

THE STANDARD FOR PORTFOLIO MANAGEMENT

FOURTH EDITION

The Standard for PORTFOLIO MANAGEMENT

Fourth Edition

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INTRODUCTION

This section covers the purpose, context, and principles of portfolio management, including the definition of several key terms, and provides an overview of *The Standard for Portfolio Management* – Fourth Edition. The following major sections are addressed:

- 1.1 Purpose of *The Standard for Portfolio Management***
- 1.2 Audience for *The Standard for Portfolio Management***
- 1.3 What Is a Portfolio?**
- 1.4 Relationships Among Portfolios, Programs, Projects, and Operations**
- 1.5 What Is Portfolio Management?**
- 1.6 Relationships Among Portfolio Management, Program Management, and Project Management**
- 1.7 Principles of Portfolio Management**
- 1.8 Relationships Among Portfolio Management, Organizational Strategy, Strategic Business Execution, and Organizational Project Management**
- 1.9 Portfolio Components and Their Interrelationships**
- 1.10 Role of the Portfolio Manager**
- 1.11 Other Roles in Portfolio Management**

1.1 PURPOSE OF *THE STANDARD FOR PORTFOLIO MANAGEMENT*

The Standard for Portfolio Management – Fourth Edition identifies project portfolio management principles and performance management domains that are generally recognized as good practices for organizations that have business needs to effectively manage complex and intense program and project investments. “Generally recognized” means that the principles and performance management domains described are applicable to most portfolios most of the time, and that there is widespread consensus about their value and usefulness. “Good practice” means there is general agreement that the application of these principles and performance management activities can enhance the chances of success and are proven to work over a wide range of portfolios. Good practice does not mean the management activities described should be applied uniformly to portfolios; the organization’s governance and the portfolio manager are responsible for determining what is appropriate for any portfolio given its environment, and in the context of the organization’s project and program management framework.

The Standard for Portfolio Management – Fourth Edition includes a common, unified vocabulary for use among the portfolio management profession for promoting, discussing, researching, writing, applying, and continuously improving portfolio management concepts. By using a single lexicon that is understandable by practitioners regardless of geographical location, culture, industry, or educational background, portfolio management practitioners are able to communicate and facilitate the management of portfolios and execution of strategies.

Portfolio management of programs, projects, and related operations is intended for all types of organizations.

This standard is a companion to information already provided in *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Sixth Edition [1],¹ and *The Standard for Program Management* – Fourth Edition [2]. As a foundational reference, this standard is not intended to be comprehensive or all-inclusive. It is a guide rather than a methodology. One can use various methods and tools to implement the principles and practices described herein.

In addition to the standards that establish guidelines for project management principles, processes, tools, and techniques, the *PMI Code of Ethics and Professional Conduct* [3] describes the expectations that practitioners should have for themselves and others. It is specific about the basic obligations of responsibility, respect, fairness, and honesty. It requires that practitioners demonstrate a commitment to ethical and professional conduct. It carries the obligation to comply with laws, regulations, and organizational and professional policies. Because practitioners come from diverse backgrounds and cultures, the *Code of Ethics* applies globally. When dealing with any stakeholder, practitioners should be committed to honest and fair practices and respectful dealings. Acceptance and adherence to the *Code of Ethics* is a requirement to achieve and maintain the Portfolio Management Professional (PfMP)[®] credential and other PMI certifications.

1.2 AUDIENCE FOR *THE STANDARD FOR PORTFOLIO MANAGEMENT*

This standard provides a foundational reference for anyone interested in managing or assessing a portfolio of programs, projects, and related operations. This includes, but is not limited to:

- ◆ Senior executives and governance boards who make decisions regarding organizational strategy;
- ◆ Management staff responsible for developing organizational strategy or those making recommendations to senior executives;
- ◆ Portfolio, program, and project management practitioners, particularly portfolio managers;
- ◆ Researchers analyzing portfolio management;
- ◆ Members of a portfolio, program, or project management office;
- ◆ Consultants and other specialists in portfolio, program, or project management and related disciplines;
- ◆ Business and technical professionals such as auditors, trainers, engineers, and others who are increasingly asked to manage a portfolio of programs, projects, and operational activities;
- ◆ Operations managers, organization unit managers, civil engineers, construction managers and constructors of large/megaprojects, and process owners who have financial, human, marketing, material resources, or supply chain considerations in a portfolio;

¹ The numbers in brackets refer to the list of references at the end of this standard.

- ◆ Portfolio, program, project, and operational team members, customers, and other related stakeholders;
- ◆ Strategy planners and executives in organizations;
- ◆ Educators teaching portfolio management and related subjects; and
- ◆ Students of portfolio management and related fields.

1.3 WHAT IS A PORTFOLIO?

A portfolio is a collection of projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives. The portfolio components, such as programs and projects within the portfolio, are quantifiable (e.g., identified, categorized, evaluated, prioritized, authorized). Also, the portfolio components may be related or unrelated, may be independent or interdependent, and may have related or unrelated objectives. Portfolio components compete for a share of some or all of a set of limited resources. The share or proportions of individual components within a portfolio structure can be driven by organizational strategies and capabilities. Therefore, organizations need to examine their unique circumstances and determine how best to optimize and balance the portfolio components.

A portfolio exists to achieve organizational and business unit strategies and goals, and may consist of a set of current and future portfolio components. Like programs and projects, portfolios have a life cycle. However, unlike programs and projects, which have a more limited duration, portfolios often have greater longevity and management attention. Given portfolios' longer term, new components can churn into portfolios and their subsidiary portfolios. Portfolio closure can occur when the portfolio is no longer required, when the intended objectives are achieved, or when the portfolio's components are decommissioned or moved to another portfolio. Depending on the size and complexity of organizations, portfolios can merge and separate to achieve optimal performance.

An organization may have more than one portfolio, each addressing unique or different organizational (business, functional, or other) strategies, goals, and objectives. Proposed new initiatives that could evolve into programs or projects may be placed into an existing or new portfolio. In addition, larger portfolios may contain subsidiary portfolios and are usually structured as a hierarchy (see Figure 1-1). For example, programs, projects, or functional-unit portfolios may reside within a larger business unit portfolio, which, in turn, is nested as just one portfolio within the entire enterprise portfolio. Common project portfolios include product lines, information technology portfolios, enterprise project portfolios, and a myriad of others.

Furthermore, portfolios can be internal or external to an organization. Portfolios can also exist at various levels of an organization, such as enterprise, divisional, business unit, and functional. Portfolios can be organized separately, but they can also be organized in a hierarchical structure. Portfolios can support both the core functions as well as the support functions of an organization.

At any given time, a portfolio represents a collection of its selected portfolio components and reflects one or more organizational strategies and objectives for that point in time. Therefore, a functioning portfolio should be a representation of an organization's intent, direction, and progress at any given moment. If a portfolio is not aligned to the organizational strategy for any reason, the organization should reasonably question why the work of the portfolio is being undertaken and should align the portfolio with its strategy by taking corrective actions such as adjusting, aligning, and/or removing the initiatives included in the portfolio.

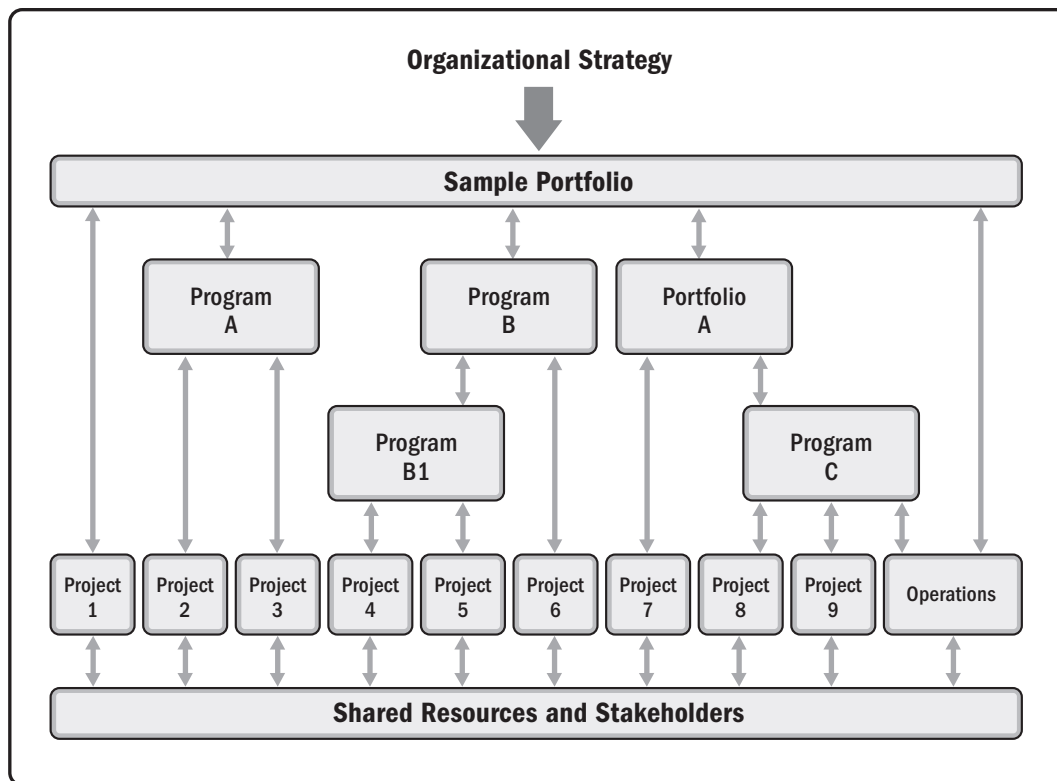


Figure 1-1. Portfolios, Programs, and Projects—High-Level View

1.4 RELATIONSHIPS AMONG PORTFOLIOS, PROGRAMS, PROJECTS, AND OPERATIONS

The relationships among portfolios, programs, and projects are such that a portfolio refers to a collection of projects, programs, subsidiary portfolios, and related operations managed collectively as a group to achieve strategic objectives. The relationships among these components have the potential to bring value to the organization through portfolio management. This is also the criterion by which they are evaluated and added to the portfolio. Programs are grouped within a portfolio, and they include related projects, subsidiary programs, and program activities managed in a coordinated manner to obtain benefits not available from managing them individually. Individual projects that have strategic importance, whether within or outside of a program, are considered part of a portfolio. Although the programs or projects within a portfolio may not be directly related or interdependent, they are linked to the organization's strategic plan by means of the portfolio.

Organizational planning impacts the projects by means of project prioritization based on risk, funding, resource constraints, and other considerations relevant to the organization's strategic objectives. Organizational planning can direct the management of resources and support for the component programs and projects based on risk categories, specific lines of business, or general types of projects.

All portfolio components should exhibit certain features that include:

- ◆ Representing how the organization will achieve its strategic goals and objectives through the portfolio and its components;
- ◆ Representing the organization's investment priorities to achieve its strategy;

- ◆ Requiring management and governance that includes allocating and sharing resources (e.g., human, financial, asset, and intellectual) across portfolio components;
- ◆ Having the ability to be quantifiable and, therefore, evaluated, measured, ranked, and prioritized; and
- ◆ Having the ability to be directed or controlled to accomplish portfolio value.

1.5 WHAT IS PORTFOLIO MANAGEMENT?

Portfolio management is the centralized management of one or more portfolios to achieve strategic objectives. It is the application of portfolio management principles to align the portfolio and its components with the organizational strategy. Portfolio management can also be viewed as a dynamic activity through which an organization invests its resources to achieve its strategic objectives by identifying, categorizing, monitoring, evaluating, integrating, selecting, prioritizing, optimizing, balancing, authorizing, transitioning, controlling, and terminating portfolio components.

1.6 RELATIONSHIPS AMONG PORTFOLIO MANAGEMENT, PROGRAM MANAGEMENT, AND PROJECT MANAGEMENT

Portfolio management balances conflicting demands among portfolio components, allocates resources (e.g., human, financial, assets, and intellectual) based on organizational priorities and capacity, and integrates management principles and sound practices to deliver business value aligned with the strategic objectives. The focus of program management is on achieving the intended benefits and business outcomes for which the program was initiated and doing so within cost and schedule. Project management is largely concerned with achieving specific project deliverables that support business and organizational objectives.

The attributes of portfolio components can be further differentiated as represented in Table 1-1.

Portfolio, program, and project management should be aligned with and driven by organizational strategy and other business drivers. Conversely, portfolio, program, and project management contributes to the achievement and implementation of strategic objectives. Portfolio management aligns with organizational strategy by selecting the best portfolio components, prioritizing the work, providing the needed resources, overseeing or working with portfolio component managers on their implementation, supervising proper transition into the operational environment, and enabling the achievement of portfolio value. Program management is focused on harmonizing its component and operational initiatives and managing their interdependencies in order to realize specified benefits. Project management develops and implements plans at a more detailed level to achieve a specific scope that is driven by the objectives of the portfolio or program to which it is subjected and, ultimately, to organizational strategy (e.g., business, functional, and other broad strategies).

Portfolio management often establishes the overall direction and tone of business execution that shapes and defines or calibrates its components.

Table 1-1. Comparative Overview of Portfolio, Program, and Project Management

Organizational Project Management			
	Projects	Programs	Portfolios
Definition	A project is a temporary endeavor undertaken to create a unique product, service, or result.	A program is a group of related projects, subsidiary programs, and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually.	A portfolio is a collection of projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives.
Scope	Projects have defined objectives. Scope is progressively elaborated throughout the project life cycle.	Programs have a scope that encompasses the scopes of its program components. Programs produce benefits to an organization by ensuring that the outputs and outcomes of program components are delivered in a coordinated and complementary manner.	Portfolios have an organizational scope that changes with the strategic objectives of the organization.
Change	Project managers expect change and implement processes to keep change managed and controlled.	Programs are managed in a manner that accepts and adapts to change as necessary to optimize the delivery of benefits as the program's components deliver outcomes and/or outputs.	Portfolio managers continuously monitor changes in the broader internal and external environments.
Planning	Project managers progressively elaborate high-level information into detailed plans throughout the project life cycle.	Programs are managed using high-level plans that track the interdependencies and progress of program components. Program plans are also used to guide planning at the component level.	Portfolio managers create and maintain necessary processes and communication relative to the aggregate portfolio.
Management	Project managers manage the project team to meet the project objectives.	Programs are managed by program managers who ensure that program benefits are delivered as expected, by coordinating the activities of a program's components.	Portfolio managers may manage or coordinate portfolio management staff, or program and project staff that may have reporting responsibilities into the aggregate portfolio.
Monitoring	Project managers monitor and control the work of producing the products, services, or results that the project was undertaken to produce.	Program managers monitor the progress of program components to ensure the overall goals, schedules, budget, and benefits of the program will be met.	Portfolio managers monitor strategic changes and aggregate resource allocation, performance results, and risk of the portfolio.
Success	Success is measured by product and project quality, timeliness, budget compliance, and degree of customer satisfaction.	A program's success is measured by the program's ability to deliver its intended benefits to an organization, and by the program's efficiency and effectiveness in delivering those benefits.	Success is measured in terms of the aggregate investment performance and benefit realization of the portfolio.

1.7 PRINCIPLES OF PORTFOLIO MANAGEMENT

Organizational strategies and their objectives serve to establish and guide an organization's decisions, direction, purpose, and resource allocations to achieve targeted values. These values can be broad or narrow depending on organizational mission and vision. Extrinsic values may be market, social, political, and environmental; intrinsic values such as competency, talent, culture, growth, development, and competitiveness are also important considerations. Determining organizational strategy is difficult; achieving results is sometimes even more challenging and complex.

There are many challenges to achieving results. Chief among them are aligning strategy and execution, obtaining and maintaining senior management support, balancing what is feasible with what is essential, determining short- and long-term benefits and goals, managing resources including capacities and capabilities, and achieving and sustaining the ability to execute. In short, organizations cannot afford to waste precious resources and should find ways to “do the right projects at the right time in the right way.” Portfolio management presents an organized approach to achieve strategic results.

The following fundamental principles are core to this standard:

- ◆ Strive to achieve excellence in strategic execution;
- ◆ Enhance transparency, responsibility, accountability, sustainability, and fairness;
- ◆ Balance portfolio value against overall risks;
- ◆ Ensure that investments in portfolio components are aligned with the organization’s strategy;
- ◆ Obtain and maintain the sponsorship and engagement of senior management and key stakeholders;
- ◆ Exercise active and decisive leadership for the optimization of resource utilization;
- ◆ Foster a culture that embraces change and risk; and
- ◆ Navigate complexity to enable successful outcomes.

The purpose of these principles is to provide guidance for portfolio management practitioners in the conceptualization, establishment, implementation, and ongoing management of portfolio(s) in their organizations. By creating strong links between strategic planning and strategic business execution, organizations can achieve greater organizational performance while improving resource utilization, exploiting new opportunities, and minimizing threats.

1.8 RELATIONSHIPS AMONG PORTFOLIO MANAGEMENT, ORGANIZATIONAL STRATEGY, STRATEGIC BUSINESS EXECUTION, AND ORGANIZATIONAL PROJECT MANAGEMENT

The organizational strategy helps define specific goals and objectives for the organization. Organizational strategy should be overarching, encompassing organizational activities that include operations and other related change activities. Because strategies are ideas, concepts, and plans, the attainment of business value requires action for the execution of these plans (e.g., strategic plans, business development plans, operational plans, action plans). Most change activities, both internal and external to the organization (e.g., contract work), are performed through portfolio components such as program and project activities. To maintain and sustain competitiveness, organizations require strong strategic execution to implement their portfolios, programs, and projects, not just occasionally, but consistently and repeatedly over time. This requires organizations to adopt strong disciplines, such as organizational project management (OPM). OPM is a strategic business execution framework that utilizes portfolio, program, and project management as well as organizational enabling practices to consistently and predictably deliver organizational strategy to produce better performance, results, and business value.

Value is the primary focus of portfolio management. It is defined as the entire quantifiable and qualifiable benefits, worth, and usefulness of the organization—the total sum of all tangible and intangible elements. Examples of tangible elements include monetary assets, shareholder satisfaction, and utility. Examples of intangible elements include reputation, brand recognition, public benefit, legacy, patents, and trademarks. Business value can be defined in terms of its short-, medium-, or long-term realization. Value is created through the effective management of ongoing operations.

1.8.1 PORTFOLIO MANAGEMENT AND ORGANIZATIONAL STRATEGY

An organizational strategy is composed of goals and policies that provide the overall direction and focus of the organization, and plans and actions to achieve those goals. These serve as a primary input to portfolio management. Organizations strive to possess effective management capability that will lead to longevity and success. Portfolio management is an integral part of the organization's overall strategic direction. It is the vehicle through which change initiatives and strategic investments are undertaken to realize strategic goals and objectives. Linking portfolio management to strategy balances the use of resources to maximize the value delivered in executing programs, projects, and operational activities. The organizational strategy and objectives are translated into a set of initiatives that are influenced by many factors, such as market dynamics, customer and partner requests, shareholders, government regulations, internal stakeholders and their aspirations, and competitor plans and actions. These initiatives establish a portfolio of programs, projects, and operations components to be executed in the specific period.

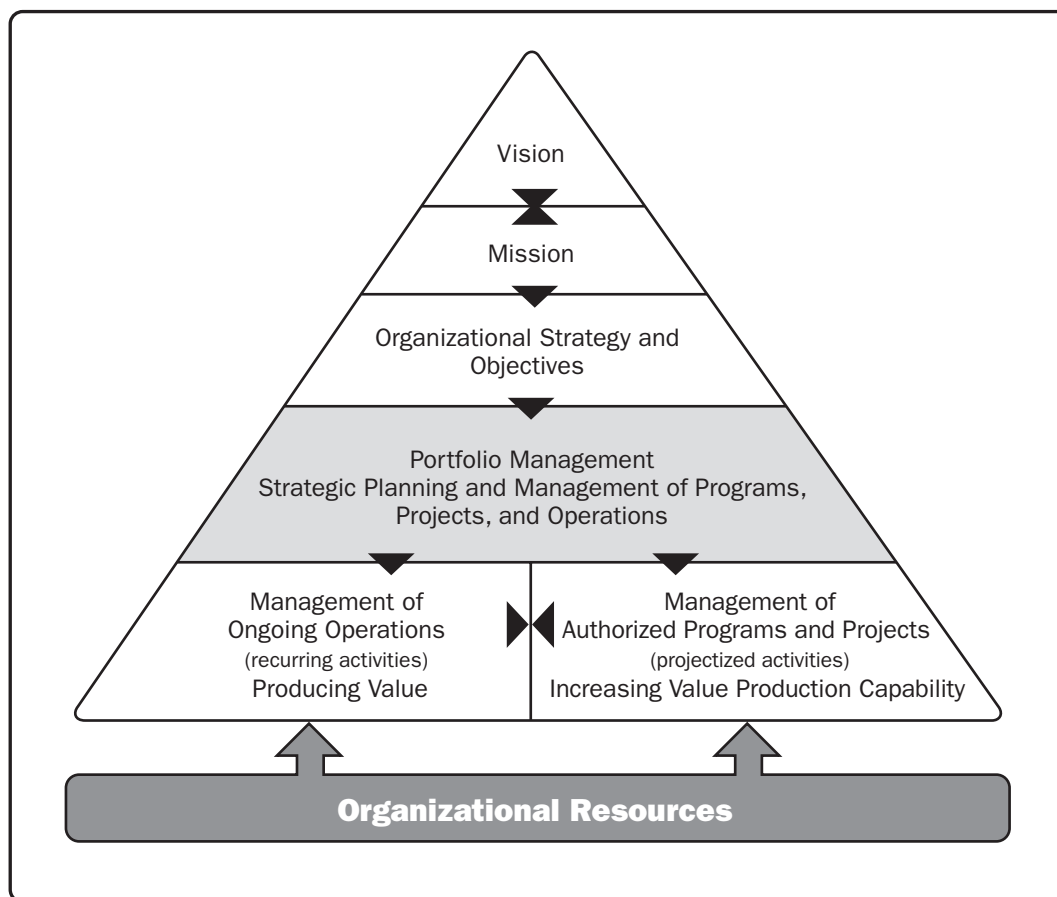


Figure 1-2. The Organizational Context of Portfolio Management

Figure 1-2 illustrates the relationship and direction that vision, mission, and organizational strategy and objectives provide to portfolio management strategic planning and the management of programs, projects, and operations. Portfolio management aims to enhance key business performance indicators, such as ROI or improving societal value, by providing a holistic framework for strategy execution. Portfolio management requires constant alignment to strategic objectives and the ability to envision alternative future consequences to support and enhance strategic portfolio decision making. Awareness of portfolio components with its many relationships and dependencies, as shown in Figure 1-2, enhances the portfolio manager's ability to envision possible future issues and risks.

The shaded section in Figure 1-2—portfolio management strategic planning and management of programs, projects, and operations—depicts the relationship between organizational strategy and objectives with management activities of initiatives and operational activities. Portfolio performance is monitored against the organizational strategy and objectives with performance feedback, providing input for potential changes in strategic direction for the organization.

Portfolio management also requires integration with organizational planning and business analysis to analyze current business risks. This analysis may drive strategic changes to enable the planned (active and future) portfolio components to continue to support strategic goals. When organizational planning determines that a goal is no longer valid for the organization, the portfolio manager, often working together with the governance team, reviews the portfolio and reassesses any portfolio components that are in place to achieve the obsolete goal, with the intent of adjusting or terminating any component that no longer contributes to strategic goals.

Portfolio management ensures continuous alignment to strategic objectives, which is paramount because organizations can undergo strategy redefinition as a result of shareholder pressure for greater profitability, changing market conditions, balancing the needs for change with the needs of ongoing operations, and so forth. Sometimes, a change in the tactics for the implementation of the strategic objectives may also result in portfolio changes. The portfolio should always be realigned and rebalanced after important decisions are made at the senior executive level that result in changes to strategy and/or strategic objectives. This realignment and balance of the portfolio should also be shared with the employees who play critical roles as stakeholders in programs and projects. Through the review of strategic, tactical, and operational capabilities and gaps, portfolio management provides feedback that is useful for the planning and management of resources, monitoring the health of the portfolio, and working with program and project management on the execution of the portfolio components.

1.8.2 STRATEGIC BUSINESS EXECUTION AND ORGANIZATIONAL PROJECT MANAGEMENT

Portfolio management, program management, and project management are domains of the organizational project management framework for managing the capability to deliver value. Organizational project management (OPM) is a framework in which portfolio, program, and project management are integrated with organizational enablers in order to achieve strategic objectives. OPM enables an organization to leverage its results and implementation success, and supports a strong organization within a competitive and rapidly changing environment.

An organization establishes goals that will move it toward its vision and that have objectives consisting of measurable steps for goal achievement. Execution of portfolio components should focus on achieving these strategic objectives and, ultimately, the goals of the organization.

Once a portfolio component is authorized, the program or project manager assumes direct management control of the portfolio component and applies management processes to enable the work to be done. A responsible program or project manager will monitor planned versus actual performance and provide ongoing feedback to the portfolio manager.

Portfolio components do not exist in isolation. Each portfolio includes diverse components, is a part of the entire organizational system of interrelated components, and each portfolio is simultaneously a part of the entire organizational system.

Portfolio management practitioners work in a complex environment with overlapping and often conflicting interests. Under such conditions, practitioners are often challenged by information overload and not enough actionable intelligence. To comprehend such an environment and be in a position to anticipate behavior, it is necessary to study the portfolio as a system. Programs and projects are the temporary vehicles that deliver change. Therefore, a systems perspective allows for

a better understanding of the goals of the change initiatives and of the vehicles delivering these goals—the components of the portfolio.

The ultimate goal of linking portfolio management with organizational strategy and strategic business execution is to establish a balanced, realistic plan that will help the organization achieve its goals. The impact of the portfolio management plan upon strategy is attained through six performance management domains and the portfolio life cycle, as illustrated in Figure 1-3.

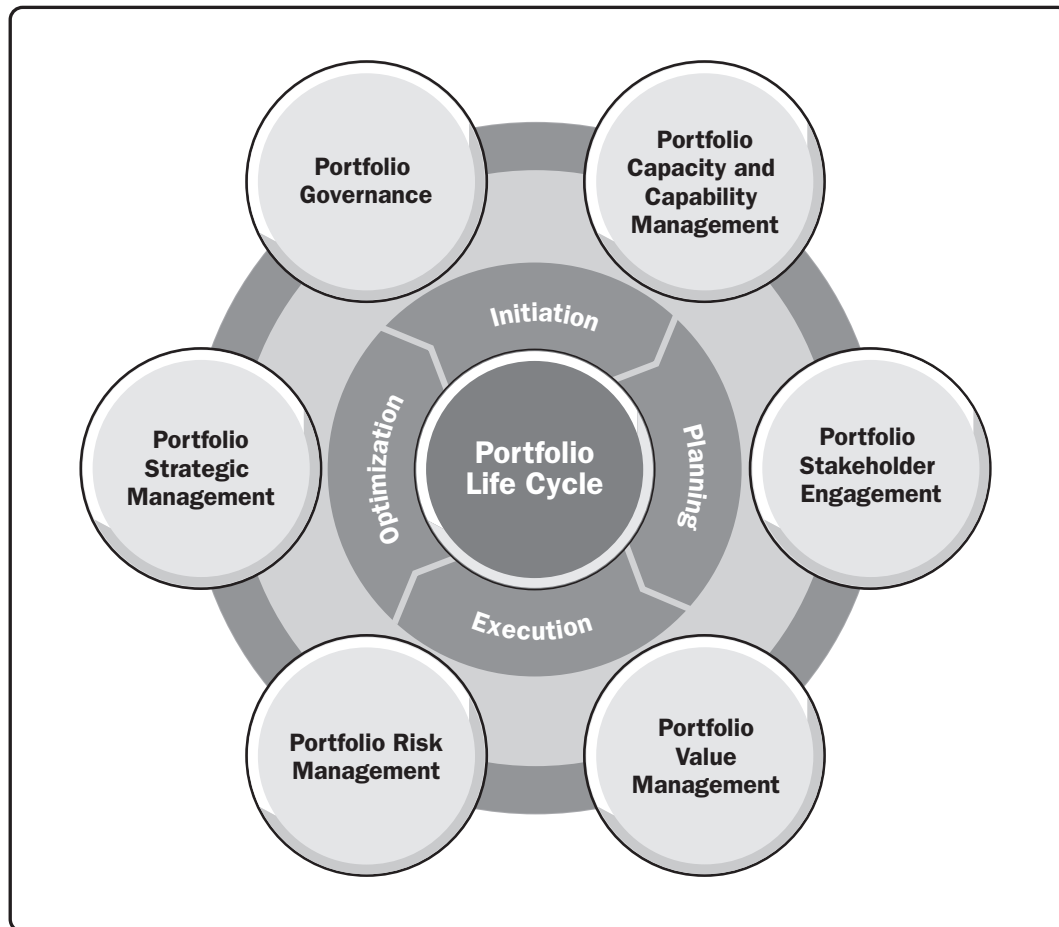


Figure 1-3. Portfolio Management Performance Domains

The six portfolio management performance domains represent the collection of good practices. The following provides a brief description of each portfolio management performance domain, including the portfolio life cycle. These are further elaborated in subsequent sections of this standard.

- ◆ **Portfolio Life Cycle (Section 2).** Portfolios are a major investment of organizational resources and, like programs and projects, portfolios go through a life cycle that includes initiation, planning, execution, and optimization. The diligent management of the life cycle by balancing stability with adaptability is crucial for managing activity in today's constantly changing environment.
- ◆ **Portfolio Strategic Management (Section 3).** Each portfolio component should be aligned to one or more strategic objectives, and the positive impact should be constantly monitored. This is what is meant by the term

strategic management in the portfolio management context, and it is achieved by a clear understanding of the strategic objectives and how important each component is in relation to those objectives. Any proposal for including a component in the portfolio should describe how it supports the attainment of intended business value.

- ◆ **Portfolio Governance (Section 4).** Through open and transparent governance, including processes for categorizing, prioritizing, selecting, and approving portfolio components, key stakeholders are more likely to accept the decisions and agree with the process, even when they may not fully endorse the decisions made.
- ◆ **Portfolio Capacity and Capability Management (Section 5).** The selection of portfolio components and the roadmap for their implementation is balanced against the organization's current capacity and capability with the potential of bringing in additional resources. The portfolio view allows for future planning to develop capacity and capabilities as required. This is particularly important when resourcing and balancing program and project components against operational components.
- ◆ **Portfolio Stakeholder Engagement (Section 6).** Key portfolio stakeholders require active expectation management. By staying aligned and connected, portfolios improve the probability of delivering value. Active communication is a primary vehicle through which the exchange of information, improved transparency, and stakeholder buy-in are all achieved.
- ◆ **Portfolio Value Management (Section 7).** Portfolio Value Management enables investment in a portfolio to yield the expected return as defined by the organizational strategy. Value contribution and sustainment need to be monitored throughout the component execution as well as after component closure.
- ◆ **Portfolio Risk Management (Section 8).** Portfolio Risk Management evaluates risks (positive/opportunities, negative/threats) at the portfolio level and considers how those risks may impact the achievement of the portfolio strategic plan and objectives. This requires consistent monitoring for uncertainty, within both the internal and external environment of the portfolio.

1.9 PORTFOLIO COMPONENTS AND THEIR INTERRELATIONSHIPS

A portfolio is a system or collection of entities—called portfolio components—plus a collection of interrelationships among these components. Portfolio components share a common purpose: to achieve the strategic objectives of the organization. The portfolio system is managed as an integrated whole relative to the other systems of the organization.

As a portfolio system, the portfolio's hierarchy results in a parent–child relationship with its portfolio components, just as a program has a parent–child relationship with its projects. Consequently, the portfolio components are also managed based on standards, such as *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* and *The Standard for Program Management*, and are periodically measured to gauge the likelihood that the portfolio components will achieve their goals.

A larger portfolio can contain subsidiary portfolios, which in themselves are component collections of programs, projects, or operations managed as a group to achieve strategic objectives. Subsidiary portfolios can exist for different reasons, including management grouping, available funds, customer requirements, schedule, resources, stakeholders, different sponsors, etc.

1.9.1 PROGRAM MANAGEMENT

Program management is the application of knowledge, skills, tools, and techniques to a program to meet the program requirements and to obtain benefits and control not available by managing projects individually. It involves

aligning multiple components to achieve the program goals and allows for optimized or integrated cost, schedule, effort, or other parameters. Although the benefits of a project often arise after the project ends, some benefits can appear during the program life cycle as single projects within the program end.

Components within a program are related through a common outcome or delivery of a collective set of benefits. If the relationship among the projects is only that of a shared client, seller, technology, resource, etc., the effort should be managed as a portfolio of independent projects rather than as a program. In programs, it is important to integrate and control the interdependencies among the components. The program manager accomplishes this by working within the following five interrelated and interdependent Program Management Performance Domains: Program Strategy Alignment, Program Benefits Management, Program Stakeholder Engagement, Program Governance, and Program Life Cycle Management. Through structured governance functions and domains, program management enables appropriate component interdependencies and helps determine the optimal approach for managing them.

Through structured oversight and governance, program management enables appropriate planning, control, delivery, transition, and benefits sustainment across the components within the program to achieve the program's intended strategic benefits. Program management provides a framework for managing related efforts considering key factors such as strategic benefits, coordinated planning, complex interdependencies that may create new emergent issues and risks, deliverable integration, resource pools, and optimized pacing.

1.9.2 PROJECT MANAGEMENT

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements by providing the project deliverables. It is accomplished through the appropriate application and integration of project management processes identified for the project. The specific project circumstances may influence the constraints on which the project manager needs to focus.

Managing a project typically includes:

- ◆ Identifying, analyzing, documenting, and prioritizing requirements;
- ◆ Addressing the various needs, concerns, and expectations of the stakeholders as the project is planned and carried out;
- ◆ Setting and maintaining active communication with stakeholders;
- ◆ Balancing the competing project constraints, which include, but are not limited to, the project's scope, quality, schedule, budget, resources, and risk; and
- ◆ Successfully producing and handing over the project deliverables.

The relationships among these factors are such that if any one factor changes, at least one other factor is likely to be affected. For example, if the schedule is shortened, the budget often needs to be increased to add additional resources to complete the same amount of work in less time. When a budget increase is not possible, the scope or quality may be reduced to deliver a product or service in less time for the same budget.

Project stakeholders may have differing ideas as to which factors are the most important, creating an even greater challenge. Changing the project requirements may create additional risks. The project team should be able to assess the situation, balance the demands, and maintain active communication with stakeholders in order to deliver a successful project. It is important for the project team to be conscious of how the success of the project fits into the organization's measures of success, which can be conveyed as part of the portfolio management process.

Because of the potential for change, the project management plan is iterative and goes through progressive elaboration throughout the project's life cycle. Progressive elaboration involves continuously improving and detailing a plan as more detailed and specific information and more accurate estimates become available. Depending on the chosen project management framework (predictive, adaptive, or a combination of both), progressive elaboration allows a project management team to navigate and adapt to emergent issues and risks, to generate a suitable risk response plan, and to manage to a greater level of detail as the project evolves.

1.9.3 OPERATIONS MANAGEMENT

Operations is the business function responsible for planning, coordinating, resourcing, and controlling the repeatable, usually cyclical, day-to-day activities of the organization. This business function is called business as usual (BAU). Operations management consists of the various procedures and their assignments. These include roles with lines of delegation, levels of authority, and mechanisms to report, escalate, and decide how to achieve the best value from the resources available within constraints and risks.

When the ongoing pattern of activity is subject to change (by external factors, for example) or when it may be improved by discretionary application of change, then resources within the portfolio are diverted into programs and projects. Projects may be further grouped as programs (as a result of a link between their expected benefits or shared resources) and into portfolios because of a linkage among any or all of their schedule, resources, stakeholders, or strategic objectives.

The portfolio of operational change for projects links a subset of recurring activities managed as projects to the organizational strategy. As these activities are executed and deliver results, these underpin the execution of the organization's strategic portfolio components.

The outputs from operations planning and organizational strategy and objectives result in portfolios that guide program and project activities. As the portfolio components move into initiation, the respective areas use their management practices to manage deliveries. As the portfolio components are executed, portfolio management maintains the relationships among them to monitor progress, take corrective action (if needed), and maintain alignment with strategic goals. Therefore, at the highest level, strategic and operational portfolio components are ultimately managed as a single, comprehensive portfolio of work that is undertaken by the organization. This holistic view of change by operations components combined with the organizational change initiatives (program and project components) optimize the efficient balance of the organizational resources.

1.10 ROLE OF THE PORTFOLIO MANAGER

Portfolio managers have the responsibility for the establishment and implementation of portfolio management. Where program and project managers primarily focus on "doing the work right," the portfolio manager's primary focus is on "doing the right work," and portfolio governance enables the "right work" to be performed at the right time and with adequate resources allocated. A governing body establishes the governance of portfolios, programs, and projects by setting guidelines for them as well as linking them to the organizational strategy and verifying the overall results. Furthermore, portfolio managers are responsible for ensuring proper communication and coordination among portfolio components.

Portfolio managers often play a number of important roles, quite often those of architect, enabler, and facilitator of portfolio management principles, processes, and practices, as well as the role of portfolio analyst. As architects, portfolio managers work with their organizational counterparts to evaluate the portfolio management plans, assess and define needed skills, design appropriate processes, and adjust these processes accordingly. As enablers, portfolio managers may seek ways to continually improve the applied portfolio management processes and adjust portfolio components toward better alignment with changes in strategy to ensure continual relevance to the organization. As facilitators in execution mode, portfolio managers manage the day-to-day operations of the portfolio management processes. This includes:

- ◆ Conveying to the portfolio governing body how the portfolio components as a whole are aligned and realigned with the strategic goals;
- ◆ Capturing the portfolio impact and value creation against strategic directives;
- ◆ Providing appropriate recommendations or options for action;
- ◆ Influencing and managing the process of resource allocation;
- ◆ Overseeing or coordinating with portfolio component managers on implementation;
- ◆ Receiving information on portfolio component performance and progress; and
- ◆ Reporting portfolio progress to top management.

The portfolio manager reviews the portfolio for balance (e.g., short term versus long term or risk versus return) and negotiates agreement(s) with relevant strategic stakeholders (e.g., executive management, operations). Portfolio managers also sequence portfolio components to account for portfolio component dependencies and their effects, the balancing of constrained resources, and other organizational considerations. In addition, portfolio managers ensure that timelines for portfolio management processes are maintained and followed and that the managers of portfolio components (subsidiary portfolios, programs, projects, and operations) receive and provide the information required under the portfolio management processes. Portfolio managers are the primary conduit between managers of portfolio components and portfolio stakeholders.

The portfolio manager regularly communicates information and recommends criteria for governance actions and decisions, such as deciding when programs and projects should proceed, be reprioritized, be changed to adapt to strategic changes, be terminated, or be suspended before the originally planned completion dates. The portfolio manager also makes appropriate recommendations to portfolio governing bodies regarding specific directives for components and improvement of portfolio practices toward ensuring that the intended value is delivered to the organization.

The portfolio manager needs to be aware of how the portfolio is related to the organizational vision, mission, and strategic goals, and identify, assess, and measure the business value that the portfolio is adding to the organization's objectives. Throughout the portfolio life cycle, the portfolio manager should be able to manage risks, monitor and prioritize portfolio components, resolve issues that need senior-level attention, develop and improve processes, and apply organizational knowledge and management skills. In addition, the portfolio manager should be able to effectively manage the organization's resources and provide timely information for stakeholder communication requirements.

In order to succeed in this role, the portfolio manager should adhere to the competences depicted by the PMI Talent Triangle® (i.e., technical project management skills, leadership capabilities, and strategic and business management expertise), be able to form and lead expert teams, and have expertise in all of the following areas:

- ◆ **Portfolio strategic management and alignment.** A portfolio manager should understand and monitor changes in the organizational strategy and objectives and be aware of how the portfolio supports them. Both financial and nonfinancial benefits and risks to the organization need to be considered. The portfolio manager should also have business analysis skills as well as financial knowledge.
- ◆ **Portfolio management methods and techniques.** The portfolio manager should have expertise in the application and analysis of portfolio management methods and techniques that include both qualitative and quantitative measures as prescribed or dictated by the organization's leadership. Further, various portfolio management tools can assist with aligning the portfolio components with strategic objectives. Such tools provide valuable methods of organizing, prioritizing, and categorizing valuable information regarding the performance of portfolio components plus validated reporting to Portfolio Governance.
- ◆ **Stakeholder engagement.** An effective portfolio manager should be adept at working with portfolio stakeholders to maximize portfolio and organizational performance. A portfolio manager should communicate frequently with stakeholders using modes and techniques appropriate for the context. The portfolio manager should facilitate communications among stakeholders to negotiate agreements, resolve conflict, and make timely and agile portfolio decisions.
- ◆ **Leadership and management skills.** An effective portfolio manager should have well-developed leadership and management skills and be able to interact with senior executives, management, and other stakeholders. Further, a portfolio manager should be adept at managing people through recruitment and retention, goal setting, performance evaluation, reward and recognition, succession planning, and employee development, and should have highly developed communication skills. Employee development may include mentoring, coaching, motivating, and training of personnel.
- ◆ **Risk management.** An effective portfolio manager should manage risks that are both internal and external to the organization. For risk evaluation, consideration is given to portfolio dynamics, such as fiscal constraints, cost-benefit, windows of opportunity, portfolio component constraints, changing portfolio environmental conditions (e.g., market change), and stakeholder dynamics.
- ◆ **Organizational change management.** An effective portfolio manager should manage the impact of changes on the organization. Change readiness is measured at the portfolio, program, and project levels; in each case, the level and range of metrics will be different depending, for example, on the system, the technology, the stakeholders, the deliverables, the expected benefits, etc. Change readiness can be measured by program and project managers, but is better assessed at the portfolio level.
- ◆ **Systems thinking.** This approach relates to understanding how different components of the portfolio are interrelated and interdependent of one another. It can connote the ability to think through which portfolio components should be selected to contribute to the organizational strategy as a “top-down” approach. Moreover, systems thinking enhances the capability to visualize the contribution/value added by each of the components to the portfolio's strategic objectives—a “bottom-up” view. A systems approach may facilitate the proper selection of necessary components to execute the portfolio, aid with proper resource allocation, and ensure that the selected components are aligned toward achieving the business goals of the organization.

1.11 OTHER ROLES IN PORTFOLIO MANAGEMENT

This section summarizes additional important roles in portfolio management, including:

- ◆ Sponsors;
- ◆ Portfolio governance body;
- ◆ Portfolio, program, and project management office (PMO)—sometimes a PMO for the whole organization is established, often called an enterprise PMO (EPMO);
- ◆ Portfolio analyst;
- ◆ Program managers;
- ◆ Project managers;
- ◆ Change control board;
- ◆ Program and project team members; and
- ◆ Subject matter experts, business analysts, and functional managers in charge of operations included in the portfolio.

Some organizations employ a portfolio analyst who works closely with the portfolio manager and the EPMO. The responsibilities of the portfolio analyst may be as follows: (a) to identify and track interdependencies between portfolio components and facilitate their resolution/management at the portfolio level; and (b) identify portfolio management process gaps, recommend improvements, and help implement them. The portfolio analyst role can be combined with other roles and tailored to meet organizational needs. Further, a number of organizations have a change control board that works, in practice, as a steering committee for projects. In many organizations, splitting responsibilities between project sponsors, the project steering committee, and portfolio governance is an important issue.

1.11.1 SPONSORS

A sponsor is a person or group who provides resources and support for the portfolio. If it is a group, then individual accountabilities should be clearly defined. The portfolio sponsor usually participates in the portfolio governance body. Sponsors are accountable for resource allocation and enabling success. Sponsors champion the approval of portfolio and/or portfolio components (projects, programs, subsidiary portfolios, and operations) and are also accountable for the ultimate success of the portfolio.

At the portfolio level, a sponsor is a champion of the entire portfolio and should work closely with the portfolio manager in the establishment and ongoing management of the portfolio and its processes. Once the portfolio component is approved, the sponsor helps the portfolio manager ensure that the components perform according to organizational strategy and objectives. Sponsors also support portfolio management to recommend portfolio and portfolio component changes or closures to align with organizational strategic changes. Sponsors should be vigilant regarding any changes in the portfolio components that might affect the achievement of the strategic objectives toward which the portfolio has to be constantly aligned.

1.11.2 PORTFOLIO GOVERNANCE BODY

Portfolio governance is the framework, functions, and processes established by the governing body and set by the organization to guide portfolio management activities and make decisions about investments and priorities for the portfolio and ensure that the portfolio management processes are followed to sustain the organization. Leadership and sponsorship from the portfolio governance body are essential for the portfolio manager. The portfolio governing body is made up of one or more individuals with the requisite authority, knowledge, and experience to ensure the alignment of portfolio components with organizational strategy. Sometimes, portfolio governance is performed by subgroups that have specific responsibilities toward portfolio governance (e.g., selection/prioritization of portfolio components, investment decisions, oversteering portfolio progress, a change review board to decide on change proposals). This governing body usually has the authority to evaluate the portfolio performance and to make resourcing, investment, and priority decisions as needed. Change recommendations may include new portfolio components, the suspension or change of existing portfolio components, and the reallocation of resources among portfolio components. The recommendations may be complex, with significant organizational constraints, especially concerning reallocation of resources. Often, portfolio governance does not only make the recommendations, but is also responsible for their approval process. Portfolio governance is paramount to portfolio decision making; it informs and guides decisions related to strategic alignment, investments, and the setting of priorities. Proper governance is essential and crucial to enforce accountability, optimize investments, escalate issues to decision makers, and improve communication.

1.11.3 PORTFOLIO, PROGRAM, AND/OR PROJECT MANAGEMENT OFFICE

The term *PMO* refers to a portfolio, program, and/or project management office. The PMO supports portfolio, program, or project functions, respectively. At the portfolio level, a PMO, which may be referred to as an enterprise PMO (EPMO) or center of excellence, is an organizational entity that provides a wide variety of capabilities and processes supporting portfolio management. These may include some or all of the following:

- ◆ Identifying, analyzing, coordinating, negotiating, monitoring, and controlling portfolio components; supporting component proposals and evaluations; facilitating prioritization; authorization; termination of components; and facilitating the allocation of resources in alignment with organizational strategy and objectives;
- ◆ Developing and maintaining portfolio, program, and project frameworks and methodologies;
- ◆ Managing knowledge regarding the project management discipline, including good practices and lessons learned;
- ◆ Providing program and project progress information and metric reporting utilizing key performance indicators (KPIs) (e.g., expenditure, defects, resources) to the portfolio governance process;
- ◆ Managing, including monitoring and controlling, such as regulatory/governance compliance and benefit realization across the entire portfolio;
- ◆ Assisting with risk strategy development and risk identification, and communicating risks and issues related to portfolio components;
- ◆ Coordinating communication across portfolio components; and
- ◆ Developing and conducting training and mentoring of human resources in portfolio management skills, tools, and techniques.

The portfolio management office has a focused and specific responsibility for the centralized management and coordination of the portfolios that lie within its domain. The responsibilities of this office may range from providing portfolio support functions to actually managing the portfolio—usually, in this case, the portfolio manager is also the head of the PMO. The structure and function of the portfolio management office vary with the needs of the organization—for example, the PMO life cycle, the PMO model, and the PMO critical success factors.

The portfolio management office may act as a stakeholder throughout the portfolio's life cycle and may recommend the selection, termination, or initiation of actions necessary to ensure that the portfolio remains aligned with the organization's strategic objectives.

The portfolio management office may provide the following services to a project or program management office:

- ◆ Defining and developing the portfolio management strategy;
- ◆ Providing portfolio oversight and managing the overall portfolio value and portfolio component benefits;
- ◆ Defining portfolio vision and mission statements; management structure; and methodology, best practices, and standards for use as guidelines while formulating the methodology and standards for project and program management;
- ◆ Aggregating and providing performance results of the portfolio components based on predefined metrics;
- ◆ Identifying risks, analyzing risks, and planning risk responses at the portfolio level; and
- ◆ Forecasting supply and demand for the portfolio and optimizing the portfolio resource allocation. Thus, supply and demand are analyzed and broken down for each portfolio component.

The roles, responsibilities, and activities of a project or program management office are addressed in the relevant PMI standards: *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* [1] and *The Standard for Program Management* [2].

1.11.4 PROGRAM MANAGERS

Program managers are responsible for ensuring that the overall program structure and program management processes align with the portfolio management plan. The program manager ensures that the program delivers the intended benefits. Detailed information on program management may be found in *The Standard for Program Management*.

Portfolio management supports the program manager by providing the information needed to make decisions that guide the program and by providing administrative support in managing schedules, budgets, risks, and other areas required for effective program management. A program manager works with the portfolio manager, the portfolio management team, and/or the portfolio management office to provide information such as program performance against goals.

1.11.5 PROJECT MANAGERS

Project managers are responsible for the effective initiation, planning, execution, monitoring and controlling, and closing of assigned projects within the portfolio in accordance with corresponding objectives and specifications. Program and project team members fulfill specific roles toward the successful execution of each portfolio component. Detailed information on project management may be found in *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*. Project managers provide project performance indicators, directly or indirectly, to the portfolio manager, PMO, or governing body. This information is used along with other criteria to monitor progress for each portfolio component and derive overall portfolio progress, issues, assumptions, and risk emerging from component dependencies. Moreover, such information is valuable for determining which projects should proceed, be modified, be suspended, or be terminated, and to communicate with stakeholders. Further to the key management roles within the portfolio framework listed in Section 1.11, the operational managers of each organization have the role of realizing the outcomes and benefits from the successfully implemented portfolio components.

THE PORTFOLIO LIFE CYCLE

This section provides information on the portfolio life cycle. The following major sections are addressed:

- 2.1 Overview**
- 2.2 Guiding Principles**
- 2.3 Ongoing Life Cycle**
- 2.4 Portfolio Management Information System (PMIS)**
- 2.5 Governance Within the Portfolio Life Cycle**

2.1 OVERVIEW

The portfolio life cycle is the ongoing processes and functions that occur to a set of portfolios, programs, projects, and operations within a continuous time frame. In today's global market, the portfolio life cycle needs to be adaptive and flexible to constantly changing needs from all influences, internal and external, so organizations can remain competitive and financially stable. One or more portfolios can exist within the life cycle. If several portfolios exist, they can be centralized or decentralized in terms of management within the governance structure in place. For example, a research and development portfolio could be decentralized while another portfolio may be managed centrally. The controls required to manage a portfolio should be flexible to adapt to the complexities of multiple portfolio scenarios. Selection and authorization of portfolio components can be part of the periodic (e.g., annual) planning or strategic review, with quarterly and/or monthly updates. Once established, portfolio management is an ongoing practice. Performance monitoring of the portfolio(s) is ongoing. Adjustments to the portfolio components may be required when changes to the organization occur. Portfolio management starts with the initiation of each portfolio and may continue indefinitely or until the portfolio is closed.

Strategic planning, organizational performance metrics, and product and service design are all critical elements as inputs into the portfolio life cycle. Underlying these inputs is a thorough understanding of the portfolio's value to the organization. Defining the value derived from the portfolio's functions, products, and services from all perspectives (organization, customers, additional stakeholders) helps eliminate non-value-added programs, projects, or activities. The value stream should be mapped to understand which value-added programs, projects, and activities are essential to enterprise strategic objectives, and conversely, which are of little or no benefit.

2.2 GUIDING PRINCIPLES

The guiding portfolio management principles described in Section 1.7 of this standard influence all stages of the portfolio life cycle. Specific impacts from principles within individual stages of the life cycle are mentioned in Sections 2.3 through 2.5.

2.3 ONGOING LIFE CYCLE

A portfolio's continuous life cycle consists of several stages: initiation, planning, execution, and optimization. As a portfolio progresses through its life cycle, information and decisions are passed within and between each of these stages (see Figure 2-1). This is ongoing and not necessarily sequential. For example, a portfolio could undergo several iterations of planning and then proceed to execution within a short time frame based on a number of factors, both internal and external. Within the same business change life cycle, the portfolio can be “refreshed” with the addition or deletion/modification of the portfolio components. Replanning can occur when the portfolio mix is reviewed at the end of each business change life cycle when a top-down alignment is taken into account. All stages within the portfolio, including initiation, are adaptable, flexible, and fluid. As management decisions are made within the portfolio life cycle, the portfolio can be changed and updated to adapt to internal and external factors. For example, if a new government regulation comes into effect after periodic planning, the portfolio management team may have to adjust management plans to align to the new regulatory requirements. Figure 2-2 shows an example of major activities that are likely to occur by each stage.

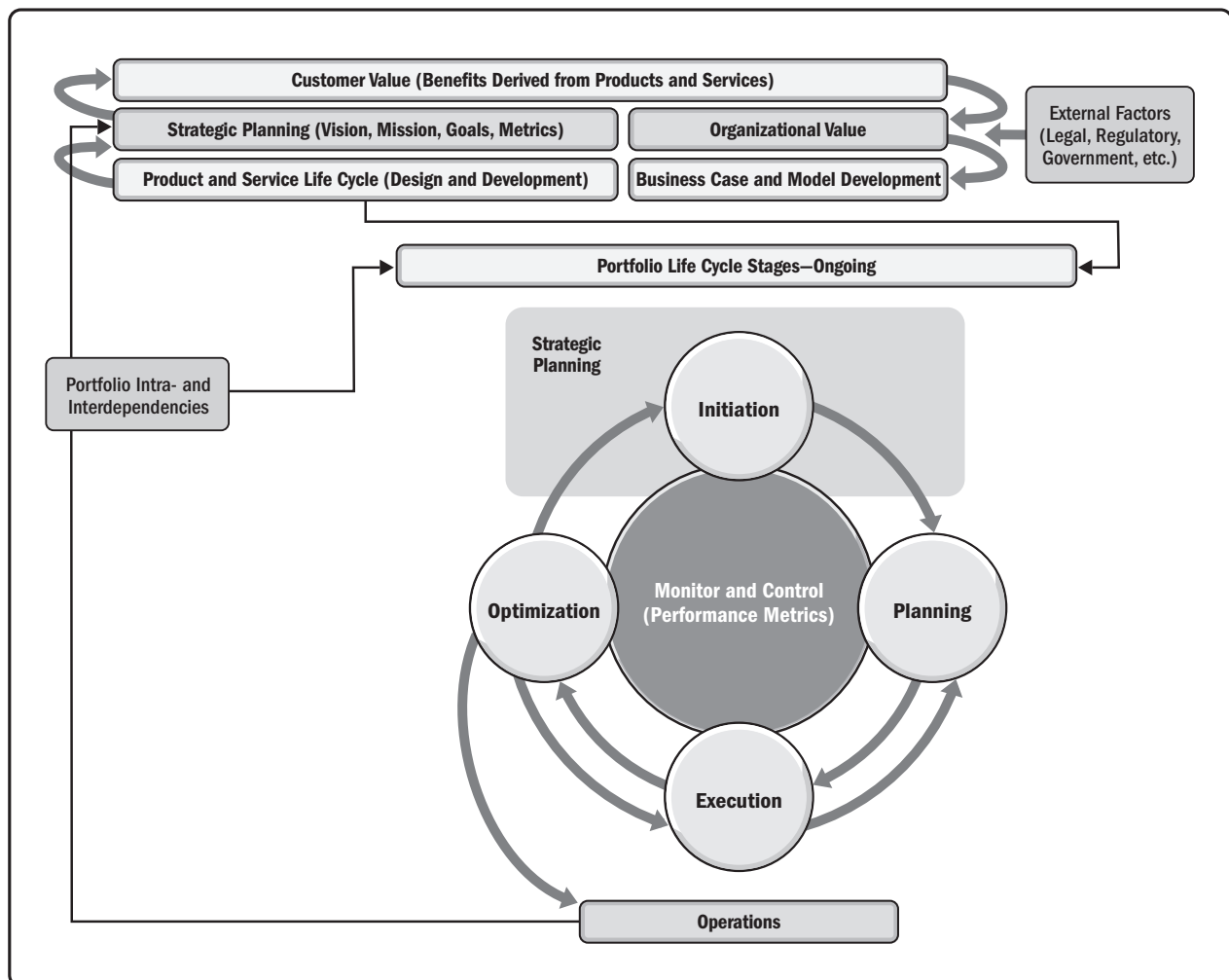


Figure 2-1. Information and Decision Flows Within the Portfolio Life Cycle (Example)

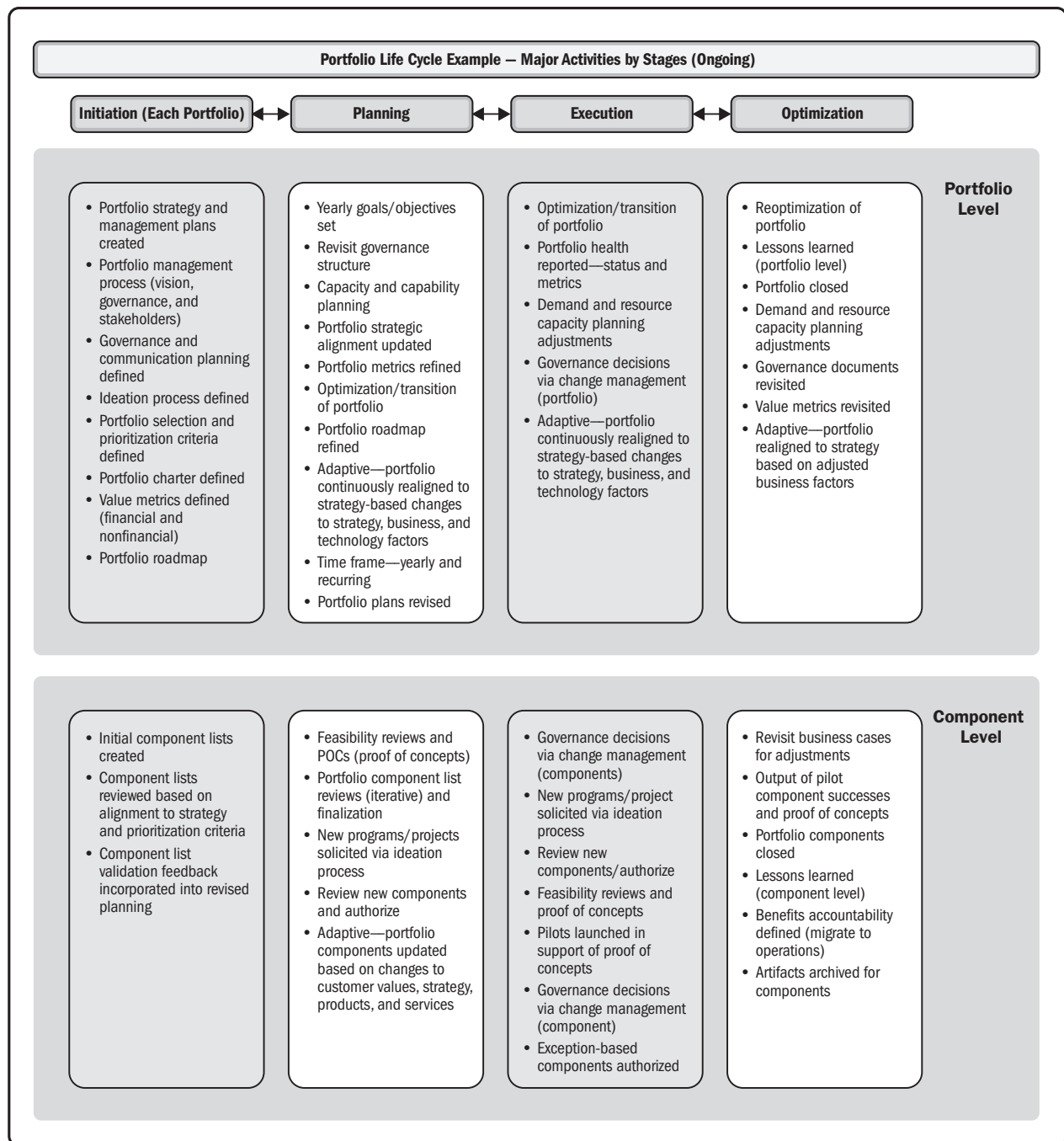


Figure 2-2. Example of Portfolio Life Cycle Major Activities

Supportive processes are organization specific, utilized to keep the portfolio aligned with governance controls and measures. These supportive processes include communications, financial, risk, and dependency management. They are defined and aligned to the portfolio during the initiation phase. Dependency management is primarily focused on the impact to and from portfolio components caused by various factors, such as resource and time constraints, financial costs, project outcomes, and risk profiles.

2.3.1 INITIATION

Initiation is an important stage. It is kicked off or informed by the formal release of business and/or organizational objectives and goals or to provide the management structure for previously disparate components. It sets the approach and principles for major processes that define how the portfolio and its components will be managed throughout the life cycle. The primary goals of this stage include, but are not limited to:

- ◆ Validating business and operational strategy;
- ◆ Identifying the portfolio components included in the scope; and
- ◆ Defining a long-term roadmap with financial goals, performance metrics, communications, governance, stakeholders' definition and roles, and ongoing management plans for the portfolio and its components.

During this stage, the following key processes are first discussed and set up: governance framework, communications planning, prioritization criteria, portfolio performance metrics, and portfolio risk management. The portfolio governance plan and charter are created, as detailed in Section 3. Discussions occur regarding how the strategy of the organization ties to the portfolio and its components at a high level.

2.3.2 PLANNING

The primary goals of the planning stage are to develop the portfolio management plan and reach agreement on:

- ◆ Management of portfolio components in scope;
- ◆ Budgeting required to successfully execute components;
- ◆ Identification of interdependencies between portfolios and their components;
- ◆ Identification of risks and issues, and development of response plans;
- ◆ Resourcing requirements (human, financial, asset, and intellectual);
- ◆ Prioritization of portfolio components;
- ◆ Confirmation of governance body/sponsor and stakeholder accountability;
- ◆ Portfolio metrics to measure success (financial and nonfinancial);
- ◆ Scope of components within the portfolio; and
- ◆ Product and/or services requirements and specifications.

During periodic portfolio strategic planning, the portfolio business model is revisited to ensure that it is in alignment with customer values/benefits and business/organizational strategic goals. Initial optimization of the portfolio occurs as a result, because the portfolio is formally aligned to strategy during this phase. Portfolio metrics are reviewed to ensure that they are tied to realistic goals/objectives at the customer, strategic, and financial levels. Existing components agreed upon during the initiation stage are reviewed in more detail, including scope, timing, budget, risks involved, resourcing requirements (human, financial, asset, and intellectual), and interdependencies.

Additionally, the prioritization criteria are reviewed based on new components introduced and their performance since the last strategic review. Changes are proposed and reviewed based on these criteria. Capital needs are compared against available funding and demand, and resource capacity plans are set based on the needs of the portfolio. During replanning, the portfolio is reviewed again. Components, including subsidiary portfolios, are revised based on the needs of the organization. Finally, portfolio management plan(s) are reviewed and updated based on the relevant status of components at this time, as well as overall portfolio risks and/or issues.

2.3.3 EXECUTION

The primary goals of the execution stage are to:

- ◆ Lead delivery of all components within each portfolio,
- ◆ Actively manage and resolve risk and issues across (interdependencies) and within the portfolio and its components,
- ◆ Facilitate portfolio and component communication (including status reporting at various levels),
- ◆ Reprioritize and change subsidiary portfolios as needed (monitor and control),
- ◆ Monitor benefits realization potential based on component delivery, and
- ◆ Manage portfolio assets and resources limited to the portfolio.

Portfolio execution is performed through its various components and operations. The health of the portfolio is reported through regular status reports and by reviewing the component performance metrics that were established during the planning phase. Proposed changes are reviewed based on ongoing organizational needs. Changes in the organizational environment may necessitate the reprioritization of components or the introduction of new components into the portfolio. These new components are reviewed as required based on unplanned critical needs (internal or external) or positive outcomes of proofs of concept, pilots, or feasibility studies.

2.3.4 OPTIMIZATION

Optimization is the process of making a portfolio as effective as possible by maximizing available conditions, constraints, and resources. Typically, the primary goal of portfolio optimization is to ensure that the available human, material, and financial resources are best applied to the appropriate remaining components of the portfolio. Although some organizations schedule regular optimization sessions, typically this activity is triggered when components are added or closed. During this stage, the portfolio manager facilitates discussions with stakeholders to ensure that the organization realizes the intended benefits for the remaining components.

While lessons learned for each of the closed components is not a part of this process, the results might add value to the discussion. Similarly, benefits realization from components that have been transitioned into the operational work of the organization may also provide credible evidence for optimization.

2.3.5 MONITOR AND CONTROL

Monitor and control is one of the critical supportive activities for monitoring portfolio performance and recommending changes to the portfolio component mix and portfolio component performance and compliance with organizational standards. The purpose of monitor and control is to understand when changes need to be made to the portfolio or to the portfolio management processes. This process includes execution, documentation, and communication of the decisions and the resulting actions taken.

2.4 PORTFOLIO MANAGEMENT INFORMATION SYSTEM (PMIS)

The portfolio management information system (PMIS) consists of the tools and techniques used to gather, integrate, visualize, preserve, and disseminate the outputs of organizational portfolio management. It is used to support all aspects of portfolio management, may be integrated with business management tools (the organization's enterprise resource planning system, the business process management system, tools to measure and optimize business processes, process modeling tools, etc.), and may be a manual or automated process depending on the needs of the organization.

These systems support overall organizational visibility, standardization, measurement, and process improvement, and can facilitate effective decision making by providing executive management with key performance metrics and target collection, analysis, and reporting. The PMIS is a powerful tool for portfolio governance, because it provides transparency and clarifies responsibility and accountability within the portfolio.

Automated tools may include commercial project portfolio management (PPM) applications as well as an information gathering and administration system with interfaces to other organizational automated systems. The PMIS is sometimes a collection of spreadsheets rather than automated tools during the early stages of organizational maturity. An effective PMIS enables the portfolio manager to define, analyze, design, produce, collect, and integrate necessary data elements to manage and support a successful portfolio. It provides an integrated system solution for reporting all project-based work and may be interconnected with the management information system of the whole organization. The PMIS includes tools and processes such as:

- ◆ Portfolio categorization with components, dependencies, owners, and other stakeholders, etc.;
- ◆ Centralized dashboard for executive reporting of management decision making (key performance metrics agreed to track);
- ◆ Software automation tools to replace manual processes;
- ◆ Centralized online document repository and version control;
- ◆ Change or configuration management;
- ◆ Workflow management and documentation of escalation communication;
- ◆ Historical and current information on portfolio risks, issues, assumptions, and dependencies;
- ◆ Integration with other applications and integrated business process management tools;
- ◆ Financial management processes and systems (e.g., budget tracking), cost control and schedule control processes and systems (e.g., earned value management), and enterprise resource planning tools (including capabilities, costs, and schedule);

- ◆ Risk database and associated analysis tools;
- ◆ Issues database and associated analysis tools;
- ◆ Communications management processes and tools; and
- ◆ Business process management tools.

It should be noted that integration among all management tools plays an important part toward validated, consolidated communication of information and knowledge for the whole organization.

The PMIS needs to be a comprehensive, documented, dynamic set of policies, processes, tools, plans, and controls for portfolio management. When properly implemented, the PMIS provides direction and integrates information from individual project/program management systems. The use of an effective PMIS provides a way to routinely analyze and quantify the value added by each portfolio component and provides input for portfolio component valuation and prioritization.

Specifically, the PMIS allows portfolio managers to answer questions, such as the following:

- ◆ Which portfolio components will best support the organization's business strategies and goals?
- ◆ Is there a program or project that provides the anticipated business results, as demonstrated by portfolio metrics?
- ◆ Does each portfolio component have appropriate resources, including staff with the right skill sets?
- ◆ Does the PMIS reflect the real overall status of the portfolio and is it the ultimate source for decision making?

A comprehensive PMIS should support processes that address continuing performance challenges for ongoing portfolio components as well as processes that concentrate on the portfolio's evolution, including the selection of new projects and portfolio component termination procedures.

2.5 GOVERNANCE WITHIN THE PORTFOLIO LIFE CYCLE

Developing the portfolio governance framework, which is an integral part of organizational governance, early in the portfolio life cycle is a crucial step. It can be one of the most important decisions that an organization makes.

To determine the rigor and level of portfolio governance needed in an organization, there are several factors to consider, including:

- ◆ Types of components within the portfolio and the required number of subsidiary portfolios;
- ◆ Legal or regulatory programs and projects, which typically need firm governance;
- ◆ Level of administration resources to support the governance (documentation, communication, and internal audit processes);
- ◆ Agility required to adapt the portfolio to frequently changing market needs, technological changes, etc., based on the nature of an organization's business strategy at specific points in time;
- ◆ Centralized versus decentralized governance required based on the size and scope of an organization (i.e., global, domestic, or local only);

- ◆ Location of governance and resources (processes, integrated tools and techniques, good practices) required for the successful execution of portfolio components;
- ◆ Audits consisting of the regular review of portfolio components, both internal and external (e.g., government or legal agencies); and
- ◆ Performance metrics, including financial, nonfinancial, and portfolio-focused.

The level of complexity introduced by the portfolio components has to be investigated, and complexity navigation based on a standardized framework should be planned and followed as part of the portfolio governance framework.

Developing the portfolio governance framework early in the portfolio life cycle is crucial. The portfolio components' governance frameworks need to be aligned to portfolio governance. It is much more effective to set up the governance correctly from the start with the optimal level of rigor and without major delays to achieve the maximum benefit for portfolio components that already exist. Some examples of governance delay could be related to ineffective portfolio management or a lack of engagement from senior management stakeholders to ensure that the governance in place is comprehensive. Downstream impacts of such challenges could include communication gaps, financial/resource priority conflicts, or poor risk management. The governance of portfolios is further discussed in Section 4 of this standard.

PORTFOLIO STRATEGIC MANAGEMENT

Portfolio Strategic Management is the management of intended and emergent initiatives that are often identified at an executive level and provide the very fabric under which portfolio management is executed. It supports strategic thinking and is the basis for an effective organization or business unit. Strategic thinking simply means asking, “Are we doing the right thing?” More precisely, it means assessing whether the right thing is being done using three key requirements:

- ◆ A profound understanding of the associated environment(s),
- ◆ Full alignment of all portfolio components with the vision and values of the organization, and
- ◆ Creativity in developing effective responses to forces and changes that affect the fulfillment of that purpose.

In the context of a portfolio, strategic thinking is captured in the strategic portfolio management plan.

This section provides information on Portfolio Strategic Management. The following major sections are addressed:

- 3.1 Overview**
- 3.2 Guiding Principles**
- 3.3 Portfolio Strategic Objectives**
- 3.4 Developing Portfolio Strategic Objectives**
- 3.5 Strategic Risk Appetite**
- 3.6 Portfolio Charter**
- 3.7 Portfolio Roadmap**
- 3.8 Key Portfolio Components**
- 3.9 Portfolio Optimization**
- 3.10 Managing Strategic Alignment**

3.1 OVERVIEW

Alignment of strategic management and portfolio management enables the actions of an organization to be consistent with the expectations of senior management and stakeholders. Without this, there is a high risk that a portfolio will not match the overall strategy and that the programs/projects being undertaken will add little or no value—certainly less value than is expected. Portfolio Strategic Management should be considered a two-way process. In addition to the continual monitoring of strategy and investment decisions at the executive level, the practice should provide feedback on the impact and viability of such strategic decisions and potential outcomes.

3.2 GUIDING PRINCIPLES

To successfully manage a portfolio, a strategic approach that is mindful of the organization's strategic plan, goals, and objectives needs to be undertaken. Unlike what is done in program or project management, in strategic management, the portfolio manager needs to maintain a long-term vision in order to execute sound practices of decision making, risk management, and value management, among other organizational considerations. All of the principles outlined in Section 1.7 are important for strategic management. However, the following are especially applicable to this domain:

- ◆ Achieve excellence in strategic execution.
- ◆ Ensure that investments in portfolio components are aligned with the organization's strategy and governance practices.
- ◆ Balance portfolio value against overall risks.
- ◆ Foster a culture that embraces change and risk.
- ◆ Navigate complexity to enable successful outcomes.
- ◆ Continuously acquire talent and implement professional talent management.

Strategic management not only oversees the performance of the portfolio components, it also plays an important role in providing feedback to all stakeholders on the success of the organization's strategies and the viability of its long-term goals and objectives.

3.3 PORTFOLIO STRATEGIC OBJECTIVES

The portfolio strategic planning process consists of developing a portfolio strategic plan and aligning the strategic management of the portfolio to the organizational strategy and objectives. The portfolio strategic plan explains the key components of the portfolio management life cycle, describing the key initiation decisions, planning criteria, governance and optimization considerations, and execution elements. The portfolio strategic plan is used to align organizational and financial structure with priorities, mission, and objectives. Typically, a portfolio strategic plan includes a vision and a mission statement, a description of the organization's long-term portfolio goals and objectives, and the means by which the organization plans to achieve these general goals and objectives. The portfolio strategic plan should also provide performance indicators and target metrics to allow assessment of ongoing strategic alignment and tracking of progress toward achieving the strategic objectives. The portfolio strategic plan may also identify external factors that may affect the achievement of long-term portfolio goals.

When defining the portfolio structure, it is important to understand the overall strategy to ensure that the right components within those business areas with the highest strategic value are included. It is also important to ensure that every goal of the portfolio strategic plan has at least one initiative that would lead to its realization, and that the summation of the initiatives' outcomes under a specific strategic goal lead to 100% realization of that strategic goal's benefits. Therefore, an organization's portfolios should cover 100% of the organization's strategic goals—and only the organization's strategic goals—meaning that any initiatives that do not serve a specific strategic goal should be terminated.

Evaluating and describing how the portfolio management activity will be aligned with the overall strategy is what defines the portfolio strategic plan based on process, actions, and elements that support this evaluation and its implementation. The process, actions, and elements include things such as portfolio management objectives, prioritization, allocation of funds, organizational benefits, performance expectations, resources, assumptions, constraints, dependencies, risks, and requirements.

Additionally, managing a portfolio is not a specific and time-bound process, so the expected results of the portfolio are not bound to its components, but instead to what they deliver in terms of results.

The portfolio strategic plan is produced using organizational strategy, vision, and objectives. The portfolio manager collaborates with management in the governing bodies and with key stakeholders in the development of the plan. The portfolio strategic plan may support the strategy for the organization, organizational unit, or function.

Organizational strategy is implemented through portfolio components and ongoing operations. When producing the portfolio strategic plan, the portfolio manager integrates and responds to changes in the portfolio while remaining aligned with the organizational strategy, vision, and objectives.

3.4 DEVELOPING PORTFOLIO STRATEGIC OBJECTIVES

At their broadest, strategic objectives serve to define an organization's ambition in some detail. An organization's ambition is found in its mission and vision statements, which together describe the main purpose of an organization and its ultimate goal. They are the steps and accomplishments that an organization completes to realize that ultimate goal.

Strategic objectives form the backbone of a strategic plan. They represent specific, short-term actions (1 to 2 years) that are the result of the vision (typically 5 or more years) and goals (usually, 3 or more years).

A strategic objective statement should outline what is to be achieved and the overall approach that will be taken to achieve it (and the benefit of achieving it), and should focus on what is offered to customers. The critical elements in a strategic objective are measurability and clarity. Crucially, the strategic objective is guided by the organization's mission.

3.4.1 VISION AND MISSION STATEMENTS

Vision and mission statements should be single thoughts that can be easily understood. The strategic vision statement describes where the business sees itself based on the chosen strategy. The strategic mission statement explains the overall approach for achieving this vision.

To test the effectiveness of a mission statement, associated leaders, managers, and employees should be able to easily describe the vision and mission of the business in simple terms. If they cannot articulate the vision or mission, then the statement is of little use. The vision and mission guide the everyday activities of every person involved in the business. To be effective, the statements need to be short and simple, capturing the essence of what the business wishes to accomplish.