

Making Advances in Project Management by Removing Barriers to Improvement

“Proven Methods to effect real and sustained improvements in PM”

Short Version

(Full paper at www.manageprojectsbetter.com, free download)

“The Need, the Problem and the Solution”

The Need – Organization success is dependent on project success. Businesses, government agencies, non-profits and educational organizations all have projects, often of increasing complexity and all of these organizations experience challenges in making projects consistently successful. Late schedules, over budget and missed technical commitments and other issues are unfortunately, too common. Many organizations are becoming more and more aware of the need to make improvements in how projects are managed and are taking action to do so.

The Problems in Making Improvements – Many improvements in project management are attempted and most fail to achieve desired outcomes. Organizations try training, make organization structural changes, acquire or build new management systems, dictate policy, buy or develop new tools and attempt other improvements that individually are understandable decisions. Unfortunately the end result is often limited, if any, as multiple barriers to attaining real and sustained improvements in PM exist.

The Solution – Two decades of internal corporate studies that focused on root cause analysis of improvement failures have resulted in the identification of specific barriers to making effective and lasting improvements. As each barrier was defined and understood, a set of solutions to remove these barriers to improvements were defined, implemented and refined. The specific barriers to improvement and proven solutions are described in the following.

Known Barriers to PM Improvements and the Solutions

“Understanding the Barriers to Improvements is Key to Implementing Effective Solutions”

To understand the nature and value of solutions needed to advance the function of project management, it is important to have an awareness of the multiple barriers that can exist that prevent productive and lasting improvements. Common barriers follow and proven solutions are noted for each.

List of Barriers to PM Improvements

- 1) No Single Stakeholder 1) Understands the Real Need and 2) Knows What Must Be Done and 3) Has the Wherewithal to Effect Change - *“No One Party Can Do It”*
- 2) No Accountability for PM or No Focus on PM Improvements - *“No One Owns Project Management”*
- 3) Improvements are Incomplete Due to a Narrow View of the Problem - *“Simplistic Problem Viewpoint”*
- 4) Point Solutions are Attempted Only, Not a Complementary Solution Set - *“Single Dimension Solutions”*
- 5) New Improvements are Not Sufficiently Integrated into Existing Operations - *“Islands of Improvement”*
- 6) Improvement Skills Learning Methods are Inadequate to Support Improvement Implementation - *“Insufficient Learning Methods”*
- 7) Upper Management Does Not Know or Does Not Believe that Anything in Project Management Really Needs Focused Attention - *“Upper Management Is Not Aware of the Need”*
- 8) The PM Role is Undefined, Not Supported or Not Accepted - *“The PM Role is Not Standard, It Is What the PM Can Make It to Be”*
- 9) Improvements are Not Adequately Sold to Stakeholders - *“I Never Agreed to This”*
- 10) Volatile Organization Structures Can Kill Improvements and Reduce the Energy to Make Future Improvements - *“Any Good Idea Can Be Negated with an Organization Change”*

Barrier #1 to PM Improvements and a Solution

No Single Stakeholder 1) Understands the Real Need and 2) Knows What Must Be Done and 3) Has the Wherewithal to Effect Change

“No One Party Can Do It” - To make improvements, an organization needs multiple conditions to exist. These conditions include: A clear understanding of what problems need resolution, how those problems should be resolved, the resources to develop and implement an improvement and the authority to make improvements “official” organization practice. Unfortunately in most organizations, no one stakeholder holds all these needed characteristics.

Solution – All levels within an organization must work together. One means to accomplish this is to establish a PMO (Project Management Office) to foster needed communications across all stakeholder groups and to initiate and manage PM improvements. As an example, a PMO could be composed of middle management and senior PMs. The PMO could receive problems and improvement ideas from project teams and adjacent organizations. The PMO could receive strategic

directions from leadership. The PMO could select and implement the best solutions for priority PM issues and could work with senior leadership on solutions to problems that extend across the enterprise. A PMO can be the catalyst to enable periodic communications between project teams, PMs, middle management and senior leadership and as such, can remove the “No One Party Can Do It” improvement barrier.

Barrier #2 to PM Improvements and a Solution

No Accountability for PM or No Focus on PM Improvements

“No One Owns Project Management” – In many organizations there is no “owner” of the project management discipline. Many organizations use a matrix structure or variations and PMs and project team members come from different functional groups. Where there is a lack of “PM Ownership”, there is no one watching out for the PM discipline, no one is collecting issues, no one is working issues, no one is developing new tools and no one is accountable for the improvement of how projects are managed. Individual PMs and project teams are left to fend for themselves and because most projects are struggling with meeting commitments, little time or resources exist for project teams to analyze management issues and to define new management methods. Lack of a PM Owner or a PMO can be a very significant barrier to improving project management capabilities.

“Someone Owns PM, But the Focus is Tactical Issues, Not On Structural Improvements” – Where a PM owner or PMO does exist, in some organizations the focus can become one of resolving tactical issues vs. making long term strategic improvements. As an example, a PMO is established to make projects run more effectively, but the PMO participants expend the majority of their efforts in resolving individual resource assignment issues between projects and addressing other tactical problems. These are often important things to do, but this is resolving short term tactical problems and is not doing anything to identify and implement sustained improvements for long term application and long term benefit.

Solution – Every organization needs an “Owner of PM” or a “PM Champion” to lead improvements in managing projects. An executive of interest and/or a PMO, (which can report to an executive of interest) can be solutions. Additionally, a PMO charter that focuses on making strategic improvements, in addition to handling tactical issues, in project management can be a solution.

Barrier #3 to PM Improvements and a Solution

Improvements are Incomplete Due to a Narrow View of the Problem

“Simplistic Problem Viewpoint” - Project success is a function of many factors. Even though any improvement to a given aspect of project management can be of some value, unfortunately what typically happens is that a narrow view of a problem is

adopted where actually a broad spectrum of issues exist. This results in the attempted improvement being too narrow, as it is only focused on a subset of the problem.

Solution - What is needed to resolve this barrier to improvement is the advancement of an organization's understanding of the interrelated nature of project management functions coupled with structured cause and effect analysis each time an issue is surfaced and an improvement is attempted to ensure all root causes are addressed.

Barrier #4 to PM Improvements and a Solution

Point Solutions Attempted Only, Not a Complementary Solution Set

"Single Dimension Solutions" - Another reason many improvement initiatives fall short of desired outcomes is that for a single improvement, multiple components of a solution are often needed but only a subset of needed solution components are identified and implemented.

Solution – What is needed to offset this barrier of “point solutions” is the education of the organization of the common need for multiple improvement components. As an example for the improvement related to project planning, the necessary and complete solution set could include management direction that requires projects to have plans (could be one sentence in a one page policy on PM), a basic process that identifies minimum planning steps with responsibilities (could be a several page document outlining basic planning minimum steps), a course to build planning skills and a plan template and/or checklist to support resulting plans having minimum content. Other components of an overall improvement might include automated support such as a project scheduling system and examples of good plans future teams can use as models. As mentioned earlier, any one of these point solutions individually could have some value in improving project planning but a complete set of solution components is often needed to make real improvements that are sustained.

Note: The number of required solution components is high in the planning example above and often all components cannot (and should not) be implemented all at once. What is recommended is a phased improvement approach is employed which may start with a policy statement and process, moves to training and eventually culminates with teams developing a checklist and/or template. This might also be followed at a later time with captured examples of good plans to be used as models.

Barrier #5 to PM Improvements and a Solution

New Improvements are Not Sufficiently Integrated into Existing Operations

“Islands of Improvement” - When an organization attempts to implement an improvement, the solution components may not be sufficiently integrated with the pre-existing organization infrastructure. When this situation exists, the improvement may not produce desired outcomes and may even hamper organization operations.

Solution - What are needed are solutions that are developed with a full understanding of the surrounding environment so that the improvement will operate in a compatible nature with the existing structure. Involving a sufficiently broad set of stakeholders in improvement developments that have knowledge in multiple parts of an organization can be part of the solution. A top down improvement development approach where the existing environment is reviewed and the intended new solution components are “mapped into” that model has also been shown to be of value. An improvement team might ask themselves “If we make this improvement, are we negatively impacting other parts of our organization?” and “Is our new approach workable in our current environment?” The improvement team would use answers to these questions to guide the final improvement definition.

Barrier #6 to PM Improvements and Solutions

Improvement Skills Learning Methods are Inadequate to Support Improvement Implementation

“Insufficient Learning Methods” - People make any organization function and the skills of an organization’s workforce will determine the success and survivability of that organization. This is especially true when improvements are implemented as all affected stakeholders must be educated on the details of the improvement to effect organization change.

Virtually all organizations are fully aware of the fact that employee skills development is very important. Unfortunately, many organizations fall victim to classic personnel development errors. The following are common pitfalls and solutions in employee skills building. This is a key aspect in implementing new improvements as the new approach must be “learned” by many stakeholders.

List of Common Learning Barriers Related to Improvement Skills Building

- A. *The “What, Why and How” are not Sufficiently Addressed*
- B. *Lack of Competency Based Learning and Lack of Prioritized Learning Selections*
- C. *Only PMs Need Training, Not the Team*
- D. *Learning Happens Asynchronous to the Need*
- E. *Lecture and Generic Exercises are Employed vs. Workshops that Utilize Real Projects*
- F. *Effective Non-Classroom Learning Vehicles are Not Employed*

Improvement Learning Barrier A - ***The “What, Why and How” are not Sufficiently Addressed***

Before any effective learning can happen, the general nature of the respective topic needs to be understood along with the reason the topic is important before details on how something is done can be effectively addressed. As such, adequate definition of the “What, Why and How” of any learning topic often needs to exist to support true learning.

Solution – The solutions here are relatively straight forward and often include the following.

- Ensure that any learning activity includes the “What, Why and How”.
- For the “What and Why”, don’t be afraid to state the obvious, often many do not know all of the obvious and for those that do know, stating the obvious validates their knowledge.
- For the “How”, learning should not start with the “how” until a solid understanding of the “what and why” have been established. Also consider describing the “how”, first at a high level so the learner understands the complete picture and then moving to details of “how” in each area. Many experts inappropriately start a learning process with the detailed “how”, incorrectly assuming everyone has an understanding of the “What, Why and Top Level How” and learning can be hampered as a result.

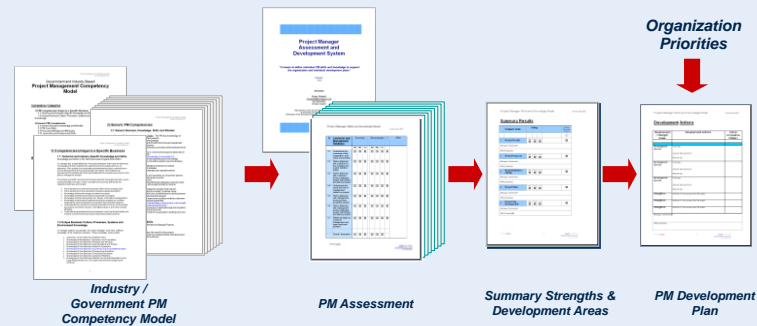
Improvement Learning Barrier B - ***Lack of Competency Based Learning***

One wide spread learning issue is that learning actions are not sufficiently based on “known and defined competencies” for organization positions implementing an improvement. Where competencies and/or outcomes are not well defined or not defined, the requirements basis for learning does not exist and the learning activity may not produce the desired results.

Solution - What is needed for effective development of project management skills is a PM development effort that is based on a clear set of known and applicable PM competencies that are sufficiently tailored to the given organization’s strategic interests. A tailored PM skills assessment based on a known PM competency model can be used by an organization to identify individual PM strengths for leveraging and needed skill improvements for individual PMs. This set of learning requirements can then identify a set of potential learning areas which is then reviewed relative to the organization’s strategic priorities to select the learning topics with the highest payback.

Note: An industry and government based Project Manager Competency Model has been developed and was used as a basis for the development of an in-depth PM skills assessment. This skills assessment can be tailored to a given organization’s environment and then used for multiple purposes including definition of learning needs, basis for promotion, basis for hiring PMs and a basis for communication to those that want to be a PM what core skills are needed.

A Competency Model Drives the PM Assessment, The Assessment Determines Strengths and Needed Skills Development Areas That Are Then Used With Organization Priorities to Define Learning Plans



Improvement Learning Barrier C - *Only PMs Need Training, Not the Team*

Another learning pitfall is the mindset that only PMs need PM skills development and therefore only PMs need PM learning actions. The reality is that project team members need to understand the basic “what, why and how” of project management to be able to sufficiently support the PM in performing fundamental and necessary project management functions.

Solution - What is needed is fundamental training for team members in parallel with greater in-depth and advanced training for PMs.

Improvement Learning Barrier D - *Learning Happens Asynchronous to the Need*

Studies have shown that the level of learning, the level of retention and eventual level of application of what is learned is directly related to student interest and the current needs of the student. If a student is recommended (directed) to attend a given course when no current need exists, the level of interest and energy applied by the student will be typically low relative to the situation where the student has a current need to learn and will soon apply the respective new skills.

Solution – Training that is conducted when a current need exists is recommended. A series of phased courses addressing project initiation, project planning, project controls and other pertinent PM topics spread out and sequenced to parallel the phases of a current project has been shown to be a very effective learning approach.

Learning Improvement Barrier E - *Lecture and Generic Exercises are Employed vs. Workshops that Utilize Real Projects*

Any class can be of value but if the student is not able to sufficiently link the course content to their own environment, the effectiveness of the learning

experience can be limited. Where learning is focused on real world activities, the level of energy to learn, the level of learning and the level of skills development is increased.

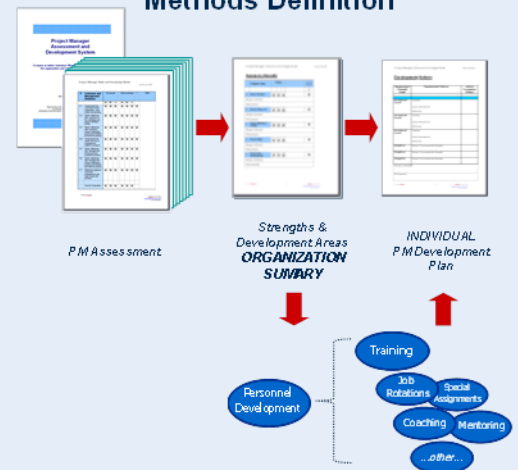
Solution – Pragmatic workshops that combine course lecture with immediate application on real organization projects has been shown to be a highly effective approach to PM skills development.

Improvement Learning Barrier F - *Effective Non-Classroom Learning Vehicles are Not Employed*

A final common barrier limiting effective personnel development is that organizations may not sufficiently utilize valuable non-classroom learning opportunities. Studies have shown that more than 90-95% of what an individual does on the job is learned on the job and not in a classroom. Organizations have a tendency to rely heavily on training and may not take appropriate advantage of other internal learning avenues that can hold significant value. Peer-to-peer learning, coaching, special assignments and short term informal job rotations have been shown to offer significant learning opportunities.

Solution - A complete “PM Development Approach” includes valuable training but also includes the development and implementation of non-classroom skill development opportunities. (Guidance information is available on different learning options and implementation details.)

Organization Summary of PM Skills Assessment Drives Alternative Learning Methods Definition



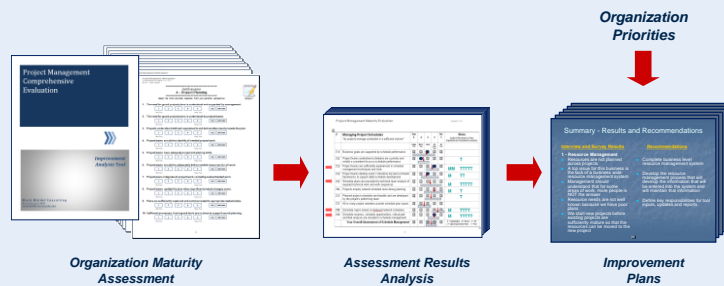
Barrier #7 to PM Improvements and a Solution

Upper Management Does Not Know or Does Not Believe that Anything in Project Management Really Needs Focused Attention

“Upper Management Is Not Aware of the Need” - Projects are often performed multiple levels below senior leadership. Additionally, upper management is often overloaded with many business level priorities that span numerous aspects of the organization. As such, it is not uncommon for upper management to have a limited view of challenges projects face. Non-awareness of issues means no support for change. In situations where leadership is apprised of improvement needs by members of the organization, those changes may appear to be understandable, but can appear to be unwarranted in view of other organization priorities.

Solution

To support senior decision makers in making appropriate decisions on PM improvements, a clear picture of organization PM strengths and areas for improvement is critical. This can be accomplished with an organization level maturity assessment of organization PM methods. The results of the assessment can be employed to provide all stakeholders, upper management included, with a clear image of organization PM strengths for leveraging and areas needing improvement. Experience in completing these assessments often finds that different levels within the organization can have very different views of how well projects are managed and every level is often surprised at the results for different reasons. Building a common understanding of the current state and the need for improvements is important.



The Organization Level PM Maturity Assessment is the Basis for Improvements and Supports all Stakeholders Having a Common View of Needed Improvements

Barrier #8 to PM Improvements and a Solution

The PM Role is Undefined, Not Supported or Not Accepted

“The PM Role is Not Standard, It Is What the PM Makes It to Be” – In most organizations, the responsibilities, accountabilities and authorities for the project manager are not well defined or not defined at all. This places a significant burden on each PM as they attempt to function within an organization that does not hold a consistent and common view of what the PM should do and what authority the PM holds.

Solution – Organizations should define the responsibilities, accountabilities and authorities of the project manager and communicate this structural information to the organization as a whole. These definitions typically are made in sufficiently general terms so that the definitions apply to most or all project types and sizes. Where variations are needed, those are noted. A foundational role definition known by and accepted by all stakeholders is critical. Consistent management affirmation of the PM role is also essential.

Barrier #9 to PM Improvements and A Solution

Improvements are Not Adequately Sold to Stakeholders

“I Never Agreed to This” – The greatest idea is of no value unless all implementing parties believe “it is the right thing to do” and are willing to do it. If new improvements are not vetted and sold to all appropriate stakeholders at multiple stages in the definition and development of a given improvement, little acceptance and implementation of the new idea may result.

Solution – Multiple solutions can be needed for this improvement barrier.

- All Should Know “Why We Are Doing This” - Each stakeholder needs to understand the “Why” of every new improvement and needs to know what positive impacts the improvement holds for them personally. Where this is done, significant support for a change can materialize.
- Improvement Focal Point to Establish Organization Ownership - The organization needs a common understanding of PM issues, alternative solutions and the best solutions. A PMO that takes ownership of the project management discipline can identify, implement and “sell” improvements by involving all stakeholders in each step of the issue definition and solution development process. This not only develops ownership of a new idea but also offers the opportunity for the new idea to be refined or enhanced during the development as different stakeholders can provide ideas from their viewpoint. The chance of unintended consequences is also reduced as a result of multiple stakeholders being aware of details of a given solution’s development.
- Management Support – Projects need to see and hear consistent and continuous support from management for key improvements. Without such visible support, new improvements can evaporate and project teams might revert back to “survival tactics”.

Barrier #10 to PM Improvements and A Solution

Volatile Organization Structures Can Kill Improvements and Reduce the Energy to Make Future Improvements

“Any Good Idea Can Be Negated with an Organization Change” – In a relatively static organization environment, improvements can be initiated, supported, refined and remain as important operational changes. Where organization structures, roles and/or accountabilities are dynamic, significant barriers can exist to keeping valuable improvements sustained as what is decided today may be set aside tomorrow. Additionally where an environment is in constant change, change agents may tend to expend less energy to make improvements because the “half-life” of any improvement may be viewed as being too short to make the effort to be of net value.

Solution – Where organization structures are dynamic in their nature, a more formalized improvement implementation approach is needed that develops a foundational capability that “withstands the winds of time”. Written policy, processes and well established tools and systems are some components that have been found to be important infrastructure foundational elements that can keep the improvements operating after organization changes occur. Established roles and reporting mechanisms are additional infrastructure elements that can support improvements being sustained in a dynamic environment. A PMO that survives organizational changes can be an important factor.

Steps to Making Improvements in Project Management

“What to Do”

If projects in your environment are well managed and you have a well understood issue, define some alternative solutions and choose and implement the best one.

If projects are not that well managed, or if multiple issues exist and you are interested in establishing a capability to support and improve the management of projects over the long term, consider the following steps.

1. **Establish an Owner of PM and Develop Senior Leadership Support** – Accountability for project management and its improvements must be established. An executive of interest that has a real interest and authority to make changes or a PMO (Project Management Office) chartered by management or a combination of the two is needed. Management support for making improvements is essential. You can develop needed support for a PMO through a review of past troubled projects, the root causes and the thought that “we need to stop making the same mistakes over and over.”
2. **Educate the Enterprise on Improvement Barriers (Pitfalls)** – The barriers previously described are real and all stakeholders involved in improvements must understand what common pitfalls exist so that they can be avoided.
3. **Understand Organization PM Strengths and Improvement Needs** – Improvements must be based on real requirements and needs, not anecdotal observations. Use some type of organization maturity assessment to define true needs for both improvement topic selections and for individual improvement development requirements.
4. **Identify Specific Improvement Topics and Prioritize** – The results of the assessment should be viewed in light of the organization’s strategic mission, vision and objectives to define specific areas for improvement. Many topics for improvement can result and since “you can’t boil the ocean”, prioritize the list and vet with all stakeholders. Select some top priority improvements as a start, make progress and address others as some are completed.
5. **Assign Improvement Responsibilities** – Each improvement needs a leader that is accountable, assign someone. For large scale improvements, an executive of interest can be of value.
6. **Educate Improvement Teams On Effective Improvement Methods** – An understanding of fundamental improvement methods is important. Knowing the root causes of any issue, knowing that multiple components of a solution will often be needed, knowing that solutions need to be understood and accepted by all stakeholders and that any solution must be integrated with existing infrastructure to be effective are some of the basics that improvement teams need to be aware of.

7. **Consider a PM Policy** – A one or two page policy that defines the minimum requirements for project management. Examples include: Every project has a PM, requirements, a plan, etc. A simple policy statement can be of value in establishing an understanding across the organization that PM is important and that there are certain minimum things that are expected.
8. **Consider Several Key PM Processes** – Few like writing, reading or following processes but this is how an organization captures good ideas and communicates information to avoid repeating errors from the past. Requirements, plans and controls are common PM process topics. Processes must be sufficient in content to have value while brief and concise so that they are used and so that they apply to a wide range of projects.
9. **Provide Basic Tools Where Possible** – Checklists, templates, lists of pitfalls and lessons learned and other basic tools can be of real value. Tools help educate project teams and help projects implement important management methods quickly and effectively vs having to “re-invent the wheel” each time a repeating task is performed.
10. **Use Automation Only Where Appropriate** – Systems can be very valuable assets for the management of any effort and often certain systems such as financial management are truly essential. Support system development and implementation as it makes sense and be cautious in situations where some stakeholders believe that systems are a singular solution to many PM issues.
11. **Provide Adequate Improvement Education** – Changes in the organization need to be understood, accepted and implement. The “What, Why and How” of any given improvement must be known to all appropriate stakeholders for the improvement to work. Take care in educating stakeholders as this is definitely a “make or break” step.
12. **Improve the Improvements** – No one improvement is typically a final end to itself. Usually improvements are a step in a series of improvement steps that refine ideas and methods over time. Focus team energy on a given improvement, but at the same time foster the idea of continual improvements to ensure the organization is put on a long term productive path.

Available Solution Components

The aforementioned barriers to PM improvements have been studied, root causes have been identified and solutions have been developed, implemented and refined over several decades of implementation in industry. The available proven solution components consist of the following integrated set of PM infrastructure components. These are generic and can be used “as is” or tailored for a client’s environment. This “off-the-shelf” PM infrastructure kit eliminates the need for any given organization to spend a decade of work and significant funds to develop and integrate a PM infrastructure on their own.

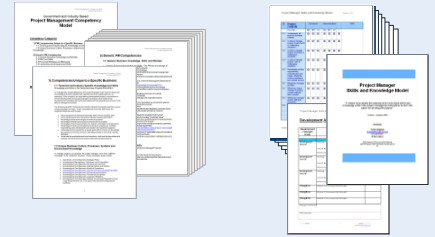
Organization Level PM Maturity Assessments – Basis for improvement identification, root cause analysis and educating all stakeholders on PM strengths and needed PM improvements.

- PM Maturity Assessment – 17 Areas, 140 Questions, Used for a Comprehensive Root Cause Analysis of an Organization’s Overall PM Capabilities; Compatible with PMI, CMMI and ISO requirements.
- Subcontract Management Assessment
- Systems Engineering Assessment

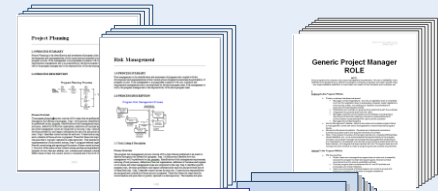


PM Competency Model, PM “The Person” Skills Assessment and a PM Development Planning Approach

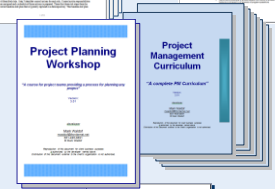
- Industry and Gov’t Based PM Competency Model
- PM Skills Assessment – 14 Skill Areas, 112 Generic Topics
- PM Development Planning Approach
- Client Tailoring of All Components



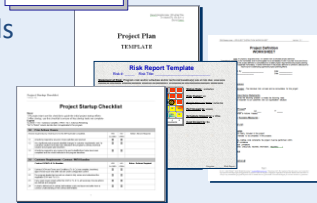
Generic PM Policy and Process Set – PM guidance based on decades of industry best practices for all fundamental PM areas. Supports CMMI & ISO audits, PMI Knowledge areas and all needed project management fundamentals.



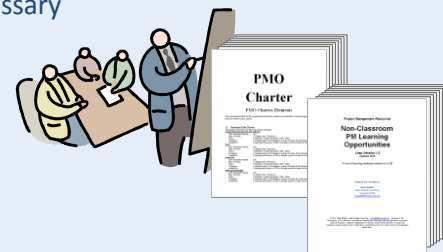
PM Training Curriculum – A complete PM curriculum covering all PM fundamentals and advanced topics. Driven by the PM competency model and industry requirements noted above.



PM Tools – Implementation aids to support effective application of PM fundamentals addressed in the training and process sets. Necessary so that project teams do not “re-invent the wheel” every time a new project starts. Consists of several dozen mature templates, checklists and other guidance elements specifically aligned with all other solution components.



PM Expert Support / Alternative Learning Approaches / PMO – The necessary internal expert support approach that assists project teams in applying the processes, training and tools in the “real world.” Alternative learning methods and PMO guidance is available.



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