

IT Portfolio Management

BADM 559/458 – Enterprise IT Governance

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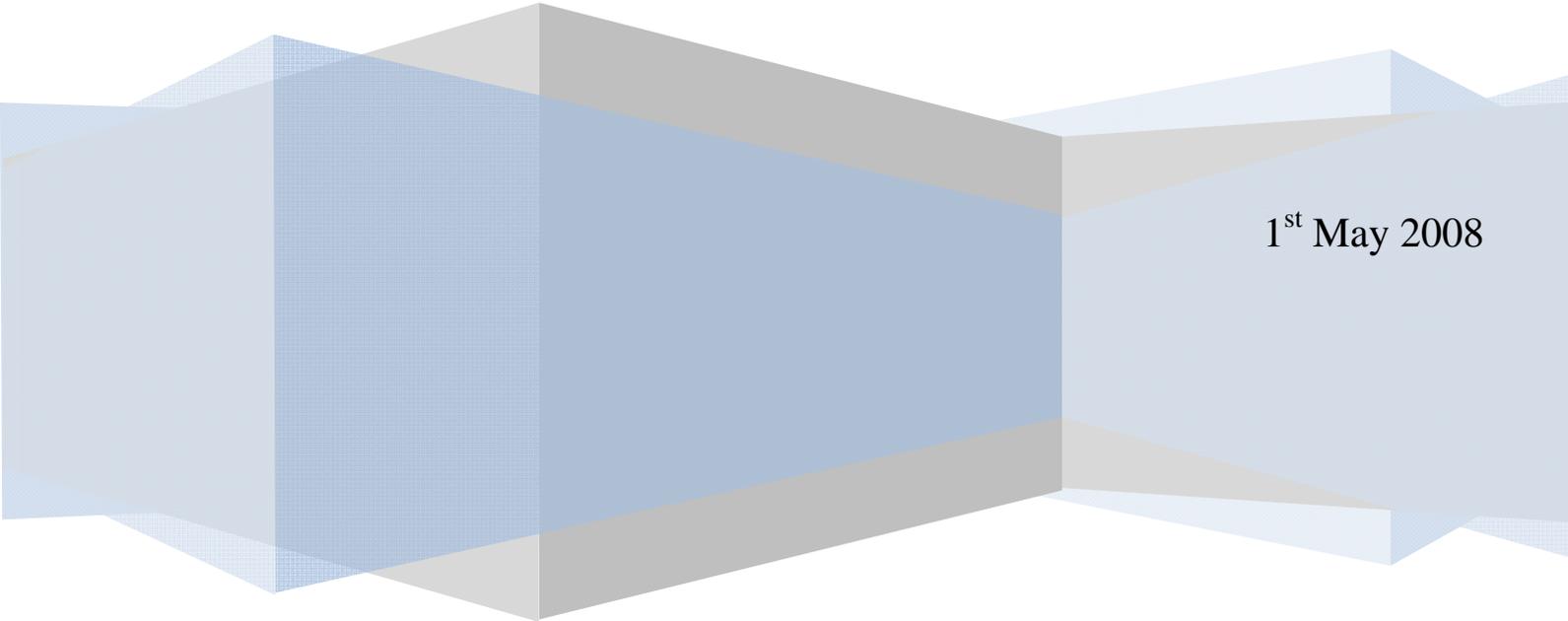


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1: Introduction

Diversification has been a staple of the financial world for half a century. But the idea of IT portfolio management has been tossed around academic circles only since the 1980s. As its name implies, project portfolio management groups projects so they can be managed as a portfolio, much as an investor would manage his stocks, bonds and mutual funds.

In the IT world, the obvious benefit of project portfolio management is that it gives executives a bird's-eye view of projects so they can spot redundancies, spread resources appropriately and keeps close tabs on progress. But what's most appealing to many CIOs is the focus on projects as a portfolio of investments. Discussions aren't just about how much a project will cost, but also about its anticipated risks and returns in relation to other projects. This way, entire portfolios can be jiggered to produce the highest returns based on current conditions.

2. Defining IT Portfolio Management

IT portfolio management is the application of systematic management to large classes of items managed by enterprise Information Technology (IT) capabilities. Examples of IT portfolios would be planned initiatives, projects, and ongoing IT services (such as application support). The promise of IT portfolio management

is the quantification of previously mysterious IT efforts, enabling measurement and objective evaluation of investment scenarios.

Previously, projects were approved and then managed independently. They were evaluated as a whole at the executive level only when it came time to put together annual reports. But a company needs that overall view so it can keep an eye on projects in real time to make sure that all of them are working together to meet core business goals. IT Portfolio Management strategies provides a structured way to attain this goals.

2.1 Portfolio Management workflow

Since the recession began, companies have been looking at the multimillion-dollar IT investments made during the past decade and trying to determine what returns, if any, they saw from those investments and what they can expect in the future. That's where portfolio management comes in. It takes a lot of details and organizes them in an easily digestible form. It helps executives see where money is spent, why projects are or aren't necessary and what resources are needed. But the first step is for companies to prioritize their business strategies. Portfolios can then be assembled and assessed based on how they meet those strategic needs.

Once companies determine the business priorities they want their projects to meet, they need to break down the portfolios. New York-based Verizon

Communications has a series of portfolios. IT teams are assigned to different business units, and each of those teams handles a separate portfolio. So, for instance, all of the finance and administrative-support projects make up a portfolio that's maintained by one manager who reports back to the CIO

Next comes the hard part: developing the metrics used to measure a portfolio's success. Energy Northwest, a Richland, Wash.-based public utility, established 10 milestones, such as project plan approval and design work completion. Those milestones are tied to performance indicators and bonuses for project managers. If someone misses a milestone, he has to write a trouble evaluation report explaining why.

Stoplight reports from Bala Cynwyd, Pa.-based Primavera Systems Inc., break metrics down into red, green or yellow fields. So if a project is about to fall behind schedule, for example, or the project team's resources are being maxed out, the report will fall into the yellow-light category, indicating that the portfolio needs adjustments.

While no organization will consciously fund a project with its goal being cancellation or failure, changes in business, economic, or market conditions may render some projects non-viable. When viewed as a component of an investment portfolio, the decision to cancel such projects and reallocate funds to better opportunities becomes the same as selling an underperforming stock.

This cancellation does not make the initial decision to fund the project any less correct. At the time, the investment made sense. However, each investment must be evaluated in the context of current business conditions and evaluated as to whether it advances the organization toward its goals. IT portfolio management then becomes the process of making “buy, sell, or hold” decisions; the same decisions made by a financial planner. This change in the way that investments are viewed, as components of a unified portfolio, is the first step to realizing IT portfolio management.

3. Implementation

The IT portfolio is the tangible manifestation of IT’s plan to support the business in meeting its strategic goals. The portfolio can be considered as composed of:

- **A suite of current investments.** Existing application, programs, and processes are investments that must be managed, optimized, retired, or enhanced as appropriate over their life cycle.
- **A suite of new initiatives.** These investments are added to the portfolio to add incremental value to the organization through cost savings, productivity gains, or business advantage.
- **A suite of externally mandated initiatives.** In addition to the above, there are initiatives mandated by regulatory, governmental, or industry rules that, although required, consume resources that could otherwise be spent on higher-value projects or initiatives.

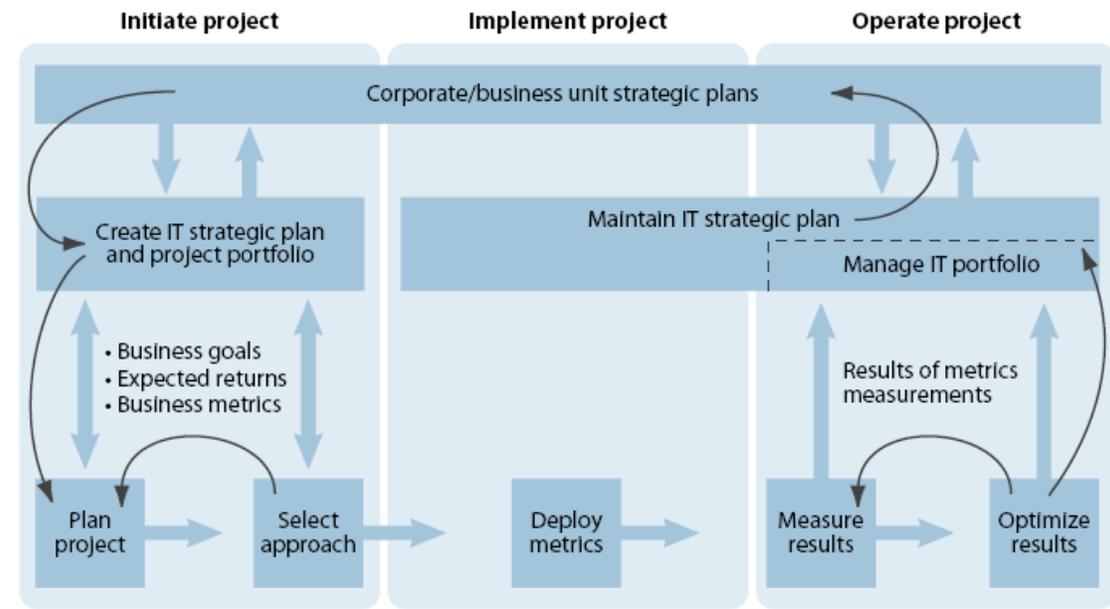
- **A suite of infrastructure investments.** Underlying many of the applications is a set of shared infrastructure assets. The degree of segregation of these assets or their linkage to associated applications or business processes varies to a wide degree by organization. However, they are part of the IT investment portfolio and must be evaluated and managed as such.

3.1 IT PORTFOLIO MANAGEMENT IN CONTEXT

IT portfolio management is the superset of the various portfolio management subspecialties required to develop, execute, and allocate the IT resources of the organization. Together, these subspecialties provide the information needed for ongoing management and optimization, providing information up and down the reporting structure and creating the feedback loops required for optimal performance (see Figure 1).

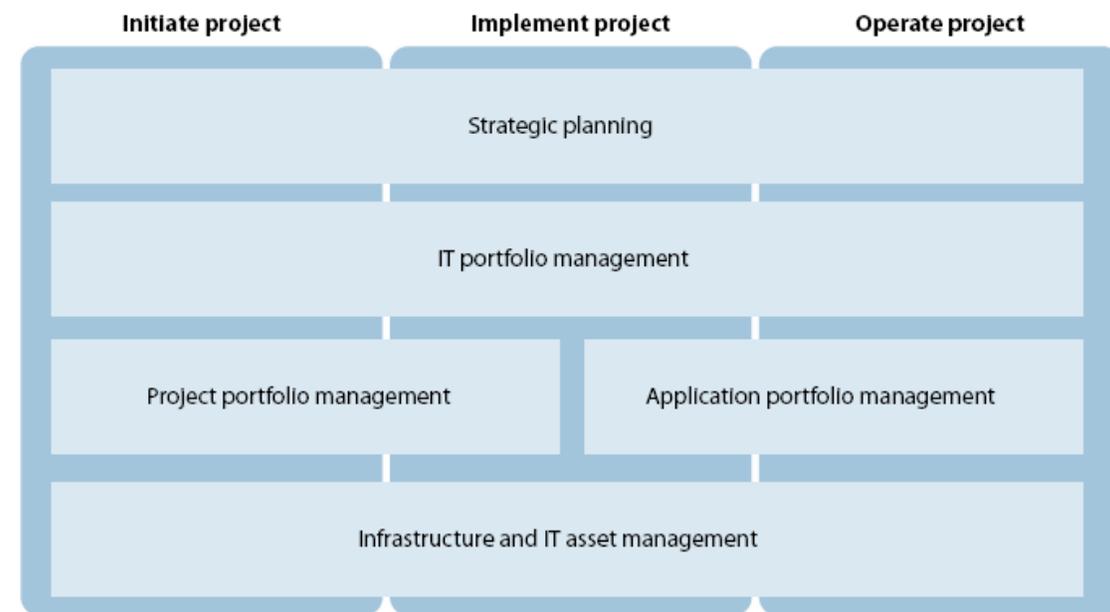
Within this context, IT portfolio management sits between the strategic planning functions and the project arbitration, project management, and project optimization processes (see Figure 2).

Figure 1 Interrelating IT Processes



Source: Forrester Research, Inc.

Figure 2 IT Management Processes Overlay Operational Processes



Source: Forrester Research, Inc.

3.2 Creating and managing IT investment portfolio

A systematic and generic procedure to create and manage IT investment portfolios is described below.

1) *Gather*: Do a Project Inventory

The Portfolio management begins with the gathering of a detailed inventory of all the projects in the company, ideally in a single database. This should include the name, length, estimated cost, business objective, ROI and business benefits of each project. For example, Merrill Lynch maintains a global database of all its IT projects using software from Business Engine. For many companies, this step could provide a holistic view of the entire IT portfolio and any redundancies. A good inventory is the foundation for developing the projects that best meet strategic objectives.

2) *Evaluate*: Identify Projects That Match Strategic Objectives

The next steps involve establishing a portfolio process. The heads of business units, in conjunction with the senior IT leaders in each of those units, compile a list of projects during the annual planning cycle and support them with good business cases that show estimated costs, ROI, business benefit and risk assessment. The leadership team vets those projects and sifts out the ones with questionable business value. Next, a senior-level IT steering committee made up of business unit heads, IT leaders and perhaps other senior executives meets to review the project proposals. The following

factors should be considered while evaluating the projects; how well the projects maps against the strategic initiatives of the company, risks from a technology point of view, a change-management point of view, the number of people that a project will impact and whether it will involve huge reengineering. A good evaluation process can help companies detect overlapping project proposals up front, cut off projects with poor business cases earlier, and strengthen alignment between IS and business execs.

3) *Prioritize*: Score and Categorize Your Projects

After evaluating the projects, in most of the cases, companies will be left with more projects than they could fund. Now the prioritization process will allow the company to fund those projects that most closely aligns with their strategic objectives. There are different ways to categorize or prioritize initiatives. Two ways are mentioned below.

Method 1:

To categorize projects into

- Large technology projects (more than \$50K)
- Small technology projects (less than \$50K)
- Infrastructure technology projects
- Executive initiatives

The main job of the executive portfolio management team is to distribute funds appropriately to the other three.

Method 2:

The projects can be broadly divided into the following four categories with specific percentage investment dedicated to each category.

- Strategic
- Informational category
- Infrastructure
- Transaction modules

4) *Review: Actively Manage Your Portfolio*

A top-notch evaluation and prioritization process will be wasted if the portfolio is not actively managed following the approval. Doing that involves monitoring projects at frequent intervals, at least quarterly. One example process is explained below. Once or twice a month, the project management office should gather the financial and work progress perspective updates from project leaders. That information should be stored in a database. Based on these data the projects are assigned status; green (good), yellow (caution) or red (help!) and includes an explanation of the key driver causing a yellow or red condition. The IT executive committee can meet once a month to make decisions to continue or stop initiatives, assess funding levels and resolve

resource issues. Monitoring project portfolios regularly also means projects that have run off the rails can be killed more easily.

4. Benefits of IT Portfolio Management:

Portfolio management can help an organization gain control of the IT projects and deliver meaningful value to the business. Portfolio management takes a holistic view of a company's overall IT strategy. Both IT and business leaders vet project proposals by matching them with the company's strategic objectives. The IT portfolio is managed like a financial portfolio; riskier strategic investments (high-growth stocks) are balanced with more conservative investments (cash funds), and the mix is constantly monitored to assess which projects are on track, which need help and which should be shut down.

The CIO ends up selling projects that should be generated and sold by line-of-business heads; the company doesn't build good business cases for IT projects or it doesn't do them at all; and there are redundant projects. A strong portfolio management program can turn all that around and do the following:

- Maximize value of IT investments while minimizing the risk
- Improve communication and alignment between IS and business leaders
- Encourage business leaders to think "team," not "me," and to take responsibility for projects
- Allow planners to schedule resources more efficiently

- Reduce the number of redundant projects and make it easier to kill projects

5. Future of IT PORTFOLIO MANAGEMENT

Once the concepts of IT portfolio management are embraced, the process of evaluating and communicating the components and goals of the portfolio can be layered in. Future reports will cover such topics as:

- **Visualizing the IT portfolio — classifying and categorizing IT investments.** IT investments, just like financial investments, can be classified in multiple ways. A framework for evaluating potential investments can ensure the proper balance of investments.
- **Metrics and measurements for the IT portfolio.** Few organizations measure and report the results of their investments and fewer still consider these results as components of the portfolio. Developing the proper metrics and measurement processes to ensure that the initial motivation for the investment carries through implementing and optimizing the results is critical to move from project-based to portfolio-based thinking.
- **Risk and return and their relationship to the IT portfolio.** Modern portfolio theory, as defined by Harry M. Markowitz, shows that a well-defined portfolio of investments can produce the greatest return at the lowest risk.⁷ Some of the techniques of modern portfolio theory can be applied to the development of an IT portfolio to optimize investment choices.

- **The role of architecture in maintaining the IT portfolio.** IT architecture is about creating standards and components to minimize costs, increase business benefits, maximize flexibility, and reduce risk. Within the architecture function, creating and managing the architectural elements is a portfolio unto themselves. Applying many of the same portfolio management concepts to IT architecture can change this function from one of “standards police.”

6. Tools

1. Mercury IT Governance Center™

HP Mercury provides visibility and control over the demands being made of IT, portfolios of IT projects, and the roll-out of application changes at the enterprise level. It offers transparency into IT proposals, priorities, projects, and investments to optimize the business value delivered by IT, lowering the cost of compliance with regulations such as Sarbanes-Oxley by automating processes, required controls, and reporting. In addition, Mercury supports quality programs and process control frameworks such as Six-Sigma, PRINCE2™, CMMI, and COBIT and best-practice frameworks like ITIL (IT Infrastructure Library).

Modules Include:

ITG Dashboard

Demand Management

Portfolio Management
Program Management
Project Management
Financial Management
Resource Management
Deployment Management
Time Management & ITG Foundation

2. Primavera ProSight: Enterprise Portfolio Management Solution

Primavera ProSight is the leading portfolio management software solution, providing unmatched flexibility and infrastructure for enterprise portfolio management. ProSight's unique functionality, real-world enterprise scalability, and unlimited configurability make ProSight ideal for managing just about any type of portfolio from ideation through execution. And its powerful security features and clean user interface make it the perfect solution for collaboration among all stakeholders in the organization.

ProSight can be used to manage any type of portfolio, including:

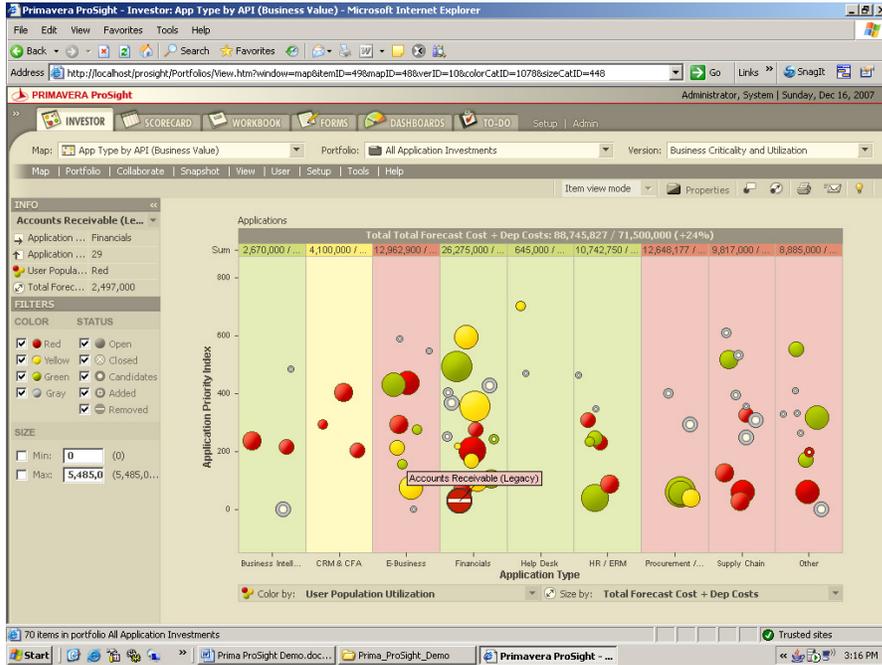
- IT project requests
- Applications for rationalization
- New product development
- Capital programs

Refer Appendix 1 to see a snapshot of the software interface.

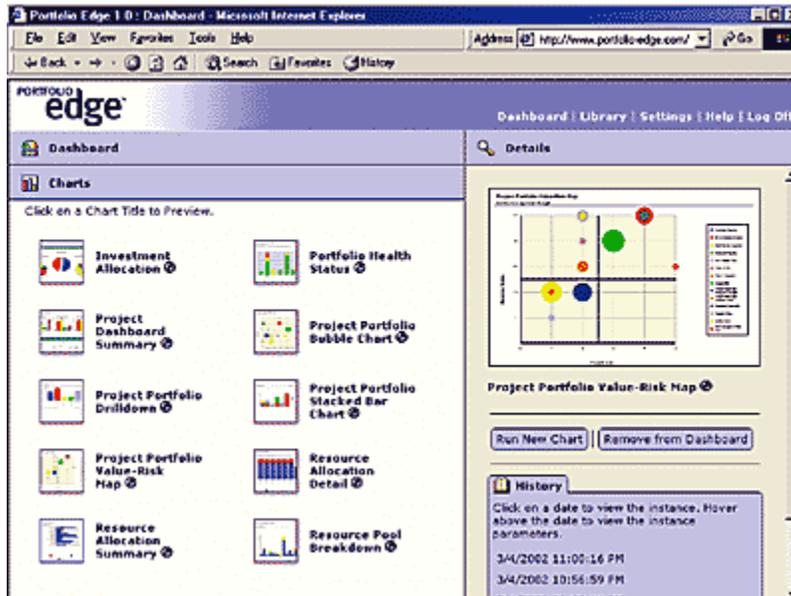
3. Portfolio Edge

Portfolio Edge is a Web-based application that provides full investment lifecycle management of multiple investment types, real-time multi-dimensional analysis and scenario planning, investment prioritization, selection, and sequencing, and closed-loop, shared planning amongst all stakeholders. Refer Appendix 2 to see the screenshot of the software. The screenshot from Pacific Edge Software's Portfolio Edge Product shows the kind of information that can be summarized on a single screen. A wide range of charts, covering everything from investment allocation to resource allocation, helps keep track of what's going on with a portfolio of projects. A "dashboard" gives a bird's-eye view of project progress.

Appendix: 1



Appendix 2



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