALUE MANAGEMENT (EVM)

Abbr.	Name	Formula	Interpretation
SV	Schedule Variance	$SV = EV - PV$	If $SV > 0$ then the project is ahead of schedule If $SV = 0$ then the project is on schedule If $SV < 0$ then the project is behind schedule
SPI	Schedule Performance Index	$SPI = EV / PV$	$SPI < 1$ the project is progressing slower than forecasted. $SPI = 1$ the project is progressing accordingly $SPI > 1$ the project is progressing faster than forecasted.
CV	Cost Variance	$CV = EV - AC$	If $CV > 0$ then the project is under budget If $CV = 0$ then the project is on budget If $CV < 0$ then the project is above budget
CPI	Cost Performance Index	$CPI = EV / AC$	$CPI < 1$ the spending is over plan $CPI = 1$ the spending is according to plan $CPI > 1$ the spending is under plan
ETC	Estimate to Complete	1. $ETC = BAC - EV$	1. Assumes that the remaining work will go as planned. 2. Assumes that the remaining work spending rate will be the same. 3. Assumes that the remaining work needs to be re-estimated.
EAC	Estimate at Completion	$EAC = AC + ETC$	Represents the forecast budget.
TCPI	To complete performance index	$TCPI = (BAC - EV) / (EAC - AC)$	$TCPI > 1$ the actual performance must be improved to reach the EAC $TCPI < 1$ the actual performance can be lower to reach the EAC



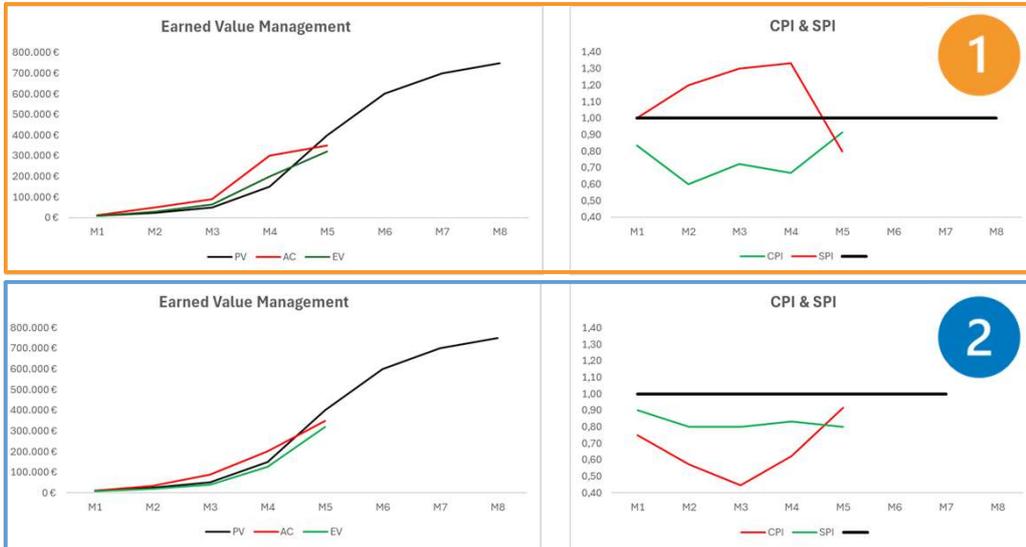
EARNED VALUE MANAGEMENT (EVM)

Your project is to develop a project training course for your organization. You have planned eight weeks of work, with the same job load each week and of cost of 8.000€ each week (a team of four working 20h/week * 100€/h). Today is the end of week 4. Using the chart below, calculate the variance and performance indicators and interpret the results.

Task	Week 1	Week 2	Week 3	Week 4	Comments
Week 1	Completed 100h				Storming phase, conflicts.
Week 2		Completed 90h			Improving the conflicts.
Week 3			Completed 85h		Almost as planned, the PM doing a great job.
Week 4				50% Done 60h	Team doing multitasking plus several quality errors.

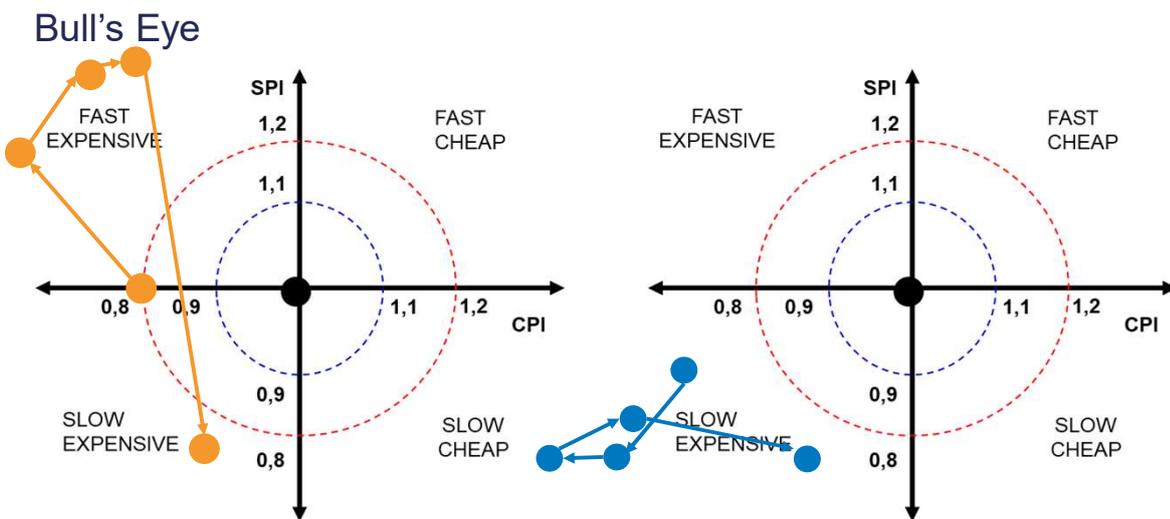


EARNED VALUE MANAGEMENT (EVM)



- Analyse the difference between each project progress.
- Make a forecast of the final budget.

EARNED VALUE MANAGEMENT (EVM)



EARNED VALUE MANAGEMENT (EVM)

TIPS

- SPI & SV –not expressed in **time units**.
- EVM does not consider **qualitative elements**.
- **EV % complete** - its accuracy is a key element, depends on the WBS detail and the PM & PCT experience.
- **EV calculation** - upfront, discrete effort, apportioned effort or level of effort.



QUESTIONS

Q44. Panagiotis is the Project Manager at “Develop a new website for the ESM (European Stability Mechanism)”. It’s a six-month project with a cost baseline of 300,000€. At the fourth month of the project the earned value management shows the following values: Planned Value (PV) 200,000€, Actual Cost (AC) 190,000€ and Earned Value (EV) 175,000€.

The product owner is proud of these values, as the project is performing well. The project cost is lower than the planned one. How should Panagiotis answer to this statement ?

- a) The project is behind schedule and over budget. We should be investigating the causes and implement corrective measures.
- b) The project is behind schedule but under budget. The product owner is right to be proud as cost is the most important element at the project.
- c) The project is ahead of schedule and under budget. The product owner is right to be proud.
- d) The project is behind schedule and over budget. As we still have two months to go, there’s no need to worry the product owner.



QUESTIONS

Q45. Panagiotis is the Project Manager at “Develop a new website for the ESM (European Stability Mechanism)”. It’s a six-month project with a cost baseline of 300,000€. At the fourth month of the project the earned value management shows the following values: Planned Value (PV) 200,000€, Actual Cost (AC) 190,000€ and Earned Value (EV) 175,000€.

The product owner asks Panagiotis to provide him with the required TCPI to finish the project as planned. Which statement would be correct?

- a) The required TCPI is 0,88. The project should meaningfully increase its efficiency.
- b) The required TCPI is 0,97. . The project should slightly increase its efficiency.
- c) The required TCPI is 1,13. The project should slightly increase its efficiency.
- d) The required TCPI is 1,5. The project should meaningfully increase its efficiency.



INFORMATION DISTRIBUTION

Keep project stakeholders informed about relevant project details.

GUIDELINES

- Relevant information should be communicated at the right time and appropriate format.
- Ensure meetings are frequent enough to distribute information.
- Project Support Office (PSO) manages internal communication.

STEPS

1. Carry out the tasks & send out the Projects Reports as detailed at the Communications Management Plan.
2. Inform & communicate updates at key documents.
3. Send of reports.



QUESTION

Q46. The Solution Provider of the UPF Engineering Grade Project Management Subject receives a complain of one of the team members, Viktor. The team member claims that he is not receiving updates of the project. The Solution Provider discusses it with Chen, the Project Manager, who explains that all Minutes of Meetings (MoM) are sent to all the team members.

Which is most likely to be the root-cause of this issue ?

- a) Viktor should be discussing this issue with Chen, the project manager.
- b) The team is holding informal meetings during class time, which Viktor is not attending.
- c) The meetings frequency should be increased so that all members are well informed.
- d) The team is using English as the base language for the project.



Phase Gate RfC (Ready for Closing)

Approval gates at the end of the Executing Phase to **approve moving to the Closing Phase.**

PURPOSE

- Assess that the Executing Phase goals are achieved, all planned activities carried out, all requirements have been met and all the project outputs delivered.
- Control the project quality.

STEPS

1. The PM assess whether is ready to commence the Closing Phase.
2. The PM ensures the PO has accepted all the deliverables or at least temporary.
3. The PM seeks the PSC to approve the last phase gate.

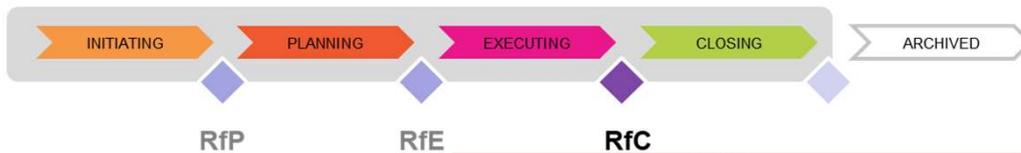
All Executing Phase Plans



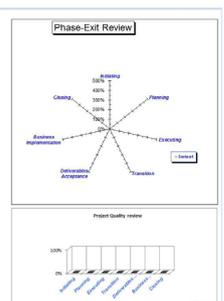
Phase Exit Review Checklist



Phase Gate RfC (Ready for Closing)



Phase Exit Review	
DD / Date	
Project Owner	
Business Manager	
Business Manager	
Project Manager	
Business Manager	
Review Date	
Overall Compliance (%)	0.00
Overall Phase-Exit Review Status	Fail



Executing Phase-Exit Checks				Date:	dd/mm/yyyy
#	Description	% of Phase Compliance	Answer	Score	Comments
1	Are resources and budget available to complete activities and to transfer deliverables to the requestor side?		No	0	
2	Have activities been performed as defined and scheduled in the Project Work Plan?		No	0	
3	Were artefacts produced, updated and revised as planned?		No	0	
4	Were the quality assurance and control activities performed as planned?		No	0	
5	Have deliverables been tested / reviewed?		No	0	
6	Were outsourcing processes and outputs monitored and reviewed?		No	0	
7	Are tests results, issues and corrective actions documented?		No	0	
8	Are all major risks mitigated?		No	0	
9	Were security and data protection issues taken into account?		No	0	
10	Have all the approved changes been implemented?		No	0	
11	Are deliverables in line with requestor needs and expectations?		No	0	
12	Are all the project issues and corrective actions resolved / closed?		No	0	
13	Are all deliverables (including supporting deliverables such as documentation) ready to be approved by the Project Owner (PO)?		No	0	
14	Were transition activities performed as planned?		No	0	
15	Has required training been conducted?		No	0	
16	Were the relevant stakeholders informed about the delivery of projects outputs?		No	0	
17	Were project performance indicators and metrics captured and assessed?		No	0	
18	Were the business implementation activities performed as planned?		No	0	
19	Have all the communication items (meetings, reports, ...) been implemented as planned?		No	0	
20	Did the Project Owner (PO) formally approve deliverables (final approval)?		No	0	
21	Are deliverables reviews and approvals documented and performed by the appropriate person (Project Owner, domain expert, ...)?		No	0	
22	Are deliverables fully operational?		No	0	
23	Is there a formal transfer of responsibilities to the Project Owner (PO) and operations teams?		No	0	
24	Has a list of planned maintenance / operational actions been provided to the requestor / operations team?		No	0	
25	Was the transfer of responsibility announced to all stakeholders?		No	0	
26	Have all deliverables and artefacts been placed in the project repository, e.g. test results, sign-offs, training materials, ...?		No	0	
27	Is project configuration management effective?		No	0	
28	Are operational/maintenance activities ready to start?		No	0	
29	Is the project ready to proceed to the Closing Phase?		No	0	
Total score for compliance		0	0	0	

QUESTIONS

Q47. Elon, the project manager of BIG strategic initiative to merge two main technological systems into one has reached the end of the executing phase. Elon has verified that all planned activities have been carried out, that all requirements have been met and that the project's outputs have been fully delivered. But he is struggling with ensuring that all the deliverables have been accepted. The Appropriate Governance Body (AGB) is pushing him to accelerate as much as possible the phase closing.

What would be Elon's best option to move on to the Closing Phase ?

- a) Ask the Project Steering Committee to authorize the Executing Phase closing, even if not all deliverables have been accepted.
- b) Explain the Appropriate Governance Body (AGB) that it's not possible to move on to the Closing Phase until all the deliverables are accepted.
- c) Obtain a commitment from the PO to provisionally accept the deliverables pending to accept.
- d) Ask the Appropriate Governance Body (AGB) to accepted the pending deliverables.

 **GLOSSARY**

- PM² Executing Phase
- PM² Executing Kick-off Meeting
- PM² Project Coordination
- PM² Signed-off work assignments
- PM² Quality Assurance
- PM² Audit Reports
- PM² Project Reporting
- PM² Project Status Report
- PM² Project Progress Report
- PM² Quality Review Report
- PM² Contractor Status Report
- PM² Information Distribution
- PM² Phase Gate RfC (Ready for Closing)



8. CLOSING PHASE



Closing

CLOSING PHASE LANDSCAPE

Project drivers

Phase inputs

Project Phase

Phase Outputs

Phase Gates Approvals

Project Stakeholders evaluate

Project Deliverables

CLOSING
 Capture Lessons
 Accept Project

Project-End Report

Objectives

- Formal closure of the project.
- Project deliverables transfer to the Project Owner.
- Confirm the project success.
- Celebrate the project ending.

PM² Reference: 3.3 PM² Phase Drivers and Key Artefacts
8 Closing Phase
© Van Haren Publishing
255

Closing

CLOSING PHASE ARTIFACTS

No mandatory artefacts

- Project Acceptance Note (if required)

Project-End Report

PM² Guide: The PM² Artefacts Landscape

PM² Reference: Appendix E.1 PM² Artefacts & Activities
Summary and Diagrams
© Van Haren Publishing
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CLOSING PHASE IMPORTANCE

Creating knowledge for future projects.

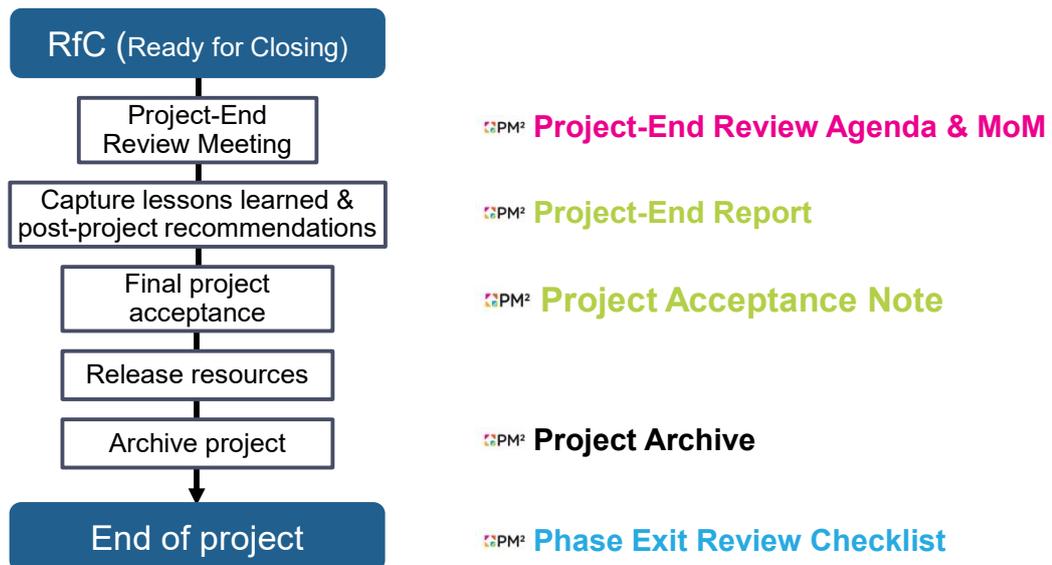
- Final project performance review.
- Knowledge for future projects is captured.
- Ensure the finished deliverables are transferred to the Project Owner (care, custody and control).
- All documentation and records are available for future projects.
- Formal closing.



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CLOSING PHASE STEPS



PROJECT-END REVIEW MEETING

Final meeting to discuss how the project has gone.

PURPOSE

- Ensure project members discuss their experience of the project so that Lessons Learned and best practices can be captured.
- Evaluate team and contractor performance.
- Evaluate team and contractor ideas and recommendations.

PARTICIPANTS

- **Organizes:** project manager
- **Required attendance:** project core team, product owner, business manager
- **Optional:** other stakeholders



PROJECT-END REVIEW MEETING

STEPS

1. Plan the meeting.
2. PO expresses appreciation.
3. Show the project performance & achievements.
4. Discuss the project experience, problems and challenges.
5. Discuss lessons learned & best practices.

After the meeting:

1. Compile Lessons Learned and Post-Project Recommendations.
2. Produce the Project-End Report.

The Project-End Review Meeting can't be hold without the organizer and the required attendants.





PROJECT-END REVIEW MEETING

1



We gave up Project-End Review project meetings, they were a complete disaster. Only arguments and complaints.

2



After all the pain during the project execution is time for pleasure. The Project-End Review Meeting is party time for us.

3



As the PM I don't like to waste time, so at the Project-End Review meeting I present the results and at the end we talk for about 10 minutes about lessons learned.

4



The Project-End Review Meeting is vital, so we invite all the stakeholders and spend all the morning discussing all together.



LESSONS LEARNED AND POST-PROJECT RECOMMENDATIONS

Benefit from the experience acquired during the project.

PURPOSE

- Avoid possible mistakes and to repeat positive actions in future projects.
- Suggest courses of action to improve project deliverables after the project has been closed.

PARTICIPANTS

- **Organizes:** project manager
- **Required attendance:** project core team, business manager.
- **Invited:** project owner & solution provider.
- **Optional:** other stakeholders





LESSONS LEARNED AND POST-PROJECT RECOMMENDATIONS

GUIDELINES

- Should be part of the **Project-End Review Meeting**, but multiple sessions could be held by areas.
- The **facilitation** should be done by somebody **external**; the Project Manager should contribute as a participant.
- The discussion should be **structured** and go through all the project aspects.

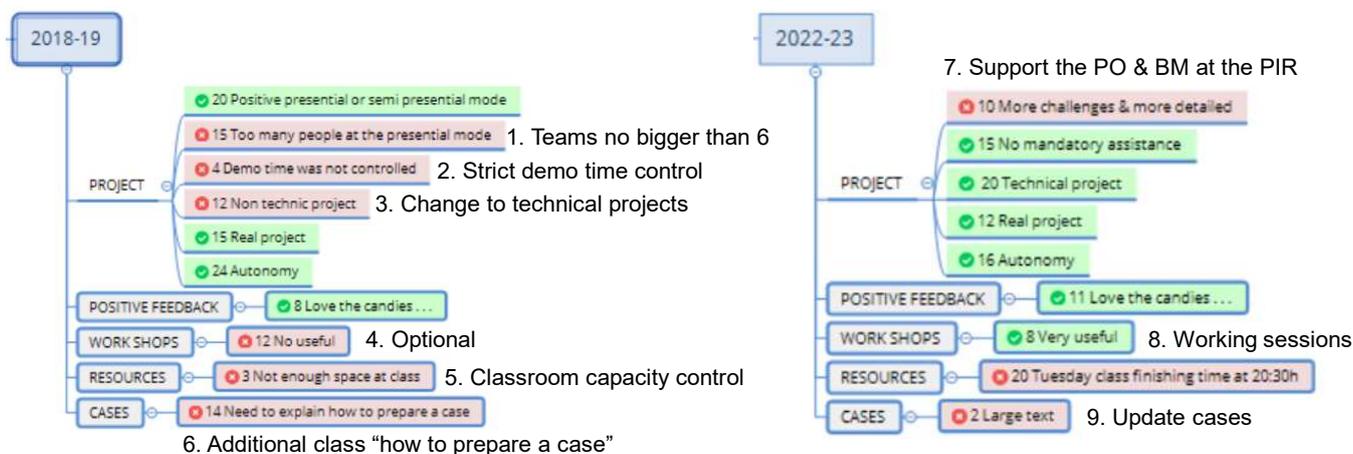
Lessons Learned, improvement opportunities and Post-Project Recommendations should be captured as they come up during the project.
Optionally: at the end of project phases or major milestones.



LESSONS LEARNED

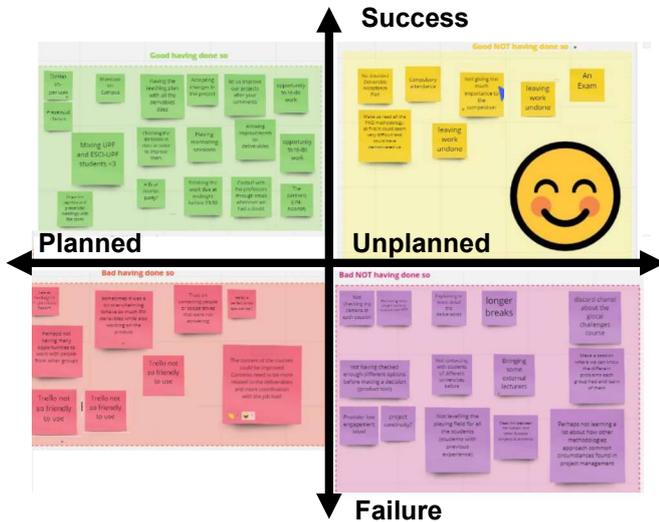


UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT



LESSONS LEARNED

LESSONS LEARNED GRID



- Based on your own projects identify lessons learned for each quadrant:
 - Success planned
 - Success unplanned
 - Failure planned
 - Failure unplanned



QUESTIONS

Q48. Inma, a senior project manager at INNOVA, is the project manager of a new product development project. It's the organization first multicultural project and after facing a lot of communications issues they have established two rules for the project core team:

- Establish a project glossary with all them main elements in order to avoid misunderstandings.
- Establish English as the standard language for all written communications (e-mails, reports, documents . . .) and keep local languages for verbal communications.

The rules were effective and solved all the communications issues. What's the most important thing Inma should do with these tow rules ?

- Include them as lessons learned as soon as she organizes a lesson learned meeting.
- As it has become global knowledge at the organisation, she doesn't need to do anything.
- Send an email to all the Project Support Office sharing this information.
- Explain the rules at the next Project Manager's meeting.





PROJECT-END REPORT

Report describing how the project has gone and what has been learnt.

PURPOSE

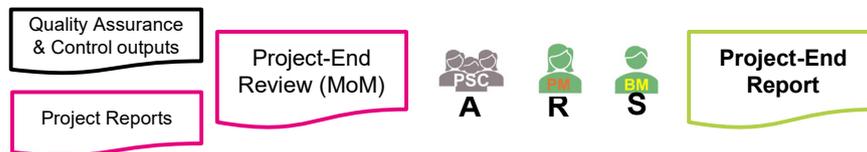
- Gather the project experience, performance, lessons learned and post-project recommendations.
- Be part of the organisation knowledge.

GUIDELINES

- Produce a well-rounded and comprehensive project assessment.

PARTICIPANTS

- **Writer:** Project Manager
- **Provides input & assistance:** Project Core Team & Project Quality Assurance



PROJECT-END REPORT

CONTENTS

- **Introduction**
- **Project Success**
 - Effectiveness & Project Evaluation
- **Project Management Evaluation**
 - Overall
 - Risk Management / Stakeholder Management / Project Communications
 - Issues and Conflict Resolution / Deliverables Acceptance
- **Project Transition**
- **Business Implementation**
- **Governance and Team Evaluation**
 - Performance of the Participating Organisation and the Project Core Team
- **Lessons Learned and Best Practices**
- **Post Project Recommendations**



QUESTIONS

Q49. Tariq, a project manager at BRICKS², is working on a critical hollow brick turnkey project with a traditional tunnel kiln. The project is almost completed, in fact, he has just left the Project-End Review meeting that has ended successfully. Some hours later the company owner approaches him and starts explaining him that some key requirements are still pending and that they should be completed before the projects finishes.

What should Tariq do?

- a) Explain the company owner that the project has officially concluded so no further changes can be made. That any additional job should be addressed through a new project.
- b) It's the company owner, so Tariq should start working on the issue as soon as possible going back to the executing phase.
- c) Recall the Project-End Review meeting and discuss this issue between all the team members.
- d) Analyse the stakeholder issues, assess its impact and discuss it with the Project Owner to determine the best course of action.



ADMINISTRATIVE CLOSURE

Formal project closure.

PURPOSE

- Ensure all project activities are concluded before officially closing the project.
- Formal transfer of the project outputs to the Product owner.
- Project documentation available for future projects.

STEPS

1. List all the required reports in the Project Handbook and/or Communications Management Plan.
2. Ensure the reports are fit for purpose .
3. Create Ad Hoc reports to address specific reporting needs (crisis . . .).

All other plans & documents
Quality Management Plan

Project Handbook
Project Work Plan



PSO
S

Project Acceptance Note (if required)



Project Archive (updated)



ADMINISTRATIVE CLOSURE

PARTICIPANTS

- **Project Manager:** oversees the closure and releases the resources.
- **Product Owner:** approves and accepts the project.
- **Project Support Office:** assists in reviewing, organising and archiving the project documentation.

GUIDELINES

- Projects cannot be reopened.
- The administrative closure shouldn't be postponed.
- All projects need to be formally closed.
- Documentation should be organized and securely archived (backups and access control).

Formal closure brings project mode to an end and allows the operations mode to start.



QUESTIONS

Q50. Marina is the Project Support Office manager at BUFU UK. She's receiving a lot of complains regarding the project's managed by Peter. The other project managers comment that when they must have to refer to projects managed by him, they are unable to find the documentation or if there is any, it is almost non-existent.

What should Marina do considering that Peter is one of your best project managers?

- Suggest the other project managers that the Administrative Closure is not really relevant and that their complains are not appropriate.
- Explain Peter the importance of completing the Administrative Closure correctly, highlighting that it has a high impact on the future projects are his colleague's job.
- Acknowledge that Peter is not good at Administrative Closure and delegate it to the Project Manager Assistant.
- Support Peter at his project's Administrative Closure-



QUESTIONS

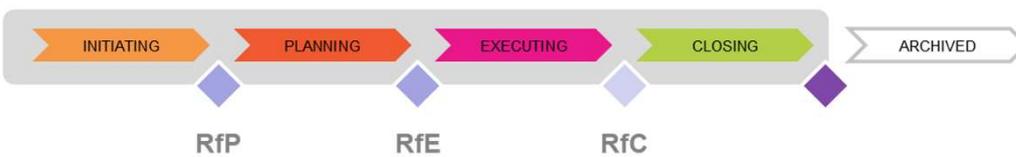
Q51. Deepak, a project manager at Family Foundation DNA, has completed the project Psychological care from a gender perspective online training for Universities. The project was completed one month ago and approved and transferred to the Project Owner. Since the project was moved to operations the users started complaining about issues with the access of the student's performance. The project owner contacts you and suggests you reopen the project and correct these issues.

How should Deepak deal with this critical situation ?

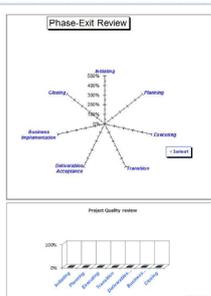
- a) Agree with the project owner and reopen the project to correct the issue.
- b) Tell the project owner that the project has been officially closed and the issue is out of your responsibility. A new project should be started, or the operations team should deal with it.
- c) Suggest a meeting with the users and the project owner to analyse the issue and decide how to proceed.
- d) Log the issue at the project issue log and proceed as described at the project handbook.



Closing Checklist



Phase Exit Review				
DD / Unit	Name of the CC and unit responsible for the project			
Project Owner	Name of the project			
Business Manager	Name of the Business Manager			
Initiator / Provider	Name of the Business Manager			
Project Manager	Name of the Project Manager			
Reviewer Name	Name of the person performing the quality review			
Review Date	dd/mm/yyyy			
Overall Compliance (%)	0.00			
Overall Phase-Exit Review Status	Red			
Area	Phase Exit Review Status	Overall % of Compliance	Date	Already performed?
Initiating	0%	0%	1/1/2021	Yes
Planning	0%	0%		Yes
Executing	0%	0%		Yes
Deliverables Acceptance	0%	0%		Yes
Business Implementation	0%	0%		Yes
Closing	0%	0%		Yes



Closing Phase-Exit Checks				
		% of Phase Compliance	0%	Date: dd/mm/yyyy
#	Description	Answer	Score	Comments
1	Did a Project-End Review Meeting take place?	No	0	
2	Were final project performance indicators and metrics assessed and compared to project baselines?	No	0	
3	Are project benefits and unachieved goals assessed and remaining benefits forecasted?	No	0	
4	Was client / requestor satisfaction assessed?	No	0	
5	In case some risks or issues couldn't be closed, are they re-assessed and follow-up actions recommended?	No	0	
6	Are follow-up actions assigned to people and a formal transfer of ownership performed?	No	0	
7	Were all the hand-over activities to the operations mode performed?	No	0	
8	Are support and maintenance activities running as planned?	No	0	
9	Did all the relevant stakeholders give feedback on the overall project experience?	No	0	
10	Were lessons learned and post-project recommendations captured?	No	0	
11	Is the Project-End Report documented and delivered to the relevant stakeholders?	No	0	
12	Are project artefacts and other supporting documentation organised and archived in a central repository?	No	0	
13	Is project archiving following the EC internal policy for records management and archives?	No	0	
14	Were all the configuration management procedures completed?	No	0	
15	Were all the security management procedures completed e.g. copies of project data and restriction of project members access to systems and data?	No	0	
16	Was the project formally accepted by the Project Steering Committee (PSC) / Project Owner (PO)?	No	0	
17	Have project team members performance been assessed?	No	0	
18	Is the project team officially released?	No	0	
19	Have project costs stopped?	No	0	
20	Is the project ready to be closed?	No	0	
Total score for compliance		0	0	



 **GLOSSARY**

-  PM² Closing Phase
-  PM² Project-End Review Meeting
-  PM² Lessons Learned
-  PM² Post-Project Recommendations
-  PM² Project-End Report
-  PM² Administrative Closure
-  PM² Project Acceptance Note
-  PM² Projects Archive
-  PM² Closing Checklist



9. MONITOR & CONTROL

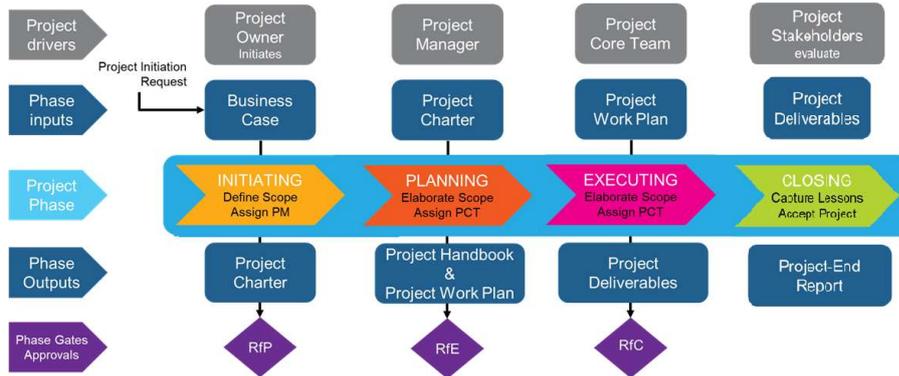


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MONITOR & CONTROL LANDSCAPE

Purpose

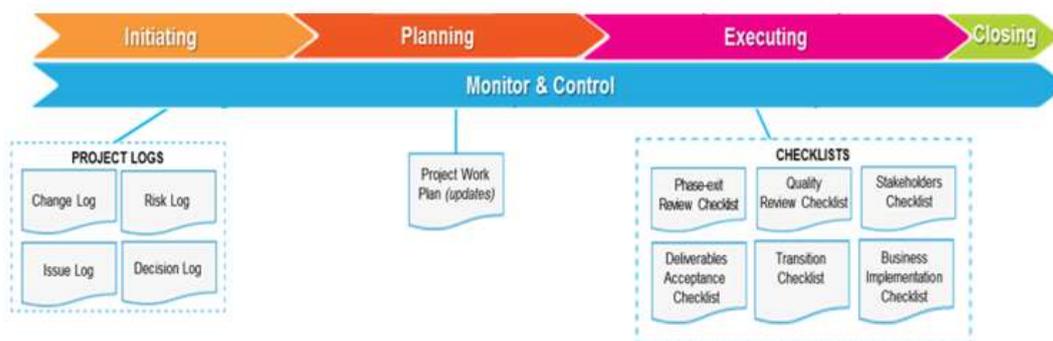
- Execute the management processes.
- MONITOR & CONTROL: track the project progress against the baseline and control



MONITOR & CONTROL ARTIFACTS

No mandatory artefacts

- Requirements Document
- Change Request Form
- Audit Reports
- Quality Review Reports
- Deliverables Acceptance Note



MONITOR & CONTROL IMPORTANCE

Monitor if you follow the plans and take corrective actions to take control !!!

- Executing the management plans from the point of view of the project manager.
- Links the management plans and keeps them integrated in a whole.
- Provides information on the project performance against the baselines towards be able to monitor and decide on corrective actions for any deviations from the plan.
- Controls the project management quality.
- Create records of the project information.

“You cannot manage what you cannot measure...and what gets measured gets done.”

Bill Hewlett, Hewlett Packard



MONITOR & CONTROL ACTIVITIES

MANAGE

- Manage Stakeholders
- Manage Requirements
- Manage Project Change
- Manage Risk
- Manage Issues & Decisions
- Manage Quality
- Manage Deliverables Acceptance
- Manage Transition
- Manage Business Implementation
- Manage Outsourcing

MONITOR

Monitor project performance

PM² Project Work Plan
(tracked)

CONTROL

Control Schedule

Control Cost

PM² Project Logs
(updated)

PM² Project Work Plan
(updated)



MANAGE ACTIVITIES

Manage Stakeholders	<ul style="list-style-type: none"> PM² Stakeholder Matrix (updated) PM² Stakeholder Checklist / Issue & Decision Logs
Manage Requirements	<ul style="list-style-type: none"> PM² Requirements Document PM² Project Work Plan (updated) / Project Logs (updated)
Manage Project Change	<ul style="list-style-type: none"> PM² Change Request Form PM² Project Work Plan (updated) / Change Log (updated)
Manage Risk	<ul style="list-style-type: none"> PM² Risk Log (updated)
Manage Issues & Decisions	<ul style="list-style-type: none"> PM² Decision & Issue Log (updated)
Manage Quality	<ul style="list-style-type: none"> PM² Phase Exit Review & Quality Review Checklist PM² Audit & Quality Review Reports
Manage Deliverables Acceptance	<ul style="list-style-type: none"> PM² Deliverables Acceptance Checklist & Note PM² Decision Log (updated)



MONITOR PROJECT PERFORMANCE

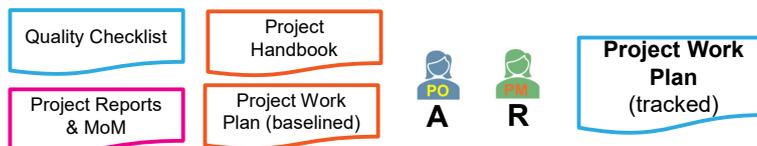
Collect information about the state of the project's progress

PURPOSE

- Gather information on:
 - Tasks
 - Key outputs
 - Resource utilisation
 - Logs
 - People

STEPS

- Use the baselined Project Work Plan as a reference.
- Exchange information about the project current status and next steps with the PCT.
- Gather information.
- Use the EVM Technique.

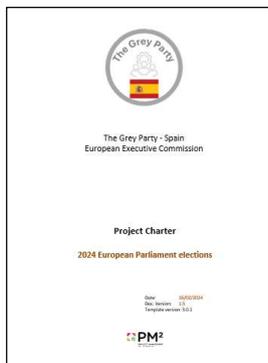




MONITOR PROJECT PERFORMANCE



“The Grey Party” 2024 European Parliament elections in Spain



Which key performance index would you sue to track the project progress during the second executing phase: CAMPAIGN ?



Success criteria:
achieve a minimum
of 6 seats



CONTROL SCHEDULE

Track the project tasks and ensure the deadlines are met.

PURPOSE

- Ensure that project tasks are carried out as scheduled and that project deadlines are met.

STEPS

1. Track the evolution of project tasks.
2. Update the project schedule to reflect the actual status.
3. Review the PWP to identify potential sources of delays.
4. Track project changes, issues and risks, and monitor their impact on the project schedule.
5. Implement corrective actions if the schedule status has significant deviations.
6. Inform affected project stakeholders about changes to the project schedule and/or tasks.

Change Log

Project Handbook

Project Reports & MoM

Project Work Plan



Project Work Plan (updated)

Project Logs (updated)





CONTROL COST

Manage the costs so that they conform on the cost baseline.

PURPOSE

- Ensure that project tasks are carried out as scheduled and that project deadlines are met.

STEPS

1. Track the evolution of project overall budget.
2. Review the project budget and seek approval for significant differences with the Project Owner.
3. Evaluate differences between budgeted and actual project costs. Implement corrective actions to keep the budget on track.
4. Any considerably change at the budget must be justified & documented.
5. Inform affected project stakeholders about changes to the project schedule and/or tasks.



QUESTIONS

Q52. Lucile is the project manager at a software development project with a duration of 8 months and a planned budget of 1,5M€. The project has been facing a lot of technical and stakeholder complexity that has led to over costs. After 4 months these are the EVM values: PV=800,000€ AC=1,2M€ EV=750,000€.

Being the project critical for the organisation, what should Lucile do?

- a) Review the project planned budget and re-evaluate the business case with the Project Owner. Prepare a revised project budget and business case.
- b) Explore ways to increase the project budget with the Business Manager, as the project criticality justifies the additional expenditure.
- c) Propose to temporary pause all non-critical project tasks to reduce costs in a short term, while reviewing the planned budget.
- d) Explore ways to increase the project budget with the Power Steering Committee, as the project criticality justifies the additional expenditure.



RISK vs ISSUE

RISK

A risk is an uncertain event or set of events (positive or negative) that, **should it occur**, will have an **effect** on the achievement of project **objectives**.

FUTURE

ISSUE

An issue is any **unplanned** event related to the project that has **already happened** and requires the intervention of the **Project Manager** or higher management.

PRESENT
Known or unknown risks



RISKS vs ISSUES

“The Grey Party” 2024 European Parliament elections in Spain



RISKS

- Affinity with the party's program of highly recognized/popular experts, chance to attract some as candidate and increase the spectrum of voters.



ISSUES

- The Business Manager is resigning to join a competing party.



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MANAGE RISK

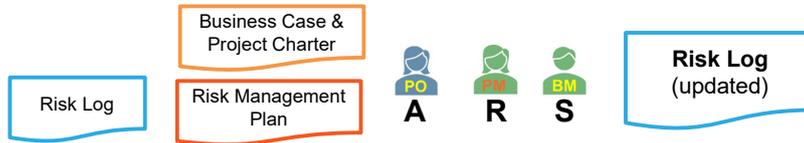
Continuous, proactive and systematic approach to conform risks to the organisations's accepted risk attitude.

PURPOSE

- Provide reasonable assurance to achieve the project objectives.
- Improve the project team confidence managing proactively the risks.
- Align the risk response strategies with the stakeholders' risk appetite and approved risk level thresholds.

GUIDELINES

- Follow the risk management processes.
- Complete risk description:
 - Condition, event, impact.
 - Attributes
- Define the escalation process.
- PSC monitors projects with high levels of risk exposure.



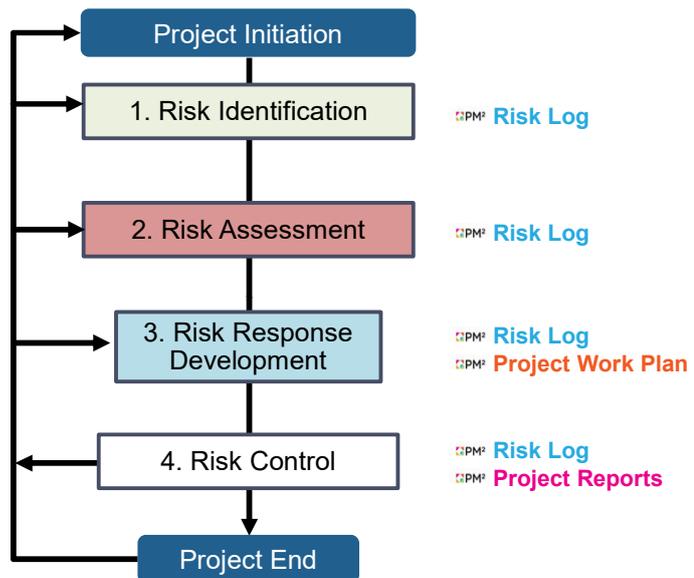
RISK PROCESS

Continuously throughout the project lifecycle.

Based on likelihood of occurrence & the impact in project objectives.

Based on the risk level, risk type, effects on the overall project objectives & the strategy cost/benefit.

M&C the risk response activities implementation & continuously monitoring for new risks or changes.



RISK LOG

Risk Log
<Project Name>

4. Risk Control

➔ Project Work Plan, issue log

Risk Identification and Description							Risk Assessment				Risk Response				
ID	Category	Title	Description	Status	Identified By	Identification Date	Likelihood (L)	Impact (I)	Risk Level (L*I)	Risk Owner	Escalation	Risk Response Strategy	Action Details (effort & responsible)	Target Date	Traceability/Comments
<risks can be organised in different categories such as Business, Staffing, Contractor, Legal ...>	<Short title for the risk>	<Description of the risk including its causes, the kinds of problems that could result (potential effects), and risk dependencies.>	<Status for the risk: One of the following values:> <Proposed> <Assessing> <Awaiting for Approval> <Approved> <Rejected> <Closed>	<The name of the Person who identified the risk>	<Date when the risk was identified (dd/mm/yy)>	<A numerical value denoting the probability that the risk will occur:> 5- Very High to 1- Very Low>	<A numerical value denoting the severity of the risk's impact:> 5- Very High to 1- Very Low>	<Product of the two previous columns: RL = L * I>	<Name of the person accountable for managing and monitoring the risk>	<Should the issue be escalated to the Directing or Steering Layers?> <Yes> or <No>	<Strategy for managing the risk:> <Avoid> <Reduce> <Accept> <Transfer/Share>	<Description of the mitigation action(s), including the objective, scope, deliverables, the person responsible and the estimated effort needed.>	<Date on which the risk response is expected to be implemented.>	<Related artefacts:> <ID for the related mitigation tasks in the Project Plan> <ID for related changes, issues or decisions (log entries).>	

1. Risk Identification

- **ID**
- **Category**
- **Title**
- **Description**
- **Status:** proposed, assessing, awaiting for approval, approved, rejected, closed
- **Identified by**
- **Identification date**

2. Risk Assessment

- **Likelihood**
- **Impact**
- **Risk Level**
- **Risk Owner**
- **Escalation**

Risk status: Proposed, Assessing, Awaiting for Approval, Approved, Rejected, Closed

3. Risk Response Development

- **Risk Response Strategy**
- **Action Details**
- **Target Date**
- **Traceability/Comments**



QUESTIONS

Q53. Laia, a project manager at TRANSPOWER, is reviewing a risk log a team member has just updated.

- **Risk Description:** supplier with no prior experience that might delay the delivery of the machine more than a month which would result in a minimum delay of two weeks in the project.
- **Likelihood:** 3 – based on past experience with new suppliers
- **Impact:** 4 – Considering the potential delay
- **Risk Level:** 12
- **Escalation:** Yes – due to the potential delay the risk should be reviewed by the PSC.

Is this an appropriate entry considering the PM² risk assessment criteria ?

- No, the risk level is not necessary as the Likelihood and Impact values are already provided.
- Yes, the risk includes a description, likelihood, impact, risk level and the escalation decision.
- No, a risk assessment should always include a risk owner.
- No, any risk should include the financial impact.



RISK RESPONSE STRATEGIES



- **Avoid:** changes to achieve L=0% or I=0.
- **Reduce:** mitigate the L or I
- **Transfer:** to a third party. Creates secondary or residual risks



- **Exploit:** changes so that the risk occurs L=100%.
- **Enhance:** increase the L or I.

Accept: passive action or active response, develop a contingency plan. Opportunities are always passive.

Share: “pain/gain” formula, both parties share the loss (threat) or the gains (opportunity).



RISKS STRATEGIES

Afternoon of games with the family

Risk source: Pierre studies at a military academy and plays Risk with his friends every afternoon.

Condition: Risk is in the pile of games.

Event: select Risk to play.

Impact: being defeated mercilessly.



STRATEGIES

Avoid: spill coffee on the game and make it unusable.

Reduce: deploy specific distraction tactics for Pierre, offering him chocolate

Accept: resign to a mercilessly defeat

Share: one game of Risk, one game of Memory.

Transfer: ask Gabriel, the board game expert, to take your place in the game.





RISK LIKELIHOOD/IMPACT MATRIX



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

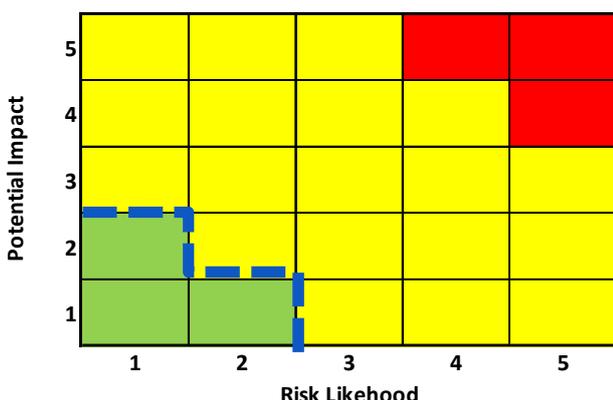
The Risk Likelihood/Impact Matrix is based on **two criteria**: the likelihood that a risk will materialise and the potential impact caused by the risk event. Most commonly five bands are used for each of the dimensions of the matrix.

The two factors are then combined by multiplying their values, resulting in the Risk Level. The **Risk Level will trigger different risk response strategies**.

Based on the **risk appetite of the organisation**, adequate risk-response strategies can be developed for each identified risk.



RISK LIKELIHOOD/IMPACT MATRIX



- Risks can be accepted, contingency plans may be developed.
- Risks cannot be accepted, a risk response strategy should be developed.
- Unacceptable – immediate risk reduction or avoidance response.
- Risk appetite

Likelihood and Impact scale:

5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low



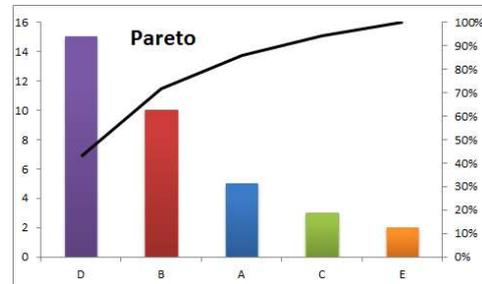


PARETO ANALYSIS



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

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



Histogram organized by frequency

Focus & prioritise



DECISION TREES



The decision tree is a **visual decision support tool**, consisting of nodes and branches that helps us describe possible alternatives By representing choices, and events with different likelihood of occurrence. It uses three types of nodes:

- (a) **Decision nodes** (represented by squares)
- (b) **Chance nodes** (represented by circles)
- (c) **End nodes** (represented by triangles).

In decision tree analysis (primarily being performed during project risk management), the decision tree is principally used in conjunction with the Expected Monetary Value (EMV) where we compute the EMV of each alternative (branch) and thus select the most favourable one.

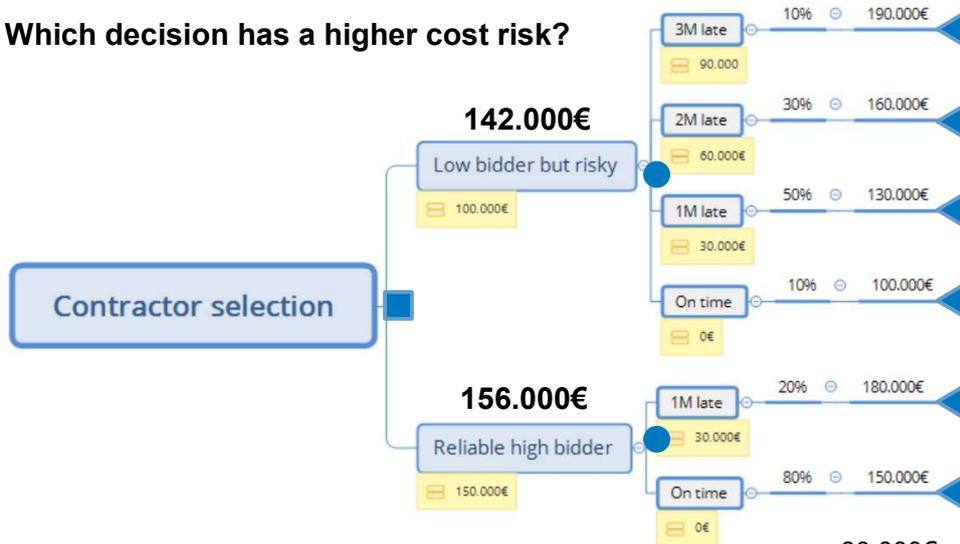
The decision tree analysis can also be performed by creating a stochastically determined structure and then simulate the outcome, in order to derive to probability-based decisions.





DECISION TREES

Which decision has a higher cost risk?



RISKS RESPONSE STRATEGY



Remember that high impact risk you didn't identify.

Or that one you rejected, and that finally happened, and the impact was very high.

If you could go back in the past, which risk response strategy would you decide ?

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QUESTIONS

Q54. Several project core team members at FoodFoodCoop, the cooperative supermarket project have identified a new risk midway of the project. The risk is related with the ambiguous food regulation and an open false ceiling that could be considered as a source of dirt. The roof should only be closed if an inspector visits the supermarket and decides that it must be closed. So, the likelihood is very low.

The members have been discussing for more than one month about how to close the roof, but all alternative's cost represent an additional cost of almost 50% the project total budget.

How should Arzella, the project manager, manage this situation ?

- a) Accept the risk, the probability is very low, and the project cannot meet the cost of any of the alternatives proposed
- b) Consult with subject matter experts to ensure the likelihood of the risk.
- c) Ask the team members to keep looking for an alternative that could fit within the project planned budget.
- d) Escalate the risk to the PSC or AGB, as due to the high impact the risk should be avoided or implementing an immediate reduction, and non of the alternatives are feasible.



MANAGE ISSUES AND DECISIONS

Identify, evaluate and manage issues for resolution by Project Stakeholders.

PURPOSE

- Ensure that issues that have a potential impact on project scope, time, cost, quality, risk, or stakeholder satisfaction are assessed and acted upon.
- Document the project decisions.

GUIDELINES

- Escalate largest/highest-impact issues to the PSC or follow the escalation process.
- Regularly report on issues status.
- Be proactive and limit the open issues.
- Document decisions and link them to other logs (traceability).



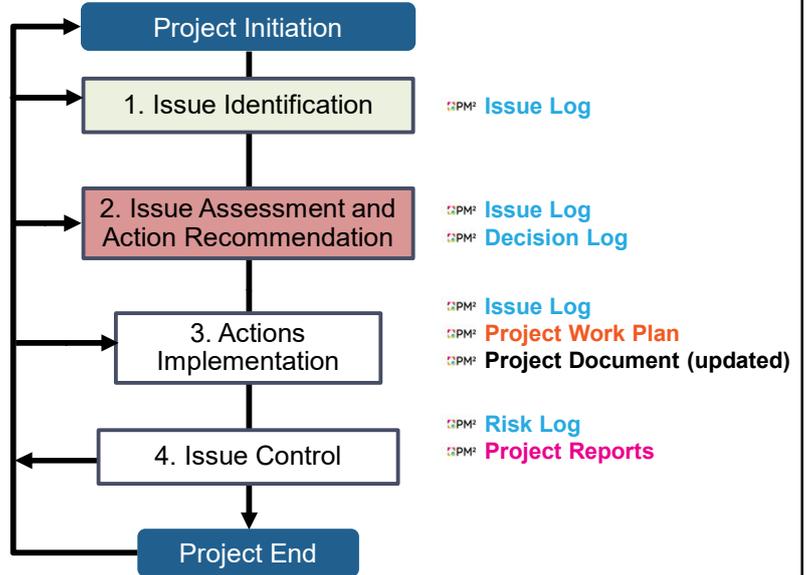
ISSUE PROCESS

Identification & documentation of issues.

Assess the urgency and impact of the issue and decide on a priority for its resolution. Can generate a **change**.

Incorporate the remediation actions into the Project Work Plan and other documents.

Monitor and control the issues.



ISSUE LOG

Issue Log
< Project Name >

Issue Identification and Description						Issue Assessment and Action Description										
ID	Category	Title	Description	Status	Identified By	Identification Date	Action Details (action & responsible)			Urgency	Impact	Size	Target Date	Issue Owner	Escalation	Traceability/Comments
Guidance:	Issues can be organized in different categories such as: Business, Staffing, Contractor, Legal...	<Short title for the issue>	<Description of the issue, including how it came about (known risk, unknown risk...) and its impact on the project.>	<Status for the issue: One of the following values: - Open - Postponed - Resolved - Closed>	<The name of the Person who identified the issue!>	<Date when the issue was raised or was identified (dd/mm/yyyy)>	Proposed strategy to handle the issue: For the remediation plan, the following main steps should be executed: - Identification of the non-conformities, impact and recommended actions; - Analysis of the different resources and associated resources, timetable and costs; - Selection of the most cost-effective action and assignment of responsibilities.			<A numerical value from 1 to 5 denoting how urgent the issue is: 5- Very High to 1- Very Low>	<A numerical value from 1 to 5 denoting how much the issue's impact is: 5- Very High to 1- Very Low>	<A numerical value denoting how much effort will be necessary to resolve the issue: 5- Very High to 1- Very Low>	<Date on which the issue is expected to be resolved (dd/mm/yyyy)>	<Name of the person tasked with resolving the issue>	<Should the issue be escalated to the Steering Layer? (Yes) or (No)>	<Related artifacts: - ID for the related tasks in the Project Plan - ID for related changes in the change log.>

1. Issue Identification

- **ID**
- **Category**
- **Title**
- **Description**
- **Status:** open, postponed, resolved, incorporate these actions into the *Project Work Plan* and closed
- **Identified by**
- **Identification date**

2. Issue Assessment and Action Recommendation

- **Actions details**
- **Urgency/Impact/Size**
- **Target date**
- **Issue owner**
- **Escalation**
- **Traceability/Comments**

Issue status: Open, Postponed, Resolved, Closed

DECISION LOG

Decision Log
< Project Name >

Decision Identification						Ownership			Decision Implementation		
ID	Category	Title	Description	Identified by	People present	Comments	Decision Owner	Decision Date	Escalation	Application Date	Decision communicated to:
<Guidelines: ->	<Decisions can be organised in different categories related to the area affected by the decision (such as Business, Staffing, Contractor, Legal ...)->	<Short title for the decision->	<Description of the decision details and impact, if applicable.->	<The name of the person who identified the need for a decision.->	<Log the names of the people present when the decision was made.->	<- ID for related changes in the change log. -ID for the related risk -ID for the related tasks in the Project Plan -ID for related issues.->	<The name of the person accountable for the decision.->	<Date on which the decision was taken.->	<Should the decision be escalated to the Directing or Steering Layers? <Yes> or <No>>	<Date on which the decision becomes applicable.->	<The groups, teams and individuals to whom the decision needs to be communicated.->

1. Decision Identification

- ID
- Category
- Title
- Description
- Identified by
- People present
- Comments: ID for related change log, risk, tasks in the Project Plan, Issues.

2. Ownership

- Decision owner
- Decision date
- Escalation

3. Decision Implementation

- Application date
- Decision communicated to

Decision status: Open, Postponed, Resolved, Closed



MANAGE ISSUES



“The Grey Party” 2024 European Parliament elections in Spain

Business Manager resignation.

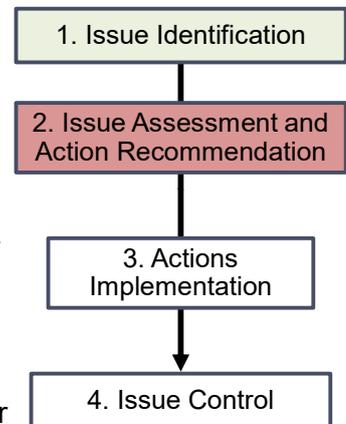
The Business Manager is resigning to join a competing party.

Urgency 5 / Impact 4 / Size 4
Request a Candidates List change
Recommend actions → Issue Log

Incorporate the remediation actions into the Project Work Plan: new deliverables (press release & conference). Issue a change for the modified deliverables (candidates list).

Changes at the governance model: assign a new Business Manager

Monitor and control the issue → mainly the new Business Manager





MANAGE ISSUES



“The Grey Party” 2024 European Parliament elections in Spain

Issue Identification and Description						
ID	Category	Title	Description	Status	Identified By	Identification Date
IL01	CANDIDATE	BM resignation	The Business Manager is resigning to join a competing party.	Open	Project Manager	01/04/2024

Issue Assessment and Action Description							
Action Details (effort & responsible)	Urgency	Impact	Size	Target Date	Issue Owner	Escalation	Traceability/Comments
Press release and press conference - Social media technician Choosing a new BM - Appropriate Governance Body Updated list of candidates - Project Owner Dismissal of the BM from the party - The Grey Party President	5	4	4	15/04/2024	Project Owner	Yes	Risk ID33 Deliverables D24, D30



QUESTIONS

Q55. Celina is the project manager at COMTEK of a modular construction hospital at country GGG for the ministry of Defense. At COMTEK they have recently implemented a project management methodology based on PM², which describes that the Project Manger and the Project Core Team are responsible of handling all issues.

Several months into the modular construction project Celina and the PCT can't keep up with the work. All the issues in the project are requiring all her attention and the PCT spends most of their time in meetings discussing and trying to gather all possible data to take the correct answers and the decision-making.

How should the issue process be change to improve this situation?

- Add more resources at the project core team as they are obviously overallocated.
- Conduct several decision-making workshops to improve the Project Core Team efficiency at decision-making.
- Include an escalation procedure in the issue management plan to classify the issues within the ones that can be managed by the Project Core Team, the Project Manager and the Project Steering Committee.
- Include a process to limit incidents that can be handled simultaneously. With the current delay in their resolution, it is clear that most of them are not urgent.



MANAGE PROJECT CHANGE

Identify, document, assess, approve, prioritise, planning and controlling project changes, and communicating them to all relevant stakeholders.

PURPOSE

- Bring transparency, accountability and traceability to all project changes implemented after the project scope and project plans have been baselined.

GUIDELINES

- Changes can be requested throughout the project lifecycle by any project stakeholder.
- Changes related to project scope, requirements, deliverables and features, or quality characteristics of the project.



CHANGE PROCESS

Requested, identified or raised, formally or not.

Assess the change: options, size, impact & priority, and recommended actions.

Decision on approving or not the change, according the escalation procedure.

Incorporate the change actions into the Project Plans.

Monitor & control project changes.



CHANGE LOG

Change Log
<Project Name>

Change Identification and Description						Change Assessment and Action Description				Change Approval			Change Implementation			
ID	Category	Title	Description	Status	Requested by	Date Identified	Action Details (effort & responsible)	Size (Effort)	Priority	Target Delivery Date	Escalation	Decision	Decided by	Decision Date	Actual Delivery Date	Traceability and Comments
<Changes can be organised in different categories such as New Requirement, Issue or Risk related, Business, Technology...>	<Short title for the requested change>	<More detailed description of the requested change including the possible impact of not implementing the change.>	<Status for the change. Use the following values (not exhaustive): - Submitted - Assessing - Approved - Rejected - Postponed>	<The name of the person who requested the change.>	<The initial submission date of the change request <dd/mm/yyyy>>	<Description of the recommended action(s), including steps, deliverables, timescale, resources and effort involved.>	<A numerical value denoting how much effort will be necessary to implement the change: 5- Very High 4- 3- Very High 2- 1- Very Low>	<A numerical value denoting the agreed priority of the change: 5- Very High 4- 3- Very High 2- 1- Very Low>	<Target date for the change to be delivered: <dd/mm/yyyy>>	<Should the issue be escalated to the Steering or Layers? <Yes> or <No>>	<Describe the decision taken. Possibly link with the item in the decision log.>	<Person or Committee that approved or rejected the change.>	<Date on which the decision was made: <dd/mm/yyyy>>	<Date on which the change was actually delivered: <dd/mm/yyyy>>	<Related artefacts: - ID for the related tasks in the Project Work Plan - ID for related risks, issues and decisions. - Plus any additional information or comments related to the issue.>	

1. Change Identification <ul style="list-style-type: none"> ID Category Title Description Status: Requested by Date identified 	2. Change Assessment & Action Recommendations <ul style="list-style-type: none"> Actions Details Size (Effort) Priority Target Delivery Date <p>Change status: Submitted, Assessing, Approved, Rejected, Postponed, Implemented</p>	3. Change Approval <ul style="list-style-type: none"> Evaluation Decision Decided by Decision Date 	4. Change Implementation <ul style="list-style-type: none"> Actual Delivery Date Traceability & Comments
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QUESTIONS

Q56. Miguel is the Project Manager of “The Grey Party 2024 Parliament Elections in Spain”. Just a month before the electoral campaign starts the Ministry of Equality approves the Organic Law for the equality of LGBTI people and for non-discrimination based on sexual orientation, gender identity, gender expression or sexual characteristics. This requirement was not included as the law was expected to be approved in 2025.

Once received this information, how should Miguel manage the change request ?

- Contact with equality subject matter experts to estimate the impact this new law might have at the project.
- Announce the new Organic Law to the key stakeholders and the project core team and propose an immediate meeting to brainstorm for to integrate the law requirements at the electoral program.
- Document the change request in a Change Request Form and follow the Project Change Process.
- Immediately analyse whether among the list of candidates there is anyone who is part of the group that regulates the new law. This way you will be able to know whether or not it should be applied in the project.

MANAGE QUALITY

Ensure that the project will achieve the expected results in the most efficient way and that deliverables will be accepted by the relevant stakeholders.

PURPOSE

- Oversee all activities needed to maintain a desired level of excellence.
- Includes performing quality planning, quality assurance, quality control and quality improvement.



GUIDELINES

- Actively involve the project core team and relevant stakeholders.
- Identify opportunities to improve the process & deliverables.



QUALITY PROCESS

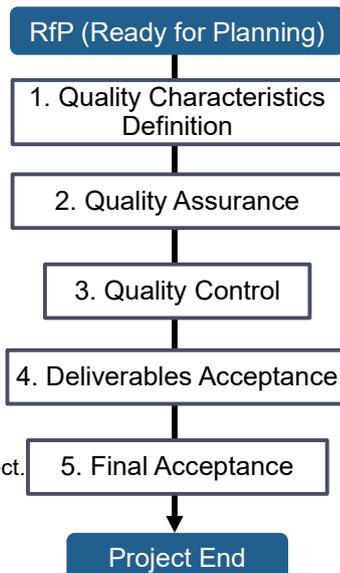
Identify objectives, approach, requirements, activities & responsibilities.

Verify the performance & compliance with the defined quality requirements.

Monitor and consolidate results from the quality assurance activities.

Obtain formal approval from the Project Owner (PO) for each project deliverable.

Manage the final acceptance of the project.



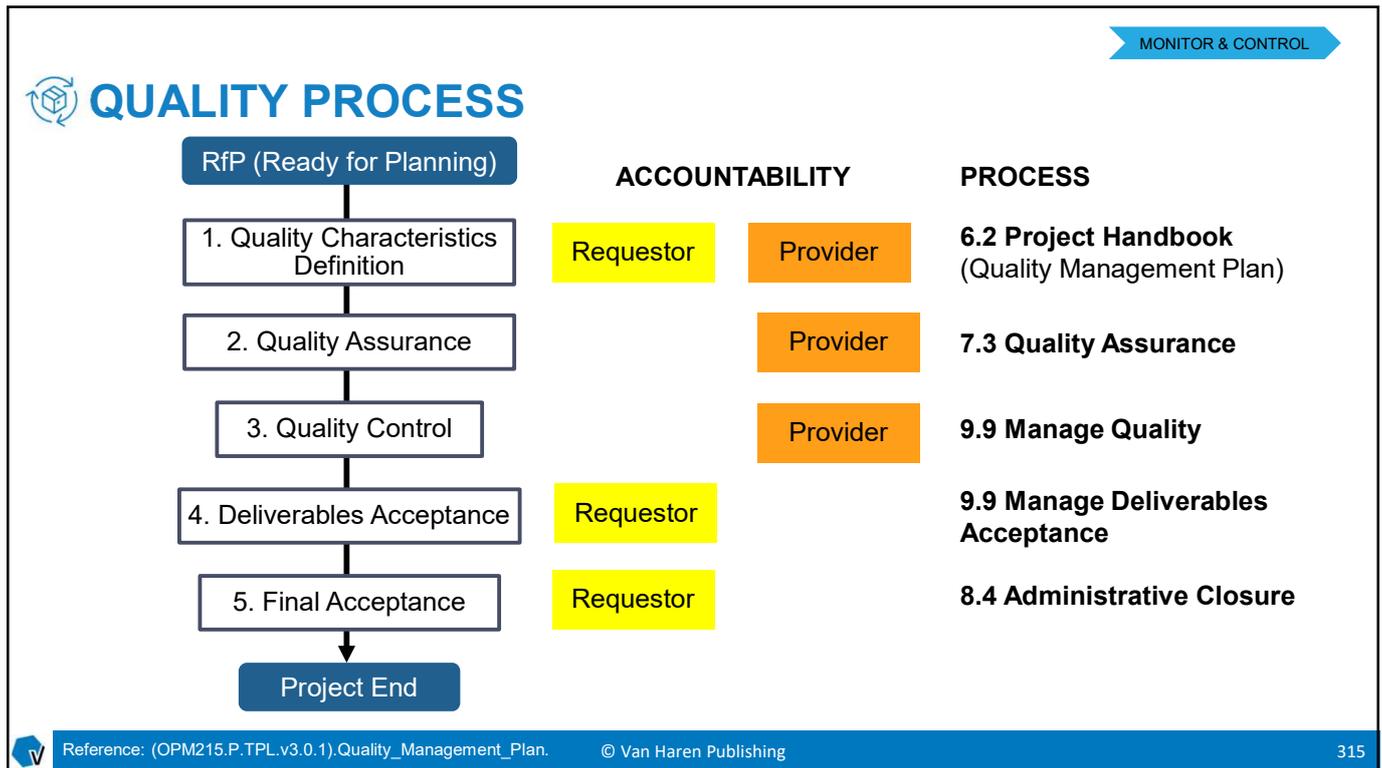
CPMP: Quality Mgt & Deliverables Acceptance Mgt Plan
CPMP: Quality/Deliverables/Phase-exit Checklists

CPMP: Audit reports
CPMP: Project documents update

CPMP: Quality Review Reports
CPMP: Quality/Deliverables/Phase-exit Checklists
CPMP: Project documents update

CPMP: Deliverables Acceptance Note
CPMP: Deliverables Acceptance Checklist

CPMP: Project-End Report
CPMP: Project Repository
CPMP: Project Acceptance Note



MONITOR & CONTROL

QUESTIONS

Q57. Inma is a senior project manager working at INNOVA that is pushing to implement PM². Meanwhile she has become the unofficial project management consultant. A junior project manager approaches her to ask advice regarding quality management. He's willing to improve the quality control of the project management, but he hasn't been able to convince his boss yet. So, he's interested in implementing a good practice with a high effort/benefit ratio, but also allowing him to manage quality at a global level.

Which is most surely to be Inma's answer based on the PM² best practices ?

- Start with the Phase-Exit Review Checklist, as it will show the global quality status of each phase and check the main project management activities to be done.
- The best thing you can do is implement monthly quality reports. This way you can report on the quality status in a detailed and structured way.
- PM² is an integrated methodology, you should first convince your boss to start using it. All quality processes and artefacts are relevant and none can be eliminated.
- Start with the Quality Review Checklist, which overlaps Phase-Exit Review Checklist information and additionally checks all the management activities.

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MANAGE REQUIREMENTS

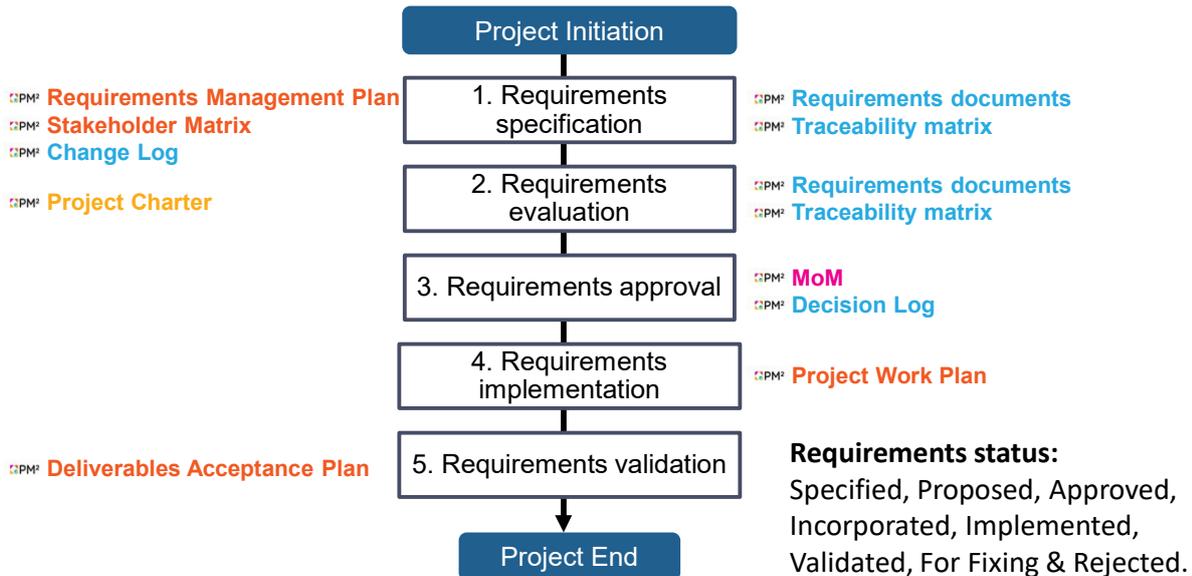
Gathering, documenting, validating requirements and managing their implementation and change.

GUIDELINES

- High-level requirements, specified at the Initiating Phase artefacts. Low-level requirements, described in several formats (text, user stories . . .) usually at the Requirements Document.
- Agreed & approved requirements constitute the project's **scope baseline**.
- Each requirement should correspond to **a test to validate** the acceptance.
- Requirements should **describe the need**, not the solution.
- Crucial to identify and specify as many of the requirements as possible **during planning**.
- Formal approval of the requirements documentation is logged in the Decision log.
- Implemented requirements, the URs validate the deliverables are implemented, the deliverable is validated by the User Representatives (URs).



REQUIREMENTS PROCESS



QUESTIONS

Q58. Elon, the project manager of BIG strategic initiative to merge two main technological systems into one has reached the end of the executing phase. The project has more 1.000 specified requirements and the management has been quite complicated. A key stakeholder reaches Elon claiming that several critical requirements he specified at the beginning of the project have not been implemented.

Which is most likely to be Elon's answer to this claim?

- Elon apologizes that with more than 1.000 requirements there most likely has been a mistake. That you will review the requirements traceability matrix and fix it as soon as possible.
- Elon answers the key stakeholder that he'll open an issue and assign the highest urgency,
- Elon answers that the requirements were rejected, but as being critical they have been postponed to a later project that we'll start once this is finished.
- Elon answers that the requirements will be implemented at the Closing Phase as agreed with the Project Owner.



MANAGE DELIVERABLES ACCEPTANCE

Official start of the executing phase, ensure the team is aware of the what and how.

PURPOSE

- Deliverables acceptance aims to ensure that deliverables will be accepted by the requestor side within an agreed timeframe and that resources involved in deliverables acceptance will be used in the most efficient way.

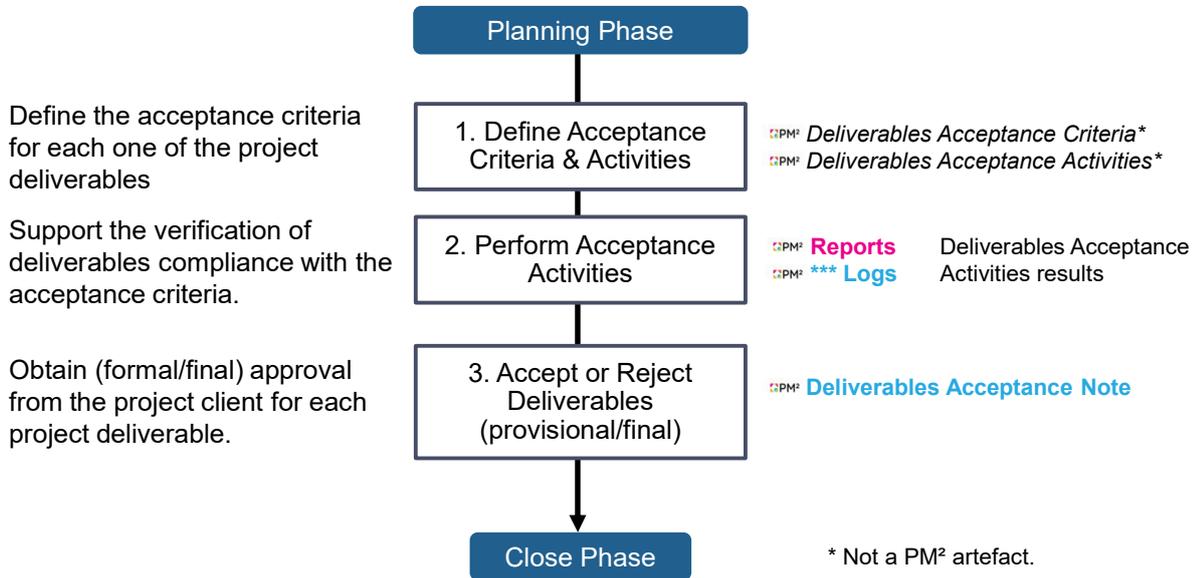
GUIDELINES

- Project Steering Committee provides the general Project acceptance strategy.
- Domain specific acceptance should be reviewed by a subject matter expert/representative.
- Rejected deliverables are considered as a project issue.





DELIVERABLES ACCEPTANCE PROCESS



Reference: (OPM2-08.P.TPL.v3.0.1).Deliverables_Acceptance_Plan

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QUESTIONS

Q59. SCOCCKERKIDS which aims to improve school attendance ratio in marginal neighborhoods through sport activities is dealing with a project at Sao Paolo for the first time. Sally, the project manager, is reviewing the Deliverables Acceptance Plan when she comes across with the following statement at the acceptance criteria: “Happy kids enjoying the sports activities”.

Would this statement be suitable as an acceptance criteria?

- a) Yes, the statement captures the purpose of the project, and it can be better described at the Executing phase.
- b) No, the acceptance criteria should be documented at the Quality Management Plan.
- c) Yes, the statement describes the essence of the project purpose.
- d) No, the statement fails to provide a concrete criteria that can be measured.

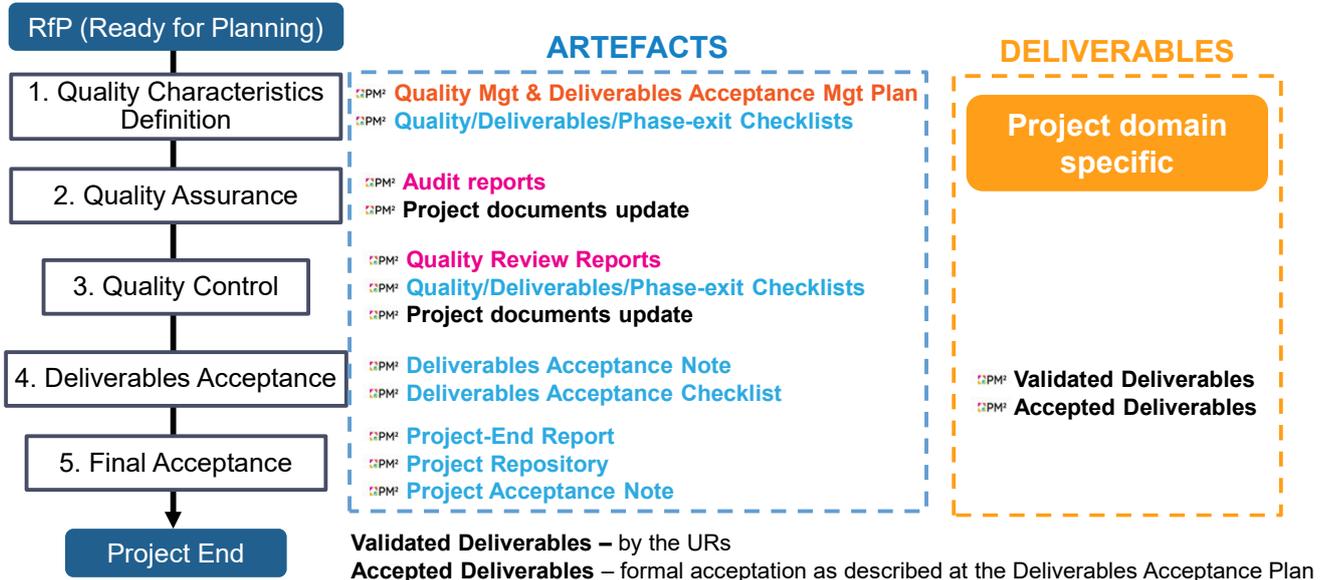


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QUALITY & DELIVERABLES ACCEPTANCE PROCESS



REQUIREMENTS – DELIVERABLES ACCEPTANCE

	STEP	REQUIREMENTS	DELIVERABLES
PLANNING PHASE	Document identification	Requirements Documents	
	Acceptance criteria	Requirements Acceptance Criteria	Deliverables Acceptance Criteria
	Approval	Decision Log	Project Work Plan
EXECUTING PHASE	STEP	REQUIREMENTS	DELIVERABLES
	Test & Validation	→	Test plans (URs)
	Acceptance	→	Deliverables Acceptance (PO)

Once the approved requirements have been approved and baselined, any new or changed requirement should go through the Project Change process. If approved the requirements are directly implemented to the Project Work Plan.

MANAGE REQUIREMENTS



“The Grey Party” 2024 European Parliament elections in Spain

Requirement: all documentation should be released with the 4 official languages

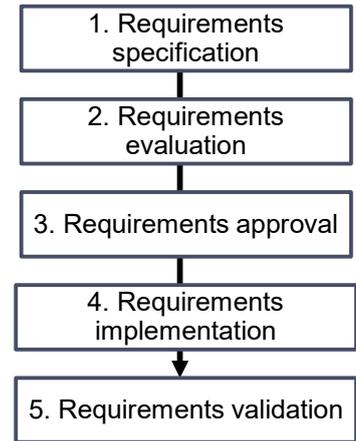
User story: as a member of the regional party with co-official languages I want to be able to read the project documentation with any of 4 official languages in Spain.

Proposal: release external documents with the 4 official languages and the internal documents in Spanish.

Approval: the proposal is approved by the Project Owner and registered at the Decision Log.

Implementation: ensure the requirement is included as a deliverables' acceptance criteria to all the related deliverables.

Validation: a group of 4 URs will confirm that the deliverables includes the four languages.



MANAGE STAKEHOLDERS

Effectively engage with the project stakeholders to adhere them to the project.

PURPOSE

- Identify project stakeholders.
- Capture stakeholder's project expectations and requirements.
- Engage with projects stakeholders throughout project lifecycle.
- Capture stakeholders' overall project experience and satisfaction.

GUIDELINES

- Business Manager supports on the requestor side stakeholders.
- Align the Communication Management Plan with the stakeholders needs.
- Continually monitor stakeholders' reactions or changing attitudes.





COMMUNICATIONS MANAGEMENT PLAN

Ensure that all project stakeholders have the information they need.

PURPOSE

- Communicate most efficiently and effectively to the stakeholders.
- Communicate the project status and job assignment.
- Define a communication strategy for each stakeholder target group.

GUIDELINES

- Avoid duplications, reference between documents.
- Identify stakeholders target groups and determine the required information and purpose.
- Define the communication artefacts, frequency, format. media & responsible.



MANAGE STAKEHOLDERS

UPF ENGINEERING GRADE – PROJECT MANAGEMENT SUBJECT



INCASOL
Institut Català del Sòl

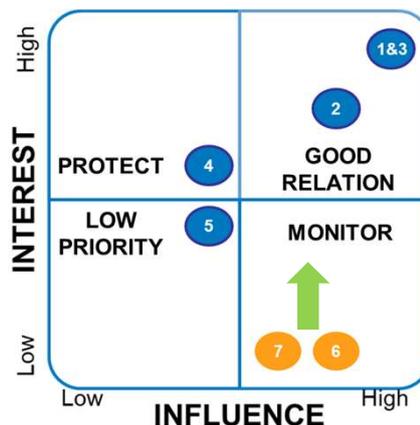


upf. Universitat Pompeu Fabra
Barcelona

1. PO – INCASOL Sustainable Innovation Manager
2. BM - INCASOL Inspector of Bonds
3. SP – UPF faculty
4. PM – UPF Student
5. PCT – UPF Student
6. UPF Head of the Engineering School
7. UPF Head of the Department of Information and Communication Technologies

Actions to improve stakeholders 6&7 interest at the project:

- Negotiate a partnership with Incasol.
- Invite them to attend the final project presentation and speak.





STAKEHOLDER MANAGEMENT



“The Grey Party” 2024 European Parliament elections in Spain

Issue Assessment and Action Description							
Action Details (effort & responsible)	Urgency	Impact	Size	Target Date	Issue Owner	Escalation	Traceability/Comments
Press release and press conference - Social media technician	5	4	4	15/04/2024	Project Owner	Yes	Risk ID33
Choosing a new BM - Appropriate Governance Body							Deliverables D24, D30
Updated list of candidates - Project Owner							
Dismissal of the BM from the party - The Grey Party President							

Are these actions enough to deal with this issue ?
 Would you add any additional actions ?



QUESTIONS

Q60. FoodFoodCoop is a cooperative located in Paris that has successfully created and implemented a member-owned and operated food store as an alternative to commercial profit-oriented business with more than 700 members and 100 as part of the Project Core Team.

Arzella receives an email from Eyra, a project manager who oversees a similar project in Oslo. Eyra is overwhelmed by the large number of stakeholders and is struggling with the communication plan. Eyra has heard that FoodFoodCoop has been a success, so she’s asking Arzella advise.

Which would be the best advise Arzella can give Eyra to develop a communication plan for a project with this high amount of members?

- a) Just keep it as simple as possible.
- b) Don’t worry, it’s a cooperative project, everybody understands that at this type of projects, information will be generated and transmitted between members in a natural way.
- c) You must personalize the information according to the needs of each stakeholder, this is the most important thing to keep in mind.
- d) Use the Stakeholder Interest/Influence Matrix (SIIM) to create target groups and then develop a communication plan taking into account the specific needs of each group.



MANAGE TRANSITION

PURPOSE

- To ensure a controlled and smooth transition from the old state to the new state, in which the new product/service developed by the project is put in place.
- Management of any relevant communication activities.
- Ensure close cooperation between the Project Manager (PM) and the Business Manager (BM).



MANAGE BUSINESS IMPLEMENTATION

PURPOSE

- The effective execution of all business implementation activities that are critical for smooth operations, even after the project's outputs have been delivered to the stakeholder/user community.
- It's good practice to also define some post-project change activities, however, their implementation falls outside the domain of responsibilities of the project

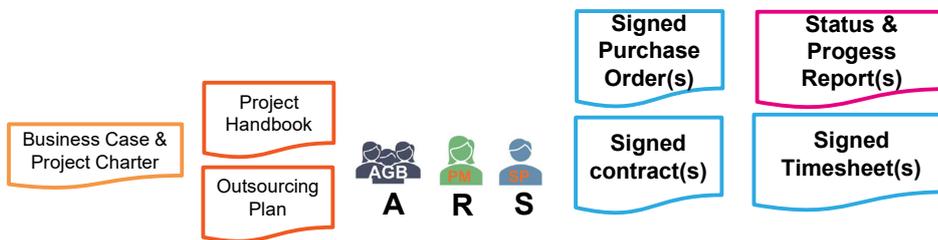


MANAGE OUTSOURCING

PURPOSE

- To ensure with the Contractor's Project Manager (CPM) that the Contractor delivers acceptable quality of work as defined in the Outsourcing Plan.

Note that the EC procurement process supersedes this guideline.



GLOSSARY

- | | |
|--|---|
| PM ² Monitor & Control | PM ² Risk Response Strategies |
| PM ² Manage Stakeholders | PM ² Risk Likelihood/Impact Matrix |
| PM ² Manage Requirements | PM ² Decision Trees |
| PM ² Manage Project Change | PM ² Communication Management Plan |
| PM ² Manage Risk | PM ² Change Log |
| PM ² Manage Issues & Decisions | PM ² Issue Log |
| PM ² Manage Quality | PM ² Risk Log |
| PM ² Manage Deliverables Acceptance | PM ² Decision Log |
| PM ² Manage Transition | PM ² Phase-Exit Review Checklist |
| PM ² Manage Business Implementation | PM ² Quality Review Checklist |
| PM ² Manage Outsourcing | PM ² Stakeholders Checklist |
| PM ² Monitor Project Performance | PM ² Deliverables Acceptance Checklist |
| PM ² Control Schedule | PM ² Transition Checklist |
| PM ² Control Cost | PM ² Business Implementation Checklist |



10. CERTIFICATION PROCESS



COU SEWARE

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CERTIFICATION GUIDELINES



PM² PRATICIONER

PM² FOUNDATION

Exam requirements

- Covered topics
- Required level of understanding
- Number of questions
- Passing score
- Exam time



PM² PRATICIONER

PM² FOUNDATION



CERTIFICATION GUIDELINES



Examination

An exam equivalent to the one delivered to European Institution Staff.



Accreditation of Education Partners

Carefully selected trainers and a quality process to ensure the best training experience possible.



Redeem Social Badge

Showcase your knowledge and achievements on your CV and social media.



Learning Materials

Packaged high quality materials available for trainers and trainees with links to European Commission originals.



PM² FOUNDATION vs PRACTITIONER CERTIFICATION



PM² PRACTITIONER KNOWLEDGE + EXPERIENCE

Practitioner level delves deeper into the application, tailoring, and integration of the PM² methodology into real-world project environments.
Bloom level: 1 ~ 4 (knowledge, comprehension, application and analysis)



PM² FOUNDATION KNOWLEDGE

The certification qualification is aimed at project managers and aspiring project managers that want to enhance their Project Management comprehension with PM² methodology.
Bloom level: 1 & 2 (knowledge and comprehension)



CERTIFICATION REQUIREMENTS



Material allowed	Open book	the candidate will be provided with a digital file of the <i>Project Management Methodology, Guide 3.01</i> during the exam
Exam duration	120 minutes	
Number of marks	60	There are 60 questions, each worth 1 mark. There is no negative marking.
Pass mark	65%	You will need to get 39 questions correct (65%) to pass the exam.
Level of thinking	Bloom level 1~4	'Bloom's level' describes the type of thinking needed to answer the questions.
Question types	Multiple choice case-based	The questions are all 'multiple choice' case-based. Each case environment is described at the question statement.

CERTIFICATION REQUIREMENTS



1. PM² Foundation Certificate (*1)
2. Accredited Course Completion
3. 1Y Project Management Experience
4. PM² Practitioner Exam

(*1) Alternative certifications:

- PMI: CAPM® or PMP®
- OMIMO: P3.Express Practitioner®
- AXELOS: Prince2 Foundation® or Practitioner® (6th o 7th Ed)
- IPMA: level A®, B®, C® or D®
- PM2 Alliance: Essentials®, Advanced®, Expert® or Trainer®

EXAM GUIDELINES



English

certV

Elisabet Duocastella Pla

PM² Practitioner

PM² Foundation

Redeem voucher
(activate a new exam)



Voucher:

- 1 main exam attempt
- 12 Practice exams attempts

Certification validity: 3 Years

11. NEXT STEPS & WRAP UP



STUDYING STEPS

1. **Register at CERTN** webpage & enter the voucher.
2. **Download all the PM² documents:**
 - Project Management Methodology Guide
 - Templates
 - Checklists
 - Project Management Tools & Techniques
3. **Define your certification project**
 - Plan the exam date
 - Plan the resources: when, how and how much we'll study.
 - Plan the work: follow the course structure
4. **Study**
 - Study with the training and PM² material
 - Test your level with a practice exam
 - Analyse & check your gap
 - Re-study, test & check your gap
 - Repeat until you reach the required level
5. Ready to go → choose the **exam data**.
6. **TAKE THE EXAM !!!**

TIP: Group studying



THE EXAM DAY

Before the exam

1. **Sleep well**
2. **Online proctored:**
 - **Computer:** confirm your personal computer has a reliable webcam and internet connection.
 - **Testing space:** confirm the room is distraction-free.

During the exam

1. Track your **time progress**.
2. **Always answer.**
3. **Read** the questions **carefully**.
4. Answer as **PM² best practices and mindest**.
5. **Mark** the questions if you are not sure.
6. Remove **incorrect** answers.
7. **Strong statements** are usually incorrect.



AFTER THE EXAM

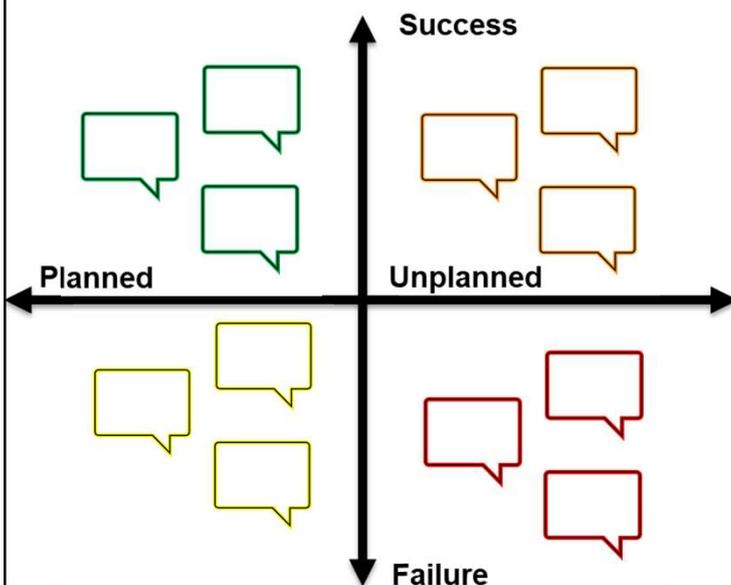
1. **ID verification call:** show your government-issued identification.
2. Wait for the **exam results (email)**.
3. Download the **badge and certificate**.
4. **Feedback** → trainer
5. ...



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WRAP UP



Let's finish the course gathering the lessons learned:

- Success planned
- Success unplanned
- Failure planned
- Failure unplanned

Thank you very much for helping us in our continuous improvement !



READY TO FINISH YOUR PM² PRACTITIONER JOURNEY

Follow the path !



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THANK-YOU !



Practice Questions

PM² Practitioner



Question 1:

After successfully closing your project, you have compiled the final project-end report. According to PM² methodology, where is the best place to store it?

- A. Keep a printed copy of the report in the Project Manager's office for easy access by the project management team.
- B. Send the report via email to all project stakeholders and team members, advising them to save it for future reference.
- C. Upload the report to the company's intranet or a designated project management information system, tagging it for easy retrieval and ensuring controlled access.
- D. Store the report on a personal USB drive or external hard disk to protect sensitive information and hand it over to the department head.

Question 2:

A junior project manager has documented a risk in the risk log with the following description: "There might be some delays in the supply of hardware which can impact the project deadline significantly."

Considering best practices in risk management, what feedback would you give to the junior project manager?

- A. The risk description is precise enough since it highlights a potential delay and its impact; however, adding the likely causes of the delay would make it easier to formulate a mitigation plan.
- B. Clarify the risk by specifying the conditions leading to the hardware supply delay, detailing the events that might occur due to these conditions, and describing the precise impact on the project deadline.
- C. Suggest generalizing the risk to include all possible delays in project tasks, not only hardware supply, and indicate that any delay could affect the project deadline.
- D. Explain that the risk of hardware delay is covered by contingency planning, and only significant unforeseen risks should be recorded; therefore, no action is needed for the risk log entry.

Question 3:

As the Project Manager for NovaTech Solutions' software development project, you've encountered unexpected complexities that have led to a doubling of the project's costs. In fact, the budget for the entire project is already fully spent and there are six more months to go before completion. You are convinced that the project is essential for the company's strategy and survival.

As Project Manager; what should you do?

- A. Immediately halt all project activities and cut losses to prevent further financial drain; doubling the project cost invalidates the original business case.
- B. Review the project's financials and re-evaluate the business case in consultation with the Project Owner (PO) and key stakeholders. Prepare a revised project budget and business case.
- C. Initiate a discussion with the Project Owner (PO) to explore ways to increase the project budget, as the project's strategic importance justifies the additional expenditure.
- D. Propose to temporarily pause project activities not directly related to the core functionality of the software, reducing costs in the short term while evaluating the project's long-term viability and alignment with the business case.

Question 4:

Following the departure of the previous Project Manager from Company XYZ due to issues in developing an effective Work Breakdown Structure (WBS) for an advanced healthcare management system project, you are attending an interview for the vacant PM position. During the interview, you are asked about your technical skills and whether you can handle the project without subject matter experts, given their limited availability. You don't have deep technical expertise in healthcare management systems.

How do you respond to the interviewer's question regarding managing the project without direct access to subject matter experts?

- A. State that a PM's role is to manage the project, not to be a subject matter expert. Explain that you will utilize project management skills to facilitate effective communication, organize brainstorming sessions, and use other strategies to gather necessary input from all stakeholders. Stress that access to subject matter experts will be crucial for the success of the project.
- B. Assert that technical skills are not necessary for a project manager and that you can independently develop the WBS based on online research and general project management principles, without needing input from doctors or nurses.
- C. Propose leveraging advanced project management software tools to automatically generate a WBS and explain that this will reduce the need for the involvement of subject matter experts.
- D. Suggest that detailed documentation and previous project reports in the healthcare management system domain can adequately replace the need for direct input from subject matter experts when developing the WBS.

Question 5:

You're consulting for a multinational corporation that has recently experienced several project failures. After a preliminary review, you've identified that many projects lacked clear alignment with the organization's strategic goals and failed to demonstrate their expected value and feasibility. The executive team is concerned that the current project initiation process does not adequately ensure that projects are thoroughly vetted before approval. They have tasked you with refining the process to prevent future misalignments and failures.

Based on the identified issues, which artefact would you prioritize for improvement to address the lack of strategic alignment and justification in the project initiation process?

- A. Project Initiation Requests: Refine the templates and criteria for initiation requests to include more detailed information on project alignment with strategic goals.
- B. Business Cases: Focus on enhancing the development process for business cases, ensuring they provide a detailed analysis of the project's alignment with strategic objectives, as well as thorough benefit, cost, risk assessments, and feasibility studies.
- C. Project Charters: Revamp the project charter templates to include more comprehensive information on project objectives, scope, and stakeholder roles and responsibilities.
- D. Risk Registers: Develop more detailed risk register templates that encourage early identification and analysis of potential project risks.

Question 6:

In a large financial institution, a project has been initiated to develop a new online banking platform aimed at improving customer experience and expanding the range of digital services offered. The Project Owner has outlined ambitious business objectives for the project, including significant enhancements to security and usability, and the introduction of innovative financial tools. As the project progresses a number of challenges arise, including technological complexities, regulatory compliance issues, and shifting customer expectations. Despite these challenges, the project team, led by the Project Manager, has been proactive in adjusting the project plan, engaging stakeholders, and seeking innovative solutions. However, the project is at risk of missing its original objectives and timelines due to unforeseen challenges.

As the CEO of the company, who will you hold accountable if this project misses its original objectives?

- A. The Project Manager, because they are responsible for the day-to-day management of the project and must navigate the project through challenges to meet the objectives.
- B. The Solution Provider, as they are responsible for delivering the technical solution and should ensure that the technology meets the business needs and objectives.
- C. The Project Owner, because they set out the business objectives, accept the Business Case, and are the owner of the project's outputs.
- D. The Business Manager, because they are tasked with providing leadership and strategic direction alongside the PO and ensuring that business needs are met.

Question 7:

Turi manages a small software development team that is starting a project to update an existing application for a municipality. The update is expected to take three weeks and involves two team members.

Should Turi use the whole PM² methodology to manage this project? Select the most correct answer.

- A. Yes, because all projects benefit from PM²'s structured approach and governance.
- B. No, because the project's duration and team size do not align with PM²'s applicability criteria, she can use SCRUM or micro.P3.express.
- C. Yes, because projects for public bodies are best managed with PM².
- D. No, because PM²'s governance and documentation requirements are best not used for software projects.

Question 8:

Your organization has recently decided to implement a new software system to enhance operational efficiency. As part of this initiative, you are tasked with overseeing the transition from the old system to the new one.

Which of the following scenarios best represents this situation as a project rather than business as usual?

- A. The IT department performs regular system maintenance and updates on the new software system to ensure it runs smoothly.
- B. The organization conducts ongoing training for all staff to familiarize them with the new system as part of their daily work routine.
- C. A temporary, cross-functional team is formed to manage the selection, implementation, and transition phases, including a defined start and end date for this transition.
- D. The customer service team uses the new software system to manage client inquiries as part of their standard operational procedures.

Practice Questions
Answers & feedback
PM² Practitioner



Question 1:

After successfully closing your project, you have compiled the final project-end report. According to PM² methodology, where is the best place to store it?

- A. Keep a printed copy of the report in the Project Manager's office for easy access by the project management team.
- B. Send the report via email to all project stakeholders and team members, advising them to save it for future reference.
- C. Upload the report to the company's intranet or a designated project management information system, tagging it for easy retrieval and ensuring controlled access.**
- D. Store the report on a personal USB drive or external hard disk to protect sensitive information and hand it over to the department head.

Correct Answer: C

Feedback:

Storing the final project-end report on the company's intranet or a designated project management information system ensures it is centrally accessible and securely available to authorized stakeholders. This approach facilitates easy retrieval and knowledge sharing, allowing future projects to benefit from past insights and lessons learned. Controlled access also helps maintain confidentiality and data integrity, aligning with best practices in organizational knowledge management.

Question 2:

A junior project manager has documented a risk in the risk log with the following description: “There might be some delays in the supply of hardware which can impact the project deadline significantly.”

Considering best practices in risk management, what feedback would you give to the junior project manager?

- A. The risk description is precise enough since it highlights a potential delay and its impact; however, adding the likely causes of the delay would make it easier to formulate a mitigation plan.
- B. Clarify the risk by specifying the conditions leading to the hardware supply delay, detailing the events that might occur due to these conditions, and describing the precise impact on the project deadline.**
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- D. Explain that the risk of hardware delay is covered by contingency planning, and only significant unforeseen risks should be recorded; therefore, no action is needed for the risk log entry.

Correct Answer: B**Feedback:**

The risk should be structured to articulate the condition that could cause the delay (e.g., “Because of global supply chain disruptions”), the event that might occur (“it might be that the delivery of critical hardware components is delayed”), and the impact on the project (“which will lead to a potential project delay of up to three weeks, affecting the planned launch date”).

Question 3:

As the Project Manager for NovaTech Solutions' software development project, you've encountered unexpected complexities that have led to a doubling of the project's costs. In fact, the budget for the entire project is already fully spent and there are six more months to go before completion. You are convinced that the project is essential for the company's strategy and survival.

As Project Manager; what should you do?

- A. Immediately halt all project activities and cut losses to prevent further financial drain; doubling the project cost invalidates the original business case.
- B. Review the project's financials and re-evaluate the business case in consultation with the Project Owner (PO) and key stakeholders. Prepare a revised project budget and business case.**
- C. Initiate a discussion with the Project Owner (PO) to explore ways to increase the project budget, as the project's strategic importance justifies the additional expenditure.
- D. Propose to temporarily pause project activities not directly related to the core functionality of the software, reducing costs in the short term while evaluating the project's long-term viability and alignment with the business case.

Correct Answer: B

Feedback:

By reviewing the financials and re-evaluating the business case, you are taking a structured approach to addressing the budget overrun issue. In consultation with the Project Owner and key stakeholders, this approach ensures that any decision made is informed, transparent, and aligns with the organization's strategic objectives. Preparing a revised project budget and business case allows for a re-assessment of the project's value proposition and ensures that it continues to meet the company's strategic needs despite the cost overruns. This process may also identify opportunities for cost optimization or scope adjustment to align the project with the available budget or justify the need for additional resources.

Question 4:

Following the departure of the previous Project Manager from Company XYZ due to issues in developing an effective Work Breakdown Structure (WBS) for an advanced healthcare management system project, you are attending an interview for the vacant PM position. During the interview, you are asked about your technical skills and whether you can handle the project without subject matter experts, given their limited availability. You don't have deep technical expertise in healthcare management systems.

How do you respond to the interviewer's question regarding managing the project without direct access to subject matter experts?

- A. State that a PM's role is to manage the project, not to be a subject matter expert. Explain that you will utilize project management skills to facilitate effective communication, organize brainstorming sessions, and use other strategies to gather necessary input from all stakeholders. Stress that access to subject matter experts will be crucial for the success of the project.**
- B. Assert that technical skills are not necessary for a project manager and that you can independently develop the WBS based on online research and general project management principles, without needing input from doctors or nurses.
- C. Propose leveraging advanced project management software tools to automatically generate a WBS and explain that this will reduce the need for the involvement of subject matter experts.
- D. Suggest that detailed documentation and previous project reports in the healthcare management system domain can adequately replace the need for direct input from subject matter experts when developing the WBS.

Correct Answer: A

Feedback:

A Project Manager's core competencies include organizing, planning, and leading the project team, rather than having deep technical expertise in every aspect of the project's content.

Question 5:

You're consulting for a multinational corporation that has recently experienced several project failures. After a preliminary review, you've identified that many projects lacked clear alignment with the organization's strategic goals and failed to demonstrate their expected value and feasibility. The executive team is concerned that the current project initiation process does not adequately ensure that projects are thoroughly vetted before approval. They have tasked you with refining the process to prevent future misalignments and failures.

Based on the identified issues, which artefact would you prioritize for improvement to address the lack of strategic alignment and justification in the project initiation process?

- A. Project Initiation Requests: Refine the templates and criteria for initiation requests to include more detailed information on project alignment with strategic goals.
- B. Business Cases: Focus on enhancing the development process for business cases, ensuring they provide a detailed analysis of the project's alignment with strategic objectives, as well as thorough benefit, cost, risk assessments, and feasibility studies.**
- C. Project Charters: Revamp the project charter templates to include more comprehensive information on project objectives, scope, and stakeholder roles and responsibilities.
- D. Risk Registers: Develop more detailed risk register templates that encourage early identification and analysis of potential project risks.

Correct Answer: B

Feedback:

Focussing on the Business Case is the most effective approach to addressing the core issue of projects not being adequately aligned with the organization's strategic goals or failing to demonstrate their expected value and feasibility. By prioritizing the improvement of the Business Case artefact, you ensure that each project is evaluated in terms of its strategic fit, benefits, costs, risks, and overall feasibility before any decision is made regarding its initiation. This artefact is critical in the project initiation phase as it provides the necessary justification for the project, helping decision-makers assess whether the project aligns with strategic objectives and is worth the investment. Improving how business cases are developed and assessed can significantly reduce the likelihood of initiating projects that are not viable or strategically aligned.

Question 6:

In a large financial institution, a project has been initiated to develop a new online banking platform aimed at improving customer experience and expanding the range of digital services offered. The Project Owner has outlined ambitious business objectives for the project, including significant enhancements to security and usability, and the introduction of innovative financial tools. As the project progresses a number of challenges arise, including technological complexities, regulatory compliance issues, and shifting customer expectations. Despite these challenges, the project team, led by the Project Manager, has been proactive in adjusting the project plan, engaging stakeholders, and seeking innovative solutions. However, the project is at risk of missing its original objectives and timelines due to unforeseen challenges.

As the CEO of the company, who will you hold accountable if this project misses its original objectives?

- A. The Project Manager, because they are responsible for the day-to-day management of the project and must navigate the project through challenges to meet the objectives.
- B. The Solution Provider, as they are responsible for delivering the technical solution and should ensure that the technology meets the business needs and objectives.
- C. The Project Owner, because they set out the business objectives, accept the Business Case, and are the owner of the project's outputs.**
- D. The Business Manager, because they are tasked with providing leadership and strategic direction alongside the PO and ensuring that business needs are met.

Correct Answer: C

Feedback:

In PM² methodology, the Project Owner (PO) is ultimately responsible for the project. This role involves not just setting the project's objectives but also owning the project's outputs and ensuring that these outputs achieve the intended business outcomes. While the Project Manager (PM) is responsible for the operational management of the project and ensuring that project activities are executed within the constraints of scope, time, and budget, the PO has the ultimate responsibility for the project's success in terms of meeting its business objectives.

Question 7:

Turi manages a small software development team that is starting a project to update an existing application for a municipality. The update is expected to take three weeks and involves two team members.

Should Turi use the whole PM² methodology to manage this project? Select the most correct answer.

- A. Yes, because all projects benefit from PM²'s structured approach and governance.
- B. No, because the project's duration and team size do not align with PM²'s applicability criteria, she can use SCRUM or micro.P3.express.**
- C. Yes, because projects for public bodies are best managed with PM².
- D. No, because PM²'s governance and documentation requirements are best not used for software projects.

Correct Answer: B

Feedback:

To be able to apply the whole PM² methodology, a project must have certain characteristics. The project:

- Is (above all) a project (i.e. not operations, not a work activity, not a programme, etc.).
- Has a duration of more than 4–5 weeks and involves more than 2–3 people.
- Runs within an organization and can be subject to internal or external audits.
- Requires a clearly defined governance structure and clearly assigned roles and responsibilities.
- Requires approval of its budget and scope.
- Includes more than just construction/delivery activities.
- Includes transition and business implementation activities.
- Requires a certain level of documentation, transparency and reporting.
- Requires a certain level of control and traceability.
- Has a broad base of internal (and external) stakeholders.
- May require the collaboration of several organizations or organizational units

Contributes to raising the organization's project management maturity.

Question 8:

Your organization has recently decided to implement a new software system to enhance operational efficiency. As part of this initiative, you are tasked with overseeing the transition from the old system to the new one.

Which of the following scenarios best represents this situation as a project rather than business as usual?

- A. The IT department performs regular system maintenance and updates on the new software system to ensure it runs smoothly.
- B. The organization conducts ongoing training for all staff to familiarize them with the new system as part of their daily work routine.
- C. A temporary, cross-functional team is formed to manage the selection, implementation, and transition phases, including a defined start and end date for this transition.**
- D. The customer service team uses the new software system to manage client inquiries as part of their standard operational procedures.

Correct Answer: C

Feedback:

A project is temporary (with specific start and end dates) and cross-functional, involving team members from different departments. This contrasts with business as usual, which involves ongoing, repetitive processes to maintain the organization's day-to-day operations, as illustrated in the other options.



Project Management Methodology

Guide 3.1

European Commission
Centre of Excellence in Project Management (CoEPM²)

PM² Project Management Methodology
Guide 3.1



Brussels | Luxembourg, 2023

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1 An Introduction to the PM² Guide

1.1 Objectives

This guide sets out to provide an introduction to the PM² Project Management Methodology. It has been kept as lean as possible, while still providing enough information to allow for an effective understanding of the PM² Methodology as practitioners start to use it.

1.2 Intended Audience

- Entry-level Project Managers (PMs) and project teams wishing to learn more about project management and the PM² Methodology.
- Experienced Project Managers (PMs) and team members who wish to learn more about the PM² Methodology.
- Project teams that wish to start using the PM² Methodology 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 practices—it is up to the Project Managers (PMs) and project teams to choose the PM² practices that will bring most value to their projects
- links to PM² resources (online resources, Artefact templates and examples)
- an introduction to other PM² models, such as PM²-Agile, PM²-PgM (for Programme Management) and PM²-PfM (for Portfolio Management).

This guide can be read from beginning to end, to learn about the methodology, or it can be used as a reference, to help you as you practise PM².

1.3 About the PM² Methodology

PM² is a Project Management Methodology developed by the European Commission. Its purpose is to enable Project Managers (PMs) to deliver solutions and benefits to their organisations by effectively managing the entire lifecycle of their project. PM² has been created with the needs of European Union Institutions and projects in mind, however, the best practices described in PM² are applicable to projects in any organisation.

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

PM² incorporates elements from a wide range of globally accepted project management best practices, captured in standards and methodologies. Its development has also been influenced by operational experience on various projects both within European Union Institutions and external bodies.

The PM² Methodology provides:

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

PM² improves the effectiveness of project management by:

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

1. An Introduction to the PM² Guide

1.4 The Centre of Excellence in PM² (CoEPM²)

The purpose of the Centre of Excellence in PM² (CoEPM²) is to provide the European Commission and European Union Institutions with high-quality project management infrastructure, support and consulting services. The CoEPM² supports the PM² Methodology internally, coordinates an inter-institutional Project Support Network, and promotes the wider adoption and use of PM² beyond the European Union Institutions through the Open PM² initiative and the Digital Europe Programme.

1.5 The Open PM² Initiative

Open PM² is a European Commission initiative, which brings the PM² Methodology and its benefits closer to its broader stakeholders and user community.

The Open PM² Initiative provides European Union institutions, contractors and public administrations, as well as broader stakeholders, with open access to the PM² publications and associated resources. Its goal is to enable increased effectiveness in the management of projects, programmes, and portfolios and thus to serve the objectives of the European Union and the needs of member states and citizens.

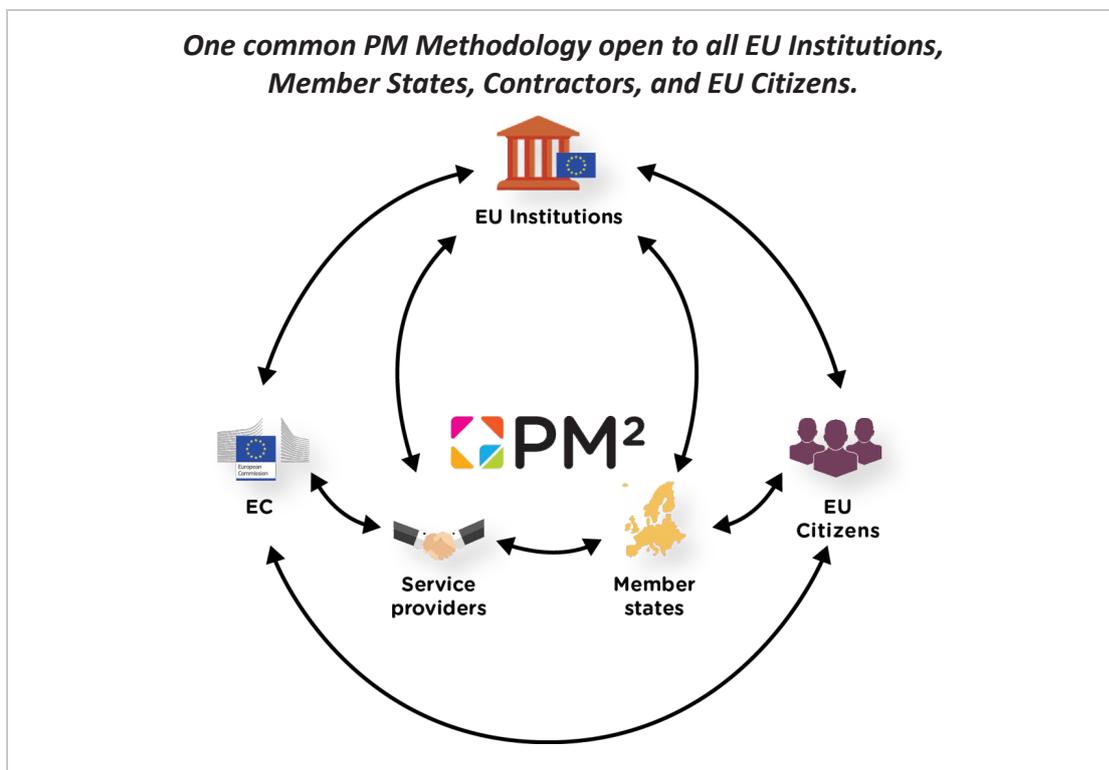


Fig 1.1 Open PM² Synergies

The Initiative also seeks to rectify mistakes of the past, when efforts were duplicated and divergent project management approaches were sponsored rather than promoting convergent approaches based on *similarities* and the *common interest* of the broader European community.

By opening PM², the Initiative aims to enhance project management competency within Europe, leading to increased project efficiency and success.

Opening PM² does this by:

- rationalising project management approaches across European Union Institutions and beyond
- establishing a common language and processes, resulting in effective project communication
- providing a common set of productive mindsets
- enabling transparency and visibility for cross-organisational project collaborations
- enabling better project management, leading to improved cost/effort efficiency
- enabling the improved monitor and control of European Union-funded projects and grants
- applying the European Commission decision of 12 December 2011 (2011/833/EU) on the *reuse of Commission documents to promote accessibility and reuse*.

1.5.1 PM² Publications

The Centre of Excellence in PM² (CoEPM²) provides a central online location for all PM² information, and resources.

- PM² website <https://pm2.europa.eu>
- Contact https://pm2.europa.eu/contact-us_en

You can also download directly all PM² Guides from the [Publications Office of the European Union](#).

1.5.2 Project Support Network

The PM² Project Support Network is an EU Institutions wide network of Local Project Support Offices (LPSOs) which are coordinated and supported by the Centre of Excellence in PM² (CoEPM²). The PM² Project Support Network (PSN) aims to become a decentralised project management support network which provides guidance and support to PM² users on both the PM² Methodology and the effective use of project management tools & techniques more broadly.

The Project Support Network:

- promotes the exchange and sharing of knowledge, experiences and best practices
- makes it possible to collect feedback to continuously improve and build on the PM² Methodology
- enables the Local Project Support Offices (LPSOs) to support each other as a community
- depends 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 a better understanding of the PM² Methodology.

2.1 About Projects

2.1.1 What is a project?

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

- **Temporary** means that the project has a well-defined start and end.
- **Unique output** means that the project's product or service has not been created before. It may be similar to another product, but there will always be a degree of uniqueness.
- A project's output may be a **product** (e.g. a 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**. These can relate to scheduling, budgeting, quality, but also to the project's organisational environment (e.g. risk attitude, capabilities, available capacity, etc.).

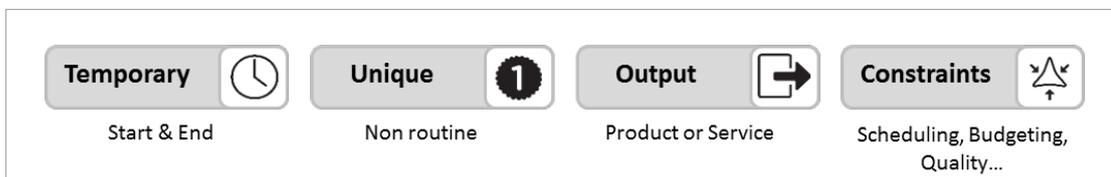


Fig 2.1 Key project characteristics

A successful project ends when its scope objective has been achieved and all deliverables have been produced and accepted by the organisation or person that requested the project (the client). The deliverables are then handed over to the client and the project team is disbanded.

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

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

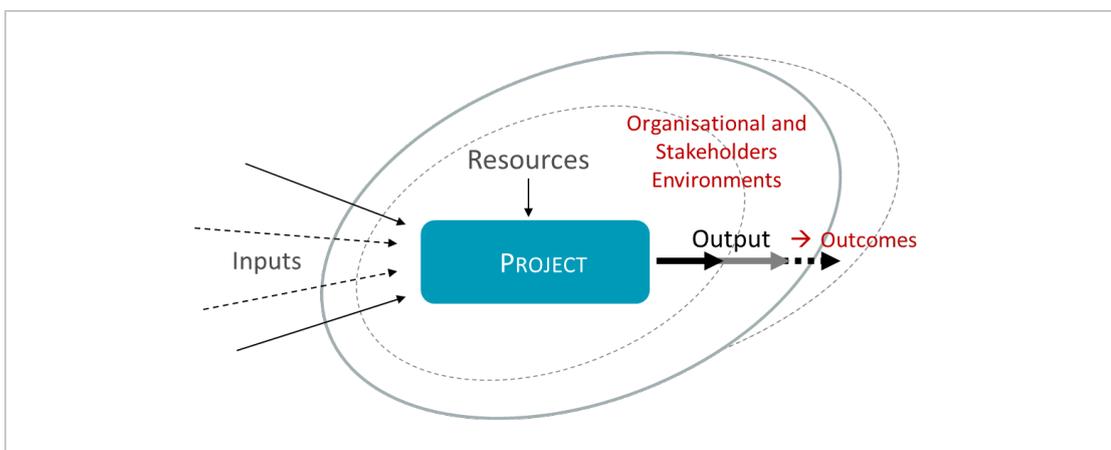


Fig 2.2 A project as a transformational process which turns ideas into reality

2. Project Management

2.1.2 Why we do projects

Every project aims to introduce a new product/service or to improve an existing one. Achieving the goal is expected to bring about benefits to the organisation (e.g. a new organisation-wide document management system can increase productivity by introducing a new way of searching, reading and filing documents). A project can also be seen as a transformational process, which turns ideas into reality.

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

Projects start for many different reasons:

- In response to a client request for a new product or service.
- In response to a market demand or opportunity for a new product or service.
- In response to a change in legislation or organisational needs.
- In response to an audit which outlines improvements that should be made.
- In response to a new product or service from a competitor.
- To make use of a new technology.
- To integrate processes in the light of the merger of two or more departments or organisations.
- To update an existing process.
- To relocate to new premises.
- To raise awareness on a topic.
- To provide a proof-of-concept.
- To migrate information to a new document management system.
- To improve an existing service.

2.1.3 Project outputs, outcomes, benefits

Although project teams tend to focus their efforts on producing deliverables, it should be remembered that project deliverables are merely a means to an end. The real purpose of a project is to achieve given outcomes that will yield measurable benefits.

Therefore, it is important for everyone involved in managing and executing a project (managers and team members) to understand the relationship between project outputs, outcomes and benefits. They must be able to identify the outputs, outcomes and benefits of their projects. Without this understanding, the project participants can lose sight of the project’s original purpose and produce deliverables, which are of little (or no) value to the organisation. Thus:

- Project outputs (deliverables) are products/services, which introduce something new (a change).
- The change results in an outcome.
- The benefits are the measurable improvements resulting from this outcome.

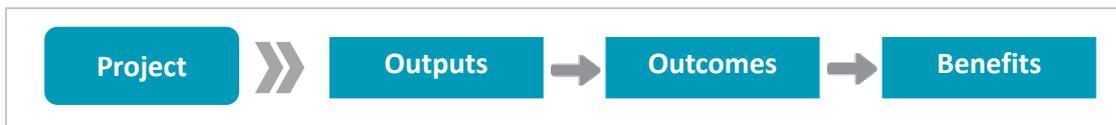


Fig 2.3 Project outputs, outcomes and benefits

Note that project outcomes and benefits are often realised only after the project has closed.

The table below illustrates this with a simple example:

Example of outputs, outcomes and benefits.	
Project Output	Adoption of the PM ² Methodology within an organisation.
Project Outcomes	<ul style="list-style-type: none"> • Increased project quality. • Improved visibility of project objectives, status and forecasts. • Capability to have better control over contractor work and deliverables.
Project Benefits	<ul style="list-style-type: none"> • Project cost overruns decreased by 30% • Productivity increased by 30%.

2.2 About Project Management

2.2.1 What is Project Management?

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

The project management approach used should always be tailored to the needs of the project. When using PM², a Project Manager (PM) should use (and if needed after tailoring) only those parts that contribute to the effective management of their project.

2.2.2 Project Documentation

Project documentation is a key activity in project management. It carries through from the start of a project to its completion. Project documentation:

- sharpens thinking by forcing people to put vague thoughts and plans into words
- crystallises planning
- defines the project scope for approval, ensuring that all project stakeholders and project team members share the same expectations on what is to be delivered and when
- provides all stakeholders with a clear picture of the project requirements
- facilitates communication with internal and external groups
- provides a baseline for monitoring and controlling a project's progress
- provides a record of important decisions
- provides the information required by official audits
- supports organisational memory and acts as a historical reference, which can be used to increase the chances of success of future projects.

Project documentation should of course, adhere to the quality standards of the organisation and the project regarding format, style, etc. However, above all, it should add value fulfilling its purpose and be clear and easy to understand.

2.2.3 The Project Support Office (PSO)

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

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

2.2.4 Programme Management

A programme is a set of **related projects and activities** managed in a **coordinated** way to achieve **strategic objectives and benefits** that could not be obtained if they were managed individually. The projects within a programme all contribute to the common programme goals and are interdependent. In addition to projects, a programme often includes elements of related work (programme-level activities) outside the scope of its projects.

Programme management is different from multi-project management (managing many projects in parallel). Thus, while a Programme Manager (PgM) coordinates efforts between projects, s/he 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 to allow better control over their financial and other resources and to facilitate their effective management

2. Project Management

in terms of meeting strategic objectives. The projects or programmes in a portfolio are not necessarily inter-dependent or inter-related. From a strategic point of view, portfolios are higher-level components than programmes and projects. It is at the portfolio level that investment decisions are made, resources allocated, and priorities identified.

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



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

2.2.6 Projects vs Operations

Projects are temporary and should therefore have a definite start and end. A project should be considered complete when it is determined that its goals and objectives have been accomplished. Once this happens, the project team should be disbanded.

Operations, on the other hand, comprises the ongoing day-to-day activities undertaken by a permanent organisation to deliver services or products.

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

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

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

- The main project deliverables have been produced and the client has accepted them.
- The main project output (deliverable) is in use.
- Support is provided to users.
- Maintenance activities are undertaken.
- Minor updates (improvements) are planned and implemented over time.

2.3 Project Environment

2.3.1 Project Organisation

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

There are typically several ways of organising projects within an organisation, which utilise one of the following structures or a combination of them.

The Functional Structure

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

The Projectized Structure

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

The Matrix Structure

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

2.3.2 Developing Project Management Competences

Project management involves much more than creating schedules and budgets, and Project Managers (PMs) must have a wide range of technical and behavioural skills at their disposal.

To develop the competences required to manage projects effectively. Project Managers (PMs) need to:

- understand how projects are handled within the organisation (talk to colleagues)
- review any project methodologies, standards and frameworks that exist in the organisation
- follow a project management course (e.g. a course offered by a recognised PM² training provider)
- reflect on their project management—what is successful, what could be improved?
- become an active member of the PM² Community—participate in forum discussions and learn from questions asked by other Project Managers (PMs)
- talk to more experienced Project Managers (PMs) about how they run their projects.

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

2. Project Management

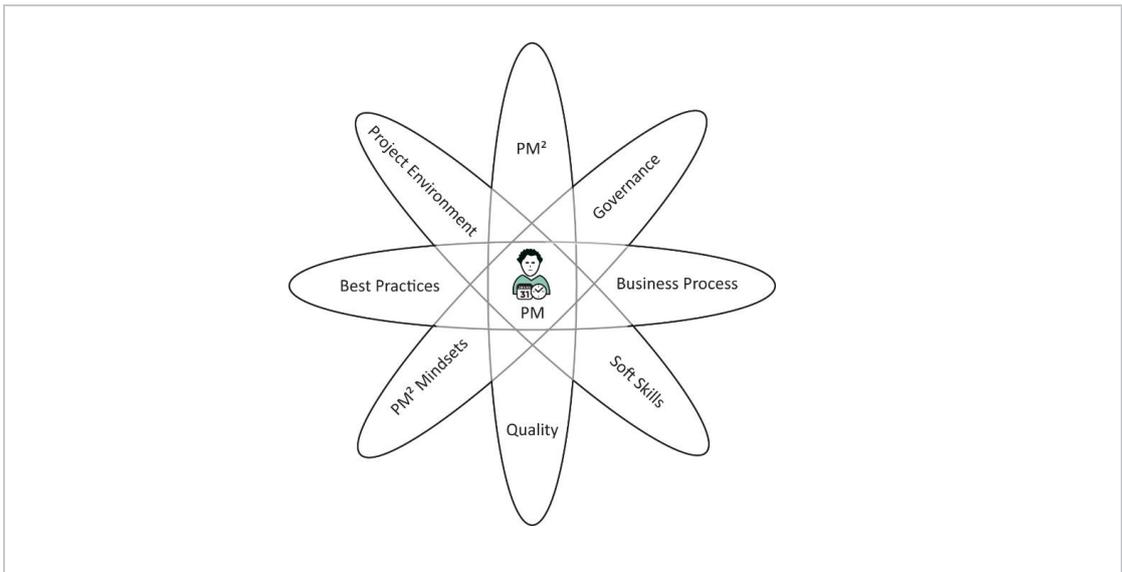


Fig 2.5 What Project Managers (PMs) need to understand.

2.3.3 Project Management Competences

Project Managers (PMs) need to:

- understand the project management methodology used in their organisation (e.g. PM²)
- have the technical competences required to effectively manage the initiation, planning, execution, monitoring, controlling, and closing of a project.

On top of this, the role requires skills to work effectively with people and within the broader organisational context. These include the contextual and behavioural skills necessary to manage complex projects with diverse teams and stakeholder groups that have pluralistic and conflicting priorities.

Project Managers (PMs) thus also need to know/understand:

- how to communicate, lead, motivate, negotiate, solve problems and deal with issues, conduct meetings and workshops, report project status, etc.
- the business context and the general project environment (i.e. sociocultural, political, physical, etc.)
- organisational policies and standards (e.g. security, organisational architecture, audits, etc.)
- how the end-product or service will be maintained after it is delivered.

Additionally, subject-specific knowledge (e.g. IT, policy, etc.) is often relevant and useful to a Project Manager’s (PM) role.

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

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

People Competences	Perspective Competences
<ul style="list-style-type: none"> • Self-reflection and self-management • Personal integrity and reliability • Personal communication • Relationships and engagement • Leadership • Teamwork • Conflict and crisis management • Resourcefulness • Negotiation • Results orientation 	<ul style="list-style-type: none"> • Strategy • Governance, structures and processes • Compliance, standards and regulations • Power and interest • Change and transformation • Culture and values

Source: IPMA-ICB (adapted)

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

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

Such decisions and tensions become easier to manage when Project Managers (PMs) have developed an ethical disposition, which involves the balancing of goals and skills, personal integrity and moral virtue.

Although all virtues (logical and moral) affect all competences, the virtues of judgment, prudence and insightfulness are (comparatively) more related to demonstrating the perspective competencies, while the moral virtues of honesty, fairness, friendliness, generosity, temperance, courage, humour, and magnanimity and magnificence, are (comparatively) more related to demonstrating people competences (see Appendix F).

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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. documentation templates and guidelines).

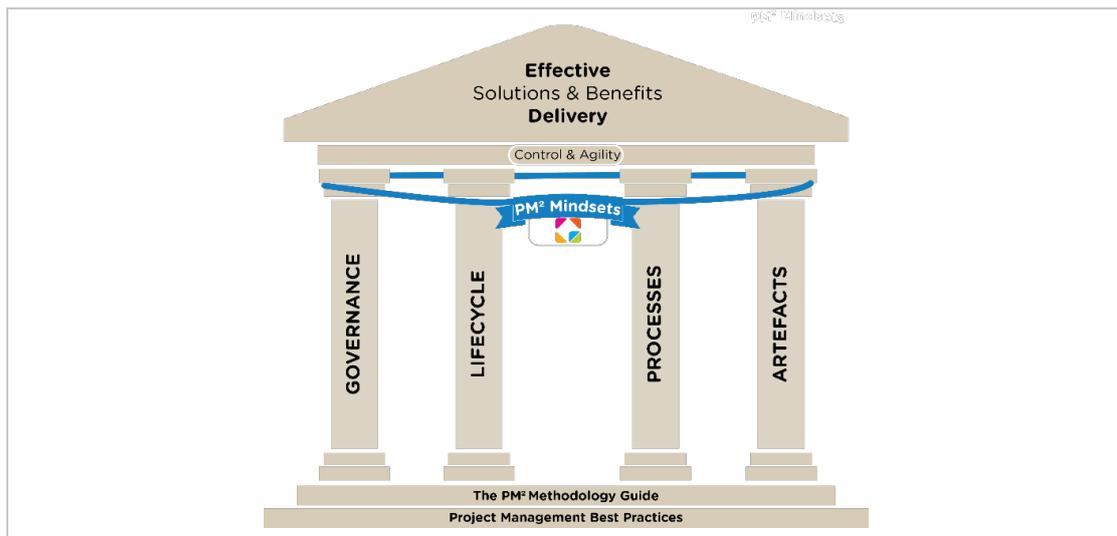


Fig 3.1 The House of PM²

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

3.2 The PM² Lifecycle

The PM² project lifecycle has four sequential and non-overlapping phases with a different type of activity predominant in each phase (i.e. initiating activities are predominant in the Initiating Phase, etc.). However, while phase-related activities peak in terms of effort during a specific phase, activities of this type can also be executed during neighbouring phase(s) (e.g. planning activities are also repeated in the Executing Phase).

A project moves on to the next phase when the goals of its current phase have been deemed achieved as the results of a formal (or less formal) phase-exit review.

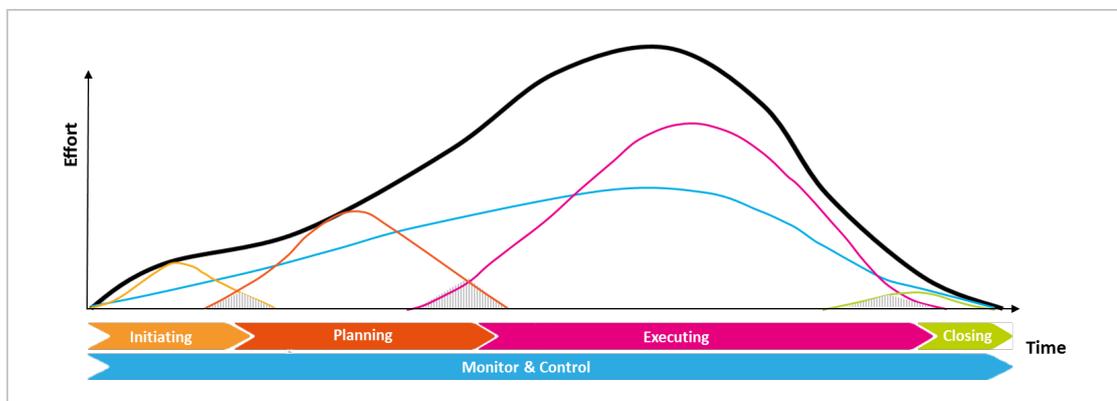


Fig 3.2 The PM² project lifecycle: indicative overlap of phase activities and cumulative effort

3. Overview of the PM² Methodology

The focus of a project shifts from initiating and planning activities in the beginning to executing, monitoring and controlling activities in the middle and acceptance, transitioning and closing activities at the end.

Inexperienced project teams sometimes underestimate the importance of the work done in the initial project phases and start working on deliverables that are inadequately defined or planned. This results in the delivery of outputs, which are of poor quality and of little value to end-users. This is a common and costly mistake, which is often the root cause of overall project failure and the failure to realise the project’s intended benefits. It is therefore important to invest adequate time during the Initiating Phase to define the desired outcomes by engaging a broad spectrum of stakeholders.

Project Phase	Description
1. Initiating	Define the desired outcomes. Create a Business Case. Define the project scope. Get the project off to a good start.
2. Planning	Assign the Project Core Team (PCT). Elaborate the project scope. Plan the work.
3. Executing	Coordinate the execution of project plans. Produce deliverables.
4. Closing	Coordinate formal acceptance of the project. Report on project performance. Capture Lessons Learned and post-project recommendations. Close the project administratively.
Monitor & Control	Oversee all project work and management activities over the duration of the project: monitor project performance, measure progress, manage changes, address risks and issues, identify corrective actions etc.

3.2.1 Initiating Phase



The first phase of a PM² project is the Initiating Phase. During this phase, the people involved formulate the project’s objective(s), ensure the project’s alignment to the organisation’s strategic objectives, undertake some initial planning to get the project off to a good start, and put together the information required to gain approval to continue to the Planning Phase. The main input of this phase is a (client) request to address a need, problem or opportunity.

The following activities are part of the Initiating Phase:

- Creation of the Project Initiation Request which contains information about the requestor, business needs and the desired project outcomes.
- Creation of the Business Case, which provides a business justification, defines the project’s budgetary requirements, and outlines the business context, problem and project descriptions, alternative solutions, and a high-level roadmap.
- Creation of the Project Charter, which provides more details on the project definition in terms of scope, cost, time and risk. It also defines milestones, deliverables, project organisation, etc.

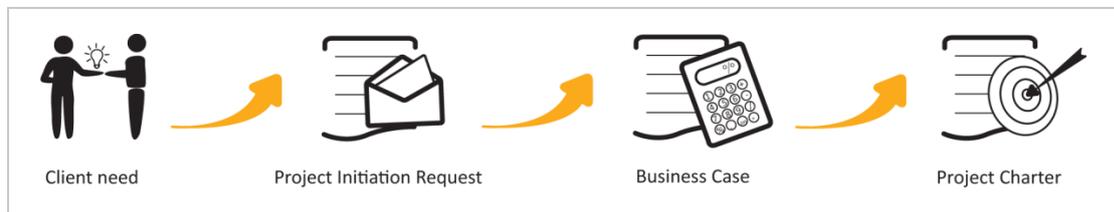


Fig 3.3 Overview of the Initiating Phase

The Business Case and Project Charter define the project’s scope and direction. The Project Manager (PM) and the Project Core Team (PCT) reference and use both throughout the project.

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

3.2.2 Planning Phase



The second phase of a PM² project is the Planning Phase. During the Planning Phase, the project's objective is developed into a specific and workable plan ready to be executed. The Project Work Plan specifies the project scope and appropriate approach, decides on a schedule for the tasks involved, estimates the necessary resources and develops the detail of the project plans. Several times during the Planning Phase, the Project Work Plan can be updated. Once agreed and finalised it is baselined and signed off.

The following activities are part of the Planning Phase:

- Running the Planning Kick-off Meeting to officially start the Planning Phase.
- Creating the Project Handbook, which defines the project's management approach.
- Developing the Project Work Plan (Work Breakdown, Effort and Costs, Schedule).
- Updating the Project Stakeholder Matrix, which identifies all project stakeholders.
- Creating other important plans such as the Communications Management Plan, the Transition Plan and the Business Implementation Plan.



Fig 3.4 Overview of the Planning Phase

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

3.2.3 Executing Phase



The third phase of a PM² project is the Executing Phase. During the Executing Phase the project team produces the project deliverables (outputs) as outlined in the Project Work Plan. This is typically the stage of the project lifecycle that involves the most resources and requires the most monitoring.

The following activities are part of the Executing Phase:

- Running the Executing Kick-off Meeting.
- Distributing information based on the Communications Management Plan.
- Performing Quality Assurance (QA) activities as defined in the Quality Management Plan
- Coordinating project, work people and resources, and resolving conflicts and issues.
- Producing the project deliverables in accordance with the project plans.
- Handing over the deliverables as described in the Deliverables Acceptance Plan.

3. Overview of the PM² Methodology

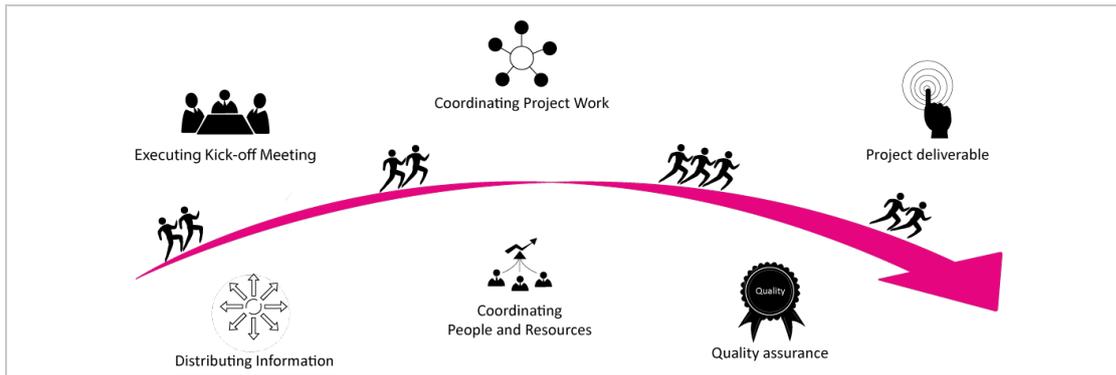


Fig 3.5 Overview of the Executing Phase

Once the project deliverables have been accepted by the Project Owner (PO), the Project Manager (PM) can request approval to move on to the Closing Phase. This decision to move on is taken by the Project Steering Committee (PSC).

3.2.4 Closing Phase



The final phase of a PM² project is the Closing Phase.

During a project’s Closing Phase, the finished deliverables are officially transferred into the care, custody and control of the Project Owner (PO) and the project is administratively closed. Information on overall project performance and Lessons Learned is captured in the Project-End Report. The Project Manager (PM) ensures that the deliverables produced are accepted, all project documents are correctly filed and archived, and that all resources used by the project are formally released.

The following activities are part of the Closing Phase:

- Finalising all activities in order to formally close the project.
- Discussing the overall project experience and Lessons Learned with the project team.
- Documenting Lessons Learned and best practices for future projects.
- Closing the project administratively and archiving all project documents.



Fig 3.6 Overview of the Closing Phase

3.2.5 Monitor & Control



Monitor & Control activities run throughout the project’s lifecycle. During Monitor & Control, all work is observed from the point of view of the Project Manager (PM). Monitoring is about measuring ongoing activities and assessing project performance against project plans. Controlling is about identifying and taking corrective action to address deviations from plans and to address issues and risks.

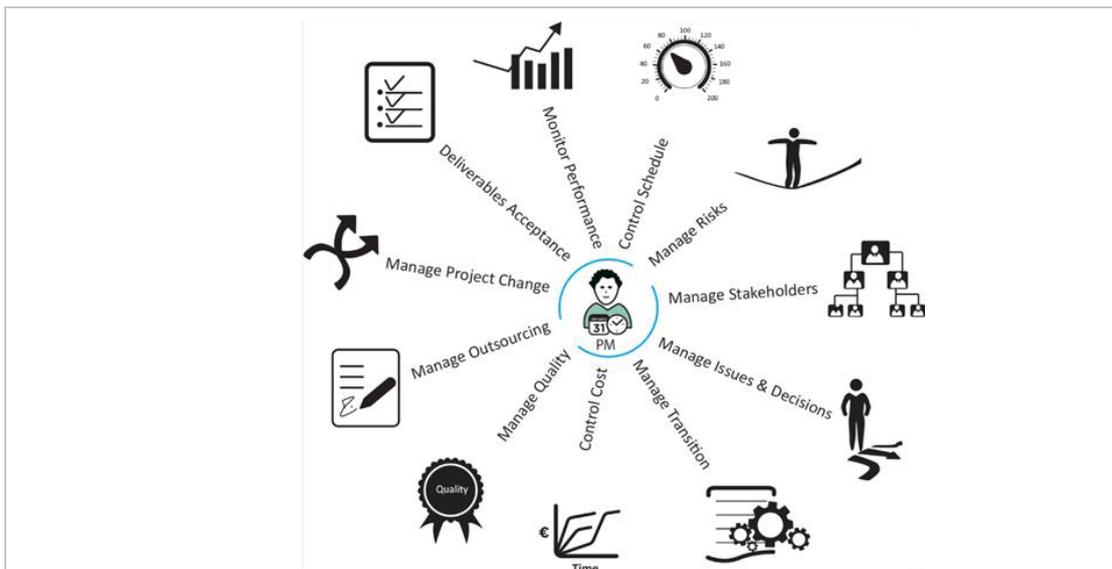


Fig 3.7 Monitor & Control activities

3.2.6 Phase Gates and Approvals

At the end of each phase, the project passes through a review and approval gate. This ensures that the project is reviewed by the appropriate people (i.e. the Project Manager (PM), Project Owner (PO), the Project Steering Committee (PSC) or other delegated role) before it moves on to the next phase. These checkpoints contribute to the overall project management quality and allow the project to proceed in a more controlled way.

The three 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 and execute them. These project drivers change from phase to phase in a PM² project.

During the Initiating Phase, the Project Owner (PO) is the main driver, initiating the project and being accountable for all documentation.

In the Planning Phase, the main driver is the Project Manager (PM), who is responsible for coordinating the delivery of all project plans.

The carrying out of the Project Work Plan and creation of the project deliverables in the Executing Phase is driven by the Project Core Team (PCT).

Finally, the Closing Phase is driven by the stakeholders who evaluate the project's overall performance.

3. Overview of the PM² Methodology

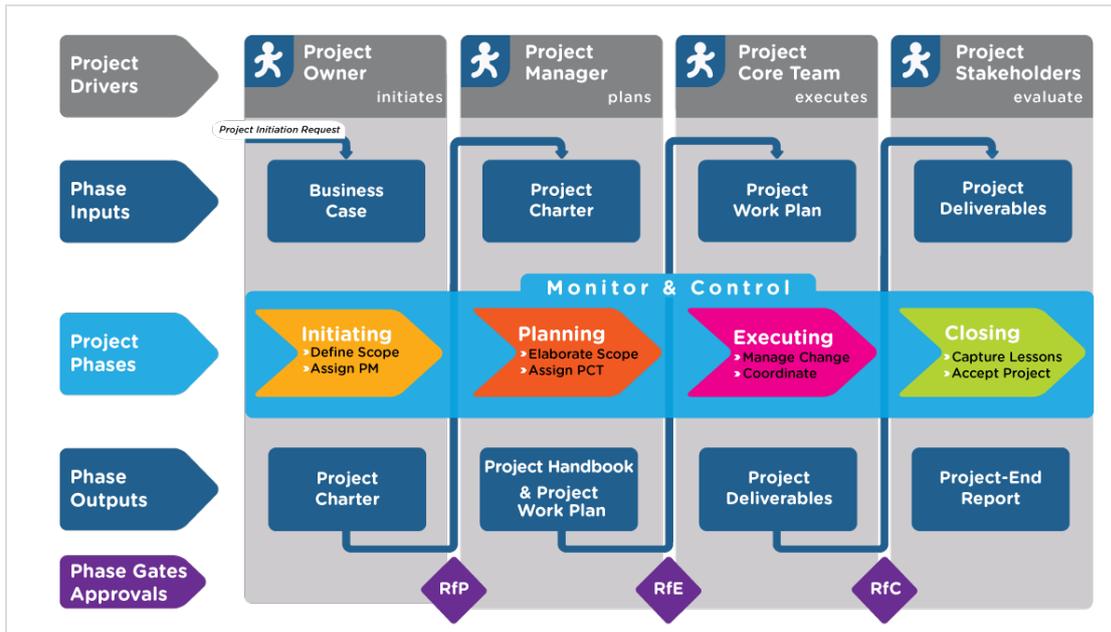


Fig 3.8 PM² Swimlane Diagram

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

3.4 What is a PM² Project

Many PM² best practices can be applied to any type of project or work activity. However, to be able to apply the whole PM² Methodology, a project must have certain characteristics.

Thus, a PM² project:

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

The number of the above characteristics, apparent in a project, drive the tailoring and customization that will have to be applied to the PM² methodology.

3.5 PM² Mindsets

The PM² processes, artefacts, tools and techniques help project teams make decisions on trade-offs between a project's time, cost, scope and quality dimensions.

The PM² Mindsets are the attitudes and behaviours that help project teams focus on what is crucial to achieving their project's goals. They help project teams navigate the complexities of managing projects in organisations and make the PM² Methodology both more effective and complete.

Thus, Project Managers (PMs) and project teams that practise PM²:

1. **Apply PM²** best practices to manage their projects.
2. **Remain mindful** that project management methodologies are there to serve projects and not the other way around.
3. Maintain an **outcomes orientation** in relation to all projects and project management activities.
4. Are **committed** to delivering project results with **maximum value** rather than just following plans.
5. **Foster** a project culture of collaboration, clear **communication** and **accountability**.
6. **Assign** project roles to the most **appropriate** people for the benefit of the project.
7. **Balance** in the most productive way the often-conflicting project management "Ps" of product, purpose, process, plan, planet, people, pleasure/pain, participation, perception and politics.
8. **Invest** in developing technical and behavioural competences to **become better** project contributors.
9. **Involve** project stakeholders in the **organisational change** needed to maximise project benefits.
10. **Share knowledge**, actively manage Lessons Learned, and contribute to the **improvement** of project management within their organisations.
11. Draw **inspiration** from the PM² Guidelines on Ethics and Professional Virtues (see Appendix F).

To remain mindful of the PM² Mindsets, Project Managers (PMs) and project teams that practise PM² should ask themselves the following important Infrequently Asked Questions (IAQs):

- **Do we know what we are doing?** Tip: Develop a clear and shared project vision. Manage the project using a holistic approach and optimise the whole project, not just parts of it. Follow a process but stay Agile and try to regularly remind yourself why you are doing something.
- **Do we know why we are doing it? Does anyone really care?** Tip: Make sure your project matters. Understand its goals, value and impact, and how it relates to the organisational strategy. Define upfront what project success is and deliver maximum value and real benefits, not just outputs.
- **Are the right people involved?** Tip: People make projects work. The primary criterion for involving people and assigning project roles should be to serve the needs and objectives of the project, and not politics, friendship, functional hierarchy, proximity or convenience.
- **Do we know who is doing what?** Tip: Know what you should be doing, and make sure others know what they should be doing. Is it clear to everyone? Clearly define and understand roles, responsibilities and accountabilities.
- **Deliver at any cost or risk?** Tip: Show respect for people's work and organisational funds and avoid high-risk behaviour and tactics. Always keep in mind that it is not just about the end result - how you get there also matters. Manage your projects based on positive values and principles.
- **Is this important?** Tip: Everything is NOT equally important. Identify, and agree on, the project's Critical Success Criteria (CSC), Minimum Viable Product (MVP), and Critical Success Factors (CSFs), and allocate effort and attention both tactically and strategically for the benefit of both the project and project management goals.
- **Is this a task for "them" or for "us"?** Tip: Make sure that client and provider groups work as one team towards a common goal. Real teamwork really works; so foster clear, effective and frequent communication.
- **Should I be involved?** Tip: Contribute from any position. Be proud of the skills, value and positive attitude you bring to the project. Help everyone who needs to be involved get involved. Promote and facilitate the contributions of all stakeholders.

3. Overview of the PM² Methodology

- **Have we improved?** Tip: Commit to ongoing self- and organisational improvement by gathering and sharing knowledge. Project teams should reflect on how they can become more effective and adjust their behaviour accordingly.
- **Is there life after the project?** Tip: The product (or service) lifecycle has just begun! Make sure you have contributed to its success.

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

The PM² Mindsets:

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

3.6 Tailoring and Customisation

To ensure that the PM² Methodology effectively serves an organisation's and a project's needs, some level of tailoring or/and customisation may be required.

Tailoring refers to changing specific parts of the methodology, such as process steps, the content of artefacts, the distribution of responsibilities amongst the various roles, etc. Organisations do this to adapt the methodology to the specific needs of their structure and culture, and to align the methodology to organisational processes, policies, etc.

Tailoring makes more sense at the organisation/departmental level, but some tailoring can also take place at the project level, based, for instance, on the complexity, size or type of a project. In addition to any tailoring, further customisation may also be required at the project level to reflect the project's specific management needs. Examples of such customisations are the definition of decision thresholds for escalation, risk tolerances based on the risk appetite of the stakeholders, etc.

All tailoring and customisations should be documented in the Project Handbook.

The following guidelines should be considered when tailoring or customising the PM² Methodology:

- First, understand the purpose and value of the methodology element to be tailored, and then proceed with its tailoring.
- Avoid simplifying the methodology by eliminating whole chunks (e.g. a phase, a role, an activity or an artefact), but rather scale down (or up) the scope of that element.
- Balance the level of control a project needs against the extra effort such control requires.
- Eliminate waste (lean approach) but remain aligned with the spirit of the PM² Methodology as this is reflected by its four pillars and mindsets.
- Remember that the methodology was designed as an integrated whole, so avoid unnecessary deviations.

3.7 PM² and Agile Management

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

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

What is Agile?

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

Agile takes into account the inherent uncertainty of the project environment and creates an organisation that is highly adaptive. It uses short feedback loops to allow for rapid responses to changes in product requirements and for ongoing improvements to processes.

Agile's key characteristics are:

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

PM² provides a structure that helps Agile teams achieve the desired agility while still accommodating tight procurement and audit requirements, good coordination with programme and portfolio levels, and collaboration with other projects, contractors, other organisational units and external organisations (see Appendix D).

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4 Project Organisation and Roles

4.1 Project Stakeholders

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

The number of stakeholders depends on the complexity and scope of a project. However, the more people the project has an impact on, the more likely it is that it will affect people who have some power or influence over the project. Given that stakeholders can be useful supporters of the project or may choose to block it, the effective management and involvement of them is crucial for its success.

4.2 Project Organisation: Layers and Roles

The diagram below provides an overview of the layers and main roles in project organisation from a project management point of view.

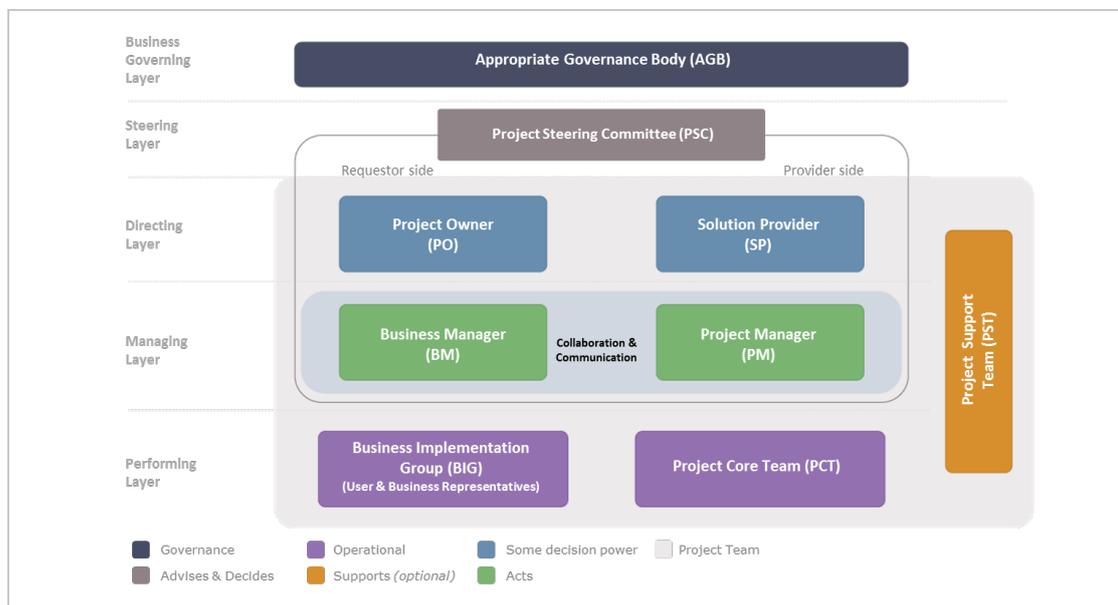


Fig 4.1 Project organisation

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

Business Governing Layer

The Business Governing Layer determines the vision and strategy for the organisation as a whole. It consists of one or more management committees operating at a high or the highest management 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. It keeps the project focused on its objectives. It reports to the Appropriate Governance Body (AGB). The Steering Layer is composed of the roles defined in the Directing and Management Layers plus other optional roles.

Directing Layer

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

4. Project Organisation and Roles

Managing Layer

The Managing Layer focuses on day-to-day project management. It organises, monitors and controls work to produce the intended deliverables and implement them in the business organisation. Members of the Managing Layer report to the Directing Layer. The Managing Layer comprises the roles of Business Manager (BM) and Project Manager (PM). It is of utmost importance for the success of the project that there is close collaboration and good communication between these two roles.

Performing Layer

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

4.3 Appropriate Governance Body (AGB)

The Appropriate Governance Body (AGB) is the entity responsible for the strategic planning and portfolio management. In terms of projects, this is the body with the authority to approve a project, agree its stated objective and release the funding required to implement it. As a key decision-making body, this role comprises members from the requestor and provider side of the project.

Responsibilities:

- Defines the corporate and business domain strategy.
- Agrees to and implements a portfolio management framework to achieve the strategic objectives.
- Identifies, evaluates and authorises programmes and projects for implementation.
- Monitors and controls portfolio delivery performance.
- Optimises and manages portfolio resources and benefits.

4.4 Project Steering Committee (PSC)

The Project Steering Committee (PSC) comprises at least the four roles in the Managing and Directing Layers, providing a balanced mix of requestor- and provider-side representatives. Other roles can also participate as per the project’s needs.

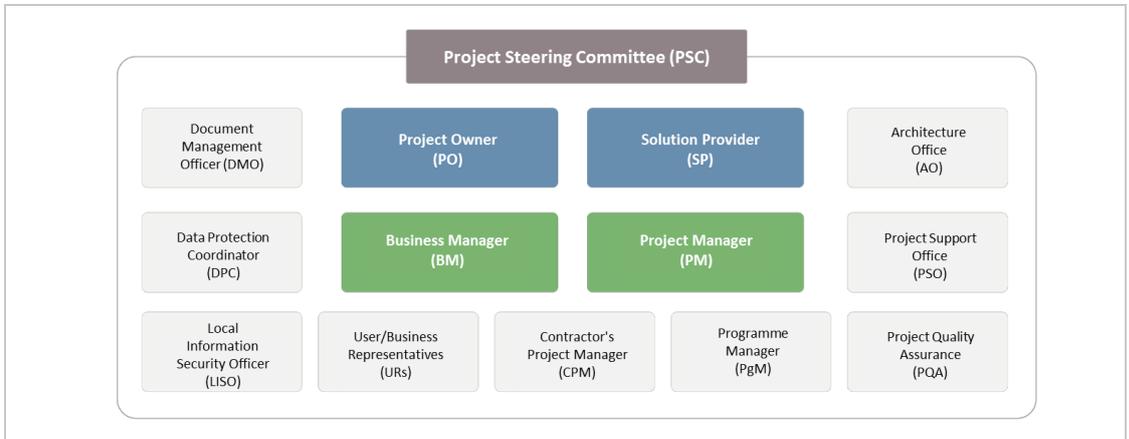


Fig 4.2 The Project Steering Committee (PSC): Permanent and indicative optional roles

The Project Steering Committee (PSC) is chaired by the Project Owner (PO) and is the key decision-making and issue-resolution body for the project. Any significant decisions that may affect the project or the team’s ability to deliver on the objectives will be escalated to the Project Steering Committee (PSC). Approval of key documents, resolution of important project issues or significant change requests will be discussed and decided upon here.

Responsibilities:

- Champions the project and raises awareness of it at a senior level.
- Guides and promotes the successful execution of the project at a strategic level, keeping the project focused on its objectives.
- Ensures adherence to the organisation's policies and rules (e.g. IT governance, data protection, information security, document management, etc.).
- Provides high-level monitoring and control of the project.
- Authorises transition between Phases unless this is performed by the Appropriate Governance Body (AGB).
- Authorises deviations and scope changes with a high project impact and has the final say on decisions.
- Deals with escalated issues and conflicts.
- Approves key project artefacts (e.g. Project Charter, Project Work Plan).

Optional Project Steering Committee (PSC) members:

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

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

4.5 Project Owner (PO)

The Project Owner (PO) is the client of the project, and as such sets the business objectives and ensures that project outcomes are in line with business objectives and priorities. As the key Directing Layer role from the requestor side, the Project Owner (PO) is accountable for the overall project's success, and later becomes the owner of the project's outputs (product or service).

Responsibilities:

- Acts as the project champion, promoting the project's success.
- Chairs the Project Steering Committee (PSC).
- Provides leadership and strategic direction to the Business Manager (BM) and Project Manager (PM).
- Sets the business objectives and accepts the Business Case for the project.
- Owns the business risks and ensures that project outcomes are in line with business objectives and priorities.
- Mobilises the resources necessary for the project, in accordance with the agreed budget.
- Regularly monitors project progress.
- Coordinates the resolution of escalated issues and conflicts.
- Drives organisational change and monitors proper evolution and change implementation.
- Approves key project artefacts (Business Case, Project Charter, Project Handbook, Work Plan, Deliverables Acceptance Plan, Transition Plan, Business Implementation Plan).

4.6 Solution Provider (SP)

The Solution Provider (SP) assumes overall accountability for project deliverables and represents the interests of those who design, manage and implement (or outsource) the project's deliverables.

4. Project Organisation and Roles

As the key Directing Layer role from the provider side, the Solution Provider (SP) usually has a management position in the functional hierarchy of the organisation undertaking the project, and therefore often works with the Project Owner (PO) in defining the project's business objectives.

Responsibilities:

- Assumes overall accountability for the project deliverables and services requested by the Project Owner (PO).
- Mobilises the required resources from the provider side and appoints the Project Manager (PM).
- Approves the objectives of any outsourced activities and deliverables and becomes accountable for the contractor's performance.

4.7 Business Manager (BM)

The Business Manager (BM) represents the Project Owner (PO) on a daily basis within the project and helps in defining the project's business objectives via the Project Initiation Request, Business Case and Business Implementation Plan. The Business Manager (BM) collaborates closely with the Project Manager (PM) and coordinates client-side activities and roles (e.g. user and business representatives), ensuring that the project's deliverables fulfil the business and user needs.

Responsibilities:

- Guarantees cooperation and an efficient communication channel with the Project Manager (PM).
- Coordinates the Business Implementation Group (BIG) and acts as a liaison between the User Representatives (URs) and the provider organisation.
- Ensures that the products delivered by the project fulfil the user's needs.
- Manages the activities on the business side of the project and ensures that the required business resources are made available.
- Decides on the best way to introduce business change or re-engineering actions, when needed.
- Ensures that the business organisation is ready to accommodate the project's deliverables when they are made available by the Solution Provider (SP).
- Leads the implementation of the business changes within the user community.
- Coordinates the schedule and delivery of any user training (and production of related material).

4.8 Project Manager (PM)

The Project Manager (PM) oversees the project on a daily basis and is responsible for delivering high-quality results within the identified objectives and constraints, ensuring the effective use of the allocated resources. More widely, the Project Manager's (PM) responsibility also includes risk and issue management, project communication and stakeholder management.

Responsibilities:

- Executes the project plans as approved by the Project Steering Committee (PSC).
- Coordinates the Project Core Team (PCT), ensuring the effective use of the allocated resources.
- Ensures that project objectives are achieved within the identified constraints, taking preventive or corrective measures where necessary.
- Manages stakeholder expectations.
- Oversees the creation of all management artefacts (except the Project Initiation Request, Business Case and Business Implementation Plan) and secures approval from the Project Owner (PO) or the Project Steering Committee (PSC).
- Ensures the controlled evolution, of products delivered, through proper change management.
- Performs risk management activities for project-related risks.
- Monitors project status and reports to the Project Steering Committee (PSC) on project progress at regular predefined intervals.
- 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)

The Business Implementation Group (BIG) sits on the requestor side and consists of representatives of business and user groups. Coordinated by the Business Manager (BM), it is responsible for planning and implementing the business changes that need to be made for the organisation to effectively integrate the project deliverables into its everyday work.

Responsibilities:

- Analyses the impact of the project's implementation on ongoing operations, existing business processes, staff and organisational culture.
- Participates in the design and updating of affected business processes.
- Prepares the affected business area for the upcoming change.
- Advises the Business Manager (BM) on the organisation's readiness for change.
- Embeds the project deliverables into business operations and implements the organisational change activities that fall within the project's scope.

User Representatives (URs)

User Representatives (URs) represent the interests of the project's end-users and are part of the Business Implementation Group (BIG). It is important to designate User Representatives (URs) and involve them throughout the project, keep them up to date with developments and provide them with a sense of ownership. User Representatives (URs) help define project requirements and validate them at regular intervals, ensuring that the final deliverables are fit for the business purpose.

Responsibilities:

- Help define the business needs and requirements.
- Ensure that the project specifications and deliverables meet the needs of all users.
- Review the project specification and acceptance criteria on behalf of the users.
- Communicate and prioritise user opinions in the Project Steering Committee (PSC) and ensure that these opinions are taken into consideration when decisions are made whether or not to implement a proposed change.
- Participate in demonstrations and pilot phases as needed.
- Perform user acceptance tests.
- Sign off on user-related documents (requirements document, deliverable acceptance testing, etc.).
- Guarantee business stability during the transition towards the new operational state.

4.10 Project Core Team (PCT)

The Project Core Team (PCT) comprises the specialist roles responsible for creating the project deliverables. Its composition and structure depend on the project size and type (e.g. IT project, policy development project, etc.) and is defined by the Project Manager (PM) based on the project's needs.

Responsibilities:

Coordinated by the Project Manager (PM), the Project Core Team (PCT):

- Participates in developing the project scope and planning project activities.
- Carries out project activities based on the Project Work Plan and schedule.
- Produces project deliverables.
- Provides the Project Manager (PM) with information on the progress of activities.
- Participates in project meetings as needed and helps resolve issues.
- Participates in the Project-End Review Meeting during the collection of Lessons Learned.

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

Contractor's Project Manager (CPM)

The Contractor's Project Manager (CPM) leads the contractor's staff working on the project, planning controlling and reporting on the production of outsourced deliverables. Working closely with the Project Manager (PM), the Contractor's Project Manager (CPM) ensures that all work is carried out on time and to the agreed standards, guaranteeing the successful completion and delivery of subcontracted activities.

4. Project Organisation and Roles

Project Management Assistant (PMA)

For large projects, the Project Manager (PM) might find it useful to delegate some management tasks to an assistant. This Project Management Assistant (PMA) can work on a range of coordination and supportive tasks as assigned by the Project Manager (PM), and acts as the Project Manager's (PM) backup in meetings, etc. However, the Project Manager (PM) remains the person responsible for all project management tasks and deliverables.

The Project Management Assistant (PMA) may also be part of a Project Support Team (PST) and assigned to the project.

4.11 Project Support Team (PST)

The Project Support Team (PST) is an optional role that consists of the people responsible for providing support to the project. Its composition and structure depend on the needs of the project. The Project Support Team (PST) is often composed of representatives from various horizontal services or units.

Responsibilities:

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

Project Support Office (PSO)

The Project Support Office (PSO), also called Project Management Office or Project Office, is an optional structure that can provide services to project teams such as the application of the methodology and use of the artefacts, information systems, governance, logistics and various support.

Project Quality Assurance (PQA)

Assigned by the Project Steering Committee (PSC) and working independently of the Project Manager (PM), the Project Quality Assurance (PQA) ensures the high quality of the project and its deliverables, by reviewing processes and artefacts, identifying non-conformities with the set quality standards and recommending corrective actions. This is an optional role in an organisation, reporting directly to the Project Steering Committee (PSC), and may take the form of either a group or individual staff member.

Other

Depending on the project's nature and characteristics, the Project Support Team (PST) can be further extended and include representatives from other departments/units, e.g. Legal, Procurement, Data Protection, etc.

4.12 RAM (RASCI) — Documenting Responsibility Assignments

The Responsibility Assignment Matrix (RAM) is a way of representing and clarifying the roles and responsibilities for a given activity. The RAM is also known as a RASCI table (pronounced rasky), which stands for:

RASCI		Description
R	Responsible	Does the work. Others can be asked to assist in a supporting role. There is just one responsible person for any given task.
A	Accountable	Ultimately answerable for the correct and thorough completion of the work. There is just one accountable person for any given task.
S	Supports	As part of a team, roles with a support function work with the person responsible. The support role helps complete the task.
C	Consulted	Those whose opinions are requested and with whom there is two-way communication. The consulted role does not help complete the task.
I	Informed	Those who are kept informed of progress.

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

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

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

Notes:

- **Accountable:** The Project Owner (PO) is accountable (S/he provide adequate resources).
- **Responsible:** The Business Manager (BM) is responsible for creating the Business Case.
- **Supports:** The Solution Provider (SP) and the Project Manager (PM) work with the Business Manager (BM) to develop the Business Case. The final responsibility, however, lies with the Business Manager (BM).
- **Consulted:** The Project Steering Committee (PSC) and User Representatives (URs) are consulted.
- **Informed:** The Appropriate Governance Body (AGB) will be informed about the outputs or status of the task (it will be provided with information).

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5 Initiating Phase

The first phase of a PM² project is the Initiating Phase. It begins with the identification of a need, problem or opportunity, and ends with the establishment of the plans and processes needed to take the project forward. Proper project initiation is critical for successful project planning and execution. It involves defining project objectives and constraints, and receiving formal organisational sponsorship for the project.

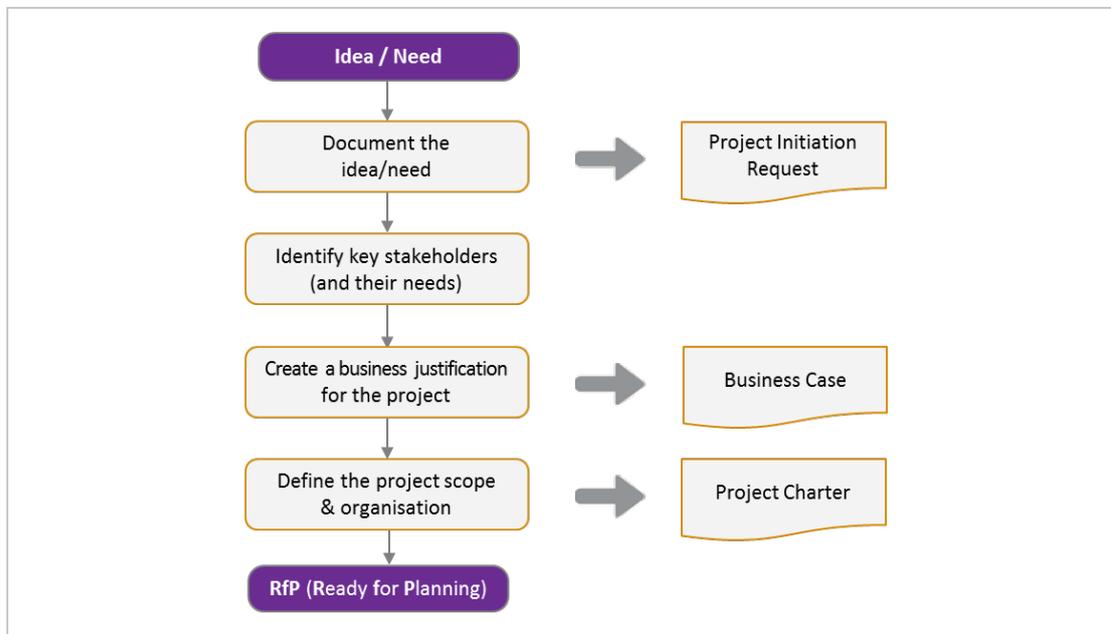


Fig 5.1 Initiating Phase activities and main outputs

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

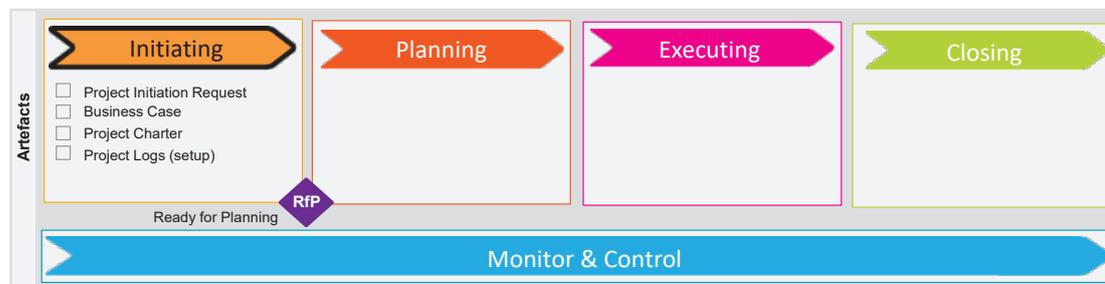


Fig 5.2 Initiating Phase artefacts

5.1 Initiating Meeting

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

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

5. Initiating Phase

5.2 Project Initiation Request

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

The Project Initiation Request contains basic information about the estimated effort and cost of undertaking the project as well as the timeframe for its completion and the type of delivery. Specifically, the document describes the impact the project is expected to bring and summarises the success criteria against which it will be evaluated. Additionally, the Project Initiation Request outlines the project’s relevance to the organisation’s strategic direction and highlights the key assumptions, constraints and risks as assessed at this stage.

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

Input

- A problem, a need or an opportunity expressed by the initiator.

Guidelines

- Note that though anyone can initiate a Project Initiation Request, in many cases the Project Owner (PO) delegates its creation to the Business Manager (BM).
- Know your audience: Depending on the project size and the organisation’s approval process, approval can be informal (i.e. the Project Owner (PO) accepts it), or formal (i.e. an Appropriate Governance Body (AGB) reviews and approves it).
- Ensure all the relevant information is included, but at this point limit details to high-level information—finer points will be added in the form of the Business Case and other Project artefacts.

Steps (for a project’s initiation)

1. The Project Initiation Request is drafted.
2. The Project Initiation Request is submitted for approval to the relevant Governing or Steering Level role.
3. Once the Project Initiation Request is approved, the project is defined in more detail with a preliminary project scope description in the Business Case and further elaborated in the Project Charter.
4. The Solution Provider (SP) assigns the Project Manager (PM) and the Project Core Team (PCT). The Project Manager (PM) is typically assigned after the Business Case is approved (or at the latest before the completion of the Project Charter), while the Project Core Team (PCT) is typically assigned before the Planning Kick-off Meeting.

The lifecycle of the Project Initiating Request ends with the creation of the Business Case and Project Charter. All the information included in the Project Initiation Request is copied over, updated and further elaborated in these two documents, which remain “live” until the end of the project.

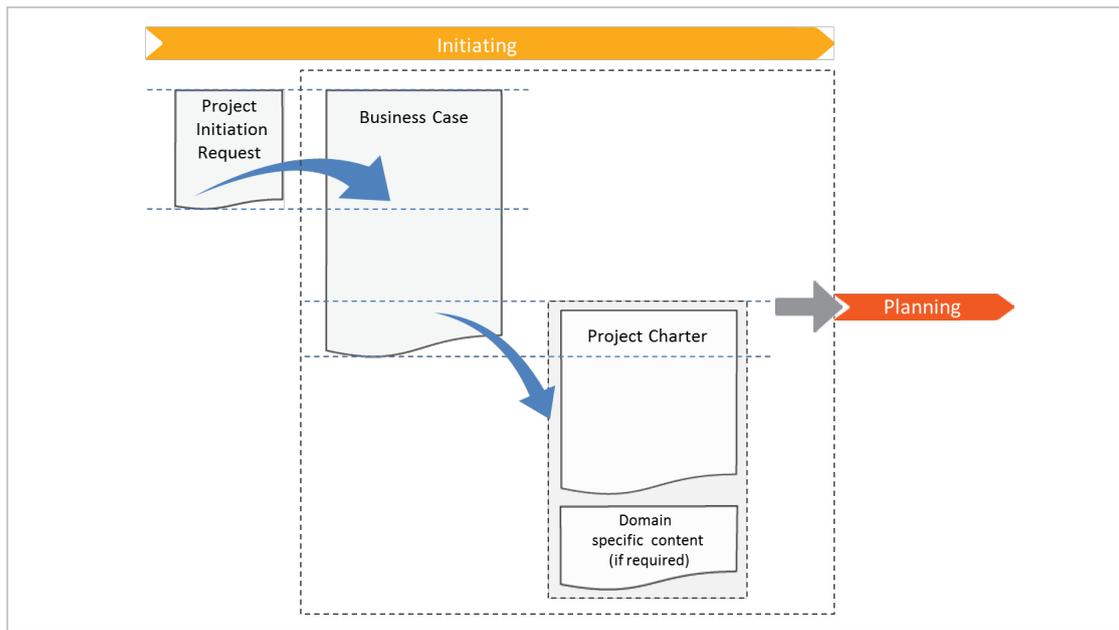


Fig 5.3 Relationship between the artefacts created during the Initiating Phase

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

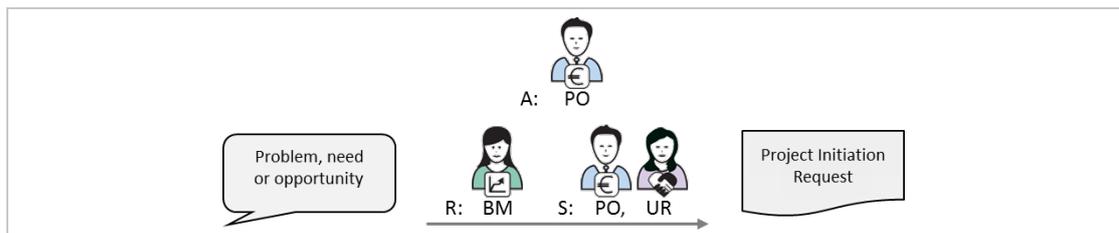


Fig 5.4 Project Initiation Request inputs and main roles

Outputs

- Project Initiation Request

PM² Template?



5. Initiating Phase

5.3 Business Case

The purpose of the Business Case is to capture the reasoning behind the project, to describe the project’s alignment with the organisation’s strategic objectives, to provide a justification for the investment in time and effort, and to set out the budgetary needs. For larger strategic projects, the Business Case may also include an assessment of impact and risks along with a more detailed cost-benefit analysis.

The Business Case provides decision-makers with the information they need to determine whether the project is worth doing. The Business Case is a living document and therefore should be re-examined at critical project milestones to check that the expected benefits are still achievable, the costs/schedule fall within the budget/timeline, and the project is still relevant to the organisation and should be continued.

Key Participants	Description
Project Owner (PO)	Accountable for the Business Case.
Business Manager (BM)	Creates the Business Case, supported by the Solution Provider (SP) and the Project Manager (PM) (if known).
Other project stakeholders	Consulted in defining the project’s Business Case
Approver	A preliminary Project Steering Committee (PSC) or a higher-level Appropriate Governance Body (AGB)

Inputs

- Project Initiation Request

Guidelines

- Note that the form and depth of analysis required for this artefact depends on the level of investment required for the project.
- Consider several solutions that fulfil this business need and recommend one of these.
- Describe the overall approach to how the project will be executed (project strategy).
- Identify measurable criteria that will be used to determine the success of the project.
- For projects carried out under contract (e.g. as a result of a bid award), create the Business Case based on the Request for Proposal, the response to this request, and the contract itself.

Steps

1. The Business Manager (BM) drafts the Business Case based on the information captured in the Project Initiation Request. The main project aspects to be analysed and presented are:
 - the project’s justification and impact
 - the project’s positioning in the overall organisational strategy
 - an assessment of Strengths, Weaknesses, Opportunities and Threats (SWOT Analysis) of several solutions, one of which is proposed for implementation
 - a cost benefit analysis, per identified solution, detailed to the extend required
 - synergies and interdependencies with other projects and initiatives
 - high-level project roadmap, including major milestones.
2. The Project Owner (PO) evaluates the Business Case and decides to approve or reject it.
3. The Project Owner (PO) sends the Business Case to the Appropriate Governance Body (AGB) if needed for corporate approval.

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

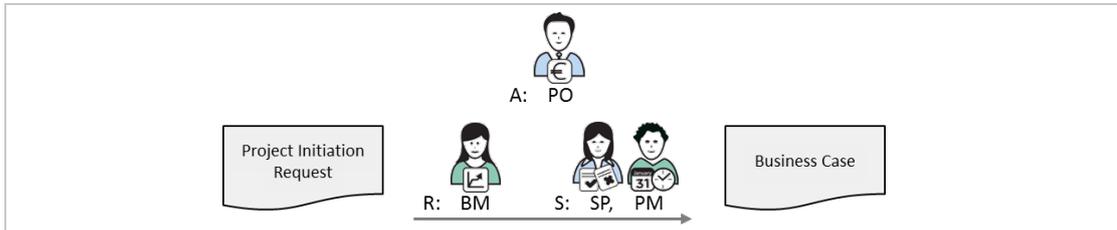


Fig 5.5 Business Case inputs and main roles

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

Outputs

- Business Case

PM² Template?



5. Initiating Phase

5.4 Project Charter

The Project Charter provides a basis for the more detailed project planning. It defines the project’s objectives (i.e. scope, time, cost, quality), high-level requirements, risks and constraints, as well as the project milestones and deliverable(s).

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

Key Participants	Description
Project Manager (PM)	Develops the Project Charter. Should be assisted by the Business Manager (BM) and the Solution Provider (SP).
Project Owner (PO)	Reviews and approves the Project Charter.
Decision-making Body	The Appropriate Governance Body (AGB) provides the corporate-level approval of the Project Charter.

Inputs

- Project Initiation Request
- Business Case

Guidelines

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

Steps

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

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

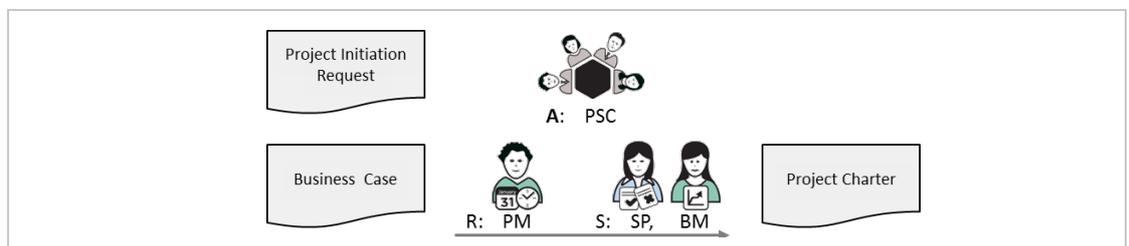


Fig 5.6 Project Charter inputs and main roles

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

Outputs

- Project Charter

PM² Template?



5.5 Phase Gate RfP (Ready for Planning)

This is the first phase gate. A review and approval are recommended before the project can formally move to the next phase. The Project Manager (PM) assesses whether the project is ready to commence the Planning Phase and seeks approval of the Business Case and Project Charter from the Project Steering Committee (PSC). If the Business Case or Project Charter is not approved, the project proceeds directly to the Closing Phase for Lessons Learned and archiving.

PM² provides a template Phase Exit Review Checklist for each phase that can be used by the Project Manager (PM) to guide the assessment, alongside a review of the phase's specific goals.

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6 Planning Phase

The second phase of a PM² project is the Planning Phase. It begins with the Planning Kick-off Meeting and ends once all project plans have been developed and baselined, and an appropriate management and implementation approach has been established. Most of a project's artefacts are created during the Planning Phase.

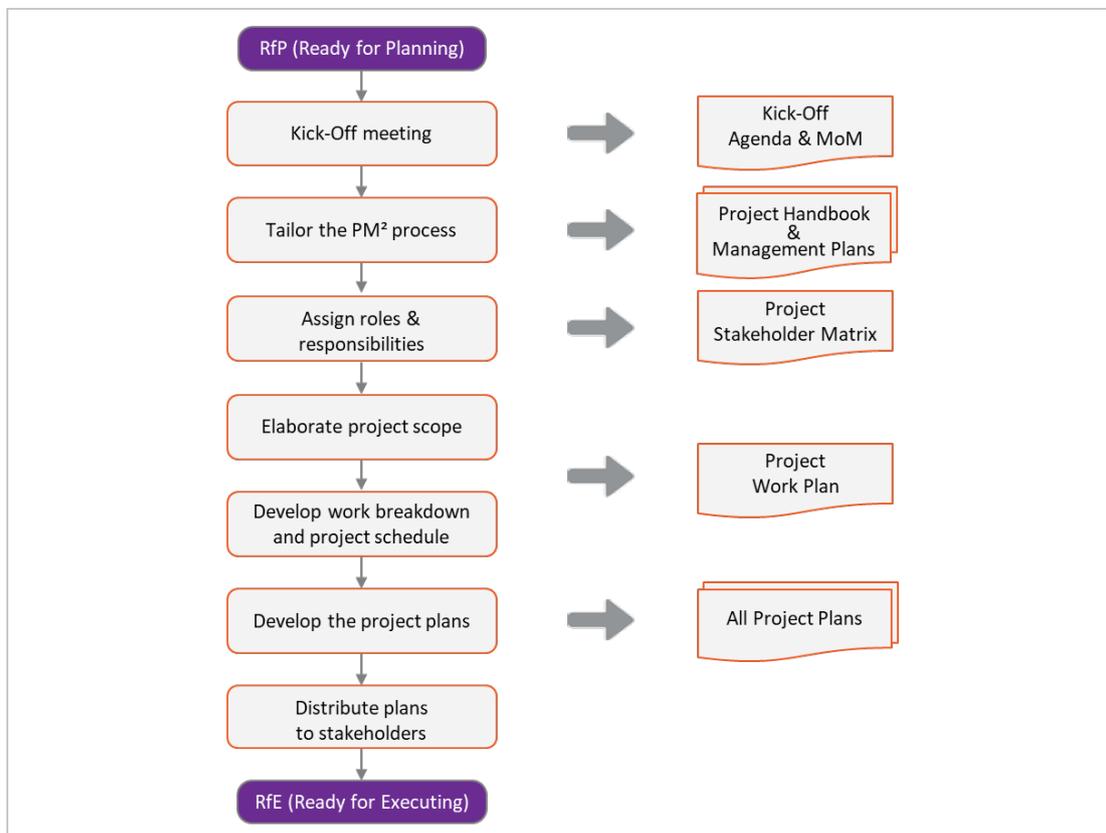


Fig 6.1 Planning Phase activities and main outputs

Artefact Type	Description
Management Plans (standard)	These plans define the various processes to be used (e.g. for Risk Management). PM ² provides Management Plan templates along with guidelines on how to tailor and customise them to the project's context and needs.
Project Plans (specific)	These plans are specific to the project (e.g. the Project Work Plan) and are built according to the project needs and the team's analysis and experience. PM ² provides templates and guidelines for these plans.
Other (domain specific)	These artefacts are specific to the project domain (e.g. system models for IT projects). PM ² does not provide templates for these artefacts.

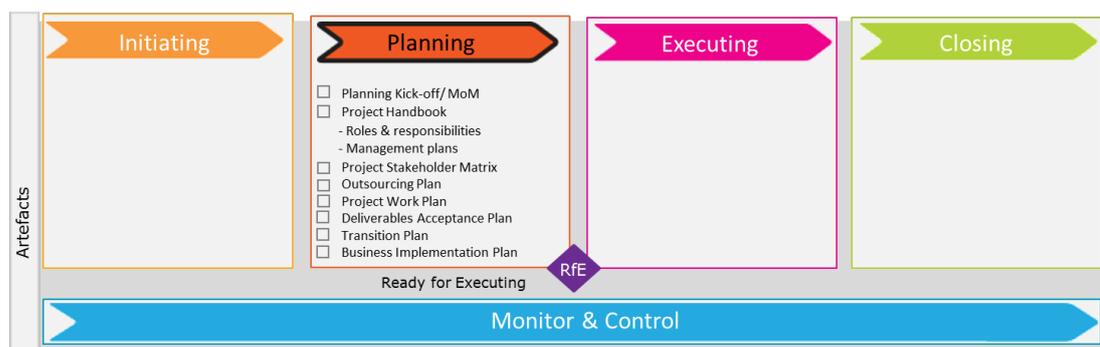


Fig 6.2 Planning Phase artefacts

6. Planning Phase

6.1 Planning Kick-off Meeting

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

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

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

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

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

Inputs

- Business Case
- Project Charter

Steps

Before the Planning Kick-off Meeting:

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

During the Planning Kick-off Meeting:

1. Introduce the meeting participants.
2. Ensure a minute-taker is identified to make notes identifying action items. These will be compiled and sent to participants after the meeting.
3. Walk the participants through the Project Charter so they understand the project scope.
4. Outline the goals, expectations and activities of the Planning Phase and discuss the planning timeline.
5. Describe and discuss the project roles and responsibilities.
6. Discuss the project timeline.
7. Discuss the overall approach to the project. This discussion can be a brainstorming session within the limits set by the Project Charter.
8. Discuss the project plans needed for the project. The final set of required project plans will be documented in the Project Handbook.
9. Discuss risks, constraints and assumptions.
10. Discuss or present any project supporting tools (with input from the Project Support Office, PSO).
11. Allow time for any other business (questions & answers).
12. Summarise the discussion (decisions, actions and risks).
13. Communicate the next steps.

After the Planning Kick-off Meeting:

1. Distribute the Minutes of Meeting (MoM) to the appropriate stakeholders (as identified in the Project Charter).
2. The Minutes of Meeting (MoM) should include a summary of project issues raised, risks identified, decisions taken and changes proposed. Note that the issues, risks, decisions and project changes should also be recorded in the relevant logs.

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

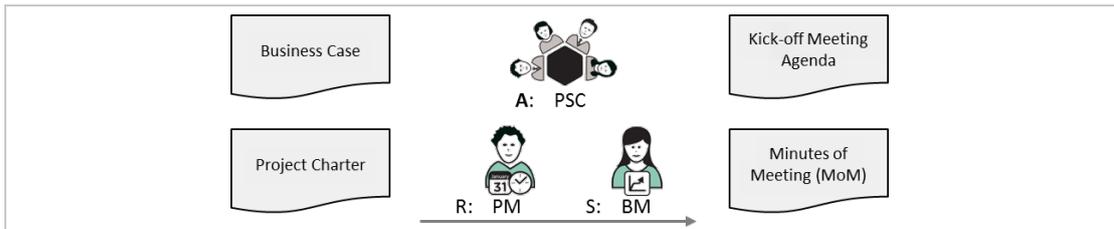


Fig 6.3 Planning Kick-off Meeting inputs/outputs and main roles

Outputs

- Kick-off Meeting Agenda
- Minutes of Meeting (MoM)

PM² Template?

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6. Planning Phase

6.2 Project Handbook

The Project Handbook summarises the project objectives and documents the selected approach for achieving the project goals. It documents the Critical Success Factors (CSFs), defines the key controlling processes, the conflict resolution and escalation procedure, policies and rules, and the project mindsets.

The Project Handbook also documents the project governance roles and their responsibilities, and defines the plans necessary for managing the project as well as any methodology-tailoring decisions. The project goals and scope (found in the Initiating Phase documents) are key inputs to this artefact.

The Project Handbook is an important reference document for all project members and stakeholders, and along with the Project Work Plan, is the basis on which the project is managed and executed.

Key Participants	Description
Project Manager (PM)	Prepares the Project Handbook.
Business Manager (BM)	Involved in defining the document’s key elements.
Other project stakeholders	Review the Project Handbook.
Project Core Team (PCT)	Consulted in developing the document.

Inputs

- Business Case and Project Charter
- Planning Kick-off Minutes of Meeting (MoM)

Guidelines

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

Steps

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

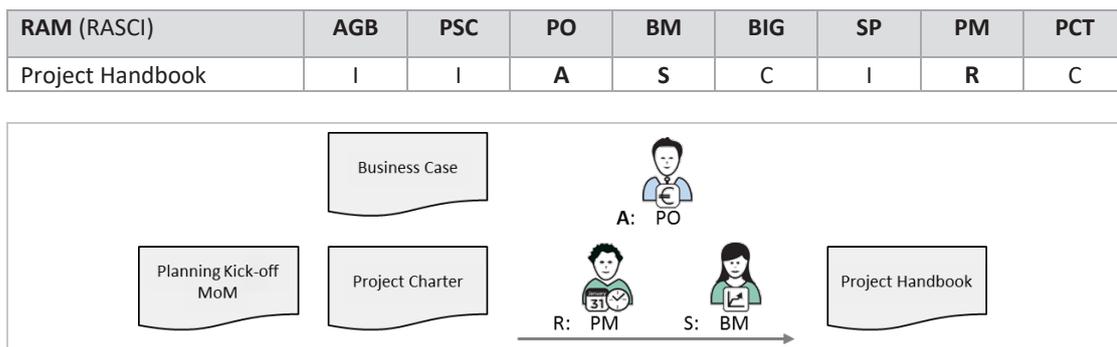


Fig 6.4 Project Handbook inputs and main roles

Outputs

- Project Handbook

PM² Template?**6.2.1 Project Roles & Responsibilities**

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

6.2.2 Project Management Plans

PM² suggests several Project Management Plans (artefacts) which outline the various project management processes. These plans identify how an organisation manages relatively standard processes. These plans are the:

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

Depending on the organisation and the project, different levels of documentation detail may be required. When sufficient, a brief definition of each management process or plan can be provided in the Project Handbook. When a more extensive and detailed description is needed, separate management plans can be instituted based on the PM² templates and guidelines provided.

6.2.3 Project-Specific Plans

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

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

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

6. Planning Phase

6.2.4 Domain-Specific Artefacts

These plans are specific to the project domain (i.e. the project type) and are very often an integral part of the project planning and the overall project documentation. No templates are provided by PM².

However, the artefacts should still be identified and listed in the Project Handbook, as they are part of the project’s planning-phase outputs. Examples of domain-specific artefacts include system designs (for IT projects), architectural layouts (for renovation/moving projects) and laws/policies (for policy projects).

6.2.5 Other

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

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

Resource Needs: The Project Handbook must also define how the resources (people and equipment) allocated to the project will be used to serve the project’s best interests.

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

6.3 Project Stakeholder Matrix

The Project Stakeholder Matrix lists all (key) project stakeholders and their contact details and clearly states their role(s) in the project. It may also include a classification or categorisation of each stakeholder. The information captured in the Project Stakeholder Matrix should be tailored to the project’s needs.

Key Participants	Description
Project Manager (PM)	Prepares the Project Stakeholder Matrix.
Business Manager (BM)	Assists the Project Manager (PM), particularly with the identification of stakeholders on the client side.
Other project stakeholders	Consulted on the identification of stakeholders.

Inputs

- Business Case and Project Charter
- Planning Kick-off Minutes of Meeting (MoM)

Guidelines

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

- Teams—e.g. Project Steering Committee (PSC).
- Roles—e.g. Project Owner (PO), Solution Provider (SP), User Representatives (URs).
- Support—e.g. Project Support Office (PSO), Project Manager Assistant (PMA).
- Operational roles—e.g. user, business analyst.
- Other domain-specific—e.g. architect.

Note: Be careful to respect all applicable regulations on privacy and personal data rights when establishing and handling the Project Stakeholder Matrix.

Steps

1. Using the project’s organisational structure, identify everyone who will have a role in the project.
2. Assign each person a specific role for the duration of the project, based on the PM² standard Roles & Responsibilities.

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

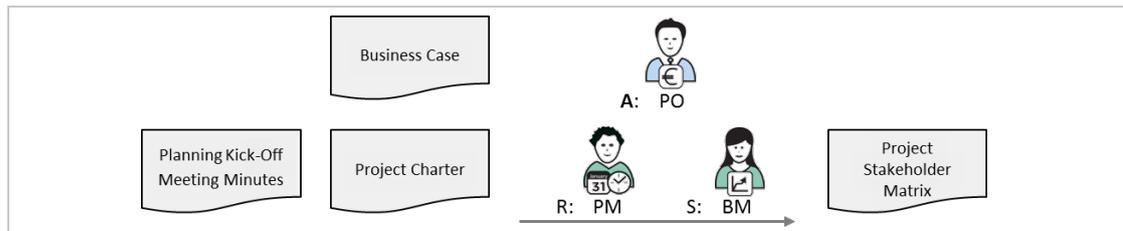


Fig 6.5 Project Stakeholder Matrix inputs and main roles

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

Outputs

- Project Stakeholder Matrix

PM² Template?



6. Planning Phase

6.4 Project Work Plan

The Project Work Plan further elaborates the project scope and identifies and organises the project work and deliverables needed to achieve the project goals. It establishes a basis on which to estimate the project’s duration, calculate the required resources, and schedule the work. Once the tasks are scheduled, the Project Work Plan is used as a basis for monitoring progress and controlling the project. The Project Work Plan should be baselined but also kept up-to-date during the life of the project and capture all project related work as identified during planning phase or emerged during the executing phase (e.g. risks, issues, corrective actions etc.)

Key Participants	Description
Project Manager (PM)	Coordinates all activities in the development of the Project Work Plan.
Project Core Team (PCT)	Assists the Project Manager (PM).
Project Support Office (PSO)	May provide technical advice (e.g. for scheduling).

Inputs

- Business Case and Project Charter

Steps

The Project Work Plan is composed of three parts:

1. Develop the **Work Breakdown**: This provides a hierarchical breakdown (subdivision) of all the work that must be done to meet the needs of the customer. Outlining the tasks enables an estimation of their effort and cost requirements.
2. Develop the **Effort & Cost Estimates**: These outline expectations of the resources needed and the time required to complete each project task, within the constraints of resource availability and capabilities. The effort and duration estimates are used to create the project schedule and budget.
3. Develop the **Project Schedule**: This identifies dependencies between tasks, pinpointing their start and end dates, which is then used to establish the overall project duration.

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

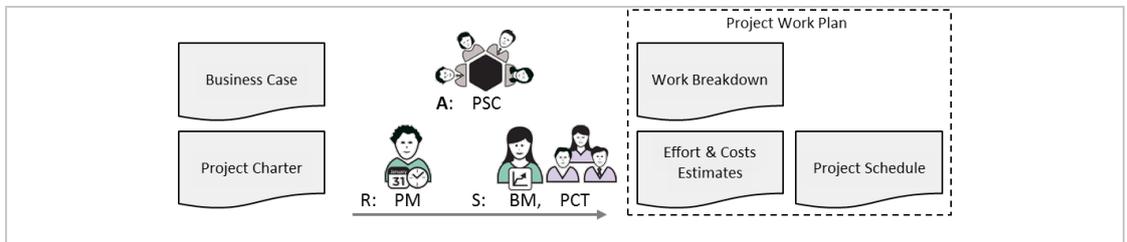


Fig 6.6 Project Work Plan inputs and main roles

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

Outputs

- Project Work Plan

PM² Template?



6.4.1 Work Breakdown

The objective of this section of the Project Work Plan is to break the project down into smaller and more manageable components such as deliverables, work packages, activities and tasks. The breakdown has multiple levels, each with progressively more detailed deliverables and work. Taken together, these define the project output(s) and the work involved in producing them (see Appendix C).

Inputs

- Business Case and Project Charter
- Project Requirements

Outputs

- Work Breakdown (part of the Project Work Plan)

6.4.2 Effort & Cost Estimates

The objective of this section of the Project Work Plan is to estimate the effort needed for each project task identified in the Work Breakdown based on resource availability and capabilities. After a task is assigned to a resource (or to a resource profile) it also becomes possible to calculate its cost. The estimates will be an input for the creation of the schedule (see Appendix C).

Inputs

- Project Work Plan (Work Breakdown)

Outputs

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

6.4.3 Project Schedule

The objective of this section of the Project Work Plan is to document the dependencies between tasks, pinpoint their start and end dates, and work out the overall project duration. Detailed scheduling can be done for the entire project upfront, or alternatively, worked out (in adequate detail) only for some early parts of the Executing Phase, and then progressively developed in full detail. The Project Manager (PM) uses the schedule to authorise, coordinate and accept project work, and to monitor overall progress (see Appendix C).

Inputs

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

Outputs

- Project Schedule (part of the Project Work Plan)

6. Planning Phase

6.5 Outsourcing Plan

The Outsourcing Plan defines the *what* and *how* for any outsourced products or services. It outlines the scope of products and/or services to be purchased or contracted, identifies the outsourcing strategies that will be used, and defines the relevant responsibilities for the full outsourcing lifecycle. Note that the present plan should be compliant with the relevant organisational rules and procedures.

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

Inputs

- Business Case and Project Charter
- Project Work Plan
- Project Handbook
- Relevant organisational procurement rules and procedures

Steps

1. Identify the deliverables and activities that need to be outsourced, along with the timeframe within which the outsourcing should take place.
2. Decide who can interface with the contractors and who is responsible for signing the contract. Note that there might be organisation-level rules on contracting to be followed.
3. List the evaluation criteria for contractors. This ensures that a contractor is selected on the basis of pre-set criteria and that no single person or group influences the decision. The criteria could include the following: capability, previous experience in similar projects, anything else of relevance.
4. Identify any constraints that may affect the outsourcing process (an organisation’s pre-existing agreements or preferred suppliers may require the project team to work with specific suppliers or contractors).
5. Identify the method(s) by which new products may be obtained (i.e. lease/purchase, tendering process). Factors like time/capacity constraints may also influence the choice of method.
6. Identify the people within the organisation who must approve purchases.
7. Provide a timeline for all the contracted activities and deliverables. This will ensure that the contractor is committed to having resources available to meet the pre-agreed timeline.
8. Identify any documentation deliverables expected from the contractors (e.g. manuals, etc.).

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

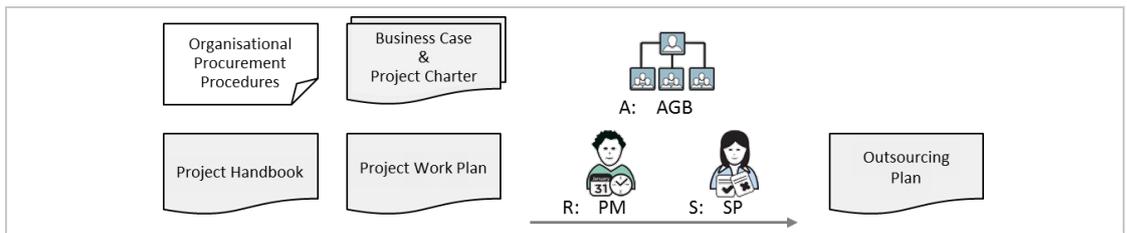


Fig 6.7 Outsourcing Plan inputs and main roles

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

Outputs

- Outsourcing Plan

PM² Template?



6.6 Deliverables Acceptance Plan

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

The Deliverables Acceptance Plan documents the agreed criteria and approach for deliverables acceptance. It also documents the relevant responsibilities, including all activities and effort required, as well as the timing and capability requirements for this so that the project's deliverable(s) can be formally accepted by the client based on objective criteria and predefined timelines.

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

Inputs

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

Guidelines

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

Steps

1. Define the overall acceptance approach and schedule, as well as the tools to be used.
2. Define the acceptance criteria and tolerances for the project deliverables and define the activities needed to achieve their validation.
3. Define the process and timeline for dealing with non-acceptance (or partial acceptance).
4. Define the level of formality of the acceptance process (e.g. whether a signed Deliverables Acceptance Note is required, etc.).
5. Define clear roles and responsibilities for the acceptance of each deliverable:
 - Determine who is responsible for the activities leading up to the acceptance of the deliverable.
 - Determine who is responsible for providing the necessary resources.
 - Identify the stakeholders who will validate the deliverable and define the specific knowledge and skills they require.
 - Identify the person/group responsible for the final acceptance of the deliverable.
6. Tailor the Deliverables Acceptance Checklist based on the acceptance activities defined.
7. In the case of outsourced work, the Deliverable Acceptance Process should be documented in the contract.
8. Ensure that the Deliverables Acceptance Plan is communicated to the relevant project stakeholders

6. Planning Phase

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

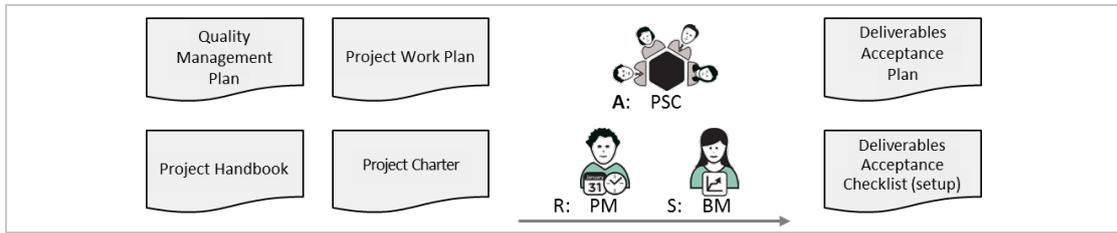


Fig 6.8: Deliverables Acceptance Plan inputs and main roles

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

Outputs

- Deliverables Acceptance Plan
- Deliverables Acceptance Checklist (setup)

PM² Template?

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6.7 Transition Plan

The Transition Plan defines the goals, prerequisites, activities and responsibilities associated with transitioning from the old (pre-project) to the new (post-project) state. It seeks to minimise the impact of any disruptions on the business during the transition period, and to facilitate the roll-out of project outputs in a smooth and timely fashion, allowing them to be used efficiently and with no serious transition issues.

A successful transition is an important prerequisite for achieving the planned project benefits. All transition activities become part of the Project Work Plan and are scheduled and controlled as part of the overall project.

Key Participants	Description
Project Manager (PM)	Prepares the Transition Plan.
Project Core Team (PCT)	Consulted in the plan’s preparation.
Other project stakeholders	Review and approve the Transition Plan.

Inputs

- Business Case and Project Charter
- Project Work Plan
- Project Change Management Plan
- Business Implementation Plan

Steps

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

RAM/RASCI	AGB	PSC	PO	BM	BIG	SP	PM	PCT
Transition Plan	I	A	C	C	C	C	R	C

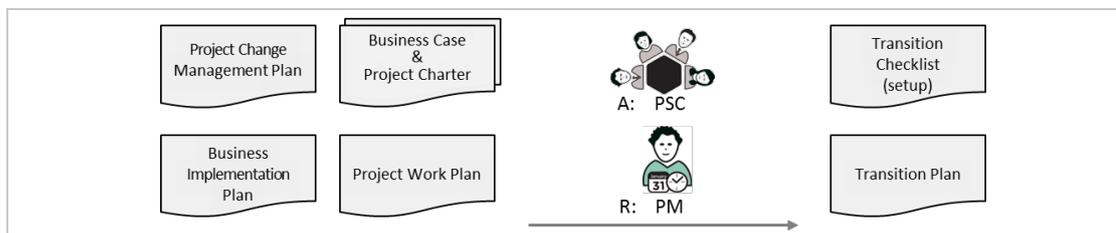


Fig 6.9 Transition Plan inputs and main roles

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

Outputs

- Transition Plan
- Transition Checklist (setup)

PM² Template?

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6. Planning Phase

6.8 Business Implementation Plan

The Business Implementation Plan aims to increase the likelihood of achieving the project’s desired outcomes and benefits. It documents an assessment of the project’s impact on the organisation’s processes, culture and people and outlines the change-management and communications activities that need to take place to ensure that the project outputs are effectively integrated into the organisation’s environment.

Depending on the organisation, the business implementation activities can be performed as part of the same project or as a separate one. These activities become part of the Project Work Plan and are scheduled and controlled as part of the overall project.

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

Inputs

- Business Case and Project Charter
- Project Handbook and Project Work Plan
- Transition Plan
- Quality Management Plan

Steps

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

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

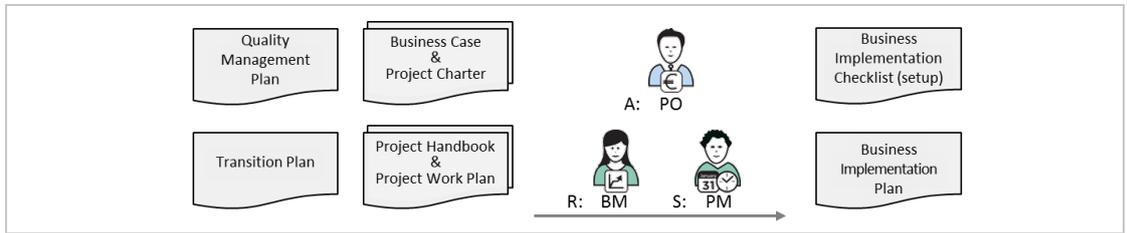


Fig 6.10 Business Implementation Plan inputs and main roles

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

Outputs

- Business Implementation Plan
- Business Implementation Checklist (setup)

PM² Template?

-
-

6.9 Phase Gate: RfE (Ready for Executing)

This is the second phase gate. A review and approval are recommended before the project can formally move to the next phase. The Project Manager (PM) uses the outputs of the Planning Phase to assess whether the goals of this phase have been achieved, and then requests approval from the Project Steering Committee (PSC) to move on to the Executing Phase.

If major deviations from the approved Business Case and/or Project Charter are identified, then the Project Steering Committee (PSC) must receive an additional approval from the Appropriate Governance Body (AGB) before the project can move on to the Executing Phase.

PM² provides a template Phase Exit Review Checklist for each phase that can be used by the Project Manager (PM) to guide the assessment, alongside a review of the phase’s specific goals.

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7 Executing Phase

The third phase of a PM² project is the Executing Phase. During this phase, the project deliverables are produced and the requestor organisation prepares for their introduction. The Executing Phase begins with a Kick-off Meeting and ends with the acceptance (final or provisional—as per the Deliverables Acceptance Plan) by the requestor side.

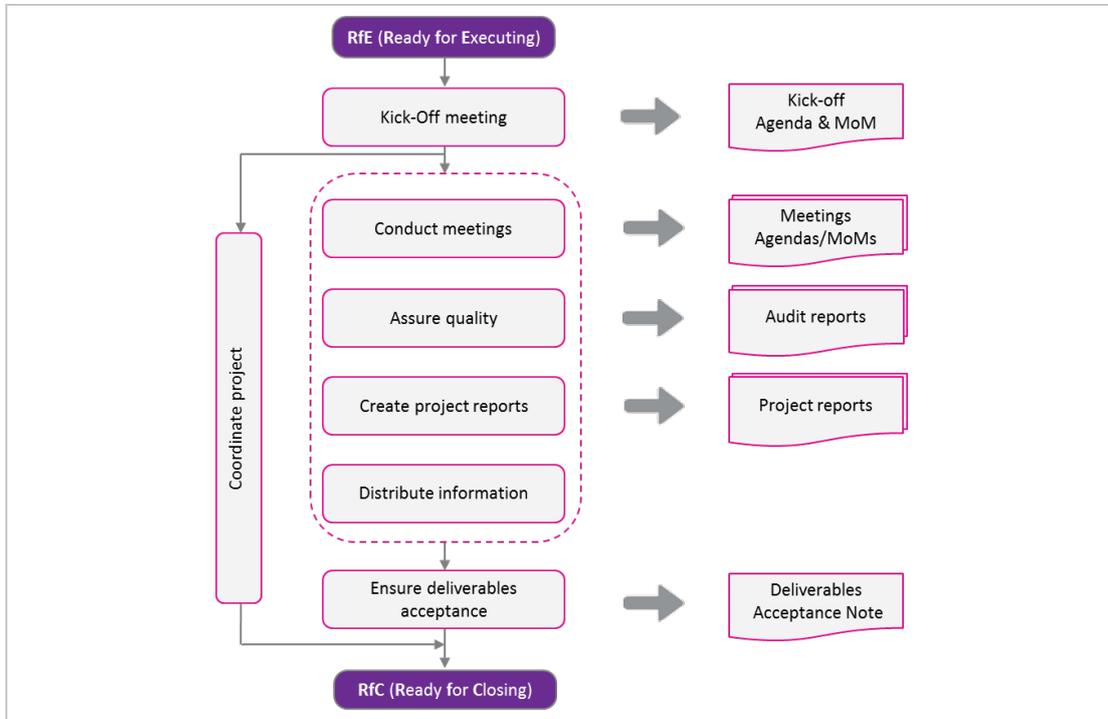


Fig 7.1 Executing Phase activities and main outputs

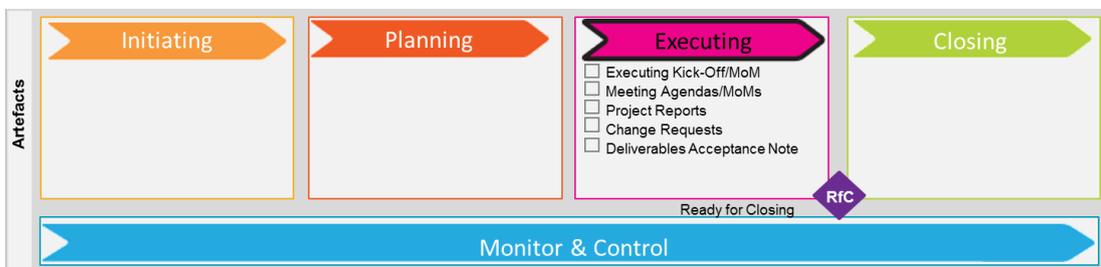


Fig 7.2 Executing Phase artefacts

7. Executing Phase

7.1 Executing Kick-off Meeting

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

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

Inputs

- Business Case and Project Charter
- Project Handbook
- Project Work Plan
- All project plans and logs
- Any requirements documents

Steps

Before the Executing Kick-off Meeting:

1. Plan the meeting.
2. Draft the Meeting Agenda clearly indicating the main points to be discussed.
3. Send out the Meeting Agenda in advance.
4. Ensure the attendance of the required participants.
5. Address any logistical needs and prepare documentation or hand-outs for the meeting.

During the Executing Kick-off Meeting:

1. Ensure that someone is designated to take the Minutes of Meeting (MoM), including action points.
2. Present the Project Handbook and the Project Work Plan with the appropriate level of detail.
3. Present the Communications Management Plan.
4. Agree on the conflict resolution process and present the escalation procedure.
5. Present the Project Stakeholder Matrix.
6. Present the Risk Management, Issue Management and Project Change Management processes as well as the Quality Assurance & Control activities.
7. Clarify the expectations of the Project Core Team (PCT).
8. Agree on the team’s ground rules

After the Executing Kick-off Meeting:

1. Send out the Minutes of Meeting (MoM) to the relevant stakeholders. The minutes should include a summary of project issues raised, risks identified, decisions taken and changes proposed. Note that the issues, risks, decisions and project changes should also be recorded in the relevant logs.

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

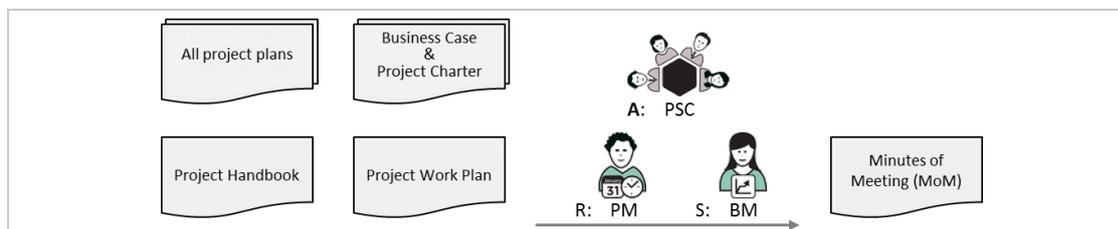


Fig 7.3 Executing Kick-off Meeting inputs/outputs and main roles

Outputs

- Minutes of Meeting (MoM)

PM² Template?



7.2 Project Coordination

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

Project coordination includes allocating project resources to activities, performing regular quality checks of interim results, maintaining ongoing communication with all project team members, and keeping everyone involved in the project motivated through leadership, negotiations, conflict resolution and the application of appropriate Human Resource management techniques.

Key Participants	Description
Project Manager (PM)	Coordinates all project activities.
Project Manager Assistant (PMA)	Assists the Project Manager (PM).
Business Manager (BM)	Can support (or contribute to) project coordination depending on the context of the project.

Inputs

- Project Handbook
- Project Work Plan

Note: Project coordination begins officially with the initiation of the project and ends with its closing. However, the intensity of project coordination peaks during the Executing Phase.

Steps

1. Manage and direct project activities and stakeholders.
2. Assign tasks to the Project Core Team (PCT) and coordinate their execution as per the Project Work Plan.
3. Provide information to the Project Core Team (PCT) as required for the progress of project.
4. Verify the completion of tasks and accept interim work deliverables in line with 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 ensure smooth collaboration among team members and the effective progress of project work.

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

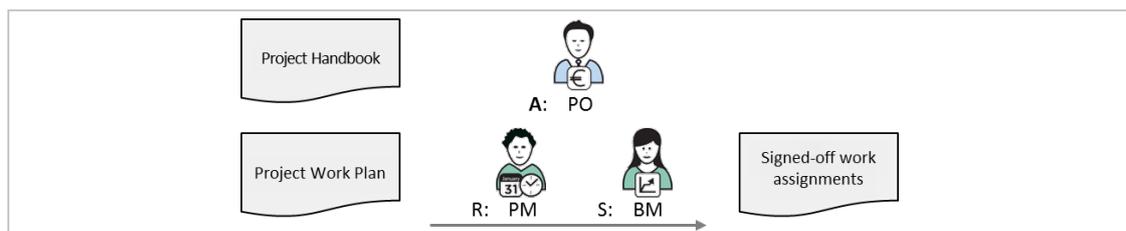


Fig 7.4 Project Coordination inputs/outputs and main roles

Outputs

- Signed off work assignments

PM² Template?

-

7. Executing Phase

7.3 Quality Assurance

Quality Assurance is the activity of gathering evidence that proves the project work is following high-quality standards, methodologies and best practices. It seeks to allow us to be confident that the project will satisfy the desired scope and quality requirements within the project constraints.

Quality Assurance activities include determining whether appropriate project controls are in place, confirming that they are being implemented and assessing their effectiveness.

Quality Assurance activities are documented in the Quality Management Plan. These can be performed by the Project Manager (PM), the Project Quality Assurance (PQA) role, or other project roles such as the Project Core Team (PCT), the Business Manager (BM) or the Solution Provider (SP). External audits undertaken by entities outside the project can also be defined.

Key Participants	Description
Project Manager (PM)	Accountable for carrying out all Quality Assurance activities.
Project Quality Assurance (PQA)	Establishes Quality Assurance standards and reviews project outputs and deliverables.
Project Core Team (PCT)	Adheres to the project’s Quality Assurance standards.

Inputs

- Quality Management Plan
- Project Work Plan

Guidelines

- These Quality Assurance activities must be part of the Project Work Plan.
- The Project Core Team (PCT) must provide evidence of adherence to the quality assurance standards and procedures.

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

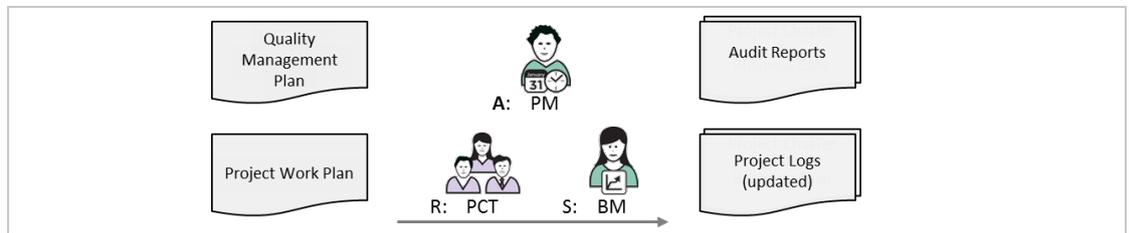


Fig 7.5 Quality Assurance inputs/outputs and main roles

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?

-
-
-

7.4 Project Reporting

The purpose of Project Reports is to communicate consolidated information concerning project performance to the appropriate stakeholders. Project reports typically provide information on scope, schedule, effort/cost and quality, as well as information related to the status of risks, issues, project changes and outsourcing. This information should be presented to the various stakeholders in the appropriate form (e.g. text or charts) and with the appropriate level of detail, as defined in the Communications Management Plan.

Project Reports may also contain agreed project indicators and metrics for evaluating progress. The reports are formally presented and discussed during the various project meetings, and disseminated via the information distribution activities described in the Communications Management Plan.

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

Inputs

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

Guidelines

- Project Reports are an output of project monitoring and an important input for project control and decision-making. They are also an input into the Project-End Review and are an important way of capturing historical information. They should therefore be properly archived during the Closing Phase.
- Project Reports should be tailored to the project's needs, given that they exist to serve the information and communication needs of the project stakeholders.

Steps

1. List all reports to be used in the project in the Project Handbook, or more specifically in the Communications Management Plan. PM² provides templates for Status and Progress Reports.
2. Make sure the report templates used are fit for purpose.
3. Ensure the reports' content, level of detail and format are well thought out 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	BIG	SP	PM	PCT
Project Reporting	I	I	A	S/C	I/C	I/C	R	C

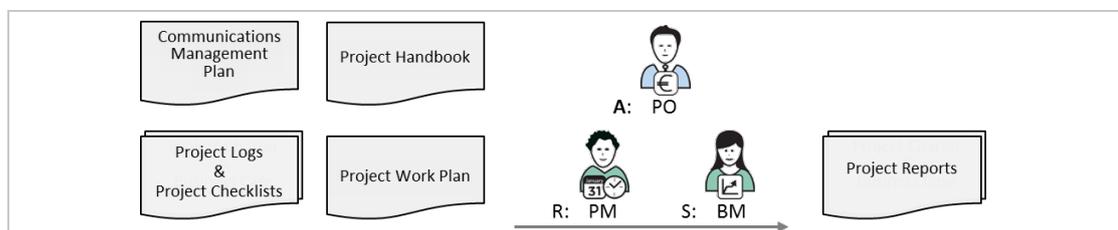


Fig 7.6 Project Reporting inputs and main roles.

The following are examples of PM² reports:

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

7. Executing Phase

Project Status Report

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

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

Project Progress Report

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

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

Quality Review Report

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

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

Contractor Status Report

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

Custom or Ad Hoc Reports

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

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

Outputs	PM ² Template?
• Project Status Report	<input checked="" type="checkbox"/>
• Project Progress Report	<input checked="" type="checkbox"/>
• Quality Review Report	-
• Contractor Status Report	-
• Custom or Ad Hoc Reports	-

7.5 Information Distribution

Information distribution refers to the methods used to keep project stakeholders informed about relevant project details through the regular distribution of project reports, as per the Communications Management Plan and project stakeholder needs.

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

Inputs

- Communications Management Plan
- Project Work Plan
- Project Reports and Project Logs
- Minutes of Meetings (MoMs)

Guidelines

- Relevant information resulting from the execution of project plans should be communicated to appropriate parties at the right time and in the appropriate format.
- If meetings are used to distribute information, ensure they are frequent enough to serve the communication needs of the project stakeholders.
- Keep stakeholders informed by sending them regular Status and Progress Reports that chart project progress against the baseline schedule and budget.

Steps

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

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

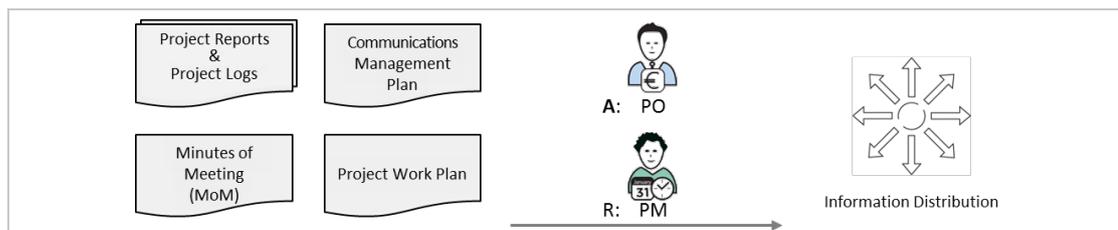


Fig 7.7 Information Distribution inputs and main roles

7. Executing Phase

7.6 Phase Gate: RfC (Ready for Closing)

This is the third and final phase gate. A review and approval are recommended before the project can move to the next phase. The Project Manager (PM) assesses whether all the goals of the Executing Phase have been achieved, verifies that all planned activities have been carried out, that all requirements have been met, and that the project's outputs have been fully delivered. The Project Manager (PM) is also responsible for ensuring that the Project Owner (PO) accepts the deliverables (at least provisionally), finalises the transition and makes the outputs available to the end-users.

Once all the above conditions have been met, the Project Steering Committee (PSC) can authorise the Project Manager (PM) to move the project to the Closing Phase.

PM² provides a template Phase Exit Review Checklist for each phase that can be used by the Project Manager (PM) to guide the assessment, alongside a review of the phase's specific goals.

8 Closing Phase

The final phase of a PM² project is the Closing Phase. The Closing Phase starts with the Project-End Review Meeting and ends with the Project Owner's (PO) final approval, which marks the project's administrative closure. During the Closing Phase, the project's activities are completed, the project's final state is documented, and the finished deliverables are officially transferred to the Project Owner (PO).

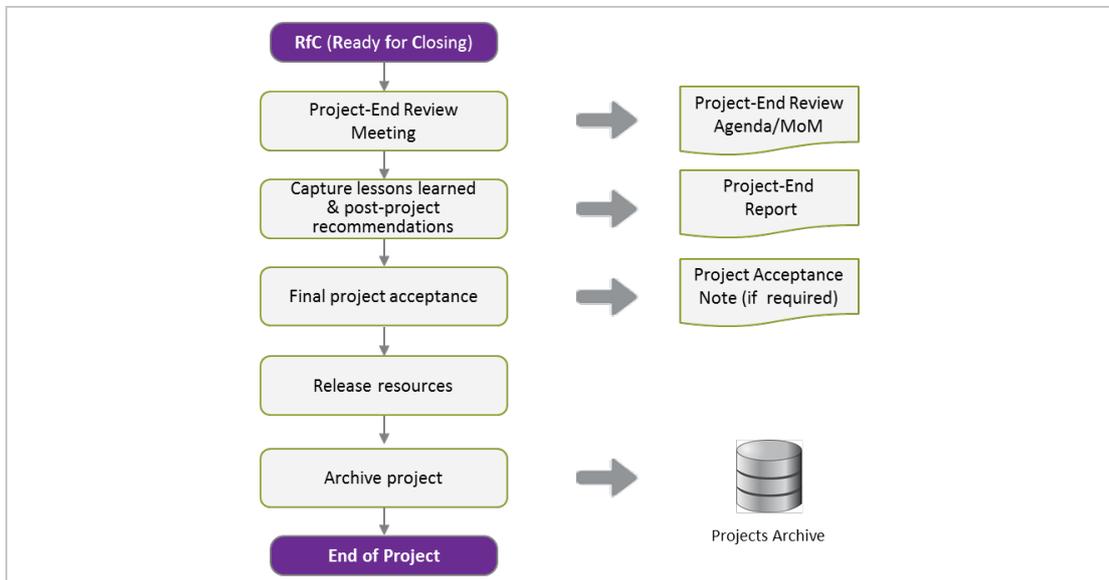


Fig 8.1 Closing Phase activities and main outputs

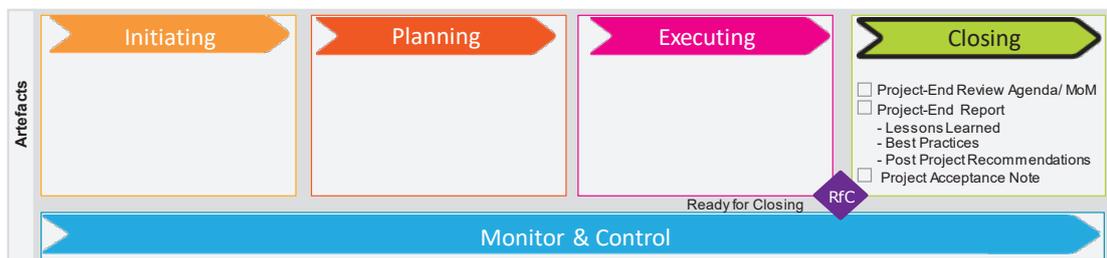


Fig 9.2 Closing Phase artefacts

Project-End Review Meeting

- The Closing Phase starts with an official Project-End Review Meeting.
- Project performance is discussed, team and contractor performance are evaluated, and Lessons Learned are captured.

Project-End Report

- The Project-End Report is created after the Project-End Review Meeting.
- The report documents Best Practices, pitfalls and solutions to problems encountered for use as a knowledge base for future projects.

Administrative Closure

- The Project Manager (PM) ensures that the project is approved and accepted by the relevant stakeholders. The finished deliverables are transferred into the care, custody and control of the Project Owner (PO) and the requestor/client organisation.
- 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.

8. Closing Phase

8.1 Project-End Review Meeting

The Project-End Review Meeting launches the Closing Phase of the project after the Executing Phase is deemed complete. The goal of this meeting is to ensure that project members discuss their experience of the project so that Lessons Learned and best practices can be captured. Also in this meeting team and contractor performance are evaluated, and ideas and recommendations for post-project work are discussed.

Key Participants	Description
Project Manager (PM)	Organises the meeting.
Project Core Team (PCT)	Attendance is required.
Project Owner (PO)	Attendance is required.
Project Quality Assurance (PQA)	Should attend.
Business Manager (BM)	Represents the business side and the stakeholders.
Other stakeholders	Contributions from other supporting or optional roles may also be valuable.

Inputs

- Business Case and Project Charter
- Project Handbook and 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 set the Meeting Agenda with the points to be discussed.
2. Send out the Meeting Agenda in advance.
3. Address logistical needs and prepare documentation or hand-outs for the meeting.
4. Make sure participants will be present and fully prepared.

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 someone is designated to take the Minutes of Meeting (MoM).
3. Present project statistics and data on performance and achievements.
4. Discuss the overall project experience.
5. Discuss problems and challenges faced during project and the way in which they were addressed.
6. Discuss Lessons Learned and Best Practices that may be useful for future projects.

After the Project-End Review Meeting:

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

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

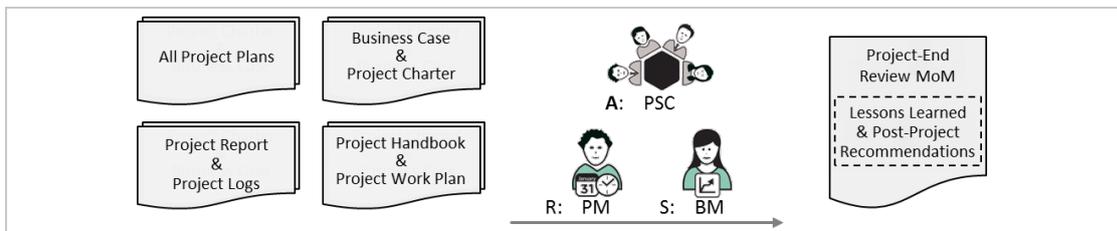


Fig 8.3 Project-End Review Meeting inputs/outputs and main roles

Outputs

- Project-End Review Meeting Minutes

PM² Template?



8.2 Lessons Learned and Post-Project Recommendations

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

Note: Improvement opportunities and Post-Project Recommendations should be captured in some form as they come up during the project. Otherwise, particularly in longer projects, the ideas might get lost by the time the project reaches the Closing Phase.

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

Key Participants	Description
Project Manager (PM)	Organises the gathering of Lessons Learned.
Project Core Team (PCT)	Contributes experiences and perspectives.
Business Manager (BM)	Represents the requestor's point of view.
Other project stakeholders	As required.

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

Guidelines:

- The Lessons Learned session should be a part of the Project-End Review Meeting (though separate sessions could be organised at the end of project phases or major milestones).
- It may be preferable to have the Lessons Learned session facilitated by someone who has not been intimately involved in the project, allowing the Project Manager (PM) to contribute as a participant.
- The discussion should be structured (using project phases, categories of activities, etc. as the organisational principle) to cover every aspect of the project.
- Use a structured approach to collecting lessons learned from a broader group of stakeholders via questionnaires, or structured interviews.
- Improvement ideas should be organised into groups to help the team better visualise the appropriate next steps required to implement them.
- In some cases, it could make sense to address the Lessons Learned over multiple sessions, each devoted to a different topic (technical issues, business implementation, etc.).
- The Project Steering Committee (PSC) should be invited to the Lessons Learned session(s) as this will allow its members to transfer the Lessons Learned to other projects.

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

Outputs

- Project-End Report

PM² Template?



8. Closing Phase

8.3 Project-End Report

Following the Project-End Review Meeting, the overall experience of the project is summarised in a report that documents best practices, Lessons Learned, pitfalls and solutions to problems. The report should be used as a knowledge base for future projects.

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

Inputs

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

Guidelines

- Though written by the Project Manager (PM), the help of relevant stakeholders should be sought to produce a well-rounded and comprehensive assessment of the project.
- The report should address each of the following subjects:
 - Project effectiveness.
 - Cost, Schedule, Scope and Quality Management.
 - Risk Management.
 - Issue Management.
 - Project Change Management.
 - Communications Management.
 - Human resources and stakeholder management.
 - Deliverables Acceptance.
 - Business Implementation and Project Transition.
 - The performance of the Project Core Team (PCT) and participating organisation.
 - Best Practices and Lessons Learned.
 - Post-Project Recommendations.
- This document should be part of a central project repository or knowledge database describing project experiences, best practices and common pitfalls.

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

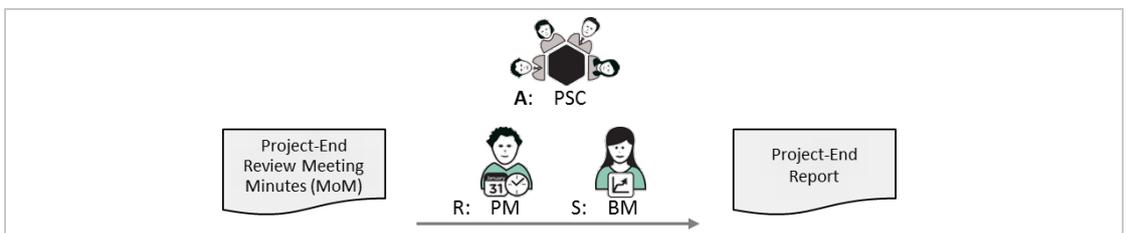


Fig 8.4 Project-End Report inputs and main roles

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?



8.4 Administrative Closure

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

The project is officially closed once all Closing Phase activities are completed and the Project Owner (PO) has approved the project. Formal project closure brings project mode to an end and allows operations mode to commence.

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

Inputs

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

Steps

1. Ensure that all documentation and records are reviewed, organised and archived.
2. Release all resources.
3. Ensure that the project is approved and accepted by the project stakeholders.
4. Ensure that the Project Owner (PO) gives final project approval and closes the project.
5. Verify that all contractual obligations have been fulfilled.

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

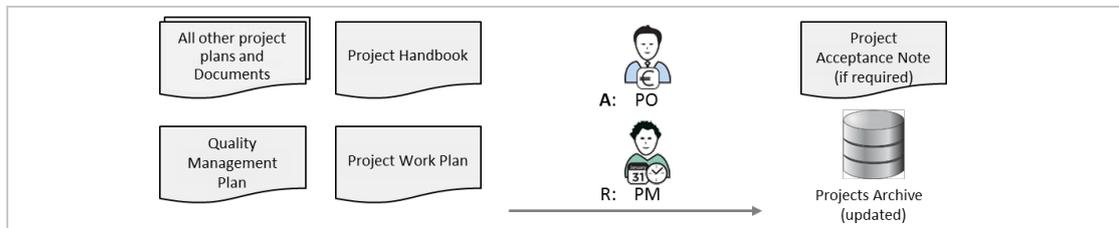


Fig 8.5 Administrative Closure inputs/outputs and main roles

Outputs

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

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9 Monitor & Control

Monitor & Control activities run throughout the duration of the project, but peak during the Executing Phase. All project management processes are executed as part of the Monitor & Control process group.

The Monitor & Control activities are carried out based on the processes described in the Project Management Plans developed during the Planning Phase. The effective execution of these processes is ultimately the responsibility of the Project Manager (PM).

Manage

- Execute all management processes defined in the Project Management Plans, and manage the outsourcing, transition, business implementation and deliverables acceptance activities as per the relevant Project Specific Plans.

Monitor

- Monitor project activities and overall project performance.
- Track the project performance against the baseline in order to facilitate reporting and controlling.

Control

- Devise, plan, propose and implement corrective actions to address existing or potential performance risks or issues, while updating the relevant project plans and logs.

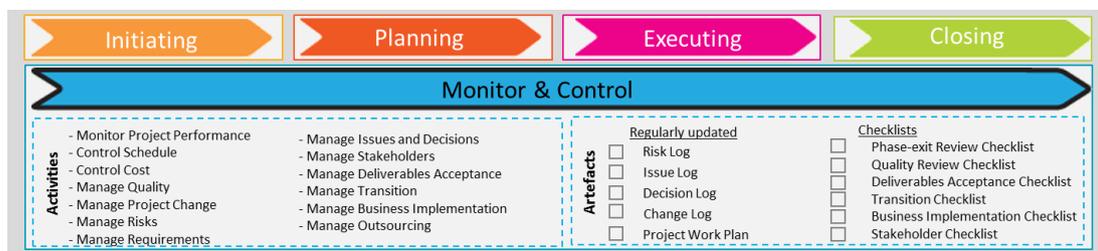


Fig 9.1 Monitor & Control activities and main artefacts

Monitor & Control artefacts comprise the Project Work Plan as well as a range of Project Logs and Checklists.

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

There are several **Checklists** that can be used to help the Project Manager (PM) control the project better.

PM² provides the following Checklists:

- Phase-exit Review Checklist
- Quality Review Checklist
- Deliverables Acceptance Checklist
- Transition Checklist
- Stakeholders Checklist
- Business Implementation Checklist

9. Monitor & Control

9.1 Monitor Project Performance

The purpose of project performance monitoring is to collect information about the state of the project’s progress and overall health. The Project Manager (PM) tracks the project dimensions of scope, schedule, cost and quality, monitors risks, issues and project change, and forecasts their evolution for the purpose of reporting the overall project progress.

This information is then distributed to relevant stakeholders as per the Communications Management Plan.

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

Inputs

- Project Handbook
- Project Work Plan
- Project Logs (Risk Log, Issue Log, Decision Log, Project Change Log)
- Quality Checklist
- Minutes of Meetings (MoMs)
- Input from the Contractor’s Project Manager (CPM), if applicable

Steps

1. Use the baselined Project Work Plan as a reference for monitoring project performance.
2. Regularly exchange information about the project’s current status and next steps with the Project Core Team (PCT) at formal and informal meetings.
3. Gather information on, and monitor the progress of:
 - **Tasks**—i.e. the status of critical and next critical path tasks.
 - **Key outputs**—i.e. completed and verified deliverables, and milestones achieved as planned.
 - **Resource utilisation**—i.e. resources used as planned and costs as budgeted.
 - **Logs**—i.e. the status and evolution of risks and issues, changes and decisions.
 - **People**—i.e. team morale, stakeholder engagement, overall project dynamics and productivity.

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

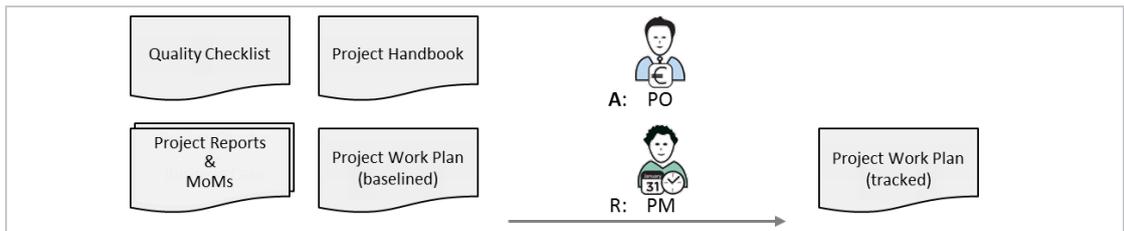


Fig 9.2 Monitor Project Performance inputs/outputs and main roles

Outputs

- Project Work Plan (tracked)

PM² Template?



9.2 Control Schedule

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

Approved project changes (e.g. addition of new tasks or changes to the required effort or start/end dates of existing ones) that have an impact on the overall project schedule are incorporated into the Project Work Plan (updated schedule). If the schedule is at risk or considerable delays are foreseen (beyond the predefined thresholds), the Project Steering Committee (PSC) needs to be informed and corrective actions must be devised, agreed and implemented. If this happens, affected project stakeholders should also be notified.

Key Participants	Description
Project Manager (PM)	Monitors and controls the work schedule.
Project Core Team (PCT)	Works to keep to the baselined schedule and quality standards. Reports on the status of their work, periodically or upon request.

Inputs

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

Steps

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

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

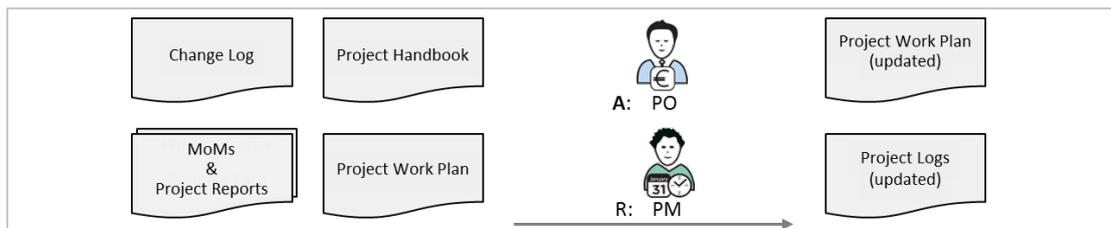


Fig 9.3 Control Schedule inputs/outputs and main roles

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?

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9. Monitor & Control

9.3 Control Cost

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

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

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

Key Participants	Description
Project Manager (PM)	Monitors and controls 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 (MoMs) and Project Reports from previous reporting periods

Steps

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

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

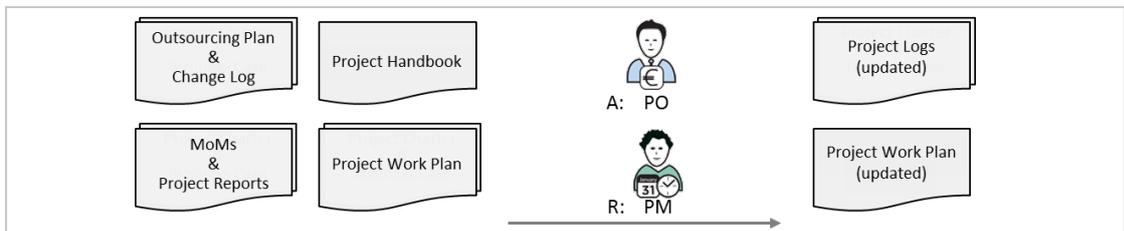


Fig 9.4 Control Cost inputs/outputs and main roles

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

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

PM² Template?

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9.4 Manage Stakeholders

Managing project stakeholders is a critical project management activity that begins in the Initiating Phase of the project, when project expectations and requirements are identified, and ends in the Closing Phase, when stakeholders' overall project experience and satisfaction are recorded.

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

Key Participants	Description
Project Manager (PM)	Manages project stakeholders.
Business Manager (BM)	Assists the Project Manager (PM) in this activity.

Inputs

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

Steps

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

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

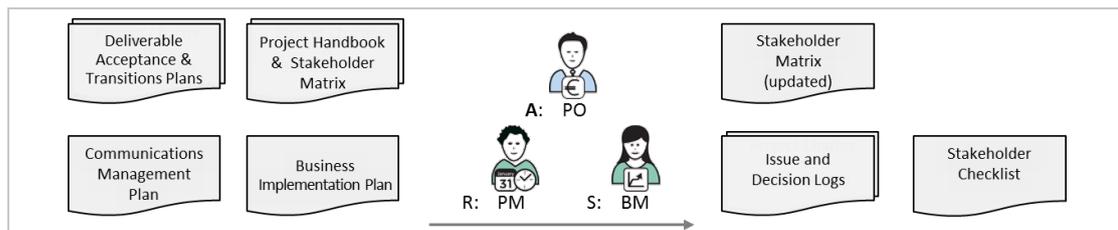


Fig 9.5 Manage Stakeholders inputs/outputs and main roles

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

Outputs

- Project Stakeholder Matrix (updated)
- Issue and Decision Logs (updated)
- Stakeholders Checklist

PM² Template?

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9. Monitor & Control

9.5 Manage Requirements

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

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

Key Participants	Description
Project Manager (PM)	Undertakes the requirements management process.
Business Manager (BM)	Provides information required to draft the requirements and approves them.
User Representatives (URs)	Participate in the gathering and validation of the requirements.
Business Analyst (BA) (<i>member of the Project Core Team, PCT</i>)	Responsible for many of the requirements management activities (e.g. requirements documentation, specification, etc.).

Inputs

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

Guidelines

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

Steps

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

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

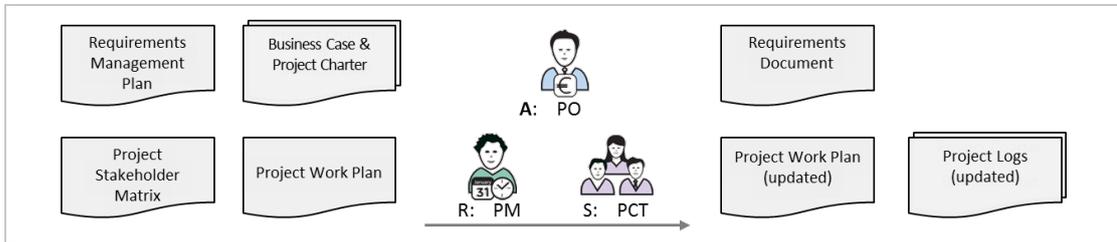


Fig 9.6 Manage Requirements inputs/outputs and main roles

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

Outputs

- Requirements Document
- Change Log (updated)
- Project Work Plan (updated)

PM² Template?

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9. Monitor & Control

9.6 Manage Project Change

Project change management defines the activities related to identifying, documenting, assessing, prioritising, approving, planning and controlling project changes, as well as communicating them to all relevant stakeholders. Changes can be requested (or identified and raised) throughout the project lifecycle by any project stakeholder.

The Project Change Management Process can be tailored and customised to a project’s needs and can be documented either in a Project Change Management Plan or in the Project Handbook. A Change Log is used to document, monitor and control all project changes (see Appendix B). This makes it easier to track the changes and communicate them to the Project Owner (PO) and/or the Project Steering Committee (PSC) for approval.

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

Inputs

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

Steps

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

All stakeholders affected by the project changes should be informed and the Change Log should be kept up-to-date.

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

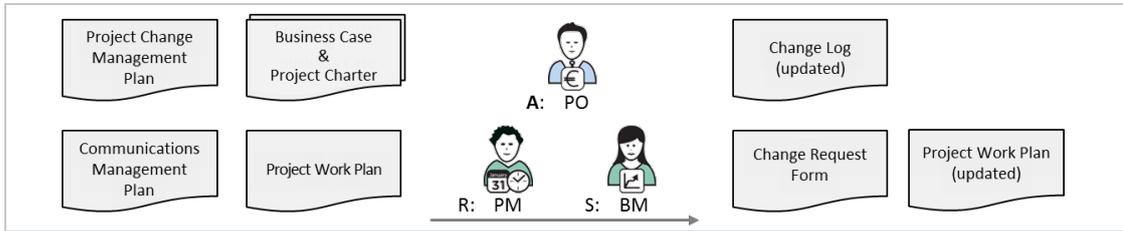


Fig 9.7 Manage Project Change inputs/outputs and main roles

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

Outputs

- Change Request Form
- Change Log (updated)
- Project Work Plan (updated)

PM² Template?

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9. Monitor & Control

9.7 Manage Risk

Risk management is a systematic ongoing process for identifying, assessing and managing risks so that they conform to the organisation’s accepted risk attitude. Risk management improves the project team’s confidence by proactively managing any potential event that might have a positive or negative impact on project objectives.

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

Key Participants	Description
Project Manager (PM)	Monitors and controls the risks.
Other project stakeholders	Informed of the critical risks.
Project Core Team (PCT)	Involved in identifying and responding to risks.
Project Steering Committee (PSC)	Monitors projects with high levels of risk exposure.
Other stakeholders	Identify and communicate risks in their areas of expertise.

Inputs

- Business Case and Project Charter
- Risk Management Process
- Risk Log

Steps

1. **Identify risks:** The purpose of this step is to identify and document the risks that can have impact on 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.
2. **Carry out a risk assessment:** The purpose of this step is to assess the likelihood of each risk and the severity of its impact on project objectives. This assessment is necessary before any risk response can be planned. Medium to high level risks are dealt with at a higher priority level.
3. **Develop a risk-response strategy:** The purpose of this step is to choose the best possible strategy to meet an identified risk and to plan actions necessary to implement this strategy.
4. **Control risk-response activities:** The purpose of this step is to monitor and control the implementation of risk-response activities and to revise/update the Risk Log based on a regular reassessment.
5. **Record:** Update the Project Work Plan with clear risk-response tasks whenever deemed necessary.
6. **Report:** Regularly inform the Project Steering Committee (PSC) about risk-related activities.

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

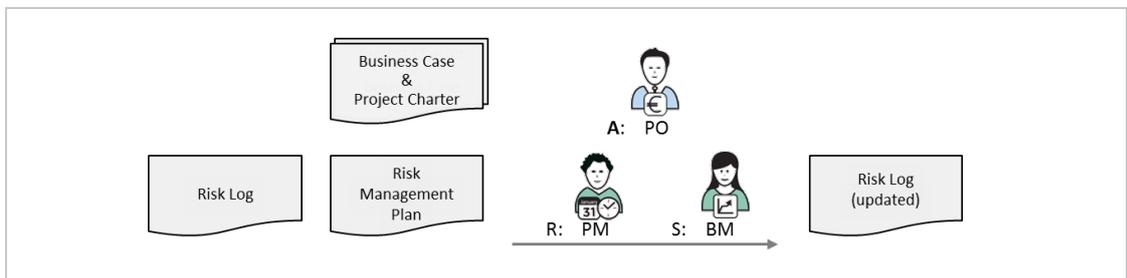


Fig 9.8: Manage Risk inputs/outputs and main roles

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

Outputs

- Risk Log (updated)

PM² Template?



9.8 Manage Issues and Decisions

The Project Manager (PM) manages project issues and decisions. Issues are identified, evaluated and assigned for resolution to relevant project stakeholders as per the Issue Management process, which can be documented in either an Issue Management Plan or the Project Handbook. The Issue Log is used to manage project issues, while the Decision Log is used to document all relevant decisions (see Appendix B). Decisions may be implemented by the Project Manager (PM) or escalated to the Project Steering Committee (PSC), depending on their importance. Note that issues and decisions are often linked to the resolution of other log items (e.g. risks, changes).

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

Inputs

- Issue Management Process
- Project Logs
- Minutes of Meetings (MoMs)

Steps (managing project issues):

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

Steps (managing decisions):

1. Document decisions taken during the project (particularly during the Executing Phase).
2. Link decisions to the resolution of other log items (e.g. risks, issues and changes).
3. The Project Manager (PM) regularly reports on the status of decisions to project stakeholders.

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

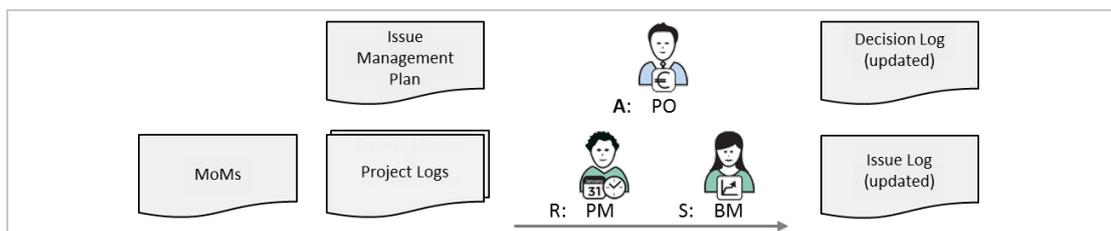


Fig 9.9 Manage Issues and Decisions inputs/outputs and main roles

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

Outputs

- Issue Log (updated)
- Decision Log (updated)

PM² Template?

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9. Monitor & Control

9.9 Manage Quality

Project quality management aims to ensure that the project will achieve the expected results in the most efficient way and that deliverables will be accepted by the relevant stakeholders. It involves overseeing all the activities needed to maintain a desired level of excellence. This includes performing quality planning, quality assurance, quality control and quality improvement throughout the project until the Closing Phase and the final acceptance of the project. Configuration management helps project stakeholders manage project artefacts and deliverables effectively by providing a single reliable reference to these artefacts and deliverables, thereby 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 quality management process are clearly defined and documented in the Quality Management Plan.

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

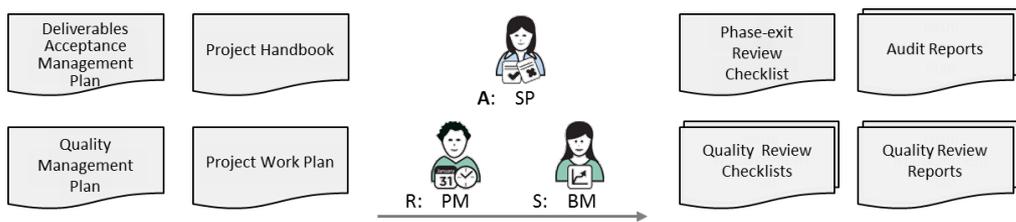
Inputs

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

Steps

1. Define and reach agreement on project quality characteristics that take into consideration project needs, constraints and the cost of quality, following a cost/benefit analysis.
2. Plan and perform quality assurance and control activities.
3. Verify that the configuration management procedure is being followed.
4. Actively involve the whole project team and relevant stakeholders.
5. Identify any non-conformity, analyse the root cause, and implement corrective actions.
6. Identify opportunities to improve the quality of both the process and the deliverables.
7. Ensure deliverables are accepted by the relevant stakeholders in line with predefined and documented deliverables acceptance criteria and the agreed acceptance process.

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



9.10 Manage Quality inputs/outputs and main roles

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

Outputs

- Quality Review Checklist
- Phase-exit Review Checklist
- Quality Review Reports
- Audit Reports

PM² Template?

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9.10 Manage Deliverables Acceptance

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

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

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

Inputs

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

Steps

1. The Project Manager (PM) ensures that the acceptance procedures and guidelines are applied and the necessary environments (space, infrastructure, tools, etc.), materials and information are provided for the acceptance process to take place.
2. The Project Steering Committee (PSC) approves the application of the documented acceptance strategy and acceptance schedule.
3. The project deliverables are accepted if the acceptance activities (as described in the Deliverables Acceptance Plan) are carried out within a pre-specified tolerance range. Note that project deliverables can be conditionally accepted, even with a set of known defects or issues, if these are documented and if there is a plan in place for addressing them.
4. The Business Manager (BM) provides (qualified) resources to support the users' acceptance of the deliverables.
5. The Project Manager (PM) ensures that supporting deliverables (such as documentation) are supplied in addition to the main deliverables (taking an Information System as an example, such deliverables could include end-user support material, a User Manual, an Operations Manual, training materials, release notes, etc.).
6. 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 matter expert/representative.

For example:

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

9. Monitor & Control

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

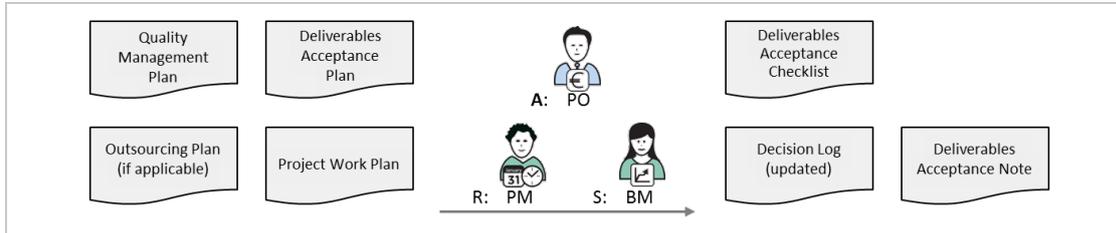


Fig 9.11 Manage Deliverables Acceptance inputs/outputs and main roles

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

Outputs

- Deliverables Acceptance Checklist
- Decision Log
- Deliverables Acceptance Note

PM² Template?

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9.11 Manage Transition

Transition management ensures a controlled and smooth transition from the old state to the new state in which the new product/service developed by the project is put in place. It includes the management of any relevant communication activities and requires close cooperation between the Project Manager (PM) and the Business Manager (BM) to ensure the correct transfer of project deliverables to the client organisation.

Key Participants	Description
Project Manager (PM)	Monitors and controls the transition.
Quality Assurance (PQA)	Can also be involved if necessary.
Other project stakeholders	Informed about progress and contribute as appropriate.
Project Owner (PO)	Provisionally accepts the product before the transition is complete.

Inputs

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

Steps

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

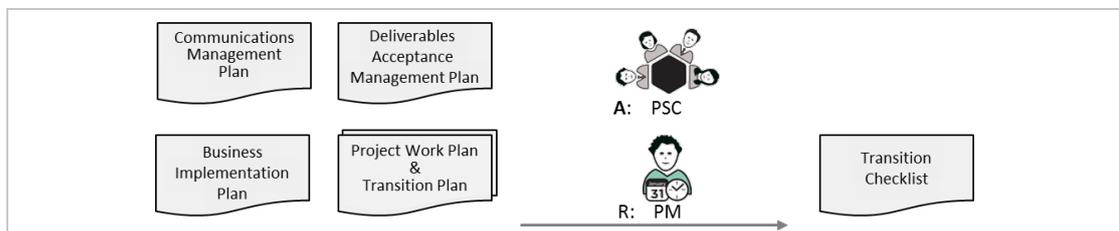


Fig 9.12 Manage Transition inputs/outputs and main roles

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

Outputs

- Transition Checklist.
- Any other records/reports planned for this activity.
- Any acceptance documents (subject to contractual agreements).

PM² Template?

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9. Monitor & Control

9.12 Manage Business Implementation

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

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

Key Participants	Description
Business Manager (BM)	Manages the business implementation activities.
Project Manager (PM)	Assists the Business Manager (BM) in this activity. Updates the Project Work Plan with any activity changes or progress information.

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

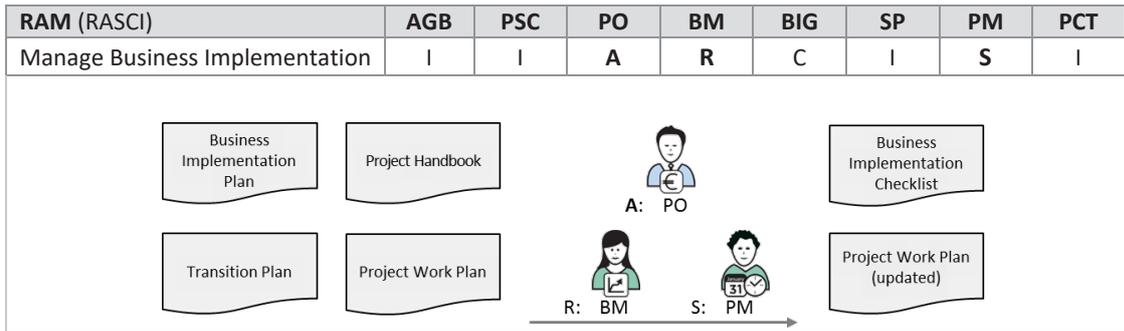


Fig 9.13 Manage Business Implementation inputs/outputs and main roles

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

Outputs

- Business Implementation Checklist
- Project Work Plan (updated)

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9.13 Manage Outsourcing

The Project Manager (PM) manages the delivery of all products and/or services that have been outsourced. This work is undertaken in conjunction with the relevant procurement groups and the Contractor’s Project Manager (CPM) in order to ensure that the contractor effectively manages the outsourced work and delivers according to the time, cost and quality expectations defined in the Outsourcing Plan.

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

Inputs

- Outsourcing Plan
- Business Case and Project Charter
- Project Work Plan

Steps

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

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

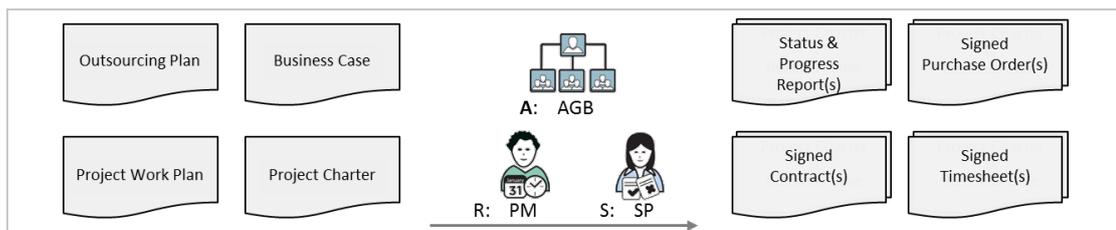


Fig 9.14 Manage Outsourcing inputs/outputs and main roles

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

Outputs

- Status and progress report(s)
- Signed contract(s)
- Signed purchase order(s)
- Signed timesheet(s)

PM² Template?

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Appendix A: Contributions and Acknowledgements

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

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

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Appendix B: Project Management Plans and Logs

B.1 Requirements Management Plan

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

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

Requirements are traditionally defined in detail early in the project lifecycle. However, depending on the type, scope and chosen project strategy, the requirements management process may need to accommodate a more agile definition and elaboration of requirements, thereby allowing for frequent and less formal requirements management cycles.

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

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

Inputs

- Project Charter
- Project Handbook
- Project Stakeholder Matrix

Steps

1. Check if a requirements management process already exists at the organisational level.
2. Tailor the Requirements Management Plan to the project's needs. Create it as a standalone document or as a section within the Project Handbook.
3. Define what a requirement is, and what the possible states of its lifecycle are.
4. Ensure that the requirements management process is aligned with the change management process, and that requirement changes are traced to the project's deliverables and activities.
5. Define the roles and responsibilities for each process step. Define clearly who is responsible for approving and validating the implementation of new requirements.
6. Define the tools and techniques that will be used to identify, evaluate, prioritise and manage requirements (e.g. brainstorming sessions, prototyping, MoSCoW, etc.).
7. Define the possible formats of representation of requirements for the project (e.g. text, use cases, diagrams, user stories, etc.)
8. Define the artefacts and repositories used for the documentation and management of the requirements (e.g. specification document or requirements traceability matrix).
9. Define the requirements validation process and make sure it is aligned with the overall deliverables acceptance process.
10. Ensure that the requirements management process is communicated to the project stakeholders.

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

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

Artefact

- Requirements Management Plan

PM² Template?



B.2 Project Change Management Plan

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

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

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

Inputs

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

Steps

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

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

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

Artefact

- Project Change Management Plan
- Change Log (setup)

PM² Template?



B.3 Risk Management Plan

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

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

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

Inputs

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

Steps

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

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

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

Artefact

- Risk Management Plan
- Risk Log

PM² Template?

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B.4 Issue Management Plan

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

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

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

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

Inputs

- Project Charter
- Project Handbook
- Project Work Plan

Steps

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

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

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

Artefact

- Issue Management Plan
- Issue Log
- Decision Log

PM² Template?

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B.5 Quality Management Plan

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

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

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

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

Inputs

- Project Charter
- Project Handbook
- Project Work Plan

Steps

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

Appendix B: Project Management Plans and Logs

Guidelines (specific for configuration management)

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

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

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

Artefact

- Quality Management Plan
- Quality Review Checklist
- Phase-exit Review Checklist

PM² Template?

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B.6 Communications Management Plan

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

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

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

Inputs

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

Steps

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

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

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

Artefact

- Communications Management Plan

PM² Template?



B.7 Change Log

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

B.8 Risk Log

Risk Identification and Description	
ID	The risk identifier.
Category	Risk category related to the area affected by the risk (e.g. business, IT, people & organisation, external or legal).
Title	A short title for the risk.
Description	A structured formulation of the opportunity or threat in the form of (route) Cause – Risk –Effect, along with potential risk inter-dependencies.
Status	The risk status can be any of the following: Proposed: This is the initial status. Use this while the risk is still being specified. Assessing: Use this status to initiate an assessment. Waiting for Approval: Use this to request approval. Before applying this status, make sure the assessment is complete and the estimates are reliable. Approved: This status is set once the risk possibility has been accepted. Rejected: This status is set if the risk was rejected as not relevant. Closed: This status is set once the risk has been managed (e.g. mitigation)
Identified by	The person who identified the risk.
Identification date	The date on which the risk was identified.
Risk Assessment	
Likelihood (L)	A numerical value denoting the estimate of the probability that the risk will occur. The possible values are: 5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low
Impact (I)	A numerical value denoting the severity of the risk's impact (should it occur). The possible values are: 5=Very high, 4=High, 3=Medium, 2=Low, 1=Very low
Risk Level (RL)	The risk level is the product of the likelihood and impact (RL=L*I).
Risk owner	The person accountable for managing and monitoring the risk.
Escalation	Whether or not the risk is to be escalated to the Directing or Steering Layers (Yes or No).
Risk Response	
Risk response Strategy	Strategies for negative risks (threats): Avoid, Reduce, Accept, Transfer/Share Strategies for positive risks (opportunities): -Exploit, Enhance, Accept, Share
Action details (effort & responsible)	Description of the action(s) to be taken, including its objective, scope, deliverables, and the person responsible and estimated effort needed.
Target date	The date on which the action is expected to be implemented.
Traceability/Comments	The ID(s) of the tasks (in the Project Work Plan) that implement the risk response actions, and/or the IDs of related changes, issues, or decisions (log entries). Also include any additional information/comments related to the risk.

B.9 Issue Log

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

B.10 Decision Log

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

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Appendix C: Project Management Tools & Techniques

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

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

C.1 PESTEL Analysis

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

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

C.2 Make or Buy Analysis

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

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

Potential reasons for a make decision include cost effectiveness, intellectual property concerns, quality control issues or supplier unreliability issues. Potential reasons for buy decision include cost considerations, lack of technical expertise, suppliers' technical experience and/or insufficient in-house resources.

C.3 Stakeholder Interest/Influence Matrix (SIIM)

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

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

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

C.4 Risk Likelihood/Impact Matrix

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

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

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

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

Based on the risk appetite of the organisation, adequate risk-response strategies can be developed for each identified risk.

C.5 Work Breakdown Structure (WBS)

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

The Work Breakdown Structure (WBS) constitutes a good basis for the Project Manager (PM) in assigning different responsibilities to team members. Each task in the structure can then be further defined: work can be estimated, risks and dependencies can be identified, and resources can be mobilised.

C.6 Deliverables Breakdown Structure (DBS)

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

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

You could say that the Deliverables Breakdown Structure (DBS) defines what the project will produce (as a whole and as parts), and the Work Breakdown Structure (WBS) defines the work needed to produce them.

C.7 Effort and Cost Estimates

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

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

C.8 Three-Point Estimates

The Three-Point Estimate is commonly used, in conjunctions with Network Diagrams, to provide a weighted average of activity duration or cost. It is primarily a quantitative risk assessment technique that makes use of a stochastic approach rather than a deterministic one (e.g. single point estimates). The expected duration/cost and standard deviation of a project's duration or cost is calculated based on three data points, namely an optimistic estimate of duration or cost, a most likely estimate and a pessimistic estimate. These estimates are then weighed to provide a weighted average of the effort, cost or duration.

In addition, these estimates can be used to calculate a standard deviation, to estimate confidence levels of the weighted average per activity, and to build simple statistical models of a task's time and cost. This method can be applied to forecast and mitigate risk and to assign buffers/contingencies to tasks. Nowadays, numerous Project Management Software, can perform automated calculation of the above through modelling and simulation (e.g. by using the Beta-PERT distribution).

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

C.9 Decision Trees

The decision tree is a visual decision support tool, consisting of nodes and branches that helps us describe possible alternatives (paths) by representing choices, and events with different likelihood of occurrence. It uses three types of nodes: (a) Decision nodes (represented by squares) (b) Chance nodes (represented by circles) and (c) End nodes (represented by triangles).

In decision tree analysis (primarily being performed during project risk management), the decision tree is principally used in conjunction with the Expected Monetary Value (EMV) where we compute the EMV of

each alternative (branch) and thus select the most favourable one. The decision tree analysis can also be performed by creating a stochastically determined structure and then simulate the outcomes (e.g. through Monte Carlo simulation), in order to derive to probability-based decisions.

C.10 Project Scheduling

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

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

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

C.11 Resource Levelling

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

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

C.12 Gantt Charts

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

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

C.13 Critical Path Method (CPM)

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

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

C.14 Critical Chain Method (CCM)

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

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

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

C.15 Earned Value Management (EVM)

Earned Value Management (EVM) is a technique used to monitor and control the performance of projects, providing an objective view of performance based on the project financials. Both cost and value are measured in terms of cost units (e.g. person days or euro). Earned Value Management (EVM) provides relatively objective metrics—or key performance indicators (KPIs)—to proactively manage project performance. Some indicators reflect on progress made so far, or deviations from the plan from a cost or work value point of view, while other indicators focus on forecasting total budget deviation, or on the productivity levels required to complete the project on schedule.

The principal metrics being used are the Planned Value (PV), also known as Budgeted Cost of Work Scheduled (BCWS), the Actual Cost (AC), also known as Actual Cost of Work Performed (AVWP) and the Earned Value, also known as Budgeted Cost of Work Performed (BCWP). Through the combination of the above metrics we can have various KPIs, e.g. Schedule Variance (SV) and Schedule performance Index (SPI), Cost Variance (CV) and Cost Performance Index (CPI) or even more advanced ones for forecasting future project performance, like the Estimate at Completion (EAC), the Estimate to Complete (ETC) and the To Complete Performance Index (TCPI).

C.16 Pareto Analysis

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

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

C.17 Lessons Learned

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

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

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

Appendix D: PM² Extensions & Considerations

D.1 Agile, Programme, and Portfolio Management

D.1.1 PM² and Agile Management

PM² recognises 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 face various challenges, which grow with the size of the organisations in which they are applied. In the case of many organisations, these challenges include coordination between Agile and non-Agile teams, compliance with various organisational governance and audit requirements, and organisational architecture and interoperability constraints.

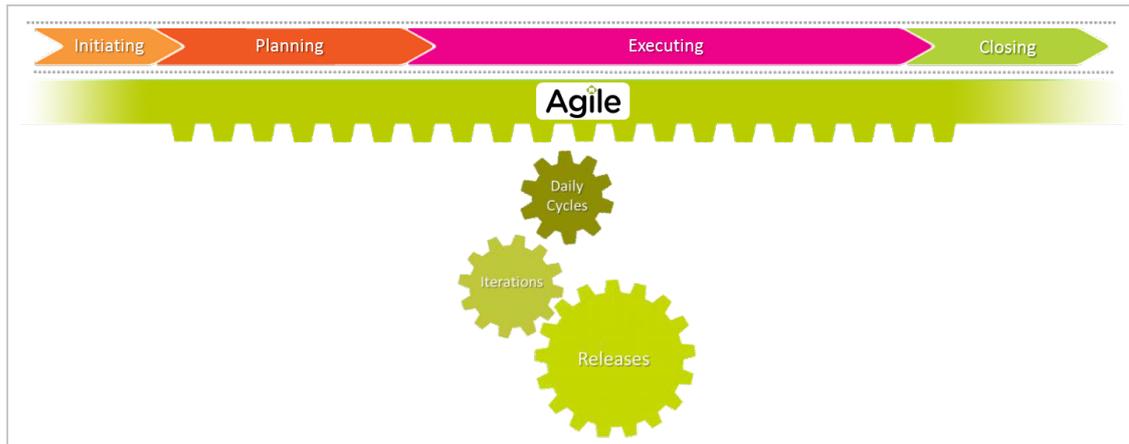


Fig D.1 From project phases to daily cycles

The Agile extension to PM² incorporates Agile into the overall PM² framework and creates the foundations for moving towards increased project management and organisational agility. It helps project teams achieve the desired level of agility while accommodating tight procurement and audit requirements, coordination with the programme and portfolio levels, and collaboration with other projects, contractors, other organisational units and even external organisations.

The Agile extension to PM² provides (for IT projects):

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

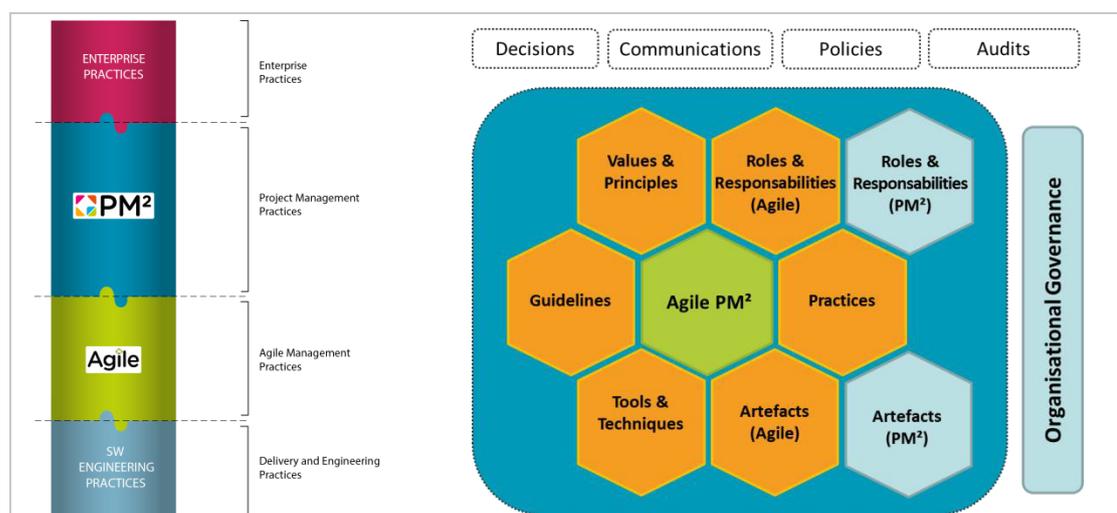


Fig D.2 The positioning of Agile PM² within an organisation

Appendix D: PM² Extensions & Considerations

Documenting the work planned and performed by the Agile teams is critical to increasing transparency and coordination between the different layers of the PM² project organisation (i.e. between the Directing, Managing and Performing layers).

A set of artefacts supports the use of Agile PM². These artefacts capture and document information related to the management approach, to specific (implementation) activities, milestones, issues and progress reporting. These artefacts are grouped in three categories: Agile-Specific Artefacts, Coordination & Reporting Artefacts, and Project Governance Artefacts.

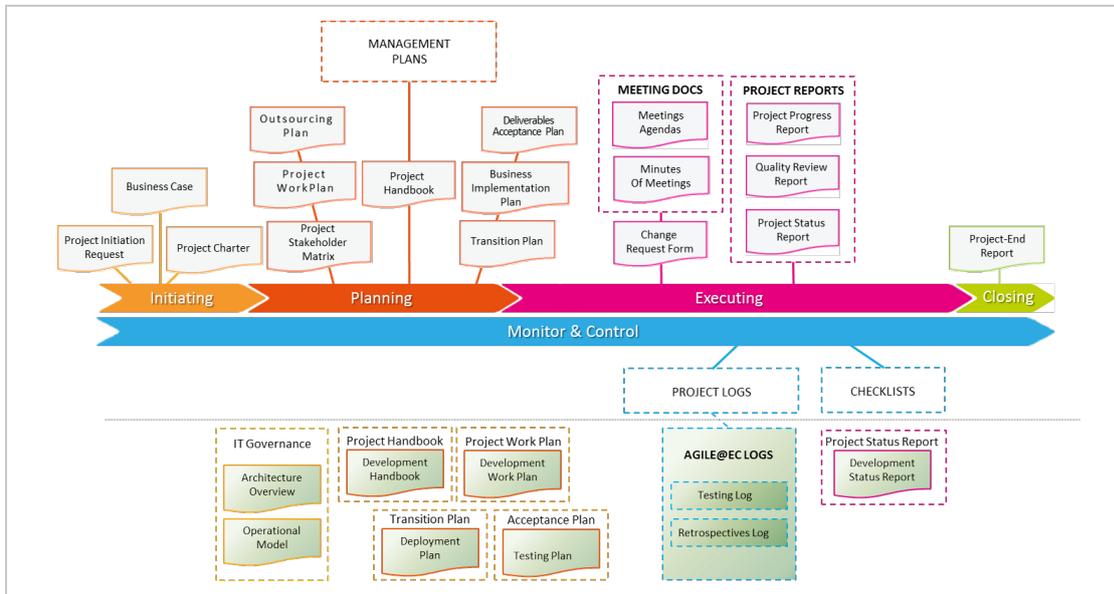


Fig D.3 Agile PM² Artefacts Landscape

D.1.2 PM² Programme Management (PM²-PgM)

A programme is a collection of projects aimed towards a common goal which are managed in a coordinated way to obtain benefits and control that could not be obtained from managing them individually.

Programmes may also include work outside the scope of the discrete projects in the programme. **Programme management** is the process of applying knowledge, skills, and actions to a programme to achieve its objectives and benefits.

The programme management layer interacts with the project management layer in that it initiates and coordinates the projects within the programme. The programme itself is initiated from the portfolio management layer within the organisation.

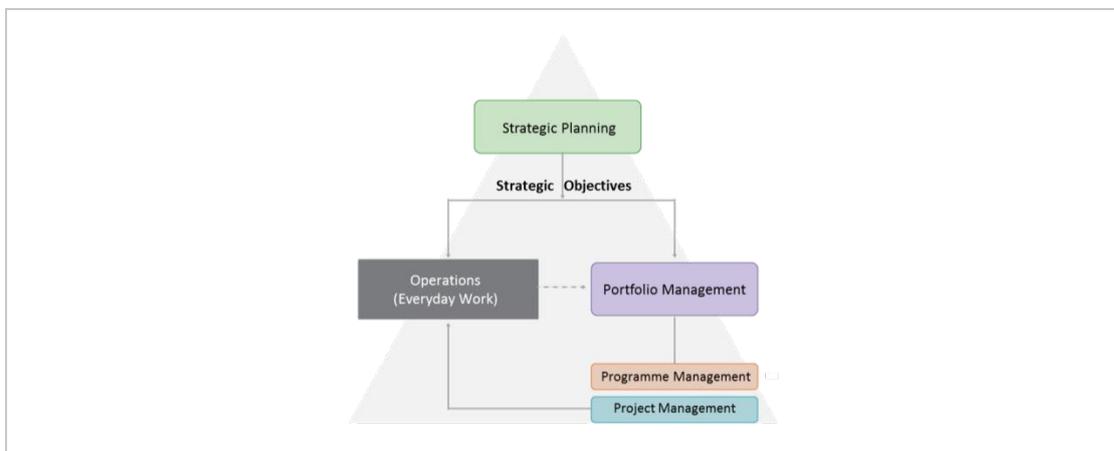


Fig D.4 Relationships between strategy, project, programme, portfolio and operations

Programme Lifecycle

A programme has a defined start and end during which all programme activities are performed, and the projects are delivered. The PM² programme lifecycle has four phases, which are similar but distinct to the PM² project lifecycle: The Initiating Phase, the Planning Phase, the Executing Phase and the Closing Phase. Throughout the whole life of the programme Monitor & Control activities are performed.

The Executing Phase can also contain several Stages, each one being linked to a major achievement in terms of programme outcomes, which enables the realisation of the benefits.

The typical programme management activities performed during each phase go hand-in-hand with a number of programme artefacts.

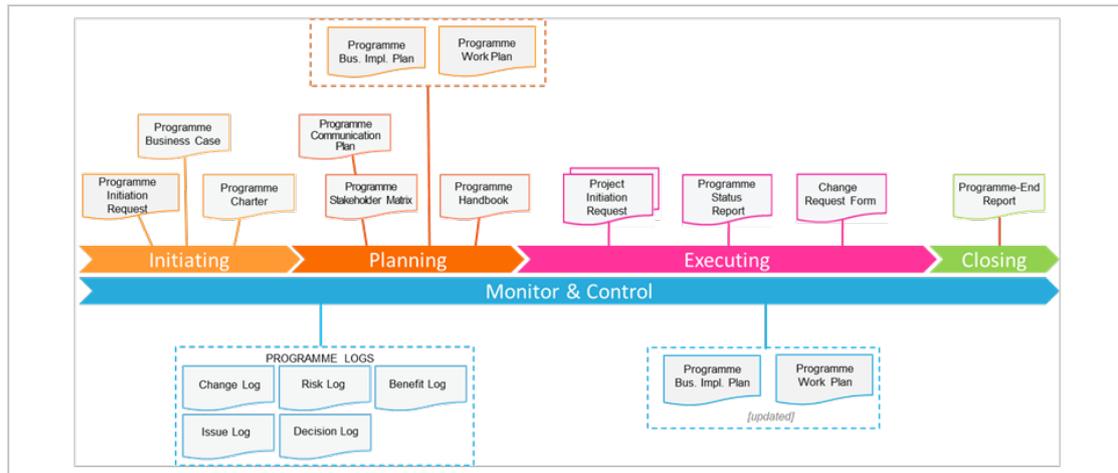


Fig D.5 The PM² Programme Lifecycle and Artefacts Landscape

Programme Organisation

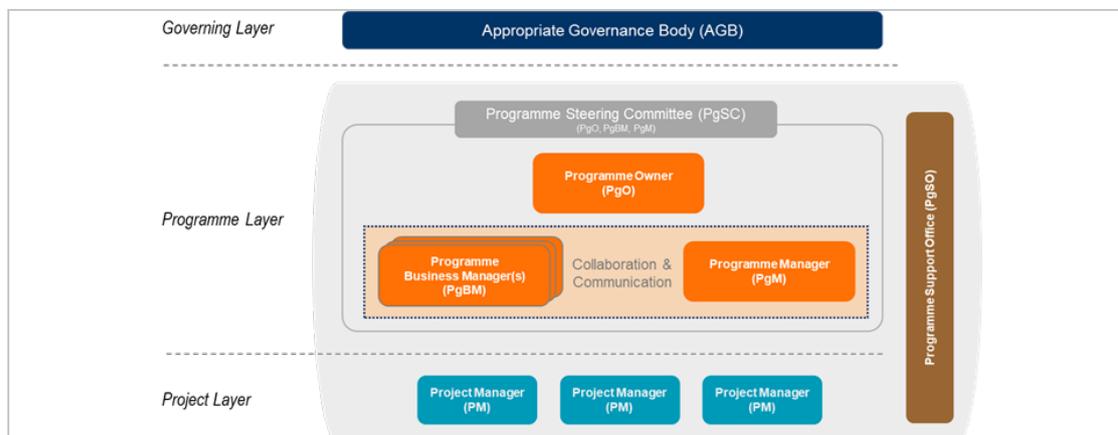


Fig D.6 The PM²-Programme organisation

The **Programme Owner (PgO)** is accountable for the programme's success, whereas the day-to-day management of the programme is delegated to the Programme Manager (PgM), whose focus is to achieve the programme outcomes.

The **Programme Business Manager (PgBM)** represents the Programme Owner (PgO) on a daily basis within the programme and collaborates closely with the Programme Manager (PgM). The focus of this role is to realise the programme benefits, enabled by the programme outcomes.

The **Programme Steering Committee (PgSC)** comprises the Programme Owner (PgO), Programme Business Manager (PgBM) and **Programme Manager (PgM)**. Other expert roles can participate as needed. The Programme Steering Committee (PgSC) is responsible for realising the programme's objectives and benefits.

Appendix D: PM² Extensions & Considerations

A programme can also have a temporary **Programme Support Team (PgST)** to provide administrative assistance to the programme and its component projects.

D.1.3 PM² and Portfolio Management

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

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

The PM² Portfolio management process encompasses a range of activities, which are organised in four groups.

- 1. Portfolio Framework Definition**
Defines the way the organisation will address portfolio management by delineating the portfolio structure, the governance bodies and their responsibilities, together with the necessary processes.
- 2. Portfolio Composition**
Is the process containing the activities to evaluate portfolio candidates, make investment decisions and allocate resources. These are activities that are regularly performed depending on the needs of the organisation.
- 3. Portfolio Realisation**
Is the continuous process in which the authorised programmes and projects are managed towards realising their objectives. Although programmes and projects are temporary endeavours, the portfolio activities are performed continuously until the portfolio is closed.
- 4. Stakeholder Management & Communication**
Is the continuous process of analysing and interacting with the different stakeholders to ensure their effective involvement in the composition and realisation of the portfolio's objectives.

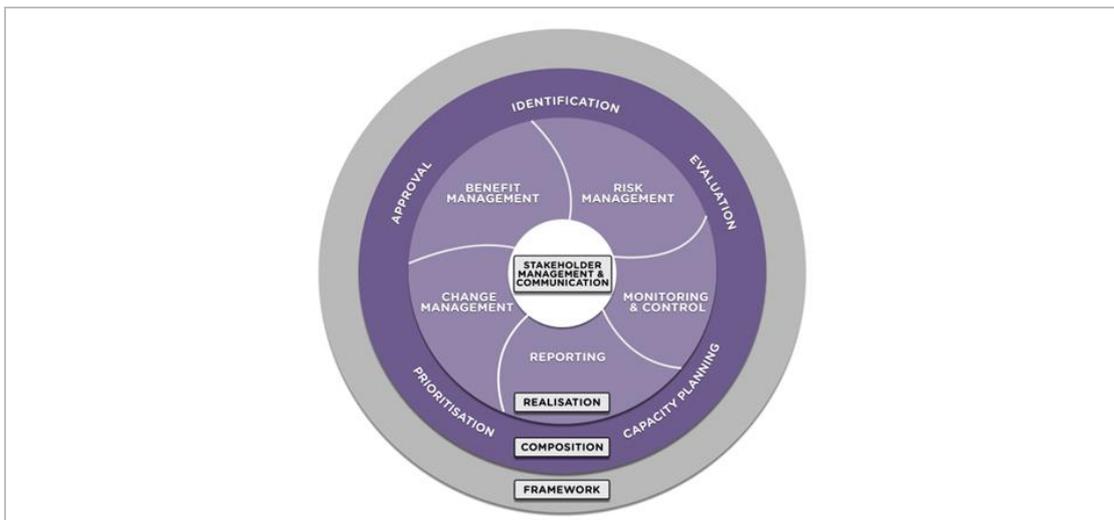


Fig D.7 PM² Portfolio Management Process Model

The Portfolio Composition process feeds the continuous processes of Portfolio Realisation with new portfolio components (i.e. programmes or projects), the progress and results of which are communicated by executing the Portfolio Communication & Stakeholder Management process. The characteristics and governance of the portfolio, as well as the activities of the portfolio management processes and the artefacts produced are defined by the Portfolio Framework.

An overarching view of the organisational management of portfolios, programmes and projects is illustrated in the following diagram.

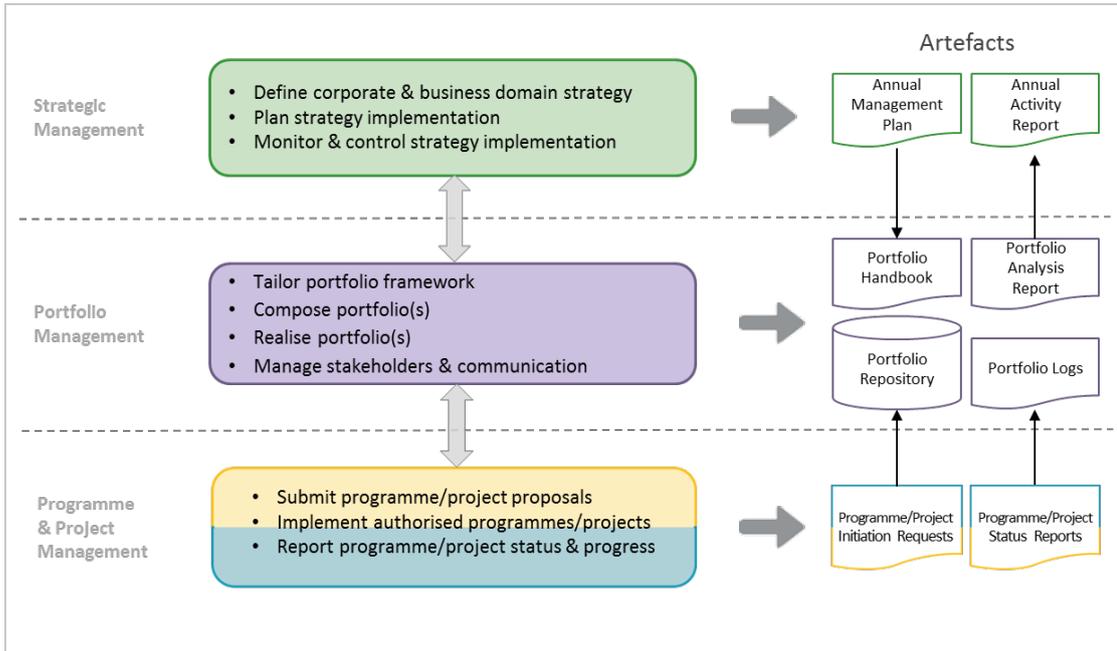


Fig D.8 High-level representation of the Management Layers, Activities and Artefacts

The Governance Structure of the PM² Portfolio Management is shown below.

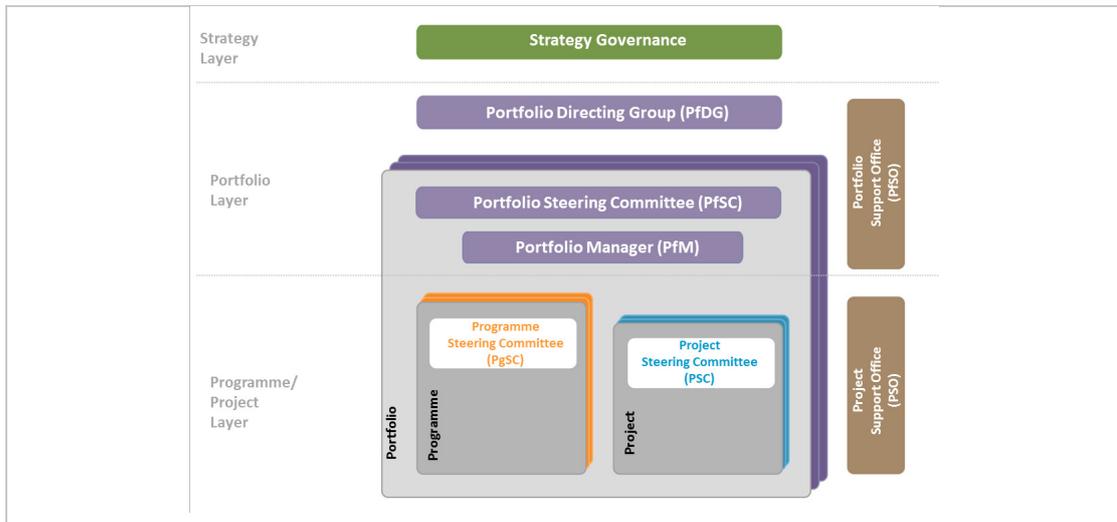


Fig D.9 PM² Project Portfolio Governance

D.2 Considerations in PM²: Sustainability, Data Protection, IT Security, UX

The following sections present project management considerations which are more pertinent to specific domains. For instance, considerations for Data Protection, IT Security, and UX are more critical in the context of IT projects delivering digital solutions, while sustainability considerations are much more central to engineering or construction projects. Still all those aspects remain relevant across diverse project domains.

D.2.1 Sustainability Considerations in Project Management

The concept of sustainability has evolved from a noble aspiration to an imperative for organisations and projects. In recognition of its profound global significance, the European Commission has been at the forefront of initiatives to foster a sustainable economy. The **European Green Deal** underscores the need for an economic system that nurtures growth while safeguarding our planet and improving the lives of citizens and future generations.

Sustainability encompasses more than just environmental stewardship; it encompasses the intricate interplay between economic, environmental, and social well-being. It calls for a holistic approach that goes beyond mitigating harm and instead focuses on creating lasting positive impacts on the world we inhabit.

As organisations and projects seek to incorporate sustainability into their core, sustainability considerations become a major factor in the way public and private organisations define, approve, plan, and manage projects, and their results.

As a result, project management practices should inspire and empower organisations, project managers, and project teams, to understand what sustainability in the context of projects is, but also to equip them with the practical and actionable guidelines and tools that will enable them to seamlessly integrate sustainability into their project management, fostering a more sustainable, prosperous future for all.

D.2.2 Data Protection Considerations in Project Management

The European Union's **General Data Protection Regulation (GDPR)** stands as a significant framework for safeguarding personal data and the privacy rights of individuals. It establishes principles of data protection, emphasizing fairness, transparency, and accountability in data processing.

To attain data protection by design and by default, organisations and project teams must prioritise adherence to fundamental **Data Protection principles**. These encompass the critical aspects of **Lawfulness, Fairness, and Transparency, Accuracy, Purpose Limitation, Data Minimization, Storage Limitation, and Data Security**, including **Integrity and Confidentiality**.

In essence, these principles mandate that all personal data be processed in a manner that is both legal and equitable, with transparency toward the data subject. This entails acquiring explicit consent, diligently informing data subjects about data processing activities, and ensuring fairness throughout data treatment. Personal data collection is confined to precise, legitimate purposes, preventing any usage beyond the original data collection scope. Likewise, data collection and processing are restricted to the minimum necessary for the intended purposes, preventing unwarranted data accumulation and preserving data relevance. Furthermore, personal data must be maintained for accuracy and updated when necessary, guarding against the usage of outdated or erroneous data. The storage of personal data should not exceed the period required for its original purpose, averting indefinite data retention and facilitating timely data deletion when no longer necessary. Lastly, stringent data security measures are essential, encompassing protection against unauthorized access, disclosure, alterations, or destruction, safeguarding both the integrity and confidentiality of the data.

As project teams grapple with the intricacies of data protection and privacy regulations, they require practical, actionable guidelines and tools so that they can ensure that data protection becomes an inherent consideration of projects, aligning with legal requirements and ethical standards regarding the handling of personal data.

D.2.3 IT Security Considerations in Project Management

The European Commission's IT Security Policy, coupled with its IT Security Risk Management Methodology (ITSRM²), forms a robust framework that can help organisations safeguard digital assets and preserve their integrity.

IT security management comprises a set of practices and measures centered around assuring three fundamental dimensions: **confidentiality**, which involves keeping data accessible only to authorized users; **integrity**, ensuring that data is not altered without authorization; and **availability**, guaranteeing that data remains accessible and functional when needed. It addresses a range of potential threats, such as accidents, errors, deliberate attacks, and natural events, all of which are considered as risks. The primary objective is to reduce the likelihood and impact of these risk, maintaining them at an acceptable level while ensuring that the cost of their management do not outweigh benefits.

IT security measures should be tailored to align with the specific threats faced by digital solutions and be in compliance with organisational policies and regulations, typically describing a three-tiered model, comprising risk management, compliance reviews, and internal security audits.

A security-oriented risk management approach starts in the conceptualisation of digital solutions, and subsequently in the Initiating Phase of the relevant projects, and continues until their closing of those projects, but also continues throughout the entire lifecycle of the produced digital solutions. Thus, IT security considerations should be integrated from the outset into the project priorities and workplan.

However, most organisations, project managers and project teams struggle with the complexities of managing IT security and therefore should be educated on the processes, tools and artefacts that will help seamlessly integrate IT security management into project initiation, planning, and execution, fostering a resilient, secure digital environment.

D.2.4 UX Considerations in Project Management

The role of user experience (UX) in increasing the value of digital solutions is increasingly appreciated. UX, which concentrates on user interactions with products, services, and processes, plays a pivotal part in shaping user experiences that resonate with their requirements and desires.

UX is not merely about interface design; it extends to optimising the complete user experience within Digital Solutions, services, and processes. This approach revolves around the central role of users, diminishing uncertainty, enhancing mutual comprehension, and fostering empathetic partnerships.

The inclusion of UX considerations (e.g. design thinking) for the Digital solution, in the project priorities and workplan makes the project outputs user-focused. It empowers project teams to bridge the gap between assumptions and experimentation.

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	BIG	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	A	C	S	C	S	R	C
Planning	AGB	PSC	PO	BM	BIG	SP	PM	PCT
Planning Kick-off Meeting	I	A	C	S	C	C	R	C
Project Handbook	I	I	A	S	C	I	R	C
Project Stakeholder Matrix	I	I	A	S	C	I	R	C
Project Work Plan	I	A	C	S/C	C	C	R	S/C
Outsourcing Plan	A	C	C	C	I	S	R	I
Deliverables Acceptance Plan	I	A	C	S	I	C	R	C
Transition Plan	I	A	C	C	C	C	R	C
Business Implementation Plan	I	I	A	R	C	I	S	I
Management Plans								
Requirements Management Plan	I	I	A	C	C	I	R	S
Project Change Management Plan	I	I	A	C	I	I	R	I
Risk Management Plan	I	C	A	C	I	I	R	I
Issue Management Plan	I	I	A	C	C	I	R	C
Quality Management Plan	I	A	C	C	C	C	R	C
Communications Management Plan	I	I	A	S	C	I	R	C
Executing	AGB	PSC	PO	BM	BIG	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	BIG	SP	PM	PCT
Monitor Project Performance	I	I	A	C	C	I	R	C
Control Schedule	I	I	A	C	C	I	R	C
Control Cost	I	I	A	C	C	I	R	C
Manage Stakeholders	I	I	A	S/C	I	C	R	I
Manage Requirements	I	I	A	C	C	I	R	S
Manage Project Changes	I	C	A	S	I	I	R	C
Manage Risks	I	C	A	S/C	C	I	R	C
Manage Issues & Decisions	I	I	A	S	C	I	R	C
Manage Quality	I	I	I	S/C	C	A	R	C
Manage Deliverables Acceptance	I	I	A	S	C	C	R	C
Manage Business Implementation	I	I	A	R	C	I	S	I
Manage Transition	I	A	C	C	C	C	R	C
Manage Outsourcing	A	C	C	C	I	S	R	I
Closing	AGB	PSC	PO	BM	BIG	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)

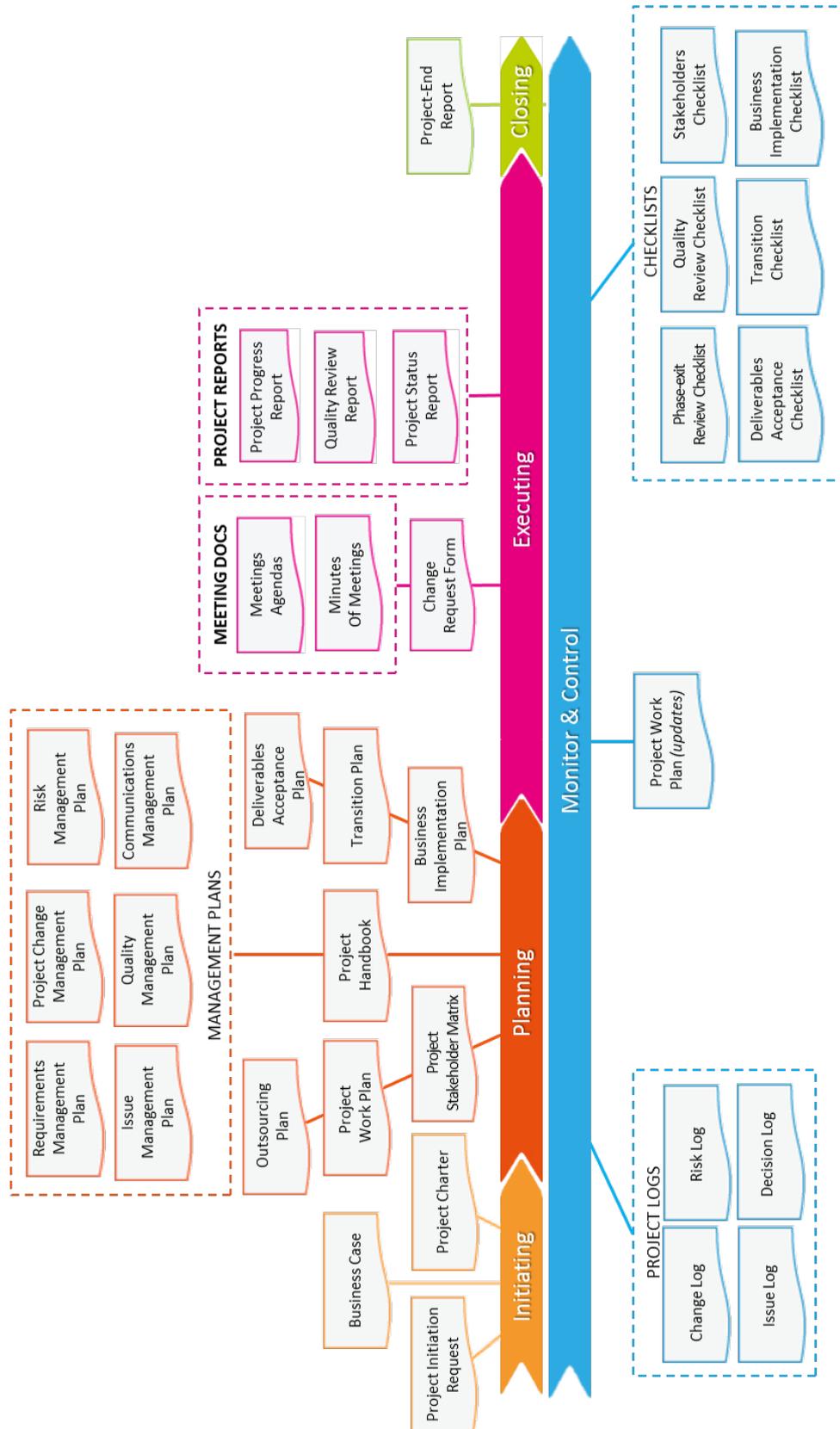
BIG (Business Implementation Group)

SP (Solution Provider)

PM (Project Manager)

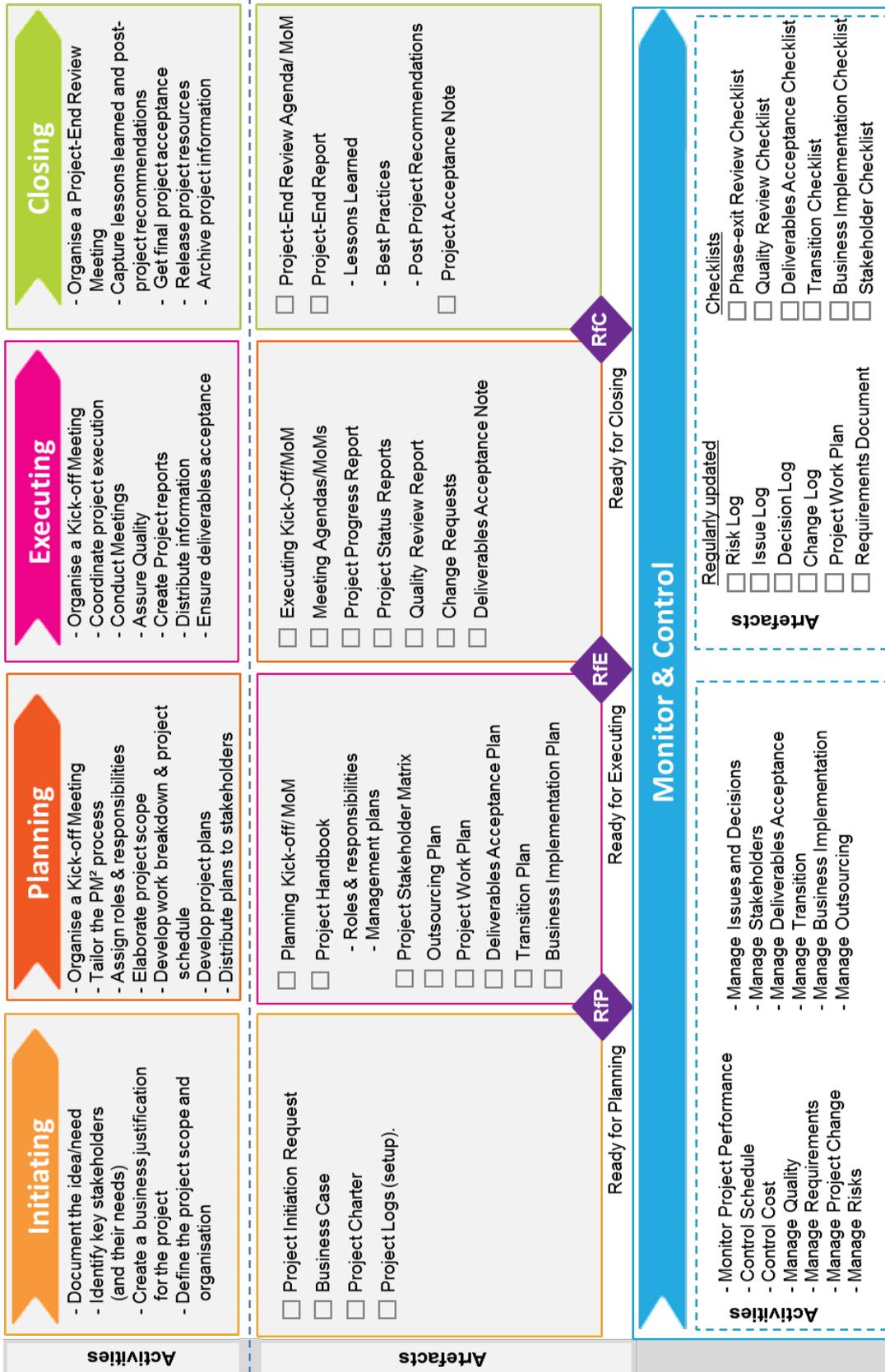
PCT (Project Core team)

The PM² Artefacts Landscape



Appendix E: Additional Resources

Overview of PM² Activities & Artefacts



E.2 Getting Started with PM² - Quick Start Tips

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

1. Define the Project Governance and Create a Business Case

- Set up the Project Steering Committee (PSC).
- Provide the justification for the project, capture the business requirements and establish its budgetary constraints.



Business Case

2. Identify stakeholders and create the Project Charter

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



Project Charter

3. Set up the Project Logs

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



Issue Log, Risk Log,
Change Log,
Decision Log

4. Kick-off the Project Planning with a Meeting

- Invite all necessary participants to the planning meeting.
- Go over the Project Charter and ensure a common understanding.
- Communicate the next steps for the planning of the project.



Planning Kick-off
Meeting/MoMs

5. Tailor the Project Management approach

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



Project Handbook

6. Create the Project Work Plan

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



Project Work Plan

Appendix E: Additional Resources

E.3 Useful Online Resources

The Centre of Excellence in PM² (CoEPM²) provides a central location for downloading all PM² information, publications, translations, etc. To study PM² in more detail you can download and review the free PM² Methodology Guide and artefact templates, and explore the online resources:

- PM² Website: https://pm2.europa.eu/downloads_en
- EU Bookshop: <https://op.europa.eu/en>
- PM² on EU Academy: <https://ec.europa.eu/newsroom/login?univers=informatics>

Follow the eLearning modules on the:

- Essentials of PM²: <https://academy.europa.eu/courses/pm-c1-pm-essentials-project-management-methodology>
- PM²-Agile: <https://academy.europa.eu/courses/pm-a1-pm-agile-essentials>

Join the Open PM² Community on Join-up:

<https://joinup.ec.europa.eu/collection/open-pm2-project-management-methodology>

Sign-up to our newsletter: <https://ec.europa.eu/newsroom/login?univers=informatics>

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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 required to respect. The purpose is to help people navigate through the complexities of professional reality and remind them which attitudes and behaviours are aligned with a commonly accepted set of professional values.

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

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

Putting these principles into practice requires:

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

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

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

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

F.2 Personal and Professional Virtues

Virtues are strengths (or excellence) of the person who possesses them and refer to the ideal management of our attitude, behaviour and actions that drive personal and professional performance. Virtues are expressed in a *specific context* as the healthy mean between the extremes of excess and deficiency, which, however, is not universal, but subjective, and as such will vary between individuals and their respective circumstances. This healthy mean should be determined by good judgment.

Virtues are developed through practice. Their application helps us discover the right principles of conduct, to know what we ought to do in a given situation. Acting in a virtuous way enables us to raise the effectiveness and efficiency of our performance as a means to serve our personal, professional, as well as our higher and more inclusive goals.

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

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

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

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

The virtue of **honour** refers to our disposition to seek honours and rewards from others. This virtue is defined as the mean between *lack of ambition* (seeking less honours and rewards than are deserved or having no desire for honours) and *over-ambitiousness* (an excessive desire for honours or seeking more honours and rewards than are deserved).

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** (or Justice) in general is attained through the application of all other virtues. However, there is a **particular** type of **fairness** that refers to our disposition to fairly distribute benefits and damages to those who deserve them, either between others and ourselves or amongst others. Fairness is the mother of all virtues, and for one to be truly fair all virtues must be fully developed (*"Fairness is superior to all virtues and excellent"* – Aristotle).

The virtue of **generosity** refers to the management of things that have value (e.g. time, money, knowledge, information and other assets). It is defined as the productive mean between *stinginess* (deficiency) and *wastefulness* (excess). Generosity ensures that the valuable assets we possess, such as our knowledge, are shared with the right person, at the right time, in the right quantity and in the right way, so as to be used productively. Generosity is determined not only by our willingness and ability to give (e.g. to use and share our knowledge), but also by whether our giving is in harmony with the long-term interests of the people involved, and in accordance to the other moral virtues. 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 good and that of others.

Appendix F: Ethics and Conduct

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

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

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

The virtue of **magnificence** is similar to generosity, but it refers to the management of large assets. It is defined as the mean between *paltriness* (deficiency) and *vulgarity* (excess). Paltriness prevails when someone contributes to an important 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 similar to honour, but it refers to the management of high honours and rewards. It is defined as the mean between *meekness* (deficiency) and *vanity* (excess). A meek person believes that they do not deserve great honours when they actually do deserve them, whereas a vain person believes that they deserve great honours when they actually do not deserve them. The magnanimous (magnum=great) consider they deserve the greatest goods (wealth, influence, prestige, distinctions, etc.) when they do indeed deserve them.

All virtues are required for the application of professional competences, however, the intellectual virtues of judgment, prudence and insightfulness need to be transversally applied for their development. The following table shows the strongest relations of moral virtues to key professional competencies.

Competence	Key Virtues
Leadership	All
Relationships and engagement	Fairness, Friendliness, Generosity, Honesty, Humour, Temperance
Self-reflection and-self management	Calmness, Courage, Friendliness, Honesty, Honour, Temperance
Change and transformation	Calmness, Courage, Friendliness, Generosity
Personal communication	Calmness, Friendliness, Generosity, Humour
Resourcefulness	Fairness, Friendliness, Generosity, Honesty, Honour
Results orientation	Honour, Generosity, Magnanimity, Magnificence
Teamwork	Calmness, Courage, Fairness, Friendliness, Generosity, Honour, Magnificence
Negotiation	Courage, Fairness, Friendliness, Generosity, Honesty, Honour
Conflict and crisis management	Calmness, Fairness, Friendliness, Generosity
Personal integrity and reliability	Calmness, Courage, Fairness, Friendliness, Honour, Temperance
Culture and values management	All virtues

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Appendix G: Glossary

A	
Accept (risk-response strategy)	Accept is a risk-response strategy that is applicable both for negative (threats) and positive (opportunities) risks. In the case of threats, there are two possible reactions, i.e. passive acceptance (no special action is planned, just continue to monitor the risk) or active acceptance, which implies the development of a contingency plan. In the case of opportunities, no specific action is taken towards realising them. We simply benefit from them in the case where they occur.
Acceptance	Acceptance is the act of approving (signing-off) deliverables if they meet the defined acceptance criteria. It is the Project Owner (PO) who accepts the deliverables, during or at the end of the Executing Phase (deliverables acceptance) and during the Closing Phase (final project acceptance).
Acceptance Criteria	Acceptance criteria comprise the prioritised list of requirements that the final deliverables must meet before the Project Owner (PO) can accept them. Acceptance criteria are documented in the Deliverables Acceptance Management Plan.
Accountable Role (RASCI table)	The accountable role on the RASCI table refers to the person/group/entity that is ultimately answerable for the correct and full completion of the deliverable or task. They delegate the work and approve key milestones and deliverables. There is only one accountable person/group/entity per activity/task.
Achievements	Achievements are the successful accomplishment of project outputs as a result of carrying out project activities.
Activity	An activity is a set of tasks/work belonging to a process/work package in a project, with measurable outputs and limited duration.
Actual Cost (AC)	Actual Cost (AC) is the amount of cost (monetary units) actually incurred until a given point in time (e.g. within a predefined reposting period). Also known as Actual Cost of Work Performed (ACWP).
Administrative Closure	Administrative Closure takes place during the Closing Phase of a project. It is the process by which the Project Manager (PM) ensures that the project has been fully and formally accepted by the Project Owner (PO), that all documentation and records are reviewed, organised and securely archived, and that all resources are formally released.
Agile project management	Agile is a project management approach with a specific set of working principles and practices. It promotes iterative delivery, cooperation of self-organised teams and process adaptability.
Appropriate Governance Body (AGB)	The Appropriate Governance Body (AGB) is the entity responsible for the strategic planning and portfolio management at the institution level. It can be set for a specific domain and appear in different stages of the governance process.
Approval	Approval is the formal acceptance of (i.e. positive decision on) something, such as a deliverable, an artefact, a project change or a risk-response strategy.
Architecture Office (AO)	The Architecture Office (AO) advises project teams on architectural aspects (e.g. Application Architecture and IT Systems Architecture) and develops architecture standards for projects.
Artefacts	Artefacts are tangible outputs of project management activities, such as Project Management Plans, the Project Work Plan, Meeting Minutes, Logs, Checklists, Reports, the Business Case and Project Charter.
Project Manager Assistant (PMA)	The Project Manager Assistant (PMA) is an optional PM ² role that assists the Project Manager (PM) in project management/administration activities.
Assumption	An assumption is a hypothesis or piece of unconfirmed information that is considered to be true, and is used in order to proceed with an activity (e.g. project planning). Developing different scenarios that match the various outcomes of an assumption is considered as vital in risk management.

Audit	An audit is an independent evaluation undertaken to provide an appropriate level of assurance as to compliance with given standards.
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 of changing project conditions, plans, activities or even scope to render the risk irrelevant to the project (i.e. Impact=0 and/or Likelihood=0 %).

B

Backup	Backup is the process of copying data to a separate storage device in order to protect the original against unavailability or corruption.
Baseline	A baseline is a desired value of a project dimension (scope, budget, schedule, etc.) or plan that is agreed on and will serve as a reference during the project's execution. During the course of the project, new baselines can be defined following the appropriate change management process.
Benefit	A benefit is a positive effect resulting from a project (i.e. seen as positive by one or more stakeholders). Benefits should be measurable. The term Impact is also used to describe Benefits in EU funded projects.
Best Practice	Best practice describes a method or technique established through experience and research consistently shows results superior to those achieved with other means.
Bottom-up (technique)	Bottom-up describes 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 budget is the approved annual allocation of the organisation's financial resources to a specific project/objective.
Budget Lines	Budget lines refer to the financial resources specific to an organisation or unit. They can be associated with a programme, an action/decision, a directive, a project or a task. The term is often used as a synonym for funding sources.
Budget Performance	Budget performance or the Cost Performance Index (CPI) is an indicator of the cost efficiency of project work accomplished to date. It is the ratio (percentage) of the earned value (progress) and the actual effort ($\text{Ratio} = (\text{Progress}/\text{Actual effort}) * 100$). If this indicator is less than 100% it means that the project is over budget; if it is higher than 100% it means that the project is under budget.
Business Case	A 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 intends to solve. It captures the reasoning for the project, presents several alternative solutions, provides the justification for the investment in time and effort, and establishes the budgetary needs.
Business Continuity Planning (BCP)	Business Continuity Planning (BCP) is a process that identifies all critical functions, services and activities that must be accomplished to enable an organisation or a functional area to continue its business functions during a time of disaster or serious disruption (e.g. power outages, natural disasters, accidents, acts of sabotage or other incidents). The overall scope of Business Continuity Management covers the Disaster Recovery Plans that are dedicated to the recovery of ICT systems and activities in cases of major disruptions.
Business Governing Layer	The Business Governing Layer is composed of the organisation's decision-making bodies from several business domains responsible for governing the project. (See also <i>Appropriate Governance Body, AGB.</i>)
Business Implementation Group (BIG)	The Business Implementation Group consists of representatives from the business (customer) and user groups. It is responsible for representing the receiving organisation during various phases of the project, specifically during business implementation of the solution and user acceptance activities.

Appendix G: Glossary

Business Implementation Management	Business Implementation Management consists of planning, executing and controlling activities that support the organisational changes needed for (project) deliverables to be effectively integrated into everyday work and benefits achieved.
Business Implementation Plan	The Business Implementation Plan outlines the project’s impact and deliverables for the requestor organisation, along with the change management activities that need to take place. The organisation must ensure that the project does not disrupt normal operations, and that project outputs are effectively integrated into the organisation. A change management plan is devised to ensure this and to increase the chances of achieving the desired project outcomes and benefits.
Business Manager (BM)	The Business Manager (BM) is a delegate of the Project Owner (PO) and acts on his/her behalf on a daily basis. 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 can refer to a business process or the business as a whole—they translate organisational goals into desired business outcomes and connect organisational goals with project objectives.
Business Process	A business process is a set of defined ad hoc or sequenced activities performed in a repeatable pattern by an organisation in order to fulfil a business need; processes can be triggered by events and may have multiple possible outcomes; a successful outcome of a process will deliver value to one or more customers of the process.

C

Capability	Capability describes an existing or needed ability of people (singly or combined), information systems or devices that can support an activity, process or function.
Capability Maturity Model Integration (CMMI)	Capability Maturity Model Integration (CMMI) refers to a method of measuring the maturity of the capability of certain business processes to help organisations see their current level of maturity in relation to the desired level of maturity.
Cause and Effect Diagram	The cause and effect diagram (also known as a fishbone diagram or Ishikawa diagram) shows the causes of a specific event and is very useful when investigating issues and risks. It helps to describe the problem/issue/risk, and to identify potential causes and categorise them.
Change	Change refers to the act, process or result of the transition from an existing state to a new one.
Change Control	Change control is an activity in the PM ² Change Management Process that aims to evaluate, accept or reject project changes using a Change Log.
Change Control Board (CCB)	The Change Control Board (CCB) or Change Advisory Board (CAB) is a designated group of stakeholders that is responsible for reviewing, evaluating, approving or rejecting change requests for the project. In an organisation, this role may be performed by the Project Steering Committee (PSC).
Change Log	The Change Log is a register of project changes used for recording, assessing, monitoring, controlling and tracking change requests and respective decisions. It also serves as a way of communicating changes to the Project Owner (PO) and/or Project Steering Committee (PSC).
Change Request	A change request logs an appeal to amend an aspect of the agreed baseline of a project (i.e. scope, requirements, deliverables, resources, costs, timeframe or quality characteristics). A change request can be formally submitted via a Change Request Form, or can be identified and raised during meetings as a result of decisions, issues or risks, and should be documented in the Change Log.
Change Status	The status of a change request is logged in the Change Log. It may have the following values: Submitted, Investigating, Waiting for approval, Approved, Rejected, Postponed, Merged or Implemented.
Client	See <i>Requestor Side</i> .

Closing Phase	The Closing Phase is the final phase of the project. During this phase, project activities are completed, Lessons Learned are discussed and documented, the finished deliverables are transferred to the care, custody and control of the Project Owner (PO), and the project is administratively closed.
Communication Management Plan	The Communication Management Plan describes the communication needs and expectations for the project. It defines and documents the content, format, frequency, audience and expected results of communication activities. It outlines how the assignment of activities and the project status are communicated. The plan identifies a communication strategy for each stakeholder, based on their interests in, expectations of and influence on the project.
Community of Practice (CoP)	A Community of Practice (CoP) can be described as a group of people who share a common interest and/or a profession and who come together as a group to exchange information and experiences. A CoP can be internal to an organisation or involve professionals from different organisations.
Competency	Competency describes the skill and capacity required to complete (project) activities. If project team members do not possess the required competencies, then the performance of the activity/project can be jeopardised. When such a mismatch is identified, efforts to address it must be considered. These might include training, coaching, hiring consultants, adaptation of the project schedule or even a change in scope.
Compliance	To be in compliance means to conform to applicable standards, methodologies and project requirements (e.g. quality requirements), laws, business rules, etc.
Configuration Item	A 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 is 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 need for the project and its urgency.
Contingency Plan	A contingency plan outlines 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 (CPM) is a role performed by a resource from the contractor side. The role is responsible for managing the daily progress of the outsourced activities in order to deliver an acceptable quality of services and/or deliverables as defined in the contract. The Contractor's Project Manager (CPM) works with the Project Manager (PM) and regularly reports on status and progress.
Constraint	A constraint is an internal or external limitation (fact) to a project that has a direct effect on its performance
Consulted Role (RASCI)	The consulted role on the RASCI table refers to the person/group/entity that provides input for an activity as a contributor, an expert, a reviewer, or other.
Corrective Actions	Corrective actions are planned (and implemented) as part of project controlling for the purpose of bringing the project back on track when significant deviations from the project's baselines have been identified.
Critical Path	The critical path is the longest path (sequence of activities) needed to deliver project outputs.
Customisation	Customisation of the PM ² 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 PM ² defined processes (e.g. defining a risk as major when its impact is deemed as medium or higher), as well as any minor changes to the artefacts (e.g. renaming a section, etc.). Note that changes to the methodology are not considered customisations but tailoring. (See also <i>Tailoring</i> .)

D	
Dashboard	The Dashboard provides an overview of key performance indicators (KPIs) relevant to a particular objective. A project dashboard provides a one-screen overview of the project, shows the status of project variables such as budget, schedule, quality, scope, risk, etc., and directs users to more information as needed.
Data Protection Coordinator (DPC)	Nominated by senior management or corporate level, the Data Protection Coordinator (DPC) ensures the coherent implementation of and compliance with specific data protection regulations. The Data Protection Coordinator (DPC) provides advice and assistance to everyone responsible for data protection, and specifically assists Data Controllers in the organisation in their notifications to the Data Protection Officer (DPO). Data Protection Coordinators (DPCs) set up the inventory of applications for the processing of personal data in the organisation, and liaise and cooperate with the Data Protection Officer (DPO). They also represent the organisation in the network of coordinators.
Data Protection Officer (DPO)	Organisations may have one or more Data Protection Officers (DPOs) to ensure the application of the principles of personal data protection in the institution. Each keeps a register of all personal data processing operations in their institution. They provide advice and make recommendations on rights and obligations. They notify risky processing of personal data to a supervisor and respond to requests. In critical situations, they may investigate matters and incidents (own initiative).
Decision Log	The Decision Log contains a summary of project decisions taken. It brings visibility to decisions and tracks responsibility for how and by whom they are taken, when decisions are implemented, as well as to whom they should be communicated.
Deliverables	Deliverables are agreed, verifiable project outputs which will result 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 a quality management artefact. It defines and documents the deliverables acceptance approach, activities, responsibilities and acceptance criteria along with acceptance tolerance levels.
Deliverable-based Breakdown	A deliverable-based breakdown technique is used to represent and organise project work based on deliverables. The work needed to produce them is then also defined and organised by deliverable.
Dependencies	Dependencies refer to the relationships 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)	The Development Team (DT) is a role applicable to projects with an IT component. It comprises members with the required development skills (programmers, analysts, testers, etc.) and application knowledge for the project. It is part of the Project Core Team (PCT). A Development Team (DT) can be either an internal IT Team or belong to an external contractor.
Directing Layer	The Directing Layer champions the project and owns its Business Case. It mobilises the necessary resources and monitors the project's performance in order to realise the project's objectives. The Directing Layer comprises the roles of Project Owner (PO) and Solution Provider (SP).
Document Management Officer (DMO)	The Document Management Officer (DMO) is a role that ensures the coherent implementation of Document Management in the organisation.
Domain	A domain is a subject area with common requirements, terminology, and metadata. In an organisation, it is the highest-level grouping of organisation's activities.

Domain-specific Artefacts	The domain-specific artefacts are specific to the project's domain and integral to planning and the overall documentation. No templates are provided by PM ² however, they should also be listed in the Project Handbook as part of the planning (phase) outputs. Examples include System Designs (IT projects), Architectural Layouts (renovation/moving projects), Laws/Policies (policy projects), etc.
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E

Earned Value (EV)	Earned Value (EV) is a way of representing project progress. It is the value of the work performed, but expressed in budgetary terms (percentage of the approved budget that has been earned by actual work completed). It is also known as Budgeted Cost of Work Performed (BCWP).
Enhance (risk response strategy)	Enhance is a risk response strategy that aims to increase the likelihood and/or impact of a positive risk (opportunity). It is substantially different from the Exploit risk response strategy given that it does not ensure the realisation of the opportunity.
Escalation	Escalation refers to an activity that requires 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 (when senior decision layers need to be involved).
Executing Phase	The Executing Phase is the third phase in a PM ² project, after Initiating and Planning. It is where the project activities are carried out as defined in the project plans and the project deliverables are produced.
Exploit (risk response strategy)	Exploit is a risk-response strategy that consists of changing project conditions, plans, activities or even scope to ensure that the positive risk (opportunity) will occur (likelihood=100%).

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 by the Project Owner (PO), after consulting the Project Steering Committee (PSC), through a formal project final acceptance sign-off.
Findings	Findings comprise the results of 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 judgment.
Full-Time-Equivalent (FTE)	One full-time equivalent (FTE) equals the work of one full-time person on the project (in staff-weeks, staff-months or staff-years). A half FTE is 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, it is the ability of a programme or application system to provide a function to execute a set of user tasks. Functionality is the particular use or set of uses for which something is designed.

G

Gantt Chart	A Gantt chart is a type of bar chart that represents a project schedule. It may show information such as activities, start and end dates, duration, effort, and the 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 programme or organisation.

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Governance	Governance refers to the act of governing and is therefore concerned with how decisions are made. Governance is a process of developing a more strategic approach to projects/programmes in order to use resources and investments more efficiently and to ensure that business needs are supported by efficient tools. This process is performed by the organisation’s governance bodies (See <i>Appropriate Governance Body, AGB</i>). PM ² describes project-level governance and includes a project governance model, project lifecycle, and related processes and artefacts.
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I	
Impact (risk, issue or change)	An 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)	The impact measures the (permanent or temporary) effect of a project on the organisation’s processes, policies, technology, culture and people, or on the external environment.
Information Distribution	Information distribution describes 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)	The Information Resource Manager (IRM) is a horizontal function in an organisation, not directly applicable to the project management lifecycle. The Solution Provider (SP) may perform this role in a project with an IT component and as such would manage the Project Manager (PM).
Information System (IS)	An information system (IS), whether automated or manual, includes people, machines, and/or methods organised to collect, process, transmit and disseminate data that represent user information.
Informed Role (RASCI table)	The informed role in the RASCI table is the person/group/entity that is regularly informed (kept up-to-date) of the status or outputs of activities. This role involves only one-way communication.
Infrastructure Costs	Infrastructure costs are those related to, for example, the equipment, materials, facilities and hardware required to deliver, support, operate and maintain the delivered solution.
Initiating Phase	The Initiating Phase is the first phase in a PM ² project. Its purpose is (1) to define what the project will do (formulate the objective of the project), (2) perform some initial planning to get the project off to a good start and (3) to provide and present the necessary information to get approval for the project.
IPMA-ICB	The International Project Management Association—International Competence Baseline (IPMA-ICB) is a framework that documents an approach to project management broken down into 46 competence elements, covering technical, behavioural and contextual competences.
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 should be recorded in the Issue Log, examined and resolved. Anyone can raise an issue. It is best to solve the root cause to ensure that the issue does not re-occur.
Issue Log	The Issue Log is a register (log file) used to capture and maintain information on all issues that are being formally managed. The Project Manager (PM) monitors the Issue Log on a regular basis. The structure of the Issue Log is defined in the Issue Management Plan.
Issue Management	Issue management consists of all activities related to identifying, documenting, assessing, prioritising, assigning, resolving and controlling issues.
Issue Management Plan	The Issue Management Plan defines and documents the activities, roles and responsibilities involved in identifying, assessing, assigning, resolving and controlling project issues.

Issue Status	Issue status refers to an issue's stage within the management process. It can assume the following values: Open (i.e. unresolved); Postponed (i.e. resolution has been put off until later) or Resolved (i.e. required actions have been taken).
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K

Kick-off Meeting	In a PM ² project, there are two Kick-off Meetings: 1) at the start of the Planning Phase, which is usually the first meeting with the project team and the requestor of the project, and 2) at the start of the Executing Phase.
Key Performance Indicator (KPI)	A key performance indicator (KPI) is a quantifiable value used to assess performance in achieving the objective of a project, service, deliverable, process or activity.

L

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

M

Macro-Process	Macro-process refers to a set of processes related to a sub-domain. It corresponds to a grouping of activities based on common business logic. Sometimes the consolidation process corresponds to the sequential execution of many processes.
Major Risk	A major risk is one that can jeopardise the realisation of project objectives or major milestones and whose risk level (combination of its impact and likelihood) is usually unacceptable and therefore requires risk mitigation, transfer or avoidance.
Managing Layer	The Managing Layer focuses on day-to-day project realisation by planning, organising, monitoring and controlling project work to produce the intended deliverables and implement them in the business organisation. Members of the Managing Layer report to the Directing Layer. The Managing Layer is composed of the roles of Business Manager (BM) and Project Manager (PM).
Methodology	Methodology refers to a written guideline that can be used to produce something. It includes specific components, such as phases, tasks, methods, techniques and tools. PM ² is a methodology for Project Management.
Metric	A metric is a quantifiable value that makes it possible to measure the achievement of a project/service/deliverable/process/activity objective. Metrics should be specific, measurable, actionable, relevant and captured at the right time. They provide important information for project management (e.g. risk, budget, schedule, issues, motivation and quality).
Milestones	A milestone refers to a significant point or event in a project that receives special attention. In PM ² there are management milestone artefacts that are of particular interest to the Project Steering Committee (PSC). Milestones can also be used to mark key deliverables, control points, the acceptance of final outputs and closing the project.

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Minutes of Meeting (MoM)	Minutes of Meeting (MoM) provide a summary of what was discussed in a meeting, including project issues, decisions taken, and risks identified. This document can be used as an input into subsequent meetings.
Mitigation	Mitigation refers to an action carried out to: (1) lower the likelihood of a risk occurring, and (2) reduce the effect of the risk on the project by minimising its impact if it occurs. (See also <i>Reduce, risk response strategy</i> .)
Monitor & Control	Monitor & Control is a group of continuous activities that spans the life of a project. These activities are focused on measuring the correct execution of the project against the agreed baselines using key metrics like costs, time and quality indicators, and taking corrective actions if the execution goes too far off plan.

N

Non-compliance	Non-compliance refers to the failure to comply with project requirements or regulatory requirements imposed by public authorities or regulatory bodies.
Non-conformities	Non-conformities refer to the non-fulfilment of project requirements (i.e. the requirements that are not met).

O

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

P	
Pareto Chart Pareto Diagram Pareto Analysis	The purpose of the Pareto Chart is to categorise (highlight) the cumulative percentage of the contribution of causes (issues, cost, etc.) according to the frequency with which they occur. The Pareto Principle states that generally 80% of effects come from 20% of causes. Using the Pareto Chart enables a focus on the causes that have a high frequency and attempt to find a resolution for them first. This technique is known as Pareto Analysis.
Peer Review	A peer review is an impartial review/evaluation of a project deliverable or artefact carried out by an expert or a group of experts working in the domain.
Performing Layer	The Performing Layer is an operational layer and is where most of the project activities are carried out. It is composed of the Business Implementation Group (BIG) and the Project Core Team (PCT).
Phase-Exit Review Checklists	Phase-Exit Review Checklists are spreadsheet-based documents 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 is closed. They are concerned with checking key information in each phase and gathering Lessons Learned.
Phase Gates	Phase Gates are approval gates during the project lifecycle (Ready for Planning, Ready for Executing, Ready for Closing). They ensure good governance, making sure that project teams seek approval before moving on to the next phase.
Phase Input	A phase input is any particular artefact, item, product, decision or even information that will be used in the activities of the receiving phase. Phase inputs are usually outputs of a previous phase.
Phase Output	A phase output is any particular artefact, item, product, decision or even information that is produced during a phase.
Plan	A plan is a written projection of project activities and resources needed to execute a process, e.g. for risk management, change management or transition. A plan should answer the four basic questions: what, when, how and by whom.
Planned Value (PV)	Planned Value (PV) refers to the amount of cost (monetary units) planned to be consumed until a point in time (e.g. within a reporting period). It is in other words, an approved cost estimate of the resources scheduled, in a time-phased cumulative baseline. Also known as Budgeted Cost of Work Scheduled (BCWS).
Planning Phase	The Planning Phase is the second phase of a PM ² project in which the subject of the project is verified and developed into a workable plan for implementation. The various standard and specific plans for the project are created in this phase.
PM ² Mindsets	The PM ² Mindsets present attitudes and behaviours which help project teams focus on what is really important in achieving project goals.
PM ² Certification Programme	A knowledge and experience-based project management certification programme for European Institution staff involved in project-related work. It offers two certification Levels: PM ² Certified (knowledge-based) and PM ² Practitioner (experience-based).
PM ² Training Programme	The European Commission's training services offer a complete Project Management training programme. EU staff can choose between project management courses organised in four groups and two levels.
PMBOK (Project Management Body of Knowledge)	The Project Management Body of Knowledge (The PMBOK® Guide) is a guide that describes a set of standard terminology, practices and guidelines for project management. It is published by the Project Management Institute (PMI).
Portfolio (of projects)	A portfolio is a collection of projects, programmes and other activities grouped in order to ensure better financial and resource control, and to facilitate their effective management in terms of meeting strategic objectives.

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Post-project	Post-project defines the period after the project has been closed. It includes a set of activities to maintain, improve, extend and support project deliverables after they have been delivered to the stakeholders/user community. Post-project activities are the responsibility of the permanent organisation and are implemented as part of ongoing operations or future projects. These activities are usually defined in the Business Implementation Plan or recommended in the Project-End Report.
Post-project Recommendations	Post-project recommendations comprise suggested courses of action to improve project deliverables after the project has been closed. They are related to the operation of the product/service, and include extensions, updates, maintenance, ideas for follow-up projects, etc. They should be part of the Project-End Report.
Pre-project	Pre-project describes the period before the project officially starts (i.e. before the Business Case is approved). It includes activities and information gathering related to the idea/need for the project.
PRINCE2	PRINCE2 is a process-driven project management method that supports selected aspects of project management. The acronym stands for “projects in a controlled environment”. PRINCE2 covers the planning, organisation, management and control of projects.
Priority	Priority refers to the numerical value given to a project item (requirement, risk, task, etc.) to classify its relative importance in comparison with other items.
Problem	A problem is an existing state that can potentially affect the organisation’s goals.
Procedure	A procedure is 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 or steps that together achieve a specified outcome. A process can be broken down into sub-processes, and can show operation of a function, system or service. It may also be used to link or make up organisations, functions, services and other processes.
Process Categories	The organisation’s processes can be classified into different process categories/domains. Examples include asset management, audit, internal communication, external communication, document management, financial management, grant management, human resources, IT, legislation lifecycle, statistics management, case management, crisis management (alert systems), procurement, programme management and strategic planning.
Product	A product is the tangible output of a project using the PM ² Methodology. For a business, a product might be a good manufactured for sale to customers.
Programme	A programme is a collection of projects aimed towards a common goal—i.e. a group of related projects managed in a coordinated way to obtain benefits that could not be achieved from their individual management. Programmes may also include elements of related work outside the scope of its projects.
Programme Management	Programme management is the process of managing several inter-dependent projects to better achieve the programme’s strategic objectives and benefits.
Project	A project is a temporary organisational structure which is set up to create a unique product or service (output) within certain constraints. Temporary means that every project has a definite beginning and a definite ending. Unique means that the product or service is different in some distinguishing way from existing products and services. Projects are run by people, constrained by limited resources, and planned, executed and controlled. Projects are often critical components of the performing organisations’ business strategy.
Project Change	A project change is a modification to the project environment (scope, schedule, resources, costs, risks, quality, artefacts, etc.). Possible causes for a change are e.g. a new requirement, an identified issue, a preventive action to reduce the risk level, a decision taken that has an impact on the project’s baseline etc.

Project Change Management Plan	The Project Change Management Plan defines and documents the change process for a project. It defines the activities, roles and responsibilities involved 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 authorises the existence of the project and the project team and provides the Project Manager (PM) with the authority to use organisational resources to staff project activities. The final responsibility for the quality of the Project Charter lies with the Project Manager (PM).
Project Coordination	Project coordination describes the process of managing and directing project activities and stakeholders. It includes the allocation of project resources to activities, continuous quality checks of the interim results of work, ongoing communication with all project members, and the motivation of all involved throughout the project through leadership, negotiations, conflict resolution and application of appropriate people management techniques.
Project Core Team (PCT)	The Project Core Team (PCT) 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 (PM). It plays a key role in the successful completion of the project.
Project Drivers	Project drivers comprise the roles that lead the key activities in each phase of a PM ² project. The project drivers differ from phase to phase.
Project-End Report	The Project-End Report summarises the project experience, performance, Lessons Learned, successful project practices and pitfalls. It is created in the Closing Phase of a PM ² project by the Project Manager (PM).
Project-End Review Meeting	The Project-end Review Meeting takes place during the project's Closing Phase. Its aim is to ensure that project members discuss their experience so that lessons learned and best practices are captured. In addition, ideas and recommendations for post-project work should also be discussed. The result of the meeting is documented in the Minutes of Meeting (MoM) and the Project-End Report.
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 the Project Initiation Request and ends once the Closing Phase activities are completed and the Project Owner (PO) performs the final acceptance. The formal project closure terminates the project mode and allows the operations mode (if any) to start.
Project Management	Project management refers to the application of knowledge, skills and techniques to successfully manage work and resources to achieve project objectives and organisational goals.

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PM ² Project Management Methodology	PM ² is the European Commission’s official project management methodology, developed initially for European Institutions, which aims to enable Project Managers (PMs) to deliver solutions and benefits to organisations through the effective management of project work. It is a methodology created by the European Commission.
Project Management Information System (PMIS)	A project management information system (PMIS) is an application system used to support the PM ² Methodology and the management of projects in an organisation. It aims to support projects through all PM ² phases (supplying templates and instructions) and makes it possible 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 the Project Change Management Plan, Risk Management Plan, Quality Management Plan, Issues Management Plan, Communications Management Plan and Requirements Management Plan. These plans are part of, or referenced from, the Project Handbook.
Project Manager (PM)	The Project Manager (PM) is a role in the project that is appointed by the Project Steering Committee (PSC) to manage the daily progress of the project so as to deliver the outputs within the agreed constraints. The Project Manager (PM) also provides day-to-day management of the Project Core Team (PCT).
Project Mode	Project mode refers to the work of the project organisation while the project is running. Once the project is completed (closed), it moves to operations mode.
Project Owner (PO)	The Project Owner (PO) is the project sponsor and typically holds a management position within the requestor organisation. S/he sets the business goals and provides leadership and strategic direction. The Project Owner (PO) approves the deliverables and ensures that the project meets its goals.
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	PM ² has four phases: Initiating, Planning, Executing and Closing. The Monitor & Control activities span all four project phases.
Project Progress Report	The Project Progress Report is an artefact created by the Project Manager (PM) to inform the Project Steering Committee (PSC) on how the project is progressing compared to the baselines and the Project Charter. It covers the status of the deliverables, effort, risks, major issues, actions, achievements and scope changes. The difference between the Project Progress Report and the Project Status Report is that the Project Status Report is sent much more frequently (e.g. every one or two months) and contains just a one-page summary of the Project Status. (See also <i>Project Status Report</i> .)
Project Quality Assurance (PQA)	Project Quality Assurance (PQA) is the role that is responsible for quality assurance and auditing aspects. The role is an optional member of the Project Steering Committee (PSC) and helps the Project Manager (PM) in creating the Quality Management Plan.
Project Reporting	Project reporting is an activity carried out by the Project Manager (PM) to document and summarise the status of various dimensions of project progress and to communicate this to relevant stakeholders. Project reports typically provide information on scope, schedule, cost, and quality, as well as relevant information on risks, issues, project changes and contract management issues.
Project-Specific Plans	Project-specific plans are used to document and detail the project’s activities and resources based on project needs (e.g. the Project Work Plan, Business Implementation Plan, Transition Plan and Outsourcing Plan).
Project Stakeholder Matrix	The Project Stakeholder Matrix lists all the people, groups or organisations involved in the project, and clarifies their roles.

Project Status Report	A Project Status Report is a frequent report (e.g. every 1-2 months) that is sent to the Project Steering Committee (PSC) 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. (See also <i>Project Progress Report</i> .)
Project Steering Committee (PSC)	The Project Steering Committee (PSC) is responsible for monitoring the correct execution of the project. This group defines the main orientations of the project and coordinates its main tasks. It validates the human and financial resources allocated to the project as well as the main project deliverables. All stakeholder groups should be represented in the Project Steering Committee (PSC).
Project Success Factors (PSF)	Project success factors (PSF) comprise the elements within the structure and context of the project that are necessary to achieve its success. Their presence will not guarantee success, but their absence will significantly increase the probability of failure.
Project Support Office (PSO)	The Project Support Office (PSO) 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 Project Support Office (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. Not every organisation has access to such a body.
Project Support Team (PST)	The Project Support Team (PST) is composed of the Project Support Office (PSO), the Project Quality Assurance (PQA) and the Architecture Office (AO). The roles of the Project Support Team (PST) 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	Project variables are the four essential baselined metrics monitored in the Monitor & Control processes: cost, schedule, scope and quality.
Project Work Plan	The Project Work Plan identifies and organises the project into deliverables, work packages, activities and tasks, needed to achieve the project objectives. It establishes a base from which 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 (SP), the Project Manager (PM) and the Project Core Team (PCT). In PM ² the provider is internal to the organisation and different from any external contractors.

Q

Quality	The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.
Quality Assurance (QA)	Quality Assurance (QA) is the activity of providing the evidence needed to establish the quality of work and therefore provide enough confidence that the project will satisfy the desired scope and quality requirements within its constraints.
Quality Characteristics	Quality characteristics comprise requirements for the project that are based on its objectives, approach, deliverables, expected benefits and resources available. Quality characteristics are translated into criteria that will be used to evaluate the alignment of deliverables and artefacts with expected outputs.
Quality Control	Quality control is the activity of monitoring and consolidating results of Quality Assurance (QA) in order to assess compliance and performance, recommend necessary changes, and plan new or refine existing quality assurance activities.
Quality Management	Quality management consists of carrying out quality planning, quality assurance, quality control and quality improvement up until final project acceptance (Closing Phase). Quality management aims to ensure that the project will meet the expected results in the most efficient way, is compliant with all relevant governmental and industry standards and that deliverables will be accepted by the stakeholders.

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Quality Management Plan	The Quality Management Plan defines and documents the project’s quality requirements, including the quality management approach, process, and responsibilities, and outlines the quality assurance and control activities to be carried out throughout the project. Also includes the Configuration Management process.
Quality Record	The quality record is an output of a quality management activity and serves as the evidence that this activity has been performed.
Quality Review Checklist	A Quality Review Checklist is a tool used throughout the project (when performing quality control) to check if quality management activities have been performed as defined in the Quality Management Plan.

R	
RASCI	The acronym RASCI (pronounced <i>rasky</i>) stands for: Responsible, Accountable, Supports, Consulted and Informed. It is also known as the Responsibility Assignment Matrix (RAM). (See also <i>Responsibility Assignment Matrix</i> .)
Ready for Closing (RfC)	Ready for Closing (RfC) is the third and final phase/approval gate at the end of the Executing Phase, where 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).
Ready for Executing (RfE)	Ready for Executing (RfE) is the second phase/approval gate at the end of the Planning Phase, where the Planning Artefacts are approved by the Project Owner (PO) and the decision is taken to move the project to the Executing Phase.
Ready for Planning (RfP)	Ready for Planning (RfP) is the first phase/approval gate at the end of the Initiating Phase. It includes the approval of the Business Case and the Project Charter by the Project Steering Committee (PSC).
Recommendation	A recommendation is the suggested course of action to improve a process/control/output. It is associated with the result of a review/audit.
Reduce (risk response strategy)	Reduce is a risk response strategy to mitigate the impact and/or likelihood of a risk through the proactive implementation of risk-reduction activities (e.g. controls) to a level where the residual risk can be accepted.
Requestor Side	Also referred to as the <i>Client Side</i> . The Requestor Side includes the resources belonging to the organisation that requested the project and where the solution will be delivered. These resources include the Project Owner (PO), the Business Manager (BM) and the Business Implementation Group (BIG).
Requirement	A requirement is a capability that the product or service the project is designed to deliver needs to have to satisfy the stakeholders’ needs. It constitutes an agreement between the customer(s) and the project team on what to produce. It is a test that the end-product of the project has to pass in order to fulfil the customer’s demands.
Residual Risk	The residual risk is the accepted risk that remains after the risk-response is implemented or after existing controls are considered.
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)	The Responsibility Assignment Matrix (RAM) is a way of clarifying roles and responsibilities for an activity and of ensuring that each component of work is assigned to a person or a team. (See also <i>RASCI</i> .)
Responsible Role (RASCI table)	The responsible role on the RASCI table is the person/group/entity that has to perform the tasks or ensure that they are done. Others can support this role (or do part of the work) or be consulted (review or approve the work), but there is only one responsible person/group/entity.
Reviewer	A reviewer is the person who formally assesses and validates an artefact or deliverable.

Risk	A risk is an uncertain event or set of events (positive or negative) that, should it occur, will have an effect on the achievement of project objectives. A risk is generally measured by a combination of the likelihood (probability of the risk happening) and the size of the impact on the project.
Risk Appetite	Risk appetite describes the level of risk that an organisation is prepared to accept in the pursuit of its objectives.
Risk Assessment	A Risk Assessment is an evaluation performed by analysing the likelihood of an identified event occurring and the impact on project objectives if this event happens, alongside the risk appetite and existing vulnerabilities of the project/organisation. Risk levels are calculated for each event and risks are then prioritised.
Risk Assessment (Likelihood/Impact) Matrix	A Risk Assessment Matrix shows the different combinations of likelihood and impact of project risks and defines bands of risk level that suggest risk-response strategies.
Risk Impact	The risk impact describes the potential consequence that the risk will have on the project's objectives, should it materialise. The impact can be both quantitative and qualitative in nature. It is usually expressed on a scale from 1 to 5.
Risk Likelihood	The risk likelihood expresses the probability that the risk might occur. It is usually expressed on a scale from 1 to 5 (it can also be expressed in terms of actual probabilities, e.g. 10%-30%-50%-70%-90%).
Risk Level (RL)	The risk level (RL) is the result of the combination of the likelihood (L) that a risk occurs, and its impact (I) should it occur. ($RL=L*I$).
Risk Log	A Risk Log is the central repository for all risks identified by the project or organisation. It includes information for each risk such as its likelihood, impact, level, risk-response strategies and risk owner. A Risk Log can also be referred to as a Risk Register or Risk List.
Risk Management	Risk management describes 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 will be used, the risk level bands (in the risk assessment matrix), the relevant roles and responsibilities, and how often risks need to be revisited, etc. It also defines the risk monitoring and escalation process as well as the structure of the Risk Log used to document and communicate the risks and the risk-response.
Risk Owner	The risk owner is the person accountable for the management and monitoring of a specific risk.
Risk Reserve	The risk reserve refers to the amount of budget or time estimated and allocated to implement project risk-response strategies.
Risk-Response Strategy	The risk-response strategy describes the way in which a risk will be managed. The risk response strategies are created in order to be able to counter both positive (opportunities) and negative (threats) risks, and are grouped as follows: Threats: Avoid, Reduce, Accept, Transfer/Share Opportunities: Exploit, Enhance, Accept, Share
Risk Status	The status of a risk is logged in the Risk Log. It can assume the following values: proposed, investigating, waiting for approval, approved, rejected, closed.
Risk Threshold	Risk threshold is the level of impact beyond which an organisation will no longer tolerate the risk. Risk threshold is a negotiated quantified limit.
Risk Tolerance	The sensitivity of an organisation or project stakeholders to risks, their willingness to accept or avoid risk. Risk tolerance can be variable and fluid from person to person.
Root Cause	The root cause describes the original/primary cause of an issue or a risk.

S	
Secondary risk	A secondary risk is a risk that is created after a risk-response is implemented. The new risk is then assessed and if necessary, a new response strategy may be defined.
Schedule	The schedule is part of the PM ² Project Work Plan. It consists of a time-based plan of project milestones, activities, tasks and deliverables, with start and end dates, linked by dependencies. A schedule is often presented in a Gantt chart. (See also <i>Gantt chart</i> .)
Scope Statement	A scope statement is a short description of what needs to be accomplished in a project. It presents the major objectives, deliverables, and justification in one or two phrases. The project scope is first defined in the Business Case and then elaborated in the Project Charter. It reaches its final form in the Project Work Plan
Services	Services refer to intangible project outputs that enable the requestor to achieve the desirable outcomes.
Service Mode	Service mode is the temporary organisation/governance structure created to maintain, improve, extend and support information systems after they have been delivered to the stakeholders/user community and until the end of the information system’s lifecycle. The service mode is also known as operational and corrective maintenance mode.
Share (risk response strategy)	Share is a risk response strategy that can be used both for negative (threats) and positive (opportunities) risks. It is usually based on a “pain/gain” formula where both parties share either the loss, in the case of a threat, or the gains, in the case of an opportunity (e.g. by partnering).
Service-Level Agreement (SLA)	A service-level agreement (SLA) is part of a contract agreed by two parties where key performance indicators (KPIs) are defined and the level of service agreed.
Situation	A situation refers to a set of problems, needs and opportunities that affect the existing state.
Solution	A solution refers to a set of products and/or services that allows the requestor side to solve a business problem, to meet a business need or to grab an opportunity.
Solution Development Costs	Solution development costs comprise the costs of the resources required to develop project deliverables.
Solution Maintenance Costs	Solution maintenance costs comprise the costs of resources required to maintain project deliverables (including making changes to project deliverables).
Solution Provider (SP)	The Solution Provider (SP) assumes overall accountability for the deliverables and services requested by the Project Owner (PO). The Solution Provider (SP) typically holds a management position within the provider organisation. The Project Manager (PM) reports to the Solution Provider (SP).
Specification	A specification is a complete, testable and documented set of requirements to be satisfied by a specific solution. Specifications can be described in use cases, business rules, story boards, etc.
Stage	A stage is a point, period or step within a phase, (primarily the Executing Phase) and is linked to a major achievement in terms of project outcomes. It is principally used in Agile Project Management.
Stage-based Breakdown	Stage-based breakdown describes a technique used 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	The Stakeholders Checklist is a document created to help deal with stakeholders during the lifecycle of the project.
Stakeholder Need	Stakeholder needs describe 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 Level provides general project direction and guidance to keep the project focused on its objectives. It reports to the Appropriate Governance Body (AGB), which operates on a more strategic level. The Steering Layer is composed of the Project Steering Committee (PSC) roles.
Success Criteria	<p>Success criteria comprise the standards by which the project is judged. Success criteria are measurements established to determine whether the project has satisfied its objectives and met its requirements. Success criteria can be qualitative or quantitative, and are ideally SMART (Specific, Measurable, Achievable, Relevant and Realistic, and Time-bound).</p> <p>Do not confuse success criteria with benefits: While success criteria can be measured at project closure, benefits are often achieved long after project closure.</p>
Support Costs	Support costs are those required to support the use of the project deliverables after the project has ended.
Support Layer	<p>The 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).</p> <p>The support roles may be assumed by specific teams or team members or may be provided as horizontal services by the organisation.</p>
Supports Role (RASCI table)	The supports role on the RASCI table refers to the person/group/entity that works with the responsible person and carries out part of the activity. Unlike the consulted role, the supports 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. It generally begins by specifying the objective of the project and then identifies the internal (strengths and weaknesses) and external (opportunities and threats) factors that are favourable or unfavourable to achieving the objective.

T

Tailoring	<p>Tailoring of the PM² Methodology refers to adapting the methodology to the environment and needs of an organisation. It usually involves tailoring one or more of the four pillars of the methodology (e.g. changing the project governance, adding or removing steps in the PM² defined processes, adding or removing sections in the PM² Artefacts, adding stages to a phase, etc.).</p> <p>The results of the tailoring of the methodology should be reflected and documented in the PM² Management Plans and in the Project Handbook. Note that significant deviations from the PM² Methodology should be avoided.</p>
Template	A template is a pre-developed document or file with a pre-set format, used as a starting point for structuring and presenting information so that the format does not have to be recreated each time it is needed.
Threshold	A threshold is a value or interval of values at which a specific action is triggered.
Test Manager	The Test Manager is the person responsible for collecting and reporting on tests, as well as leading a testing team. The role is assumed by the Project Manager Assistant (PMA) if a Test Manager has not been appointed.

Appendix G: Glossary

Tolerance	Tolerance describes the allowable deviation above or below a target for time, cost or other project variables such as quality, scope and risk. If the deviation goes above or below the agreed threshold the current management level escalates the issue to a higher level. Without tolerance, every issue would be escalated immediately, and the Project Steering Committee (PSC) would end up running the project.
Top-down (technique)	Top-down refers to an approach to estimating project work that begins at the goal level and partitions work down to the finest levels of definition until the participants are satisfied that the project has been defined in adequate detail.
Total Cost of Ownership (TCO)	Total cost of ownership (TCO) defines the estimated cost (both direct and indirect) for the development and operation of the products or/and services created by the project. As a best practice, it is usually calculated for a 5–10-year period.
Traceability	Traceability is the ability to verify the history, location, or application of an item by means of documented recorded identification.
Training Costs	Training costs comprise the human resource costs required to provide training to the requestor side (end-users, etc.) or to teams that will support and maintain the solution.
Transfer (risk-response strategy)	Transfer is a risk-response strategy that consists of transferring the risk to a third party (e.g. through insurance or outsourcing activities). This strategy does not relieve the organisation of a risk, but it may reduce the likelihood (e.g. by outsourcing an activity to a specialist party) and/or the impact if the risk occurs. There is always a level of secondary and/or residual risk since the ultimate responsibility for the project risks remains with the organisation.
Transition Management	Transition Management describes 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 (i.e. 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 a smooth transition from project mode to operations mode.

U

Urgency	Urgency is a measure of the time that it will take until an issue affects project objectives or activities.
User Acceptance Test (UAT)	A user acceptance test (UAT) ensures that a deliverable meets user expectations. These tests are usually already described in a test plan.
User Representatives (URs)	User Representatives (URs) is a role that represents the interests of the users to the project and ensures that the project specifications and deliverables meet the needs of all users. They can perform user acceptance tests (UATs) and are considered as optional participants of the Project Steering Committee (PSC).

W

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



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Farewell

Dear students, sorry I could not join you throughout the course, but I hope you enjoyed it.

Were the two main project examples suitable? The engineering students learning project management by doing real project and the European Parliament Elections. The first one was intended to show you how PM² can be applied at any sector and even in contexts without prior project management knowledge. And the second one was intended to allow you to develop the project through PM² life cycle and even customize it to your own environment, country.

Now that you have finished the course, you have seen the other examples. The “website” project, showing a quite common governance model. And the family games afternoon, an anecdote of my worst risk management and how we forget project management should also be applied at personal projects. And many others to see how PM² is applied at real-project environments.

The real purpose of the course, beyond preparing you for the certification, was to enjoy project management with PM². Hoping you are convinced to apply PM² as your organization project management methodology.

The course has ended, but your personal project, the PM² Practitioner Certification, is not completed yet. The road ahead is yours to follow, but we surely made clear the path, so that you can achieve the final goal. Never less, remember that the final reward will only come after studying.

Thank-you for sharing this journey with us and hoping to see you soon as a PM² Practitioner.

Ready to finish your PM² Practitioner Journey !

Elisabet Duocastella Pla
