

Project Management Body of Knowledge Revisited

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Foreword

Please read this paper in conjunction with my Musings: "A Look Back at the Original PMBOK".

This paper is essentially a repeat of what I wrote over thirty years ago (1986-7).¹ I think it is worth repeating because it is interesting to see how prescience we were at that time in developing the document that came to be known as the "PMBOK". In contrast, my Musings this month examines where we are today as a "profession" and whether, in the meantime, we have improved our path, or wandered blindly from it. So, here follows part of the introduction that I wrote as Past Chairman of the PMI Standards Board, followed by the background to this significant effort.

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Managing projects is not new, simply because establishing a project as a means to an end has been around since man's early history. Projects have always been managed, for better or for worse, depending to a large extent on all of the skill, intuition, and luck that the manager could muster at the time.<sup>2</sup> However, in recent years there has been a growing recognition that management, and particularly project management, is a special skill that can be codified and learned. Project management skill is quite different from the technical skills that are so often associated with most projects.

Indeed, there are aspects of all projects which are out side the scope of these technical areas, yet which must be managed with every bit as much care, ability, and concern. That is, these non-technical areas must be well managed if the project's objectives are to be met with optimum economy of resources, and with maximum satisfaction to the participants or "stakeholders."<sup>3</sup>

Evidence of this situation is to be clearly seen in the formal recognition of project management generally. This is not only in the construction industry but also in a number of government agencies as well as the aerospace, research and development, manufacturing, pharmaceutical, electronics, and many other industries. Unfortunately, "project management" may mean different things to different people, and certainly there are differences of opinion as to what is, or what should be involved. This is part of the valued diversity in this new and dynamic profession. As a result, however, effective communication is difficult, especially where modern, complex, multi-disciplinary contributions are called for.

The Project Management Institute (PMI), a non- profit professional organization is dedicated to advancing the state-of-the-art in project management. It has contributed to the effort of developing and distributing this revised Project Management Body of Knowledge to the Profession, in the hope that it will advance and improve the effectiveness of communications among the many technologies involved in projects.

A project management profession, united across the many industries and technologies that use the concepts documented in this PMBOK, has a tremendous potential for improving the efficiency with which resources are used. Hence, improving the quality of life enjoyed by the citizens of our society. This unity can only be achieved through effective communications based upon a mutual understanding of a documented and accepted body of knowledge that serves as the basis for developing the profession.

## Early Work and ESA

The concept of standards was first introduced at the Montreal Symposium of 1976. Some effort was made to suggest the possibility of Certification at the 1977 conference, but was rejected. It was not until 1981 that a determined effort was made by past PMI president Matthew Parry, David Aird, and others, by presenting a formal proposal to the PMI Board. At the Boston Seminar/Symposium, the Board approved this proposal and the original Project #31 was launched.

The objective was to define the Body of Knowledge of Project Management and therefore to establish project management as a unique discipline and independent profession. After some considerable philosophical agonizing, early discussions by the initiating committee identified that there are five key attributes of a professional body. If the project objective of establishing project management as an independent profession was to be achieved, then these would have to exist as prerequisites.

These attributes are:

1. An identifiable and independent body of knowledge of project management (Standards)
2. Supporting educational programs by an accredited institution (Accreditation),
3. A qualifying process (Certification),
4. A Code of Ethics, and
5. An Institute representing members with a desire to serve (PMI)

Thus, the project group came to be known as the Ethics, Standards and Accreditation Management Group or simply ESA. The result of the deliberations of a large number of people on several separate committees was presented as a "Baseline Report" to the PMI Board in August 1982. It was published as a Special Issue of the Project Management Quarterly in August 1983.

The Project Management Body of Knowledge

(PMBOK) was central to the report. In it were identified six areas of concentration or blocks of knowledge, namely: Scope Management; Cost Management; Time Resources Management and Communications Management.

These formed the key and unique "functions" of project management, and the report on each was supported by a content set out in a hierarchical breakdown structure.

The PMI Board was quick to adopt the report in principle, including the Code of Ethics for Project Managers. Since the ESA Report provided a logical baseline, its acceptance by the Board provided the impetus for moving ahead with programs for the Accreditation of an educational establishment, and for the Certification of PMI members. Western Carolina University was accredited in 1983 and the first PMI members were tested for Certification in October 1984.

Work on these two programs in particular, together with the certification workshops at the annual Seminar/Symposium, brought the PMBOK under much closer scrutiny. Inevitably, some shortcomings became evident, giving rise to much discussion within the PMI organization and at round tables arranged for the purpose. At the same time some significant publications in project management became available. These included PMI symposia papers, PMJ articles and PMI handbooks, as well as some public textbooks authored by PMI members.

## **Project #121 Established**

In 1984, the PMI Board decided to establish Project #121 to address these issues. The general purpose of this project was "To capture the knowledge applied to project management by PMI members, to do so within the existing ESA Standards framework, and to present it in simple but comprehensive terms." As incoming President Harvey Levine noted in his article in the Project Management Journal (December 1984, p9):

"The intention will not be to re-invent the wheel, but rather to: (1) review the standards in each area of concentration; (2) identify available materials supporting those standards; (3) promote the development of materials to fill the voids; and (4) "tie" a ribbon around each of the six packages.

"I see as our products: the Standards, a set of Bibliographies, and sets of textbooks, handbooks, and technical papers that can be used for our workshops, certification, and general dissemination to those interested in learning about project management."

No small order! Certainly the PMI Board recognized that this project was possibly the most important and most urgent before the Institute. It also required broad participation by the PMI membership. Consequently, with the enthusiastic help of the PMI chapters, committees were quickly recruited to address the different segments.

## **PMBOK Credibility**

It soon became apparent that if the overhaul of the PMBOK proved to be fairly major, then the validity and credibility of the results must be a concern. This is especially true because it would form the future basis on which the educational and certification programs depended, and on which much time and effort had already been expended.

At the suggestion of the then PMI Director of Education, Dr. John Adams, a special PMBOK Validation Workshop was proposed to take place just prior to the 1985 annual Seminar/Symposium. The workshop objective was "To critique or affirm the work of PMI's Project Management Function Standards Development Committees and to make recommendations for adoption by the PMI Board." PMI's most active and knowledgeable members were invited, and the anticipation of the workshop provided the stimulus for the various committees to produce and present excellent reports.

The workshop was well attended and under the guiding hands of Drs. Frank Stickney and Dave Cleland as moderators, the workshop proved to be an outstanding success. Each of the committee reports underwent close scrutiny by individual workshop groups, and then collectively to ensure an integrated whole. As a result, a number of findings emerged which are described in the following section. Not surprisingly, each of the reports required some modification and updating before presentation to, and acceptance-in-principle by, the PMI Board in April 1986.

The first complete PMBOK draft was published for general information and comment by the membership in the Special Summer Issue of the Project Management Journal in August 1986. Suggestions and contributions were solicited and much interest was generated. Much work was still to be done but in the meantime the present status represents a new level of understanding from which PMI's Accreditation, Education and Certification programs can continue to grow.

## Consensus and Findings

In the course of Project #121, a significant degree of consensus was reached on a number of basic issues not previously defined. For example: there was unanimity over the need for *simplicity and universality* within the PMI PMBOK development mandate.

There was also no difficulty in accepting the following definition of a project:

"**A project** is any undertaking with a defined starting point and defined objectives by which completion is identified.

**In practice**, most projects depend on a finite or limited resources by which the objectives are to be accomplished."

It should be noted that the definition of project does not require a long dissertation as to how its objectives are to be achieved. This is intrinsic in the definition of project management! These and other general project management terms are defined in the Glossary of General Terms included under Project Management Framework.

More important, as was discovered in the course of this project, is the definition of the project management body of knowledge itself.

Jim Blethen's committee first struggled with the idea of Concepts in Project Management and concluded in their interim report that nowhere is the organizational management overlay and interface (of project management) discussed. Thus, as Linn Stuckenbruck noted in his report ". . . it was recognized that it would be desirable to have one of the workshop tracks review the PMBOK from an overview perspective." Not surprisingly, this track attracted a lot of high powered attention, to say nothing of high powered discussion. Indeed, moderator Frank Stickney was moved to observe at the time that he had not seen such hard work done by such a talented and dedicated group in such a true workshop environment in a long time.

As a result of these discussions, two important findings emerged. First, the realization that the original ESA WBS is too restrictive for purposes of representing the PMBOK, especially ". . . inadequately describing the necessary interdependencies and inter-relationships between the six project management functions."

Second, "That there is a need for a special subject area in which the essential project management functions of integration and interface management can be addressed." In fact, the discussions during the workshop became oriented towards refining the overview model or common frame of reference, and it is for this reason that the name "Project Management Framework" has been adopted for this area of concentration.

## Project Management Framework

In examining this framework, the original Overview Track first had to establish their terms of reference and answer the nagging question first raised by Peter Georgas's Cost Committee, namely "Why are we doing all this?" The workshop group quickly found the answers as follows:

*Objective:* To establish a systematic Model/framework/structure for the PMBOK

*Purpose:* To organize and classify  
To integrate  
To correlate  
To store and retrieve  
To build on what we have

*Characteristics:*

- Simple
- Logical
- Saleable
- Comprehensive
- Compatible
- Systematic
- Understandable

In true style, this workshop group then proceeded to schedule and control their track like any other project.

The pursuit of a common frame of reference for project management led to a re-examination of its scope, and the need to put boundaries on the PMBOK. Linn Stuckenbruck proposed a Venn diagram that provides a very clear diagrammatic representation of the place of PM in our business environment. Clearly, the extent of the overlapping circles may vary considerably, and therefore require some guidelines. The overview task group then proceeded to enunciate a set of such ground rules.

These ground rules for defining the project management body of knowledge will prove invaluable to the Institute for setting future policy direction, as well as providing substantial guidance to our PM educators.

Linn's Venn diagram is important from another perspective. It clearly demonstrates that individual PMI members will have significantly different interests according to where they stand in the central circle and their consequent interest bias. This is particularly true as one gets closer to the Technical or Industry BOK circle. As Linn noted, this is not one but a number of circles representing the many different industries, technologies and professional areas that use project management.

Throughout project #121, I received a considerable amount of correspondence. It was thoughtful, lively, often spirited, but always encouraging. At the time I was moved to observe:

"Clearly much work still has yet to be done on the PMBOK, but I am confident that it will be done. In the meantime, I am satisfied that the joint efforts of the many PMI members who have been involved in this project have established a new PMBOK plateau. From this plateau, PMI can continue to launch its many successful programs.

For those of you interested in furthering your understanding and skills in project management, I commend it to your careful consideration."<sup>4</sup>

(**Note:** The full text of this article and recognition of the many people who participated in project #121 is published in the 1986 August issue of the *Project Management Journal*)

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<sup>1</sup> From the Project Management Body of Knowledge (PMBOK) of the Project Management Institute, developed by the PMBOK Standards Committee and approved by the PMI Board of Directors, PA, USA, March 1987.

<sup>2</sup> However, the use of the word "project" to represent such efforts, as we are referring to here, is relatively new, probably from around 1400 AD. This may sound quite old, but not in comparison to the impressive structures built by the Egyptians and Romans, for example, centuries earlier.

<sup>3</sup> For the record, and notwithstanding some currently postulated definitions, a project is temporary in that it has a defined beginning and end in time, and therefore defined scope and resources. And a project is unique in that it is not a routine operation, but a specific set of operations designed to accomplish a singular goal. Any departure from these criteria is not a project.

<sup>4</sup> The full text of this article and recognition of the many people who participated in project #121 is published in the 1986 August issue of the Project Management Journal.