The Strategic Program Management Office

by Noland Eidsmoe, PMP

Think about using this component of the organization to implement the goals and objectives of the strategic plan.

I TS TIME TO THINK of the program management office (PMO) as a strategic component of the organization to help achieve a competitive advantage and reduce operating costs. Many successful organizations have accomplished these two objectives by following the strategic PMO model, shown in Exhibit 1. The primary missions of the strategic PMO are to achieve a continuing increase in the organization's project management maturity and to link the organization's projects to its strategic plans. Improving the organization's project management maturity will increase the on-schedule delivery, productivity, and quality of the work performed. Creating a system that defines the value of projects with respect to the strategic goals and objectives ensures that the "right" projects are prioritized and completed. While strategic planning is not within the responsibility of the PMO, the strategic PMO model provides responsible senior management with the tools and information to ensure that the activities of the business support the strategic plan.

The strategic PMO model is composed of the following components:

Project Management Assessment. The project management assessment benchmarks the current project management maturity level to industry standards and best practices and identifies the areas needing improvement. Periodically repeating the assessment provides improvement metrics that can be used to demonstrate project management program effectiveness and justify the benefit for the cost. The results of the assessment should include a quantitative analysis of the organization's project management capability measured against a specific maturity scale and an action plan that spells out how to achieve improvement objectives.

Project Management Methods and Standards. To ensure that projects are managed professionally, project management processes and procedures should be developed covering the nine knowledge areas of *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*. These include integration management, scope management, time management, cost management, quality management, human resource management, communications management, risk

Noland Eidsmoe, PMP, PE, and Microsoft-certified systems engineer, is a principal consultant with Niku Corp. (formerly ABT Corp.), where he is responsible for project management and project management office consulting. He has 30 years of project office and project management experience.
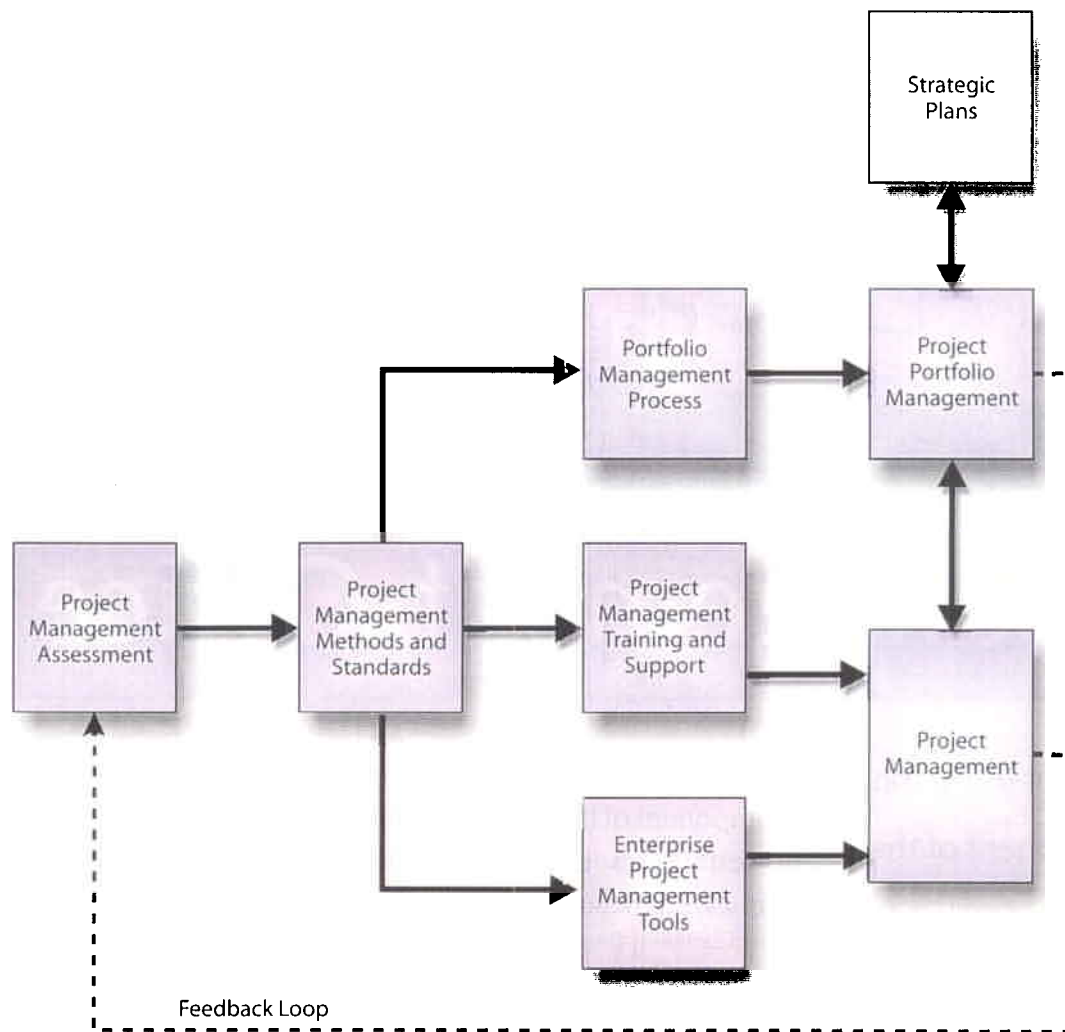
Exhibit 1. The strategic PMO process recognizes the importance of project management in achieving the strategic goals and objectives c the business. This can be accomplished through a continuous project management maturity improvement process that follows an assess ment with improvements in processes, methods, standards, tools, training, and project performance.

management, and procurement management. In addition, best practices should be identified, project methodologies developed, and periodic project "health" checks performed. The PMO should seek out and "institutionalize" best practices from within the organization, from consultants, and from industry symposiums and user group conferences. Improved efficiency and accuracy in project plan development can be obtained by the development and utilization of methodologies that provide project template and estimate models for different types of projects. And as projects progress, the PMO should check the "health" of the project by reviewing the de-

tails of the project plan, so that deviations from project objectives can be corrected before serious impacts to the project occur.

Project Management Training and Support. The PMO should take responsibility for a professionally trained force of project managers. This should be accomplished through project management concept training leading to PMP® certification, enterprise project management (EPM) tool training, and training in soft skills such as leadership and team building. A professional PMO staff chartered to support project managers also should be developed. This staff should provide master schedulers to assist in developing schedules and sen-

ior project managers who can mentor t project managers.

EPM Tools. Critical to the PMO in toda environment is the selection of enterpri: level project management tools. These to include a central repository for managi multiple projects and providing portfo management information, a scheduli tool, an electronic time-reporting tool th statuses the plan, a reporting tool, a source management tool, a methodolo development and delivery tool, and a t to link to company enterprise resour planning information. The method of i plementing these tools in the organizati will determine the success or failure of t

Maturity Evaluation Example

Process: Schedule Management					
Evaluation Criteria:	Activity Sequencing Identification of task dependencies that forms a network in which a critical path can be determined.				
Maturity Evaluation, Score, and Criteria					
Nascent	Emerging	Evolving	Perfecting	Accomplished	Attained
1	2	3	4	5	6
Not clearly defined	Schedule is controlled by an Excel sheet	Only a Gantt chart is utilized with no or few dependencies	Elementary critical path method employed	All task dependencies identified with resultant critical path and activity float known	Achieved, exists, integrated, and is retained

Exhibit 2. The project management maturity evaluation is a structured assessment of the 60–70 project management processes. Each process is evaluated and scored on a maturity evaluation scale and summarized into category scores and a total score. With this information, improvements can be targeted and a baseline established for measurement of the improvement efforts.

Comparison of Planning Methods

Old Way	New Way
Single projects focus	Multiple projects focus
Minimal-feature planning tool	Full-featured EPM tools
Tracking progress by percent complete	Tracking progress by electronic timesheet
Project priorities established by greatest return on investment	Project priority established by linking to business strategic goals and objectives
Over-committed resources	Resource-leveled and managed across multiple projects
Reporting progress by paper	Reporting from website linked to project management information in a central repository

Exhibit 3. EPM represents the current state of the art in project management technology. Most PMO members would agree that the new way of project management is a vast improvement over the old way, because its supports the multiple project environment.

PMO. For organizations that are starting at lower project management maturity leve too much too fast may crash the effor Therefore, the PMO needs to pay attentic to transition and to organizational and cu tural change management. Both will b positively influenced by strong senior ma agement support. Once implemented, pro ect historical information needs to be r tained within the EPM system so that it ca be reused on the next similar project. On last important aspect of EPM tools is retai ing a reporting specialist who ensures th. the needed information is available to va ous levels of the organization.

Portfolio Management Process. Th EPM system should be configured so that supports project portfolio managemen The EPM information may then be pr sented to senior management to prioritiz multiple projects based on linking to th business strategic plan. The EPM syster also should be configured to perform wha if analysis for various scenarios of proje priorities.

Project Management. The PMO shoul be the center of excellence that suppor project managers in the implementation (

Project Portfolio Management
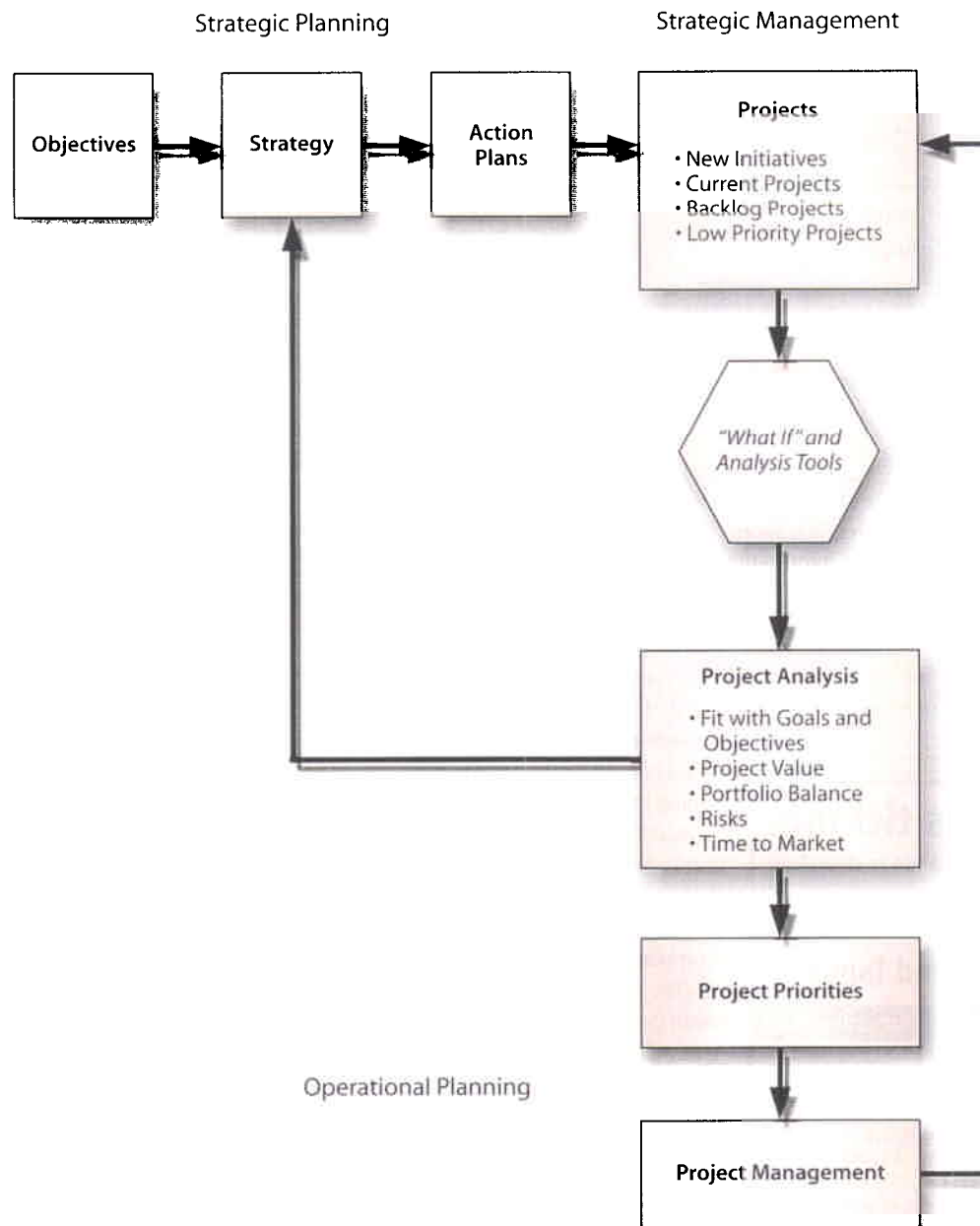
Strategic Planning | Strategic Management

Exhibit 4. Project portfolio management is made possible by the information available in the EPM system. But a process is also needed that identifies the manner in which the business plan is linked to the portfolio of projects so that the "right" projects are prioritized and implemented.

the functions required to achieve successful projects. Project managers need the tools, training, support, and mentoring to be able to achieve the objectives of the project. And with EPM tools, project performance is available immediately for both project control and project portfolio management analysis.

Project Portfolio Management. The PMO should facilitate the senior management decision-making process of selecting, prioritizing, and reprioritizing projects

through the management of the portfolio of projects. The strategic PMO accomplishes this by designing a centralized project information system from the outset.

Feedback Loop. To reach a level of continuous improvement, learning from actual experience must be fed back through the model. As experience is collected on performance of the model components, changes can be implemented to improve the overall performance.

Increasing Project Management Maturity

Project management maturity varies greatly among organizations. In "Benchmarking Project Management Organizations" by C.W. Ibbs and Young-Hoon Kwak [*PM Network*, February 1998], the project management maturity of various industries was measured and compared, showing that there is significant room for improvement. The same techniques should be used within the organization to

Example Project Portfolio Analysis

		Completion Date		Budget ($1,000's)		Risk Level	Value	Priority
		EPM Tool Repository **Report**						
Program	Status	Original	Current	Original	Current	Risk Level	Value	Priority
Program 1	Approved	11/1/99	10/1/99	6,200	6,000	Medium	High	1
Project A	Approved	5/1/99	4/1/99	1,600	1,500			
Project B	Approved	8/1/99	8/1/99	2,000	2,000			
Project C	Approved	11/1/99	10/1/99	2,600	2,500			
Program 2	Hold					High	Medium	8
Project D								
Project E								
Project E								

Exhibit 5. EPM information is stored in a central repository that allows the integration of data to provide views of projects, resources, cost: and other project portfolio analysis information.

periodically measure its project management maturity. By performing the measurement over time, improvements in project management maturity can be substantiated, and weak areas can be improved. A structured evaluation methodology begins with the project management knowledge areas as defined in the *PMBOK® Guide*, and then subdividing into 60 to 70 specific components for evaluation against a maturity scale. For each evaluation component, a criterion is defined for each point in the maturity scale. Exhibit 2 is an example of one of the 60–70 evaluation components.

The maturity evaluation results, a score from 0–5, is recorded for each of the 60–70 evaluated components. These scores are first summarized into a final score for each of the nine knowledge areas in which they belong. Then an overall maturity score can be calculated for the organization by summarizing all areas into an organizational score. For components considered more important, the scores may be weighted by component.

One of the additional benefits of the maturity evaluation process is that it looks at both tools and processes. Often, improvement programs focus only on adding new project management tools, without adequate attention to project management processes. Increasing the project management maturity level should be the first step in improving the overall performance of the organization. For example, the Software Engineering Institute's Capability Maturity Model (CMM) for software development or-

ganizations lists five levels of maturity: Lev 1—Initial, Level 2—Repeatable, Level 3 Defined, Level 4—Managed, and Level 5 Optimizing. Reaching a high project ma agement maturity level moves the orga zation up the CMM scale to at least Level 2 Repeatable.

Linking Projects to Strategy

Improved methods of conducting proje management have been made possible ov the last few years with the emergence EPM as a replacement for single-proje scheduling, as shown in Exhibit 3. And nc EPM is evolving into project portfolio ma agement. This new phenomenon was w described in "Project Portfolio Manageme A Song Without Words?" by Harry A. Levi [*PM Network*, July 1999]. But, Levine we dered, "Is Project Portfolio Management Real? ... I don't see a consensus as to h this emerging concept will play out."

While Levine may not be certain as to t future of project portfolio management believe that it is more than a current fad. T project portfolio management concept linking projects to strategic plans is not tally new; the topic has been the subject much discussion in technology manag ment over the last 15 years. One example *Third Generation R&D: Managing the Link Corporate Strategy*, by Philip A. Rousse Kamal N. Saad, and Tamara J. Ericks [Harvard Business School Press, 1991].

which the authors demonstrate the concepts of linking a portfolio of projects to the strategic plan. More recently, the need for project portfolio management by chief financial officers (CFOs) was documented. A recent survey conducted by Computer Sciences Corp. and the Financial Executives Institute found that prioritizing technology investments and maximizing their value to the business was one of the top concerns of CFOs.

In concept, project portfolio management is an iterative process, as shown in Exhibit 4. The process is a continuous cycle of project portfolio analysis, setting project priorities, implementing project management of the projects, and linking projects to strategic goals and objectives. This process is significantly improved with the utilization of an EPM system that maintains project information for current ongoing projects, new initiative projects, backlogged projects, and low-priority projects.

The key to accomplishing project portfolio management is the utilization of an EPM set of tools that allows an integrated view of project portfolio information, as shown in Exhibit 5. A tool with a central repository of project information can more easily present project information in a form that supports what-if evaluations and project analysis.

The program and project information resides in the repository. Both projects approved for implementation and projects not yet approved should be included in the repository. For projects that have started, there is an abundance of project data—such as cost, schedule, resource, and other information within the EPM tool—that can be utilized to support portfolio analysis. Other information, such as the evaluated project risk level, evaluated project value, and resulting priority, should also reside in the repository.

What-If Analysis. Besides being the collector of project information, one of the most important functions of the repository tool is that it must be able to support what-if analysis. For various combinations of project portfolios, the resultant views of cash flow, resource requirements, and other important data should have the ability to be analyzed.

Project Value. The project value is a relative evaluated number based on the criteria that are most important to the organiza-
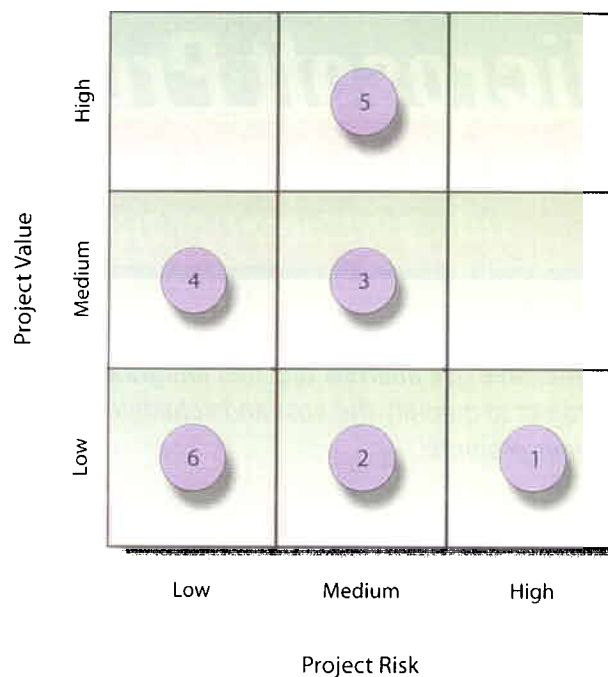
Example Portfolio Analysis

Exhibit 6. Six projects are evaluated for risk compared to project value. In this comparison, projects with the lowest risk and highest project value receive the highest priority, while projects with the highest risk and lowest project value receive the lowest priority.

tion. Considerations include, for example, return on investment, project cost, time to project completion, resultant strategic value (increased sales, improved competitive advantage, reduced costs, increased production), and durability of the project's product.

Project Risk. While detailed risk analysis and contingency data are included in the project plans, at the strategic level there needs to be a method of determining relative risk between the projects with a simple classification such as low, medium, and high. For example, the greater the degree to which the project incorporates new technology, the greater the risk. A project that enters new markets for the business is at greater risk than projects that stay within established markets. Projects that develop new products are at higher risk than projects that extend the current products. But projects that incorporate all three are at the highest level of risk.

Project Analysis. Various graphical comparisons can be developed using the repository information to help determine project priority. One example is to compare project value to project risk for the portfolio of projects, as shown in Exhibit 6, where each proj-

ect is plotted as a numbered circle based on its evaluated risk and value.

In this analysis, Project 5 would be assigned Priority 1 because of its high value to risk, while Project 1 would be assigned the lowest priority of 6 because of its low value to risk. Project 2 would then be assigned the next-lowest priority of 5 because of its low value to risk. The rest of the projects then fall into place following the same approach, with Project 4 assigned Priority 2, Project 3 assigned Priority 3, and Project 6 assigned Priority 4. This process is then repeated for other comparisons until a clear project priority is determined.

THE STRATEGIC PMO is the link between operational management and strategic management. Its prime mission is to implement strategic and other value projects to improve business competitive advantage and efficiency. It requires an expert and dedicated staff of professional project managers, and it requires expert EPM tools that support this mission. With this vision, the PMO should be in a continuous state of improvement and providing real value to its business stakeholders. ∎