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Introduction to the Process Improvement Life Cycle

Designing, documenting, and implementing a project management methodology is a major undertaking. It is met with several obstacles, including:

- Cultural and organizational barriers to change;
- Replacing existing project management habits;
- Rugged individualism of technical professionals.

An organization will never reach the point where it is safe to say that all three of these obstacles have been neutralized. In fact, these obstacles will continuously plague projects for as long as there are projects to be plagued. Until very recently most organizations have not paid enough attention to these obstacles, which ushered in the beginning of the end for many of them. Once the methodology is introduced to the organization, however, its founding fathers claim success and the process of implementing a project management methodology officially ends. To be specific, reaching this point is just the end of the beginning. The strategy for the middle game involves direct confrontation with the above obstacles.

Project failure rates are expected to decrease as a result of using the new methodology, but they do not. Project teams are supposed to use the new methodology, but they are not. The problem is often serious enough to require commissioning a project to find a solution and implement it. As organizations come to the conclusion that the time and cost expended to reach the point of full project management methodology implementation is an investment in the future, attitudes change. These organizations turn their attention towards protecting their investment, and so, programs at improving project management performance are sought. This chapter introduces the solution at the process level. Later chapters expound on that solution.

1.1 The Importance of Process Improvement

The amount of effort put into the design and implementation of a process does not really matter; there is always room for improvement. Nowhere is this more obvious than in the technical professions. As new technologies emerge, new ways of doing things arise and we must change or die. In other words, an organization simply cannot stand still and expect project management to continue to function at expected levels of effectiveness. It must continuously improve processes or they will fall into misuse or no use at all.

1.1.1 Stand Still and Go Backwards

A professional athlete is good in part because of countless hours of practice. A professional athlete stays good because of countless hours of practice. The analogy to business is that a competitive business is good by constantly improving what it does. A competitive business stays good by constantly improving what it does. The analogy to project management is that to be good at project management requires the committed and organized effort of the entire organization, and to stay good at project management requires that continual effort.

To ignore this warning is to sentence your business to a slippery slope that sooner or later will lead to failure. The first signs that your organization is on that slippery slope is a complacent attitude that creeps into everyday business life and project life that everything is fine, and that you have arrived at an exemplary practice of project management. In the final analysis, all organizations should look for ways to improve the quality and maturity of their project management processes. Before doing that it would be informative to look at the sources of problems regarding the process and its practice. For that information we turn to the Standish Group for their insights into information technology (IT) project success and failure. Once we have digested that information we will be in a better position to put together an action plan.

1.1.2 Standish Group Chaos Report

Beginning in 1994 the Standish Group, an independent IT research organization, published the results of extensive interviews with IT executives regarding reasons why IT projects succeed or fail. Their report, "CHAOS Chronicles, Version 2.0" [1], lists the following 10 reasons for project success in the order of importance:

- Executive support;
- User involvement;
- Experienced project manager;
- Clear business objectives;
- Minimized scope;
- Standard software infrastructure;
- Firm basic requirements;
- Formal methodology;
- Reliable estimates;
- Skilled staff.

Seven of the 10 reasons relate to process. The remaining three (executive support, experienced project manager, and skilled staff) relate to the project, or more specifically to the alignment of the project manager and the team members to the project as well as the alignment of the project to the organization's goals and objectives. For a detailed discussion of how that alignment is measured and acted upon, consult my companion book *Building Effective Project Teams* [2].

It will be helpful to review each of these 10 reasons especially as they relate to the quality of the project management process. The discussion below will focus on the practices and processes that must be part of a quality project management methodology. This will lay the foundation for our assessment of project management maturity later in the book.

1.1.2.1 Executive Support

Since this is the single-most important reason for project success, its absence is the main reason why projects fail. While some may think it is simple to get executive support, many would agree that it is not easily maintained. Changes in executive leadership, changing political scenes, and changing business priorities can easily result in the loss of that support. Because of this fragility, the project manager must be held to standards and practices that preserve rather than alienate the executive sponsor. Those standards and practices will be part of the communications management program that makes up the project management methodology.

Executive management must have a stake in the outcome of the project. A well-devised project plan, along with project team commitment, will go a long way in gaining executive management buy-in. And if the executive becomes the leading spokesperson for the project, it is a sure sign of management buy-in. The executive should be a visionary, setting the agenda, arranging funding,

articulating objectives, and also be the champion and minesweeper, securing necessary resources and taking total ownership of the project. The executive should not be the project manager, or the function representative, or Santa Claus, or the technical officer.

Executive support must go beyond their pet projects and extend to the project management methodology itself. Their endorsement of the methodology as the efficient and effective way to manage projects must be visible. They have to walk the talk!

1.1.2.2 User Involvement

The best way to assure user help and support when it is needed is to keep the user meaningfully involved in the project throughout its life cycle. That begins with functional specification, continues through planning and execution of the project, extends into change management and problem solving, and culminates with a well-defined acceptance criterion.

Even though a project is on time and within budget, it can fail if users' expectations are not met. The project team must understand the users' business and their needs and effectively communicate with them. The users need to provide constant information and feedback and can do so through formal (meetings) and informal methods established by the project team. There must be mutual respect between users and the project team. The "correct" users must be involved early and often in the project life cycle and they need to own the project. A function representative is the "voice" for all user departments and serves as the subject matter expert. There are many opportunities in the project management life cycle to meaningfully involve the user, your client. The extent to which your defined processes include the client is an indicator of project success.

1.1.2.3 Experienced Project Manager

Availability is not a skill! To appoint someone project manager simply because they are available is not a good management decision. Such behavior is probably rare but it should make us stop and think about exactly how we do appoint a person project manager. That decision should be based on a number of factors, which can be summarized in one observation: How well does their skill and competency profile match the characteristics of the project? The question cannot be answered unless we have a way of profiling projects, a way of profiling the skills and competencies of the project manager, and a way to measure the alignment of the two profiles. The interested reader can consult *Building Effective Project Teams* [2] for a metric that measures the alignment of the two profiles.

Business and technical knowledge, judgment, negotiation, organization, and good written and oral communication skills are desirable traits for a project manager. The ability to communicate with all the stakeholders and technical teams is necessary. Additionally, planning, tracking activities, tasks, and changes, or replanning to arrive at a goal are other skills a project manager should maintain. A project manager should decide what features and functions are part of the project, orchestrate all resources, focus on the goal and minimize diversions, and establish accountability, responsibility, and authenticity. A project manager should not be the executive sponsor, user, or functional representative, and should not overpromise or be a control freak.

1.1.2.4 Clear Business Objectives

Project management methodology must have a formal process for establishing clear business objectives. If you do not know where you are going, how will you know what to do and how will you know when you get there? Projects that start out without having this information are in trouble unless the methodology has a way of compensating for that lack of information. Traditional project management approaches do not have a way of compensating; the newer adaptive and iterative approaches do. Since change is almost certain, the project management methodology must have a way of maintaining the objectives as they change and a way of adapting the project plan to those changes.

Everyone associated with a project must share the same vision. The vision must be clear, concise, and comprehensible. The goal(s) of the project must be known and enthusiastically supported by all. And goals must have measurable success factors. The project's business objectives must map to the corporate vision. This ensures that those associated with a project know and understand the objectives, where they fit in, and how the project goals contribute to the corporate vision.

Despite all of the effort devoted to clearly defining project goals and objectives, these are not static and will change. You may have been very successful in working with your client to achieve that clarity, but it may not be long lasting. Business conditions will change, markets adjust to the economy and to new competition, and competitors will change. All of these factors lead to scope change in your project and place your project at risk. That means your project management process must have a solid change management process that is integrated into other business processes.

1.1.2.5 Minimized Scope

The trade-off here is that longer projects will incur more change and risk and less so for shorter projects. Change in scope brings about a change in the project plan and the increased risk that work completed earlier may no longer be of value. That means wasted dollars and wasted time. A large project can be decomposed into several interdependent smaller projects. Each smaller project should be justified based on the specific deliverables and business outcomes that will be produced. The extent to which the project management methodology considers this approach and includes processes for decomposition is a measure of its quality and maturity.

Major milestones in a project form the boundaries from one phase to the next. Adding some smaller milestones and monitoring their attainment is one of the keys to project success. The five key elements to effectively using project milestones are planning, top-down design, time boxing, tools, and management by objectives/accountability. Proper planning prevents problems. Start with a high level view then figure out the details. Time boxing involves set deadlines and a fixed amount of time. Using automated tools and templates can speed projects up. Milestones must be defined, understood, measurable, and quantifiable. And each should have an assigned owner.

1.1.2.6 Standard Software Infrastructure

This factor speaks to the stability of the infrastructure over which your project work will be done. If that infrastructure is in flux, your project plan is at risk for radical change. That risk opens the possibility of missed deadlines, use of the wrong human resources, team members with the wrong skills, inability to meet the client's requirements, and a host of related impacts.

It is vital to use a language that is understood by all parties involved in a project. Infrastructure is defined as the underlying foundation or basic framework (as of a system or organization). Defining, understanding, and engaging standard business processes is fundamental to any company, and that includes ensuring a standard business infrastructure throughout the enterprise environment. A standard technology infrastructure can facilitate the placement of new kinds of technology to support business initiatives. Selecting a robust and scalable infrastructure will enable businesses to profit and expand by harnessing the capabilities and promise of truly global electronic commerce.

1.1.2.7 Firm Basic Requirements

This is a no-brainer. Much of the discussion surrounding clear business objectives applies here. By way of analogy, you cannot start out on a journey unless you have some idea of where you intend to go. The better you can define that journey the more effective will be your initial choices of direction. The better you understand the client's basic requirements, the better your plan will be for delivering an effective solution to meet all of their requirements.

Requirements management is the ongoing process of identifying, documenting, communication, tracking, and managing project requirements as well as changes to those requirements. The earlier an error is detected, the less costly it is to fix. A concise definition of the project vision should be written in business terms. Buy-in from the users and executives are paramount to project viability. Continuous reevaluation must occur. Identify all key stakeholders and include them in the requirements definition. Identify and document all risks and formulate a plan to minimize them. Develop a clear statement of the business case. Define the project metrics, measurements, and milestones.

1.1.2.8 Formal Methodology

Project management methodologies that can be repeated are valuable to the organization. Repeatability creates standards, best practices, skill development, and a host of other benefits to the organization. Project management methodologies that are adaptable rather than rigid are valuable to the organization as well. The extent to which a project management methodology is standardized, documented, accepted and practiced, integrated into the business equation, and improved upon is a measure of its quality and maturity.

The project management office (PMO) is part of the infrastructure that will help an organization align business and technical goals and increase the odds of project execution in organizations. It is a dedicated section of the organization that focuses on various aspects of project management and methodology. PMOs help to gain better control over processes and project outcomes, bring consistency to their implementations, standardize operations, control resource allocation, and handle customer interfacing. PMO staff members have project management experience and excellent communication skills.

1.1.2.9 Reliable Estimates

Historical estimated versus actual costs and durations are your best tools for producing new estimates of cost and time. The availability and maintenance of this historical information is a sign of the maturity of the project management process.

Reliable estimates can only come from honest and frank assessments. It is important to create realistic written specifications, prioritize needs, and work toward smaller milestones at frequent intervals. Managing change is another requirement in setting realistic expectations. A misalignment between expectations and deliverables often occurs if change is not managed.

1.1.2.10 Skilled Staff

There are two factors to consider here. The first is the skills inventory present in the staff and the extent to which it matches the demand for skills in the organization. The second is the extent to which the skills of the project team match the skill requirements of the project to which they have been assigned.

Skilled staff is your most valuable asset. The five key elements to ensure competency are:

- 1. Identifying required competencies;
- 2. Providing a quality, relevant, and continuous training program;

- 3. Recruiting both internally and externally;
- 4. "Incentivizing" the staff;
- 5. Ensuring they are project-focused.

Building and maintaining a team involves collective participation from the entire team. Communication within a team is vital to a project's success.

This book will focus on these 10 reasons that relate to the effectiveness and maturity of the project management process. More background needs to be provided before we can meaningfully discuss these reasons. Specifically, we need to describe the processes that comprise a typical project management methodology and then relate those processes to these 10 reasons. That will be the topic of Chapter 2.

1.1.3 Balancing People, Project Management Processes, and Technology

Each of the 10 critical success factors tells us a great deal about the characteristics of effective project management processes, but they do not tell the whole story. In addition to the processes, an effective project management environment is also made up of people and the technology to support the processes and the people. The 10 critical success factors tell us that. Four are related to people, seven are related to process, and three are related to technology.

The triad formed by people, project management processes, and technology forms a system that must be in balance if projects are to have any reasonable chance of succeeding [3]. Figure 1.1 displays that triad.

The figure shows several examples of how the three components can be related to one another. These are illustrated by data points A, B, C, and D. The closer the data point is to a vertex, the more developed or stronger that component is to the mix. Data point A is located at the center of gravity of the triangle and represents a system in balance. The People dimension shows a staff whose skill profile and experience level is in balance with the needs of the organization. The Project management processes dimension shows that the organization has sufficiently developed and understood project management processes to meet the needs of the organization. The Technology dimension shows that the organization has deployed the appropriate level of technology to support the project management processes that are in place and the people who use those processes.

Data point B shows an organization that is tilted toward the Project management processes and Technology dimensions. This organization will have sophisticated project management processes in place and the necessary supporting technology. They will not be effective, however, because they have not adequately prepared their people with the training and skills to effectively utilize



Figure 1.1 The triad of people, project management processes, and technology.

the infrastructure. Furthermore, while the project management processes themselves may be entirely appropriate, the people may not be using them. This illustrates that a gap exists between one or more project management processes and the practice of those processes. This situation will be a major topic of discussion in Chapters 3, 6, and 7.

Data point C shows an organization that is tilted toward the People and Project management processes dimensions. This clearly shows a failure on the part of the IT function to support the project management function and on the part of the project managers to proactively go after technologies to support their project work.

Data point D shows an organization that is tilted toward the People and Technology dimensions. This is a fairly common occurrence. These organizations are technology rich and have hired smart people, but without the processes to support their business activities turnover will be high and business will suffer as a result.

1.1.4 Process Improvement Versus Practice Improvement

The effectiveness of project management in an organization is measured by two separate but related maturity variables.

The first is the current maturity level of the process itself. The assessment of this maturity is based on an evaluation of the standardized and documented methodology for managing projects in place in the organization. The assessed maturity level will be a point estimate. For any one of the many processes that make up a project management methodology, their scope and impact on the organization will increase over time. This will happen as shortcomings in the initial version are discovered and fixed. Increases in scope will occur as the project management processes become more integrated into related business processes.

The second variable is the maturity level of the practice of the process as evidenced by ongoing projects. This assessment will be done on projects recently completed and will be repeated at set intervals (such as quarterly). The assessed maturity level will be a distribution of values—one for each assessed project.

There are two questions that can be answered from this data. The first is whether the current process maturity has reached the level established by the organization as the target level. If not, part of the effectiveness improvement will, of course, be to put initiatives in place to reach that target level.

The second question is whether the current practice maturity is consistent with the process maturity. There are three situations that will be important to us as we examine current effectiveness. They are introduced in the sections below and will be further discussed in Chapters 3 and 4.

1.1.4.1 Process Maturity Exceeds Practice Maturity

This situation will occur when the organization has a process in place that has not yet been fully integrated into practice. There can be many reasons for this:

- The process may not have been successfully deployed into the organization.
- The process may not be sufficiently documented.
- The process may not be appropriately defined and has therefore been dismissed as not useful or misused by project teams.
- Process training may not be effective.

Project reviews should be able to get to the root cause of this performance gap. Chapter 5 will take up this situation and show how that root cause can be determined by way of an example.

1.1.4.2 Process Maturity Equals Practice Maturity

This suggests a healthy alignment between the process and how it is being practiced. Keep in mind that the practice maturity data will have been collected over several projects and presented as a distribution. Not all projects will have verified a practice equal to the process maturity level. Rather, some will be above and some will be below that level. In the aggregate, however, a reasonable person would conclude that the practice maturity mirrors the process maturity. The evidence to support this conclusion would be a distribution of practice maturity values around the process maturity. The smaller the variance of that distribution, the more aligned are the practice and process maturity.

1.1.4.3 Process Maturity Less Than Practice Maturity

This would seem to be an anomaly but it really is not. It is entirely possible that projects will display a practice maturity that is above the process maturity for at least the following reasons:

- The process maturity level has not been documented and deployed and several project managers have taken it upon themselves to practice at a maturity level that is called for.
- One or more members of project teams have brought practices with them from other organizations that exceed the process maturity level on one or more processes.

These situations are likely to arise when the process maturity levels are lower compared to what the organization would expect them to be. As the process maturity levels increase, this phenomenon is less likely to occur. But while it does, there are best practices and lessons learned that can be gleaned from these projects. In fact, these best practices and lessons learned can become the input to improvement initiatives for the process itself.

1.2 Typical Project Improvement Practices

Initial attempts at improving the practice of project management emanated from experiences gained on individual projects. Three efforts can be highlighted: project reviews, best practices, and lesson learned.

1.2.1 Project Reviews

At major project milestones, review meetings will often be held. While the primary purpose of these is to assess the general status and health of an ongoing project and offer get well plans as appropriate, they also present opportunities for discussing the use of documented project management processes and other practices.

These discussions can be very illuminating. If the project team has taken variance from an established process, the reason for the variance should be brought to light. The variance may be due to the fact that the process as defined does not meet the specific needs of the project. The variance might also be due to the team having an alternative process that it believes is better than the established process. The variance may be due to ignorance on the part of the project team. In all of these cases there is valuable intelligence to be gathered. The intelligence can lead to improvements in process as well as practice of process.

1.2.2 Best Practices

By attending conferences, reading, and talking with project managers at other companies or those recently hired into their company, project managers pick up good ideas, practices, and processes. Through their project assignments they have an opportunity to use what they have learned. This will certainly help them with their current assignment. If there is a process in place to transfer that knowledge to the organization in a useful form, all future projects can benefit.

1.2.3 Lessons Learned

Through a postimplementation audit, project managers are supposed to pass on what they have learned about process and practice to other project teams that follow them. They should have learned new approaches and new strategies for improving the management of their projects that will be of value to others to follow. They might also discover approaches that simply do not work. That information should also be passed forward for use by other projects. In theory, all of this sounds good, but in practice, it just does not happen. The reasons for this are discussed in the next section.

1.3 Definition of the Process Improvement Life Cycle

While the above improvement practices have been in use for a number of years, the results have not met expectations. There are several reasons for this:

- No interproject sharing of ideas and suggestions.
- Each project is unique.
- Experiences do not travel well from project to project.
- The process is too informal to work.

Senior level managers expect that project managers will share their experiences so that others might learn and thereby improve their project management practices. This does not happen to any measurable extent, and the reason most often given is that "my project is so different from yours that your idea simply doesn't apply." Project managers are often hesitant to take ideas and suggestions from other project managers because it may be a sign of weakness or incompetence. The problem with these reasons is that they are all the result of the informality involved. Depending on an informal spreading of ideas and suggestions simply will not work. Having a formal process in place to receive ideas and suggestions and filter them for general use might solve the problem somewhat. If the organization expects improvement in its project management practices and processes, it will require a formal and planned approach. That approach is the process improvement life cycle, which consists of four major steps as shown in Figure 1.2.

1.3.1 Where Are You?

The first step is to determine where you are. I am not talking about a physical location but rather about a state of being. The question is really asking for some statement about process maturity. To answer that question we must have some basis for measurement of process maturity. Chapter 2 develops a survey to measure that. Chapter 3 develops a metric from the resulting survey data. The answer to the question "Where are you?" is given by the value of the process metric. We will call this the *baseline*. Over time, and as the process and its practices improve, comparisons against that baseline will generate a trend line showing changes



Figure 1.2 The process improvement life cycle.

with respect to the baseline. In other words, the answer to the where are you question changes. If the organization has a quality improvement program underway, the trend line will be a tool for measuring progress as the baseline converges on the target maturity level.

1.3.2 Where Do You Want To Be?

Once you have determined where you are, the next step is to decide where you would like to be. What goal will you set for your process improvement efforts? The goal should be expressed against that same baseline and in terms of the metric used to establish your current state. That goal can be very short term and associated with a specific improvement opportunity or a long-term programmatic goal associated with a final end state.

1.3.3 How Will You Get There?

At this stage you know where you are and you know where you want to be and both are expressed in terms of the same metric. The difference between the two is called your *process maturity gap*. To answer this question we have to define the pathway that connects the two end points that define the gap. That pathway is a plan to move the people, project management process, and technology that define the current state to another combination of people, project management process, and technology that define the end state. There will be cases where that pathway is clearly defined and others where that pathway is only vaguely defined. It all depends on the complexity of the relationship between people, project management process, and technology along that path. Each situation will require a different project approach. These will be discussed in Chapter 6.

1.3.4 How Well Did You Do?

An improvement program has been put in place to narrow the gap. That improvement program may consist of a single project or several projects. The projects could be totally independent of one another or related in some manner. In most cases the projects are sequential. The results of the first project are assessed with respect to the defined goal. If the goal was reached, other improvement programs may be initiated for other processes. If the goal has not been reached, a root cause analysis may be conducted and additional projects commissioned as a result. In any case, there is a final assessment of the new baseline. The life cycle then repeats itself continuously.

1.4 Who Is Responsible for Process Improvement?

Without any reservations, the answer to this question is the project support office (PSO). There must be a single point of responsibility for several reasons, such as:

- Establishing a standard processes;
- Managing best practices and lessons learned;
- Managing performance data against standard processes;
- Continuously improving the project management process.

1.4.1 Establishing a Standard Process

Managing and improving project management process standards are not possible unless there is some coordinating unit that has been given responsibility for the development, deployment, and maintenance of the standards. Developing standard project management processes should be a collaborative effort involving PSO staff and a representative task force of project managers. That collaboration will go a long way towards contributing to ownership and a successful implementation. The standard should not be "one size fits all." Rather, it should offer options to the project manager based on the characteristics of the project.

1.4.2 Managing Best Practices and Lessons Learned

This responsibility extends from putting processes in place to identifying and collecting best practices and lessons learned to cataloging and creating access to them, to distributing them throughout the organization. None of these is a trivial responsibility. Experience has shown them to be very difficult. Best practices must include activities that can be isolated from any specific inputs or outputs. In other words, they must become robust if other projects are to use them. This means that someone has to take the responsibility to look beyond the best practice or lessons learned as submitted and extract their real essence. This will allow the best practices and lessons learned to be used by others regardless of the dependent processes they might be using in conjunction with the so-called best practices. Lessons learned are perhaps a bit simpler to deal with. Many, if not most, of them can be recorded in if-then types statements. If this is the situation you have encountered, then this is the suggested action.

1.4.3 Managing Performance Data Against Standard Processes

The need here is for an unbiased party to conduct project reviews that will result in consistent data being generated across projects so that meaningful analyses can be made and conclusions drawn. Project reviews are usually conducted by a panel of project managers at designated milestone events in the life of a project. The purpose of a project review is to assess how well the project plan and the documented project management processes are being followed. The intent is not only to assess project status against the plan but also to help the project manager. In some cases the project manager is able to share a tool or technique they learned or developed and contribute it to the store of knowledge on project management for the organization. These best practices can be useful to other project teams.

1.4.4 Continuously Improving the Project Management Process

Again, this must be coordinated from a single point of reference. Almost without exception this should be a PSO, which will have the responsibility of developing and implementing the project management methodology for the organization and will also be responsible for monitoring compliance with it. Through project reviews and other inputs on project performance, the PSO will be able to see areas where the process can be improved and areas where the team may need some additional training or consulting support.

1.5 Effectively Dealing with the Obstacles

The introduction to this chapter listed three obstacles to designing, documenting, and implementing a project management methodology:

- 1. Cultural and organizational barriers to change;
- 2. Replacing existing project management habits;
- 3. Rugged individualism of technical professionals.

Let us now take a brief look at the strategies and tactics for neutralizing these obstacles.

People grow comfortable with processes and procedures and any attempt to change them is met with resistance. That resistance stems from a fear of the unknown, a fear that the change may invade their space, or a fear that they will lose power or prestige. Regardless of the impact of the change, these perceptions must be treated as reality. If the patterns of behavior that the individual follows are the result of processes that they personally developed to meet their needs, it will be even more difficult to replace their behavior with new processes. As a group, engineers often present even a greater challenge. For too many years engineers lived under the myth of "not invented here." Engineers are perfectly capable problem solvers and process developers. They behave as though they are self-sufficient and can build whatever they need to get their jobs done.

Knowing these patterns of behavior ahead of time should warn us to thoughtfully plan a strategy and the necessary counter measures before we attempt to introduce change. That plan begins at the time management decides to move ahead with the change. I contend that these obstacles can be effectively addressed if you adhere to the following principles:

- The project team should consist of credible and influential representatives of each constituency that will affect or be affected by the new processes.
- The project plan should contain a component that designs the new process at the conceptual level.
- The project plan should contain a significant component that will seek out best practices inside and outside the organization.
- The project plan must contain several review and open meeting sessions that investigate draft versions of the new process.
- No one should be excluded from offering their opinions and being listened to.
- Visible response and closure to every suggestion must be made.

1.6 Points to Remember

The following is a list of important points to remember from this chapter:

- Once a project management methodology has been introduced to the organization, attention must shift to strategies for implementation.
- If the project management methodology is not continuously improved, it will fall into misuse or no use at all.
- To be good at project management requires the committed and organized effort of the entire organization, and to stay good requires that continual effort.
- Seven of the 10 reasons for project success are related to the project management process itself.
- The triad formed by people, project management process, and technology forms a system that must be in balance if projects are to have any chance of success.
- The effectiveness of project management in an organization is measured by the maturity level of the process (PD) and the maturity level of the practice of the process (PP).

- The process improvement life cycle consists of answering four questions:
 - 1. Where are you?
 - 2. Where do you want to go?
 - 3. How will you get there?
 - 4. How well did you do?
- A PMO will be needed if an organization is serious about process improvement.
- Putting a project management methodology in place and continuously improving it will face barriers to change, the need for individuals to change their habits, and the rugged individualism of project managers.

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