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# Project, programme and portfolio management — Guidance on portfolio management

*Management de projets, programmes et portefeuilles — Directives sur le management de portefeuilles*



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# Foreword

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The committee responsible for this document is Technical Committee ISO/TC 258, *Project, programme and portfolio management*.



 

# Introduction

This International Standard provides guidance on the principles of project and programme portfolio management. Typically, management of a project and programme portfolio supports the organization's strategies to deliver organizational value.

This International Standard is intended to be used by:

a) executives and senior managers responsible for setting and implementing organizational strategy and business planning;

b) decision makers responsible for selecting, authorizing and governing projects, programmes and portfolios;

c) teams and individuals responsible for implementing and managing the project and programme portfolios;

d) project and programme managers and other stakeholders.



 

# Project, programme and portfolio management — Guidance on portfolio management

## 1 Scope

This International Standard provides guidance on the principles of project and programme portfolio management. This International Standard is relevant to any type of organization including public or private and any size organization or sector.

The guidance presented in this International Standard is intended to be adapted to suit the specific environment of the project and programme portfolio.

This International Standard does not provide guidance on project management, programme management, or general business portfolio management (e.g. financial portfolio management).



## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply. For ease of readability, the term “portfolio” is used throughout this document to mean “project and programme portfolio”.

**2.1**
**portfolio**
collection of portfolio components grouped together to facilitate their management to meet, in whole or in part, an organization’s strategic objectives

**2.2**
**portfolio component**
project, programme, portfolio, or other related work

**2.3**
**portfolio manager**
person or organization responsible for applying portfolio management to a portfolio who may be supported by a portfolio management team

**2.4**
**strategic alignment**
result of selecting and adjusting portfolio components to contribute to accomplishing an organization’s strategic objectives

## 3 Principles of portfolio management

### 3.1 Context and need for portfolio management

An organization’s strategic objectives, as well as other organizational considerations such as market or financial, guide the decision to implement portfolio management. When deciding whether to adopt portfolio management, each organization’s context will depend on considerations such as:

a) an evaluation of the impact of introducing portfolio management into the organization, including the organization’s capability to absorb changes in terms of structure, responsibilities and culture;

b) an assessment of the threats and opportunities associated with the implementation of portfolio management.

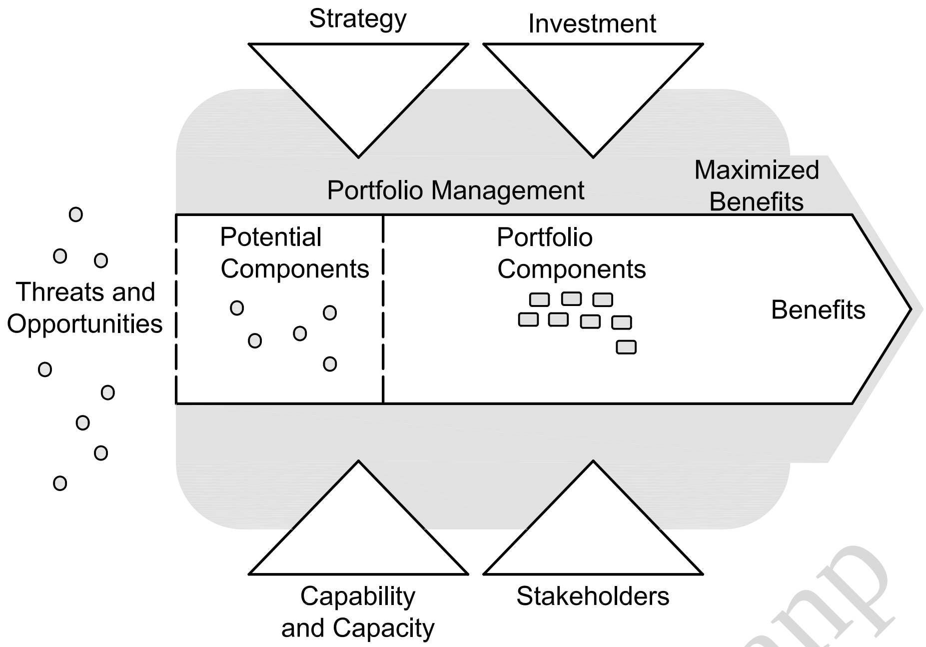


**Figure 1 — A view of portfolio management in context**

As Figure 1 illustrates, portfolio management addresses the need for a consistent approach to manage strategically aligned projects, programmes, portfolios and other related work within an organizational environment of varying complexity and uncertainty so as to:

1) enable investment in portfolio components to be aligned with the organization's strategy;

2) optimize organizational capability and capacity;

3) maximize benefits from investment;

4) identify and manage stakeholders' expectations;

5) provide visibility of portfolio component activity and status.

The principles described should be applied regardless of the organizational environment. In addition, for portfolio management to maximize benefits aligned to the organization's strategy there are prerequisites that should be in place to support portfolio management.

## 3.2 Overview of portfolio management

### 3.2.1 Portfolio management

Portfolio management should include a set of interrelated organizational processes and methods by which an organization allocates resources to implement its strategic objectives.

Portfolio management aligns the portfolio components with an organization's strategic objectives, stakeholder priorities, and values such as sustainable practices and ethical principles. As shown in Figure 2, portfolio management may also be described as a continuous decision-making process, whereby an organization's list of portfolio components is subject to periodic review for alignment with the organization's strategy. In this approach, new opportunities or threats are evaluated, selected, prioritized and authorized. Portfolio components may be modified, accelerated, postponed or terminated.

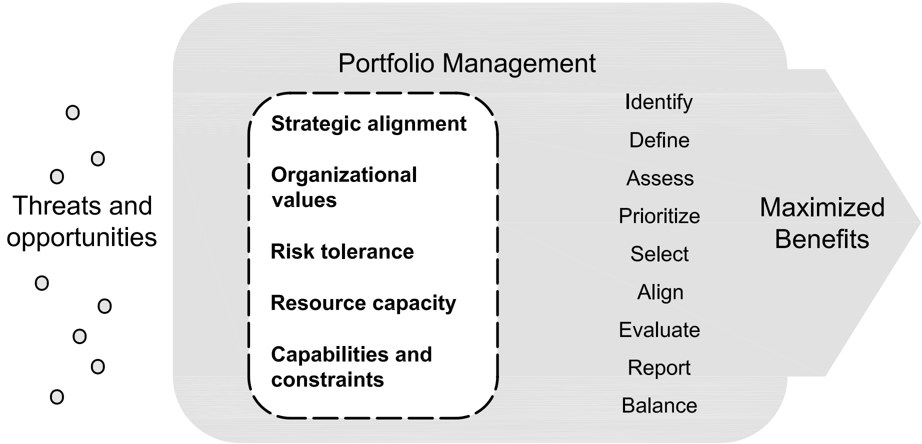


**Figure 2 — A view of portfolio management**

### 3.2.2 Portfolio structure

A portfolio may be structured as a hierarchy in which higher-level portfolio components are made up of several lower-level portfolio components, as illustrated in Figure 3. There are other relationships not illustrated in Figure 3, such as regarding resources, technology and communication. The portfolio structure represents a 'snapshot' of portfolio components and is reflective of the strategic objectives of the organization to which it is aligned.

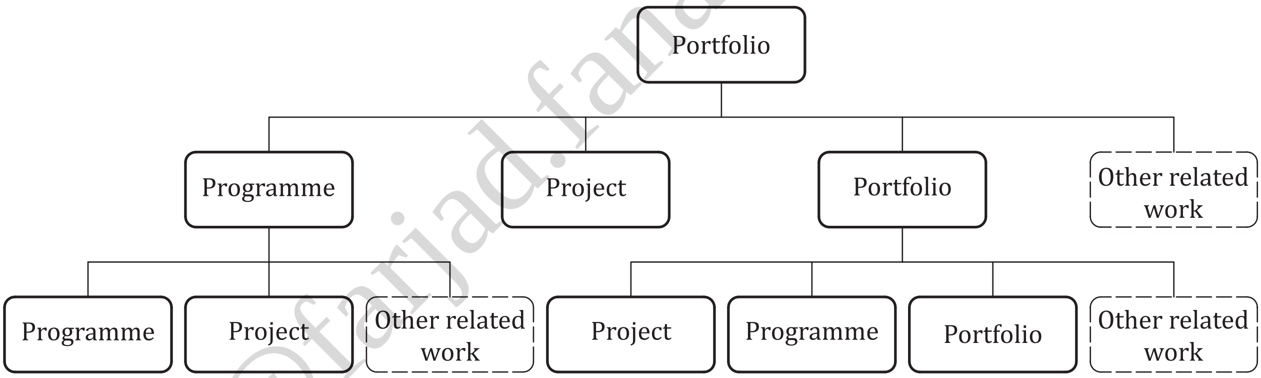


**Figure 3 — Example of a portfolio structure**

The structure within the portfolio may include a minimum of two portfolio components.

### 3.2.3 Capabilities and constraints

Portfolio capability is the ability of the organization to apply resources to achieve strategic objectives.

Decision makers should determine if the work within the portfolio can be accomplished. An organization should provide and maintain the capabilities it needs to run the organization in its current state and to implement the necessary changes to move it towards its strategic objectives.

A portfolio constraint may keep the portfolio from achieving the envisioned strategic objectives or cause the strategic objective to be modified or reprioritized. Constraints can originate from internal or external sources. The organization should have direct control over internal constraints, however the organization may only be able to influence, comply with or react to external constraints. Constraints may include factors such as governance, resources, social responsibility, culture, risk tolerance, sustainability and legal or regulatory requirements.

### 3.2.4 Opportunities and threats

Opportunities and threats can come from the strategy, customer requests, evolution of offerings, or internal improvements. In some cases the identification of opportunities and threats may be part of portfolio management. The response to opportunities or threats may lead to one or more new portfolio components or may modify one or more existing portfolio components.

An organization should define the boundaries between strategy and portfolio management, so that it is clear how they influence each other. The strategic objectives should determine what opportunities and threats should be addressed and prioritized. Opportunities or threats may redefine the strategy.

## 3.3 Roles and responsibilities

### 3.3.1 General principles

Decision makers should be assigned their authority, accountability and responsibility to take actions by the owners or legal entity controlling the organization. Such authority should be assigned for specific actions and decisions and is limited to the portfolio and its components. Other roles and responsibilities should be defined together with the limits of any assigned authorities. Portfolio management requires competent individuals applying their knowledge and experience. Executives and senior management should demonstrate leadership and commitment with respect to portfolio management.

### 3.3.2 Defining decision rights for portfolio content

Roles, responsibilities, authorities and accountabilities should be assigned to enable consistent decision-making across the organization to support effective portfolio management. Decision rights should be defined for:

a) executives and senior managers responsible for setting and evaluating organizational strategy and business planning;

b) decision makers who authorize changes to a portfolio;

c) managers who direct the day to day activities of the portfolio, within agreed limits;

d) stakeholders who support decision-making.

## 3.4 Stakeholder engagement and management

Stakeholder engagement and management should be performed. Stakeholders may include those involved in strategic and business planning, project and programme management and project or programme management offices. Other stakeholders should be identified through an agreed stakeholder identification and analysis process.

# 4 Prerequisites for portfolio management

## 4.1 Overview

This clause addresses the prerequisites that an organization should meet in order to set up and maintain portfolio management. Addressing these prerequisites should involve:

a) consideration of positive and negative benefits for the organization;

b) assessment of positive or negative impact on the organization, both internally and externally;

c) set up and readiness for implementation.

## 4.2 Justification for portfolio management

Portfolio management requires an investment of resources. There should be a justification of this investment. This justification should address the need, the benefits and the cost of the investment, as well as the alignment to one or more strategic objectives. The degree of formality for presenting this justification may vary from organization to organization.

## 4.3 Portfolio management framework

The portfolio management framework could define the means by which the organization would determine and decide which components should be prioritized and included in the portfolio or removed. The framework should also define how resources will be allocated to those components.

## 4.4 Types of portfolio components

The organization should determine the types of work that will be included or excluded as portfolio components, as well as criteria that should be used to identify them. These should include:

a) types of projects;

b) types of programmes;

c) other portfolios;

d) other related work.

## 4.5 Criteria for selecting and prioritizing portfolio components

Criteria for selection and prioritization of portfolio components should be defined and verifiable. These criteria should reflect defined portfolio objectives that should align with the organizational strategy. The criteria should also reflect the values, principles, other organizational policies and targeted benefits.

The definition and documentation of such criteria should reflect that:

a) selected portfolio components support the organization in achieving its strategic objectives and realizing specific benefits;

b) a method is available to evaluate to what extent the portfolio is in alignment with the tolerated risk exposure;

c) a balanced portfolio is maintained;

d) a structured and consistent method is followed for evaluating and aligning the mix of portfolio components;

e) comparability exists among portfolio components of different types.

## 4.6 Alignment with organizational processes and systems

Portfolio management processes and systems should be aligned with the following organizational processes and systems:

a) performance reporting processes and systems;

b) resource management processes and systems;

c) risk management processes and systems;

d) financial management processes and systems;

e) project and programme management processes and systems;

f) communication methods and cycles;

g) business planning and systems.

## 4.7 Visibility of the portfolio

A management system should be defined and established to provide visibility and relevant information to the decision makers. The management system should provide status and overview of the following elements:

a) portfolio components;

b) resource management;

c) alignment with strategic objectives and other intended benefits;

d) benefits status and realization;

e) current risk exposure that the portfolio generates for the organization as a whole.

The management system should:

1) enable portfolio reporting;

2) align and coordinate with existing processes and systems;

3) provide visibility of selected and potential portfolio components.

## 4.8 Portfolio performance reporting structure

A performance reporting structure and method with measurement criteria should be established to monitor achievement of portfolio objectives and organizational strategic objectives. This should include reporting for the portfolio as a whole and for each component to:

a) enable decision making and provide timely alerts of performance variances;

b) enable the organization to continuously improve strategic financial forecasting and benefits realization;

c) enable tracking of schedules, costs, contributions, benefits, risks and resourcing;

d) align the reporting cycle with the cycle of portfolio component development;

e) integrate the reporting cycle with the project or programme life cycle processes used by the organization;

f) enable reporting iterations of the portfolio and the progress towards acquiring benefits;

g) report the status of the risk exposure of the portfolio for the organization.

## 4.9 Improving portfolio management

The organization should continually improve the suitability, adequacy, effectiveness and efficiency of portfolio management.

The organization should:

a) evaluate the effectiveness of the portfolio management framework;

b) determine and prioritize improvements to be implemented.



 

### 4.10 Governance of portfolios

The means of governance should be established and may include policies, legal considerations, processes, roles and responsibilities, procedures, values, principles and other organizational guidance.

Refer to Annex A for further information on this topic.

## 5 Managing portfolios

### 5.1 Overview

This clause describes what should be performed as portfolio management is undertaken on an ongoing basis. Portfolio management should serve as a continuous, seamless mechanism to align portfolios with strategic objectives, maximize benefits, fulfil commitments and make decisions based on timely and accurate data.

To build and manage a portfolio effectively, portfolio components should be continuously identified, evaluated, selected, and authorized; and the status and performance of the portfolio regularly reported. Further, continuous alignment of the portfolio with business strategies and objectives as well as evaluation and control of the balance of the portfolio against a number of criteria should be maintained.

### 5.2 Defining the portfolio

Using past and current performance and future goals, the organization should identify the objectives of the portfolio. Once agreed, these objectives should be kept under change control. Objectives may be set for different time periods, ranging from immediate to longer term and should take into account constraints such as the organization's risk tolerance.



### 5.3 Identifying potential portfolio components

The organization should continually identify and map potential portfolio components by:

a) conducting an overview of the selected and potential portfolio components;

b) mapping the selected and potential portfolio components to the organization's strategic objectives.

### 5.4 Defining the portfolio plan

A plan should be established for the portfolio and its development regarding:

a) the existing and potential portfolio components and their mapping to the strategic objectives;

b) the targeted benefits of the portfolio components;

c) what new benefits and capabilities are to be achieved or in place, by the costs and timescales;

d) the interdependencies between portfolio components.

The final selection of the portfolio components should be dependent upon the stated strategic objectives of the organization, as well as other considerations.

Following determination of the current state, the organization should determine those portfolio components that will comprise the portfolio. This action may be done for more than one portfolio. The portfolio may exist for the purpose of organizational divisions, geographic distinction, or other purpose determined to be appropriate by the organization.

The frequency for updating the plan depends on the nature of the organization and the speed with which the environment it operates within is changing.

 

Validation of alignment of the portfolio components should be done whenever the plan is updated as well as when the strategic plan is reviewed or modified.

## 5.5 Assessing and selecting portfolio components

### 5.5.1 Overview

Potential portfolio components are categorized, evaluated, selected, aligned, authorized and prioritized. These steps require that criteria and methods be defined and captured.

Selection and alignment of portfolio components should be done to enable a balanced portfolio that maximizes the probability of achieving organizational objectives. Such actions will further optimize the organization's return on investment and maintain risk exposure within the organization's risk tolerance. Selection should match resource demand.

### 5.5.2 Assessing current state

To build and manage a portfolio, the current list and state of portfolio components should be assessed, including:

a) documenting relevant information on portfolio components;

b) categorizing portfolio components based on the defined criteria;

c) evaluating current resource allocation, availability and constraints;

d) identifying interdependencies among the portfolio components.

### 5.5.3 Selecting portfolio components

Potential portfolio components should be selected for inclusion in the portfolio by the results of the evaluation of their contribution to strategic objectives, using the established selection criteria. This selection includes assigning a priority to each of the potential portfolio components and balancing the overall content by:

a) the contribution to achieve strategic objectives;

b) the ranking of the contribution to strategic objectives;

c) the exposure to inherent risk;

d) the ranking of the exposure to inherent risk;

e) the impact on available resources;

f) the impact on the portfolio's risk exposure;

g) the capacity and capability of the organization to absorb the totality of the changes from all components.

## 5.6 Validating portfolio alignment to strategic objectives

### 5.6.1 Overview

Organizations should establish strategies to accomplish their objectives, consistent with their vision, mission and values. Changes in any of these factors may result in modification to the organization's strategy, but also updates in the portfolio framework and plan. Portfolio components should realize benefits related to the strategic objectives. Aligning between organizational strategy and the intended benefits should be a continuous activity. See Figure 4.



 

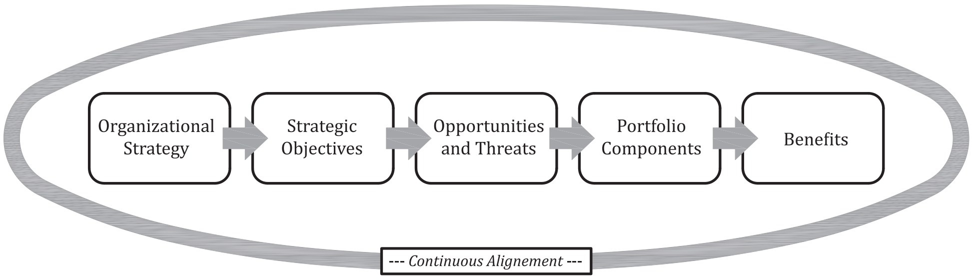


**Figure 4 — Continuous alignment of strategy and benefits**

#### 5.6.2 Alignment with strategic objectives

In order to enable continuous strategic alignment of the portfolio, the portfolio manager should:

a) identify which strategic objectives are relevant to the portfolio;

b) take action to monitor and control the portfolio's alignment with the established strategic objectives.

#### 5.6.3 Maintaining alignment with risk tolerance and resource capacity and capability

In order to enable continuous alignment of the portfolio to the organization's risk tolerance and resource capacity and capabilities, the portfolio manager should:

a) identify the tolerated risk exposure level of the organization;

b) evaluate to what extent the portfolio is in alignment with the tolerated risk exposure level;

c) align portfolio risk exposure with the tolerated organizational risk exposure;

d) maintain alignment of cumulative portfolio risk with the value created from the successful achievement of strategic objectives;

e) determine that sufficient resource capacity and capability exists to manage the portfolio within the tolerated risk exposure level.

#### 5.6.4 Documenting and evaluating results of alignment actions

In order to maintain portfolio change control, the portfolio manager should:

a) document the alignment of the portfolio to strategic objectives;

b) document the alignment of the portfolio within risk tolerance;

c) document their decisions and the results of their actions;

d) evaluate the results and impacts of their actions.

### 5.7 Evaluating and reporting portfolio performance

#### 5.7.1 Overview

Performance metrics should be relevant to the portfolio and the strategic objectives to which it is aligned. This action contributes to the reporting that will be required in managing the portfolio. Reporting should be timely and valuable for the portfolio stakeholders. Attention should be paid to the quality of information on which portfolio performance is evaluated and reported.

### 5.7.2 Establishing the portfolio performance measurement baseline

In order to manage the performance of the portfolio, the portfolio manager should establish, use or integrate existing systems with metrics and performance baselines that measure both portfolio component specific and aggregate level portfolio performance. Portfolio performance measurements should be used to enable the portfolio manager to ensure that the total investments of all portfolio components are on track to achieve individual and aggregate level benefits and value to strategic objectives.

Portfolio performance metrics are specific to the strategic objectives to which the portfolio is aligned and to the organization and should include:

a) portfolio component specific metrics addressing schedule, technical and financial performance;

b) aggregate level portfolio measures tracking the overall health of the portfolio, value creation and benefits realization;

c) performance indicators alerting portfolio management of resources utilization, issues and risks.

### 5.7.3 Managing portfolio performance

In order to effectively manage the performance of the portfolio, the portfolio manager should undertake activities to:

a) track portfolio component level performance;

b) track overall portfolio performance;

c) maintain a portfolio measurement baseline;

d) track contributions of portfolio benefits and compare them with the current strategic objectives;

e) provide forecasting, including but not limited to resource and capacity utilization and strategy and risk.

Further, to manage performance of the portfolio, the portfolio manager should also analyse:

1) both top-down and bottom-up the portfolio component composition, alignment and performance;

2) the impact of individual portfolio component performance on the performance of the entire portfolio and achievement of prioritized strategic objectives;

3) the impact of the interaction among the portfolio components and the impact of these interactions on the performance of the portfolio.



### 5.7.4 Reporting portfolio performance

In order to provide appropriate information to stakeholders, the portfolio manager should:

a) perform portfolio reporting;

b) maintain a reporting cycle;

c) integrate the reporting cycle across the portfolio.

### 5.7.5 Managing the integration of benefits

In order to improve the likelihood that the benefits are realized by the portfolio components and to enable future actions of the portfolio or the general operations of the organization, the portfolio manager should verify the following:

a) identification of benefits;

b) identification of benefits realization timeframe;

c) the realization and capture of benefits by the organization;

d) integration of benefits;

e) forecasting of future investment gains or losses;

f) tracking of actual and forecast benefits;

g) identification of gaps where forecast benefits will not meet expectations.

## 5.8 Balancing and optimizing the portfolio

### 5.8.1 Overview

Working within defined roles, responsibilities and authorities, the portfolio manager should balance and control the portfolio, including but not limited to, maintaining the portfolio pipeline, optimizing resources, managing portfolio risks and portfolio change and optimizing the synergies among portfolio components.

### 5.8.2 Optimizing portfolio components

In order to optimize the portfolio and its portfolio components, the portfolio manager should:

a) manage the benefits to capture the full expected and stated value, such as using a defined assessment process and reviewing the benefits realization plan for alignment with the strategic plan;

b) plan an approach that considers factors such as financial, the organization's values, stakeholder needs and legal and regulatory requirements;

c) continuously analyse and improve the realization of benefits from the portfolio components including reviewing success criteria.

### 5.8.3 Maintaining the portfolio

The portfolio manager should use the defined approaches, process and criteria to enable consideration of potential portfolio components for inclusion in the portfolio by:

a) undertaking an analysis based upon standard selection criteria:

   1) identifying additional criteria to be considered;

   2) determining the prioritization of potential portfolio components;

   3) providing a recommendation for which potential portfolio components should be selected for inclusion in the portfolio;

b) maintaining the portfolio by:

   1) continually evaluating potential portfolio components for inclusion in the portfolio;

   2) moving, modifying, closing or terminating portfolio components within the portfolio;

   3) balancing resources and other assets throughout the portfolio.

### 5.8.4 Optimizing resources

To optimize resources, the portfolio manager should:

a) prioritize the portfolio components based on defined criteria;

b) capture resource demands of portfolio components;

c) achieve a balance between resource demand and supply;

d) track changes for resource demands;

e) review historic data from resource demands and map current trends;

f) provide monitoring and controlling methods to achieve resource optimization within the portfolio and across the portfolio components;

g) balance the supply and demand for, and allocation of, resources using the defined approaches and criteria;

h) identify changes in resource demands over an identified and agreed upon time-line;

i) identify changes required to be made in regard to the portfolio components such as de-scoping, cancelling, rescheduling, or other related actions to achieve optimization of required resources for portfolio performance;

j) develop agreement among stakeholders;

k) identify and resolve conflicts in resource utilization.

### 5.8.5 Managing portfolio risks

To manage portfolio risk, the portfolio manager should use the defined risk policy for the portfolio to:

a) determine the level and tolerance of risk that is acceptable within the portfolio;

b) develop or adapt an analysis technique for risks held at the portfolio level;

c) identify risks at the portfolio level based on identified risks for each portfolio component;

d) analyse and prioritize the portfolio risks considering such items as priority of strategic objectives, goals, benefits and the relationships among components;

e) evaluate the risks over time including changes that should be monitored for risk impact and changes in portfolio composition.

### 5.8.6 Controlling portfolio change

When controlling portfolio change, the portfolio manager should use a defined portfolio change control approach to:

a) review portfolio component priority;

b) develop and implement recommendations for the portfolio, including but not limited to, schedule, risk, cost, resources, impact and degree of strategic alignment;

c) develop and implement recommendations regarding the adding, moving, modifying or removing of portfolio components;

d) provide communication to portfolio stakeholders. Decisions regarding changes to the portfolio baseline and plan should be made with reference to the defined decision rights.

# Annex A
(informative)

# Governance of portfolios

Governance of portfolios consists of the principles by which a portfolio is authorized and directed. Governance provides the policies, authorities, processes, procedures, standards and accountability necessary to conduct the management and leadership of the portfolio. Portfolio management is undertaken within the boundaries established by the governance. Governance of portfolios should be aligned with organizational governance.

Governance may be developed, provided, issued and maintained through several possible structures, including, but not limited to: Portfolio Management Office, Project Portfolio Board of Review, Senior Staff Board or any other effective structure adaptable to the needs of organizations and portfolios. Governance may vary depending upon the nature of the organization but the overall purpose of the selected structure should be to provide the necessary governance mechanism to enable successful portfolio management. This structure should have defined membership consisting of executive and senior management of both decision-making and advisory capacity within the organization.

The portfolio governance body is granted its authority by the owners or legal entity controlling the organization or by the executives with overall responsibility for the organization. The authority is generally granted for specific actions and decisions and is limited to portfolio management. The authorities and responsibilities of the portfolio governance body should be defined.

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