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Introduction to Portfolio Management

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An Orientation To IBM Rational Portfolio Management Fundamentals

IBM is a significant player in the Project and Portfolio Management marketplace, providing tools in the form of the IBM® Rational® Portfolio Manager; and, a variety of implementation and enablement services. IBM is able to draw upon substantial experience in the application of portfolio management practices to enhance its own internal strategies and initiatives. A distinct IBM "viewpoint" is evolving around the portfolio management workspace, the major process components in that workspace, and the formulation of a collection of essential principles that are a foundation for success.

Michael F. Hanford, the Chief Methodologist for IBM Rational SUMMIT Ascendant methodologies, provides an insight into portfolio management fundamental challenges and composition, which form a foundation for effective application of portfolio management in large enterprises.

This material provides a brief overview of portfolio management to those not familiar with the subject, or its essential components. This overview may seem simplistic at times; however, the key concepts, terminology, and connections among these elements are all critical.

The Enterprise Business Strategy and Its Mechanisms

For many years, businesses have defined and used processes to create and qualify goals that they must achieve in order to prosper within a specific time period. The term prosper can include such goals as: improve revenue overall or within some specific segment; create, refine, or retire products; improve the current costs structure or mix; or gain additional market share.

As a business defines its goals, it can qualify them by specifying achievement metrics, such as improve revenue overall by five percent in the next two years, or improve the costs structure by means of a five percent reduction in labor costs in the next year. With review and discussion, the business's understanding of goals and metrics evolves, and that business records both of these in a document called the *Enterprise Business Strategy*. This document acts as a blueprint of the business's goals by spelling out the expected results that, once achieved, will allow the business to prosper.

As a business constructs, discusses, and refines an Enterprise Business Strategy, its focus shifts from answering the question: "What goals and their specifics must we achieve?" to answering the follow-on question: "What mechanisms will we create and implement to enable us to reach these goals?"

One of the mechanisms a business creates take the form of an *initiative*. In its simplest sense, an initiative is a body of work with a specific (and limited) collection of needed results or work products as well as assigned or responsible human resources. It involves the use of other resources—such as funding—and has a defined beginning and end.

Generally, initiatives are organized as programs or projects in order to provide a structure to the work effort. Accordingly, there is an available body of planning, execution, and management practices that a business can apply. However, you may organize and structure initiatives in some other form than programs or projects.

To succeed in achieving the goals (or goal components) in the Enterprise Business Strategy, you must identify a number (sometimes a large number) of initiatives. These initiatives proceed in parallel throughout a period of time which sets a boundary for achieving one or more of the strategy's goals or goal components.

Initiative Challenges

Several challenges are inherent in the relationship among identifying, defining, and executing the initiatives associated with achieving success and the Enterprise Business Strategy. The following briefly explains these challenges and provides a background for understanding the basic concepts of portfolio management.

Competition (among initiatives)

Initiatives may arise from various sources within the organization or enterprise. A business, or business segment, may identify them in order to directly contribute to the Enterprise Business Strategy. They may also arise from internal or external stimuli, such as a client request to change an existing product or from an industry-regulating body imposing a new regulation. They may, additionally, arise in response to changing conditions or needs within the organization, such as the introduction of new technologies or the re-organization of a business unit.

You must create at least one (or more) governing bodies, and sets of practices, that will function to regulate the competition among potential initiatives for resources and funding. These same mechanisms must adjudicate among all the potential initiatives, and the ongoing demands of all existing initiatives, for the same resources and limited funding.

Some winnowing process will eliminate or combine proposed initiatives, "fit" them to the available enterprise resources, and take any action needed to continue or discontinue existing initiatives and reallocate their resources and funding.

Contribution

The reference point for assessing potential new initiatives, and for assessing the continuation of existing initiatives, is the set of goals, goal components, and their achievement metrics that a business identifies in the Enterprise Business Strategy. Reduced to their most basic form, those initiatives that contribute to a specific goal, goal component, or achievement metric are "good." Those that do not make such a contribution are "less than good." Of course, in actual practice, this identification is not that simple.

Each potential new initiative, and periodically each existing initiative, is subject to assessment and review. This review involves a comparison to an agreed set of measures that quantify, in multiple dimensions, an *Initiative Value Contribution*. This composite metric measures the scale of a specific initiative's potential support to a goal or goal component in the Enterprise Business Strategy.

The specific vehicle that you use to identify the measures for the Initiative Value Contribution—providing values and value ranges for each and assigning weights to the various measurement components—is, most typically, some form of scorecard.

In summary, the Initiative Value Contribution provides a "yardstick" that your business can use—together with other measures—to compare one initiative's potential contribution to achieving one (or more) goals or goal components to another initiative's potential contribution; and, this separates the "good" from the "less than good."

In actual practice, the value contributions of multiple initiatives are best represented as a series of points, plotted on a curve, within a range that identifies initiatives that provide "little," "some," "significant," and "major" contributions—as opposed to the basic form of a "good" and "less than good" contribution.

Support for the Business Strategy

The Enterprise Business Strategy will address several business areas and their associated goals and goal components. In result, what appears to be a single strategy is really a collection of more (or less) related items, each supported or enabled by goals, goal components, mechanisms, proposed changes and transformations, and multiple initiatives.

As time passes, new initiatives are proposed, and existing initiatives proceed: either as originally conceived, or as the initiatives evolve in the face of new and changing needs, the impact of external forces, or in response to improved or increased understanding.

An additional change dimension exists as the Enterprise Business Strategy will (or should) undergo its own evolution. Many of the same change factors that impact initiatives—new and changing needs, external forces, and increased understanding—drive the evolution.

A challenge to the organization then is to continuously assess and confirm that proposed new initiatives and evolving existing initiatives are firmly attached to specific (and also evolving) Enterprise Business Strategy goals and goal components.

This challenge can be identified as continuous "alignment" between proposed new initiatives and existing ones with the goals and goal components of an organization's Enterprise Business Strategy.

Apportionment of Resources

While working to create an Enterprise Business Strategy, and managing the execution of its contents, the organization recognizes that its resources—staff, outside consultants and contractors, infrastructure, capital, and human expertise—are finite. Multiple competing needs within the business will reduce (and almost never increase) the share of these resources available to achieve the goals and goal components in the Enterprise Business Strategy.

Thoughtful enterprise leadership will address this challenge by providing an allocation scheme—as part of the process of developing the Enterprise Business Strategy—that defines a share, or proportion, of resources to each major interest or area. For example, the area of "new product development" may be allocated 17 percent of the resources; while "marketing" may be allocated 12 percent, and so on.

Management must interpret, assess, and analyze this high-level allocation for proposed new and existing initiatives.

In a simple (albeit, unrealistic) example: if the organization has a total of 100 initiatives, 12 of which enable or support marketing, then the group of marketing-related initiatives conforms to the management expectation of a proper "mix" of initiatives and performs 12 percent of the total number of initiatives.

Moving beyond this simple example, realistically the challenge of assessing all initiatives and their conformance to an expected "mix" of enterprise leadership occurs in complex (and multiple) dimensions. These include, for example, funding and funding sources, resource usage, types of initiatives to be counted (and not counted), and so on.

Control and Oversight

If an organization were to identify a single group of enabling mechanisms and initiatives at the time it refines and completes the Enterprise Business Strategy and if it executed that group of mechanisms and initiatives successfully—without change, then exercising control over them might be reduced to a simple progress checklist.

As mentioned above, at any point in time, existing initiatives are in progress, proposed new initiatives are being considered (in various stages of identification and approval), and several change factors occur that contribute to varying degrees of impact upon the organization and its initiatives.

You must exercise control when collecting and assessing feedback to support decision-making. You must also exercise oversight; that is, continuing to assess initiative progress and change, and make decisions with respect to the future of these initiatives.

There are challenges, in the areas of control and oversight, when implementing (and continuously refining) processes and practices to describe needed work and results. These challenges define functional responsibilities and assignment of resources to ensure that the processes and practices are exercised.

IBM Rational Portfolio Management (for Initiatives)

As mentioned above, you may encounter several challenges when identifying, executing, and continuing the assessment of initiatives that support the Enterprise Business Strategy goals. Your organization must be able to:

- *Manage competition for resources and funding among the entire collection of initiatives*
- *Define and apply a "yardstick" to identify potential value contribution of individual initiatives*
- *Ensure that specific initiatives are, and continue to be, supportive and aligned with goals*
- *Allocate resources and funding in conformance with the agreed strategy for the enterprise*
- *Exercise effective control and oversight over all initiatives*

Over a period of time, ideas and practices from the field of financial investment have been successfully refined and applied to various aspects of these identified challenges. Collectively, these ideas are identified as *portfolio management*.

This term is often qualified to identify a specific area of application as well, including:

Investment Portfolio Management
Application Portfolio Management
Project Portfolio Management

IBM Rational uses the term Portfolio Management (for Initiatives). This term aims to have a broad boundary, allowing the inclusion, identification, execution, and continuous assessment within a Portfolio of initiatives that are structured as programs, projects, or in some other way.

Basic Concepts and Constructs of Portfolio Management (for Initiatives)

The Portfolio

It would be difficult (and in large organizations, impossible) to directly address the identification, execution, and continuous assessment of all proposed new initiatives and all existing initiatives as a single group.

Within the collection of all initiatives, different initiatives address different goals and goal components. Various sub-groups of initiatives are sponsored by, and have impact upon, different business segments. Different executives will sponsor different initiatives and be held accountable for results.

This organizing element is the Portfolio. The basis for the construction of a portfolio varies, and will be adapted to the needs of the enterprise. Some examples include: a specific product, or, a business segment, or, a separate business unit within a multinational organization

Getting Started—The Portfolio Assessment

To define portfolios, and the structure that will contain them, you start by creating an inventory of all (or an agreed sub-set) of the initiatives within your organization. The processes and practices for mobilizing, planning, executing, and evaluating the initiatives inventory, together are described as a *portfolio assessment*.

You typically organize and structure the portfolio assessment as a project within a program that is mobilized to implement the practices of portfolio management across the organization or segment of the organization.

The major components of a portfolio assessment are:

- *Mobilization of an assessment team*
- *Construction of an assessment strategy and plan*
- *Acquisition and installation of needed physical and technical infrastructure and tooling elements*
- *Collection of information about initiatives by means of surveys and face-to-face interviews*
- *Analysis of information about the identified initiatives*
- *Planning and execution of one (or more) work session(s) to identify and qualify the potential Initiative Value Contribution of the identified initiatives*

Getting Started—The Portfolio Structure

Next, an organization creates a structure that will identify and contain all of its portfolios. The portfolios and their structures align with significant planning and results boundaries, business elements, or components. The structure examples, already provided, included one portfolio each for a specific product, business segment, or separate business unit within a multinational organization; this is the organizing principle behind an enterprise's portfolios.

In the case of a product-oriented structure, for example, each major product or product group is the basis of a single portfolio. You collect all the initiatives that support a single product or product group – in its contribution to the success of the Enterprise Business Strategy – into a single portfolio.

You then develop metrics and measures that qualify each initiative, and compare each of them against each other in several dimensions. This comparison is a major tool in deciding whether to add new initiatives and to continue existing ones.

Additionally, you aggregate the collective consumption of resources, usage of funding, enablement of goals and goal components, and so on for all the initiatives within the portfolio, and compare them to the same metrics for other portfolios. This comparison is a major tool in managing and overseeing the entire Enterprise Business Strategy, as well as the initiatives that support its goals and goal components.

Executive leadership must consider and select an organizing principle for defining a portfolio structure, and identify specific portfolios that offer the most useful insight and best aggregated data to support their continuous oversight of the organization's initiatives. This will also help them understand the degree of progress toward success of the Enterprise Business Strategy.

Execution—Portfolio Management (for Initiatives)

Actually applying the Portfolio Management (for Initiatives) concepts to the identification, approval, and continuous oversight of the initiatives is first outlined through a process definition effort. Management directs an effort to outline and, then agrees on an overall work process for implementing portfolio management with its components, needed roles, and organizational entities. It then iteratively expands, reviews, and agrees that this process is a good fit for the organization's culture and management practices. Management identifies a responsibility to check the outlined process and process components for correct usage of the concepts and ideas of Portfolio Management (for Initiatives).

Management organizes and structures this process definition effort as a project within the program to implement the practices of portfolio management across the organization or a segment of the organization.

The execution components of Portfolio Management (for Initiatives) will provide for the following activities and actions in broad terms:

Identification and Review of New Initiatives

The defining and providing of practices and roles that allow the business and IT areas to identify and propose new initiatives is an ongoing function.

Proposed new initiatives are outlined in multiple dimensions, including strategic fit, required resources, funding, business justification, duration, and so on.

This function provides vehicles to capture the proposals and an assessment process that determines the potential Initiative Value Contribution of each proposal. This assessment process offers multiple opportunities to question and assess the need for and alignment with the Enterprise Business Strategy. Various roles, functions, and organizational entities participate in these efforts.

An organization will accept some proposed new initiatives for implementation and inclusion in a portfolio within the portfolio structure. It may combine some proposed initiatives with existing or other proposed initiatives.

Finally, the organization can reject some proposed new initiatives because they fail to generate a sufficient "score" against the multiple review dimensions; don't support the overall business direction sufficiently; or they don't generate sufficient benefit to justify the proposed scale of resources and funding.

Portfolio Managers Continuously Oversee Portfolio Contents

Another ongoing function exists where an organization defines and provides practices to allow individual portfolio managers to assess and oversee the collection of initiatives within their respective portfolios.

Typically, portfolio managers construct a series of review points and review "profiles" to enable this function, so that everyone understands the nature and timing of reviews. These reviews are typically aligned with major events within the initiative lifecycle.

The goal of this function is to ensure the maximum return (in the form of return on investment (ROI), support for the business direction, realized benefits, and enabling of other initiatives, and so on) for the collection of active and approved initiatives.

The reviews and review points allow portfolio managers to take a "snapshot" of an initiative's current state, carry out trend analysis against multiple (past) snapshots, and compare all initiatives against each other.

The portfolio manager will take (or recommend) some action for initiatives that show a poor return or compile poor scores against analysis metrics. This action-set usually takes the form of a continue/change/discontinue decision (or recommendation).

Execution—The Enterprise Portfolio, Program, Project Management Office (EP³MO))

IBM has coined the term EP³MO to identify a function known as the Enterprise Portfolio, Program, or Project Management Office. This function is a major component of the overall portfolio management process. It provides analysis, review, tracking, and reporting for all initiatives contained within the portfolio structure. It also supports each portfolio manager's work effort.

EP³MO staff members collect and analyze data about all initiatives. The EP³MO operates and manages the "pipeline" process to review, evaluate, and obtain approvals for proposed new initiatives. Working with the portfolio managers, the EP³MO creates and operates "scoring" models, and identifies and collects needed data elements and components about initiatives.

Additionally, the EP³MO staff defines (with portfolio managers) various types of initiative reviews, and creates and maintains schedules for these reviews and review types for every initiative, providing advance notice when they are due. The EP³MO staff also supports and enables the planning, execution, and follow-up activities to the various review types, also in support of the portfolio managers.

As defined with Portfolio Managers, the EP³MO staff carries out various performance analyses, including conformance to expectations and the current state of each initiative. Various "triggers" for conditions or sets of conditions that generate notices and alarms about a specific initiative to its portfolio manager are established.

The EP³MO also (while consulting with others) creates and produces various standard and ad-hoc reports. These are produced either on-demand or as-scheduled, and provide information about proposed and existing initiatives, portfolios, and the portfolio structure.

The EP³MO operates the tooling used to maintain information about initiatives and portfolios, and performs the effort to collect and validate input data to qualify and update that information. It is also responsible for continuing to maintain the supporting technical infrastructure for the tooling and data structures.

Execution—Project Initiation

The capability of the organization and its staff in the various project management disciplines and practices are important to the success of portfolio management. This means that an organization will need to modify certain project management practices and usages to fit within the overall set of adopted processes for portfolio management.

Three key focus areas and work products that require early attention in adopting portfolio management are:

- *Creating, refining, and approving a project/initiative charter for a proposed new initiative*
- *Creating, refining, and approving a project/initiative definition for a proposed new initiative*
- *Creating, refining, and approving a business case for a proposed new initiative*

The Project/Initiative Charter

This work product provides an initial high-level view of a proposed new initiative. When you produce, review, and refine this work product, you trigger the EP^3MO to alert this organizational entity to the start of an effort define and gain approval for a new initiative.

The Project/Initiative Definition

This work product provides a planning and management framework that actualizes the Project/Initiative Charter as an organized work effort. When you produce, review, and refine this work product, you alert the EP^3MO that a proposed new initiative has moved from one state to another.

The Business Case

This work product is a key input that initiates process components within the set of portfolio management practices. The EP^3MO manages the "pipeline" of proposed and potential new initiatives. Completed business cases are delivered to the EP^3MO. This delivery initiates the sequence of events that will result in the acceptance of a proposed new initiative and its insertion into a portfolio; result in being combined with another proposed or existing initiative; or result in being rejected.

Summary

Portfolio Management is a set of approaches and practices that collectively offer a specific and focused "view" of the common task of making choices among alternatives to achieve goals; and continuing to manage the evolution of those choices within a business or enterprise setting.

Business enterprises are driven by the need, across multiple dimensions, to make choices. Exercising choice means that finite resources are allocated in one way and not in another. Only in the passage of time and the impact of events can you see if the selected alternative(s) were better than those rejected.

Portfolio management offers insights and practices that help reduce the risk of making poor (or sometimes no) choices. Some of these insights use lessons learned in the financial investment industry. "Good" investment involves setting (and sticking to) clear goals, and having a mix of investments that are well-aligned with these goals.

Additionally, "good" investment is also concerned with continuing to analyze the performance (and other factors) of an investment, and also making informed decisions to add to, change, or discontinue a specific investment.

The Enterprise Business Strategy contains a business organization's set of investment goals for a period of time. The initiatives that the organization defines, reviews, and approves are the actual investment vehicles (much like choosing stocks, bonds, or commodities) that it selects to reach the agreed goals.

There are several challenges in defining and providing continuous oversight into a group of initiatives that aim to support the goals and goal components in the Enterprise Business Strategy. The organization must be able to:

- *Manage competition for resources and funding among the entire collection of initiatives*
- *Define and apply a "yardstick" to identify potential value contribution of individual initiatives*
- *Ensure that specific initiatives are, and continue to be, supportive and aligned with goals*
- *Allocate resources and funding in conformance with the agreed strategy for the enterprise*
- *Exercise effective control and oversight over all initiatives*

To meet these challenges, and to succeed in the implementation of portfolio management across the organization, you must understand and utilize several basic concepts and constructs, including:

- *The Portfolio–the organizing principle used to segment the entire group of initiatives into sub-groups*
- *The Portfolio Assessment–the starting point for implementing portfolio management, which involves identifying and valuing the entire group or a sub-set of initiatives*
- *The Portfolio Structure–the framework that links to a key business component and identifies all portfolios*
- *Application of Portfolio Management concepts in several areas, including:*
- *Identification of new initiatives*
- *Continuous oversight of all initiatives by the portfolio manager*
- *The EP^{3}MO as a supporting mechanism for the portfolio manager*
- *The organization's project management capability as a success contributor.*

IBM Corporation
Software Group
Route 100
Somers, NY 10589

Produced in the United States of America
09-05

Produced in the US.

G507-0959-00