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**Company ‘As Is – To Be’: how Project Management theory can be used to
improve and streamline processes in a real case study.**



Relatore/i

Candidato

prof. Alberto De Marco

Micol Abello

prof. Filippo Maria Ottaviani

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Abstract

This thesis examines how Project Management theory can help improving and streamlining processes in early-stage companies that struggle with the management of complex procedures.

The study analyses a real case at an IT company providing a European-wide service, mapping out the company's existing organisational structure and identifying weaknesses and deficiencies in its processes.

The first chapter focuses on the theory of Project Management, Organizational Project Management and PMO, while the second chapter goes on the company organisational description and maps in detail the OPM framework before any intervention.

Finally, the third chapter presents the analysis of main problematics in turning inside the entire process, which correspond to identification of the strategy by the Board of Directors, the low accuracy during the evaluation phase and the reporting and monitoring issue.

The result proposes solutions which lead to a new company, 'To Be', adapted to the requirements, with increased standards and efficiency. In particular, the first two problems can be solved with a more detailed and adapted process, while the third one requires the implementation of a new department in the company, the PMO.

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Introduction

The basis of this study is the analysis of an organisation and its entire process enabling the final development of a project, which includes the various departments working for it and all the actions they perform analysed in detail. In particular, the focus is on the problems resulting from the business's early age despite its high productivity and innovation. The project management theory can solve them or at least improve them.

The motivations that prompted me to explore this topic are twofold. Interest in project management and the improvements it can bring within a company, and some experiences I had during my university internship allowed me to come into contact with issues within the business I worked on that I felt could be improved.

Indeed, as mentioned in the abstract, this thesis aims to compare the effectiveness of framework As Is to framework To Be as a method that can be used to increase the company's functioning.

To build up this work, extensive research and mapping of the business were conducted, together with a detailed study of the theory of project management and organisational structures, framework and so on.

The method pursued to achieve the objective is to start with the company's organisational structure, understand its typology and assign roles and responsibilities within the departments. At this point, the OPM framework will be accurately mapped.

This process is followed for the company As Is. At this point, there is a critical analysis of the negative issues of the company and possibly a new scenario is identified which can improve and solve the problems. This will show up in a new company To Be, and it will be the company's responsibility to apply this new

framework in the actual case. As far as the things functioning within the company are concerned, these will not be changed but kept as they are.

To do so, the thesis will be organised into different chapters: the first concerns the theory, which corresponds to the detailed explanation of project management, organisational project management and PMO. Later on, the chapter regarding the company per se as it works now will be analysed from an administrative point of view and a framework one. This can be very useful as this will give the starting point for the objective analysis and improvement of the company As Is into To Be, which corresponds to the third chapter. Finally, the fourth chapter comments on the results obtained from the data processing analysis, setting out the most relevant elements of the investigation.

As a result of this research work, it was possible to analyse some significant additions and improvements to the framework that could help the company achieve greater functionality. These results will be detailed in the conclusions of this thesis.

1 Theory Chapter

A general introduction to methodologies such as Project Management, Project Management Office and Operational Project Management in their original form is required to understand the subject matter.

In the following section, a theoretical view of project management is provided.

After this preamble, Operational Project Management will be described as a framework in companies and organisations.

Finally, a description of the Project and Programme Management Office and its practical applications will be presented.

All those subjects are essential to understand the thesis work.

1.1 Project Management

Project management is a complex and dynamic field that involves the planning, execution, monitoring, and controlling of projects beneficial to achieve specific goals and objectives. This field has proliferated in recent years, with organisations of all types and sizes recognising the importance of effective project management in achieving strategic objectives.

According to the Project Management Institute (2017), ‘Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is accomplished by appropriately applying and integrating the project management processes identified. Project management enables organisations to execute projects effectively and efficiently.’

To understand the PM in more detail, it is crucial to understand what a project is. It is a “temporary endeavour undertaken to create a unique product, service, or result. The temporary nature of projects indicates that a project has a definite beginning and end. The end is reached when the project’s objectives have been achieved, when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists.” (Project Management Institute, 2013). The subject of the projects can be very different between them. Specifically, the thesis concerns that all the projects are related to the IT environment.

Associated with the definition of projects, programmes, and portfolios should be mentioned. A programme comprises several projects or works necessary to realise the portfolio, defined as a collection of projects, programs, and operations managed as a group to achieve strategic objectives.

The relation between the three is shown in Figure 1.

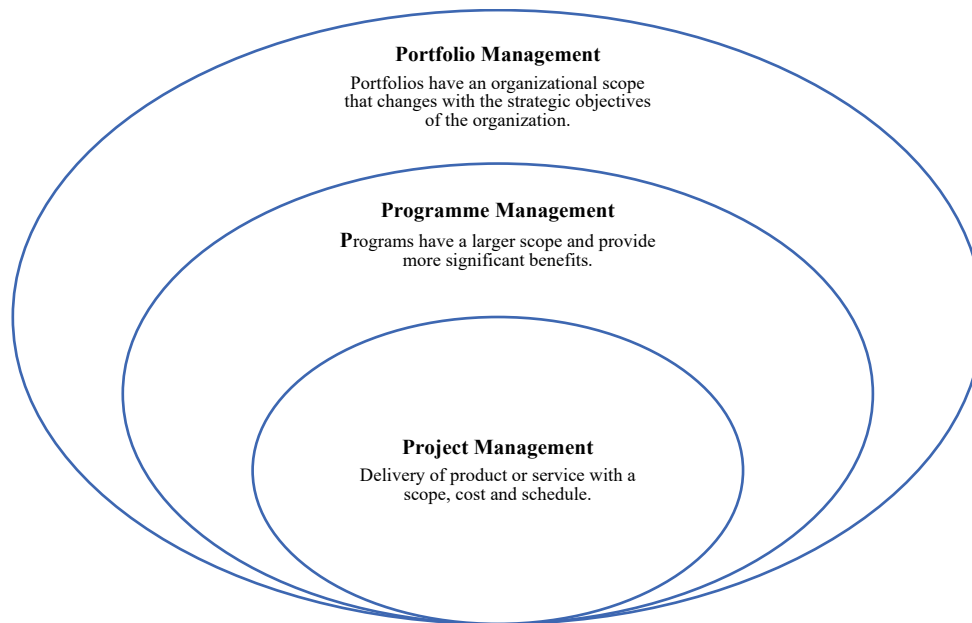


Figure 1 Project, Portfolio and Program Management

1.2 Organizational Project Management

To understand them more deeply, the following rows will explain how they relate to organisational project management (OPM). The OPM is a ‘strategy execution framework to align portfolio, program, and project management practices with organisational strategy and objectives, customised as needed according to the organisation’s context, situation, or structure.’ (Project Management Institute, 2016).

Suppose the management can follow the OPM strategy execution framework and use it correctly from a practice and structure point of view. In that case, it can lead the organisation to better performance, results, and sustainable competitive advantage.

To understand better the OPM is important to study the different typologies of organisational structures, particularly the three, mainly the functional, the matrix and the project-oriented organisation.

- The functional organisation ‘is a hierarchy where each employee has one clear superior. Staff members are grouped by specialty, such as production, marketing, engineering, and accounting at the top level. Specialties may be further subdivided into focused functional units, such as mechanical and electrical engineering. Each department in a functional organisation will do its project work independently of other departments.’ (PMI, 2013)
- The projectized organisation is the opposite of the previous one, in which ‘most of the organisation’s resources are involved in project work, and project managers have a great deal of independence and authority. Virtual collaboration techniques are often used to accomplish the benefits of colocated teams. Projectized organisations often have organisational units called departments, but they can either report directly to the project manager or provide support services to the various projects.’ (PMI, 2013)
- Finally, the matrix organisation reflects a blend of functional and projectized characteristics. ‘Matrix organisations can be classified as weak, balanced, or strong depending on the relative level of power and influence between functional and project managers. Weak matrix organisations maintain many of the characteristics of a functional organisation, and the role of the project manager is more of a coordinator or expeditor. A project expeditor works as staff assistant and communications coordinator. The expeditor cannot personally make or enforce decisions. Project coordinators have power to make some decisions, have some authority, and report to a higher-level manager. Strong matrix organisations have many of the characteristics of the projectized organisation, and have full-time project managers with considerable authority and full-time project administrative staff. While the balanced matrix organisation recognizes the need for a project manager, it does not provide the project manager with the full authority over the project and project funding.’ (PMI, 2013)

The core-enabling processes for the OPM are:

- OPM Governance is defined as ‘the framework, functions, and processes that guide organisational project management activities to align portfolio, program, and project management practices to meet organisational strategic and operational goals.’ (PMI, 2016);
- Strategic alignment that ensures that projects, programs and portfolios achieve the business objective;
- Competency management that ensures that the skills will be available and developed when needed to implement projects, programs and portfolios;
- Organisational project management methodology provides the structure intended as people and processes necessary to implement projects, programmes, and portfolios.

The OPM governance is tailored for each company based on politics, culture, external stakeholders, and environmental and regulatory factors in organisations.

OPM's roles and responsibilities are usually represented using a RACI matrix. This is defined as a responsibility assignment matrix that shows the governance roles assigned and the governance action/decision areas. Each role can be responsible, accountable, consulted, or informed about the governance action. This will be explained in more detail, when done, in chapter 2.3.

According to the PMI (2016), for implementing or enhancing the OPM Governance, a project or program should be initiated by following four implementation steps through continuous cycles of improvement:

- Assess: the current and the future state of governance should be studied, and a gap analysis needs to be performed.
- Plan: detailed governance management plan must be implemented.
- Implement: the plan must be implemented by including change management.

- Improve: based on performance measurement, the improvements should be identified, and the next iteration should be planned.

During this thesis, only the first two steps regarding the OPM will be studied and implemented. The company will take care of the implementation and improvement of the innovation within the framework.

1.3 Project Management Office (PMO)

PMO refers to a portfolio, program or project management office, and it is created to support those three respectively.

As a first concept, the PMO can be seen as a corporate body assigned various responsibilities related to the strategic alignment, centralisation, and coordination of portfolios, programs, and projects.

According to the Project Management Institute (2016) definition, the PMO is an organisational structure with different functions and responsibilities whose main task is to centralise and coordinate the management of projects in the parent organisation. Many studies conducted by them provide a general outline of the role of the PMO as the provision of such support functions, which are currently necessary to manage the projects implemented in the parent organisation properly. However, in their studies, the International Project Management Association defines the PMO as a part of the parent organisation structures, specifically an entity whose role is to provide support, set standards, and collect, consolidate and report data.

The PMO exists in three types of form: supportive, controlling and directive.

The **supportive PMO** plays a consultative role in projects by offering templates, best practices, training, access to information, and lessons learned from previous projects. It acts as a repository for projects.

Through several techniques, the **controlling PMO** offers assistance and demands compliance. Adopting project management frameworks or processes, using particular templates, forms, and tools, or adhering to governance are all examples of compliance.

Finally, the **directive PMO** takes control of the projects by directly managing them.

According to the PMI (2016), the primary functions of PMO can be resumed in:

- Reporting directly to executives, independent of other organisational functional groups;
- Integrating the application of project management practices with operational business practices by coaching, mentoring, training, and oversight;
- Coordinating portfolio management activities and ensuring alignment between organisational strategy and programs and projects;
- Coordinating communication across programs and projects;
- Developing and managing project standards, policies, procedures, templates, and other project documentation (organisational process assets);
- Provide project management tools
- Identifying and developing project management methodology, recommended practices, and standards;
- Managing shared resources across all projects administered by the PMO;
- Monitoring compliance with project management standards, policies, procedures, and templates through project audits;
- Engaging the portfolio, program, and project management community and ensuring their involvement in continuous improvement of the OPM framework; and
- Providing centralised support for managing changes and tracking risks and issues.
- Prioritising activities and tasks

The PMO integrates data and information from corporate strategic projects and evaluates how higher-level strategic objectives are fulfilled.

It can be considered the natural liaison between the organisation's portfolios, programs, projects, and corporate measurement systems.

The specific form, function, and structure of a PMO depend on the needs of the organisation it supports.

A PMO may have the authority to act as an integral stakeholder and a key decision-maker throughout each project's life, make recommendations, terminate projects, or take other actions, as required, to remain aligned with the business objectives. In addition, the PMO may be involved in selecting, managing, and deploying shared or dedicated project resources.

The State of the PMO (2022), a survey entirely designed to understand the current practices of the project management office and addressed to 227 different companies, reports that 71% of the organisations own a PMO and the organisational performance of the results improved.

‘Overall, organisations with PMOs realised moderate to great results in all measures of organisational performance, the best being financial success and stakeholder satisfaction. In terms of the improvement PMOs contributed to the organisation in the past 24 months, the greatest improvement was seen in aligning projects with business objectives (64% improvement).’ Project Management Solutions, Inc. (2022).

The primary value delivered is shown through met agreed-upon quality of delivery, improvement in aligning projects with business objectives, more successful projects and delivered on budget & time, improvement in customer satisfaction.

2 The company AS-IS

This chapter aims to analyse in detail the company where I did my internship to have the basis for the research concerning the improvement to be made in the business.

In particular, the first part brings forward an explanation concerning the purpose of the business and what it is dealing with.

After that, each department is described in detail with the goal of understanding who works in the company and what his responsibility is. The primary focus lies in the operations department, which is mainly related to project management, with whom I worked most of the time. In addition, all projects concerning the company are conducted and completed by this department, with secondary intervention from the others.

A RACI analysis concerning the company's current situation is conducted.

Finally, the OPM framework in all his single processes is studied, examining all the stages from identifying the strategy to the project's conclusion.

2.1 About the company

During the last semester, I had the opportunity to intern at a company that is as interactive as it is serious, which allowed me to work within the operations department as a project manager assistant.

The entire study was conducted in an IT non-profit company operating in the pharmaceutical sector at the European level, with specific standards to follow.

2.1.1 Company Database

In more detail, the company provides a database that gathers information on the different products that can be put on the market at the European level and all the IT systems related to it, which are accurately explained in chapter 2.2.4; the mission of the organisation is to prevent falsified products from entering the legal supply chain.

The purpose of the database is, indeed, to store master data and act as a gateway for the transmission of manufacturer data to the systems in which the products should be commercialised.

2.1.2 Company Interfaces

The company is in charge of having a primary interface with all those manufacturers of the products concerned who will be the first to have contact with the database, uploading the different data of the related products; on the other hand, the company will also have a close relationship with the various national services who will be able to find their way to organise, verify and trace the trade of those products in their country.

In essence, manufacturers and parallel distributors are tasked with uploading their product master data to the database using a gateway.

After this action, contracts must be made with the various sales systems to understand the markets where the products can be sold.

If, for example, a contract is not made with a specific national system, the product will not be sold in this market. If it eventually reaches the market, it will be recognised as an alarm from the alert management system (chapter 2.2.4).

This relation is represented in Figure 2.

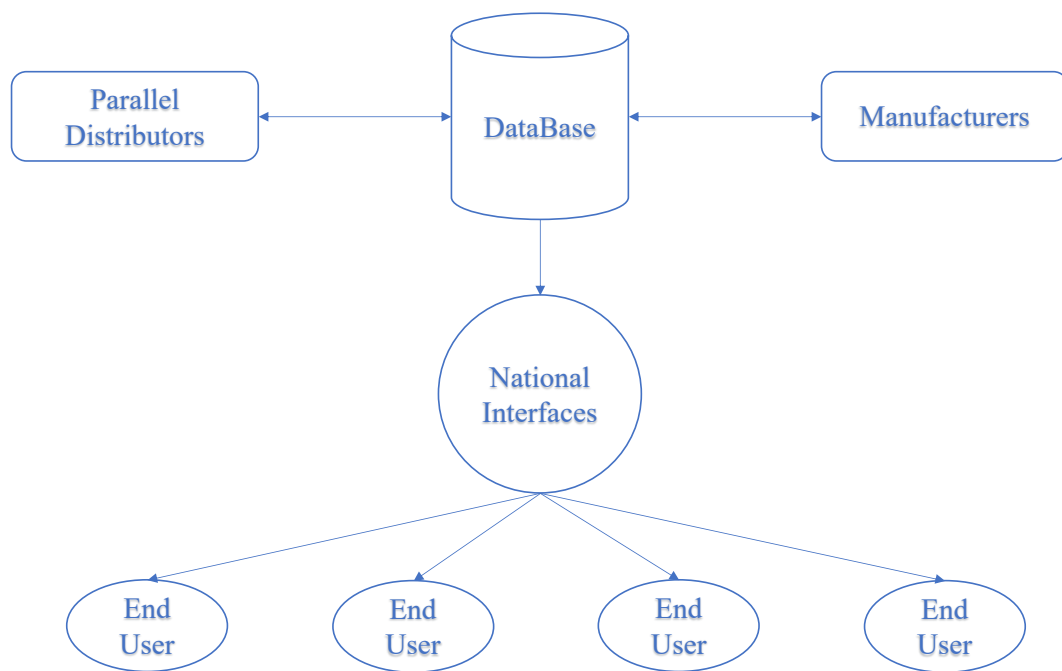


Figure 2 Company Interfaces

2.2 Organisational Structure

In the following sections, I will study the organisational structure of the As-Is company so that a more detailed analysis can be carried out later.

In particular, I will analyse the various department, roles and responsibilities within the structure.

The structure of the analysed company appears to be a weak matrix one.

2.2.1 Organigram

The company is composed of different figures and departments; all these departments are made up of people who possess skills and knowledge related to their work and are entirely different from each other; despite the differences, what is important to remember is the fact that each of these has a Head who is responsible for dividing up and running the job within his department respecting deadlines and quality standards: in this way, he will be solely responsible for receiving the work from the higher levels, but then, the way he develops and run it within his department belongs to himself. Moreover, it will always be only the Head of the department which reports to the higher level, making communication easier.

As the organisational structure is a weak matrix, it is organised into many different departments. Workgroups are arranged for the job being done (finance, project delivery, legal mission etc..). The functional structure characteristics are maintained, but information and tasks are exchanged between different departments during the project's execution.

The role of the project manager is the project coordinator or project expediter. It helps with the communications between different departments' people involved in the project, but he can't make or enforce decisions before getting the higher levels' approval. Despite this, the project manager still owns some power and authority

concerning decisions regarding the project execution. Instead, the Head of OPS manages the budget of the projects.

FNA, OPS and QA are the three departments that work directly on the projects.

The organigram of the company is illustrated in Figure 3.

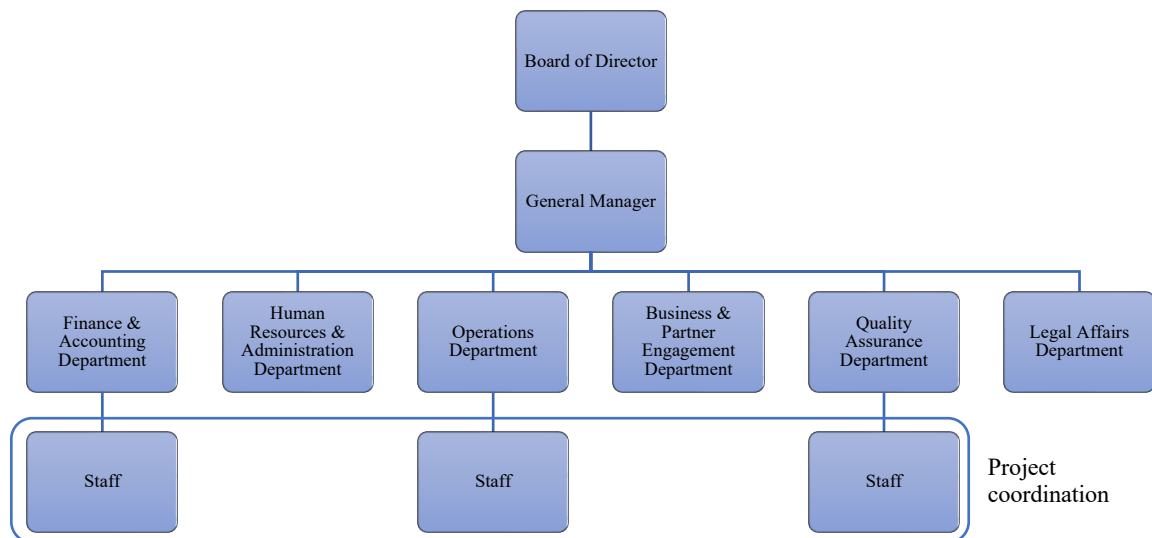


Figure 3 The Organigram of The Company

Each department has its budget, and it must be able to allocate during the year and for the different projects.

Inter-department meetings are organised weekly, and everyone from the company is strongly invited to participate; this allows them to update each other on important issues. If there are priorities or needs to be exchanged between departments, communication is made more accessible by this methodology.

In the following chapters, there will be a detailed explanation of each department, with its responsibilities and roles.

2.2.2 Board of Directors

At the higher level of the company lies the Board of Directors, which comprises a President, a Vice-President, a Treasurer and two additional representatives.

Its primary responsibility is to perform the duties of strategic planning and oversight, which are the backbone of successful business planning. The Board is in charge of setting priorities for the company and approving the proposed ideas from lower levels.

The priorities they set will then be reported to the GM, who will meet with the Head of OPS to understand which project to be delivered to reach the required goals.

The board meet quarterly to discuss the topics, and once a year, they organise a General Assembly in which they set the budget at a high level depending on the projects that should be delivered during the year. Once approved, the budget will mostly stay the same for the whole period.

The Board is elected every two years.

2.2.3 General Manager

As can be seen from Figure 3, the general manager reports directly to the board.

He oversees representing the company legally to the higher level as he is responsible for reporting plans and what is happening within the company, trying to get their approval.

Moreover, he manages the company in day-to-day business, following the strategic directions of the board.

The strategic alignment ensures that projects support the achievement of business objectives.

The GM receives the priorities from the higher level to be satisfied quarterly; he translates them into projects to fulfil them by organising weekly meetings with the Head of OPS to reach the goal. This last figure is fundamental in this part of the process as the OPS department is involved in the project's delivery (chapter 2.2.4).

As new project plans are organised, the GM looks for approval from the BoD; until this happens, the company is not allowed to initiate the project in-house.

The relationship between those three figures is shown in Figure 4.

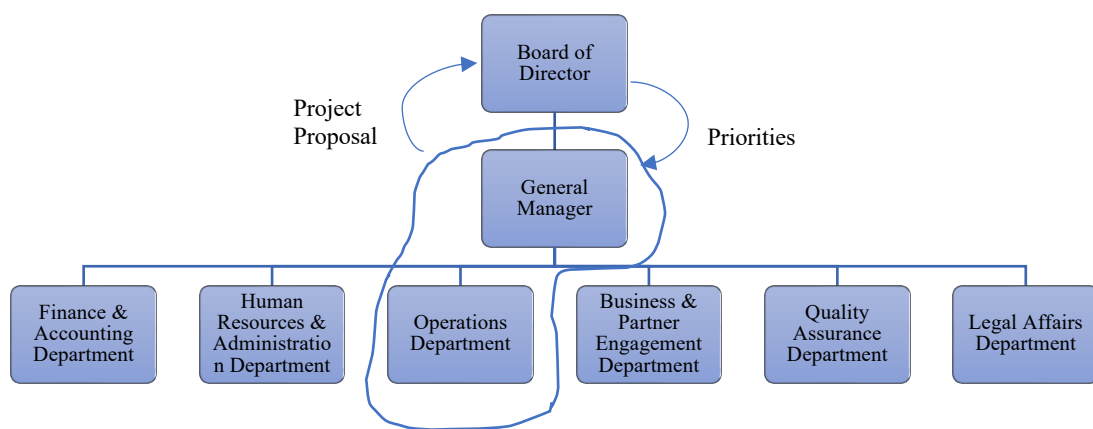


Figure 4 Relationship between BoD, GM and Head of OPS

2.2.4 Operations Department

The OPS department is the company's core business, ensuring that the projects are completed from the beginning to the end. These projects must align with the goals and functions of other departments within the company but especially with the higher level of the company.

In the business referred to, the team runs the delivery of all the necessary channels and products for the DataBase's functioning, including the relevant support platforms.

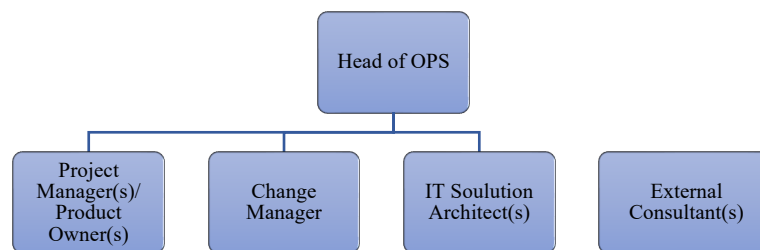


Figure 5 OPS Department's structure

As shown in Figure 5, the team comprises several Project Managers, a Change Manager, and a few IT Solution Architects with expertise in coding, as all the delivered projects consist of IT-related platforms and services.

Concerning the actual coding, the company decided to hire external developers in the form of consultants who have the best expertise to do the necessary work in detail. The same reasoning has been done for the testers. This choice leads to some advantages, such as resources assumed only once needed, which makes the company save money and higher resources specialisation about required knowledge and skills. Disadvantages include that as projects concern an IT environment, the core part of the different projects consists of coding architects: the problem here is, therefore, that the project managers do not have in-depth programming skills and therefore, they must rely entirely on the work of coders, which can result risky as they can try to make their interests. Moreover, transferring knowledge can be difficult if the hired coders are not internal employees, indeed changing often.

A typical project team structure is depicted in Figure 6: the employee internal to the company is highlighted in blue, while external figures, hired only for a certain period and specific scope, are highlighted in orange. The Quality Assurance Spoc belongs to the QA Department, which will be explained in chapter 0, while directly supervising Test and Development teams assigned to the solution architect. Despite this, only the lead of those two teams is allowed to communicate and speak with the solution architect.

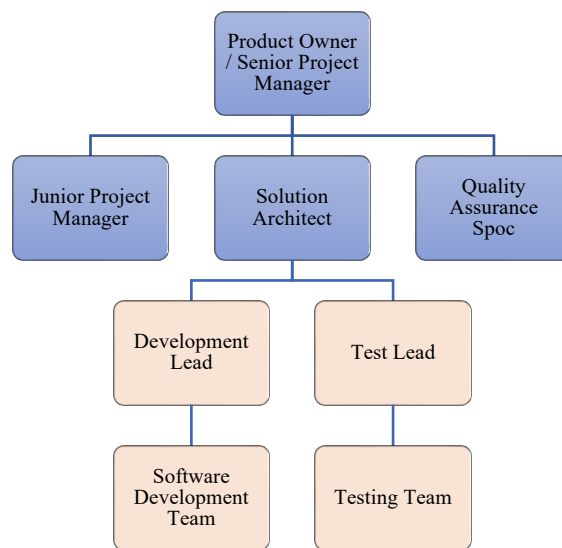


Figure 6 Typical Structure of the Project Team

Some of the project managers are the actual product owners of the project.

The methodology through which the project is conducted is not predetermined; it is at the discretion of the project type and project manager to choose whether to use a waterfall, agile, or hybrid approach.

The different projects can be described as IT applications aimed at the entire functioning of the system. In details:

1. Application 1 – **DataBase**: this is the main product around which all the company's work functions. Specifically, it is a database allowing, on a European level, to track specific products. Moreover, it makes national

systems know at any time where products are located and much information about them. The critical tasks of this application are:

- Centralise the uploading of data by the manufacturers and parallel distributors and thereby minimising the number of technical interfaces that they must support;
- Implement and maintain a set of standardised interfaces that, in turn, support the overall principles of system interoperability;
- To serve as a single, fundamentally secure entry point for all users' master data.

2. Application 2 – **On-Boarding Portal**: it is a legal entity authorised to upload unique identifiers and other required information on behalf of manufacturers.

This application has extreme importance as it allows manufacturers and parallel distributors to upload all their essential information and be the reference of data in the official DataBase. It provides support to “on-board” partners joining the DataBase. The manufacturers that want to use the system must connect to the database to comply with the regulations. An efficient and secure process must be established to manage the onboarding activities. The three primary roles of the application are:

- The uploading of data on behalf of its affiliated marketing authorisation holders;
- The manufacturing authorisations holder holds the authorisation to manufacture a product;
- The marketing authorisation holder holds the authorisation to sell a product in a specific market.

3. Application 3 – **Single Sign-On**: This application has a strong motivation behind it; the company offers several products, which, however, require a different access portal where the credentials are different.

The solution, in this case, was proposed directly following a bottom-up approach, in which the different project managers, in a weekly meeting, solved having a single access portal for all the various platforms. This

application, indeed, serves to consolidate user access and entrance to all different platforms from one central application.

4. Application 4 – **Alert System**: It manages and triggers an alert when the product is not identified in the database.

Indeed, it is an application that helps to understand the cause of the alert, encouraging the database user to investigate the real reason for it: in some cases, it will be dealt with quickly as it could represent a simple system error, while in others, the system will prove very useful as it will help to detect false or unauthorised data within the database. The leading roles are:

- ensuring anonymous communications between all parties involved in the alert investigation,
- guaranteeing a fully logged and auditable alert investigation history,
- providing the possibility to share information quickly and offering a harmonised status across systems

5. Application 5 – **IT Service Management**: it is committed to empowering business stakeholders with technology and services that facilitate effective processes, collaboration, and communication. It supports the tasks and workflows for the following functions: incident, request, problem, change, service level, knowledge, and configuration management.

6. Application 6 – **Testing Application for New Releases**: it comes into play when a new release is proposed for a new part of customer groups.

In this case, the application will run some tests to ensure everything works before the final release, especially considering that it must be in line and work with the existing system.

7. Application 7 – **Gateway**: this platform is necessary to upload the master data on the system. In more detail, the manufacturer and parallel distributors will have to use this gateway to upload the relatives' information regarding the master data. Once the process is done, the data will be visible in the DataBase.

The relationship between the different applications is shown in Figure 7.

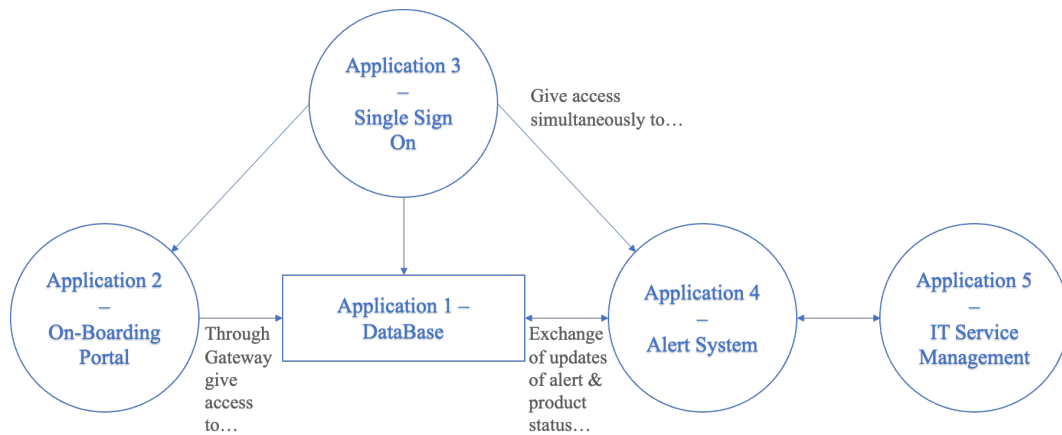


Figure 7 Relationship between the different Applications

2.2.5 Finance and Accounting Department

The finance and accounting department ensures the efficient financial management and financial controls necessary to support all activities performed by the company.

Its primary purpose is the management of all finance and accounting aspects of the company, including the management of financial controlling, monitoring, reporting, and accounting procedures, following the strategic directions of the general manager.

In a few words, the FNA department is taking the role of having a holistic view of finance within the organisation. Moreover, this department is vital in understanding how to finance the company to fulfil all its needs.

As the studied company is a non-profit organisation, financing the several initiatives is done by finding some agreement with the interested stakeholders,

which will try to support the creation of the different Applications as they recognise some interests in their usage.

2.2.6 Quality Assurance Department

The QA department is the one preventing quality failures. This department is involved in all product development stages: production, testing and delivery. Indeed, the project managers of the OPS department work closely with the employee of the QA, as in most phases of their projects, they need a review and approval from them; this process will be explained in more detail below during the framework explanation in chapter 2.4.

The QA department collaborates with other staff and external service providers to establish and maintain procedures and quality standards and to monitor these against agreed targets in support of regulatory authority inspections.

2.2.7 Legal Affairs Department

The LA department is responsible for all legal affairs and making contracts with all the stakeholders and clients, following the company's strategic directions.

This department must conduct, negotiate, and investigate all legal affairs.

LA department is responsible for making contracts with the stakeholders and suppliers to clearly understand how the responsibilities, duties and agreements are made.

As told in chapter 0, a contract must be signed between the manufacturer industry and the national interface to be sold in the respective country. If it eventually happens, it will be recognised as falsified.

2.2.8 Business and Partner Engagement Department

The BPE department acts as a connector, a bridge, linking functions and business units at different levels to ensure that their technical expertise is placed within the real and current concerns of the business to create value in the company.

It is responsible for leading the partner engagement, following the strategic directions of the general manager.

This department is of great importance as it can be seen as an external interface of the company. It must be able to onboard the companies directly involved in the service provided by the company (manufacturers & parallel distributors) and the previously mentioned national systems using the system.

The BPE's main task is to manage external communication with all suppliers and stakeholders by organising meetings that facilitate the interface between external and internal.

2.2.9 Human Resources & Administration Department

The HRA department is a company division that manages employees, ensures their satisfaction, and guarantees they have what they need to perform their job.

The aim is to give the company a defined structure and improve its productivity and workplace culture. Furthermore, HRA has a significant task in recruiting qualified employees and the right resources whenever the company needs them.

The HRA department is responsible for ensuring that everyone is happy in their place, that good harmony is reached and that events are created to achieve a good working environment.

2.3 RACI

After having analysed all the departments inside the company, it can be interesting to see how roles and responsibilities are allocated to the actions developed by the company. To do so, a RACI analysis is conducted.

According to Latoya Morris, 2022, ‘Defining job roles and responsibilities ensures everyone knows the degree of involvement required from them and sets the stage for ensuring project awareness. Additionally, laying out job roles and responsibilities assists in driving the communication plan, governance, and more.’

The acronym RACI (responsible, accountable, consulted, informed), also nominated as RAM (responsibility assignment matrix), refers to a user-friendly organisational matrix. It is represented in the form of a resource allocation table that matrixes the allocation of functions and responsibilities among the various stakeholders of a project.

The RACI method is a tool that is used to map activities and define the roles of stakeholders and team members. It visually summarises the "who does what", and outlines the perimeter and scope of a given project to structure it.

It brings structure and clarity to stakeholders' roles within a project. The RACI matrix clarifies responsibilities and ensures that everything the project needs is correctly assigned to someone.

In Table 1 the RACI Matrix of the company As Is is carried out.

As seen from the table, there are some actions in which many departments are involved. This does not represent a positive side since there tends to be an ideal situation with a responsible and accountable charger with clarity in the roles and activities performed.

At the end of the thesis work, this analysis will then be compared with the RACI corresponding to the new framework to understand whether there has been an improvement.

Table 1 RACI Matrix

Actions/ Decisions	BOD	GM	OPS Head	FNA	QA	OPS PM	Dev Team	Test Team
GOVERNANCE DOMAINS								
Governance integration	RA	A	CI	CI	I	CI	-	-
Governance strategy	RA	I	I	CI	I	I	-	-
Responsibilities and authorities	A	RA	CI	CI	CI	I	-	-
Decision criteria/ process	CI	RA	RA	RA	CI	CI	-	-
Governance Budget high level	A	CI	I	R	I	I	-	-
Prioritization Criteria	CI	R	R	R	I	I	-	-
Funding Investment	A	R	CI	R	I	I	-	-
Resource Allocation in the Project	-	CI	RA	I	I	I	-	-
Operational activities integration	-	RA	A	I	CI	A	-	-
GOVERNANCE RISK								
Risk thresholds high level project	-	I	RA	I	A	I	-	-
Risk thresholds low level project	-	CI	R	CI	A	RA	-	-
Risk and issues escalation	-	A	A	CI	CI	R	-	-
PRE-PROJECT								
Design Consolidation	-	-	CI	-	I	RA	R	-
Scope Consolidation	-	I	A	I	I	R	R	-
Deliverable Creation	-	-	CI	-	RA	RA	R	-
Review PID	-	I	I	I	R	A	I	-
Approval PID	-	RA	RA	RA	CI	CI	I	-
DEVELOPMENT								
Development Phase	-	-	CI	I	I	A	R	
Testing Phase	-	-	I	-	I	A	CI	R
Consolidate Development	-	-	CI	I	I	A	R	CI
Approval (Quality Review)	-	-	CI	I	RA	CI	I	I
Product Approval	-	CI	RA	I	I	A	I	I
GOVERNANCE PERFORMANCE								
Performance/ Status reporting	-	RA	RA	R	R	R	R	R
KPI monitoring/ measuring		RA	RA	I	I	I	I	I
Resource Optimization		I	RA	I	I	II	I	I
Investment Optimisation		R	CI	R	I	I	I	I
Proposed Change Evaluation		A	A	I	CI	R	I	I
GOVERNANCE COMMUNICATION								
Stakeholder engagement	-	CI	CI	I	I	A	I	I
Communication Coordination	-	I	A	R	R	R	I	I

2.4 The OPM Framework

2.4.1 Purpose & Scope

The Company Framework Process is designed to clarify the lifecycle of a new project inside a company. The goal is to ensure governance of the project and that the solution in scope and all its deliverables meet the required quality standard to provide a high degree of confidence that the answer is fit for purpose.

The scope of this section is to describe the workflow of each step of the process applied to the company As Is, highlight any internal criticalities in the process in following chapter 3 and find a new To Be optimal situation for the company.

The key actions to accomplish this goal consist of the documentation of the company's current state. This is called the discovery and analysis process, and the following steps support it:

- Understand the organisation's strategy and project management practices,
- Understand in a depth way the people involved in each stage of the framework.

As shown in Figure 8, the OPM Framework includes the whole process lifecycle, starting from identifying the idea and the strategy, reaching an operational plan, the relative projects to be evaluated and finally starting the Project Management Process per se.

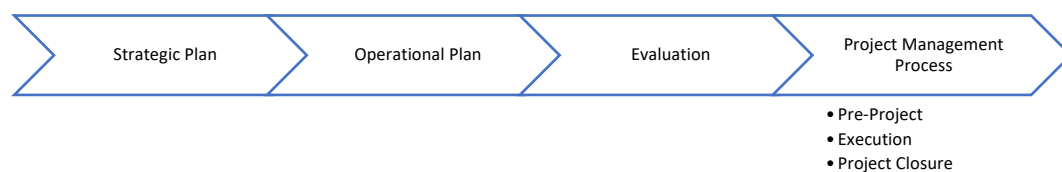


Figure 8 OPM Framework

2.4.2 Strategic Plan

In this first stage, the Board of Directors aims to find a strategic plan (Figure 9), defined as a long-term strategy that seeks to improve strategy formulation and execution to accomplish corporate objectives and maintain competitive advantage. In the company analysed, at this stage, it occurs the identification of priorities and gross budget.

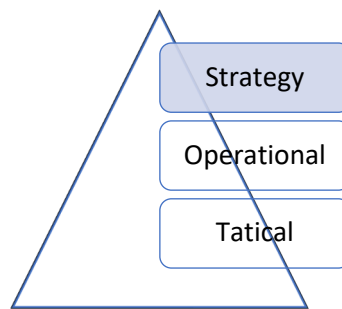


Figure 9 Level of identification during the first stage, strategic plan

- Identification of the priorities

The first stage of the process consists of identifying the priorities the company needs. It is done by the Board of Directors, which shows strategic planning.

In detail, they will need to identify priorities, establish goals and objectives, find resources and allocate funds to support the decisions that need to be made around strategic planning.

This strategic planning will be done twice per year. It can be the case for which the priorities still need to be satisfied; in this case, they will be proposed again in the new strategic plan.

The business needs are identified through an analysis showing problem or opportunity to be addressed, including the value to be delivered to the organisation, the identification of the stakeholders and the identification of the scope.

In more detail, the strategic plan is identified by conducting a market analysis to satisfy stakeholder needs and requests. The results from the last one will then be combined with legal requirements, political situation, and European expectations to set the overall priorities and needs.

The board, during this process, also identifies the KPI as a quantifiable figure that shows how well the business is accomplishing its primary goals. Indeed, they are used by organisations to assess their progress and success in achieving goals. Those will be checked yearly.

Discussing the company in question, the priorities identified in the current strategy correspond to the following:

1. Develop new functionalities in line with updates at the regulatory level
2. Provide new products to support core activities related to preventing falsified products in the supply chain
3. Improve performance of current products and processes
4. Ensure best practices in terms of software development and security.

- Identification of the budget

During this phase, a high-level economic study aims to understand what budget to reserve and allocate for the company for the following year. This is estimated based on the milestones and goals to fulfil the required strategy.

The board will ask the FNA department to help them with the cost analysis to find a satisfactory solution.

In more detail, a five-year cost analysis will be carried out to consider the primary milestones to be met.

This scenario can be estimated based on financial estimations of past years or competitors to which the company will try to maintain or possibly improve the quality level.

In addition, it must be remembered to include any economic effects that may arise due to the changes.

External financial experts are often involved in the company during this phase.

2.4.3 Operational Plan

Once the strategic plan has been studied and approved, general manager will inform the Board of Directors. He will be responsible for understanding the company's strategy and finding a way to create and align its operational plan (Figure 10) with it.

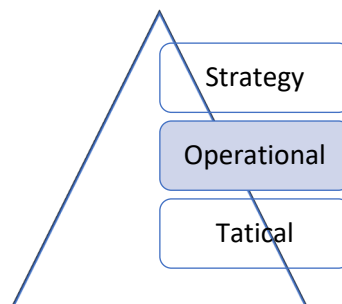


Figure 10 Level of identification during the second stage, operational plan

Operational decisions, at this level, are taken by general manager together with the Head of OPS. As mentioned in 2.2.4, the Operations department is the company's core business. For this reason, the general manager must be accompanied by the Head of Operations for this phase as the latter mentioned will have a clear overview, dealing with this, of what application is required to complete the needs.

During this process, the Head of FNA will also be present as a supporting side, as he will monitor the decision from an economic point of view. In more detail, the financial analysis at this stage will be based on two main factors:

- Effort required for the project in terms of resources used.
- Time estimated on a high level for the project completion.

The selection and prioritisation of projects are made based on the following:

- Strategy priorities
- Budget
- Mandatory actions

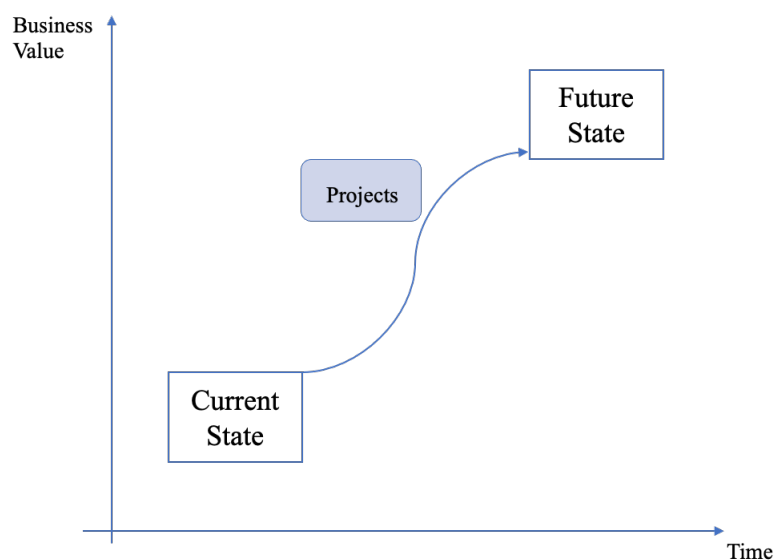


Figure 11 Organizational State transition via Projects

As shown in Figure 11, the projects drive change in the organisation. From a business perspective, a project aims to move an organisation from one state to another to achieve a specific objective, which comes from identification in phase 1. The desired result of the change driven by the project is described as a future state, and the company here is trying to understand which projects will make this process satisfying.

Organisational leaders initiate projects in response to factors acting upon their organisations. There are three fundamental categories for these factors, which will illustrate the context of the project:

- Meet regulatory and legal requirements.
- Satisfy the Board of Directors' requests or needs.
- Create or improve products, processes, and services.

An example here may be the priority required to decrease the number of false alarms resulting from the end user's use of the database.

This type of priority was dictated by the Board of Directors and communicated after the last meeting to general manager, who is responsible for turning the strategy into an actual result.

Then he and the Head of OPS studied how to solve this priority, and the result was precisely the proposal for the creation of Application 4 explained in chapter 2.2.4.

2.4.4 Evaluation

Once it has been decided which projects can fulfil the company's priorities and goals, the actual project evaluation begins.

According to theory, an economic, risk and complexity analysis should be conducted:

- First, a hasty analysis is conducted by the Head of Operation concerning the estimated complexity of the project. With this, he can begin to get a first idea of the project manager to whom the project may be assigned.
- Secondly, the economic evaluation starts to be carried out. During this stage, the Head of OPS is entirely supported by the Head of FNA, which assists and reviews the creation of many documents. The estimation of the economic part, at this stage, will be done through the comparison to similar projects already executed in the market or based on pasted projects. The economic evaluation will also consider the complexity analysis conducted before.

After this stage, the Head of FNA has the explicit final approval to decide if the budget for the project will be set or not. Once this condition has been met, the OPS department will be responsible for determining how to allocate its money to the project.

- Finally, the Head of OPS performs a risk analysis regarding the possible scenarios that may arise if the project is not delivered.

2.4.5 Project Approval

After the evaluation, the general manager reports the project proposal to the Board of Directors: the latter has the final approval on what the company will do. The BoD in this phase is also responsible for approving the project budget based on what the general manager communicated to them.

2.4.6 Pre-Project

This phase is quite long and represents the first stage in which the project manager starts working on the project. In detail, the steps going from Project Justification to the Project Organization Structure will be analysed, as shown in Figure 12.

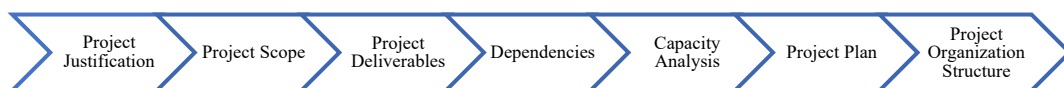


Figure 12 Pre-Project Phase

Moreover, during this phase, also some other criteria will be specified, and they correspond to the following:

- Assumptions
- Acceptance Criteria
- Risk Management
- Communication Management

Project Justification

This phase represents the first moment when project managers begin to look at the project.

It is essential to know that as far as the company is concerned, project managers are responsible for the project's completion. However, the budget and the project's final goals have already been decided beforehand, as discussed in 2.4.4.

However, this part of the process is made to provide the following:

- *An 'at a glance' summary of the project purpose.* It should show how the project aligns with the overall strategy, which departments, suppliers and technology will be involved and the key activities that will be performed. In particular, the project manager should explain why the project is being carried out and what is the rationale for the project. The project manager will have to explain why the project is being undertaken, the key deliverables, and the project's gains.
- *The key project objectives:* this part will specifically show what the project is aimed to achieve.

By the time this stage has passed, the project manager will have a detailed understanding of what he must do in the following steps.

Project Scope

In this process step, the project manager must describe the principal work streams, work packages, products and documents that will be delivered. This section should include a high-level Work Breakdown Structure (WBS) presented as a graphical hierarchy or a list with a ranking denoted by numbering.

In the company described, the projects can be of different types, such as:

- A new service, product, or software.
- A software release, which includes:
 - a. A Change Request is a formal proposal for an alteration to the system; it usually arises when the client wants an addition or alteration to the agreed-upon deliverables for a project.
 - b. Bug Fixes aim to solve a bug for something not expected in the current system.

In the case of a software release, the exact type should be specified. In contrast, in the case of a new service or product, the project manager must provide a high-level description of the different components that should be delivered.

During this stage, the QA department should also intervene as a facilitator to understand whom to involve inside the project team.

Project Deliverables

At this point, the project managers start working on the project deliverables phase and he is required to provide a complete list of the deliverables and products the project will produce. This corresponds to all documentation and software artefacts.

Each deliverable needs a unique identifier. This section may include links or references to each product description.

Table 2 provides an example of deliverables that are required within the project. The content of the column is explained for each section in the table. Just for clarity, the gates of the projects refer to:

- Gate 1 – Change Request Approval/ Project Approval
- Gate 2 – Ready for Deployment
- Gate 3 – Ready for Qualification
- Gate 4 – Ready for Production
- Gate 5 – Project Closure

Table 2 Project Deliverables

Deliverable Number	Gate Number	Deliverable Title	Deliverable ID	Comment
Number of Documents to deliver	Refers to the Gate when deliverable needs to be available	Document Title 1	Document ID	(e.g. N/A, OK, Deviation, etc.)
Example				
1	1	Project Initiating Document - Gate 1	123456	OK

The QA department usually intervenes at this stage being involved in decision-making as they are responsible for checking and verifying that the quality of deliverables is suitable. Moreover, they should check that the deliverables contain everything that should be done to obtain a successful project.

Table 3 documents the quality standards, quality assurance process and quality checking for each project deliverable.

Table 3 Quality Deliverable

Deliverable ID	Quality Standards	Quality Assurance	Quality Checking
Number of Documents to deliver	Follow existing branding specifications. Meet Accessibility compliance guidelines Meet browser compatibility policy	Follow the publishing review process. Pre-approved suppliers only.	Web change advisory board via unit test, user acceptance testing and go-live testing.

Two aspects of quality management should be considered within this phase: firstly, securing high-quality project management and secondly ensuring that deliverables are produced to agreed quality standards.

It is important to remember that the QA department will then be responsible for everything that OPS did at the time it approved its deliverables from a legal point of view.

Dependencies

In this stage, the project manager should cite any other groups, projects and organisations that will be involved in or impacted by the project.

As shown in Table 4 any dependency should be included here; for example, if the project depends on an external product or an external decision those must be listed.

Table 4 Dependencies

Dependency with	Description	Management plan
Supplier X	Supplier X needs to procure Y	Keys tasks documented in the project plan with owners assigned

The Head of OPS should also express in measurable terms the criteria that Project Sponsor will use to evaluate and accept or reject the project deliverables and outputs. This might include conditions that are not related to products like delivery by a certain date.

Capacity Analysis

Once the previous phases are completed, the project manager shows to the Head of OPS all the documentation and the studies he conducted about the work to be done and the baseline of the project.

At this moment, the Head of OPS should have a clear overview of the resources the project manager needs and those that are already in use inside the company. Based on this detailed analysis within the company, he must be able to tell the project manager the capacity of hours according to which resources will be allocated to his project.

If he recognises that the resources already available within the company:

- are being utilised to their maximum capacity,
- do not have the skills that meet the job to be done

he will conduct a market analysis and place the missing resources within the company.

In this case, there may be either the possibility of taking on new positions within the company (a process for which the intervention of the HRA department is required) or hiring them as consultants if the work performed has a specific end date.

Project Plan

This is the stage in which the low-level project milestones are set, defined as crucial points in a project life cycle. They might be target dates that must be met or delivery of essential work packages or progress markers. This section will likely contain a table similar to Table 5, which describes the project plan. The Baseline refers to the agreed dates by the kick-off of the project. The Current refers to different parties'

latest agreed date during the project. The Actual refers to the actual date when the item happened.

Table 5 Project Planning

Milestone	Baseline	Current	Actual
Project Kick-off			
Development Phase			
Stabilization Phase			
System Acceptance Testing			
Deployment in Prod-ITE			
Deployment in Prod-IQE			
Inter Operability Testing			
Deployment in Prod-Prod			
Product Closure			

As the project progress, the system owner will control and deliver all the documents and outcome of the considered phase.

The QA Department will intervene again as they will be responsible for approving the document and phase to continue and move on to the next stage. The product owner should only be authorised to do it if the last condition is satisfied.

Project Organization Structure

This section must include an organisational chart for the project. It won't necessarily show line management responsibilities but rather reporting and communication lines for the project.

Each project manager can organise it as desired.

Assumptions

The project manager should now note all the assumptions that have been made to conceive of and plan this project. Assumptions may have been made around legislation, other projects, market conditions, recruitment, capacity building, timelines, and resource knowledge.

Risk Management

Once the project has been fully planned and is ready to be launched, the project manager should conduct a risk analysis to implement a mitigation plan in case of risks occur. For this reason, it is helpful to create a risk register, which is observed in Table 6, with all the known risks to the successful delivery of the project. These should be specific to the project, not just a reiteration of common threats. In the following table, some examples are given.

Table 6 Risk Register

Description	Mitigating Actions
Inability to recruit skilled resource	Involve retained recruitment consultants to source team members. Consider using consultants on fixed-term contracts.
The technology solution is unable to deliver the required results	Complete a pilot project against most business-critical requirements. Consider using Agile methods to deliver the working product in Sprints.
Additional capital expenditure may be required in addition to that approved	Monitor project spending as per the project methodology. Report on spending bi-weekly to the project board.

Communication Management

This section explains the strategy through which information about the project will be communicated to internal and external parties. In more detail, how will the project communicate progress, escalations, readiness plans for going live, etc. There may need to be separate plans for internal and external communications.

A structure to document the process, timings, and governance of the planned internal communications is needed for internal communication.

The project manager will be the central hub of all communication within the project. All internal stakeholders in the project should pass information through the project manager, who will maintain an adequate audit trail.

Within the project, a series of regular progress reports will be developed to meet the needs of all recipients and include progress, risks, issues, and budget spending.

Furthermore, the project manager should provide a list of the documents that need to be communicated, to whom and when. This can be done by referring to Table 7.

Table 7 Internal Communication

Description of communication	Timings e.g. monthly	Audience	Creator/author	Sign-off authority
Project progress reports	Weekly	Project Sponsor, Risk Manager, Change Manager, the project team	Project Manager	Program Manager
Highlight Reports	Monthly	Project Board	Project Manager	Program Manager
Training plan	3 months before going live	Users and department managers	Change Manager & training manager	Project Sponsor

The project report is not meant to be standard between project managers; everyone can use his template.

The exact process can be repeated thinking about external communication. Table 8 is a template for the project manager to plan external communications process, timings, and governance. Also, in this case, a list of the documents that need to be communicated, and to whom and when must be provided.

Table 8 External Communication

Description of communication	Timings e.g., monthly	Audience	Creator/author	Sign-off authority
Marketing bulletin to existing customers	2 months before going live and at going live	Existing customers and their account managers	Marketing Manager	Project Sponsor, Marketing Director
New product pages on the website	At go live	All website users	Marketing Manager web content	Project Sponsor, Marketing Director

Deviation Management

This part of the process occurs when a project is faced with a deviation from what it originally intended. All changes must be proposed by the project manager and approved by the Head of OPS.

When it occurs, it is necessary to describe how the changes within the project will be handled (e.g. new scope). In detail, each deviation requires a Title, a Description, a Justification, and the Approval Date. Furthermore, the changes that happened in the project should be tracked, including additional change requests or bug fixes.

In this case, the QA Department is also involved, but only if the project deviation affects the project's deliverables. In this case, they help the system owner align the new project's deliverables with the project's success.

2.4.7 Project Execution

During the execution phase, the project manager is supposed to work and deliver the final product. At this stage, he will have an entire team working together to reach the expected results predetermined in the previous phase.

Figure 13 shows all the phases belonging to project execution which will be explained below.



Figure 13 Project Execution Phases

A solid requirement to move from one phase to the next is to complete and deliver all the different work packages and get approval from the QA department.

Development

The actual work on the new product starts during the development phase. To execute this stage, the essential intervention of the development team is required. It's crucial to design a flow chart during the main task.

As established in the design phase, several work packages will be delivered by the developers, again under the supervision of the project manager, in parallel.

In particular, it will only be possible to move to the next phase once this one is completed by developers and revised by the QA department. Gate 3 – Ready for Qualification must be approved by the QA before moving to the next stage.

Qualification

The testing and quality teams are the two taking part in this phase.

First, testing is done to verify that the new product, understood as a new application or release of an application already in use, works efficiently with the rest of the system.

If this condition is not met, we go back to the development phase to find out where the problem is, and the development team will try to fix it and submit the product for re-testing.

If this is the case, the QA team checks that all the requirements within the deliverables have been met. If this criterion is not satisfied, the QA again manifests the product's lack of functionality, which the development team will review to adjust this error.

If, on the other hand, the quality of the deliverables is satisfactory, the project can proceed to the production phase. Gate 4 – Ready for Production must be approved by the QA department.

The process regarding development and qualification is represented through a flow chart in Figure 14.

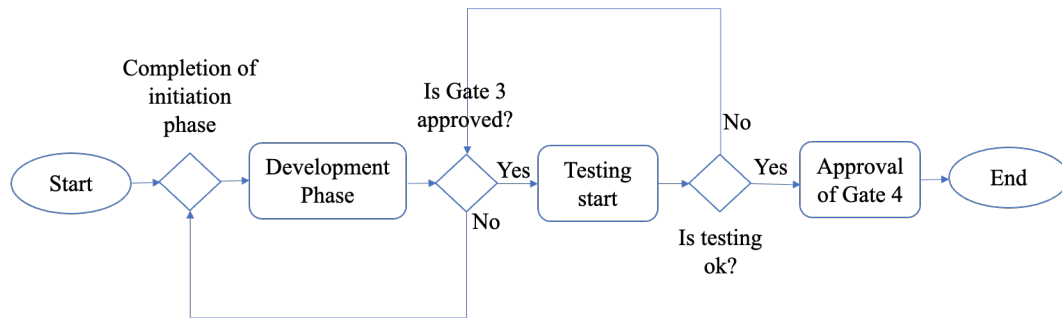


Figure 14 Flow chart representing Development and Qualification Phase

Production

This phase corresponds to the launch to the use of the product from the end user's point of view. Therefore, this phase must occur when the product development is finished and ready for use. Only the piloting team will take part in this phase, as they will be the first people trying to use the system.

Gate 5 – Project Closure must be approved by the project manager and the QA department.

2.4.8 Project Closure

Project closure is the last phase of a project. The project manager should check that the project deliverables are accepted. Maintenance must be set up if the project or product is ongoing after the project.

Before concluding the project, the project manager will analyse it, rate its performance, and compare it to the baseline. The project team will participate in

this process and provide their observations and feedback, compiled in a document titled "lessons learnt." Future initiatives can benefit from this instruction.

All end users will be entitled to use the system from this phase.

2.4.9 Reporting Management

An excellent report structure is required as the projects advance, and the projects' tasks start being delivered.

For the time being, the company uses a template PowerPoint document called Project Status Report in which the project managers and people involved in the project can weekly update based on the process; in this file, the people are supposed to update on their own:

- The scope
- The supplier/contract type
- The budget
- The traffic lights
- The dependencies
- The weekly key messages
- The key dates
- The risks/escalations
- The QA intervention
- The IT architects
- The incidents/problems.

In particular, the employees directly updating the tool are the ones owing to the OPS department, for which the individual project managers are responsible for updating regarding progress.

Once all the reports are done, the Head of OPS will be responsible for showing all the progress monthly to general manager.

The last one will then calculate the KPI and refer them to the board of directors as an alignment on the work being done.

3 The company TO-BE

In the next chapter, the main issues within the company 'As-Is' will be examined and studied to find a solution that should be more efficient and aimed at solving the problems.

The aim is to propose a new framework, better than the previous one, to improve the process and use more suitable methodologies.

As will be analysed, the company needs more reporting and communication between different people and departments, issues in the strategic plan proposition and problems during the execution phase.

During my internship, the focus was on understanding the main problems and criticalities within the business process and looking for a method to solve or at least improve them.

3.1 Board Strategic Problem

The business analysis needs to identify the strategic plan discussed in 2.4.2.

The company examined is a young one, created in 2016, the year in which the 5-year-long business plan was set with the primary objective of making the DataBase discussed above.

Since then, the BoD has never been concerned with renewing the strategy from a long-term point of view but has always waited for the company to analyse the market demand for new applications based on customer requirements. At this point, the BoD decided whether to give or not the approval to GM to continue with those applications.

The cause of this situation is that the DataBase project constantly evolves, causing the birth of correlated projects concerning new releases on the DataBase or correlated products.

Despite this, new goals have been set beforehand by the inside employees of the organisation, such as requesting a better alerting system or direct access to all platforms with a single sign-on based on customer requirements. Latter priorities were always proposed by the company and then accepted by the Board of Directors.

Indeed, a meeting occurring once a year has been unofficially introduced, aimed at the management's proposal and eventual approval of the strategy: this involves a fundamental bottom-up approach that goes against the supposed top-down approach (Figure 15 & Figure 16).

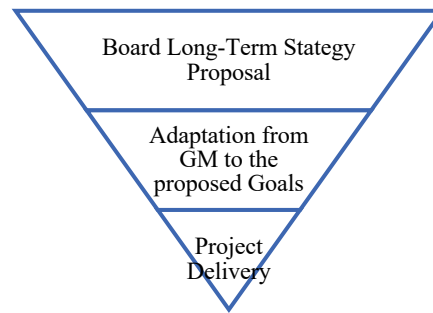


Figure 15 Theoretical Top-Down Approach

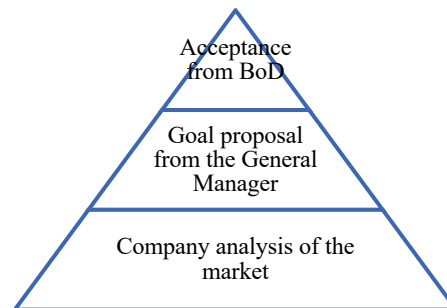


Figure 16 Practical Bottom-Up Approach

In any case, this ad hoc approach does not allow setting a long-term strategy since this only concerns the annual strategic plan, which needs to include specific goals and milestones with a future deadline.

A long-term strategy is essential to observe the business growth through the years, create a financially stable budget, and better understand end users' satisfaction and testing of your product.

Proposed solution:

A possible solution would be to introduce a workshop once a trimester lasting several days where the members of the BoD and all members of the management of the business under consideration could meet. The main objective of this meeting should be to be able to set up a long-term strategy.

In particular, the following actions must take place, taking inspiration from Michael Allison and Jude Kaye, 2005:

- 1) Creating or revisiting a mission statement, visualising it, and highlighting the organisation's values and principles so that everyone is aligned.
- 2) General manager must present the BoD with detailed reporting of the various projects and show through KPIs whether they meet the goals and priorities set beforehand. This is fundamental to assessing the current situation.
- 3) If the priorities have yet to be met with the one predetermined, then study why this has happened, and if so, look for a recovery plan and a way to achieve them. This will be included in the long-term strategy.
- 4) If the priorities have satisfactorily been met, proceed with the long-term strategy planning by agreeing on new priorities, writing a new plan, implementing it and finding a way to evaluate and monitor it.

The framework is graphically shown in Figure 17.

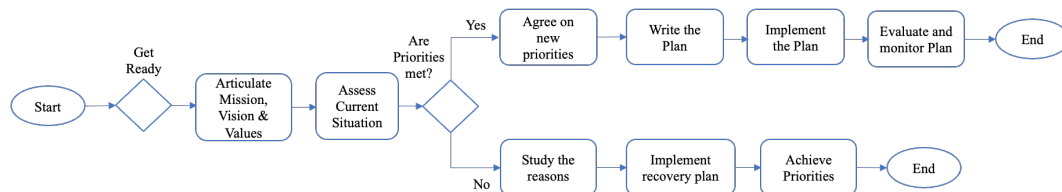


Figure 17 Flow chart representing Strategic Planning Process

By following this process, the company's management will be involved in the workshop, covering a fundamental role in showing the company's current situation.

This procedure avoids relapse into the lack of long-term objectives, especially those not proposed by the BoD.

3.2 Evaluation Phase Problem

A problem related to many young realities is the need for more ability to go into the details of individual processes: companies can usually initiate, plan, and schedule, but it only happens with standard procedures. At this point, the theory suggests certain defendants who will be adapted to the current situation.

The criticalities that emerge during the evaluation phase for the company studied correspond to the need for more accuracy with which the analyses in chapter 2.4.4 are carried out.

A situation which happened during the past was that approaching the end of the year, the budget needed to be more, resulting in the cut of project resources and thus a delay of the project.

In more detail, the external developers and testing team, who were also shared between different projects, were decimated in terms of FTEs, which caused the OPS department to decide. Indeed, the Head of OPS had to choose among the projects with the highest priorities and then devote resources entirely to those.

This failed many points of view, in particular:

- The objectives set for the year were not met
- Delay in the delivery of projects
- Disappointment from the sponsors' point of view, who didn't receive what was expected.

If the project plan budget is created in advance and used to monitor expenditures during the project, it is less likely that the company will run out of money or go over budget. This is important, especially in an environment where all the projects are financed by the project sponsors, entailing certain expectations from their point

of view. The aim is to understand how much budget is required, by when, and which is the correct usage of it.

As discussed in 2.4.4, the company is currently only concerned with finding the budget based on projects of a similar scale.

Proposed solution:

This improvement aims to find a way to value all the initial estimates with greater certainty to know which projects to embark on and with what budget. Up to now, the forecast needs to be made in more detail.

At this point, following the theory but adapting it to the actual case, I would like to introduce a new phase called Project Initiating, aimed to:

- Start a project phase
- Define project objective and budget
- Authorise the project manager to proceed with the project work.

To do this, a project charter must be implemented, highlighting and outlining a high-level project description and deliverables. The Head of OPS will carry this out. The structure of the project charter can be visualised in Table 9.

The purpose is:

- To formally authorise a project or a new project phase
- To identify the project manager and the appropriate responsibilities and authorities
- To document the business needs, project objectives, expected deliverables and the economic aspects of the project.

Table 9 Project Charter Structure

Project Charter			
Project Name			
Project Description			
Project Manager		Date Approved	
Project Sponsor		Signature	
Business Case		Expected Goals/ Deliverables	
Team Members			
Name	Role		
Risks and Constraints		Milestones	

The first sections (project name, description, manager and sponsor) are apparent and should be compiled as the project takes shape.

In the business case section, the following questions will be contained regarding the project:

- Reasons and needs
- Benefits and disbenefits
- Timescale and cost
- Threats and opportunities
- Investment appraisal

The most important thing to know is that now, as the project will already be shaped at a high level, as it is the purpose of the project charter, the company will be able to create a more detailed forecast for the budget involved in the project.

Net present value (NPV) analysis is a financial analysis tool used to assess the potential profitability of an investment or project over time. Although for-profit organisations typically use it, NPV analysis can also be interesting for non-profit organisations in evaluating the long-term financial impact of a project.

In the following points, there is a possible solution adapted to the company in subject, with some steps to perform an NPV analysis for a non-profit organisation:

1. Determine the initial investment: the first step is determining the initial investment required to launch the project. This includes all costs associated with starting the project, including salaries, equipment, supplies, and other expenses. According to John Wiley & Sons (2006), a thorough budgeting process is crucial for determining the initial investment accurately. The guide states, "Developing a budget that reflects a realistic picture of the resources required for the project is critical to ensuring that the project is financially feasible."
2. Identify the project's cash inflows: the next step is to identify the cash inflows the project is expected to generate. For non-profit organisations, this may include sources such as donations, grants, and other contributions from stakeholders or funds. It is essential to develop realistic estimates of the expected cash inflows based on historical data and market research.
3. Estimate the discount rate: The discount rate calculates the present value of future cash flows. This corresponds to the r_{wacc} .
4. Calculate the NPV: Once the cash inflows and discount rate have been determined, the NPV can be calculated. The formula for calculating NPV is as follows:

$$NPV = \sum_{t=1}^T \frac{CF_t}{(1+r)^t} - Initial\ Investment$$

Where t is the time period going from 0 to T (corresponding to the project's total time) and CF_t is the cash flow in the time t .

The resulting NPV can be positive or negative, indicating whether the project is expected to generate a net return or net loss over time.

5. Evaluate the NPV: Non-profit organisations should use the resulting NPV to determine whether the project is financially feasible and sustainable. According to Gary M. Grobman (2011), organisations should consider "the long-term sustainability of the project, its alignment with the organisation's mission and objectives, and its potential to generate significant social and community impact." As the guide states, "The NPV is just one tool to help decision-makers evaluate the financial viability of a project. Other factors, such as the social and community impact of the project, should also be considered."
6. Calculate the IRR, as a function of cash inflows and time. This is defined as the discount rate which sets NPV to 0, knowing the cash flows (CFs) and the time period of the project (T).

$$IRR = r : NPV (CF_t, r, T) = 0$$

7. Plot the graph with NPV and discount rate by considering time as a constant as it is the planned duration of the project (see Figure 18).

This action takes place as considering only the NPV can be misleading. The NPV, in fact, is calculated based on the r_{wacc} , but what if the discount rate changes during the project's life cycle? Keeping in mind that the discount rate can fluctuate between r_1 & r_2 , and if the value goes to the latter, it can represent a terrible project result, the company should consider if the starting of the new project is too risky or not.

This point is defined as a sensibility analysis of financial parameters in project initiation.

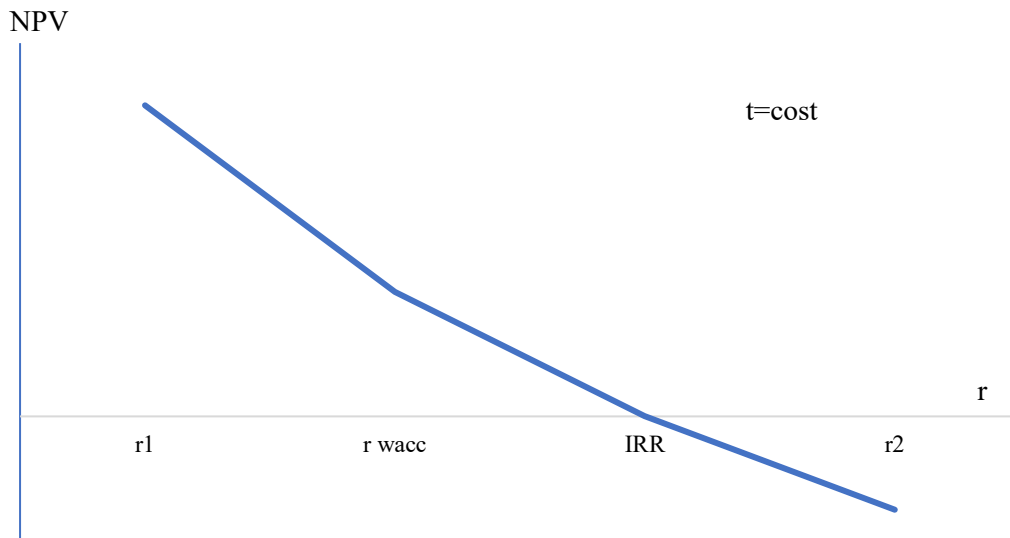


Figure 18 NPV versus discount rate ($t=cost$)

During the initiation phase of the project, I also suggest involving the deep study projects' stakeholders, which correspond to persons, groups or units of an organisation or not that are:

- involved in the project
- may have some direct or indirect form of interest in the result or some of the deliverables
- have needs and expectations that must be satisfied

Stakeholders can be internal or external to the company, typically grouped as in Figure 19.

It is up to the project manager to define the stakeholder list and the strategy to be adopted to manage them.

Identifying the project's stakeholders in the start phase is essential to reduce the risk that their late identification could lead to problems.

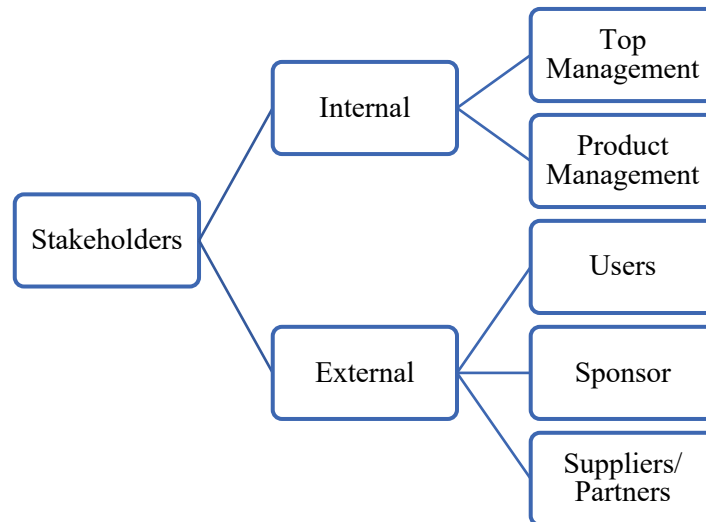


Figure 19 Grouping of Stakeholder

After that, a stakeholder analysis should also be conducted to understand which actors are essential to satisfy and which can be neglected. The stakeholder importance matrix in Figure 20 shows which relationship should be kept with them. The importance is calculated through the stakeholder's esteem of power and interest.

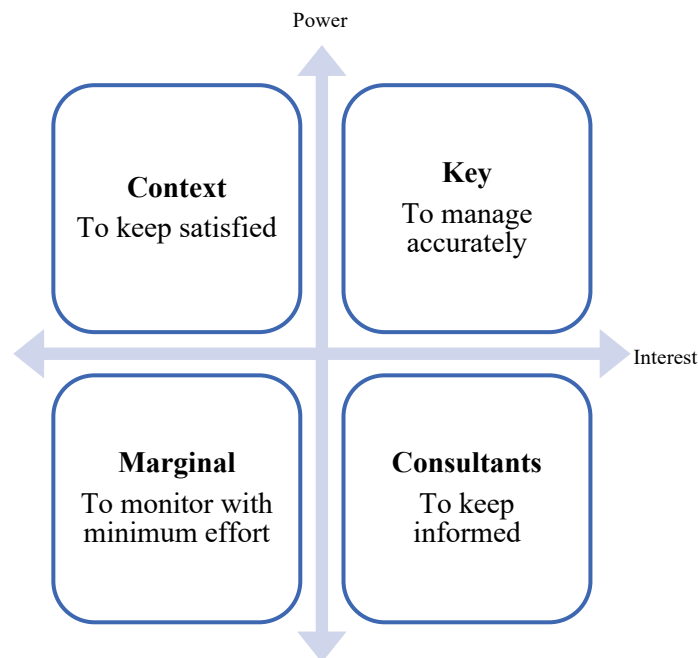


Figure 20 Stakeholder importance matrix

3.3 The reporting problem

During my internship experience, I could see that the most significant issue within the whole company framework was communication and reporting at both project and hierarchical levels.

As a first point, it is necessary to focus on the OPS department, the one being the company's core business. It is fundamental to install a good reporting structure within it as all the work regarding the software used by the final user is correctly delivered.

The main critical aspects highlighted from the analysis correspond to the following:

- *Internal capacity problem:* some project managers within the OPS department are overloaded, while others have a remaining capacity that needs to be exploited.
- *External capacity problem:* The external resources (consultants) the company can use to carry out projects are limited, so not all projects can be completed in parallel. There is a need to understand which projects have the highest priorities so that a clear structure explains how to allocate resources.
- *Lack of monitoring and controlling entity:* up to now, no figure within the company has a clear overview of the company. No one owns the entire monitoring and control of the projects, meaning them with quantitative and qualitative reports. This problem stems from one primary cause corresponding to a need for more tools to compare an initial timeline with the current point of the various projects. This would also be useful to compare the eventual project delay or vice versa.
- *Lack of common standards:* different project managers work differently, without a common guideline for carrying out their work; each project manager follows their method to deliver their project and objective. No

planning and scheduling rules exist, so the projects' dates and phases must be clarified as usually approximated.

- *The head of OPS is overloaded and owns too many responsibilities:* although the team is small, there are no intermediaries between him and the team members. For this reason, all members report directly to him, and as there is no one in charge of project reporting, this is one of the topics they must analyse together, thus wasting more time than necessary. Instead of concentrating strategically on managing the team, he has to support the work of the different project managers, allocate resources, and do together and review a report that needs to be standardised.
- *Lack of appropriate risk management process:* as studied in chapter 2.4.6, the risk management process only concerns the creation of a list of likely happening risks but a more appropriate way for estimating them and getting a proper response plan is needed.

As shown in the framework As Is of the company process, the OPS department also interacts with QA and FNA departments, with which sometimes the relationships are also tricky.

Concerning the *relationship with FNA*, it becomes complicated to the purchase orders documents and contracts regarding payment of resources or suppliers: this must be the responsibility of the project manager, who, however, already has his work to do and does not find himself an expert in financial matters. This often causes delays in terms of deadlines. The solution could be offering the team several targeted training to help them get the right skills. In addition, the FNA department often fails to oversee the budget situation of projects, as there is no reporting tool where all project expenditures are carried out and checked regularly.

Instead, the *QA department* is made up of workers who also find themselves with limited capacity and have to follow several projects at the same time. As mentioned above, they are responsible for approving the different phases of the project, thus allowing the project manager to proceed to the subsequent phases if the quality and

all the requirements expressed in the deliverable are met. Often, however, due to the need for more accuracy with which project managers have to complete a mapping system that can also show other departments how far along the project is, project managers skip to the next stage without first obtaining QA approval. From this point of view, the QA department would need a tool to directly monitor the situation without having to chase after the different product owners when the QA approvals will be, based on the actual stage the project is at.

Proposed solution:

As a result of the company analysis conducted before, the Project Management Office can help the company as it defines, maintains, and ensures project management standards across the organisation.

In this case, according to the explanation given in theory chapter 1.3 and adapting to the company maturity state, the PMO will be controlling.

The function covered by PMO will be:

- Coaching, mentoring, training, and oversight;
- Reporting directly to executives, considered as the Head of the Department and general manager;
- Coordinating communication across projects through the usage of roadmaps;
- Developing and managing project policies, procedures, templates, and other project documentation (organisational process assets);
- Identifying and developing project management methodology, best practices, and standards;
- Managing shared resources across all projects administered by the PMO;
- Coordinating portfolio management activities and ensuring alignment between organisational strategy and programs and projects.

All those functions can be resumed graphically by Figure 21.

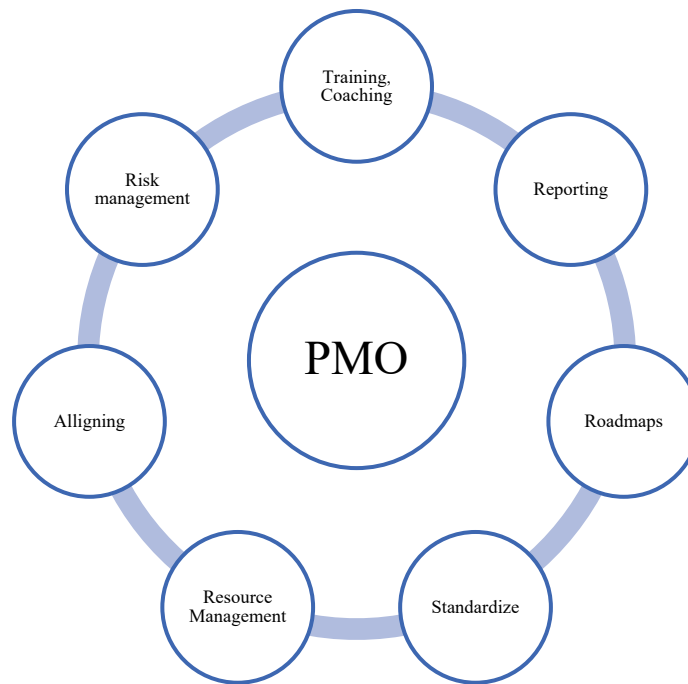


Figure 21 PMO roles in the company To Be

The new proposed organigram is shown in Figure 22 and include the PMO department; its main role, as mentioned before, will be the one acting as a facilitator between the different project managers and the head of the OPS. Furthermore, the PMO will be helpful regarding the management of the projects in with different department, such as FNA and QA.

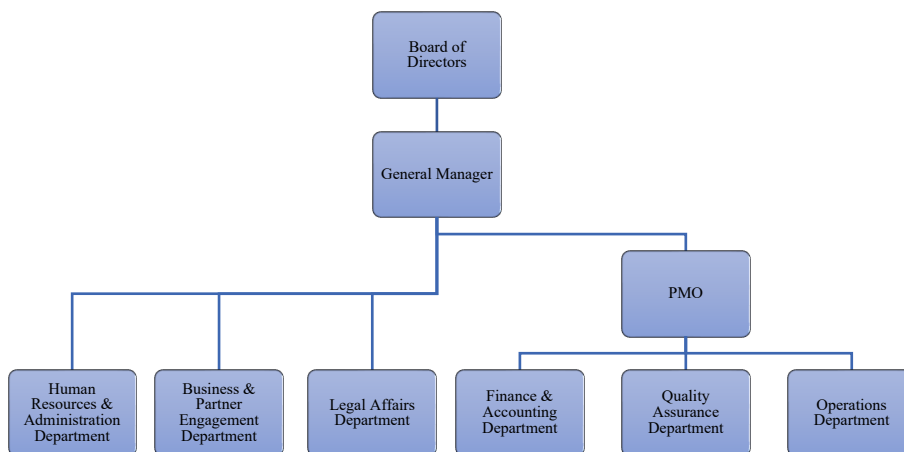


Figure 22 The new Organigram

3.3.1 Tools introduced

After making several attempts on the web and informing myself about several tools that can be used for PMO and project management, I decided to propose using Aha! within the company.

In Table 10, a Decision Matrix Analysis between Aha!, Microsoft Project, and Smartsheet is done to take a decision through a multiple-criteria method.

Table 10 Decision Matrix Analysis between Smartsheet, Microsoft Project & Aha!

Tool	Smartsheet	Aha!	Microsoft Project
Cost	5	2	5
Quality	9	9	9
Intuitiveness	4	8	6
Features	9	9	5
Integration	7	9	2
Roadmap	5	9	3
Resource Mngm	8	8	3
Tot	47	54	33

This table has been created considering the most important criteria concerning the use that the PMO is going to make of it. Among those criteria, the integration with other software (DevOps, Microsoft Teams, ...) was added, which can be of high importance since all the information on the various releases and projects are store on those; furthermore, the ease and creation of roadmaps, mainly concerning roadmaps comparing different projects, and finally resource management.

I dedicated a whole month to this choice in which I made templates on each of this software using the free trial account, and from what is shown in the previous table I ended up choosing Aha!.

In particular, the greatest criticalities for the other two tools were the creation of roadmaps and the intuitiveness with which the tool is used. This will give a big

advantage to the company as before there were no roadmaps set in place, while now each moment the different releases can be monitored, by looking at active, not started, and closed projects.

The main task is to be delivered by the PMO through Aha! will be:

- the creation of *roadmaps and dashboards*
- the control of the *capacity* of both internal and external resources assigned to the project
- the *budget* overviews
- the *risk* management
- *standards* for project management

Roadmap and Dashboards

Aha! allows filtering different statuses of projects in the roadmaps and creating iterative dashboards that will help both the OPS, FNA, and QA departments.

To do so, the different project managers in the company need to be trained and licensed on Aha! so that they can manage their projects directly from there. Their collaboration will be very important as they can update weekly on the project's progress. In Figure 23 a strategic proposed roadmap with all the applications explained in chapter 2.2.4 are listed.

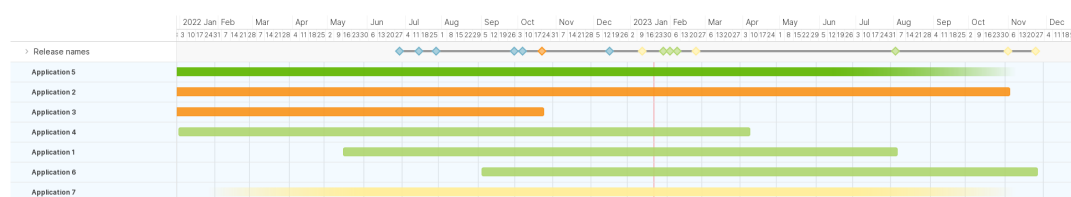


Figure 23 Strategic Roadmap regarding the status of all projects internal to the company

In particular, the statuses of the projects are respectively:

- **Backlog:** The project is still an idea; there is probably a high-level scope and timeline in place. The project manager and product owner are assigned, no further team members are identified, and no resources have been allocated in real time to this project.
- **On hold:** The project has started but has yet to progress; resources have stopped working on this project overall until further notice from the Head of OPS. The project can be put On Hold only after having the confirmation of the Head of OPS.
- **In progress:** The project activities have started; the team (profiles and names) is working, and the budget is allocated. Any resource or team member has started spending time on this project.
- **Closed:** a project is officially closed when all phases have been completed, the project closure happened, and all documentation has been approved. No resources are allocated any time on this project anymore. The company is so new that no application has still been finished yet. Indeed, the Database Application is already in use, but many releases still aim to increase its functionality.

On the other hand, Figure 24 represents an example of how the dashboard should be implemented according to my point of view; this particular one refers to a single release for application 4, which is one of the applications that is still implemented despite the budget limitation than the company had to face during 2023.

In the first section, the category traffic light refers to four different categories: Project, Budget, Scope, or Time. This allows the reader to get an idea of the project's current situation immediately.

If the category is highlighted in green, it is going in the right direction; no risk is presented or potential impact is foreseen. If highlighted in yellow, the category can represent a potential risk or impact on the project. The project manager should manage it proactively before the damaging effect happens. Finally, if the colour is

red, the category is not aligned with the project baseline and plan. The risk has already impacted the project, and owning an effective risk management plan is very important.

Later in the dashboard, sections on scope, budget, contract types, and incidents or problems related to the project can be seen. The budget/invoice part can be helpful from the point of view of the FNA department, which is finally able to have control of the current budget related to that of the baseline, and with the ability to intervene if there are problems.

After that, a pie chart indicates in the current phase how many tasks still need to be started, in design, in progress, on hold or closed.

Instead, the gate for approval section is beneficial from a QA perspective, as all the following approval are listed in the table. This will eventually solve the problem regarding the need for more information for this department.

The project plan represented in the dashboard shows how the project is progressing based on the advancement of the project tasks completed during each phase.

The risk section will be explained in the chapter below, as it concerns the risk management plan.

Finally, the task dashboard is handy for immediately understanding which tasks each team member is assigned and which is their related status or situation.

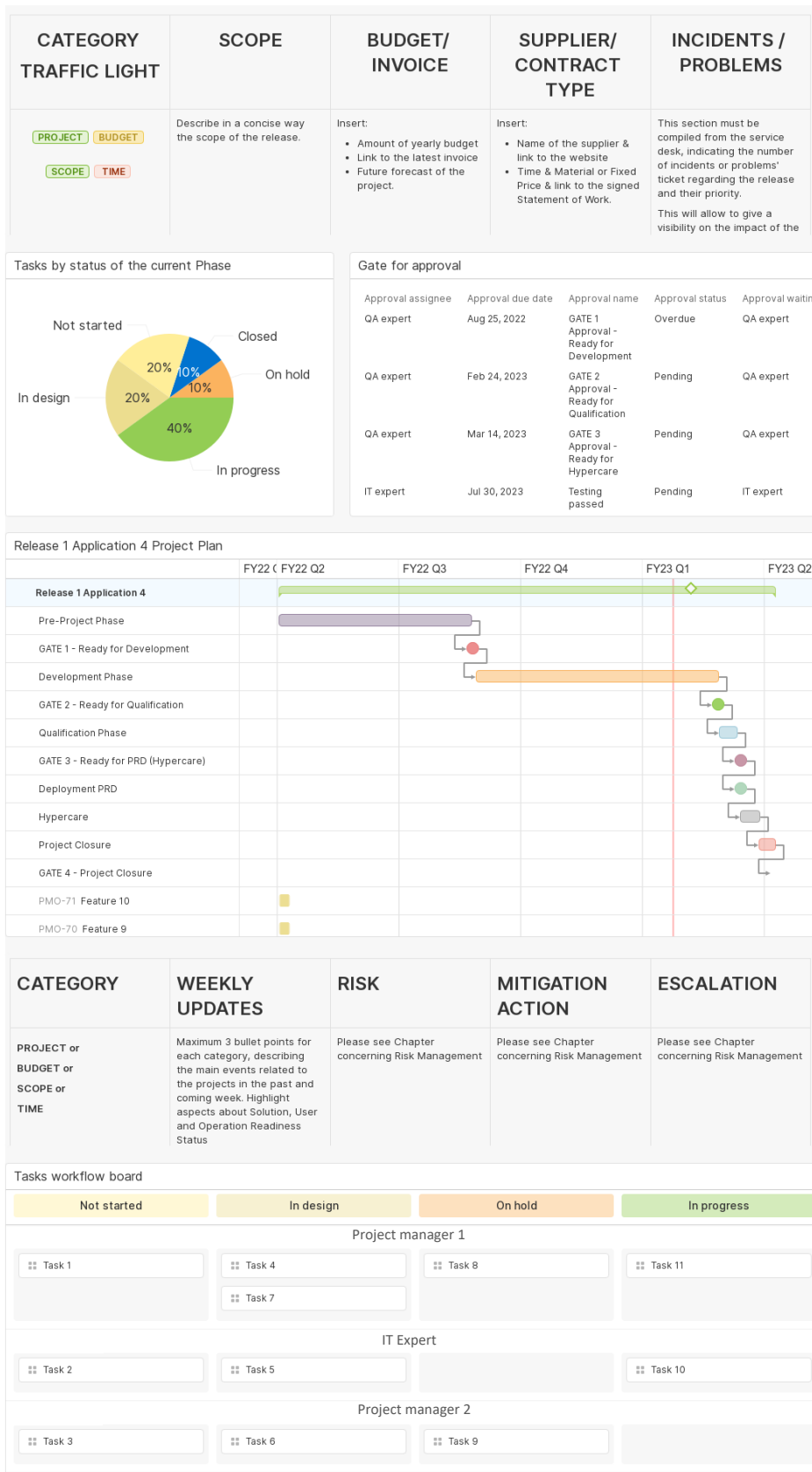


Figure 24 Proposed dashboard in Aha! – Release 1 Application 4

Capacity management

Another fundamental issue that the PMO can solve is resource management: once the project planning is done, an appropriate baseline with all the phases that should be accomplished is executed.

Currently, the PMO can upload all the different projects to Aha!, and thus have a clear overview of the resources the project manager needs and those already in use inside the company.

Based on this detailed analysis within the company, the PMO can tell the project manager the capacity of hours according to which resources will be allocated to his project.

Suppose the PMO recognises that the available resources are being utilised to their maximum capacity or need to gain the skills that meet the job. In that case, he will conduct a market analysis and place the missing resources within the company.

In this case, there may be either the possibility of taking on new positions within the company (a process for which the intervention of the HRA department is required) or hiring them as consultants if the work performed has a specific end date.

By using the capacity reporting on Aha! the percentage of resource utilisation will be shown, enabling people to see whether resources are over or under-allocated; if this happens, it will be possible to decide how to make changes.

Moreover, the PMO can control the amount of work done on average by the different project managers: if, as shown in Figure 25, project manager 1 is overallocated, but there are still free resources within the team, the PMO will take responsibility of giving some tasks of the project manager 1 to project manager 2.

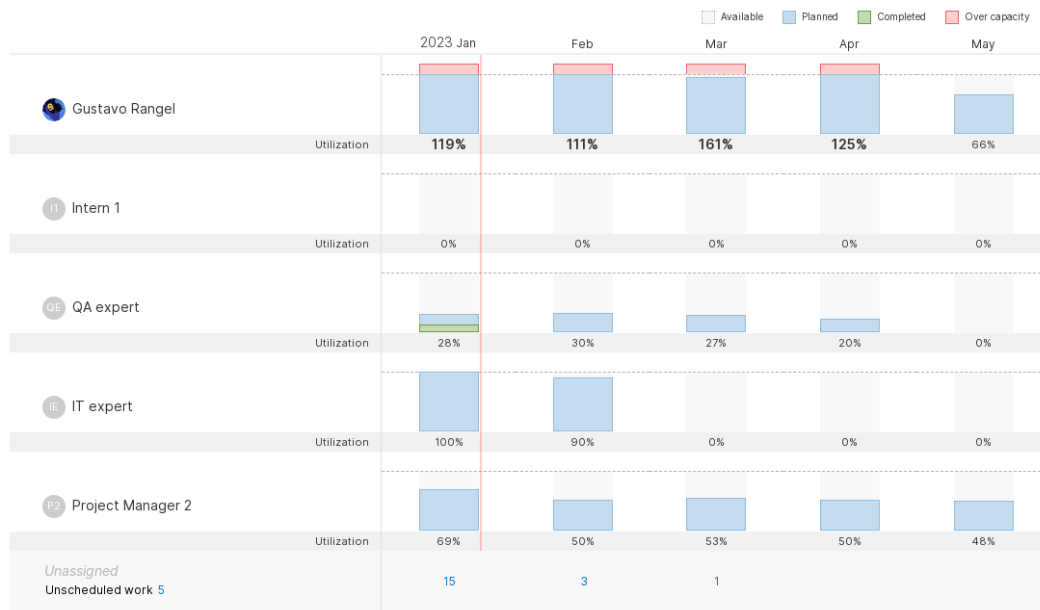


Figure 25 Scenario 1 capacity resources Release 1 Application 4

Figure 25 shows a clear example of how resources are over-allocated for Release 4 in Application 1 (refer to the dashboard presented in the previous section, Figure 24). As can be seen from the figure, project manager 1, the product owner of this release, is over-allocated and would have to work overtime to be able to cover the extra hours he is expected to work.

At the same time, project manager 2, who is faced with a project momentarily ‘On Hold’, is using his capacity less than he could: a possible solution could be adding a few working days each month to project manager 2 to relieve project manager 1.

In addition, intern 1, who until now has never been directly assigned to the project, will be allocated ten days per month to application 4.

Regarding the IT expert, they are an external team, and during the development and the deployment, the resources will be taken and adapted to the workflow needed from them to complete the coding and all the concerning activities; on the other hand, the QA team is internal to the company, but it will dedicate the resources for the project when needed.

The expected result is shown in Figure 26. Table 11 shows how many hours should be exchanged for optimal solutions.

Table 11 Resources' working days before and after the capacity management plan

Figure	Jan 2023		Feb 2023		Mar 2023		Apr 2023		May 2023	
Working Days: Previous situation vs Current situation	PS	CS	PS	CS	PS	CS	PS	CS	PS	CS
Project manager 1	25	20	22	19	37	23	24	19	15	15
Intern 1	0	10	0	10	0	10	0	10	0	10
Project manager 2	15	19	10	12	13	23	10	15	11	11

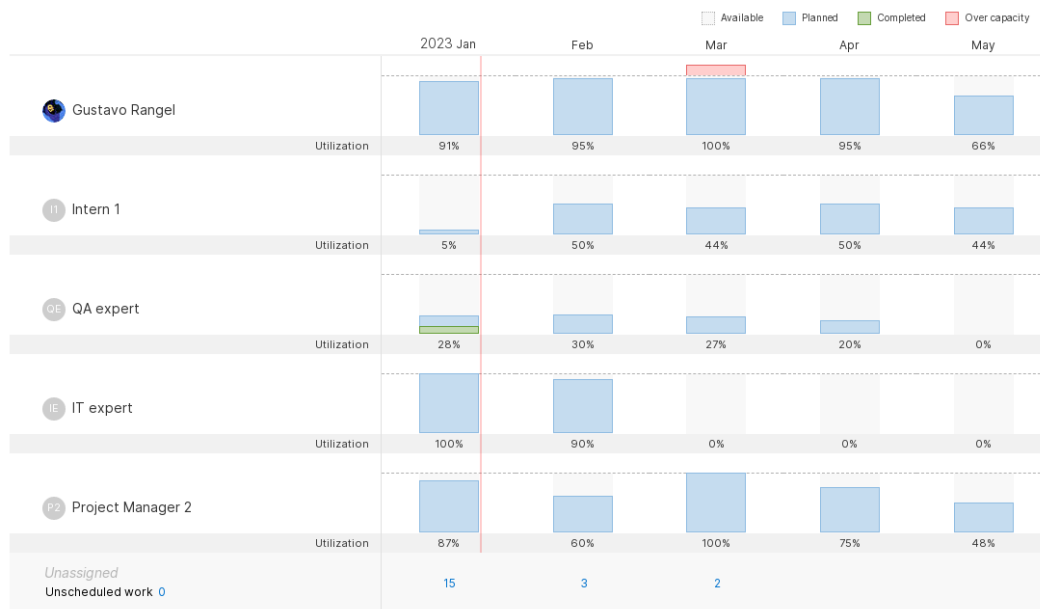


Figure 26 Scenario 2 capacity resources Release 1 Application 1

Risk management

Concerning the project realisation process, I found a criticality relating to risk management. In particular, the product owner is only led to fill in the risk description and mitigation actions. In contrast, a more detailed project risk management approach should be introduced so that it can contain more information.

The company, in this regard, has organised a risk management process concerning risks that may occur on business processes or systems; however, there is a lack of risk assessment that covers individual projects and related phases, during which there are nonetheless frequent instances when risks may occur (such as over budget, scope not met...).

The PMO will be directly responsible for implementing and verifying this new governance, ensuring consistent risk management practices first by developing and distributing guidelines, specifications, templates, and training as necessary.

This new process aims to identify, analyse, and respond to the highlighted project risks by maximising the probability and consequences of positive events and minimising one adverse event to the project objective. The framework template regarding the risk management process can be seen in Figure 27 which is explained below. These guidelines outline the standard organisation risk management processes for identification, assessment, planning, monitoring, and controlling risks.

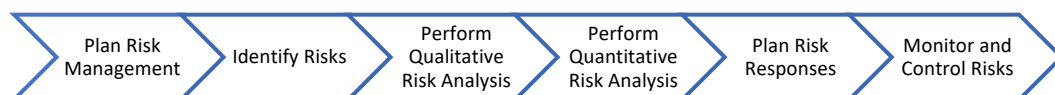


Figure 27 Project Risk Management Process

- *Plan risk management*: this stage aims to define the scope and objectives and ensures that the risk process is fully integrated into the more comprehensive project management.
- *Identify risks*: this phase can be accomplished by brainstorming and creating a root cause analysis based on a process flow chart of the project.
- *Perform qualitative risk analysis*: this is done to assess and evaluate characteristics of individually identified project risks and prioritises them based on agreed-upon factors.

The risk will be defined through two key dimensions that will highlight its importance:

- a) Uncertainty, probability, or likelihood of each danger to occur **P**
(very high, high, medium, low, very low)
- b) Effect, impact, or consequence on project's objectives **I**
(catastrophic, critical, medium, marginal, negligible)

Both dimensions will require a score between 1 (LOW) and 5 (HIGH). The risk severity will be then calculated as follows:

$$RS = P * I$$

The higher the risk severity, the higher the priority is to find actions and plan to treat the risk.

Table 12 shows the priorities of the risks graphically: in particular, the green risks correspond to the only ones that can be overlooked for the time being. The section 'plan risk responses' must be applied for all the others.

Table 12 Risk Priority table

PROBABILITY	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
		IMPACT				

- *Perform quantitative risk analysis*: the approach is very similar to the one of the qualitative risk analyses, but here the values of P and I are theoretically referred to:
 - a) **P** – the past probability of occurrence of the risky event (series of past data);
 - b) **I** – actual loss in the case the risk event happens; it is measured with a parameter relevant to the project: cost, time, performance, etc.

For the main risk, to different impacts correspond different probabilities.

As the data correlated to this project's risk cannot be accurately estimable as there are not certain events, the solution is to create a work breakdown structure - risk breakdown structure matrix (WBS – RBS Matrix) with a conservative approach. This solution is used since the statistic procedure is not applicable.

Table 13 shows how the risks directly impact the critical or near-critical tasks of the project.

At this point, it can be understood, based on the most impacting risks, which should be mitigated, escalated, or avoided.

Table 13 WBS - RBS Matrix

	Task 1	Task 2	Task 3	...	Task n
Risk 1		X	X		X
Risk 2	X	X			
Risk 3	X		X		X
...		X			
Risk n	X				X

- *Plan risk responses*: there are many strategies to respond to risk based on the gravity of this one. The response strategies are avoiding, escalating or mitigating the risk as prevention or transfer and accepting it as a correction. A **risk register** (Table 6) and **risk report** (Table 14) can be designed. The risk register document contains details on each risk, including a mitigation action, and it represents ‘an ongoing document used throughout the project to make informed risk management decisions’. The risk report, instead, ‘is a communication tool within risk management. The report should be clear and concise and indicate actions taken, preparation for other risk-related actions, and any inputs needed by stakeholders to ensure continuous risk management support.’ (Project Management Academy, 2021). The entire risk management strategy includes both.

Table 14 Risk Report

Category	Sub Category	Risk & Owner	Impacted Tasks or Phases	Potential Impact	% Probability	Risk Score	Mitigation Action	Escalation
Operational								
Financial								
Quality								

- *Monitor and control risk*: this action will be taken care of by the PMO team, which will have an essential role in helping with the accomplishment of this risk management process, as mentioned above.

The aim is to support finding and raising awareness for potential risky actions and how to mitigate or escalate them in case they occur. The PMO will also ensure that the risk report is fulfilled correctly.

Standard

During my experience, I realised that the presence of standards during the project planning process is significant.

After deciding to use Aha! as the official Tool for the PMO, I proposed to one of the project managers to create his project on the software with the phases necessary for the full implementation. The result could have been a better-detailed baseline. Even though the project is successfully implemented, the baseline is designed coarsely, without standard steps and lacking dependencies. This needs to be more detailed, especially from the point of view of a person not inside the project, who wants to try to understand and monitor it, but finds himself with little detailed information.

One solution could be to impose a standard process for the project as far as possible so that whenever a person wants to monitor and control the project, they can do so without any problems.

After collecting all the inputs for setting the necessary typical phases within a project, the following standards are shown in Figure 28.

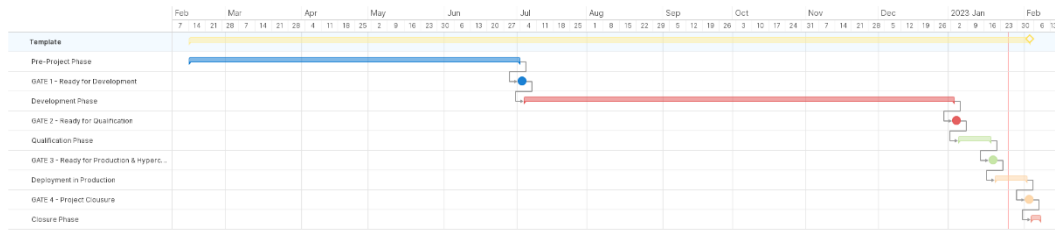


Figure 28 Standard Phases of a project

The phases and relative gates will be:

- Pre-Project Phase
- Gate 1 – Ready for development
- Development Phase
- Gate 2 – Ready for qualification
- Qualification Phase
- Gate 3 – Ready for production and hypercare
- Deployment in the Production Phase
- Gate 4 – Project closure
- Closure Phase

In light of the above, this template corresponds to a proposal that should be adapted to the personal requirement of each project, knowing that the presence of standards inside a company can alleviate the heavy workload also from a non-project manager point of view who needs to enter quickly inside the project.

Figure 29 shows a practical release with resources allocated during the phases.

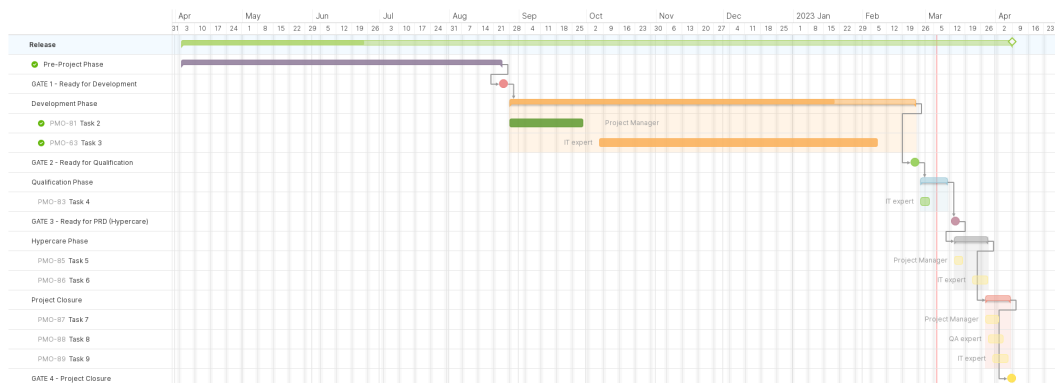


Figure 29 Release with resources allocated

3.4 The New RACI

Table 15 corresponds to the new RACI after inserting the up-to-date roles and activities resulting from the company To Be analysis.

Comparing an old and a new RACI can provide additional context for understanding changes. Here are a few things that might happen during such a comparison.

The new RACI will include all the changes in the execution of the framework by adding those activities that were not carried out in the As Is company. In fact, this will be found as a new line in the Action/ Decision column with the figures involved in them. For example, in the new RACI, the action regarding the creation of ‘integrated roadmap’ is included.

It, moreover, aims to solve the problem regarding potential conflicts happening in the current organisation. For example, if a particular task’s responsibility is assigned to two different people in the old RACI or the assignment of the action is confusing, the new RACI, the result of the study conducted, shows a decrease in the chaos; an example can be the PMO, that can solve the reporting issue by assuming the accountability of it.

Finally, the new RACI includes the department introduced in the company related to chapter 4.3 of this thesis work, corresponding to the PMO, not included in the old RACI as not part of the organisation.

Table 15 The New RACI

Actions/ Decisions	BOD	GM	OPS Head	FNA	QA	OPS PM	Dev Team	Test Team	PMO
GOVERNANCE DOMAINS									
Governance integration	RA	A	CI	CI	I	CI	-	-	CI
Governance strategy	RA	I	I	CI	I	I	-	-	I
Responsibilities and authorities	A	RA	CI	CI	CI	I	-	-	I
Decision criteria/ process	CI	RA	RA	RA	CI	CI	-	-	CI
Governance Budget high level	A	CI	I	R	I	I	-	-	I
Prioritization Criteria	CI	R	R	R	I	I	-	-	-
Funding Investment	A	R	CI	R	I	I	-	-	-
Resource Allocation in the Project	-	CI	A	I	I	I	-	-	R
Operational activities integration	-	RA	A	I	CI	A	-	-	-
GOVERNANCE RISK									
Risk thresholds high level project	-	I	RA	I	A	I	-	-	I
Risk thresholds low level project	-	CI	R	CI	A	RA	-	-	I
Risk Management	-	I	I	I	I	R	-	-	A
Risk and issues escalation	-	I	I	CI	CI	R	-	-	A
PRE-PROJECT									
Design Consolidation	-	-	CI	-	I	RA	R	-	-
Scope Consolidation	-	I	A	I	I	R	R	-	-
Deliverable Creation	-	-	CI	-	RA	RA	R	-	-
Review PID	-	I	I	I	R	A	I	-	-
Approval PID	-	RA	RA	RA	CI	CI	I	-	-
DEVELOPMENT									
Development Phase	-	-	CI	I	I	A	R		-
Testing Phase	-	-	I	-	I	A	CI	R	-
Consolidate Development	-	-	CI	I	I	A	R	CI	-
Approval (Quality Review)	-	-	CI	I	RA	CI	I	I	-
Product Approval	-	CI	RA	I	I	A	I	I	-
GOVERNANCE PERFORMANCE									
Performance/ Status reporting	-	CI	CI	R	R	R	R	R	A
KPI monitoring/ measuring		RA	RA	I	I	I	I	I	-
Resource Optimization	-	I	I	I	I	CI	I	I	RA
Investment Optimisation	-	R	CI	R	I	I	I	I	-
Dashboard creation and maintenance	-	I	CI	CI	CI	R	-	-	RA
Proposed Change Evaluation	-	A	A	I	CI	R	I	I	-
GOVERNANCE COMMUNICATION									
Integrated roadmap	-	I	I	-	-	R	-	-	RA
Stakeholder engagement	-	CI	CI	I	I	A	I	I	-
Communication Coordination	-	I	A	R	R	R	I	I	-

The New RACI shows how the PMO plays a vital role concerning the company in this respect: this new team does indeed allow for a considerable lightening of specific functions, such as the head of OPS who no longer has to deal with particular tasks, such as the allocation of resources or the individual reporting of projects; it is essential to note that this figure is, however, always informed and sometimes consulted concerning what is happening.

Moreover, the FNA and QA department take advantage of the PMO, as it will allow them to have a clearer idea of the projects at each moment and without the need to ask the project managers for information directly.

Regarding 4.1 & 4.2, the governance for the OPM will work better, but those implementations will not introduce any new roles but only a better structure of how to work with a more complex system.

4 Conclusions

This study aimed to propose a more workable and efficient solution for the company's existing framework, which, due to the early stage of the business, has some criticalities and lack of standards.

The awareness of this work lies in trying to adapt project management theory to a real case study, which must be adapted to the company's maturity as it is now. In this regard, a strong hypothesis was considered early on: where there is a need for more basis regarding project management, it would have been easier to propose an improvement since there is no need to implement a complex solution. The current situation can be developed by initiating what the theory suggests. The problem is different in the case in which the company already has a solid foundation and a process in use: to achieve improvement, in this case, a more significant effort to propose a suitable and efficient solution is required.

The results consist of some improvements where the significant problems in the framework 'To Be' have occurred using project management theory. The proposed model incorporates vital project management principles and techniques, such as project planning, risk management, PMO, and stakeholder management, to improve project success rates and mitigate common project risks.

The new framework provides a structured approach to project management that allows for flexibility and adaptability while ensuring that long-term strategy is achieved through a top-down approach by including an annual workshop with the Board of Directors and the company's management.

Moreover, during the evaluation phase, projects are detailed study, by including an appropriate estimation of the budget, and to the satisfaction of stakeholders, aimed to solve problems concerning the inadequacy of the investment estimate. To do so, NPV analysis is carried out to evaluate the long-term financial impact of a project. By considering the initial investment, cash inflows, discount rate, and time period,

organisations can calculate the NPV and determine whether the project is financially feasible and sustainable. Other factors, such as the social and community impact of the project, should also be considered in making decisions about project viability.

Finally, a new department called PMO is introduced in the company with the role of supporting in many fields, such as reporting, risk management, capacity management and standard creation. The creation of this new department aims to solve confusion regarding the reporting of projects and their communication with the other departments, and it is the one that has the most impact on the To Be structure. The PMO is in charge of supporting the project managers during their work; one of the significant implementations is the use of dashboards which have immediate visual communication to those who use them and which can quickly help a person different from the project manager to understand the project.

The new RACI shows how the new company To Be is more complete than the actual one.

Overall, the proposed framework has the potential to significantly improve project outcomes and increase the success rates of projects. However, it is essential to note that the effectiveness will depend on its proper implementation, as well as its adaptation to the specific needs of each project. The execution of the new framework requires a collaborative effort from all stakeholders, including project managers, team members, and project sponsors. All parties must understand the principles and techniques outlined in the framework and work together to ensure its successful implementation.

During the dissertation work, the most significant difficulty was to bring together all the material within the company to represent the entire framework since each department represents a key piece in realising the company's objectives.

Considering that the proposal represents a major change in the company's framework, the suggested implementation requires a lengthy implementation process with some restructuring of the company, which I will probably not be able to assist personally. This represents the limit of my thesis.

Even with this, if the company proceeds to implement the proposed changes, there will undoubtedly be greater clarity from the point of view of reporting the various projects since these will be assisted and made more visible by the PMO. Moreover, there will be a greater awareness of the plan for the long term, ensuring clarity in the goals and increasing the company's reputation. Lastly, the company can create more accurate project forecasts decreasing the probability of going over budget or beyond the proposed values.

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Glossary

BPE Business and Partner Engagement

FNA Finance and Accounting

GM General Manager

HRA Human Resources and Administration

IRR Internal Rate of Return

KPI Key Performance Indicators

LA Legal Affairs

NPV Net Present Value

OPM Organizational Project Management

OPS Operations

PID Project Initiation Document

PM Project Management

PMI Project Management Institute

PMO Project Management Office

QA Quality Assurance

RACI Responsible, Accountable, Consult and Inform