8.0 INTRODUCTION

As companies begin to recognize the favorable effect that project management has on profitability, emphasis is placed upon achieving professionalism in project management using the project office concept. The concept of a project office (PO) or project management office (PMO) could very well be the most important project management activity in this decade. With this recognition of importance comes strategic planning for both project management and the project office. Maturity and excellence in project management does not occur simply by using project management over a prolonged period of time. Rather, it comes through strategic planning for both project management and the project office.

General strategic planning involves the determination of where you wish to be in the future and then how you plan to get there. For project office strategic planning, it is often easier to decide which activities should be under the control of the project office than determining how or when to do it. For each activity placed under the auspices of the project office, there may appear pockets of resistance that initially view removing this activity from their functional area as a threat to their power and authority.


For almost 40 years, the project office (or program office) functioned as a customer group project office and was compromised of a group of project management personnel assigned to a specific project, usually a large project. Aerospace and defense contractors created three project offices for grouping Army, Navy, and Air Force customers. Some companies created project offices exclusively to service either large projects or small projects.
The concept behind this project office approach was to get closer to the customer by setting up an organization dedicated to that customer. The project office became an organization within an organization and could function as a “real” or “virtual” organization to service a particular customer. The majority of these “projects” were actually programs that were very large in dollar value and with multiyear government funding. It was not uncommon for people to spend 10 or 15 years working on just one project.

The members of the project office had unique roles and responsibilities, but essentially worked together as a project management team. Each person in the project office may have been required to have both primary and secondary responsibilities. The secondary responsibilities included functioning as a backup for other project office personnel in case some project office personnel were reassigned to other projects, left the company, or were out sick.

Head count in the project office was not considered extremely important because the customer often paid the added costs. Technology and schedules were viewed as significantly more important than cost. Customers preferred to have more people than necessary assigned to project offices. The cost of having someone assigned full-time to the project office was viewed as an insignificant overmanagement cost compared to the risks of undermanagement, where individuals were assigned part-time but may be needed full-time. The only people who were trained in project management, and truly understood it, were the project office personnel. Project offices functioned horizontally throughout the organization and were viewed as profit centers, whereas the traditional functional hierarchies were treated as cost centers.

During the 1980s, military and government agencies became more cost-conscious. Project offices were pared down as personnel other than those assigned to the project office underwent training in project management. Line managers also underwent training and were asked to better understand project management and to share accountability with project managers for project success.

8.2 THE PROJECT OFFICE: 1990–2000

The 1990s began with a recession that took a heavy toll on white-collar ranks. Management’s desire for efficiency and effectiveness led them to take a hard look at non-traditional management techniques such as project management. Project management began to expand to non–project-driven industries. The benefits of using project management, which were once seen as applicable only to the aerospace, defense, and heavy construction industries, were now recognized as being applicable for other industries.

As the benefits of project management became apparent, management understood that there might be a significant, favorable impact on the corporate bottom line. This led management to two important conclusions:

- Project management had to be integrated and compatible with the corporate reward systems for sustained project management growth.
- Corporate recognition of project management as a profession was essential in order to maximize performance.
The recognition of project management professionalism led companies to accept PMI’s Certification Program as the standard and to recognize the importance of the project office concept. Consideration was being given to all critical activities related to project management to be placed under the supervision of the project office. This included such topics as:

- Standardization in estimating
- Standardization in planning
- Standardization in scheduling
- Standardization in control
- Standardization in reporting
- Clarification of project management roles and responsibilities
- Preparation of job descriptions for project managers
- Preparation of archive data on lessons learned
- Benchmarking continuously
- Developing project management templates
- Developing a project management methodology
- Recommending and implementing changes and improvements to the existing methodology
- Identifying project standards
- Identifying best practices
- Performing strategic planning for project management
- Establishing a project management problem-solving hotline
- Coordinating and/or conducting project management training programs
- Transferring knowledge through coaching and mentorship
- Developing a corporate resource capacity/utilization plan
- Assessing risks
- Planning for disaster recovery

With these changes taking place, organizations began changing the name of the project office to the center of excellence (COE) in project management. The COE was mainly responsible for providing information to stakeholders rather than actually executing projects or making midcourse corrections to a plan.

Each of these activities brought with it both advantages and disadvantages. The majority of the disadvantages were attributed to the increased levels of resistance to the new responsibilities given to the project office.

For simplicity sake, the resistance levels can be classified as low risk, moderate risk, and high risk according to the following definitions:

- **Low Risk**: Easily accepted by the organization with very little shift in the balance of power. Virtually no impact on the corporate culture.
- **Moderate Risk**: Some resistance by the corporate culture and possibly a shift in the balance of power and authority. Resistance levels can be overcome in the near term and with minimal effort.
- **High Risk**: Heavy pockets of resistance exist and a definite shift in some power and authority relationships. Strong executive leadership may be necessary to overcome the resistance.
Not every project office has the same responsibilities. Similarly, the same responsibilities implemented in two project offices can have differing degrees of risk. People tend to resist change even when they know that the change may be in the best interest of the organization.

Figure 8–1 shows typical risk levels for implementing the project office responsibilities selected. Evaluating potential implementation risks is critical. It may be easier to gain support for the establishment of a project office by implementing low-risk activities first. The low-risk activities in Figure 8–1 are operational activities to support project management efforts in the near term, whereas the high-risk activities are more in line with strategic planning responsibilities and possibly the control of sensitive information.

8.3 THE PROJECT OFFICE: 2000–PRESENT

As we entered the twenty-first century, the project office became commonplace in the corporate hierarchy. Although the majority of activities assigned to the project office had not changed, there was now a new mission for the project office:
The project office now has the responsibility for maintaining all intellectual property related to project management and to actively support corporate strategic planning.

The project office was now servicing the corporation, especially the strategic planning activities, rather than focusing on a specific customer. The project office was transformed into a corporate center for control of project management intellectual property. This was a necessity as the magnitude of project management information grew almost exponentially throughout the organization.

Senior managers were now recognizing that project management and the project office had become an invaluable asset for senior management as well as for the working levels. As an example, consider the following comments from senior management at American Greetings:

- Through project management, we learned the value of defining specific projects and empowering teams to make them happen. We’ve embraced the program management philosophy and now we can use it again and again and again to reach our goals.
  
  *Jim Spira, Retired President and Chief Operating Officer*

- The program management office provides the structure and discipline to complete the work that needs to get done. From launch to completion, each project has a roadmap for meeting the objectives that were set.
  
  *Jeff Weiss, President and Chief Operating Officer*

- Through project management, we’ve learned how to make fact-based decisions. Too often in the past we based our decisions on what we thought could happen or what we hoped would happen. Now we can look at the facts, interpret the facts honestly and make sound decisions and set realistic goals based on this information.
  
  *Zev Weiss, Chief Executive Officer*

During the past 10 years, the benefits for the executive levels of management of using a project office have become apparent. They include:

- Standardization of operations
- Company rather than silo decision-making
- Better capacity planning (i.e., resource allocations)
- Quicker access to higher-quality information
- Elimination or reduction of company silos
- More efficient and effective operations
- Less need for restructuring
- Fewer meetings which rob executives of valuable time
- More realistic prioritization of work
- Development of future general managers

All of the benefits above are related to project management intellectual property either directly or indirectly. To maintain the project management intellectual property, the project office must maintain the vehicles for capturing the data and then disseminating the data to the various stakeholders. These vehicles include the company project management
intranet, project Web sites, project databases, and project management information systems. Since much of this information is necessary for both project management and corporate strategic planning, there must exist strategic planning for the project office.

**Computer Associates**

Previously we showed that workers are sometimes fearful about the implementation of a project management office. Most of the fear is the result of a lack of understanding of the purpose of a project or project management office. This fear can often be overcome by the development of a clearly defined mission statement for a PMO and clearly stated objectives. As an example, consider the following information provided by Computer Associates:

**PMO Mission Statement**

The PMO will provide assistance and advice in the production and implementation of new policies and processes in conjunction with executive management. To continually improve, we will audit the compliance with policy and process. The audit information will be analyzed to provide data for process improvement. By continually monitoring and improving processes and procedures, CA Services will improve consistency, profitability, repeatability and quality when executing engagements.

**PMO Objectives**

- Approving Proposals/SOWs based on Risk Analysis and application of CA’s Best Practice methodologies and estimation techniques
- Mentoring project managers in the use of CA’s Engagement Management Model and Project Management Methodology, forms, templates
- Auditing projects to ensure adherence to CA methodology
- Performing following paid quality assessments where stipulated in the SOW:
  - Mid-project or end-of-stage Assessments (QA Reviews), involving CA and Client staff of all seniority
  - End-of-project Readiness Assessments
  - Inspection of milestones prior to delivery to the client
  - Recommending upgrades to the Best Practice Library—methodology and templates—based on feedback from post-project assessments and CAR analysis
- Providing project review and oversight
- Confirming the appropriate archival of project documentation

**Virginia Department of Transportation**

Sooner or later, most organizations recognize the need for a project management office or a center of excellence for project management. This recognition appears not only in the private sector but in the public sector as well.

Mal Kerley, the Virginia Department of Transportation (VDOT) Chief Engineer for Program Development, describes the VDOT Project Management Office:

Virginia Department of Transportation (VDOT) has been using some form of project management since its inception (since the early 1900s). More recently, VDOT has undertaken
the development of a Project Management Office (PMO) to assist with modernizing the department’s project management tools, techniques, and knowledge, as well as providing project management support to project managers. The PMO will be staffed initially with one PMO manager and three project management analysts. Currently, the PMO is developing an improved project management methodology to complement existing processes in the area of preliminary engineering. In addition, the PMO has trained several engineers in project management principles.

Roadway Express

In 1997, Kelly Baumer, Director of Project Management and Integration at Roadway Express, described the evolution and success of the center for excellence at Roadway:

Our organization has been practicing project management since 1991; however, there was no formalized structure in place. It required officer commitment in 1992, specifically because of rollover of project managers on mission critical projects. Roadway Express hired a consultant/trainer to come in and discuss the pitfalls of not profitably running projects. He trained all current business and I.S. project personnel on proper practices and guidelines and established a methodology. Additionally, senior executives were given a one-day course on how to sponsor a project, what project management can do for the company, etc. After that training, our President and CEO at the time, Mike Wickham, required all key officers to be a sponsor of a major project initiative. Finally in February of 1996, key managers/directors of the company developed a Roadway Express Project Management Guide. This guide was used as a spawning ground for establishing the Center for Excellence (C/E). The C/E is a group of peers and acts as a forum for project managers to present their projects for approval (before presenting them to the Steering Committee). In 1994, we established an I.S. Steering Committee comprised of corporate officers, the Director of Audit, the Director of Project Management & Integration, and the Director of I.S. The Steering Committee is the actual body that will approve or reject a project. The C/E, however, is a way for project managers to be critiqued by their peers before going to the Steering Committee to ensure they have covered all bases.

We feel one of the strengths was in the establishment of the Center for Excellence. The C/E is a committee established to provide consultant service and guidance to those managing projects at Roadway. The Director of Project Management facilitates the C/E. The C/E and the PMO (Project Management Office) aka the Project Management and Integration Department, ensures that the methods outlined in the Project Management Guide are followed. They review and revise methods as necessary, assist project managers in obtaining officer support, provide input to corporate strategic planning, handle project issues that do not require officer integration, guide project managers preparing presentations to the Steering Committee, and provide a line of formal communication with the Steering Committee. Projects can’t officially be approved or rejected by the C/E; however, if peers do not support the project or its impacts to the organization, it is highly unlikely that the project manager will go forward to the Steering Committee. With both the Director of I.S. and the Director of Project Management sitting on the C/E as well as the Steering Committee, the officers often look to them for feedback and conformity.

Since the inception of the C/E and Steering Committee forum, the company has realized the benefit of good sound practices in project management. Therefore, in January of 1998 they formally formed the Project Management Office (PMO). The PMO is responsible
now to run all major large cross-functional projects in the corporation, whether they be operational, financial, administration, or technological in nature. Establishment of this PMO has helped us reduce product development time, reduce turnover of project managers in the functional areas, and has allowed us as a company to realize project management as a strategic initiative in the corporation.

Establishment of the PMO is an example of how Roadway Express has used project management as a strategic necessity in our industry. All projects, at least those cross functional in nature, have a senior executive as a sponsor. It is the responsibility of the line managers to fund resources necessary to accomplish the project goals and objectives. Senior executives are involved whenever conflict resolution cannot be met between the project managers (PMO) and line managers. Generally speaking, conflict management is handled at the project line-management level.

The officers of the company rely on the PMO to execute many of their strategic initiatives. Because the PMO is a seasoned group of veteran project managers, we’re not likely to repeat the same errors, therefore reducing some of the life cycle of the project. Additionally, we have established a “lessons learned” database for members of the C/E to use as a mentoring tool/archive. In our lessons learned file we also have letters from key senior executives on how to be an active and good sponsor of projects.

**Edelca**

The benefits of a project office now appear to be recognized worldwide. However, each project office may have different responsibilities, and these responsibilities can change over time. As an example, consider the following remarks from Marcelino Diez, PMP, project management consultant at Edelca:

Edelca maintains a Corporate Project Office whose functions are being constantly redefined and updated. In the past, the project office performed some operative tasks relating to investment controls, cost variations, and payment transactions. The new basic functions proposed for the Corporate Project Office are related to the following:

- To be a link between the projects and the company’s strategic plans by participating in project portfolio management
- To improve the maturity of project management in the company by the development and updating of the methodology, personnel coaching and training
- To evaluate and incorporate an adequate information system technology
- To provide expert assistance to the project managers and to the project teams
- To perform assessments and audits of the projects
- To register and centralize project information and lessons learned
- To promote project management as a fundamental core competency in the company.

**General Motors Powertrain**

Some organizations require full-time assignments to the centers for excellence or project offices. However, it is possible for the assignments to be part-time and still produce effective results. General Motors Powertrain has been successful at creating a center of excellence in project management using a combination of full- and part-time support.
At General Motors Powertrain during the 1990s, Rose Russett formed a program administrator network to bring together all administrators from various programs to create a center of excellence on program management. The network’s mission is to:

- Improve the management of the four-phase product development process
- Share lessons learned across all Powertrain programs
- Ensure consistent application of common processes and systems required for successful execution of programs
- Focus on process improvement while project teams focus on successful program execution

Through the program administrator network, and in combination with their highly successful committee sponsorship concept, the General Motors Powertrain is positioned for excellence in project management well into the next century. The concept of program administrators, as used by General Motors Powertrain, could very well be part of the future of project management.

The concept of the project administrator is not new. During the early years of project management, especially on large projects, the management of the project and control of information was heavily labor-intensive. Computer technology as we know it today was nonexistent. Large projects were managed in “war rooms” that contained one door and no windows. The walls were covered with schedules prepared either on large sheets of paper or on sliding magnetic boards. Everything was a manual effort.

Word processors and PowerPoint weren’t invented yet. Project managers were glorified paper-pushers worrying about time and cost. The chief project engineer, who was also called the assistant project manager for engineering, made most of the technical decisions.

To get the project manager more actively involved in the project, large project teams began assigning project administrators to alleviate some of the paperwork headaches from the shoulders of the project manager. There could be a project administrator responsible for manually updating all of the schedules in the war room. Another project administrator could be responsible for handouts, reports, and recording minutes of team meetings.

As technology began to change and ease the pain of document management, the role of the project administrator changed. Rather than eliminate the job of the project administrator, companies found additional responsibilities that could be undertaken by the project administrator.

Use of a project administrator and the creation of a project administration functional area are growing. At Middough Consulting Inc., Kim Dontenville is the Project Services Manager. She comments on the role of a project administrator:

The role of the project administrator has changed significantly over the last 20 years. It continues to evolve today, and in the future will play an even more critical role in project management.

In the past, the project administrator performed tasks similar to a traditional secretary. These responsibilities included typing, filing and document reproduction on a task basis. Outside client, consultant and vendor contact was conducted only to the limit of planning meetings.
During the 80’s and 90’s, the economy changed and businesses responded with “right-sizing” or “down-sizing”; however, one aspect of the organizational chart that didn’t change was the existence of a project administrator role. The need to do more with less senior management fell heavily on the support staff. The role of the project administrator quickly evolved into more than an employee who would create and reproduce documents. This role was now responsible for document management during the emergence of electronic networks, e-mail, and Internet website collaboration. The project administrator was communicating with clients, consultants and vendors to manage project documentation. This produced relationship building and practical project work experience with peers, project managers and, depending upon the structure of an organization, CEO’s or other high-level project sponsors.

The experience gained by this expanded role and the advanced skills required are now leading the way for project administrator professionals to take on more responsibility as it relates to the office environment as well as working with project managers, clients, consultants and vendors. Today’s project administrator is not only responsible for document management and project work procedures, but also for business arrangements including contract negotiations and management of office equipment, supplies, travel and accommodations.

In the future, the role of the project administrator will further develop into a management role that is highly integrated with the project team and will be responsible for multiple project assistants. The responsibilities will include project planning, client protocol, connectivity and procedures that include project document management, network filing, equipment utilization and use of website collaborations. The importance of the role of project administrator will continue to increase significantly as business and industry realize the positive impact on cost, quality and relationships resulting from professional project administration in this information age.

In some companies, including General Motors’ Powertrain Division and Middough Consulting, the project administrators worked together to look for ways to improve the project management methodology and to capture best practices and lessons learned. The project administrator is now an invaluable asset for both the project manager and the entire company.

### 8.4 TYPES OF PROJECT OFFICES

There exist three types of project offices commonly used in companies.

- **Functional Project Office**: This type of project office is utilized in one functional area or division of an organization, such as information systems. The major responsibility of this type of project office is to manage a critical resource pool (i.e., resource management).

- **Customer Group Project Office**: This type of project office is for better customer management and customer communications. Common customers or projects are clustered together for better management and customer relations. Multiple customer group project offices can exist at the same time and may end up functioning as a temporary organization. In effect, this acts like a company within a company.
Corporate Project Office: This type of project office services the entire company and focuses on corporate and strategic issues rather than functional issues.

Let’s look at a few examples.

**StoneBridge Group**

Project offices can reside anywhere in an organization. However, it is vitally important to recognize that the existence of the project office is to service the entire organization, and therefore whatever type of project office is developed, it must be networked with the business areas and share information. Brad Ruzicka, Senior Consulting Manager at the StoneBridge Group, comments on IS project offices:

We have been contracted to establish such an entity (i.e., PMO) for our clients. In general, we recommend the project office have strategic responsibilities for project definition in partnership with business management. The project office can reside on either the IS or business side but should be jointly sponsored by IS and business management. The project office would generally have a core staff of project managers responsible for managing larger, complex, strategic projects as well as providing mentoring services to both IS and business areas.

**DTE Energy**

Although functional project offices can be developed anywhere in an organization, they are most common in an information systems environment. DTE Energy maintains an information systems project management office. According to Beverly Jeffries, PMP, Supervisor, ITS Project Management Office:

The Information Technology Services (ITS) Project Management Office has been in existence at DTE Energy for approximately 4 years. It is a process-based, project management center of excellence that was developed to support the strategic IT goal of the organization to reduce fixed and variable costs for IT projects.

The PMO is a function of the Process Engineering Group, which reports to the ITS Director of Process and Skills. A staff of 23 individuals provide a number of project management support services to the ITS organization. These services include:

- Developing and maintaining the project management methodology
- Maintaining the portfolio of 30–50 IT projects
- Collection and dissemination of project data and metrics
- Administration of project management training curriculum
- Providing project management support to 20–30 project managers

The ITS portfolio of projects consists of enterprise strategic IT projects and internal infrastructure projects. These projects have budgets that range from less than $50K to over $7M. The types of projects range from application development to preventive maintenance. Through its full implementation, the PMO has enabled the ITS organization to achieve operational efficiencies and increased effectiveness and efficiencies in all project efforts.
Currently, Project Managers who report to functional line managers manage the majority of projects. Every Project Manager is assigned a Coach from the ITS PMO. Large projects will have a Project Planner assigned also. The Coach and Project Planner are knowledgeable in PM best practices, PMO processes, project financials, and project management tools. They work with the Project Manager to coordinate project controls, performance and status reporting and to assist the Project Manager in successfully completing the project.

The success of project management in ITS has been defined as:

- Increase operational efficiencies throughout the organization.
- Achieve the goals of CMM level in the key process areas of project planning and project tracking and oversight.
- Increase the number of PMI certified project managers.
- Increase organizational capability in projecting project performance and project budget forecasting using Earned Value metrics.

ITS has been successful in achieving its strategic goals through project management. Last year, after completing a major merger, a large number of ITS employees opted for early retirement. The benefits of ITS operational effectiveness and project effectiveness and efficiencies were realized as ITS sustained past year’s numbers for delivering IT solutions to our business partners. Also, the ITS PMO has served as a benchmark within DTE for functional project management offices that have been implemented to support other project initiatives. DTE and ITS continue to mature in the project management practices and the organization has recognized the benefits of a project management office.

Companies can champion more than one type of project office at the same time. For example, at American Greetings there exist both a functional project office and a strategic/corporate project office that work together. Previously in this chapter, we identified comments by senior management at American Greetings. Their comments indicated their understanding and support of project management. This support is illustrated in Figure 8–2, which shows the responsibilities of the strategic project office at American Greetings.

Tables 8–1 through 8–3 identify in more detail each of the three goals of the American Greetings corporate project office.

**American Greetings Corporate PMO’s Mission, Goals, and Guiding Principles**

The PMO’s mission is to drive continuous improvement through successfully managed projects delivering bottom-line results. This mission is comprised of 3 goals or levels:

- **Opportunity Identification:** Ensuring that the organization is focused on the right opportunities to improve efficiency and effectiveness. Identifying these opportunities is critical in helping the organization achieve its strategic goals.
- **Project Management:** Pursuing these improvement opportunities through standardized management processes. These processes include feasibility studies, charter documents, status and budget monitoring, issue resolution and impact analysis.
- **Change Champions:** Identifying, enabling and driving change throughout the organization. While often working “behind the scenes,” the PMO fosters fact-based decision-making...
and cross-organizational collaboration at all levels of the organization—within project
teams, in support of project leaders, and during communications with senior management.

At the heart of the PMO are its guiding principles or values:

- Out-of-the-box thinking that challenges the status quo
- Big, hairy, audacious goals that stretch the organization
- Fact-based decision-making to get to the right recommendations
- Teamwork to develop holistic solutions
- Open and direct communication to build consensus
- Results orientation to deliver bottom-line benefits

**American Greetings Issues Resolution Template**

During the course of managing a project, issues may arise that jeopardize progress. Most
issues can, and should, be resolved within the project team. Occasionally, however, there
are issues that need to be elevated to senior management for their input and decision-
making. The Issues Resolution Template, shown in Table 8–4, is designed to concisely
summarize the issue, provide options and recommend a solution. This information enables
senior management to make a timely and informed decision so the project can proceed.
### TABLE 8–1. GOAL 1: FACILITATE IDENTIFICATION OF OPPORTUNITIES TO GROW REVENUE, REDUCE COSTS, AND OPTIMIZE ASSETS

<table>
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<th>Specific</th>
<th>Measurable</th>
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<th>Timing</th>
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<tbody>
<tr>
<td>• Identify opportunities to fuel financial performance</td>
<td>• Right slate of corporate projects</td>
<td>• Assuming fact-based analysis to articulate opportunity and build support</td>
<td>• Links directly to corporate goals of growing revenue, reducing costs and optimizing assets</td>
<td>• Preliminary slate of 200X projects by end of CY0X</td>
</tr>
<tr>
<td>• Conduct “deep dive” analysis as appropriate to</td>
<td>• Bottom-line benefits</td>
<td>• Requiring balancing of resources</td>
<td>• Enables achievement of strategic imperatives</td>
<td>• Final slate of projects approved and launched by end of CY0X</td>
</tr>
<tr>
<td>— Validate the opportunity</td>
<td>• Clearly defined ROIs (either quantitatively or qualitatively)</td>
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<tr>
<td>— Estimate ROI</td>
<td>• Broad mix of organizational involvement</td>
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<td>— Build the case for change</td>
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<td>• Nominate high potential individuals to serve as project leaders</td>
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<tr>
<td>• Synthesize and present business improvement opportunities to senior management</td>
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### TABLE 8–2. GOAL 2: DEVELOP AND INSTITUTIONALIZE PROJECT MANAGEMENT PROCESSES AND TOOLS

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<tr>
<td>• Create a process by which new projects are identified, submitted, reviewed, and approved on an ongoing basis</td>
<td>• Completed project deliverables (e.g., charter, status reports, budget, benefits)</td>
<td>• Builds on project management foundation established during the restructuring</td>
<td>• Enables achievement of corporate goals and strategic imperatives</td>
<td>• Weekly, bi-monthly or monthly for status reporting</td>
</tr>
<tr>
<td>• Publish and refresh a standard set of project management tools and templates (e.g., selecting a project scheduling tool)</td>
<td>• Achieved budgets and benefits targets</td>
<td>• Recognizes that deliverables are co-owned by PMO and the project leaders</td>
<td>• Builds organizational disciplines in project management (e.g., goal setting, process management)</td>
<td>• Monthly for budget and benefit updates</td>
</tr>
<tr>
<td>• Monitor project quality and progress to ensure the desired impact; communicate status regularly to senior management</td>
<td>• Collective input and development of enhanced PMO approach</td>
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<td></td>
<td>• Fall CY0X for updates to next year’s priority project management processes and tools</td>
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<td>• Establish use of ROIs</td>
<td>• Organizational survey</td>
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<tr>
<td>• Ensure that fact-based analysis underlie decision-making</td>
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<tr>
<td>• Facilitate coordination of “like” projects to deliver more holistic solutions</td>
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<td>• Mentor project sponsors and leaders both in content and process</td>
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<tr>
<td>• Develop and implement a comprehensive project management training curriculum targeted initially at project teams; measure feedback</td>
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Team members may be hesitant to draw attention to an issue for fear it indicates a team weakness or mismanagement. However, project teams should be encouraged to use the Issues Resolution Template as soon as a project reaches an impasse so the issue can be resolved quickly. Successful project management includes keeping senior management informed of achievements as well as challenges so that expectations for the project are always realistic.

American Greetings Closing Document Template

The Closing Document officially marks the completion of a project. Guidelines for the Closing Document are shown in Table 8–5 and the template is shown in Table 8–6. The Closing Document provides objective and quantifiable data to determine how closely the achievements of the project met the original goals. If any of the goals were not met, the project team should provide an explanation and, if appropriate, recommend next steps. The document also asks the project team to provide more subjective information, such as “lessons learned,” so that others can benefit from the team’s experience.

**TABLE 8–3. GOAL 3: CHAMPION AND ENABLE CHANGE**

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<tr>
<td>• Improve organization awareness, understanding and support of project management through development and execution of a holistic communication strategy</td>
<td>• Subjective evaluation of contributions</td>
<td>• Builds on the restructuring</td>
<td>• Drives towards more holistic, cross-functional solutions</td>
<td>• Ongoing</td>
</tr>
<tr>
<td>• Constructively encourage as well as challenge different points of view</td>
<td>• Inherently difficult because challenges status quo</td>
<td>• Inherently difficult because challenges status quo</td>
<td>• Facilitates improved bottom-line results</td>
<td></td>
</tr>
<tr>
<td>• Provide “deep dive” analysis as appropriate to surmount roadblocks</td>
<td></td>
<td>• Inherently difficult because challenges status quo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Utilize logical arguments in communications</td>
<td></td>
<td>• Inherently difficult because challenges status quo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Promote informal information sharing across organization</td>
<td></td>
<td>• Inherently difficult because challenges status quo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Create a broadening career path in/out of Delta for high performers</td>
<td></td>
<td>• Inherently difficult because challenges status quo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inherently difficult because challenges status quo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 8–4. ISSUES RESOLUTION TEMPLATE**

<table>
<thead>
<tr>
<th>Project #(Project Number)—(Project Name)</th>
<th>Issue (Issue Name)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submitted by: (Name of Person Submitting Issue)</td>
<td>Date Submitted: (Date Submitting Issue Document)</td>
</tr>
<tr>
<td>Issue Description</td>
<td>Document a brief description of the issue.</td>
</tr>
<tr>
<td>Risk/Impact</td>
<td>Include key points on the risks and potential impacts associated with the issue.</td>
</tr>
<tr>
<td>Urgencies</td>
<td>Indicate what sense of urgency resolution of the issue should be given and why.</td>
</tr>
<tr>
<td>Discussion of Options</td>
<td>Briefly document the primary options considered for resolving the issue and the pros and cons of each.</td>
</tr>
<tr>
<td>Recommendations</td>
<td>Document your recommendation on which option should be pursued and why.</td>
</tr>
<tr>
<td>Plan Forward</td>
<td>Indicate what the next steps need to be, including who needs to do what.</td>
</tr>
</tbody>
</table>
TABLE 8–5. PROJECT CLOSING DOCUMENT GUIDELINES

Requirement Overview
All projects are required to produce a Closing Document at the conclusion of the project. You and your project sponsor will complete this document and submit it through the PMO to the Senior Team for review.

Purpose
The purpose of the Closing Document is to keep the Senior Team aware of the final status of every completed project, including final costs, benefits, deliverables achieved and objectives met. The objective of using a standard format is so that the closing documents are consistent in communicating key items.

Deliverables
One closing document should be produced for each project completed and is due within one month of close. Email your Project Closing Document to the PMO for storing out on the PMO website and for issuing to the Senior Team.

All Project Closing Documents will be consolidated with weekly status reports and forwarded to the Senior Team.

TABLE 8–6. TEMPLATE FOR REPORTING PROJECT COMPLETION

Project # (Project Number)— (Name of Project)
(Name of Project Leader)
Closing Document (Date)

• Project Objective
  Re-state the original objectives and state if the objectives were met.

• Project Deliverables
  Re-state each deliverable and state how it was met and where there were shortfalls. Identify any expected deliverables that will be accomplished at a later date or not at all.

• Lessons Learned
  State key lessons, both positive and negative, that you and the team have learned on the project that should be shared with others and/or applied to future projects.
  1. Positive experiences
  2. Pitfalls to avoid
  3. Processes that emerged and can be reused.
  4. Tools that emerged and can be reused.

• Benefits
  Attach the original benefits realization template for comparison of targeted versus achieved benefits. State the actual benefits of each listed function and/or process; list both tangible and intangible benefits. Qualify and quantify the benefits received, as this information will be used for fiscal year planning.

• Time/Cost Estimates
  Attach the original high levels costs template for comparison of estimated versus actual costs. State the actual cost by category listed in the original costs template. Qualify and quantify any costs that exceeded the original estimate. This information will be used for fiscal year planning.

• Closing Document Signatures
  Sign-off requires a review of the key stakeholder names in the Charter. Review key stakeholders listed in the Project Charter and modify the list as necessary to assure a complete, appropriate level of sign-off.

(Name of Sponsor/Stakeholder) (Name of Key Customer)
Corporate or strategic project offices appear to be most common today and are the focus of the remainder of this chapter. This type of project office can also support the company on a global basis. According to Jim Triompo, Group Senior Vice President, Process Area Project Management at ABB:

The project office does not deliver projects. The projects managed by the project management office are limited to process/tools development, implementation and training. The project management office is sometimes requested to perform reviews and to participate in division level risk reviews and operational reviews in various countries.

Exel

For multinational companies, there can exist several project offices that must function in a coordinated effort. According to Francena D. Gargaro, PMP, Director Project and Resource Management, Americas for Exel:

Exel’s Enterprise Project Management (EPM) group serves the global organization as a project management center of excellence supporting project managers from all regions and sectors.

The mission of the EPM is to provide thought leadership and training of Exel’s project management tools, techniques and methodology. It is also responsible for the development of a strategic business plan that will leverage strengths of both project and resource management disciplines. The EPM group provides a single source solution for Exel’s internal customers (Sector PMO’s and Project Managers). The Exel EPM is responsible for the following:

- Center of Excellence, supporting project management tools and techniques
- Creation and deployment of an enterprise-wide project management methodology
- Project management training for all sectors
- Consulting and mentoring of project managers in the Americas
- Facilitation and support for the establishment of Project Management Offices in Latin America, Asia, Europe/UK and Canada
- Visibility to Exel’s project portfolio and resource capacity across the organization
- Executive level strategic reporting for EPM initiatives

Additionally, there are regional project management offices (PMO’s), established in North America, South America, Mexico, UK/Europe, and Asia Pacific—Exel’s primary theatres (Figure 8–3). Each of these regional PMO’s provides dedicated project management in their respective regions and have dotted line reporting to the EPM, based in the U.S.

The Enterprise Project Management (EPM) group serves a number of roles. Primarily, responsibility involves managing the foundation for project management in the organization. The roles of the EPM group can be categorized into three major elements: visibility, collaboration, and globalization

- Visibility
  - Access to the global project pipeline via internal opportunity/leads database
  - Assists account teams in the establishment and support of projects
  - Executive level reporting, and resource capacity planning via enterprise software
Collaboration
- Project management strategy and customer relationship management
- Project management support of sectors/departments
- Project management support of internal/functional projects
- Internal/external marketing and communications about PM practices at Exel
- Development, maintenance, and delivery of project management training and certification assistance
- Development, maintenance, and deployment of PM tools
- Career path development
- Benchmarks and metrics

Globalization
- Establishment and support of regional PMO's
- Global training curriculum
- Globally consistent tools (multi-lingual)

Regional Project Management Offices are groupings of project management associates (project managers, team members, etc.) who perform project management duties within specific regional or industry specific areas. Primary PMO responsibilities are:

- Promotion of Exel's project management methodology
- Promotion of the use of PM tools
- Project execution and delivery
- Subject matter expertise

The Enterprise Project Management group, on occasion, will manage or assist with the project management of internal/functional projects. For example, in the past 2 years, the EPM group has managed a Canadian payroll improvement project, a corporate office move...
Another company that has recognized the importance of a global project management office is Hewlett-Packard. According to Ron Kempf, PMP, Director PM Competency & Certification, HP Services Engagement PMO at Hewlett-Packard:

For large, global companies the need for project management standardization and support is essential. To solve this problem, companies have developed a network of global project management offices all coordinated from a single source. At Hewlett-Packard, this network is referred to as the HP Services Project Management Office.

“In the 80’s our organization had spread across the world and inevitably we ran into some problems on project margins, our ability to deliver on time and to the expected budget,” says Renee Speitel, Vice-president HP Services Program Management Office. “We set a goal to increase project management performance, consistency and financials”. A global Program Management Office (PMO) was established to provide central management and mentorship.

The characteristics of a global PMO as defined by HP Services are:

- Manages across geographies and multiple projects
- Involves organizational and business responsibility in addition to project disciplines
- Long-term impact on organization and business
- Responsible for the professional development of project management (PM) community of practitioners
- Functional responsibility for PM infrastructure deployment

HP Services PMO structure supports more than 2,500 project managers in 160 countries with regional offices located in Americas, Asia Pacific, Europe, Middle East, Africa, and Japan. Three focus areas are: the health of the portfolio, project management development, and processes.

The health of the portfolio considers the status and profit of projects. “Portfolio tracking systems enable us to keep status on more than 2,400 active customer projects around the world” says Speitel. “A typical PMO scorecard includes customer satisfaction, portfolio financial performance (actual vs. budget), number of problem projects, number of certified project managers, and project manager utilization. The objective is to improve portfolio status year over year. PMO activities within this area include:

- Managing escalations
- Supporting project start-up activity
- Reviewing and auditing projects regularly
- Implementing review and approval process
- Troubleshooting projects in difficulty

Project management development involves formal training and certification as well as informal development. Project management is a core skill and competency for HP
Services. The award winning Project Management Development Program is organized by core project management courses, advanced PM topics, courses specific to HP Services practices, and professional skills training. The 35 course curriculum is taught in multiple languages. Other PMO sponsored activities that support project management development include:

- Driving PM certification programs
- Updating and managing the formal training curriculum in coordination with workforce development
- Driving and participating in major events like PMI Congresses and regional PM training/networking events
- Encouraging informal communication and mentoring
- Providing mentorship to field project managers

Project management processes include business practices, methods and tools, and rewards and recognition programs. HP Services’ Opportunity Roadmap is a project life cycle architecture that defines the major business activities required to successfully pursue a customer engagement. It provides a process to determine scope and evaluate risk and price in order to win and succeed over a project lifetime.

The Opportunity Roadmap also incorporates the Solution Opportunity Approval and Review (SOAR) process, which facilitates appropriate levels of cross business unit involvement, review, and approval of global deals. This is shown in Figure 8–4. The Global Method for Program Management provides project managers with methodologies and a standardized approach using industry best practices and incorporating the added value of HP’s experience. This is shown in Figure 8–5. The PMO is also responsible for defining and maintaining policies, procedures and other business practices relating to project management.

![Image of Opportunity Roadmap and SOAR](image-url)
Speitel summarizes: "The goals of our Program Management Offices are to deliver a quality solution, provide business value, and meet customer needs. Our project performance has improved nearly 70 percent of our projects within or under budget. This compares with an industry average of 50 percent. PMO structure and consistent approach enhances our ability to manage global projects and provides the flexibility to acquire and retain qualified project managers where we need them."

The concept of a coordinating PMO will become commonplace over the next several years as the result of more mergers, acquisitions, and joint ventures. In the previous example, Exel’s EPM coordinated the efforts of four regional project management offices. But what if the coordinating PMO had to coordinate the efforts of 15 or more regional PMOs? This is the situation at Star Alliance. Christian Frey, Head of the Project Management Office at Star Alliance Services GmbH, comments on some of the complexities that had to be overcome.

**Star Alliance**

The concept of a coordinating PMO will become commonplace over the next several years as the result of more mergers, acquisitions, and joint ventures. In the previous example, Exel’s EPM coordinated the efforts of four regional project management offices. But what if the coordinating PMO had to coordinate the efforts of 15 or more regional PMOs? This is the situation at Star Alliance. Christian Frey, Head of the Project Management Office at Star Alliance Services GmbH, comments on some of the complexities that had to be overcome.

**Star Alliance: The Airline Network for Earth**

Star Alliance is a global, integrated airline network which was established on May 14, 1997 by several of the world’s leading airlines. Its mission is to deliver a smooth travel experience and offer reward and recognition to passengers all over the world.

The current members of Star Alliance are Air Canada, Air New Zealand, ANA—All Nippon Airways, Austrian Airlines Group (which includes Austrian Airlines, Lauda Air and Tyrolean Airways), bmi british midland, Lufthansa German Airlines, Mexicana Airlines, SAS—Scandinavian Airlines, Singapore Airlines, Thai Airways International, United Airlines, VARIG Brazilian Airlines, Asiana Airlines, Spanair and LOT Polish Airlines.

Since its formation, Star Alliance has created a route network which carries more than 310 million passengers annually to 709 airports in 128 countries. Star Alliance customers
already enjoy a number of benefits which make traveling easier, and new travel-related products are continually being developed.

Members of any Star Alliance frequent flyer program (FFP) can collect and redeem mileage points on any Star Alliance carrier. Accrued mileage also counts toward higher status in the member's FFP.

The Structure of Star Alliance Services GmbH

Star Alliance Services, located in Frankfurt/Germany, is the service provider for the Star Alliance member airlines. All projects that affect more than two airlines are facilitated and managed by Star Alliance project managers. These project managers are organized in a project manager pool and are assigned to the respective projects according to the necessary skill set and the availability from the Project Management Office (PMO).

They carry out projects for the Business Units (BU’s) such as Information Technology, Marketing and Loyalty, Commercial and Sales as well as Products and Services. Within these BU’s a product director, responsible for a whole range of products, acts as the owner for the Star Alliance projects.

The project managers are supported by the PMO, consisting of one PM specialist that is ultimately responsible for the management of the PM Pool, the definition and maintenance of the PM Guidelines and training and coaching of the PM’s. In addition, one process manager takes care of the product development related processes and a project support analyst supports the PM’s and maintains the online project database.

In Search of Excellence

Of course, acting as a service provider in the area of project management means that we must be able to define standards and fulfill the expectations that are set by the project owners and the airlines that function as our customers. The vision for Star Alliance Services GmbH is clear. We want to become the Center of Excellence for Project Management for the Star Alliance member airlines.

To achieve this goal, it is necessary not only to work out structures and processes but also to have the right people with the right skill set and to understand the challenges of managing projects with stakeholders from all over the world. In addition, it is necessary to raise awareness for Star Alliance project management, not only local but worldwide.

The Star Alliance Project Management Challenge

Managing a Star Alliance project has its own unique challenges. Consider managing 15 separate stakeholders for every project as well as handling the various vendors. These stakeholders are from different parts of the world, each with their own cultural and corporate background, as well as working behaviors. These project teams also have conflicting priorities because they must perform their own work within their respective airline and are not necessarily assigned full time to Star Alliance projects.

The project teams are not collocated. The representatives work from their respective home country, where every project team member is also responsible for servicing the airline’s internal project teams. Since face-to-face meetings are very time consuming and expensive, most of the communication is done via video- or telephone conferencing.

To help deal with these issues, a web based reporting and collaboration tool was developed to ensure that all stakeholders can gather the necessary information from every part of the world and thereby contribute to the project’s success. This system serves also as the main reporting tool for the stakeholders to keep them informed on the actual status of the projects.
Product Delivery Process and Star Alliance Project Management Guidelines
One of the most important prerequisites was the definition of the Product Delivery Process (PDP) as well as the Project Management Guidelines, which are a subdivision of the PDP. This PDP consists of eight product development steps, starting from Idea Generation to Business Case stage to Development, Testing, Launch and finally Life Cycle.

The Project Management Guidelines concentrate on the three stages of Development, Testing and Launch, at the time when the Star Alliance PM takes over. The Product Director is the product owner and maintains responsibility for the product throughout the entire cycle described above.

The PM Guidelines were developed in close cooperation with the PM’s to ensure their buy-in to the process. The Guidelines consist of three major parts: the description of the role, a detailed description of every process step for the PM and a guide for project team members to ensure they fully understand the process and their role. The guidelines follow the PMI standards.

PM Training and Certification Programs
Setting common language and adherence to standards is critically important when dealing with a multi-cultural project management force.

The main objectives of this customized training program were the unification of the PM language and methodology as well as the certification of all PM’s as Project Management Professionals (PMP) according to PMI standards.

In addition to the PM basic training, other classes were included into the training program, such as legal, negotiating and intercultural awareness. Ongoing discussion and input from the PM’s ensure that the guidelines respond to their needs.

FirstEnergy

When a company establishes a PMO and uses it effectively, favorable results will occur both now and in the future. FirstEnergy is on track to reap excellent benefits from their use of a PMO. The benefits can appear in several formats, ranging from better portfolio management of projects, better value added for the stakeholders, improved scheduling, better utilization of resources, and the ability to take on more projects without adding additional resources. FirstEnergy has also done an excellent job integrating portfolio management into the PMO. The need for this integration is readily apparent for the following quote from a senior officer at FirstEnergy:

We may determine that an IT project proposed by a business unit doesn’t have to be designed or purchased at all. One business unit may already be using a computer program that can be used or slightly adapted to meet another business unit’s needs, which saves time and money. The PMO process is designed to find ways to meet customers’ needs and use our resources most wisely as we work toward our corporate goals.

1. The material from FirstEnergy has been provided by Thomas J. Krise, Director, I/T Program Management Office; Jane McClellan-Renner, Operations & Integration Lead, I/T Program Management Office; and Adrian Lammi, PMP, Project Management Specialist, I/T Program Management Office.
There are many driving forces that encourage a company to establish a PMO. At FirstEnergy, portfolio management headed the driving force priority list up. The following comments illustrate this necessity:

First you have to know the rules, and then you learn when to break them. Conventional project management suggests you build on a firm project management foundation. FirstEnergy chose to emphasize portfolio management instead. Senior Management was looking for significant savings. By ensuring that all projects supported corporate goals and by rigorously applying ROI criteria, the I/T PMO was able to achieve those savings and still deliver quality projects using the existing level of project management expertise.

The Program Management Office developed procedures that enabled portfolio rationalization, quantified the ROI of projects in terms of real dollars, and provided a mechanism for ensuring projected savings were in fact realized. The Program Managers of the PMO identified potential synergies and eliminated or combined redundant projects. With Senior Management’s support, the PMO was able to achieve the significant savings Senior Management sought.

Previously, we showed, with examples from Hewlett-Packard, Exel, American Greetings, and Computer Associates, that best results occur when the company has a PMO mission statement and a structured PMO process that is integrated with the project life cycle. Both of these also exist at FirstEnergy.

In order to fulfill its mission, the Program Management Office began with three fundamental questions, as shown in Table 8–7. Are we doing the right things? Are we doing enough of them? And are we doing the right things right? By analyzing the considerations

<table>
<thead>
<tr>
<th>Consideration</th>
<th>PMO Tool/Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are we (company, IT) doing the right things?</td>
<td>Are projects aligned with strategic goals? (e.g., shareholder value, customer satisfaction, etc.)</td>
</tr>
<tr>
<td>Are resources deployed against projects with the highest strategic value?</td>
<td>Objective strategic fit analysis</td>
</tr>
<tr>
<td>Given our strategic objective, will we meet our strategic goals? (e.g., SVA = $100M improvement)</td>
<td>Effective project prioritization</td>
</tr>
<tr>
<td>Will we hit current fiscal year targets or should we manage expectations of stakeholders?</td>
<td>Consolidated resource planning</td>
</tr>
<tr>
<td>Are we doing enough of the right things?</td>
<td>Rigorous benefits tracking</td>
</tr>
<tr>
<td></td>
<td>Accurate portfolio reporting</td>
</tr>
<tr>
<td>Are we doing the right things right?</td>
<td>What are the necessary capabilities to effectively manage the technology portfolio? (e.g., benefit realization)</td>
</tr>
<tr>
<td></td>
<td>Common tools and processes for projects (e.g., standard status reporting, issue and risk management)</td>
</tr>
</tbody>
</table>
involved in answering these questions, the PMO was able to identify what tools and processes were needed. Effective tools and well-defined processes enabled project managers to deliver consistent, measurable results that improved the quality and currency of data used by senior management in making decisions.

Figure 8–6 shows the integration of the PMO and project life cycle activities. FirstEnergy’s I/T Program Management Office acts as a facilitator between the business unit community and the Information Technology Steering Committee (ITSC), who are responsible for approval of projects. The PMO champions the projects, helping them develop the best argument for approval and then by recommending projects for approval. The PMO establishes objective criteria that management can use in prioritizing projects. Finally, the PMO adds value to project delivery by improving resource utilization, by providing consistent, comprehensive status reporting, and by helping project managers identify and quantify realistic benefits.

Companies often make a fatal mistake of trying to add complexity to the work required by a PMO. FirstEnergy avoided this pitfall by utilizing a relatively simple approach of:

- Evaluation of projects
- Prioritization of projects
- Monitoring the delivery of the projects

Figure 8–7 shows the evaluation of projects. Standard business cases “put legs” on ideas that came in from all area of the corporation. The I/T Program Management Office designed a pro forma business case that leveled the project playing field and promoted projects that delivered the most value to the corporation. Elimination of nonvalue business
cases saved real dollars and applied FirstEnergy’s resources where they would produce the best payback.

The I/T Program Management Office established a prioritization process that had more than just strategic implications. This is shown in Figure 8–8. The PMO’s program managers contributed their knowledge of their functional areas and the interdependencies of projects. Resource managers, known as center of excellence managers at FirstEnergy, contributed forecasts of resource availability. The process delivered a master program plan that was realistic, able to be implemented, and promoted a high level of project sponsor satisfaction. At the same time, it provided employee development and developed an appropriate, knowledgeable workforce for future projects.

During the delivery phase of the project, as shown in Figure 8–9, the I/T Program Management Office assists the project manager by monitoring the progress of the project through monthly status reports, which also tracks issues and benefits realization. Any change to the project that exceeds 10 percent of either the cost or duration of the project triggers the PMO’s change control process. Senior management’s I/T Steering Committee (ITSC) either approves or rejects change requests. These tools in the hands of project managers resulted in an almost perfect record of projects delivered on time and on budget to satisfied project sponsors.
FirstEnergy's I/T Program Management Office developed a project methodology based on these three core processes as shown in Figure 8-10. As a potential project moves from a preliminary assessment through benefits realization, the PMO has three opportunities to recommend or not recommend that the project proceed. These recommendations provide tighter project controls and improve the probability that senior management will reap expected results. The various support processes help the project manager build quality into management of their project and improve their chances of delivering the project successfully.

One of the challenges facing companies is the identification of people with the appropriate skills necessary to function in a project management environment. FirstEnergy already had people with prior project management experience. The question was which of these people were best qualified for managing future projects. The I/T Program Management Office developed selection criteria which recognized that the skill set for successful project managers was different from a business unit subject matter expert or technical expert. This skill set includes soft skills such as team building and attitude that are as important to project success as the hard skills.

The skill set is shown in Figure 8-11. Most companies look only at soft skills and hard skills. FirstEnergy understood the importance of selecting people who understood the culture and would work well within the guidelines established by senior management and the PMO.
Each project will be delivered using defined standards outlined in the PMO Guide and project management best practices.

FIGURE 8–9. Monitoring.

FIGURE 8–10. Three core processes.
Three lessons learned by the FirstEnergy’s I/T Program Management Office reshaped our understanding of project management:

- The first was that the cost of a dedicated project manager is more than offset by the savings achieved.
- Another was that project managers who embraced project management best practices and tools consistently perform better than their counterparts.
- The final lesson learned was that project management has a skill set that is unique. Not everybody has the skills or the interest in becoming a project manager . . . and that’s OK.

The processes and procedures developed by the FirstEnergy I/T Program Management Office produced real, measurable results. Eliminating projects that didn’t deliver value or were redundant or similar to other projects saved significant dollars. Applying them to projects that were consistent with corporate strategic objectives better employed these dollars. Projects that were delivered on time and on budget became the norm rather than the exception. A new, better way of doing business had been defined that objectively evaluates project performance and focused on corporate KPIs.

The FirstEnergy Program Management Office was able to improve the quality of FirstEnergy’s project portfolio by reducing the size of the 2001 project portfolio by 35 percent. This is shown in Figure 8–12. The smaller portfolio produced more value per value invested.

An important component of the I/T Project Management Office is its public face, the PMO community pages of FirstEnergy’s intranet. Standard reports are available to both...
management and the project manager. The pages offer explanations of all PMO processes as well as each of the PMO forms, instructions on their use, and examples of completed forms on the forms and reference pages. The complete Project Management Office Guide can be found online as well as links to FirstEnergy’s custom Application Development and Project Management Methodologies.

8.5 PROJECT MANAGEMENT INFORMATION SYSTEMS

Given the fact that the project office is now the guardian of project management intellectual property, there must exist processes and tools for capturing this information. This information can be collected through four information systems, as shown in Figure 8–13. Each information system can be updated and managed through the company intranet.

Earned Value Measurement Information System

The earned value measurement information system is common to almost all project managers. It provides sufficient information to answer two questions:

- Where is the project today?
- Where will the project end up?

This system either captures or calculates the planned and actual value of the work, the actual costs, cost and schedule variances (in hours or dollars and in percent), the estimated cost at completion, the estimated time at completion, percent complete, and trends.
The Earned Value Measurement Information System is critical for a company that requires readily available information for rapid decision-making. It is easier to make small rather than large changes to a project plan. Therefore, variances from the performance management baseline must be identified quickly such that corrective action can be taken in small increments.

The second information system provides data on risk management. The risk management information system (RMIS) stores and allows retrieval of risk-related data. It provides data for creating reports and serves as the repository for all current and historical information related to project risk. The information will include risk identification documentation (possibly by using templates), quantitative and qualitative risk assessment documents, contract deliverables if appropriate, and any other risk-related reports. The project management office will use the data from RMIS to create reports for senior management and retrieve data for the day-to-day management of projects. By using risk management templates, each project will
produce a set of standard reports for periodic reporting and have the ability to create ad hoc reports in response to special queries. This information is directly related to the failure-reporting information system and the lessons-learned information system. The last two information systems are covered in more detail in the next two sections.

**Performance Failure Information System**

The project office may have the responsibility for maintaining the performance failure information system (PFIS). The failure could be a complete project failure or simply the failure of certain tests within the project. The PFIS must identify the cause(s) of the failure and possibly recommendations for the removal of the cause(s). The cause(s) could be identified as coming from problems entirely internal to the organization or from coordinated interactions with subcontractors.

It is the project office's responsibility to develop standards for maintaining the PFIS rather than for validating the failure. Validation is the responsibility of the team members performing the work. Failure reporting can lead to the discovery of additional and more serious problems. First, there may be resistance to reporting some failures for fear that it may reflect badly on the personnel associated with the failure, such as the project sponsors. Second, each division of a large company may have its own procedures for recording failures and may be reluctant to make the failure visible in a corporate-wide database. Third, there could exist many different definitions of what is or is not a failure. Fourth, the project office may be at the mercy of others to provide accurate, timely, and complete information.

The failure report must identify the item that failed, symptoms, conditions at the time of the failure, and any other pertinent evidence necessary for corrective action to take place. Failure analysis, which is the systematic analysis of the consequences of the failure on the project, cannot be completed until the cause(s) of the failure have been identified completely. The project office may simply function as the records keeper to standardize a single company-wide format and database for reporting the results of each project. This could be part of the lessons-learned review at the end of each project.

Consider the following example: An aerospace company had two divisions that often competed with one another through competitive bidding on government contracts. Each conducted its own R&D activities and very rarely exchanged data. One of the divisions spent six months working on an R&D project that was finally terminated and labeled as a failure. Shortly thereafter, it was learned that the sister division had worked on exactly the same project a year ago and achieved the same unproductive results. Failure information had not been exchanged, resulting in the waste of critical resources.

Everyone recognizes the necessity for a corporate-wide information system for storing failure data. But there always exists the risk that some will view this as a loss of power. Others may resist for fear that their name will be identified along with the failure. The overall risk with giving this responsibility to the project office is low to moderate.

**Lessons-Learned (Postmortem Analysis) Information System**

Some companies work on a vast number of projects each year, and each of these projects provides valuable information for improving standards, estimating for future bidding, and the way business is conducted. All of this information is intellectual property and must be cap-
tured for future use. Lesson-learned reviews are one way to obtain this information. Marcelino Diez, PMP, project management consultant with Edelca, describes the changes taking place at Edelca:

Efforts are underway to normalize the process of obtaining lessons learned through our methodology from its capture, classification, storage and disposition to interested parties. Within the methodology are incorporated the guidelines related to the opportunity, participation, and recommendations.

The remarks by Mr. Diez are important because it illustrates that the current trend is to make lessons-learned reviews part of the project management methodology rather than a separate function.

Lessons-learned reviews have become commonplace. Brad Ruzicka, Senior Consulting Manager at the StoneBridge Group, believes:

StoneBridge Group recommends a post project assessment be performed on every project. Generally, our approach is to produce a post project report. Depending on the nature of the project and the preference of the client, we may review the report with the entire team, key team members, the sponsor, and/or senior management. The key in any post project review is to keep the focus on the project and not personalities. Lessons learned are generally in the categories of sponsorship, management, scope and requirements definition, change control, and resources.

If intellectual property from projects is to be retained in a centralized location, the project office must develop expertise in how to conduct a postmortem analysis meeting. At that meeting, four critical questions must be addressed:

- What did we do right?
- What did we do wrong?
- What future recommendations can be made?
- How, when, and to whom should the information be disseminated?

Additional questions that must be asked follow the postmortem pyramid shown in Figure 8–14. The objectives for a project are established from the top of the pyramid to the bottom. However, the postmortem analysis that evaluates the project’s metrics or measurements goes in reverse order from the bottom to the top. The bottom level, which is the basic level, evaluates the deliverables in terms of time, cost, quality, and scope. These constraints are often referred to as the critical success factors (CSFs) as seen through the eyes of the client.

Typical questions to consider for the critical success factors include:

- Time
  - Were the schedules realistic?
  - Was the level of detail correct?
  - Was it easy to evaluate performance from the schedule?
  - Was tracking accomplished easily?
The second layer in the postmortem pyramid of Figure 8–14 contains the key performance indicators (KPIs). KPIs are the internally shared learning topics that allow us to maximize what we do right and correct what we do wrong. KPIs are the internal best practices that allow us to achieve the critical success factors. Success is normally defined in terms of both CSFs and KPIs.

The KPIs can be categorized into the three areas shown in Figure 8–14. Typical questions for each KPI area might include:

- **Cost**
  - How accurate were our estimates?
  - Do our estimates need to be updated?
  - Did cost tracking follow our methodology?
  - Were there any problems with cost reporting?

- **Quality**
  - Did we conform to the customer’s specifications?
  - Did the product perform as expected?
  - Did we evaluate durability, reliability, serviceability, and aesthetics?

- **Scope**
  - Was the statement of work easily understood?
  - Were the objectives clearly defined?
  - Was there proprietary technology involved?
  - If so, does the company have patent protection?
  - How difficult were the trade-offs?
Line management support
- Did the assigned personnel have the required expertise?
- What was the quality of the assigned resources?
- Did the resources possess innovative capability?
- Was the right quantity of resources assigned?
- Were the resources assigned in a timely manner to support the schedule?
- Was there resource overload?

Senior management support
- Did senior management function as a sponsor?
- Were they helpful?
- Did they decentralize decision-making?
- Did the project team have sufficient authority for the work required?
- Was there a charter?

Methodology
- Did the methodology allow for quick response?
- Was the planning performed correctly?
- Did the methodology allow for contingency planning?
- Were the tools to support the methodology available and state of the art?

The third layer in the postmortem pyramid of Figure 8–14 is the business unit evaluation. This evaluation focuses on two areas: customer satisfaction and future business opportunities. Typical questions for these areas include:

Customer satisfaction
- Was the customer pleased with the price–quality–value relationship?
- Were the deliverables provided on time?
- Are there value-added opportunities or is follow-on work available?

Business opportunities
- Were our preconceptions valid?
- Are there additional sales opportunities other than with this client?
- Will this project allow the organization to grow?

Computer Associates

The only true project failures are those from which nothing is learned. We can learn just as much, or even more, from project failures than from project successes. Therefore, it is imperative that both good news and bad news be recorded in the postmortem pyramid debriefing.

Computer Associates has developed an excellent process on how to conduct a post-project assessment. This process is shown in Appendix F. This assessment process is one of the ways that Computer Associates captures best practices.

Computer Associates has developed a Best Practices Library to support the way it interacts with clients. The Engagement Management Model (EMM), shown in Figure 8–15, defines the way in which CA Services carries out an engagement from end to end. This model is part of CA's Quality Management System and is ISO certified.

The Best Practices Library (BPL) maintains the methods required to provide repeatable, profitable, well-managed engagements. The Project Management method details the
activities and deliverables required for project management. The Project Audit method defines how to conduct an internal project audit against CA’s Engagement Management Model. These internal audits help ensure that CA Services retains ISO certification. In addition to project management methods, the BPL is the repository for “technical” methods that provide detailed task descriptions for CA’s consultants to deliver services.

Methods are added and revised continuously and published monthly on a BPL Web site for CA users. The number of methods documented in CA’s BPL continues to grow. In February 2003, CA had 175 best practices documented.

The three major components of CA’s engagement model are the:

- Best Practices Library
- Project Audit
- Project Management Method

Computer Associates maintains detailed processes for each of these components. Appendix E contains the overview for each of these three processes.

Lessons learned and best practices are intellectual property for a company. But to be effective, the best practices should be incorporated into future methods developed. How does CA’s Method Management Organization (MMO) decide what methods to develop? The method development process needs to be aligned with business process. In CA’s business, methods are integral with CA’s services business. Method development cannot be done in a vacuum; it requires a thoughtful, well-structured collaborative process. Methods development is one of a number of important “threads” in the development and rollout of CA’s service offerings. This is shown in Figure 8–16. If these threads are not connected properly, there is a risk that methods will be built that will not be used. Input is gathered from client requirements, business focus, product development, past sales, and sales forecasts. Method development priorities are determined, then subject matter experts are engaged to build new methods. Existing methods are revised as required for process improvement or product changes.
Texas Instruments

Texas Instruments does an excellent job on lessons-learned reviews. According to a spokesperson at Texas Instruments:

At Texas Instruments World Wide Facilities Central Utilities our maintenance turn-a-round teams lessons learned are one of the crucial elements in our success. Everyone from the suppliers, technicians, managers, operators, maintenance technicians, and engineers attend these powerful 2-hour sessions.

We start the session inviting comments in an open format. Each comment is recorded as either a plus or a minus. To encourage participation, we go around the room, and often more than once. Then we switch gears and record necessary or recommended changes for the next year. Examples would include:

- Proactive (as a plus from a supplier)
- Safety issues were discussed in advance
- Eliminated multiple shutdowns of equipment
- Gained the ability to make decisions based on capacity/plan/forecast model
- Scope needed to expand to include more equipment in the process
- Needed increased operator involvement
- Work with Procurement to improve/streamline the PO/invoicing process

Next, a bin list is created for the next year’s schedule. We list and assign action items with deliverable dates. After the meetings, minutes are sent to everyone. Some items require breakout teams. To facilitate timely completion, we found it important to maintain a regularly scheduled meeting time to address and follow-up on these issues.
Each time we have found further avenues for improvement, capital forecast items, and schedule integrations that benefit the bottom line!

### 8.6 DISSEMINATION OF INFORMATION

A problem facing most organizations is how to make sure that critical information, such as KPIs and CSFs, are known throughout the organization. Intranet lessons-learned databases would be one way to share information. However, a better way might be for the project office to take the lead in preparing lessons-learned case studies at the end of each project. The case studies could then be used in future training programs throughout the organization and be intranet-based.

As an example, a company completed a project quite successfully, and the project team debriefed senior management at the end of the project. The company had made significant breakthroughs in various manufacturing processes used for the project, and senior management wanted to make sure that this new knowledge would be available to all other divisions. The decision was made to dissolve the team and reassign the people to various divisions throughout the organization. After six months had passed, it became evident that very little knowledge had been passed on to the other divisions. The team was then reassembled and asked to write a lessons-learned case study to be used during project management training programs.

Although this approach worked well, there also exist detrimental consequences that make this approach difficult to implement. Another company had adopted the concept of having to prepare lessons-learned case studies. Although the end result of one of the projects was a success, several costly mistakes were made during execution of the project, due to a lack of knowledge of risk management and poor decision-making. Believing that lessons-learned case studies should include mistakes as well as successes, the project office team preparing the case study included all information.

Despite attempts to disguise the names of the workers that made the critical mistakes, everyone in the organization knew who worked on the project and was able to discover who the employees were. Several of the workers involved in the project filed a grievance with senior management over the disclosure of this information, and the case studies were then removed from training programs. It takes a strong organizational culture to learn from mistakes without retribution to the employees. The risk here may be moderate to high for the project office to administer this activity.

### 8.7 MENTORING

Project management mentoring is a critical project office activity. Most people seem to agree that the best way to train someone in project management is with on-the-job training. One such way would be for inexperienced project managers to work directly under the
guidance of an experienced project manager, especially on large projects. This approach may become costly if the organization does not have a stream of large projects.

Perhaps the better choice would be for the project office to assume a mentoring role whereby inexperienced project managers can seek advice and guidance from the more experienced project managers, who report either “solid” or “dotted” to the project office. This approach has three major benefits. First, the line manager to whom the project manager reports administratively may not have the necessary project management knowledge or experience capable of assisting the worker in times of trouble. Second, the project manager may not wish to discuss certain problems with his or her superior for fear of retribution. Third, given the fact that the project office may have the responsibility to maintain lessons-learned files, the project mentoring program could use these files and provide the inexperienced project manager with early warning indicators that potential problems could occur.

The mentoring program could be done on a full-time basis or on an as-needed basis, which is the preferred approach. Full-time mentoring may seem like a good idea, but it includes the risk that the mentor will end up managing the project. The overall risk for project office mentoring is low.

8.8 DEVELOPMENT OF STANDARDS AND TEMPLATES

A critical component of any project office is the development of project management standards. Standards foster teamwork by creating a common language. However, developing excessive standards in the form of policies and procedures may be a mistake because it may not be possible to create policies and procedures that cover every possible situation on every possible project. In addition, the time, money, and people required to develop rigid policy and procedure standards would make project office implementation unlikely because of head-count requirements.

Forms and checklists can be prepared in a template format such that the information can be used on a multitude of projects. Templates should be custom-designed for a specific organization rather than copied from another organization that may not have similar types of projects or a similar culture. Reusable templates should be prepared after the organization has completed several projects, whether successfully or unsuccessfully, and where lessons-learned information can be used for the development and enhancement of the templates.

There is a danger in providing templates as a replacement for the more formalized standards. First of all, because templates serve as a guide for a general audience, they may not satisfy the needs of any particular program. Second, there is the risk that some perspective users of the templates, especially inexperienced project managers, may simply adopt the templates “as required as written” despite the fact that it does not fit his or her program.

The reason for providing templates is not to tell the team how to do their job, but to give the project manager and his or her staff a starting point for their own project initiation, planning, execution, control, and closure processes. Templates should stimulate proactive thinking about what has to be done and possibly some ideas on how to do it.
Templates and standards often contain significantly more information than most project managers need. However, the templates and standards should be viewed as the key to keeping things simple, and the project managers should be able to tailor the templates and standards to suit the needs of the project by focusing on the key critical areas.

Templates and standards should be updated as necessary. Since the project office is probably responsible for maintaining lessons-learned files and project postmortem analysis, it is only fitting that the project office evaluate these data to seek out key performance indicators that could dictate template enhancements. Standards and templates can be regarded as a low-risk project office activity.

Templates and standards are very important to consulting companies, not necessarily for internal use but perhaps more so for the benefit of their clients. The standards and templates must be flexible such that they can be adapted easily to the needs of different clients. Brad Ruzicka, Senior Consulting Manager at the StoneBridge Group, believes:

StoneBridge Group stresses reusability in all phases of the project management methodology. I personally utilize a standard template for project plans, work plans and status reports. However, we also believe that, as a consulting firm, it is important for us to adapt our templates consistent with our client’s standards.

8.9 PROJECT MANAGEMENT BENCHMARKING

Perhaps the most interesting and most difficult activity assigned to a project office is benchmarking. Just like mentoring, benchmarking requires the use of experienced project managers. The personnel assigned must know what to look for, what questions to ask, the ability to recognize a good fit with the company, how to evaluate the data, and what recommendations to make.

Benchmarking is directly related to strategic planning for project management and can have a pronounced effect on the corporate bottom line based on how quickly the changes are implemented. In recent years, companies have discovered that best practices can be benchmarked against organizations not necessarily in your line of business. For example, an aerospace division of a large firm had been using project management for over 30 years. During the early 1990s, the firm had been performing benchmarking studies but only against other aerospace firms. Complacency had set in, with the firm believing that they were in equal standing with their competitors in the aerospace field. In the late 1990s, the firm began benchmarking against firms outside their industry, specifically telecommunications, computers, electronics, and entertainment. Most of these firms had been using project management for less than five years and in that time had achieved project management performance that exceeded the aerospace firm. Now, the aerospace firm benchmarks against all industries.

Project office networking for benchmarking purposes could very well be in the near future for most firms. Project office networking could span industries and continents. In addition, it may become commonplace even for competitors to share project management knowledge. However, at present, it appears that the majority of project management bench-
marking is being performed by organizations whose function is entirely benchmarking. These organizations charge a fee for their services and conduct symposiums for their membership whereby project management best practices data are shared. In addition, they offer database services against which you can compare your organization:

- Other organizations in your industry
- Other organizations in different industry sectors
- Other employee responses within your company
- Other organizations by company size
- Other organizations by project size

Some organizations have a strong resistance to benchmarking. The arguments against benchmarking include:

- It doesn’t apply to our company or industry.
- It wasn’t invented here.
- We’re doing fine! We don’t need it.
- Let’s leave well enough alone.
- Why fix something that isn’t broken?

Because of these concerns, benchmarking may be a high-risk activity because of the fear of recommended changes.

8.10 BUSINESS CASE DEVELOPMENT

One of the best ways for a project office to support the corporate strategic planning function is by becoming experts in business case development. More specifically, this includes expertise in feasibility studies and cost–benefit analysis. In the “Scope Management” section of the PMBOK®, one of the outputs of the Scope Initiation Process is the identification/appointment of a project manager. This is accomplished after the business case is developed. There are valid arguments for assigning the project manager after the business case is developed:

- The project manager may not be able to contribute to the business case development.
- The project might not be approved and/or funded, and it would be an added cost to have the project manager on board early.
- The project might not be defined well enough to determine at an early stage the best person to be assigned as the project manager.

Although these arguments seem to have merit, there is a more serious issue in that the project manager ultimately assigned may not have sufficient knowledge about the assumptions, constraints, and alternatives considered during the business case development.
This could lead to a less than optimal project plan. It is wishful thinking to believe that the project charter, which may have been prepared by someone completely separated from the business case development efforts, contains all of the necessary assumptions, alternatives, and constraints.

One of the axioms of project management is that the earlier the project manager is assigned, the better the plan and the greater the commitment to the project. Companies argue that the project manager’s contribution is limited during business case development. The reason for this belief is because the project managers have never been trained in how to perform feasibility studies and cost–benefit analysis. These courses are virtually nonexistent in the seminar marketplace.

Business case development often results in a highly optimistic approach with little regard for the schedule and/or the budget. Pressure is then placed on the project manager to accept arguments and assumptions made during business case development. If the project fails to meet business case expectations, the blame is placed on the project manager.

The project office must develop expertise in feasibility studies, cost–benefit analysis, and business case development. This expertise lends itself quite readily to templates, forms, and checklists. The project office can then become a viable support arm to the sales force in helping them make more realistic promises to customers and possibly assist in generating additional sales. In the future, the project office might very well become the company experts in feasibility studies and cost–benefit analyses, and eventually conduct customized training for the organization on these subjects. Marketing and sales personnel who traditionally perform these activities may view this as a high risk.

8.11 CUSTOMIZED TRAINING (RELATED TO PROJECT MANAGEMENT)

For years, the training branch of the human resources group had the responsibility of working with trainers and consultants in the design of customized project management training programs. Although many of these programs were highly successful, there were many that were viewed as failures. One division of a large company recognized the need for training in project management. The training department went out for competitive bidding and selected a trainer. The training department then added in their own agendas after filtering all the information concerning the goals and deliverables sought by the division requesting the training. The trainer never communicated directly with the organization requesting the training and simply designed the course around the information presented by the training department. The training program was viewed as a failure and the consultant/trainer was never invited back. Postmortem analysis indicated the following conclusions:

- The training branch (and the requesting organization) never recognized the need to have the trainer meet directly with the requesting organization.
- The training group received input from senior management, unknown to the requesting organization, as to what information they wished to see covered, and the resulting course satisfied nobody’s expectation.
The trainer requested that certain additional information be covered while other information was considered inappropriate and should be deleted. The request fell on deaf ears.

The training department informed the trainer that they wanted only lecture, no case studies, and minimal exercises. This was the way it was done in other courses. The participant evaluations complained about lack of exercises and case studies.

While the training group believed that their actions were in the company’s best interest, the results were devastating. The trainer was also at fault for allowing this situation to exist.

Successful project management implementation has a positive effect on corporate profitability. Given that this is true, why allow nonexperts to design project management coursework? Even line managers who believe that their organization requires project management knowledge may not know what to stress and what not to stress from the PMBOK®.

The project office has the expertise in designing project management course content. The project office maintains intellectual property on lessons-learned files and project post-mortem analysis giving the project office valuable insight on how to obtain the best return on investment on training dollars. This intellectual property could also be invaluable in assisting line managers in designing courses specific to their organization. This activity is a low risk for the project office.

Henry Campbell, a member of the ITS Project Management Office at DTE Energy, describes how the project management office championed educational activities in project management:

The Information Technology Services (ITS) management team at DTE Energy has recognized project management as a role, skill and asset to the organization. As part of the organizational strategy to mature this skill set, the Project Management Office created a training curriculum.

Initially ad hoc courses were offered internally to introduce formal project management concepts and guide employees towards attaining Project Management Professional designation. However, to complement the re-alignment of organizational goals and the introduction of an enterprise project management information system (PMIS), a curriculum was designed to assist project managers in their growth and maturity.

As part of the PMIS pilot, an assessment was conducted to identify organizational gaps in the project management knowledge areas. It was important to leverage project management training with the tool in order to increase the level of data quality. For instance, during the pilot, scheduling and earned value analysis were identified as a knowledge area gap.

To address the scheduling issue, the International Institute of Learning (IIL) was contracted to conduct several courses around scheduling dynamics. As a result, the scheduling issues with the tool have been minimized since the pilot. In addition, Quentin Fleming, author of “Earned Value Project Management,” was contracted to conduct Earned Value (EV) courses for project managers, supervisors and directors. Organizationally, there has been an increase in the understanding of Earned Value to the point where all projects are required to report EV metrics weekly.
Project Management professionalism and organizational continuity are important to ITS. Therefore, all employees are encouraged to attend project management training. Project Managers are encouraged to become PMI Project Management Professionals (PMP). In the fast-paced changing environment of ITS, it is important to maintain core employees who understand project management and are capable of successfully leading or contributing to IT projects.

Our current training curriculum has been quantitative courses such as Project Management Professional preparation, Risk Management, Scheduling, Earned Value Analysis, and TeamPlay. A description of these courses is shown in Table 8–8. Our next step is to introduce behavioral courses into the curriculum as well as developing in-house Subject Matter Experts (SME’s) to conduct internal training.

TABLE 8–8. PMO TRAINING

<table>
<thead>
<tr>
<th>Project Management Curriculum</th>
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<tbody>
<tr>
<td>PMO 101—Managing Projects in Organizations (Prerequisite: None)</td>
<td>15 PDU’s</td>
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<tr>
<td>Get a solid understanding of project management methods with this</td>
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<tr>
<td>comprehensive introductory course. Gain practical experience in</td>
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<td>proven project management techniques and discover a wealth of</td>
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<td>valuable, flexible tools that you can use immediately to ensure</td>
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<tr>
<td>the success of any project in any type of organization.</td>
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<tr>
<td>PMO 102—Project Management Certification Course (Prerequisite: PMO 101)</td>
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<tr>
<td>This advanced project management training program delivers the</td>
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<td>skills necessary for today’s project professionals and</td>
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<td>incorporates all the important components of PMI®’s A Guide to</td>
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<td>the Project Management Body of Knowledge (PMBOK® Guide),</td>
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<td>including the five process groups across the project life cycle</td>
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<tr>
<td>phases. Participants for this course must meet the PMI®’s</td>
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<tr>
<td>minimum requirements for the PMP exam; please visit the PMI</td>
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<tr>
<td>website for requirements.</td>
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<tr>
<td>By registering for this course, candidates verify that they</td>
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<tr>
<td>have reviewed the PMP exam requirements and have the minimum</td>
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<td>qualifications to sit for the exam. The PMP exam must be taken</td>
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<td>within 90 days of successful completion of this course.</td>
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<tr>
<td>PMO 103—Project Scheduling (Prerequisite: PMO 102) 15 PDU’s</td>
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<tr>
<td>Course Objectives</td>
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<tr>
<td>• Set up a scheduled that adheres to the highest level of</td>
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<td>professional standards of project management</td>
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<td>• Use scheduling as an analytical tool for planning, optimizing,</td>
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<td>and managing your project</td>
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<td>• Create schedules that reflect limits on resources, personnel,</td>
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<tr>
<td>and subcontractors on your timeline</td>
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<tr>
<td>• Learn techniques for creating, estimating, and debugging your</td>
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<tr>
<td>schedule, resolving negative float to reach objectives</td>
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</tr>
<tr>
<td>• Avoid scheduling abuses that result in establishing unrealistic</td>
<td></td>
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<tr>
<td>deadlines</td>
<td></td>
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<tr>
<td>• Learn how to use, not abuse constraints</td>
<td></td>
</tr>
<tr>
<td>PMO 104—Earned Value (Prerequisite: PMO 102) 8 PDU’s</td>
<td></td>
</tr>
<tr>
<td>(A one-day seminar facilitated by Quentin W. Fleming, co-author</td>
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<tr>
<td>of Earned Value Project Management.)</td>
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<tr>
<td>Seminar Outline</td>
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<tr>
<td>I. An Overview of Earned Value Project Management</td>
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<td>• The utility of Earned Value management</td>
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<tr>
<td>• The essence &amp; evolution of the Earned Value concept</td>
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<tr>
<td>• Earned Value as contrasted with traditional project management</td>
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<tr>
<td>II. Defining Project Scope with Use of a Work Breakdown Structure (WBS)</td>
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<tr>
<td>• The importance of defining the project’s scope</td>
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<tr>
<td>• The WBS and why we need it: Make or Buy decisions</td>
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<tr>
<td>• Integration of project scope, schedule and resources with the</td>
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<tr>
<td>WBS</td>
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<tr>
<td>III. Establishing the Earned Value Project Baseline</td>
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<tr>
<td>• The project performance measurement baseline</td>
<td></td>
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<tr>
<td>• The importance of a Control Account Plan (CAP)</td>
<td></td>
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<tr>
<td>• Methods used to plan and measure earned value</td>
<td></td>
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<tr>
<td>• Creating Control Account Plans</td>
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8.12 MANAGING STAKEHOLDERS

All companies have stakeholders. Figure 8–17 depicts the broad range of stakeholders, which for simplicity sake, have been categorized as organizational, product/market, and capital markets. Apprehension may exist in the minds of some that the project office will become the ultimate project sponsor responsible for all stakeholders. Although this may happen in the future, it is highly unlikely that it will occur in the near term.

The project office focuses its attention on internal (organizational) stakeholders. It is not the intent of a project office to replace executive sponsorship. As project management matures within an organization, it is possible that not all projects will require executive sponsorship. In such situations, the project office (and perhaps middle management) may be given the added responsibility of some sponsorship activities, but probably only for internal projects.

The project office is a good starting point for building and maintaining alliances with key stakeholders. However, the project office’s activities are designed to benefit the entire company, and giving the project office sponsorship responsibility may create a conflict of
interest for project office personnel. Partnerships with key stakeholders must be built and nurtured, and that requires time. Stakeholder management may rob the project office personnel of valuable time needed for other activities. The overall risk for this activity is low.

8.13 CONTINUOUS IMPROVEMENT

Given the fact that the project office is a repository of project management intellectual property, the project office may be in the best position to identify continuous improvement opportunities. The project office should not have unilateral authority for implementing the changes, but rather the ability to recommend changes. Some organizations maintain a strategic policy board or executive steering committee that, as one of its functions, evaluates project office continuous improvement opportunities.

As a starting point, continuous improvement opportunities may be classified as illustrated in Figure 8–18. Typical activities in each category might include:

- Existing process improvements
- Integration of new or updated software
- Easier use and application of existing tools
- Better customer/contractor interfacing
Convincing other internal organizations to use the project management methodology

- Integrated processes
  - Integrating other systems, such as risk and change management, into the project management system
  - Integrating other corporate databases into an integrated intranet system available to all
  - Integrating, or making more compatible, customer and contractor databases with your company’s database

- Cultural issues
  - Better management of required changes in organizational behavior
  - Overcoming cultural barriers

- Benchmarking
  - Improvements in the benchmarking process
  - Increasing the number of benchmarking partners

- Managerial issues
  - Improvements in project sponsorship
  - Improvements in communications management with stakeholders
  - Projections of future resource skill levels versus existing capabilities

The overall risk is probably moderate because some may view the project office as infringing upon their turf.
8.14 CAPACITY PLANNING

Of all of the activities assigned to a project office, the most important activity in the eyes of senior management could very well be capacity planning. For executives to fulfill their responsibility as architects of the corporate strategic plan, they must know how much additional work the organization can take on, when, and where, without excessive burdening of the existing labor pool. The project office must work closely with senior management on all activities related to portfolio management and project selection. In Figure 7–1 we showed the project selection process as part of the portfolio management of projects. Strategic timing, which is the process of deciding which projects to work on and when, is a critical component of strategic planning.

Senior management could “surf” the company intranet on an as-needed basis to view the status of an individual project without requiring personal contact with the team. But to satisfy the requirements for strategic timing, all projects would need to be combined into a single database that identifies the following:

- Resources committed per time period and per functional area
- Total resource pool per functional area
- Available resources per time period per functional area

There may be some argument as to whether control of this database should fall under the administration of the project office. The author believes that this should be a project office responsibility because:

- The data would be needed by the project office to support strategic planning efforts and project portfolio management.
- The data would be needed by the project office to determine realistic timing and costs to support competitive bidding efforts.
- The project office may be delegated the responsibility to determine resource skills required to undertake additional work.
- The data will be needed by the project office for upgrades and enhancements to this database and other impacted databases.
- The data may be necessary to perform feasibility studies and cost–benefit analysis.

This activity is a high-risk effort for the project office because line managers may see this as turf infringement.

8.15 RISKS OF USING A PROJECT OFFICE

Risks and rewards go hand-in-hand. The benefits of a project office can be negated if the risks of maintaining a project office are not effectively managed. Most risks do not appear during creation of the project office, but more do so well after implementation. These risks include:
• **Head Count:** Once the organization begins recognizing the benefits of using a project office, there is a natural tendency to increase head count in the project office, in the false belief that additional benefits will be forthcoming. Although this belief may be valid in some circumstances, the most common result is diminishing returns. As more of the organization becomes knowledgeable in project management, the head count in the project office should decrease.

• **Burnout:** Employee burnout is always a risk. Using rotational or part-time assignments can minimize the risk. It is not uncommon for people working in a project office still to report “solid” to their line manager and “dotted” to the project office.

• **Excessive Paperwork:** Excessive paperwork costs millions of dollars to prepare and can waste precious time. Project activities work much better when using forms, guidelines, and checklists rather than the more rigid policies and procedures. To do this effectively requires a culture based upon trust, teamwork, cooperation, and effective communications.

• **Organizational Restructuring:** Information is power. Given the fact that the project office performs more work laterally than vertically, there can be power struggles for control of the project office, especially the project managers. Project management and a project office can work quite well within any organizational structure that is based upon trust, teamwork, cooperation, and effective communications.

• **Trying to Service Everyone in the Organization:** The company must establish some criteria for when the project office should be involved. Not all projects are monitored by the project office. The most common threshold limits for when to involve the project office include:
  - Dollar value of the project
  - Time duration of the project
  - Amount and complexity of cross-functionality
  - Risks to the company
  - Criticality of the project (i.e., cost reductions)

A critical question facing many executives is: How do we as executives measure the return on investment as a result of implementing a project office? The actual measurement can be described in both qualitative and quantitative terms. Qualitatively, executives can look at the number of conflicts coming up to the executive levels for resolution. With an effective project office acting as a filter, fewer conflicts should go up to the executive levels. Quantitatively, the executives can look at the following:

• **Progress Reviews:** Without a project office, there may exist multiple scheduling formats, perhaps even a different format for each project. With a project office and standardization, the reviews are quicker and more meaningful.

• **Decision-Making:** Without a project office, decisions are often delayed and emphasis is placed upon action items rather than on meaningful decisions. With a project office, meaningful decisions are possible.

• **Wasted Meetings:** Without a project office, executives can spend a great deal of time attending too many and very costly meetings. With a project office and more effective information, executives can spend less time in meetings and more time dealing with strategic rather than operational issues.
Quantity of Information: Without a project office, executives can end up with too little or too much project information. This may inhibit effective decision-making. With a project office and standardization, executives find it easier to make timely decisions.

The prime responsibility of senior management is strategic planning and deployment and worrying about the future of the organization. The prime responsibility of middle- and lower-level management is to worry about operational issues. The responsibility of the project office is to act as a bridge between all the levels and to make it easier for all levels to accomplish their goals and objectives.

8.16 PROJECT OFFICE EXCELLENCE: A CASE STUDY ON JOHNSON CONTROLS, INC. (JCI) AUTOMOTIVE SYSTEMS GROUP (ASG)

When a company desires to become a world-class leader in project management, specifically the project office concept, it finds additional applications such as six sigma implementation and even the creation of a project office within a project office. Such was the case at JCI.2

**Organization of Project Teams Using a Project Office Concept**

The Organization In fall 2000, Automotive Systems Group of Johnson Controls, Inc. (North America) reorganized using a new business model. Under this model, individual projects (i.e., seats, cockpit, door panels, floor consoles, hard trim parts, etc.) were grouped together and managed as vehicle interior platforms under a platform director who was responsible for an entire vehicle (i.e., Ford F150 truck, Jeep Grand Cherokee, etc.). The platform director with his or her project managers functioned as a project office, viewing the entire vehicle interior and all interfacing components as one large project.

What Drove This Change? Johnson Controls, Inc., Automotive Systems Group, acquired two companies, Becker and Prince, the purpose being to allow JCI to become an integrated interior supplier to the automotive industry. The addition of Prince’s overhead systems, door panel, and instrument panel capabilities to Becker’s interior plastic trim capability and Automotive Systems Group’s seating products established ASG immediately as an interior supplier. However, organizational changes were necessary to truly integrate the companies and their capabilities. The result of this was a new business model that reorganized the company into vehicle platforms and project offices.

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2. Alok Kumar and Dave Kandt of the Automotive Systems Group of Johnson Controls, Inc. provided much of the information in the remainder of this section.
Acceptance  There has been high acceptance of the changeover to the new business model. The expected initial resistance has dissipated, and platform director positions have been institutionalized. The customers are comfortable with this change, and quotes are now being responded to in terms of vehicle interiors rather than a collage of individual products and quotes.

How Has It Worked?  This change has allowed us to function as an integrated company. The platform teams (project offices) have become true teams and feel a sense of identity based on vehicle interiors rather than doors, seats, and cockpits. Timing, profitability, and customer relationships are now viewed from the perspective of the total vehicle. The customers are happier because they have a single point of contact for their vehicle interior instead of multiple points of contact. An interesting side note is that we have been able to reduce the headcount of project managers as part of this change.

Lessons Learned  For other companies that are attempting to move to (platform) project offices:

- Start with a clear organizational model. Stick with it despite concerns and contentions that “It won’t work for us.” Small anomalies will present themselves, but don’t be deterred. Stay with a sound, overall concept.
- Change must be driven from the top. The organization must see constancy of purpose from a united leadership.
- Communication meetings must occur with all the impacted parties.
- Position descriptions within the project office must be written. Roles and responsibilities must be clear.
- The project management systems, reviews, and accountability must mirror the new organization.

Central Project Office: Organization, Roles, and Responsibilities  Johnson Controls, Inc., Automotive Systems Group, instituted a centralized project office reporting to the vice president of project management. The project office’s responsibilities include:

- Methods and standards (JCI’s corporate standard project management methodology is called PLUS (which stands for “Product Launch System”))
- Consulting/mentoring/training
- Project tracking/portfolio management/project metrics
- Project Web sites
- Personnel development/resource management/project manager availability for new projects
- Execution of the strategic plan for project management

Six sigma improvements of our project management systems and project execution
Organizational structure for project management/position descriptions
Hiring project managers
Training and developing project managers who work for our extended enterprise partners (long-term suppliers)

The director of the project office also has the responsibility to manage all the component groups’ project management departments. Managing the project office is only part of his responsibilities.

How Did We Get Here? The functions of the project office were somewhat distributed several years ago. The responsibility for our standard project management procedures was part of corporate procedures. Some engineering metrics were being led by engineering. Then approximately two years ago, a conscious decision was made to centralize these various functions under the project management organization. The key point for JCI was that the organization was ready for this change. The various groups readily gave up their resources to have them managed centrally.

The notable late additions to the project management initiatives at JCI are Six Sigma for Project Management and the PM Web sites (use of the Web for worldwide access to standard project documentation). These have been added since the centralization of the project office.

Results of Centralizing Since that time we have actually been able to reduce the head count by two in the project office (we now have four, including the director), and our output has arguably increased. Also, the six sigma initiative (applying six sigma principles to project execution) is very much enabled by having this central group. We have the opportunity to look across the entire organization for improvements and cost reductions. The project office has been able to reduce the total headcount in project management by approximately 30 percent in the last two years. This is a result of being able to manage, distribute, and redistribute resources and project management intellectual property over the entire enterprise. Also, while “pockets” of project managers developed in the past, the project office became a “final decision-maker” to determine appropriate corporate organizational structure and to simplify the organization. The project office is now involved in staffing our extended enterprise partners and finding ways to outsource project management resources to them.

Another significant improvement has been the ability to quickly reach consensus and decisions on corporate systems and processes. The project office now has the authority to make rapid calls and decisions on these issues. The most recent result was the release of a significantly simplified and therefore more effective version of PLUS. The original PLUS was developed by a committee and thus lacked a central theme and some cohesiveness. The current version has been very well received by the Automotive Systems Group. The project office played the central role in this initiative.

Obstacles to the Project Office As always, head count is reviewed very critically. Since we have been able to reduce head count (and move some project office personnel into proj-
ect management positions successfully), there is little pressure at the present time to reduce further. A successful project office must be viewed as a productive, contributing group and must be on the leading edge of new initiatives, helping to reduce costs and improve project execution. Our project office has begun applying the six sigma process to improving the performance of our projects. The project office is also helping in staffing by moving project managers into black belt roles to execute six sigma projects, advanced quality engineering, purchasing, and other departments as personal development opportunities.

**Future of the Project Office**  We are diligently working on improved metrics and evaluation of projects. At any one time, Automotive Systems Group is working on 250 projects, and there is tremendous opportunity to evaluate how the entire system is working if we look at the performance statistically. Individually, the cost overruns from a single project may not be daunting, but if we look at the waste occurring in all projects in the entire company, we see millions of dollars of opportunity. Once solutions are found, they can be applied across the company for all projects with the involvement of the central project office.

Additionally, we believe that improving the performance and capabilities of the project managers and supporting/providing them productivity enhancement tools is a permanent assignment. It must always be watched over and nurtured by this central organization.

### 8.17 REPORTING AND STRUCTURE

Not all companies support project management the way that Johnson Controls does. Despite the benefits that are recognizable by using a project office, disagreements still exist in many organizations as to where the project office should report and how to get the most out of a project office. However, given the responsibilities of the project office and its relationship to corporate strategic planning, capacity planning and project portfolio management, the project office must report to the executive levels of management. The shorter the distance between senior management and the project office, the quicker the benefits of project management will be recognized.

**FIGURE 8–19.** Simplified project office.
Every company can have a different structure for its project office. A typical structure for a project office appears in Figure 8–19.

The intent of the project office is to manage intellectual property on project management and, as such, does not create bureaucracy by adding layers of management. A project office does not need more than four or five people assigned, as shown in the Johnson Controls case study. In addition, individuals may be assigned part-time to a project office or could be "dotted" line, reporting to the project office while maintaining other functional responsibilities.

Because of the diversity of activities within a project office, individuals assigned to a project office could have multiple responsibilities and might serve as a backup for one another. This would reduce the head count in the project office and might make it easier to measure the return on investment of using a project office.

As companies become more experienced in project management and best practices begin to grow, additional responsibilities can be assigned to a project management office. Some companies even assign activities that are normally functional activities to a PMO if a large portion of the work is directly related to project work and the employees can be justified on a full-time basis. In Figure 8–20, we see the PMO for Computer Associates.

**MULTIPLE CHOICE QUESTIONS**

1. For each activity placed under the control of the project office, resistance can appear:
   A. At the executive levels
   B. At the line management levels
   C. At the worker level
   D. All of the above

2. Which type of project office would probably not have project managers assigned to it full time?
Multiple Choice Questions

A. Functional
B. Customer groups
C. Corporate
D. All have full-time project managers

3. A company maintains a project office to handle large projects and a second project office to handle small projects. Each of these project offices probably resembles a ________ project office.
A. Functional
B. Customer groups
C. Corporate
D. B and C only

4. In the early years of project management, project offices had more people than necessary assigned full-time because:
A. The customer was willing to pay the overmanagement cost.
B. There was a requirement for the assigned personnel to have both primary and backup responsibilities.
C. Risks in the management of the project would be reduced.
D. All of the above.

5. Which type of project office probably functioned as a cost center?
A. Functional
B. Customer groups
C. Strategic
D. A and C only

6. Which type of project office probably functioned as a profit center?
A. Functional
B. Customer groups
C. Strategic
D. B and C only

7. Which of the following is generally not a responsibility of a project office?
A. Performance reviews
B. Benchmarking
C. Mentorship
D. Methods and standards

8. The prime responsibility of a project management office today appears to be:
A. Mentorship
B. Standards
C. Management of intellectual property
D. Training and education

9. Which of the following is generally regarded as a low-risk activity for a PMO?
A. Capacity planning
B. Standards and methodology development
C. Business case development
D. Continuous improvement

10. Which of the following is generally regarded as a high-risk activity for a PMO?
A. Mentorship
B. Dissemination of information
C. Lessons learned files
D. Training and education
11. Which of the following would be a specific benefit to executives as a result of establishing a PMO?
A. Elimination or reduction of company silos
B. Standardization of operations
C. Company-wide prioritization of work
D. All of the above

12. Which of the following is generally not an information system managed by the PMO?
A. Failure reporting
B. Compensation management
C. Lessons learned
D. Earned value measurement

13. Which of the following is not one of the four critical questions addressed during a post-mortem analysis of a project?
A. What went wrong?
B. What should we do next time?
C. Who gets what information?
D. How should the workers be reassigned?

14. The bottom line of the postmortem pyramid evaluates:
A. Key performance indicators
B. Critical success factors
C. Customer satisfaction/business opportunities
D. Strategic mission

15. The second layer (from the bottom) in the postmortem pyramid evaluates:
A. Key performance indicators
B. Critical success factors
C. Customer satisfaction/business opportunities
D. Strategic mission

**DISCUSSION QUESTIONS**

1. Why is there often resistance to the implementation of a project management office?
2. What industries are the primary users of a customer group PMO?
3. What organizations are the primary users of a functional PMO?
4. When we say that the implementation of a PMO is a high or low risk, to what are we referring?
5. Why would a company want to support both a functional PMO and a corporate PMO?
6. What type of PMO is best suited to support (i.e., provide benefits to) senior management as a whole?
7. What are the four types of information systems maintained by a corporate PMO?
8. During postmortem analysis of a project, what are the differences between CSFs and KPIs?
9. Explain project manager mentorship.
10. Why is it a good idea to have the PMO act as the champion for the project management methodology?
Across
3. Type of PMO
5. _ _ _ _ _ _ value measurement
6. PMO responsibility
8. PMO responsibility
9. Type of PMIS: _ _ _ _ _ _ reporting
10. Type of PMO: _ _ _ _ _ _ _ _ groups
11. Executive benefit of PMO
14. PMO responsibility
16. Part of CSF
17. _ _ _ _ _ _ property
19. Implementation threat
20. Type of PMIS: _ _ _ _ management
22. Executive benefit of PMO

Down
1. Executive benefit of PMO
2. Type of PMO
4. _ _ _ _ _ _ improvement
7. PMO responsibility
12. _ _ _ _ _ _ pyramid
13. PMO responsibility
15. Implementation threat
16. _ _ _ _ _ _ planning
18. Lessons-_ _ _ _ _ _
21. Part of KPI