PM² Portfolio Management

Guide 1.5

European Commission
Centre of Excellence in Project Management (CoEPM²) and
Council of the European Union
GSC.SMART - Digital Services

PM² Portfolio Management Guide 1.5

Brussels, 2022

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1 Introducing the PM²-PfM Guide

This publication provides guidelines for applying the PM² Project Portfolio Management Methodology. It has been kept as lean as possible while still providing enough information to help you understand and start implementing Portfolio Management (PfM) effectively in your organisation.

This guide is:

- For Senior Management and staff wishing to learn more about Project Portfolio Management;
- For PM Practitioners who wish to learn more about the PM²-PfM Methodology;
- A source of information that will enable organisations to start using the PM²-PfM Methodology in their organisation.

It provides:

- A common vocabulary (glossary) which makes it easier for organisations to communicate and apply project portfolio management concepts;
- Best practices– it's up to the groups working in Portfolio Management to choose the PM²-PfM practices that will bring most value to the management of their organisation's portfolios;
- A link to the PM² Portfolio Management methodology;
- Links to PM²-PfM resources (online resources, artefact templates and examples).

1.1 About PM²-PfM

PM²-PfM is a portfolio management methodology developed by the European Commission. Its purpose is to enable organisations to better manage and monitor their portfolio of programmes and projects and report their performance to Senior Management and relevant Governance Bodies. This objective is attained by providing a set of portfolio management governance guidelines, tools, and techniques to help Portfolio Managers in their tasks.

PM²-PfM incorporates elements from a range of globally accepted project portfolio management best practices, described in standards and methodologies, as well as relevant European Commission communications and operational experience.

Portfolio management is about selecting the optimal mix of projects and programmes to align the organisation's investments with the strategy to optimise the organisation's benefits. By allocating the adequate resources and regularly collecting accurate and relevant information, portfolio decision-making is supported.

The PM²-PfM Methodology provides:

- A portfolio governance structure;
- A set of portfolio management processes and activities;
- Artefact templates;
- Guidelines for applying the processes and using the artefacts;
- A set of effective mindsets.

1.2 The Centre of Excellence in PM² (CoEPM²)

The purpose of the Centre of Excellence in PM² (CoEPM²) is to provide the European Commission and European Union Institutions with high-quality project management infrastructure, support, and consulting services. The CoEPM² supports the PM² Methodology internally, coordinates an inter-institutional Project Support Network (PSN), and promotes the wider adoption of PM² through the opening of PM². PM²-Agile is also supported by the CoEPM² for the European Commission and the European institutions.

1.3 Opening PM²

PM² was made available by the European Commission, bringing the methodology and the overall PM² offering and its benefits closer to its broader stakeholders and user community. This increased effectiveness in the management and communication of project work serving the objectives of the European Union and needs of Member States and EU citizens.
Opening PM² aims to help avoid repeating mistakes of the past, such as replicating efforts and sponsoring divergent Project Management approaches based on differences rather than investing in converging approaches based on similarities and common interest of the broader EU Public Administration and beyond.

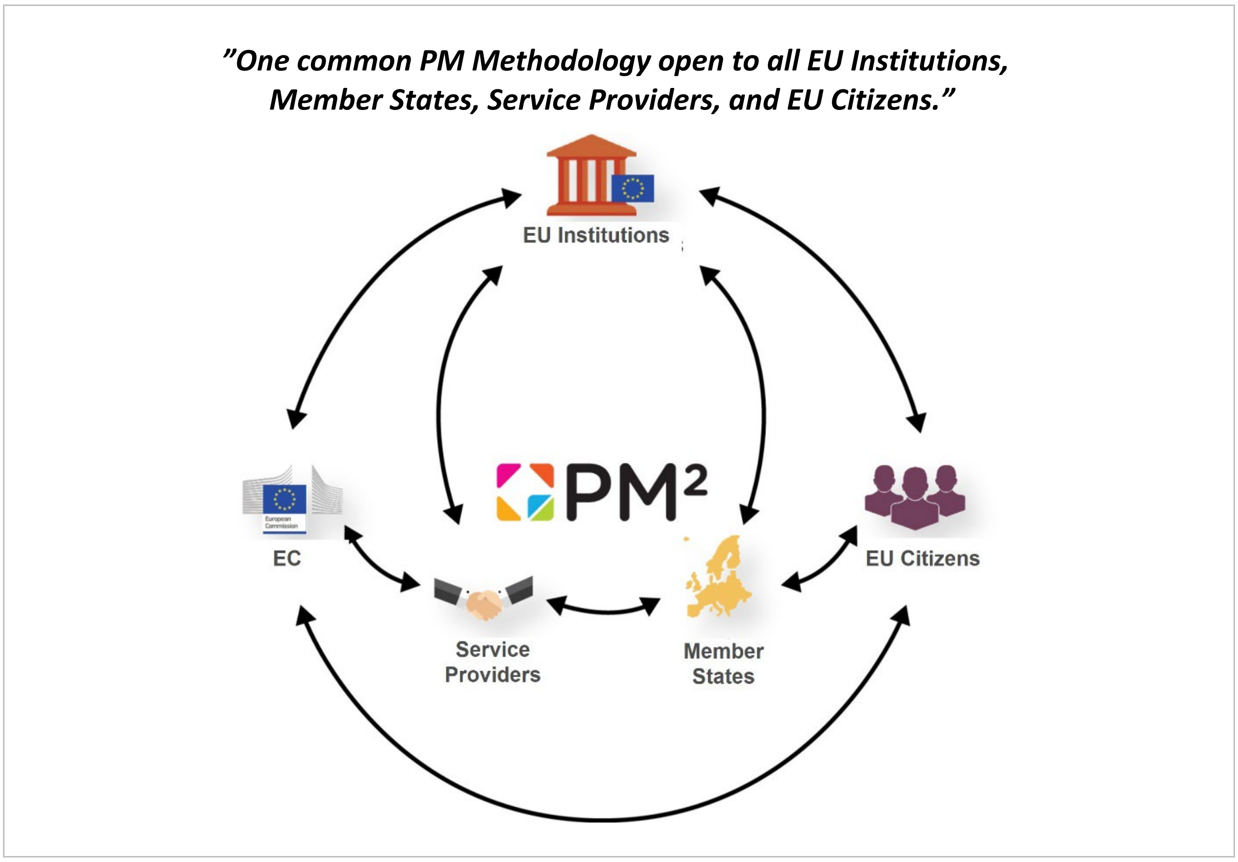

Fig. 1.1 PM² Vision & Synergies

Opening PM² aims to contribute towards the increase in project management competency within broader user community and stakeholders and lead to increased project efficiency and success. Open PM²:

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

PM² Resources, Publications and Support

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

- PM² website https://europa.eu/pm2/

The CoEPM² also provides for the European Institutions advisory services, consulting and coaching on all PM² Methodologies.

- PM² contact EC-PM2@ec.europa.eu

PM² Project Support Network (PSN)

The PM² Project Support Network (PSN) is an internal network of Project Support Offices (PSOs), which are coordinated and supported by the Centre of Excellence in PM² (CoEPM²). The PM² Project Support Network (PSN) aims to become a decentralised Project Management support network, providing guidance and support to PM² users on both the PM² Methodology and the effective use of Project Management Tools & Techniques.

The Project Support Network (PSN) (internal):

- promotes the exchange and sharing of knowledge, experiences, and best practices;

- makes it possible to collect feedback to continuously improve and build on the PM² Methodology;
- enables the Project Support Offices (PSOs) and Portfolio Support Offices (PfSOs) to support each other as a community;
- is coordinated and supported by the Centre of Excellence in PM² (CoEPM²);
- depends on the contributions of PM² champions (individuals and organisations).

The Project Support Network (PSN) (outside the European Institutions):

- promotes the exchange and sharing of knowledge, experiences, and best practices with an emphasis on public services and institutions;
- aims to collect feedback to improve and build on the PM² Methodologies.

Join the PM² Community and stay in touch for updates:

- https://joinup.ec.europa.eu/collection/pm2-project-management-methodology
- https://ec.europa.eu/eusurvey/runner/pm2-contact
- https://academy.europa.eu/courses/pm-c1-pm-essentials-project-management-methodology

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2 Portfolio Management Context

An organisation usually has multiple strategic objectives to achieve, each requiring projects with different stakeholders, who bring benefits from using a specific approach. Therefore, synergies and efficiency can be obtained when projects having the same characteristics are managed together in one portfolio or in a structure of portfolios.

2.1 What is a Portfolio?

A portfolio is a collection of projects, programmes, sub-portfolios, and other work packages, grouped for better financial and other resources control to facilitate effective management in achieving strategic objectives. The projects or programmes in the portfolio, also known as the portfolio components, may not necessarily depend on or relate to each other. All portfolios together constitute the corporate portfolio that echo the wider organisational governance/decision-making structures.

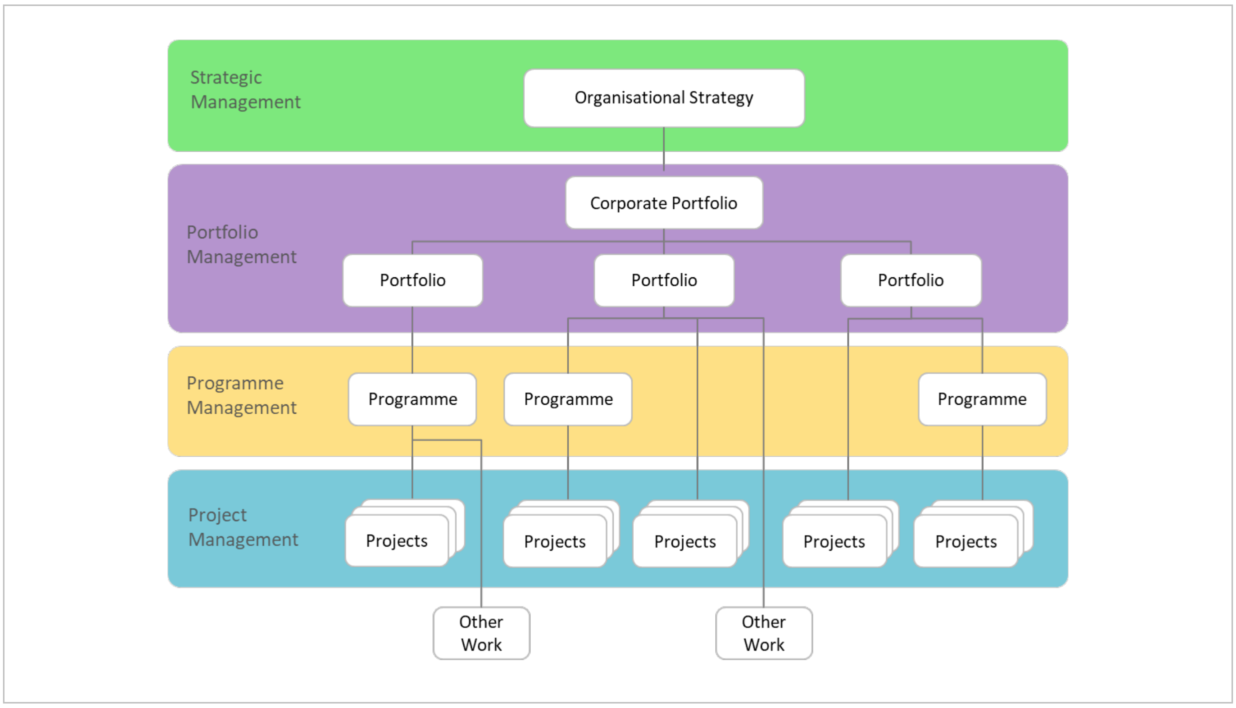

Fig 2.1 Relationship between portfolios, programmes, and projects

From a governance point of view, portfolios are on a higher level than programmes and projects. The Portfolio Management layer is where corporate or organisational priorities are identified, investment decisions are made, and resources are allocated. A project or a programme belongs to a single portfolio for financial consolidation purposes. However, alternative views can be defined by grouping projects or programmes differently for management purposes: listing all projects per business domain, per organisational unit or department, per technology stack, or per product line. These alternative views do not influence the fact that a programme or project is part of a single portfolio.

2.2 What is Portfolio Management?

Portfolio management is about improving decisions and delivery of the portfolio of projects and programmes as to maximize the contribution to the strategy of the organisation within the limitations of time, resources, and energy.

Portfolio management includes identifying, evaluating, prioritising, approving, monitoring, and reporting programmes and projects to achieve expected benefits and meet strategic objectives, considering risks and resources constraints.

2.3 Portfolio Management and Organisational Strategy

An organisation's mission provides the direction to follow and translates into a series of goals to be reached. Portfolio objectives are closely linked to the definition and realisation of a business strategy. In practice, a strategic plan defines several **strategic objectives** per business domain. These objectives define the future investments and the daily operations.

The purpose of the **operations** is to produce value for the organisation and its stakeholders. This value production capability can be increased by means of new investments in **programmes and projects** managed in **portfolios**. The projects will produce **outputs** (products and services) to the ongoing operations to enable the achievement of the strategic objectives. Therefore, portfolio management can be considered as the translation of the organisational strategy into actual projects and programmes that effectuate the change necessary to achieve the strategic objectives stemming from the organisational strategy. Even when the organisational strategy evolves due to changing circumstances, the portfolio layer assures that the programmes and projects align to this new direction.

Fig 2.2 Relationship between strategy, operations, portfolio, programme and project management

2.4 Why is Portfolio Management important?

Portfolio management is an essential enabler for good project management and strategy implementation. The implementation of portfolio management principles helps organisations to:

- Link projects to strategic objectives;
- Better support the governance of investments;
- Build discipline into the project evaluation and selection process;
- Prioritise project proposals across a common set of criteria, rather than a subjective perception of value and creating transparency for decision making.;
- Allocate resources to projects that are aligned with strategic direction;
- Minimise risks and optimise resources across programmes and projects;
- Report portfolio performance and benefits to senior management for decision-making based on accurate and comparable data;
- Enable a holistic view focusing on strategy-setting and the definition of high-level targets and consequent achievement monitoring.

For an organisation to unleash its full capability to realise value, it is necessary to manage projects efficiently (doing things right) and be more effective by developing portfolio management (doing the right things). As such, portfolio management is complementary to project management. Nothing is more ineffective than delivering a perfect project that is not needed.

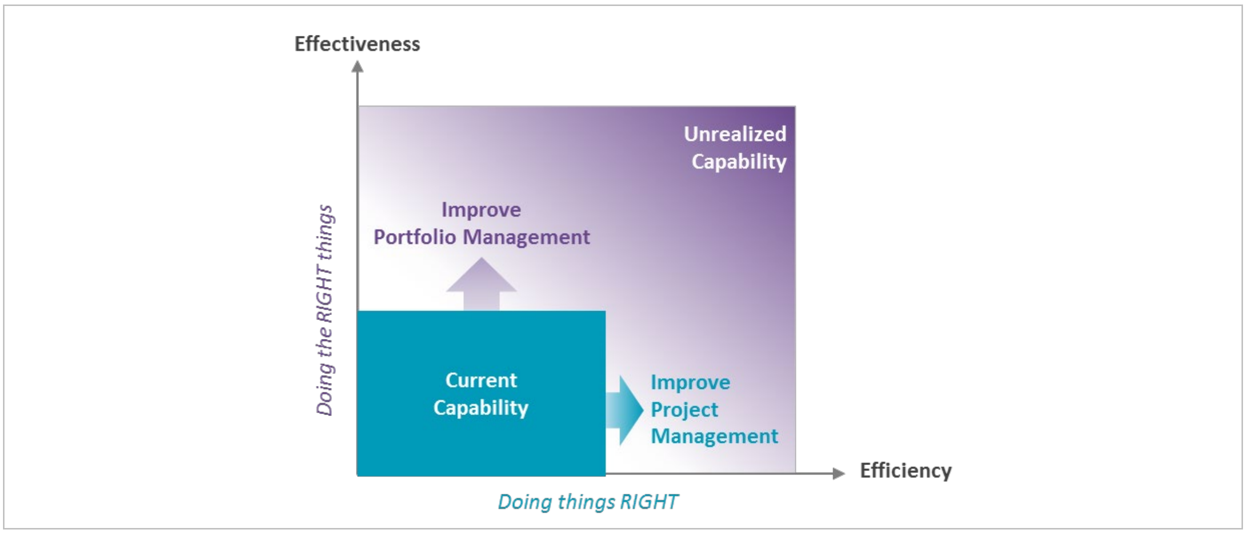

Fig 2.3 Portfolio management complements project management

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3 PM²-PfM Overview

The PM² Portfolio Management methodology consists of a process model, the governance structure, several artefacts, and some mindsets. All four elements are interrelated and contribute to the successful implementation of portfolio management in an organisation.

3.1 PM²-PfM Process Model

Portfolio management encompasses a range of activities organised in 4 processes that interact with each other.

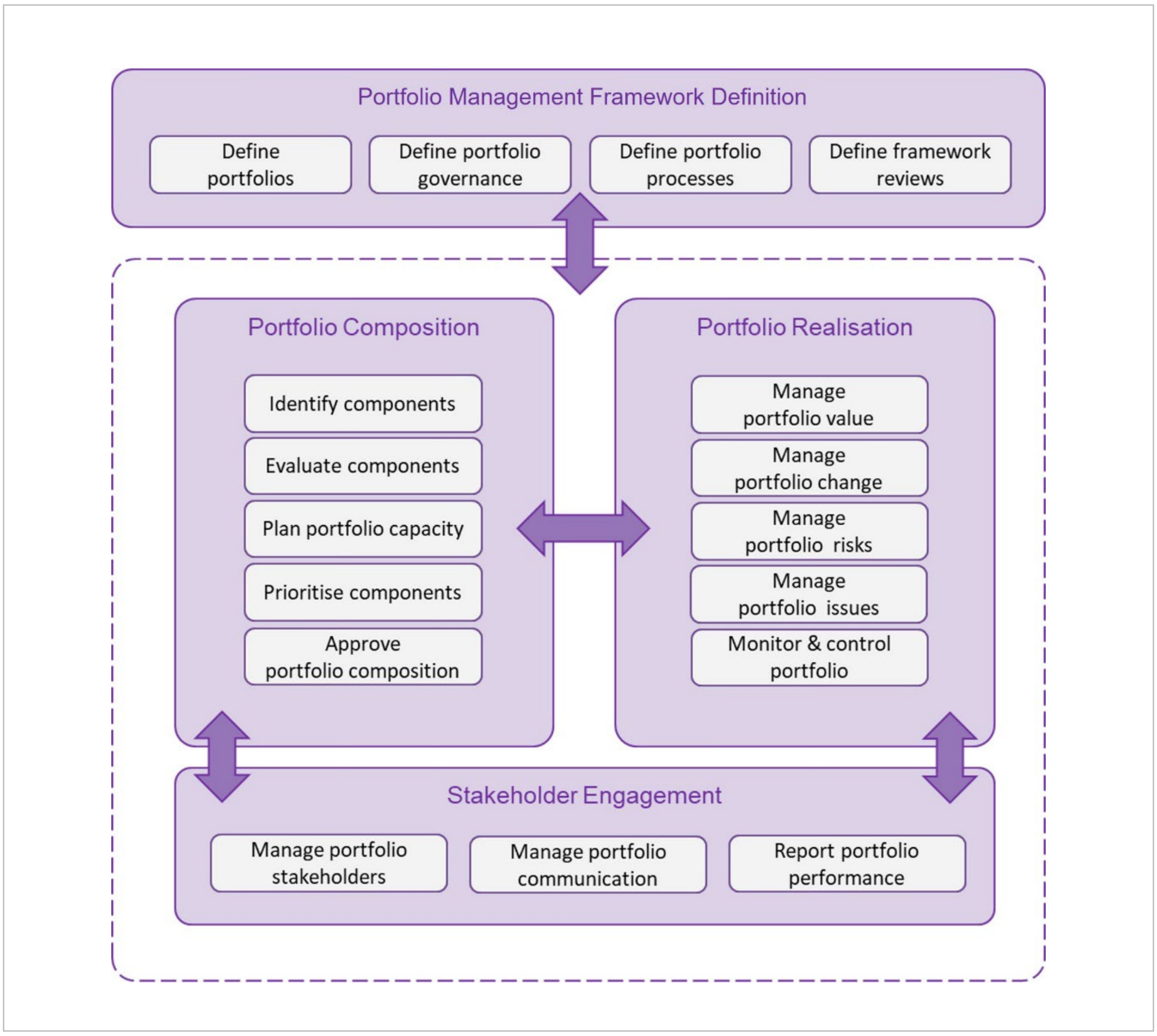

Fig 3.1 PM² Portfolio Management Process Model

Portfolio Management Framework Definition

The Portfolio Management Framework Definition process defines how the organisation will address portfolio management. This framework specifies the structure of portfolios, the governance bodies' responsibilities, and the necessary processes to manage the portfolios and engage the stakeholders. Usually, the framework is created during the initial implementation of portfolio management in the organisation. Subsequently, it is reviewed regularly to adjust to changing circumstances and evolving needs.

Portfolio Composition

This recurrent process is usually performed aligned with the budgetary cycle of the organisation, which is often calendar year based. Nonetheless, the actual portfolio should be dynamic, not only because of changes necessary because of portfolio delivery but also to reflect incidental revisions of strategy. It encompasses the activities to evaluate portfolio candidates, make new investment decisions and allocate resources. When the portfolio composition has been approved, the approved components (programmes and projects) enter the Portfolio Realisation process.

Portfolio Realisation

Portfolio Realisation provides inputs (such as capacity available, funds) to Portfolio composition to be able to regularly review components. It is a continuous process in which the approved programmes and projects are managed towards achieving their objectives. Regularly, the performance of the portfolio is monitored based on the status of its components. Although programmes and projects have a temporary nature, the Portfolio Realisation process is performed continuously during the portfolio's existence.

Stakeholder Engagement

This continuous process is about analysing and interacting with the different stakeholders to ensure their effective involvement in the composition and realisation of the portfolio.

3.2 PM²-PfM Governance Model

The PM²-PfM Governance model consists of the roles involved in portfolio management, the organisational structure in which they operate, together with their responsibilities.

Fig 3.2 PM² Portfolio Management Governance Model

Portfolio Directing Group (PfDG)

The Portfolio Directing Group (PfDG) is the top-level governance body responsible for the investment decisions across portfolios. Therefore, they are accountable for defining and the implementation of the portfolio management in the organisation to support them in their responsibilities.

In this capacity, this body defines the portfolio framework and takes the investment decisions across portfolios.

Portfolio Steering Committee (PfSC)

Each portfolio has a Portfolio Steering Committee (PfSC) responsible for the portfolio's efficient delivery. This committee proposes adaptations to the portfolio composition to align with the organisational strategy, monitors the portfolio performance, and responds appropriately to sustain the portfolio on track towards its objectives. The Portfolio Manager (PfM) takes the final decisions within the Portfolio Steering Committee (PfSC).

Portfolio Support Office (PfSO)

The Portfolio Support Office (PfSO) supports all portfolio management activities of the different portfolio governing bodies. It provides a centralised and consolidated view for facilitating decision-making capabilities.

3.3 PM²-PfM Artefacts

The portfolio artefacts support the portfolio management processes. This process provides a clear picture of the portfolios as well as their state and is a basis for decision-making.

The portfolio documentation also depends on artefacts produced in the strategic layer (the management plans) and the component layer (project or programme initiation requests and status reports).

Note that the artefacts should be adapted to the organisation's needs as part of the Portfolio Management Framework Definition.

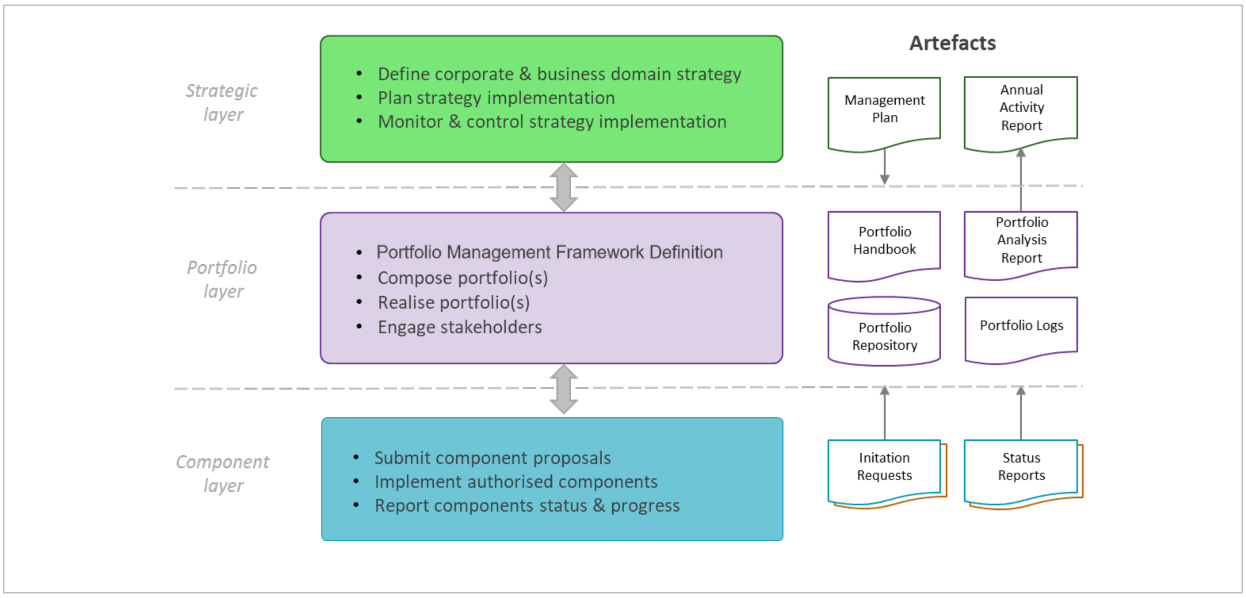

Fig 3.3 PM² Portfolio Management Artefacts

3.4 PM²-PfM Mindsets

The PM²-PfM Mindsets are the attitudes and behaviours that help people involved in portfolio management focus on what is important to achieve the portfolio's goals. These mindsets complement the PM²-PfM governance structure, processes, and artefacts. Together they help navigate the complexities of managing portfolios in organisations and make the PM²-PfM methodology more effective and complete.

The different actors involved in portfolio management should act according to the following mindsets:

- See portfolio management as an enabler and not just as another layer of control and bureaucracy;
- Acquire and continuously improve the required capacity and skills to fulfil his/her portfolio management role in the best possible way;
- Use portfolio management to minimise the "implementation gap", ensuring that strategies are translated into programmes and projects which produce the desired outcomes;
- Don't confuse functional roles and authority with portfolio management responsibility and goals;
- Provide important input for decision making, both at the strategic and the implementation layer, based on accurate and comparable information;
- Comprise portfolios and approve projects only after considering capacity constraints and ensuring adequate capability and skills for managing and executing the projects and maintaining the portfolio.

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4 Portfolio Governance

In the following sections, the major roles in portfolio management are described alongside each participant's responsibilities, expectations, and rights. Note that these roles can be implemented by existing organisational governance bodies or combined where necessary.

Bear in mind that the role performed in the portfolio management context may be independent of the function in the organisation. Nevertheless, portfolio management roles require a certain level of authority in the organisation as well as some competencies that may appear in the specification for a particular position.

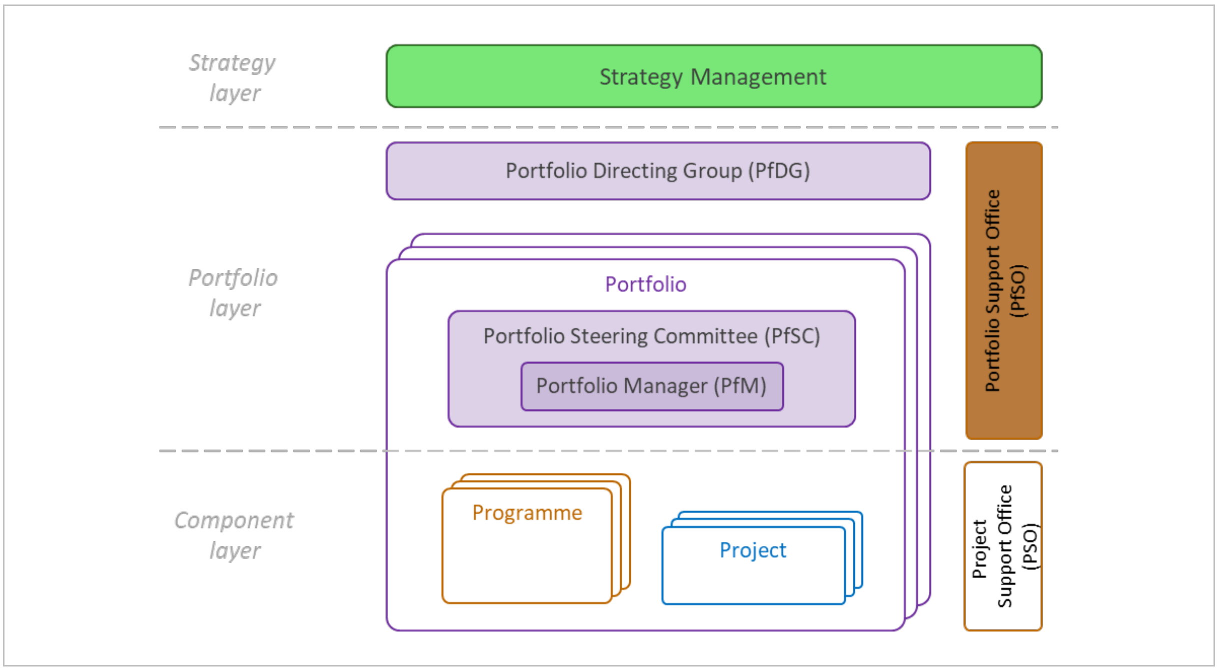

Fig 4.1 Project Portfolio Roles and Governance Layers

Strategy Layer

In the strategy layer, the senior management develops and implements a business strategy in line with the vision and mission of the organisation. Strategic objectives are defined here as a result of the strategic planning exercise. These objectives guide the organisation in its activities and investments for the upcoming years. The implementation of this strategy is performed through the portfolio and component layers.

Portfolio Layer

In the portfolio layer, the right mix of investments is selected to realise the strategic objectives efficiently. The portfolio governance structure reflects these two concerns in separate roles. On the one hand, the Portfolio Directing Group (PfDG) spans all portfolios in the organisation. This governance body is accountable for the portfolio management processes, portfolio structure, as well as approving programmes and projects (the portfolio components).

On the other hand, every portfolio has a Portfolio Steering Committee (PfSC), which monitors and controls the realisation of the approved programmes and projects. In contrast, the day-to-day management of the portfolio is delegated to the Portfolio Manager (PfM).

The Portfolio Support Office (PfSO) supports the portfolio layer actors and offers several specialised services like strategy & portfolio support, delivery support, and centre of excellence for portfolio management.

Component Layer

The component layer comprises the programmes and projects for each portfolio. Here, the actual products and services are produced that enable the achievement of the strategic objectives. Programmes and projects can be assisted by a Project Support Office (PSO) working under the guidance of the Portfolio Support Office (PfSO). The PSO provides administrative support to programmes and projects. It can serve one particularly large component or support multiple smaller components; in which case its existence would become more permanent.

4.1 Portfolio Directing Group (PfDG)

Description

The Portfolio Directing Group (PfDG) is the highest authority in the organisation regarding portfolio management and spans all portfolios. This unique governance body is accountable for the effective implementation of portfolio management throughout the organisation and provides clear leadership and direction to the composition and delivery of the portfolios. This body is known as the Appropriate Governance Body (AGB) on the project and programme level.

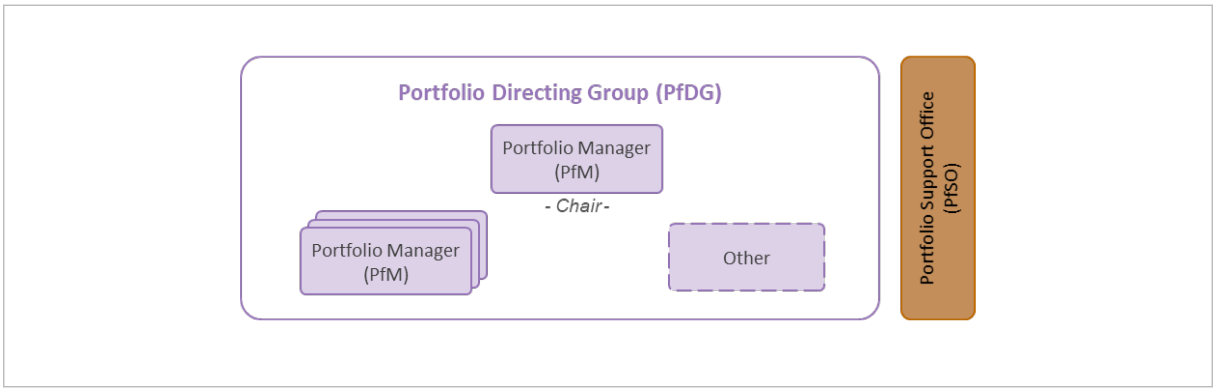

Fig 4.2 Composition of the Portfolio Directing Group (PfDG)

The Portfolio Directing Group (PfDG) consists of all the Portfolio Managers in the organisation and is complemented by other relevant advisory roles:

- Chair: One of the participating Portfolio Managers (PfM) who chairs the Portfolio Directing Group (PfDG). He or she is the ultimate authority in the organisation regarding portfolio management;
- Portfolio Manager(s): represents the interest and priorities of his portfolio in the Portfolio Directing Group (PfDG). Gains Portfolio Directing Group (PfDG) approval for the portfolio strategy and delivery, focused on achieving the strategic objectives;
- Other: representatives of finance, HR, and other functional groups or advisory roles. These participate in the Portfolio Directing Group (PfDG) meetings as needed.

Responsibilities

- Define the portfolio management framework and assure its practical implementation in the organisation. Review the effectiveness of the framework periodically and improve where necessary;
- As part of the portfolio framework, define the portfolio structure, related Portfolio Steering Committees (PfSC) and portfolio management processes;
- Approve the Portfolio Handbook;
- Approve the composition of each portfolio, keeping each portfolio balanced and directed towards the strategic objectives;
- Assess portfolio delivery performance and assure that each portfolio remains on course to realise its expected value;
- Resolve issues that have been escalated from the portfolios;
- Consider recommendations from the Portfolio Steering Committees (PfSC) or Portfolio Support Office (PfSO) to improve the portfolio framework and adapt it if needed.

4.2 Portfolio Steering Committee (PfSC)

Description

The Portfolio Steering Committee (PfSC) is the governing body responsible for managing the portfolio. Therefore, it monitors the portfolio delivery performance and takes appropriate measures to keep it on track. The Portfolio Steering Committee (PfSC) reports to the Portfolio Directing Group (PfDG).

Composition

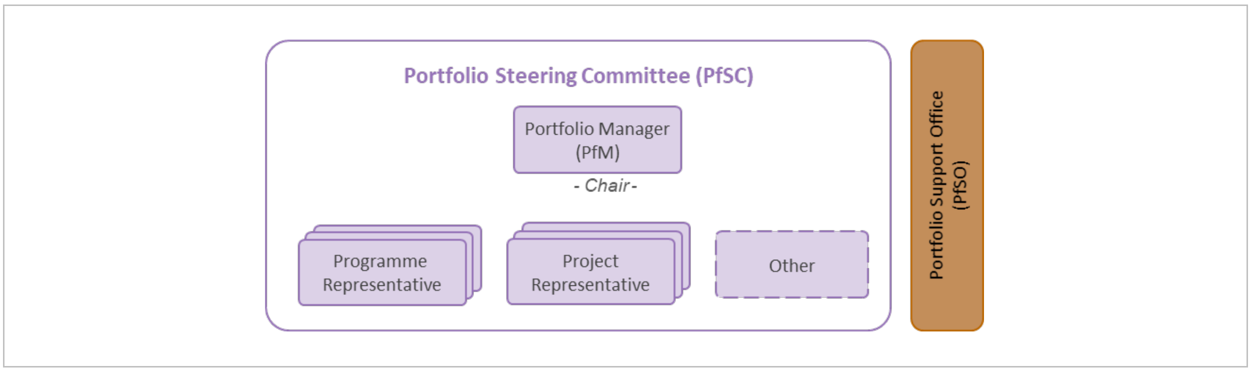

Fig 4.3 Composition of the Portfolio Steering Committee (PfSC)

The Portfolio Steering Committee (PfSC) consists of the following roles:

- Portfolio Manager (PfM): chairs the Portfolio Steering Committee (PfSC) and is responsible for the realisation of the portfolio. This role has the final decision power within the remit of the Portfolio Steering Committee (PfSC);
- Programme Representative: represents the interests of a programme within the portfolio. This role can be performed by the Programme Owner (PgO) or Programme Manager (PgM);
- Project Representative: represents the interests of a project within the portfolio, usually limited to the flagship projects. This role can be performed by the Project Owner (PO) or Project Manager (PM);
- Other: optional roles like experts, representatives of the customer (or CRM), architecture, finance, HR, etc. Those participate in the Portfolio Steering Committee (PfSC) meetings as needed and act as advisors.

Responsibilities

- Ensure all programmes and projects within the portfolio comply with the agreed delivery standards and practices;
- Evaluate and prioritise programmes or project initiation requests and propose them for approval to the Portfolio Directing Group (PfDG);
- Monitor portfolio delivery performance and take preventive or corrective measures to keep the portfolio on track towards its objectives. Consequently, communicate decisions taken to the concerned Programme (PgSC) or Project Steering Committees (PSC);
- Optimise the use of resources within the portfolio;
- Manage portfolio risks proactively;
- Resolve portfolio level issues that may compromise the portfolio delivery. Escalate unresolvable issues to the Portfolio Directing Group (PfDG);
- Recommend components for early termination to the Portfolio Directing Group (PfDG);
- Propose portfolio framework improvements to the Portfolio Directing Group (PfDG);
- Implement the portfolio decisions taken by the Portfolio Directing Group (PfDG).

4.3 Portfolio Manager (PfM)

Description

The Portfolio Manager (PfM) coordinates the portfolio management activities, reports to the Portfolio Directing Group (PfDG) and presides the Portfolio Steering Committee (PfSC).

Responsibilities

- Provide leadership and strategic direction to the programmes and projects in the portfolio;
- Keep the portfolio oriented towards achieving the strategic objectives and value;
- Manage the portfolio according to the directives of the Portfolio Directing Group (PfDG). Manage resources effectively and efficiently;
- Preside the Portfolio Steering Committee (PfSC) and take the final decisions within the remit of the Portfolio Steering Committee (PfSC);
- Draft the Portfolio Handbook, amongst other portfolio artefacts;
- Coordinate programme or project request appraisals for portfolio prioritisation;
- Validate the alignment of programmes and projects with the portfolio objectives;
- Analyse overlaps, dependencies, synergies, constraints, issues, and risks within the portfolio and implement actions to optimise the portfolio accordingly;
- Identify constraints within the portfolio and try to overcome them;
- Prepare regular portfolio performance reporting to the Portfolio Directing Group (PfDG);
- Implement portfolio decisions communicated by the Portfolio Directing Group (PfDG);
- Escalate unresolvable portfolio issues to the Portfolio Directing Group (PfDG);
- Identify improvements to the portfolio management practices.

4.4 Portfolio Support Office (PfSO)

Description

The Portfolio Support Office (PfSO) is a team that supports all portfolio management activities of the different portfolio stakeholders. It spans all portfolios within the organisation and provides a centralised and consolidated view towards the governing authorities to facilitate decision-making. Unlike Project Support Offices (PSO), the Portfolio Support Office (PfSO) is a permanent character.

Responsibilities

- Facilitate strategic planning and other governance meetings;
- Collect and challenge Programme or Project Initiation Requests and Business Cases to improve their quality and assign the candidate investment to a specific portfolio;
- Support strategy communication in the organisation;
- Consolidate resource demand & supply, identify gaps and over-allocation;
- Collect, maintain, and monitor macro information regarding programmes and projects supporting portfolio analysis and populating management dashboards;
- Support the Portfolio Managers (PfM), Portfolio Steering Committees (PfSC) and Portfolio Directing Group (PfDG) in their portfolio management activities;
- Maintain the Portfolio Repository (master data, access management, configuration, custom reports, etc.);
- Analyse Programme and Project-End Reports to improve portfolio, programme, and project management processes and artefacts;
- Assure the PM²-PfM methodology is appropriately applied to all projects and all project work is executed under project governance;
- Give governance directives to the Project Support Office(s) (PSO) and work with them to improve processes, methodologies and tools supporting portfolio management;
- Propose portfolio framework improvements to the Portfolio Directing Group (PfDG).

RAM (RASCI) — Responsibility Assignment Matrix

RASCI (pronounced 'rasky') is also known as the Responsibility Assignment Matrix (RAM) and represents and clarifies the roles and responsibilities for an activity. RASCI stands for:

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

This PM²-PfM guide includes a RAM (RASCI) table for each Portfolio Management activity of all the Portfolio Management processes, as well as for each artefact produced.

As an example, the RAM (RASCI) for the roles involved in creating the Portfolio Management Framework Definition is shown below:

Activity	PfDG	PfSC	PfM	PfSO
Portfolio Management Framework Definition	A	C	C	R

PfDG Portfolio Directing Group
PfSC Portfolio Steering Committee
PfM Portfolio Manager
PfSO Portfolio Support Office

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5 Portfolio Management Framework Definition

Define the portfolio structure, characteristics, and metrics, together with the portfolio processes, governance bodies, and responsibilities, to have a complete portfolio management framework. The portfolio framework needs to be tailored to the organisation's specific needs and must be reviewed from time to time to address the organisation's evolving needs.

The definition of the portfolio framework is usually performed at the start of a portfolio management implementation in an organisation. It should be reviewed later periodically.

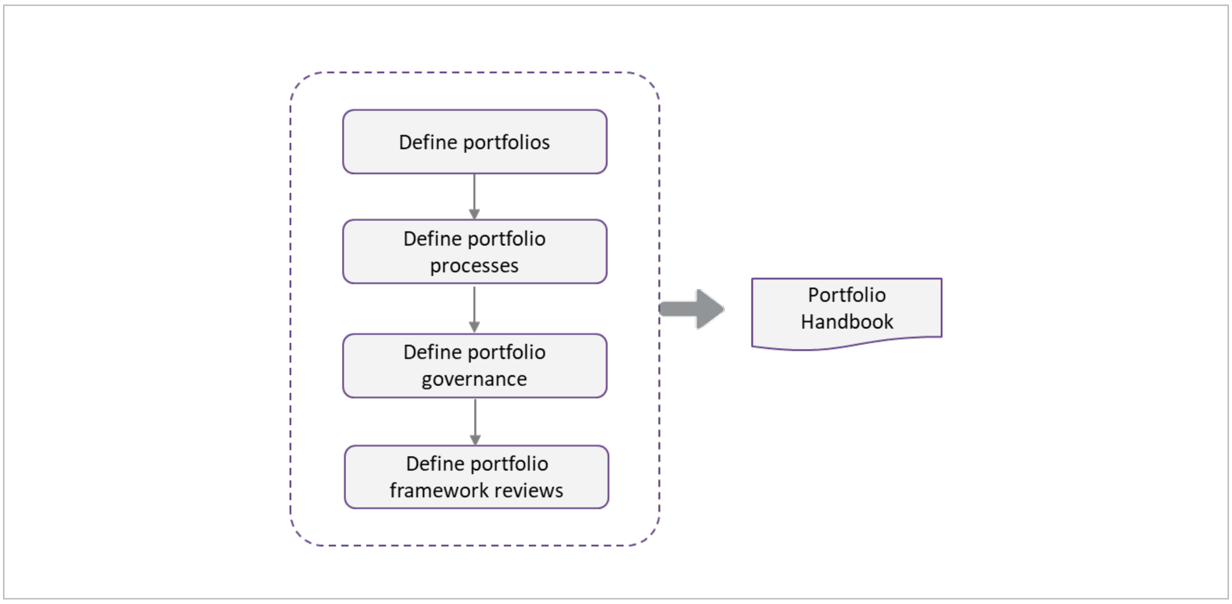

Fig 5.1 Portfolio Management Framework Definition activities and artefacts

Tailoring PM²-PfM

Some level of tailoring and customisation may be required to ensure that the PM²-PfM Methodology effectively serves the specific organisation's portfolio management needs.

Tailoring refers to changes to specific parts of the methodology (e.g., processes, roles & responsibilities, etc.). Considering existing governance bodies, management processes, policies, and culture, customising the methodology to the organisation's needs is highly recommended. All tailoring should be documented in the Portfolio Handbook.

The following guidelines must be considered for all tailoring:

- Significant deviations from the methodology should be avoided, as the methodology was designed as an integrated whole;
- There should be a balance between the levels of control a portfolio needs and the extra effort the management requires;
- The tailored approach should remain aligned with the spirit of the PM²-PfM Methodology as reflected in the roles and responsibilities, processes, artefacts, guidelines, and mindsets.

5.1 Define Portfolios

The first activity when implementing portfolio management is to define the structure of portfolios. The original definition will occur only once but is regularly reviewed if the needs of the organisation changes.

In small organisations with limited investment capacity, a single portfolio might be sufficient in larger organisations where a substantial number of projects and programmes exist. In this case, it is beneficial to group these elements in several portfolios. Doing so will improve management oversight and facilitate the portfolio composition and realisation processes. Consequently, each portfolio will have specific and unique characteristics. Factors to consider when grouping programmes and projects into a portfolio structure are:

- Who are the decision-makers?
- What is the funding source?
- Who are the customers or target audience?
- What is the concerned business domain?

- What are the types of projects? (i.e., New Capabilities, Efficiency Improvements, Regulatory Compliance, etc.)
- What is the project duration compared to the average durations of the portfolio components? (relatively short, medium, long term)
- Are there dependencies with other portfolio components?

Portfolio characteristics

Multiple characteristics can be used to better define a portfolio and there is no best approach. It depends on the nature and environment of the organisation. The purpose of these characteristics is to assign future programmes and projects to the correct portfolio during the Portfolio Composition activities to facilitate decision making and delivery of the portfolio. Size, duration, and cost thresholds are specified in the PM² project definition and should contribute to this selection.

Optionally, one can define specific project categories to detail the portfolio into further sub-portfolios. Project categories provide alternative portfolio views and assess if the portfolio contains a well-balanced mix of projects.

Portfolio metrics

Defining evaluation criteria for the portfolio allows for an objective, sufficient and comprehensive evaluation of programmes/projects to facilitate prioritization. Standards should apply to every portfolio component. Some examples of criteria are:

- Alignment with the strategic goals;
- Value creation (business, political, administrative, governance, social, user, etc.) measured by financial and non-financial indicators: net present value, payback period, quality, efficiency, usability, etc.;
- Resource usage (financial and human);
- Strategic risk influence: risk mitigation by accomplishing this project or increased risk in not executing a project
- Realisation risks: new technology, lack of experience, impact on critical business processes
- Level of necessity and urgency (external and internal demand);

It is recommended to add a scoring scale to each criterion. Additionally, one should define each step on the scale so that it is clear how to score a criterion. If a weight is assigned to each criterion, consider its relative importance.

Be aware that when components need to be evaluated and compared between different portfolios, the evaluation criteria must be the same.

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Define portfolios	**A**	n/a	C	**R**

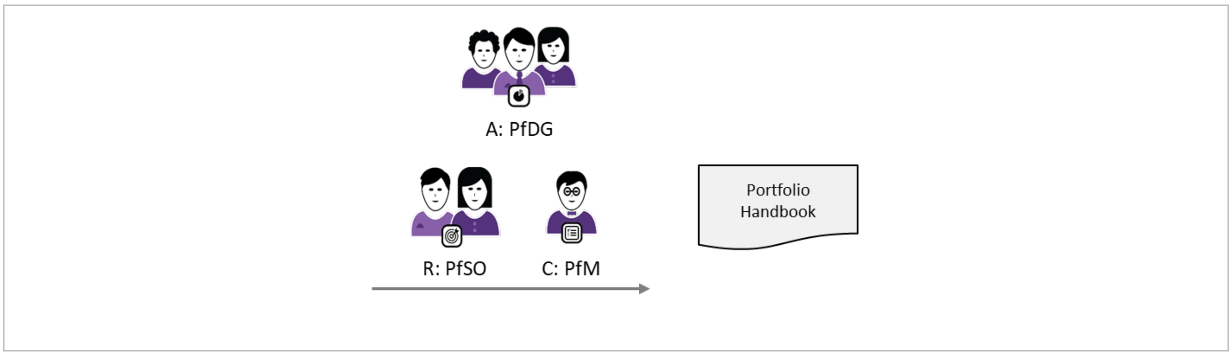

Fig 5.2 Define portfolios – Input/output and principal roles

5.2 Define Portfolio Processes

It is necessary to define the processes to compose and manage the portfolio as well as engage portfolio stakeholders. The latter two processes are executed continuously throughout the existence of the portfolio, but the composition of the portfolio is usually recurrent.

Logically, the selection of new programmes or projects is primarily aligned to the organisation's budgetary cycle, which is often based on a calendar year. Another factor is the organisation's ability to absorb new investments and the nature of the projects within the portfolio. For example, shorter duration projects require a more frequent selection process than long-duration projects. It is recommended to plan a review of the portfolio composition mid-way through the financial cycle to assess if the portfolio needs to be adjusted for the second half.

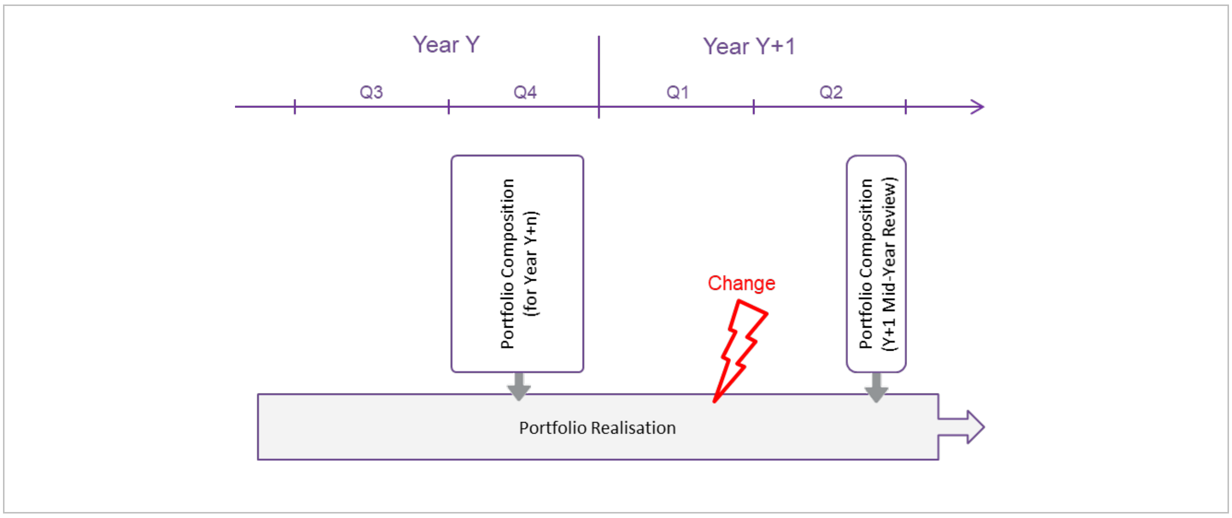

Fig 5.3 Portfolio Composition – Example of a calendar year based budgetary cycle

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Define portfolio processes	**A**	n/a	C	**R**

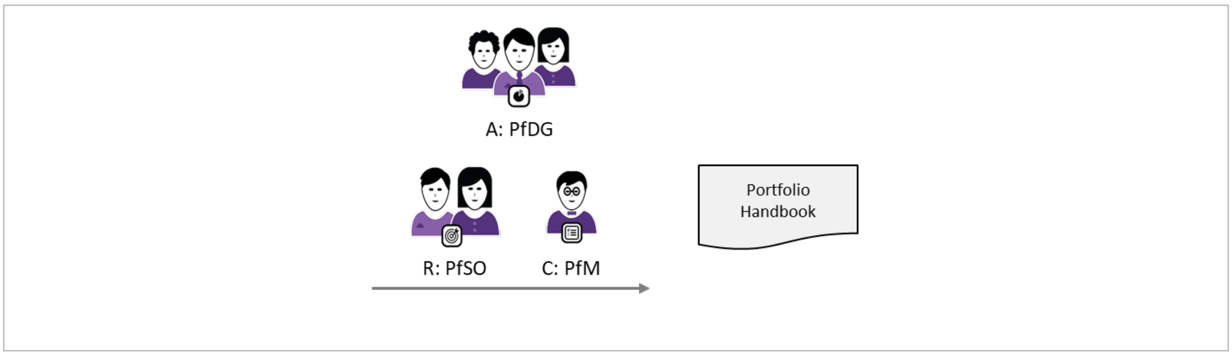

Fig 5.4 Define portfolio processes – Input/output and main roles

5.3 Define Portfolio Governance

Another crucial step is the composition of necessary governance bodies and their linkage to the current portfolio structure. Existing management committees can also perform the governance roles if the responsibilities are clearly defined and communicated.

Once the composition has been determined, process activities must be assigned to different roles and governance bodies.

After this step, a portfolio budget should be established that covers the cost of total portfolio management. Evaluating the number of portfolios, governance bodies, and support offices defined in the framework will help determine this amount. This budget should cover the running cost of all portfolio management activities.

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Define portfolio governance	**A**	I	C	**R**

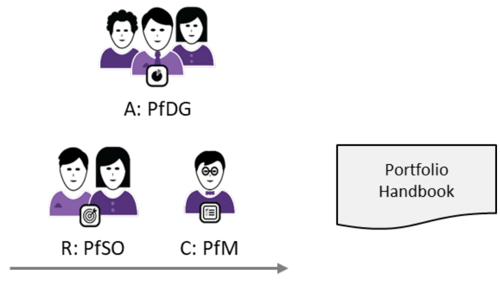

Fig 5.5 Define portfolio governance – Input/output and main roles

5.4 Define Portfolio Framework Reviews

It is necessary to define when the framework should be reviewed to evaluate its performance and effectiveness within the organisation. One can use lessons learned regularly to set up improvement actions and adapt the framework to maximise its efficacy while minimising the administrative burden.

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Define portfolio framework reviews	**A**	I	C	**R**

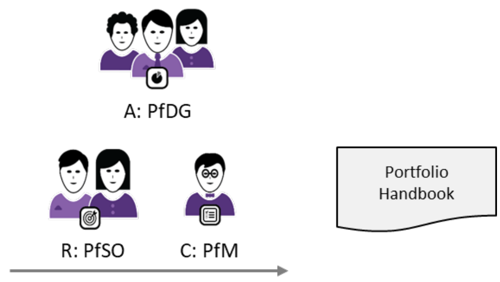

Fig 5.6 Define portfolio framework reviews – Input/output and main roles

6 Portfolio Composition

The Portfolio Composition process contains the activities to evaluate programme and project candidates and takes investment decisions and allocate resources. These are recurrent activities that are performed typically a few times per year, depending on the needs and flexibility of the organisation.

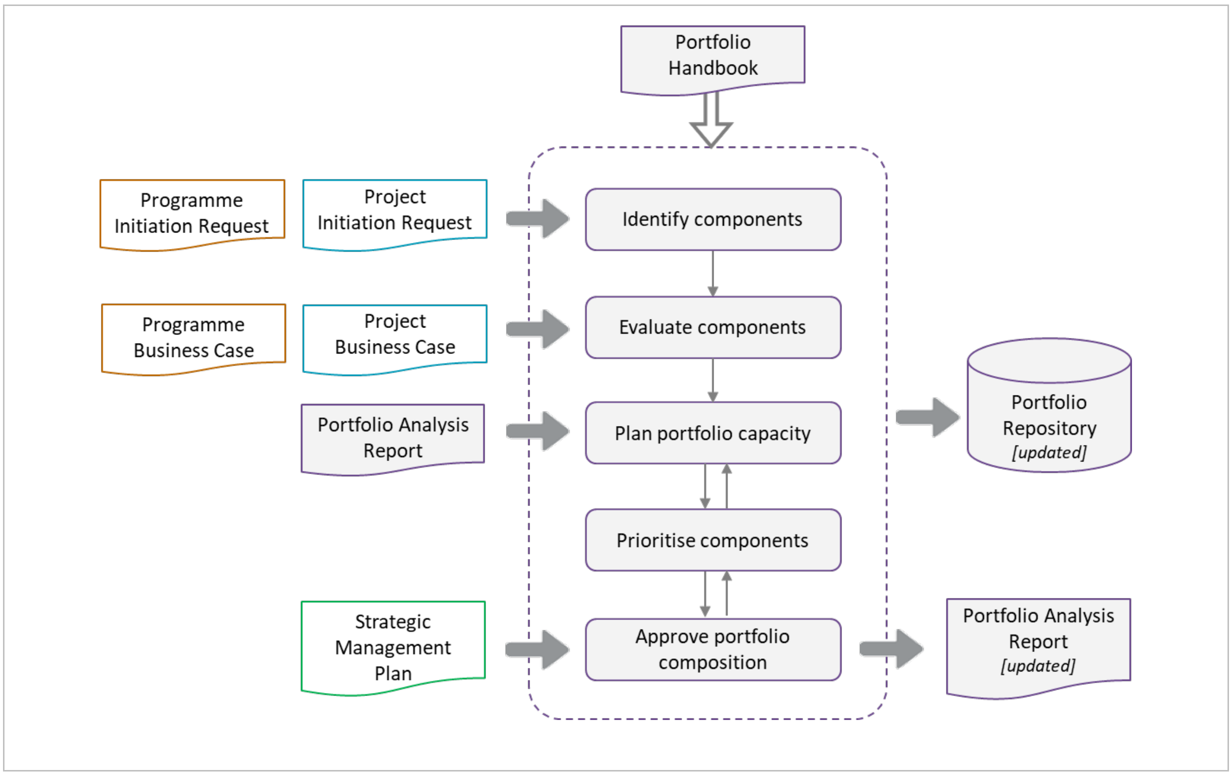

Fig. 6.1 Portfolio Composition activities and artefacts

6.1 Identify Components

The identification of portfolio components involves collecting all existing and proposed programmes or projects that are candidates for a portfolio. Additionally, the Portfolio Manager (PfM) needs to collect relevant and sufficient information concerning each candidate to support an initial pre-selection. This technique will provide the list and description of the candidates of a portfolio. As a result of these selection process, existing components could be stopped even if prior approval was given thus excluding candidates that don't comply with the portfolio characteristics.

Candidate components have several characteristics to consider, such as implementation risk, complexity, security-related, or innovation. Components sharing the same value for one or more attributes belong to the same category. Categorisation helps the portfolio decision-makers compare candidates and verifies if the portfolio contains a well-balanced mix of programmes and projects. Specific criteria defined for each type will support the selection, prioritisation, and optimisation process.

Guidelines

- **Document all component candidates:** Collect candidates' information using the Programme or Project Initiation Request, which are comparable.
- **Compare all candidates with portfolio objectives and category characteristics:** Compare candidates to pre-defined criteria using methods such as questionnaires that may indicate a portfolio and category. Assign the candidate to the correct portfolio.
- **Identify the relationships amongst candidates:** Identify the relationships between candidates for understanding the interdependencies between them. The Portfolio Manager (PfM) should be able to understand the impact of eliminating a candidate on the others.
- **List all candidates:** Filter the candidates compliant with the portfolio objectives and characteristics. Create an inventory considering "excluded" and "proposed" candidates.

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Identify components	I	**A**	C	**R**

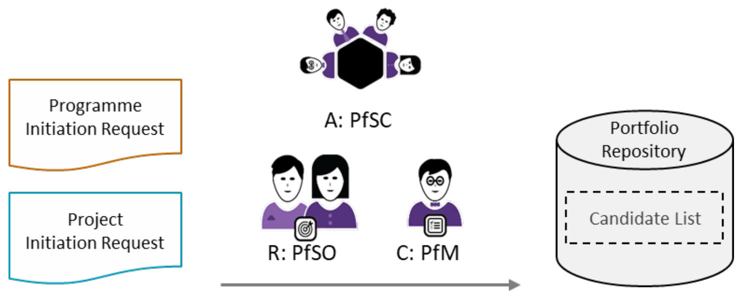

Fig. 6.2 Identify components - Input/output and main roles

6.2 Evaluate Components

The evaluation of component candidates is based on the selection criteria defined in the Portfolio Handbook. It allows the comparison of potential candidates using relative scores.

The Portfolio Manager (PfM) should consider qualitative information from different sources to have a complete view of the candidate component's interdependencies, synergies, benefits, and impact on the organisation.

After evaluating and scoring the candidate component, the Portfolio Manager (PfM) creates a summary of the evaluation with selection recommendations. However, despite a candidate component's perceived value, the selection process may be constrained by available resources (human resources and funding).

This process scores the candidate components based on the pre-defined scoring model and supports decision-making via graphical representations and qualitative evaluations. The Portfolio Manager (PfM) will recommend (acceptance or rejection) candidate components for further prioritisation.

Guidelines

- **Evaluate each candidate versus portfolio selection criteria:** Analyse the candidate components. Assess them against the portfolio selection criteria defined in the Portfolio Handbook, such as alignment with the strategic objectives, value creation, resources usage, strategic risk influence, realisation risk, level of necessity and urgency.
- **Score each candidate:** Assign a relative score to each candidate component based on the scoring model defined in the Programme Business Case and Portfolio Handbook.
- **Evaluate each candidate's business case:** Analyse and compare the business cases of the candidates based on common variables, such as Net Present Value (NPV), payback period, etc.
- **Create an overall portfolio view:** Visualise the impact of each candidate on the portfolio. Understand how dependent components are impacted and identify the changes required to make them fit together in the portfolio. Perform a qualitative analysis of the proposed solutions considering all the variables.
- **Summarise evaluation results:** Update the Portfolio Repository with the results of the evaluation.

Tools & Techniques

- Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis
- Cost-Benefit Analysis (CBA)

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Evaluate components	I	**A**	**R**	S

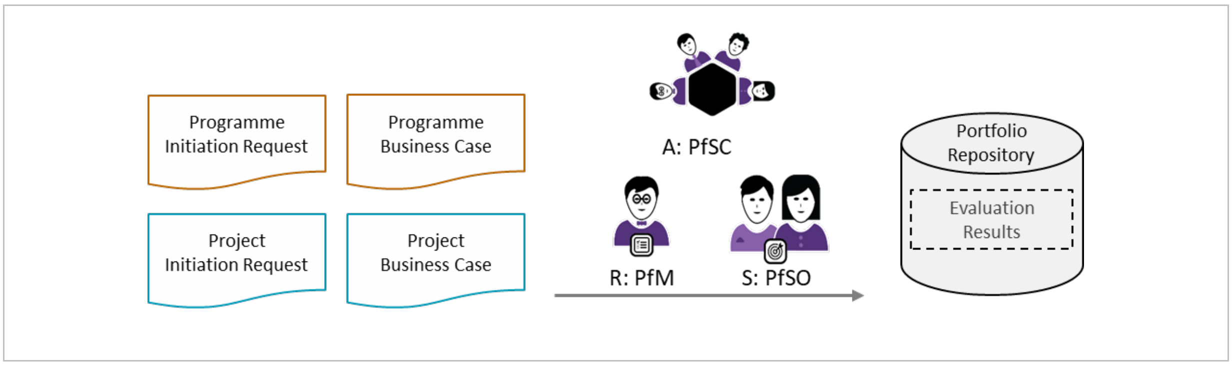

Fig. 6.3 Evaluate components - Input/output and main roles

6.3 Plan Portfolio Capacity

Independently of the value of each candidate component, the Portfolio Manager (PfM) should perform an analysis of the capacity of funding, human resources and assets needed to realise this component within the portfolio. This analysis will determine to which extent portfolios may be constrained by the organisation's capacity.

This process will use the organisation's resources inventory and plans to evaluate the available resource capacity. The Portfolio Repository can be used to forecast the future resources demand across the portfolio. Consider the resource usage of the existing components along with new demands or requirements.

Guidelines

- **Evaluate availability of funds:** Analyse the approved funds' commitments and the current spending within the portfolio. Understand the funding needs and determine the different options and impacts on the expected benefits. The Portfolio Manager (PfM) may use "what-if" analyses to determine the best scenario.
- **Analyse human resources workload and competencies:** Understand the current and future human resources workload within the portfolio. Identify key human resources and competencies and evaluate their contractual arrangements to cover short- and medium-term needs.
- **Identify missing competencies or conflicts** between the needs and plan how these needs will be satisfied. In-sourcing and out-sourcing strategies may be evaluated for this purpose.
- **Estimate current and upcoming demand of other assets:** Identify the current and forthcoming needs of the different assets within the portfolio, such as information systems, services, communications, equipment, and logistics. Verify conflicts and synergies between resources using capacity what-if scenarios and evaluate which strategy will be more efficient.
- **Develop the Portfolio Resources Capacity Plan (as part of the Portfolio Analysis Report):** Document the high-level funding and sourcing strategies and identify the main requirements for human resources and other portfolio assets. Consider skills, training, availability, dependencies, succession/continuity, and estimated costs for the period under analysis (estimations may predict a five-year time horizon). Additionally, define backup plans for the significant identified risks related to resources. The Portfolio Manager (PfM) may consider a risk reserve to be included in cost estimations. Propose the Portfolio Resources Capacity Plan for approval to the Portfolio Steering Committee (PfSC).

Tools & Techniques

- Portfolio Repository
- What-if Scenario Analysis
- Capacity Analysis

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Plan portfolio capacity	I	**A**	**R**	S

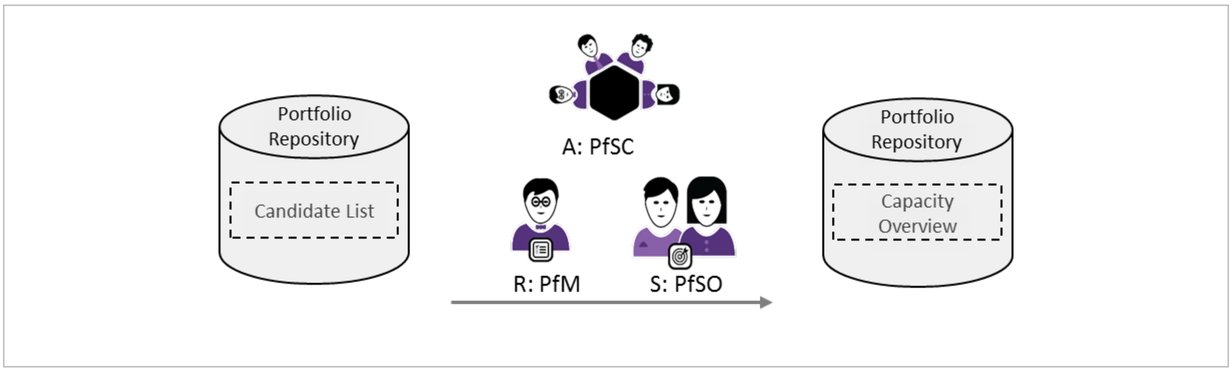

Fig. 6.4 Plan portfolio capacity - Input/output and main roles

6.4 Prioritise Components

Now that candidate components have been evaluated through the evaluation technique, and the Portfolio Manager (PfM) has also considered portfolio risks and the availability of resources, all elements are present to prioritise the component requests. The purpose is to develop a prioritised list as a proposal for approval. This process could take multiple iterations of several simulation exercises and adapting the priorities until a realistic proposal has been established.

Guidelines

- **Rank candidate components based on evaluation scoring:** Calculate the weighted total evaluation score based on the scores of each criterion and pre-defined weights. Apply a preliminary ranking based on this weighted total in descending order (maximum score is the preferred candidate).
- **Refine prioritisation:** Adjust the preliminary ranking by considering other elements in the evaluation summary, like hard deadlines, dependencies, opportunities, synergies, etc. Consider the balance between benefits and portfolio risks and refine the prioritisation to best fit the organisation's strategic objectives and risk appetite. Use probability and what-if analyses and other portfolio graphical visualisations to support the analysis of the several dimensions for prioritisation and resources allocation. Usually, there is more than one solution possible, and it might take several iterations to evaluate alternative solutions through capacity planning before finalising the prioritisation.
- **Propose portfolio funding and resources allocation as a result of prioritisation:** List the prioritised optimal mix of investments that will be the proposal for funding and resources allocation. Support the request with the rationale and recommendations for decision-making (approval, rejection, postpone).

The Portfolio Manager (PfM) discusses the proposal with the Portfolio Steering Committee (PfSC) before the Portfolio Directing Group (PfDG) is requested to approve it.

Tools & Techniques

- Project Prioritisation Matrix
- Value versus Complexity Matrix
- What-If Scenario Analysis
- Bubble diagram

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Prioritise components	**A**	C	**R**	S

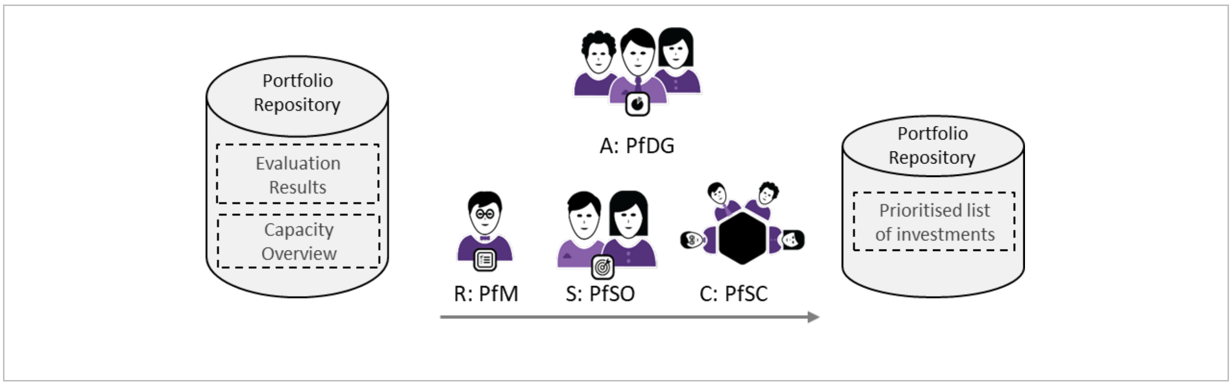

Fig 6.5 Prioritise components – Input/output and main roles

6.5 Approve Portfolio Composition

The Portfolio Manager (PfM) presents a summary of the evaluations and recommendations for components within the portfolio, approved by the Portfolio Steering Committee (PfSC), to the Portfolio Directing Group (PfDG) for decision-making. Based on this decision, the allocation of funds and resources to the portfolios and their components is performed through the organisation's approval workflow.

Guidelines

- **Request candidate components approval and funding allocation:** Communicate the evaluation summary of the candidate components to the Portfolio Directing Group (PfDG). Present an overview of the proposed investment mix, stating the portfolio objectives, expected benefits, risk level, synergies, and dependencies. Propose decisions based on this analysis.
- **Decide on the candidate components:** Based on the evaluation results and in line with the strategic management plan, the Portfolio Directing Group (PfDG) decides about each candidate component. Decisions may include approval, rejection, suspension (subject to some reformulations or postponed in time) or deactivation of a component. This activity will allocate funds and resources to the approved investments (i.e., new funding or reallocated funds from terminated or deactivated components).
- **Update Portfolio Repository:** Reflect the approved components in the Portfolio Repository and remove the deactivated/terminated ones. Document decisions and related comments and allocate resources to each component accordingly. The allocation of funds should be performed per milestones/stage-gates, considering the component's entire lifecycle.
- **Communicate decisions to portfolio stakeholders:** Document the portfolio decisions and communicate them to the concerned stakeholders. Communications should include the evaluation summary, the decision statement and any comments, conditions, or necessary actions to be undertaken.
- **Communicate expected results, reviews, and metrics for each portfolio:** For the approved components, communicate which information is expected to be provided for monitoring purposes, define the frequency and planned reviews. Also, ensure that stakeholders are aware of the portfolio objectives, risks, interdependencies and the methodologies, templates, and tools available for component monitoring and reporting.

Tools & Techniques

- Portfolio Analysis Report

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Approve portfolio composition	**A/R**	I	C	S

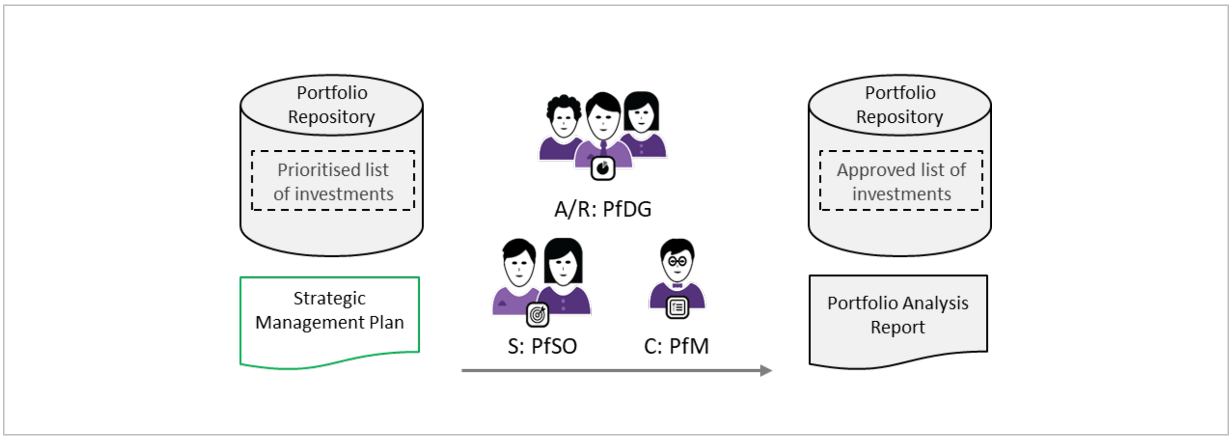

Fig 6.6 Approve portfolio composition – Input/output and main roles

7 Portfolio Realisation

The Portfolio Realisation process is about monitoring and controlling the performance of the portfolio towards realising the objectives in line with the strategic plan. Although the portfolio components have a temporary nature, the portfolio realisation activities are continuously performed on the portfolio level.

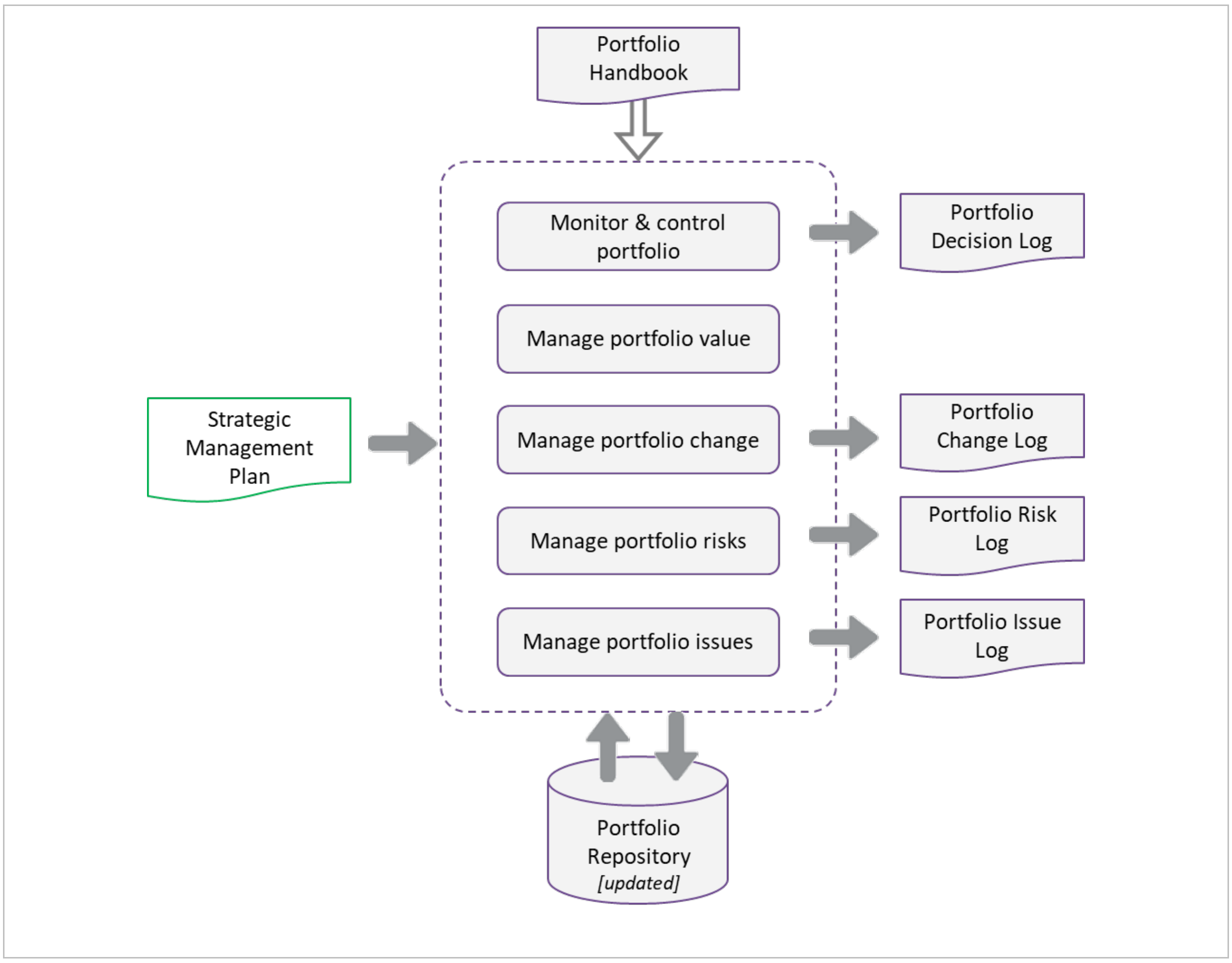

Fig. 7.1: Portfolio Realisation activities

7.1 Monitor & Control Portfolio

Portfolio monitoring includes the periodic collection and analysis of component status information and performance indicators to assess individual and the whole portfolio performance. The Portfolio Manager (PfM) should review any changes to components that may impact the intended objectives and propose any adjustments to them to ensure strategic alignment.

Guidelines

- **Collect information from current components**: Ensure regularly collecting the component status information, performance indicators, and other metrics. This activity may be supported by an information system or consolidated manually, using the status reports issued by the individual components.
- **Analyse portfolio performance**: Review component data such as achievements, cost and schedule performance, changes, risks, issues, and the status of the planned actions. This information is consolidated in a dashboard to provide an overview of the portfolio performance and help the Portfolio Manager (PfM) define appropriate recommendations/actions.
- **Recommend adjustments**: Assess any deviation from the component's baseline and the portfolio objectives. Understand the impact of these deviations on the overall portfolio. Benchmarking and past trends analysis may be useful when assessing deviations.
- **Identify corrective actions**: Verify if any deviations in the component may require additional actions at the portfolio level and propose those to the Portfolio Steering Committee (PfSC).

Propose components for early termination if they consistently perform poorly or if the conditions under which they were initiated no longer apply.

- **Communicate decisions**: Document and communicate the recommended actions to the concerned Programme Manager (PgM) or Project Manager (PM). Ensure that the evaluation of the status of the planned actions is included in the stage-gate reviews.

Tools & Techniques:

- Balanced Scorecard

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Monitor and control portfolio	**A**	S	**R**	S

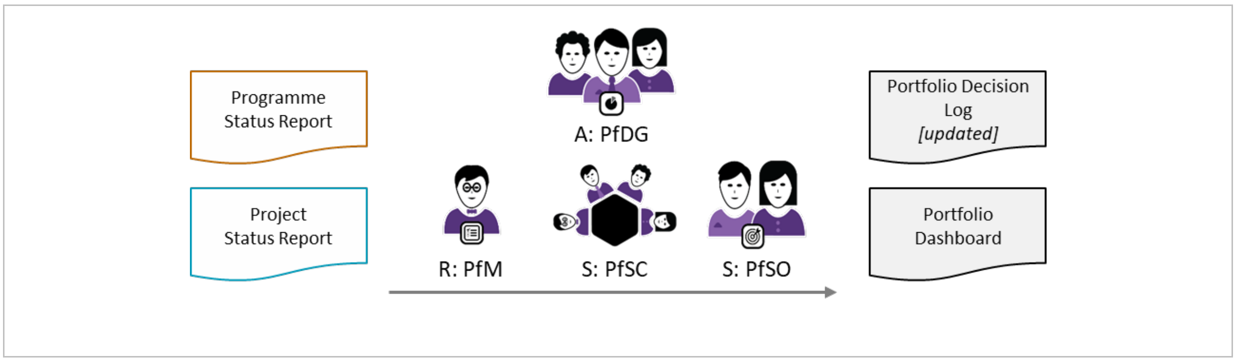

Fig 7.2 Monitor and control – Input/output and main roles

7.2 Manage Portfolio Value

Monitoring the achievement of intended benefits provides the necessary information to determine if the desired value is obtained through the current mix of investments. This allows one to proactively act upon any decrease in portfolio performance or deviation from the organisation's objectives.

The Portfolio Manager (PfM) should monitor the achievement of benefits related to the strategic objectives on a regular basis.

Guidelines

- **Define the benefits to be managed**: Several benefits can be derived from the strategic objectives for the organisation. Determine how the performance of each benefit is going to be measured, usually by translating them into one or more Key Performance Indicators (KPIs). Set the target goal for each KPI and establish the benchmark value.
- **Gather necessary data**: Collect benefits information throughout programmes and projects lifecycles and during operations, using the agreed-on metrics (KPIs).
- **Evaluate & track the achievement of the benefits:** Periodically evaluate the progress on achieving the goals and identify deviations. Several tools & techniques may be used for this purpose, such as benchmarking, analysis of past trends and a benefit tracking matrix.
- **Remediate significant deviations**: Analyse the root cause of significant deviations and determine the required actions. Analyse who should be involved and coordinate the development of the action plan with them. Guarantee that effort is precisely estimated and within resources/funding capacity.
- **Inform stakeholders**: Communicate the progress on achieving the benefits to stakeholders, for example, utilising a dashboard.

Tools & Techniques

- Benefit Tracking Table

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Manage portfolio value	**A**	S	**R**	S

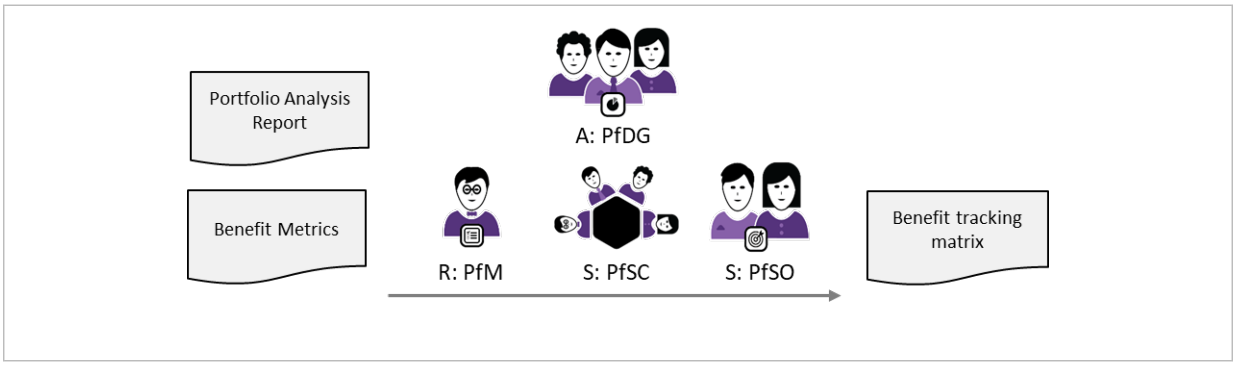

Fig 7.3 Manage portfolio value – Input/output and main roles

7.3 Manage Portfolio Change

Portfolio change management deals with changes in the environment external to the portfolio and changes escalated from the component level.

Changes that influence the portfolio composition (i.e., emerging project candidates outside of the regular composition cycle, eliminating projects due to early termination, etc.) should be addressed via the portfolio composition process.

However, one caveat is that reshuffling the resources from one component to another is not considered a portfolio composition change. Portfolio component reorganisation does not affect the collection of the portfolio itself.

Guidelines

- **Identify changes in the portfolio's environment**: The Portfolio Manager (PfM) should be aware of any change in the portfolio's environment that could impact the portfolio's performance or reasons for the existence of one or more of its components. This could also involve changes in the organisation's strategy, objectives, or structure.
- **Assess escalated component changes**: The Portfolio Manager (PfM) should assess the impact of escalated component changes on other elements in the portfolio. Consider such dependencies in terms of resources, deliverables, or schedules.
- **Recommend changes and coordinate actions implementation**: Recommend remediation actions to avoid or reduce the impact of the change. Discuss and agree on the required actions with the relevant stakeholders and request approval to allocate funds and resources.
- **Log portfolio changes**: The Portfolio Change Log, which serves as a single reference, should be used to document portfolio changes and actions. When documenting the required actions, the action owner should detail necessary steps, such as deliverables, cost, timescale, and resources.
- **Inform management of the portfolio changes**: Communicate changes to the Portfolio Directing Group (PfDG) to provide a clear understanding of the impact of the changes on the components and on the portfolio objectives, characteristics, and metrics.
- **Monitor portfolio change implementation**: Monitor the implementation of the remediation actions and evaluate their implementation status and whether these actions bring the expected results and agree on a predefined monitoring frequency.

Tools & Techniques

- PESTLE analysis

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Manage portfolio change	I	**A**	**R**	S

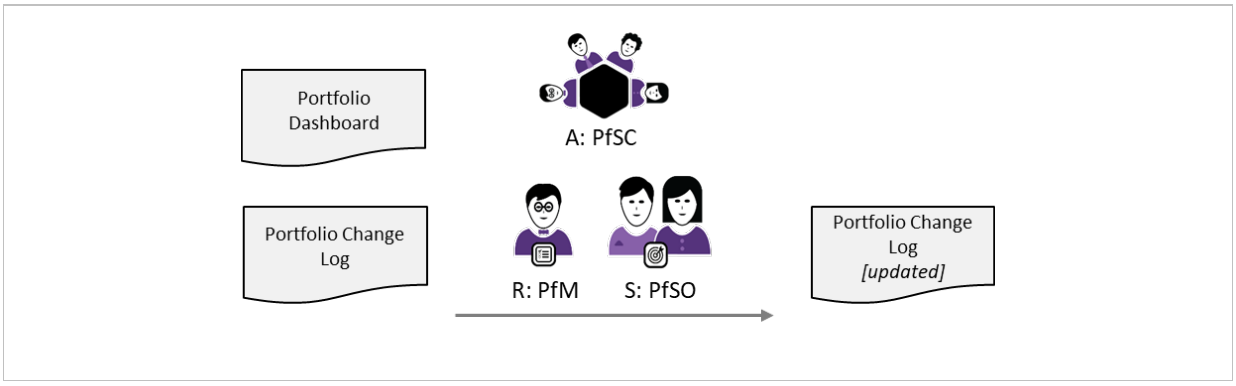

Fig 7.4 Manage portfolio change – Input/output and main roles

7.4 Manage Portfolio Risks

A portfolio risk is an uncertain event or set of events (with either positive or negative effects) that, should it occur, will influence the achievement of the portfolio objectives. Portfolio risk management techniques concern the systematic identification, assessment, and management of risks in line with the accepted portfolio risk levels, carried out to provide reasonable assurance concerning the achievement of the portfolio objectives.

Portfolio risks are related to how the portfolio is composed (including dependencies) and risks that are escalated from components when affecting the portfolio objectives. The latter are usually related to scope, cost, and scheduling constraints. The Portfolio Manager (PfM) should pay special attention to the combination of the individual component risks, leading to potential new portfolio risks.

Guidelines

- **Identify portfolio risks**: Identify portfolio risks using the tools and techniques that best suit the organisation (i.e., past trends and future exposure analysis, desk reviews, questionnaires, interviews, brainstorming and workshops) and document them in the Portfolio Risk Log.
- **Assess portfolio risks**: Assess portfolio risks considering the likelihood and impact of the identified risks on the portfolio objectives. Evaluating the likelihood and impact defines the Risk Level. The Portfolio Manager (PfM) may use a Risk Assessment Threshold Matrix to estimate the portfolio risks. The Portfolio Manager (PfM) should also consider the level of risk the organisation is prepared to accept (Risk Appetite) while analysing the possible risk response strategies for each portfolio risk.
- **Develop portfolio risk response**: Select a risk response strategy based on the risk assessment results and the cost/benefit analysis. Document the selected strategy and specify the risk response actions and owners, detailing the activities, milestones, expected outputs and target implementation dates.
- The Portfolio Manager (PfM) should also support the risk response actions by financially estimating the resources involved.
- **Communicate the portfolio risks**: Periodically report the most critical risks to the Portfolio Directing Group (PfDG).
- **Monitor and evaluate portfolio risks**: Continuously monitor the portfolio management environment, identifying new risks or changes to those already identified. The Portfolio Manager (PfM) should revisit the Portfolio Risk Log on planned intervals or on the occurrence of any event that might have a significant impact on the portfolio environment. The Portfolio Manager (PfM) should also update the status of the risk response implementation regularly.

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Manage portfolio risks	I	**A**	**R**	S

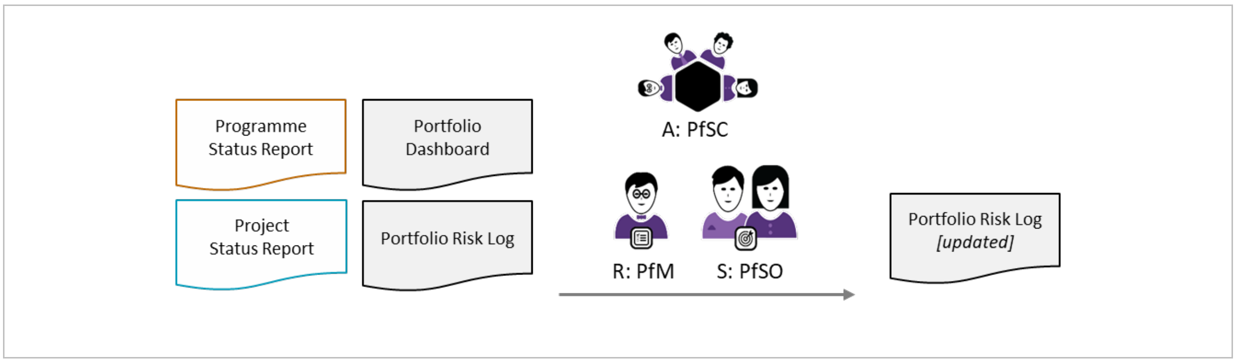

Fig 7.5 Manage portfolio risks – Input/output and main roles

7.5 Manage Portfolio Issues

A portfolio issue is an unplanned event that has an impact on the achievement of the portfolio objectives. This event might be a risk that materialised, an external factor or something unforeseen that happened in one of the components.

The Portfolio Manager (PfM) should identify new portfolio issues as they occur and assess their urgency and impact. Depending on the effort needed to resolve the issue, the Portfolio Manager (PfM) will recommend taking action or escalating to the Portfolio Directing Group (PfDG).

Guidelines

- **Identify portfolio issues**: Identify any portfolio issue as it occurs and document it in the Portfolio Risk Log. Possible sources are component status reports, meeting minutes, emails, or any other form of direct communication.
- **Assess portfolio issues**: Examine the issue and identify the root cause. Propose corrective or preventive actions so that the issue is resolved. Escalate to the Portfolio Directing Group (PfDG) if the issue is not resolved on the portfolio level. Related decisions should be documented in the Portfolio Decision Log.
- **Communicate portfolio issues**: Inform the Portfolio Directing Group (PfDG) periodically on the status of the most critical issues and their resolution.
- **Monitor action implementation**: Regularly monitor if the actions implemented have the desired result. Update the issue status in the Portfolio Issue Log accordingly.

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Manage portfolio issues	I	**A**	**R**	S

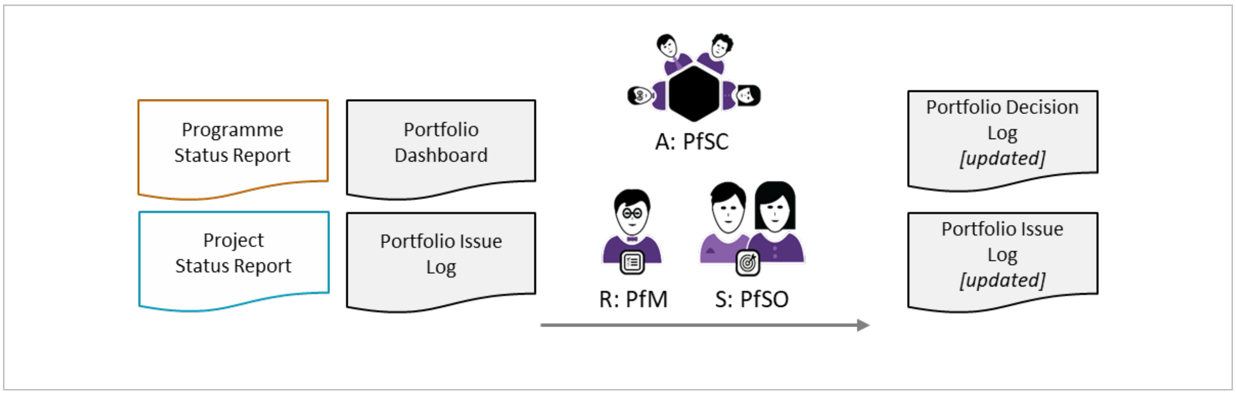

Fig 7.6 Manage portfolio issues – Input/output and main roles

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8 Stakeholder Engagement

The Portfolio Stakeholder Engagement process identifies and analyses the portfolio stakeholders and manages their expectations. The purpose is to develop a consistent method of communication with the portfolio stakeholders and detail the purpose, frequency and create a distribution list of each portfolio communication or report in a Portfolio Communication Plan. The main activities are shown in the figure below.

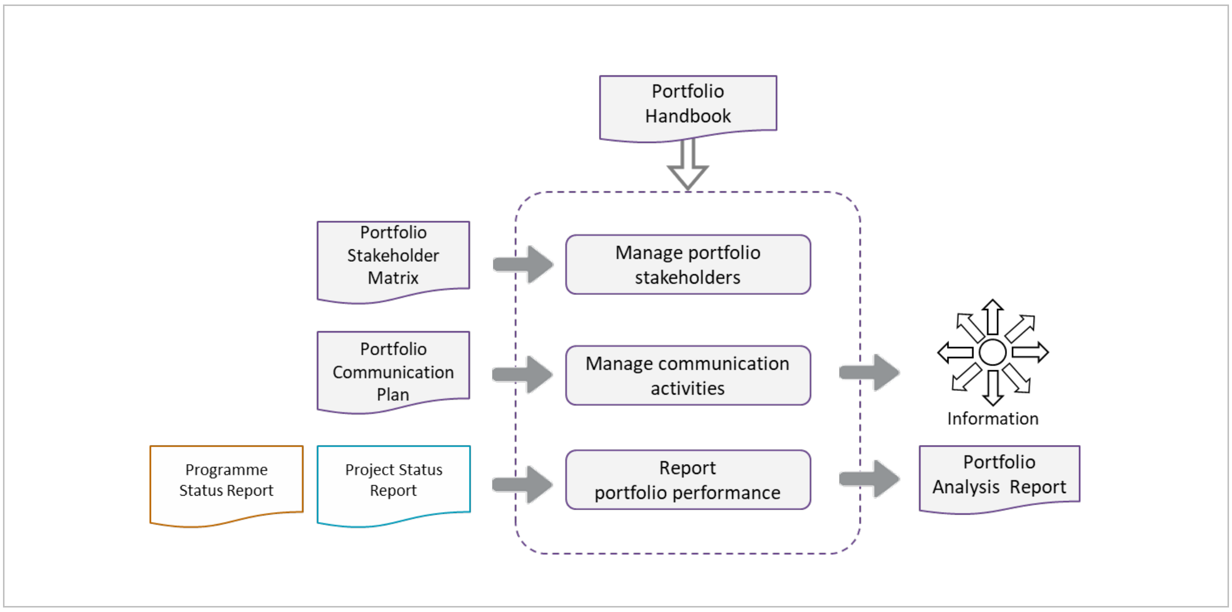

Fig 8.1 Stakeholder Engagement activities

8.1 Manage Portfolio Stakeholders

Managing portfolio stakeholders is an important portfolio management activity to involve the portfolio stakeholders, discover their needs and assure the portfolio realises the intended objectives. The responsibility for this activity belongs to the Portfolio Manager (PfM) in general. However, the Portfolio Steering Committee (PfSC) members should be actively involved in managing the stakeholders of more specific business domains.

Guidelines

- Analyse the expectations, attitudes, level of interest and influence of the key portfolio stakeholders.
- Devise appropriate communication and management strategies with the purpose of achieving stakeholder involvement and contribution.
- Continually monitor how stakeholders react or change their attitudes and strategise or manage accordingly. A one-off analysis exercise is not enough, as portfolios have long lifespans.
- Ensure that each planned stakeholder management activity is time-bound and focused. Keep in mind that the contribution/involvement of the various stakeholders may be different depending on their interests.

Tools & Techniques

- Portfolio Stakeholder Matrix

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Manage portfolio stakeholders	I	**A**	**R**	S

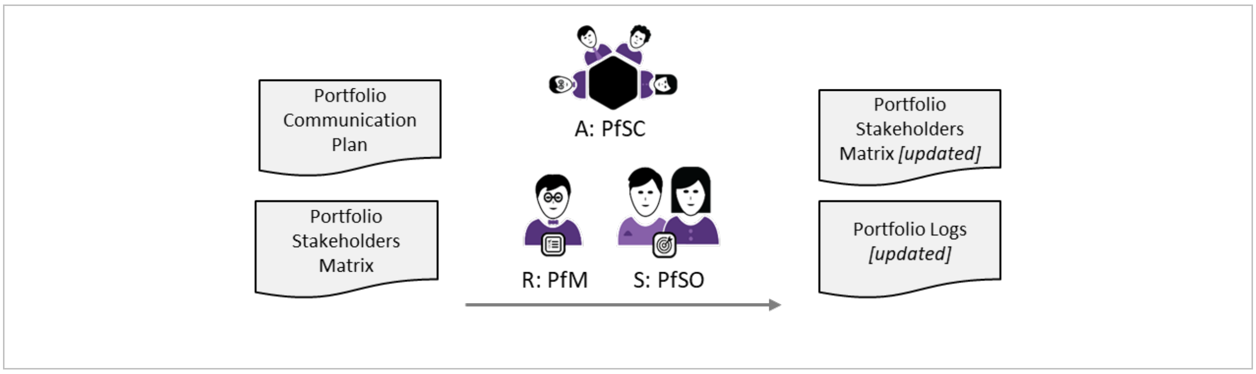

Fig 8.2 Manage portfolio stakeholders - Input/output and main roles

8.2 Manage Portfolio Communication

Planning the communication activities for the portfolio is essential to ensure that the portfolio stakeholders will receive the information they need when they need it. This action is defined in the Portfolio Handbook or a separate Portfolio Communication Plan if a more extensive plan is required.

Distinguish between the different communication activities: meetings (i.e., Portfolio Directing Group (PfDG), Portfolio Steering Committee (PfSC), etc.), report to the portfolio management itself (Portfolio Analysis Report) and related communication activities.

Guidelines

- Identify stakeholder groups and determine what information needs to be communicated to each target group.
- Define all artefacts to collect, analyse & distribute portfolio information, and manage stakeholders' expectations.
- Define the suitable frequency and format of communication adapted to the intended audience.
- Document the communication needs in the Portfolio Handbook (general) or Portfolio Communication Plan (specific) and distribute the information accordingly.

Tools & Techniques

- Portfolio Communication Plan

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Manage portfolio communication	I	**A**	**R**	S

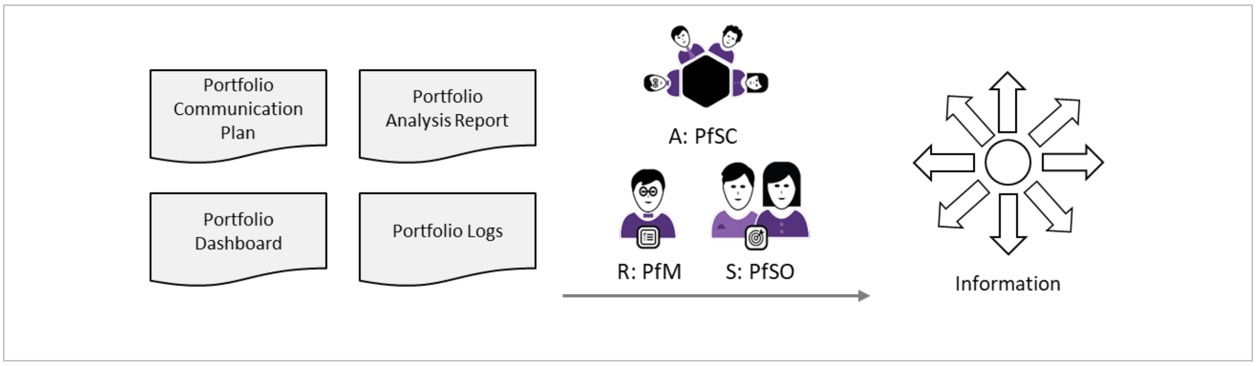

Fig 8.3 Manage portfolio communication – Input/output and main roles

8.3 Report Portfolio Performance

Portfolio reporting aims to provide adequate information to Senior Management to support strategic decision-making. This activity includes gathering and reporting portfolio performance and benefits delivery at a predefined frequency, which helps validate the alignment of investments with the strategy and the effective use of resources.

Guidelines

- **Identify portfolio information to be reported**: Identify all relevant information that must be reported when managing the portfolio and the corresponding stakeholders. Specify the purpose and the target groups.
- **Portfolio reporting may concern the following subjects**:
  - Project request evaluations and approvals
  - Portfolio performance and status
  - Analysis of the current portfolio and progress
  - Portfolio risks
  - Resource capacity plan
  - Portfolio recommendations and actions
  - Portfolio benefits and value additions
  - Portfolio decisions
- **Agree on the report's content, format, and granularity**: For each target group, validate the information to be reported (content and granularity), the format and the frequency.
- **Produce and publish the portfolio reports:** Elaborate and distribute portfolio reports, as agreed with the concerned stakeholders.

RAM (RASCI)	PfDG	PfSC	PfM	PfSO
Report portfolio performance	I	**A**	**R**	S

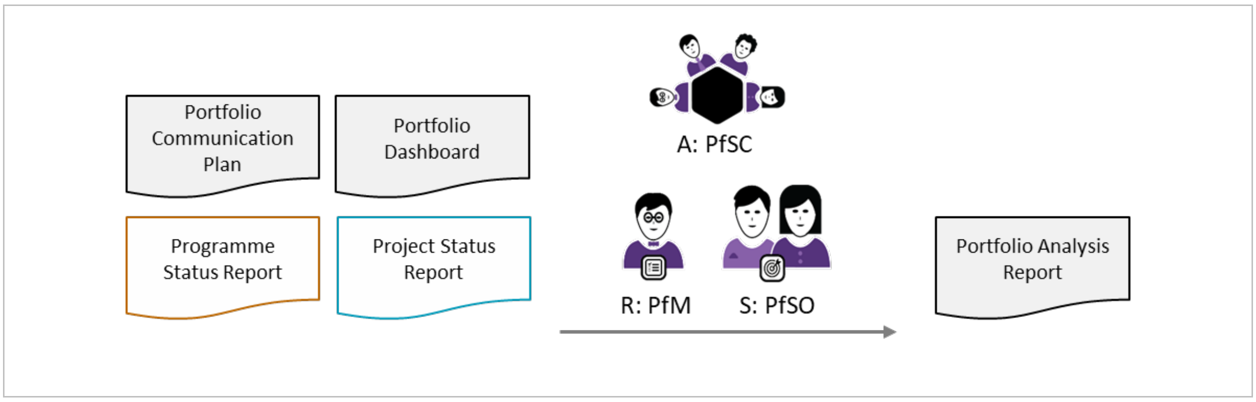

Fig 8.4 Report portfolio performance – Input/output and main roles

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9 Portfolio Artefacts

Portfolio documentation is an essential instrument for planning, reporting and communication during the management of the portfolio. The purpose of portfolio documentation is to:

- Provide all stakeholders with a clear picture of the portfolio's goals and status;
- Facilitate communication with internal and external groups;
- Provide a baseline for monitoring and controlling a portfolio's implementation;
- Document important decisions made;
- Provide the information required by audits;
- Support organisational memory and act as a historical reference which can be used to increase the chances of success of future realisation.

Note that portfolio documentation should, of course, adhere to the organisation's and portfolio's quality standards regarding elements such as format and style. Above all, it should fulfil its purpose, be easily understood, and be user-friendly.

Therefore, one of the critical decisions in setting up the Portfolio Framework is determining which documentation is required. The complexity, the possible risks, and the Portfolio Steering Committee (PfSC) influence this decision. Use the list below or/and add/delete items as per your needs.

Artefact	Responsible	Recipient(s)
Portfolio Handbook	Portfolio Manager (PfM)	All portfolio stakeholders
Portfolio Stakeholder Matrix	Portfolio Manager (PfM)	Portfolio Manager (PfM)
Portfolio Communication Plan	Portfolio Manager (PfM)	Portfolio Steering Committee (PfSC)
Portfolio Analysis Report	Portfolio Manager (PfM)	Portfolio Steering Committee (PfSC), Portfolio Directing Group (PfDG)
Portfolio Logs (Change, Risk, Issue, Decision)	Portfolio Manager (PfM)	Portfolio Steering Committee (PfSC)

9.1 Portfolio Handbook

The Portfolio Handbook summarises the objectives of this portfolio and documents the selected approach for implementing these goals. It highlights the governance structure with the roles and responsibilities, the processes to be used and the corresponding artefacts.

The Portfolio Handbook is an important document since it describes how the portfolio will be managed and is a point of reference for all portfolio stakeholders. It should be kept up-to-date throughout the existence of the portfolio.

Guidelines

- Keep the Portfolio Handbook up-to-date throughout the life of the portfolio.
- Align the selection cycle to the annual strategic planning exercises.

Content

- Portfolio framework
  - Portfolio characteristics
  - Component evaluation criteria
  - Selection frequency and timing
  - Framework revision frequency
- Portfolio objectives
- Portfolio governance roles and responsibilities
  - Responsibilities per role
  - Roles assignment to a specific person in the organisation
- Portfolio management processes

  - Portfolio composition process
  - Portfolio realisation process
  - Stakeholder engagement process

- Portfolio artefacts to be used

9.2 Portfolio Stakeholder Matrix

The Portfolio Stakeholder Matrix is where the critical stakeholders of the portfolio are identified and analysed. It is the basis for stakeholder management and communication activities to assure that stakeholders expectations are answered.

Guidelines

- Identify the portfolio key stakeholders, analyse their expectations, attitude, level of interest and influence;
- Devise appropriate communication and management strategies to achieve stakeholder involvement and contribution;
- Monitor stakeholders' reactions and re-strategise and manage accordingly;
- A one-off exercise is not enough; repeat these steps as necessary.

Content

- Overview of the portfolio stakeholders: name, organisational position, portfolio role
- Influence / impact diagram
- Per stakeholder:
  - Contact details
  - Influence in the organisation and potential impact on the portfolio
  - Interests and expectations
  - Concerns

9.3 Portfolio Communication Plan

When the generic communication guidelines in the Portfolio Handbook are not sufficient, a specific Portfolio Communication Plan can be created. The Portfolio Communication Plan defines and documents the content, format, frequency, audience and expected results. It also describes the communication strategy for each stakeholder, based on their interests, expectations, and influences.

Guidelines

- Determine for each identified portfolio stakeholder group or individual what information needs to be communicated;
- Define all artefacts to collect, analyse and distribute portfolio information and manage stakeholders' expectations;
- Determine the frequency of the communication items;
- Decide on the format and media of the communication (e.g., reports, presentations, meetings, emails, calls) adapted to the intended audience;
- Determine who will be responsible for each communication item and identify the expected result.

Content

- Communication objectives
- Audience to be addressed
- Communication channels and media to be used
- Communication strategy per stakeholder

9.4 Portfolio Analysis Report

The Portfolio Analysis report provides information on the portfolio's composition, its current state, together with a view on the vital portfolio dimensions and their performance. The portfolio's risks are discussed, and recommendations are proposed to improve the portfolio's performance.

The Portfolio Analysis Report is an essential working document that helps the Portfolio Steering Committee (PfSC) and Directing Group (PfDG) to make informed decisions regarding the optimisation of the portfolio.

Guidelines

- Indicate which new candidate projects will be added to the portfolio and which running projects have reached the closing phase. Consider recommending projects for early termination if they continuously perform poorly;
- Indicate the progress made in the running projects and relate it to the business benefits perspective. This information should be based on the project status reports;
- Analyse the global portfolio performance (progress versus budget consumption). Perform root-cause analysis to determine the cause of any deviation to plan. Recommend corrective or preventive actions to optimise the portfolio or to get it back on track.

Content

- Context of the portfolio
- Current portfolio: work completed, work in progress, work to be initiated
- Portfolio Analysis;
  - Components progress summary
  - Portfolio budget performance
  - Portfolio risk assessment
  - Recommendations
  - Decisions to be taken
- Portfolio Dashboard (could also be updated and published as a separate artefact)

9.5 Portfolio Logs

A portfolio has a set of logs to manage its risks, issues, decisions, and change, frequently aggregating escalated items from the project or programme logs. These logs provide an assessment to determine which portfolio components are on track, which need intervention, and which should be cancelled.

Guidelines

- Highlight any significant changes, risks, issues, or decisions currently under evaluation that are likely to significantly impact an individual portfolio component or the portfolio as a whole;
- Ensure the escalation procedures, including roles and responsibilities, are well understood and internalised, so progress and performance issues are visible and communicated openly;
- Regular communication is critical in maintaining transparency and trust;
- The Portfolio Handbook defines all the logs to be used in the various components of the portfolio. PM² provides templates for the portfolio logs;
- Guarantee the content has the right level of granularity (level of detail), aimed at the portfolio level;
- Ensure each programme/project/activity in the portfolio regularly revisits all individual logs.

Content

- Portfolio Change Log
  - Identification
  - Change assessment
  - Decision
  - Implementation
- Portfolio Risk Log
  - Identification
  - Risk assessment
  - Risk response
- Portfolio Issue Log
  - Identification
  - Assessment
  - Actions
- Portfolio Decision Log
  - Identification
  - Decision
  - Implementation follow-up

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10 PM²-PfM Implementation

Implementing portfolio management in an organisation can be a challenging endeavour. This chapter describes several aspects that should be considered when introducing or improving portfolio management.

At some point in time, an organisation would like to improve the effectiveness of its limited resources by applying more rigour to the selection and realisation of its investments. Different investment candidates should be compared, and investment decisions should be consciously aligned with the strategic objectives.

The solution to this is implementing efficient portfolio management. Although it may sound simple, many roadblocks can prevent a practical implementation of portfolio management. It requires a thorough reorganisation of the investment decisions and follow-up. Local 'kingdoms' in the organisation, accustomed to taking investment decisions independently, may feel threatened and demonstrate some resistance to change. Therefore, **senior management sponsorship** is a critical success factor when implementing portfolio management.

Secondly, to reliably manage practicalities related to portfolio management, there is a need for **a solid and stable driving force**. Gathering and aggregating the required data and facilitating decision-making based on this data leads to a consistent approach throughout the organisation for portfolio management. This driving force is usually performed by a centralised Portfolio Support Office (PfSO).

The Portfolio Support Office (PfSO) brings the following value to the organisation:

- Maintaining a high-level understanding of the business portfolio;
- Improving organisational accountability, decision-making and transparency;
- Providing independent oversight & challenge;
- Providing decision support to ensure the right initiatives are launched;
- Providing 'single version of the truth' reporting with dashboards to focus decisions;
- Ensuring consistency of delivery by providing common standards & processes;
- Identifying, understanding, and managing cross-cutting risks and issues;
- Making the organisational delivery capability more effective and efficient;
- Building a competent workforce capable of first-class project delivery by providing assurance, coaching, and mentoring.

10.1 Portfolio Management Services

Depending on the organisation's needs, the Portfolio Support Office (PfSO) can provide several services, divided into three categories:

- Portfolio Services: services focused on the management of the portfolio itself;
- Delivery Services: supporting the portfolio components to enable efficient delivery;
- Centre of Excellence services: providing the know-how to develop an effective portfolio management culture in the organisation.

Below is a summary of what each of these service categories may entail.

Portfolio services

- **Strategy support:** Support the planning and management of the implementation of the organisation’s strategy, ensuring that critical programmes and projects are well-briefed, start on time, remain aligned with strategy, and provide regular feedback to senior management. Develop strategy maps.
- **Prioritisation:** Provide decision support to enable the identification, identify gaps, overlaps, and conflicts, selection and prioritisation of new programmes and projects to assess and compare them against strategic, financial and risk value parameters.
- **Value/benefits management:** Assess benefits planning and realisation across several programmes or projects within the portfolio to eliminate double counting in the benefits plans of individual programmes and projects. Review post-programme/project benefits against strategic investment decisions.
- **Management dashboards:** Maintain a single comprehensive picture of the portfolio. Provide a 'single version of the truth' consolidated reporting to different audiences, focused on facilitating decision making.

- **Governance support:** In general, provide the necessary support to management boards to facilitate the governance of projects, programmes, and portfolios in all aspects. Hold master copies of management deliverables.
- **Oversight & challenge**: Provide strategic oversight support for management boards. Challenge and assess the overall progress of the portfolio rather than just the collection of individual reports. Identify deviations and advise on corrective measures.

Delivery services

- **Capacity planning:** Capture resource requirements of the portfolio and forecast future resource needs using project plans. Provide a capacity planning service across the portfolio. Actively monitor the deployment of staff in the projects.
- **Resource management:** Maintain a resource database with skills, availability, and location of each resource. Plan and initiate the acquisition of necessary resources to assure timely availability. Assign resources to resource requests based on skills, experience, and availability.
- **Contract management:** Facilitate the management of contracts with external suppliers (consultants, software licenses, etc.). Interface with the procurement department.
- **Project initiation/closure:** Support project fast-track start-up service by offering tailoring advice/guidance, templates/processes, facilitated workshops or a library set-up. Support closure process through independent workshops on lesson sharing. Capture good-practice examples for inclusion in the repository for best practices.
- **Resource pool:** Manage a collection of project managers that can be assigned to running projects. Provide supplementary expert resources to fill shortfalls within the projects. Systematically develop the skills of resources in the pool.
- **Tools operation:** Operate the Project Management Information Systems (PMIS), assuring the system remains up-and-running, necessary access is granted, and required meta-data is available.

Centre of Excellence services

- **Standards:** Develop and implement governance standards and processes for project, programme, and portfolio management. Define tailoring guidelines and provide links to other standards (i.e., service management).
- **Training:** Promote good practices within the organisation. Develop training material and case studies. Organise training sessions. Facilitate dissemination of lessons learned.
- **Assurance:** Ensure compliance with standards. Enable quality assurance of management products. Coordinate quality reviews. Liaise with internal audit functions.
- **Tools Guidance:** Conduct the selection or use of Project Management Information Systems (PMIS). Ensure tools facilitate collaborative working.
- **Knowledge Management:** Facilitate project reviews. Maintain a knowledge library or a good-practice repository. Enable sharing of good practice.
- **Consultancy:** Provide guidance to the management boards of appropriate governance models. Provide rescue service to troubled projects. Execute specialised tasks for portfolio, programme, or project managers. Provide a PM helpdesk service.

10.2 Portfolio Support Office (PfSO) Composition

For the Portfolio Support Office (PfSO) to deliver its services, several roles are required. An individual Portfolio Officer should provide the main portfolio service and depending on the number, complexity and size of the portfolios, multiple Portfolio Officers might be necessary. Secondly, one or more Project Officers focus on the delivery services, while a methodology expert provides the centre of excellence services. Finally, a manager that leads and organises the Portfolio Support Office (PfSO). Be aware that one person can combine multiple roles, depending on the person's skills and the total amount of work involved.

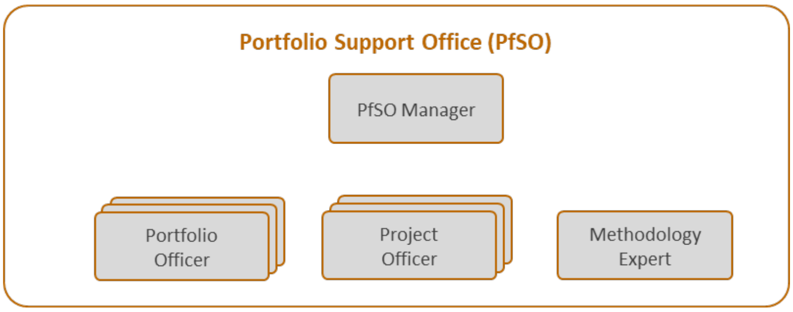

Fig 10.1 Portfolio Support Office Composition

Portfolio Support Office Manager

- Develop & implement portfolio services
- Recruit & develop the Portfolio Support Office (PfSO) team
- Implement the portfolio management framework
- Provide strategic oversight, reporting

Portfolio Officer

- Analyse & optimise the strategy for the portfolio (design & value vs resource capacity)
- Support the portfolio composition process (component identification, evaluation, prioritisation)
- Facilitate governance/review meetings
- Maintain management dashboards, portfolio logs
- Support the use of portfolio management information systems

Project Officer

- Provide delivery support
- Fast-track project start-up/closure service
- Identify & monitor cross-project dependencies
- Collect performance data
- Assist in project reporting, monitor progress
- Establish risk, issue, change control processes

Methodology Expert

- Provide the Centre of Excellence services

When setting up a Portfolio Support Office (PfSO), several parameters should be considered to tailor it appropriately. Firstly, determine which roles will be required based on the selection of services that need to be delivered. In addition, effort in providing these services is influenced by the number of portfolios and projects to be supported as well as the selection cycles per year and the reporting frequency.

Furthermore, the actual and desired level of portfolio management maturity in the organisation determines the extent and duration of set-up and maturing activities.

Fully efficient and effective portfolio management processes should be seen as a long-term initiative because this reflects a culture change within the organisation in terms of investments.

10.3 Portfolio Management Maturity

Portfolio management maturity models enable organisations to benchmark processes with good practices. A mature process identifies areas that can be improved to enhance their ability to optimise investments and drives significant change to deliver value. These models provide a vehicle to communicate existing maturity and improvement areas to management.

There are many reasons why an organisation would seek a project portfolio maturity assessment. Usually, no single event causes alarm; rather, a combination of shortcomings may trigger a need for an evaluation. Some examples are:

- Investments are not aligned with organisation objectives;
- Inadequate or lack of ownership of portfolio oversight;
- Limited or no visibility to portfolio performance;
- Project outcomes are not verified to determine whether the investment produced the expected return;
- Roles and responsibilities are not clearly defined or internalised within the organisation, leading to confusion or lack of accountability.

Several models exist on the market today to assess an organisation's portfolio management maturity. These models generally provide a systematic process. There are four basic areas to analyse: people, processes, technology, and governance. The 'as-is' situation is often captured through a mixture of interactive and review activities. These actions range from interviews, reviews of artefacts, and evaluation of existing processes, to conducting surveys and benchmarking comparisons. A baseline is then established from the 'as-is' situation, and the expected 'to-be' level can be proposed. Gap analysis with the corresponding action plans is useful to help develop the required roadmap for increasing the maturity level.

The models generally follow the similar principles of levels with scores of 0, for non-existent or reactive processes, to level 5 for well defined, internalised processes.

Implementing the roadmap and measuring success is not about implementing a tool and providing training. Changing the organisation's culture to think, behave and react differently results in a well-balanced portfolio that maximises outcomes while minimising investments of organisation resources.

11 Tools & Techniques

11.1 Portfolio Repository

The purpose of a project portfolio repository is to provide a central database for managing and maintaining programmes, projects, resources, and other business information to support decision-making on investments.

The repository may be contained within a database and accessed via a web or other type of application that allows the portfolio management team secured access to the data.

The project portfolio repository should be populated frequently with the key information of programmes/projects proposals and the status of existent investments. This tool should divide investments into different portfolio management stages such as candidates, running, closed, and rejected programmes and projects. This provides a clear view of the necessary actions and to maintain the traceability of the decisions already taken.

11.2 Capacity Analysis

This technique aims to analyse the capacity of the organisation to source and execute the selected projects. It analyses the existent skills within the organisation to determine the gap between the required and current skills. The constraints related to internal resources may be satisfied by external resources, so the Portfolio Manager (PfM) should compare the availability of external resources to the set of required skills within the portfolio.

Human resources should be allocated to the projects that add the most value to the organisation, as resource allocation is a constraint of the portfolio. Organising this allocation should be done during the composition stages of the portfolio.

11.3 Cost-Benefit Analysis

Cost-benefit analysis is a technique for estimating the strengths and weaknesses of programmes/projects and determining which ones provide the best balance. This estimate leads to greater benefits/strengths and fewer costs/weaknesses.

In this analysis, costs and benefits are expressed in monetary terms over time to allow a common basis for comparison.

11.4 Project Prioritisation Matrix

When there are projects which demand resources that cannot be available at the same time, the Portfolio Manager (PfM) may use the weighted and multi-criteria ranking to determine the best possible implementation for these projects.

Projects are scored based on criteria that the organisation finds relevant and aligned with the organisational strategy. In addition, these criteria are weighted based on their relative importance. Each criterion is scored per project and then multiplied by the respective criterion weight to compute the overall project score and rank the projects.

There are several benefits of using multi-criteria weighted ranking:

- Provide a standardised way of evaluating projects based on numerical scoring;
- Can easily adapt to various priority-setting scenarios.

11.5 Value vs. Complexity Matrix

A Value versus Complexity Matrix is a prioritisation tool used to rank a set of project needs within a portfolio to achieve a final objective most efficiently.

The Portfolio Manager (PfM) may identify a set of projects or tasks to be prioritised. Ratings of each project/task are assigned based on factors such as Value to Customer and Value to Organisation etc. Weights are applied to each of these factors to calculate their Business Value. Similarly, the Implementation Complexity can be calculated based on the effort required in terms of person-hours, schedule, and resource availability. These two scores are then plotted for all the projects or tasks on a Value versus Complexity matrix, as shown in the following figure.

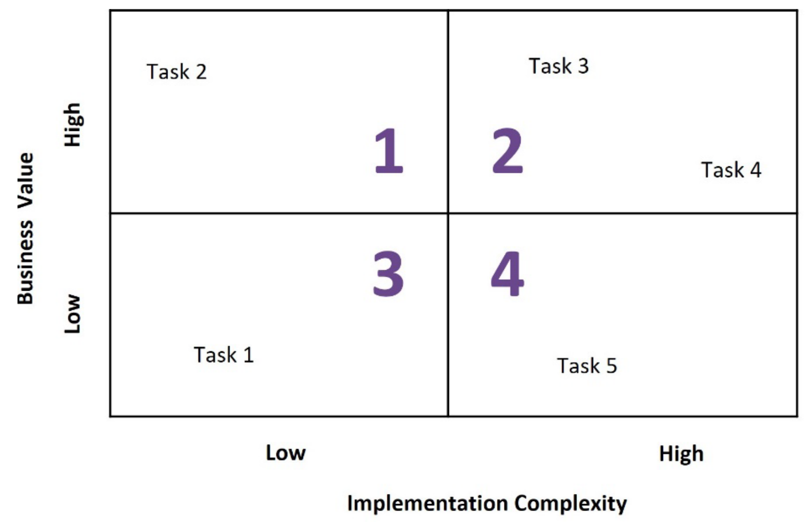

Fig 11.1 Value vs Complexity Matrix

Through the plotted scores, the different projects or tasks fall into four quadrants of the Value versus Complexity matrix:

- Priority 1: High Value, Low Complexity – Quick win
- Priority 2: High Value, High Complexity – Should be targeted early
- Priority 3: Low Value, Low Complexity – These can be targeted later
- Priority 4: Low Value, High Complexity – These should be done last

11.6 Key Performance Indicators (KPI)

Key Performance Indicators (KPIs) are quantifiable metrics that provide an indication of key performance measures. It is important to distinguish between two types of project-related KPIs.

The first type of KPI measures the performance of an ongoing project and is usually related to Earned Value Management (EVM) metrics. The second is used to measure progress towards the objectives or goals of the project, usually known as the Critical Success Criteria (CSCs). Using both types of KPIs is a best practice in project communication and reporting and increases the likelihood of buy-in from project sponsors and stakeholders.

KPIs should be selected based on the top priority goals of the project. Various stakeholders should be identified to review the metrics on a continuous basis and provide guidance in case there are any variations. Portfolio Managers (PfM) should have periodic meetings with Programme or Project Managers and other stakeholders to monitor KPIs and provide feedback.

11.7 Scenarios Analysis

The purpose of what-if scenarios analysis is to build several alternative solutions. Possible solutions are found by using a combination of current and potential projects and analysing the impact of each solution on the portfolio performance and value.

What-if scenarios are based on a set of assumptions and conditions that need to be carefully evaluated to be as realistic as possible: costs, scheduling, dependencies, synergies, benefits, and impacts should be precisely estimated.

11.8 Benefits Tracking

Benefits tracking can be used to measure the degree of achievement of the intended portfolio benefits. When a programme or project is initiated, benefits tracking commences and is implemented throughout the lifecycle, even past its completion.

Benefits tracking involves the creation of a benefit plan matrix, in which lists of intended benefits are documented, and Critical Success Factors (CSFs) as well as Key Performance Indicators (KPIs) are defined. This matrix should be tracked throughout the duration of the programmes and projects within the portfolio. After completing a programme or project, the identified benefits should continue to be reviewed and analysed to define development areas and measure results through the use of metrics.

11.9 Portfolio Dashboard and Reporting

A portfolio dashboard provides management with a quick overview of the portfolio. It summarises key performance indicators of the portfolio components and becomes the vehicle of communication within governance to make decisions to continue or stop initiatives, assess funding levels, or resolve resource issues. A portfolio dashboard should be designed to align with the key performance indicators important to an organisation.

Programme, Project, or Operational Reports become an important input for portfolio monitoring, control and decision making. The portfolio dashboard is also an input to the portfolio composition process, should the portfolio require re-evaluation or optimisation due to performance issues of one or more portfolio components. The portfolio dashboards should be archived at appropriate, regular intervals.

Regular reporting is an output of the dashboard activity. Reports must be created as a standard practice and shared with the portfolio stakeholders and appropriate governing bodies. Refer to the Portfolio Stakeholder Matrix and the Portfolio Communication Plan for further advice.

11.10 Balanced Scorecard

The foundation of the balanced scorecard is the organisation's strategies, which are implemented and monitored through the four legs of the balanced scorecard. These four legs consist of well-defined business perspectives:

- **Financial Leg**: measures ultimate results provided to stakeholders. Examples of financial metrics are budget, risk assessment, cost-benefit, funding, and utilisation metrics.
- **Internal Business Process Leg**: focuses on key internal processes which drive the business. Examples of internal business process measurements are process automation, process bottlenecks, duplicate activities across functions, number of activities per function and process alignment.
- **Customer Leg**: focuses on customer needs and satisfaction. Examples of customer measurements are customer retention rate, delivery performance to the customer, customer percentage of market, customer satisfaction rate and quality performance. Practical applications in portfolio management can be extended with the use of the Portfolio Stakeholder Matrix and Portfolio Communication Plan. These artefacts can be developed further to focus on the long-term effects of the portfolio within a commercial landscape.
- **Knowledge, Learning and Growth Leg**: focuses on how you educate your employees, how you gain and capture your knowledge, and how you use it to maintain a competitive edge within your markets. Examples of knowledge, learning and growth measurements are satisfaction, training & learning opportunities for your employees, employee turnover and level of expertise for the job.

As the four legs are interdependent, they should be measured, analysed, and improved together on a regular basis for the organisation to thrive or grow.

11.11 Bubble Diagrams

Bubble diagrams are a type of diagram that can be used to visualise data points that have three values. It displays a circle (the "bubble") in a certain position, versus two orthogonal axes. Two values are used to determine the position on each axis, while the third value determines the size of the bubble. In a more advanced form, even more values per data point can be indicated using the bubble's colour, fill pattern, etc. Since this advanced visualisation may render the diagram more complex, limiting the values to three per data point is advised.

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Appendix A - Contributions and Acknowledgements

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

KIPS Bert
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In addition, the following individuals served as project team members and provided recommendations on drafts, performed reviews, and assisted in finalising the PM²-PfM Guide:

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Appendix B – Glossary

Artefact	Tangible output of the portfolio management activities such as Portfolio Handbook, Analysis Report, or Communication Plan.
Benefit	A measurable positive effect of an outcome.
Change	Act, process or result of the transition from an existent state to a new one.
Dependency	Relation between events (decisions, activities, processes, etc.) that influence performance and outcomes and should be considered during planning.
Governance	The act of governing is concerned with how decisions are made in the organisation.
Investment	The investing of resources in programmes or projects to achieve strategic objectives and benefits.
Objective	Target or metric that a person or organisation seeks to meet.
Operations	Day-to-day activities performed by the permanent organisation to deliver services or products.
Portfolio	A collection of projects, programmes or other activities which are grouped together to achieve better financial and resource control, and to facilitate their effective management in terms of meeting strategic objectives.
Portfolio Directing Group (PfDG)	Overarching authority within the organisation accountable for the effective implementation of portfolio management, providing clear leadership and direction to the composition and delivery of the portfolios.
Portfolio Framework	Definition of the portfolio structure, the portfolio governance bodies and their responsibilities, together with the portfolio management processes.
Portfolio Manager (PfM)	Person who coordinates the portfolio management activities and reports to the Portfolio Directing Group (PfDG).
Portfolio Steering Committee (PfSC)	Governing body responsible for the efficient delivery of the programmes and projects within a portfolio. As such it monitors the portfolio delivery performance and takes appropriate measures to keep it on track.
Portfolio Support Office (PfSO)	Permanent team that supports all portfolio management activities of the different portfolio stakeholders. It spans the different portfolios within the organisation and provides a centralised and consolidated view towards the governing authorities to facilitate decision-making capabilities.
Project Support Office (PSO)	Team of temporary nature put in place to provide administrative support and assistance to a specific programme or project. It has an advisory role on the use of methodology, procedures and tools and plays the role of the custodian of the programme's or project's archive.
Stakeholder	Individual, group, or organisation that can affect, be affected by, or perceive itself to be affected by the programmes or projects within the portfolio.

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Appendix C - Component Status

When a portfolio component is travelling through the portfolio composition and realisation processes, it can get several statuses. This is useful to filter components in the Portfolio Repository as input for certain activities in these processes.

During the Portfolio Composition process the candidate component is being 'identified', 'evaluated' and 'prioritised'. At that point a formal decision is being taken to 'approve' or 'reject' the candidate. The candidate could also be 'rejected' earlier during the Portfolio Composition process if it becomes obvious that this idea is not worth pursuing.

The approved component joins the Portfolio Realisation process. As soon as the programme or project starts it's in the 'running' state during which the phases in the component's lifecycle evolve from Initiating, Planning, Executing, to Closing (not pictured in the diagram). At that point the programme or project is 'ended'. Components can also go through an early 'termination' when there is no reason for their existence any longer or when they are continuously bad performing.

During both the Portfolio Composition and Realisation process a component can be 'suspended' temporarily, after which it returns to its previous state.

'Ended', 'terminated' or 'rejected' are the possible end-states for a component.

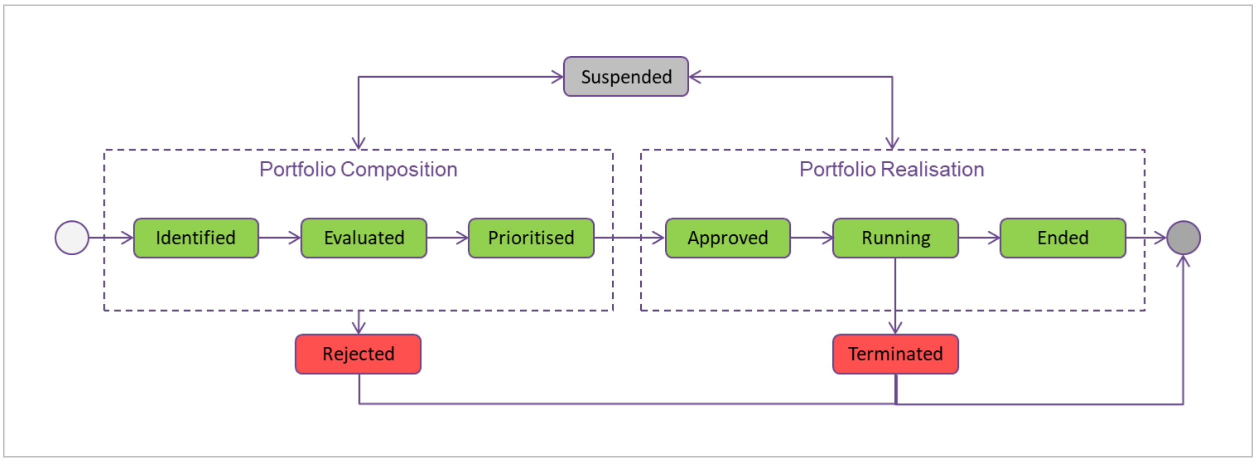

Fig C.1 Component status diagram

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Appendix D - Additional Resources and References

D.1 PM²-PfM Artefacts & Activities Summary Table

Responsibility Assignment Matrix (RASCI) - Responsible, Accountable, Supports, Consulted, Informed

Portfolio Management Framework Definition	PfDG	PfSC	PfM	PfSO
Define portfolios	**A**	n/a	C	**R**
Define portfolio processes	**A**	n/a	C	**R**
Define portfolio governance	**A**	I	C	**R**
Define portfolio framework reviews	**A**	I	C	**R**
Portfolio Composition	**PfDG**	**PfSC**	**PfM**	**PfSO**
Identify components	I	**A**	C	**R**
Evaluate components	I	**A**	**R**	S
Plan portfolio capacity	I	**A**	**R**	S
Prioritise components	**A**	C	**R**	S
Approve portfolio composition	**A/R**	I	C	S
Portfolio Realisation	**PfDG**	**PfSC**	**PfM**	**PfSO**
Monitor & control portfolio	**A**	S	**R**	S
Manage portfolio value	**A**	S	**R**	S
Manage portfolio change	I	**A**	**R**	S
Manage portfolio risks	I	**A**	**R**	S
Manage portfolio issues	I	**A**	**R**	S
Stakeholder Engagement	**PfDG**	**PfSC**	**PfM**	**PfSO**
Manage portfolio stakeholders	I	**A**	**R**	S
Manage portfolio communication	I	**A**	**R**	S
Report portfolio performance	I	**A**	**R**	S

PfDG Portfolio Directing Group
PfSC Portfolio Steering Committee
PfM Portfolio Manager
PfSO Portfolio Support Office

D.2 Overview of PM²-PfM Activities & Artefacts

	Activities	Artefacts
Framework Definition	▪ Define portfolios ▪ Define portfolio processes ▪ Define portfolio governance ▪ Define portfolio framework reviews	❑ Portfolio Handbook
Portfolio Composition	▪ Identify components ▪ Evaluate components ▪ Plan portfolio capacity ▪ Prioritise components ▪ Approve portfolio composition	❑ Portfolio Repository ❑ Portfolio Analysis Report
Portfolio Realisation	▪ Monitor & control portfolio ▪ Manage portfolio value ▪ Manage portfolio change ▪ Manage portfolio risks ▪ Manage portfolio issues	❑ Portfolio Change Log ❑ Portfolio Risk Log ❑ Portfolio Issue Log ❑ Portfolio Decision Log ❑ Portfolio Analysis Report
Stakeholder Engagement	▪ Manage portfolio stakeholders ▪ Manage portfolio communication ▪ Report portfolio performance	❑ Portfolio Stakeholder Matrix ❑ Portfolio Communication Plan

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