A Continuous Process Improvement Program

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Declaration of Interdependence (DOI) has become the de facto standard for assessing the performance of a complex project. That performance is measured in two ways: how the process performed and to what degree the client was satisfied by the product or service delivered. Measuring against this standard, you will gain an understanding of the real business value that comes from having customized the ECPM Framework to your organization's processes and practices. In this article we integrate the 6 DOI Principles into the ECPM Framework as the metrics for assessing the performance of the process and product. The DOI Principles then give rise to metrics that can be used to conduct a continuous process/product improvement program concurrently with the planning, set-up and execution of the project. Complex projects are learning and discovery projects and the DOI is the tool that enables that learning and discovery to take place in real time.

This integration is significant because it gives us a deeper understanding of how complex projects can be more effectively managed so as to deliver successful business outcomes. Every iteration in every complex project is a window of opportunity to learn and discover how to improve the process as well as the product or service being created. That learning and discovery is valuable for the current project as well as all future projects. It is a resource that cannot be found elsewhere. The integration of continuous process and product improvement establishes an infrastructure for delivering success. We have imbedded that improvement effort into the project as it is being executed. That gives us immediate feedback.

While this is a valuable resource it does not come without cost. That is the use of team resources on processing improvement initiatives rather than doing the scheduled work of the project. For that reason, the managing of intake and processing of improvement initiatives is done by the two advisors to the project team (the Business Systems Engineer and the Business Analyst). They are particularly well-suited for this because of their extensive knowledge of the related business processes and the products involved. Their objective is to conduct the initial analysis to prepare for the decisions that will follow from the Client Checkpoint that is conducted at the completion of every Iteration or Stage.

Complex projects are executed using a project management approach that is unique to that project. That execution can be improved as a direct result of having incorporated the learning and discovery that occurred in all previous cycles of that project. In this article we introduce the relationship between the ECPM Framework Phases and the DOI as it affects

process and product improvement efforts. This continuous improvement process is robust and can be integrated into any project management process.

One can argue that integrating the DOI into the ECPM Framework is a necessary condition for process and product success. But that alone is not sufficient. To be more precise, that integrated environment also requires a process for continuous improvement. That is also discussed in this article.

DECLARATION OF INTERDEPENDENCE

To achieve this business value, we draw upon the values expressed in the DOI (Source: The *Declaration of Interdependence* (2005, David Anderson, Sanjiv Augustine, Christopher Avery, Alistair Cockburn, Mike Cohn, Doug DeCarlo, Donna Fitzgerald, Jim Highsmith, Ole Jepsen, Lowell Lindstrom, Todd Little, Kent McDonald, Pollyanna Pixton, Preston Smith and Robert Wysocki.). The 15 authors of the DOI are a respected group of project management consultants and trainers who have earned the right to speak. Their contribution will be seen as a major contributor to our understanding of the critical role the DOI can play in the successful execution of complex projects.

The six principles of the DOI capture the essence of an effective complex project management environment. Underlying these principles are three necessary and sufficient conditions:

- ➢ Each principle is critically important
- ➢ Each principle captures a new and innovative management concept
- ➢ Each principle captures the operating framework of its authors

The six principles of the DOI are:

- ➢ We ***increase return on investment*** by making continuous flow of value our focus.

- ➢ We ***deliver reliable results*** by engaging customers in frequent interactions and shared ownership.

- ➢ We ***expect uncertainty*** and manage for it through iterations, anticipation, and adaptation.

- ➢ We ***unleash creativity and innovation*** by recognizing that individuals are the ultimate source of value, and creating an environment where they can make a difference.

- ➢ We ***boost performance*** through group accountability for results and shared responsibility for team effectiveness.

- ➢ We ***improve effectiveness and reliability*** through situation-specific strategies, processes and practices.

Since its publication in 2005 the DOI has become the Call to Action for assessing the complex project management landscape and is now the best descriptor we have of the hyper-performance end state of project management. It is the foundation on which the ECPM Framework continuous process improvement program is designed and evaluated.

DOI AND ECPM FRAMEWORK INFRASTRUCTURE

At any point in time there can be several improvement projects in active status (give some thought to appointing a senior project manager to manage these efforts as a continuous process improvement portfolio). These projects will be aligned with projects already complete as well as projects that are still in active status. The programs for projects still active might be looking for performance improvement for the active project as well as improvements for the customized ECPM Framework in place for this organization. Every effective project management process and practice is a dynamic adventure that includes a customization followed by a continuous process and practice improvement program. This article discusses the process of implementing the DOI through a continuous improvement program. To enable that improvement, the ECPM Framework adds continuous customization so that its management models continuously aligns and realigns deliverables from the DOI Continuous Process Improvement Program (Figure 2.1) and to the Customized ECPM Framework.
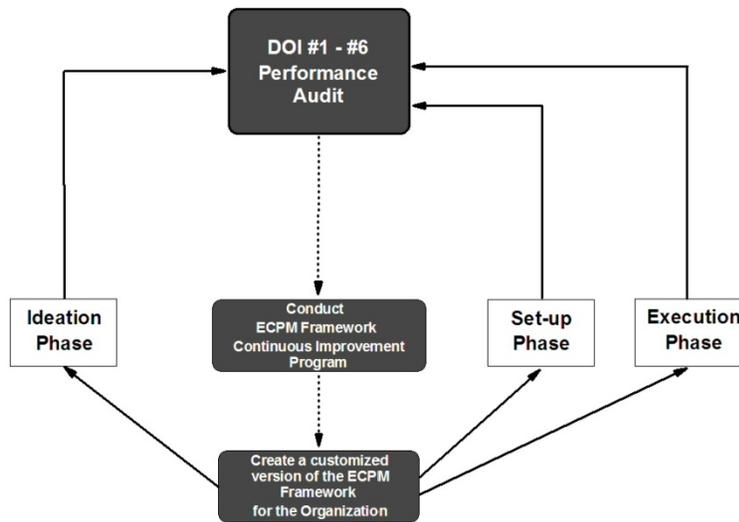

Figure 2.1 ECPM Framework Process/Product Improvement Flow at the Phase Level

As projects are executed using the customized framework the impact of the DOI unto the ECPM Framework is measured through qualitative feedback from the entire project team. While the DOI Performance Assessments would be better assessed if quantitative metrics were available, the DOIs do not lend themselves to a complete set of quantitative performance measures. The performance gaps between the desired DOI performance and the actual DOI performance is used to define specific improvement initiatives and track their impact on performance. The DOI Performance Assessment is always included in the Post-Implementation Audit at the end of every project and, at the co-managers' discretion, may be included in the Client Checkpoint Step and at other milestone events too. It is a design feature of the ECPM Framework.

> **Strike While the Iron is Hot! Reheating Doesn't Work Very Well.**

Not many organizations (or maybe none) maintain a continuous process improvement program concurrent with project execution. It is always an afterthought and not given much priority. It is a great strength of the ECPM Framework but do it without interrupting the flow of any project. One client uses their "Bench" (Project Managers not currently assigned to a project) to staff their continuous process improvement portfolio. Active project team members are limited to advisory roles only for the continuous process improvement portfolio.

Let us put the DOI in a context that relates directly to the senior management team. A recent worldwide survey (IBM, 2010, "Capitalizing on Complexity: Insights from the Global Chief Executive Officer Study" GBE03297-USEN-00) conducted by IBM from September 2009 through January 2010 reported that

> over half of the 1541 executives from the 60 countries that IBM interviewed admitted that they were not prepared to support the **complex and uncertain environment in which they were forced to conduct business and they didn't know what to do about it.**
>
> **If that isn't a wake-up call to action, I don't know what is!**

Effective project management processes executed by competent and creative project managers is the enabler. The DOI provides the guidelines under which the ECPM Framework responds to that call to action.

This article introduces for the first time anywhere a set of indicators that can be used as the measure of DOI implementation success.

The following quote from that IBM report highlights the efforts of standout organizations to manage complexity and uncertainty. Their efforts provide a roadmap for a continuous process/product improvement program.

"The effects of rising complexity call for CEOs and their teams to lead with bold creativity; connect with customers in imaginative ways, and design their operations for speed and flexibility to position their organizations for twenty-first century success. To capitalize on complexity, CEOs:

Embody creative leadership.
CEOs now realize that creativity trumps other leadership characteristics. Creative leaders are comfortable with ambiguity and experimentation. To connect with and inspire a new generation, they lead and interact in entirely new ways.

Reinvent customer relationships.
Customers have never had so much information or so many options. CEOs are making "getting connected" to customers their highest priority to better predict and provide customers with what they really want.

Build operational dexterity.
CEOs are mastering complexity in countless ways. They are redesigning operating strategies for ultimate speed and flexibility. They

> *embed complexity that creates value in elegantly simple products,*
> *services and customer interactions."*

The messages from this survey are clear and validate the goal of this book. Viewing the solution from the perspective of the DOI is a logical approach to mitigating the complexity problem that over half of the CEOs interviewed admitted having. Which half of the population do you align with?

There was a time when senior level managers might have distanced themselves from projects. Their feeling was that projects were operational level activities and of little importance to someone at their level. In the past 20 years we believe they have rethought that position and now see projects as investments and part of a portfolio whose goals is strategic impact. You may in fact be the manager that determines that strategy. For that reason, you are challenged to do what you can to maximize the Return On Investment (ROI) to your organization from the projects you recommend for the portfolio and that you support directly. How you have responded to this situation depends on your roles and responsibilities with respect to the project, the project teams, and the portfolio. You may have primary responsibility for supporting or managing project managers or have a role supporting those who do have primary responsibility for supporting or managing project managers.

The business environment has changed significantly in the last 20 years and has ushered in new project management challenges that the old ways simply cannot support. Business as usual with respect to projects no longer works and may have never worked. Contemporary projects are projects of high complexity and great uncertainty and you must deal with them under those conditions. The IBM Report demonstrates the significance of the underlying project management environment. All of the simple projects have been done! Specifically,

- ➢ Complex project managers need the confidence and support of their management
- ➢ Complex project teams must be empowered so they can be successful
- ➢ Complex project portfolios must be aligned with staff resources
- ➢ Complex projects are unique and so are their management approaches
- ➢ Complex projects are high-risk projects
- ➢ Complex projects require a creative approach to discovering solutions
- ➢ Complex projects require meaningful client involvement
- ➢ Complex projects require flexible support services

Both the ECPM Framework and the DOI accommodate these needs.

MAPPING THE DOI TO THE ECPM FRAMEWORK

The DOI (2005) predates the ECPM (2014) in print but not in application. The roots of the ECPM can be traced back to the early 1990s. But the DOI aligns very well with the ECPM and provides an excellent foundation for a meaningful continuous improvement program as illustrated in Figure 2.2.

PROBLEM >> CONTEXT >> SOLUTION

Iincrease return on investment by making continuous flow of value our focus.

We deliver reliable results by engaging customers in frequent interactions and shared ownership.

We expect uncertainty and manage for it through iterations, anticipation, and adaptation.

We unleash creativity and innovation by recognizing that individuals are the ultimate source of value, and creating an environment where they can make a difference.

We boost performance through group accountability for results and shared responsibility for team effectiveness.

We improve effectiveness and reliability through situationally specific strategies, processes and practices.

IDEATION: **What are we going to do?**
STEP 1:   Develop Business Case
STEP 2:   Elicit Requirements
STEP 3:   Write Project Overview Statement

SET-UP: **How are we going to do it?**
STEP 4:   Classify Project
STEP 5:   Choose Best Fit PMLC Model Template
STEP 6:   Assess Project Profile & Environment
STEP 7:   Modify PMLC Model Template

EXECUTION: **Let's do it**
STEP 8:   Define Version Scope
STEP 9:   Plan Next Cycle
STEP 10: Build Next Cycle Deliverables
STEP 11: Conduct Client Checkpoint
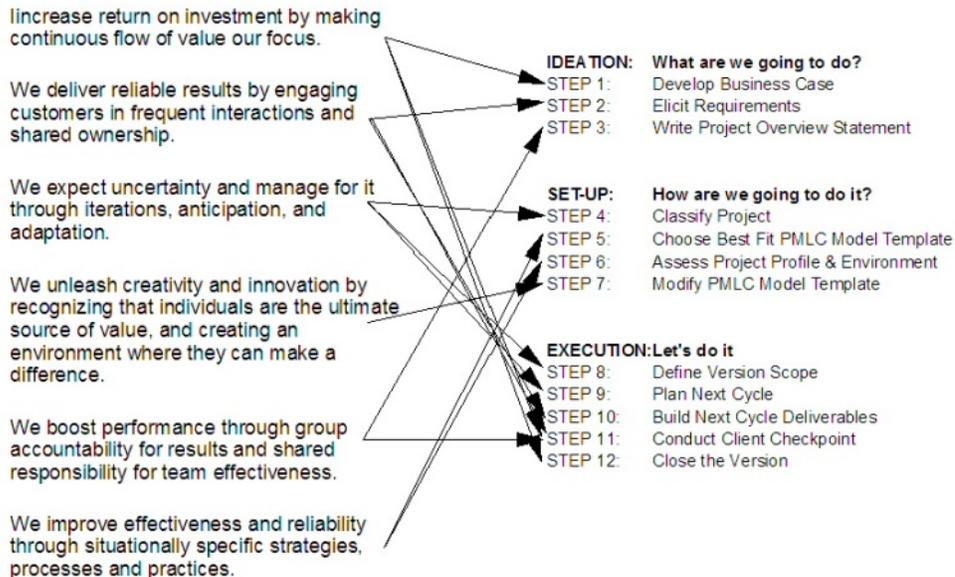STEP 12: Close the Version

Figure 2.2 Mapping the DOI unto the ECPM Framework

Every step in the ECPM Framework has at least one DOI Principle aligned with it. That gives us a basis for defining a metric for each ECPM Framework Step with which to measure the effectiveness of the process or the resulting product deliverables.

To date there has not been a set of metrics that describes the extent to which a project management model has achieved the DOI End State. In fairness, that DOI End State is a continuous journey rather than a destination to be reached. In defense of not having such metric(s) is that a DOI environment does not lend itself to quantitative assessment. That must be corrected if we intend to implement a continuous process improvement program for DOI implementation. In the absence of a quantitative metric a surrogate must be defined so that progress towards that DOI End State can be measured.

As the ECPM Framework evolves through both customization to meet the specific needs of an organization and through the results of the continuous process improvement program contributions to DOI realization will occur. Additionally, improved DOI realization will result in an increase in delivered business value and improved project success. Quantitative assessment of those improvements is not likely to be correlated with any specific DOI but rather attached at the project level. Qualitative assessment at the DOI level may be the only reasonable expectation. Let us take each DOI principle separately and see how we might make those assessments.

➢ *We **increase return on investment** by making continuous flow of value our focus.*
   Return on Investment (ROI) is a direct measurement of incremental business value delivered. Incremental business value may be the only quantitative metric we have but the delivery of that value may well stretch out over a long-time frame. Incremental business value can be measured but it may not be available in a timely

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manner for use in the continuous improvement program. Early estimates may be made however. To be useful as a measure of flow of value we need to think in smaller increments. For example, every task that contributes to the delivery of a solution requirement adds value to the then updated solution. that suggests some type of primitive Earned Value Analysis (EVA) may provide a measure of incremental value over time. Tasks are work embedded in activities and activities are work packages embedded in a cycle build plan. So the number of tasks completed against the number of tasks in the cycle plan gives us not only a measure of flow of value but also a measure of effectiveness and efficiency.

ROI is usually only measurable long after the project has been completed and the deliverables deployed. In such cases a surrogate in terms of Earner Value Analysis (EVA) can be substituted (Figure 2.3).
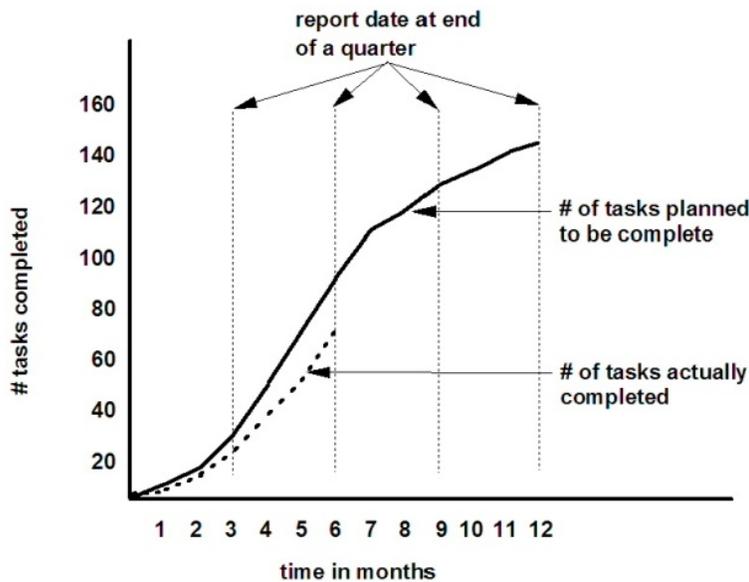

Figure 2.3 Primitive Earned Value Analysis

➢ *We **deliver reliable results** by engaging customers in frequent interactions and shared ownership.*

  ➢ Adjacency diagrams may be useful although are more sophisticated than needed. What data is really needed? How is it analysed? And how is it graphically presented? You don't need to make this a labour-intensive exercise.
  ➢ The degree to which clients participate. This is a subjective assessment. Tracked over time it is a measure of improved interactions and shared ownership.
  ➢ The ECPM Framework defines a Co-Manager Model which includes the client as a co-equal authority and decision-maker in the planning and execution of the complex project. This foundation is the infrastructure for that shared ownership.

It's no secret if customers are not engaged and something needs to be done about it.

➢ *We **expect uncertainty** and manage for it through iterations, anticipation, and adaptation.*

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➢ Probative vs integrative swim lane frequency tracking and trend analysis. To dig a bit deeper consider the percentage of Probative Swim Lanes that result in some increments being added to the solution. Or better still what are the percentage of 2nd attempt Probative Swim Lanes that result in some solution increments. How about the 3rd attempt? Somehow these trends are a measure of improved effectiveness of the Probative Swim Lane process. You see the pattern emerging.

Here are some graphical illustrations (Figure 2.4 and Figure 2.5) of iterations over time that I have found helpful in the past for assessing performance and effectiveness.
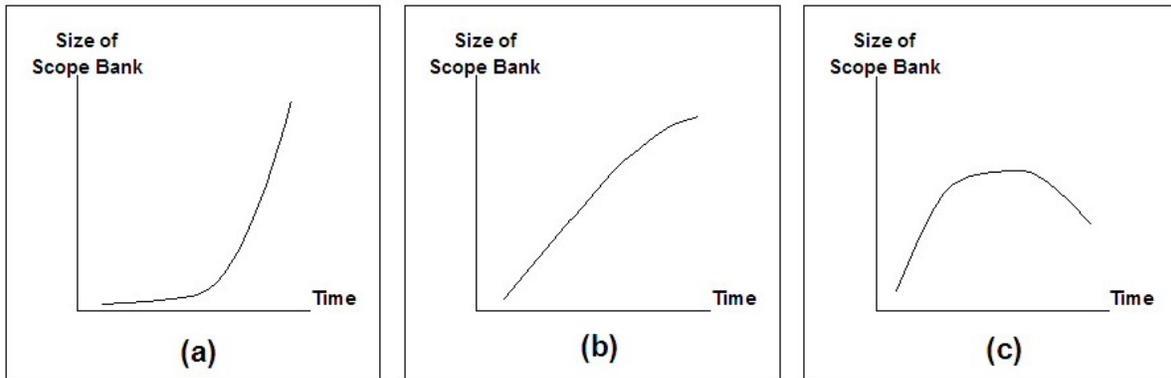
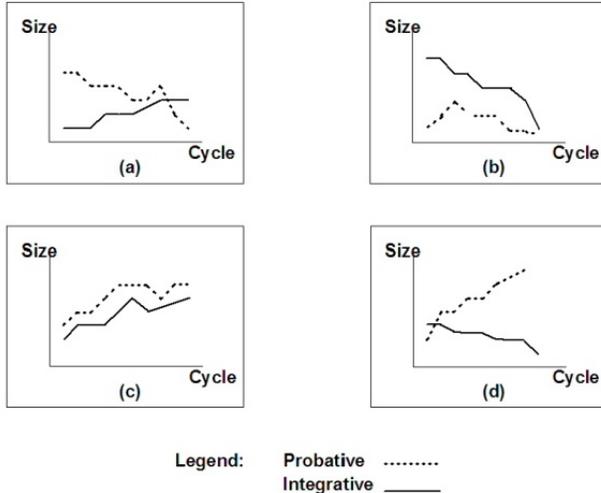
Figure 2.4 Tracking Scope Bank Size

Figure 2.5 Relationship between Probative and Integrative Swim Lanes

➢ *We **unleash creativity and innovation** by recognizing that individuals are the ultimate source of value, and creating an environment where they can make a difference.*

  ➢ Observing participation in brainstorming sessions and problem solving
  ➢ Link between the process manager and the product manager
  ➢ Client generated scope change requests vs developer generated

> ➢ *We **boost performance** through group accountability for results and shared responsibility for team effectiveness.*

>> ➢ Subjective observation of relative frequencies of I, You and We in conversations.

> ➢ *We **improve effectiveness and reliability** through situation-specific strategies, processes and practices.*

>> ➢ PMLC Model adjustments and changes.

MAPPING THE DOI TO ANOTHER FRAMEWORK OR PROJECT MANAGEMENT PROCESS

Not everyone will be using the ECPM Framework. The DOI defines a robust continuous process/product improvement process that can be integrated into any project management process or framework. The three-phase of the ECPM Framework (Ideation, Set-up and Execution) can simply be replaced by the phases of your project management framework or process and the continuous process/product improvement process is used without change.

CONTINUOUS PROCESS/PRODUCT IMPROVEMENT PROCESS

The intake process for the continuous process/product improvement process is designed so that it does not interfere with the work of the project. It preserves the lean properties of the ECPM Framework. Figure 2.6 shows that the business systems engineer receives the process change requests and the business analyst receives the product change requests. They will conduct an initial analysis of the change request in preparation for the Client Checkpoint and the decision regarding the change request. That decision is then integrated into future planning activities.
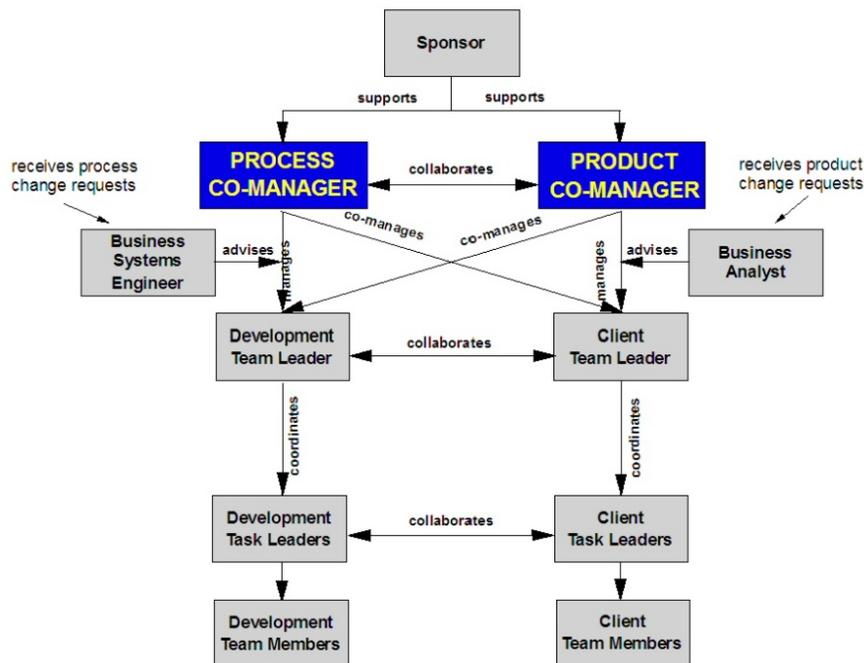

Figure 2.6 Change Request Intake

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The focus of the continuous improvement initiatives is to improve the processes and practices of the organization's ECPM Framework as well as its capacity to create acceptable products and services. Figure 2.7 is a graphic that describes the continuous process improvement flow.
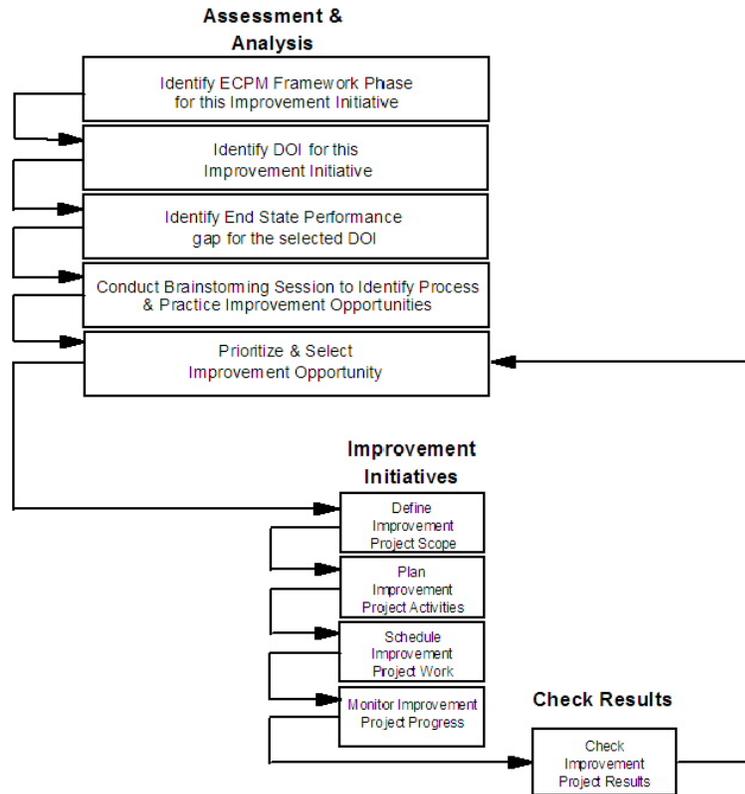

Figure 2.7 The DOI Continuous Process & Practice Improvement Flow Diagram

As time and projects continue I would expect that a portfolio of improvement initiatives would be active. Hopefully they will be complementary but they might be contradictory too. Clearly a manager of the continuous improvement program is needed. They will be supported by a staff of business systems engineers and business analysts who will actually conduct the initiatives under the guidance of those who are advisors to project teams that may still be actively involved in projects. They will be the customers of the support staff.

PUTTING IT ALL TOGETHER

The ECPM Framework has been introduced as a robust model. Deploying it into a client organization is not a plug and play exercise. Rather it requires some level of customization supported by an integrated continuous process improvement program to maintain effective performance. The result is a project management process and practice environment unique to the client organization and designed to meet the specific requirements for delivering business value through acceptable business solutions.