

Journey to Project Portfolio Management: A Case Study

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This paper describes one company's approach to establishing a project portfolio management capability. It focuses on the practical methods used by United Illuminating Company (UI), a regional distribution utility that provides electricity and energy-related services in Connecticut, to migrate from a traditional functionally based project environment to a dynamic, cross-functional business environment that manages projects for strategic advantage. The migration period addressed is approximately one year, which is the time it took to establish the fundamentals of Project Portfolio Management (PPM) into the organization. In the spirit of the continuous improvement approach to business, this effort is still in progress.

Issues and Readiness for Change

UI, as a public electric utility, is transitioning to become a vital player in the new deregulated utility environment. In 2000, UI's senior management recognized that sustaining shareholder value called for improvement of business processes and the proper selection, prioritization, and delivery of projects. To achieve this goal meant more had to be accomplished with fewer resources, which often translated into overloaded personnel. Therefore, the limited resources available needed to be confirmed and applied to the most important projects. These projects would be noted by their clear objectives, strong business case and alignment to corporate strategy.

UI's new President believed that the future success of the company lay with establishing a process-based organization with a network of internal centers of excellence, including project management. To that end, UI's project management center of excellence began to take shape in early 2001. An executive-level senior director was named of the newly formed process area that would shoulder the responsibility and leadership for establishing organizational competency in both project management and process improvement. The first challenges were to staff the project management area and develop a plan for capability improvement. While the area would embrace the activities commonly associated with centers of excellence and project management offices, it was decided

that this area would best serve UI known as the Program Management Center (PMC).

Organizing UI's New PM Culture

In the midst of this new approach to business, there were bright spots showing how some high-profile projects could be successful. A common thread among the teams responsible for these projects followed the discipline of project management consistent with *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*. The results spoke volumes as these projects came in on schedule and within budget. The conditions were ripe to expand the discipline of project management.

During the planning period for how the PMC would operate it was clear that to improve the organization's project management capability there would need to be a concerted effort on several fronts. The PMC developed a Project Management Capability Improvement Program Plan (Program Plan) that addressed five interrelated areas:

- Project Portfolio Management (PPM)
- A standard practice or methodology for project management
- Personnel training in a sustained manner
- Establishing an enterprise project management tool
- Aligning with a PM maturity assessment approach for continuous improvement.

Recognizing that this effort would take careful planning and timing to succeed, the PMC leadership elected to concentrate on the portfolio management portion, the establishment of a PM standard for practice, and a formal training program for the company's approximately 50 project managers and key project team members. In the course of doing this, the PMC would take shape as both a provider of project management services, as well as leading the overall change initiative. The Program Plan needed to be based on the "rolling-wave" concept, given the short outlook for undertaking a significant organizational change initiative and the various potential risks and barriers that may be encountered. In general, the plan's outlook is six months when it is then recalibrated based upon

Exhibit 1. Initial PM Capability Improvement Program Plan Work Breakdown Structure

Program Communication & Administration	Project Portfolio Management	PM Standard Development	PM Training & Support	PM Capability Maturity Assessment	Enterprise Tools
<ul style="list-style-type: none"> Analyze Stakeholders Develop communication methods Develop program administration Develop orientation materials 	<ul style="list-style-type: none"> Develop concepts and methods Define project inventory Orient participants Define metrics 	<ul style="list-style-type: none"> Analyze existing guidelines Gap analyze to <i>PMBOK Guide</i>® Analyze project types Draft new guidelines Pilot guidelines Define metrics 	<ul style="list-style-type: none"> Analyze T&S requirements Develop PM career path requirements Define training strategy Initiate basic formal training Initiate informal training 	<ul style="list-style-type: none"> Identify options for appropriate model Select model 	(TBD)

Exhibit 2. Painting the PM Capability Picture for Senior Managers

Current State

- Strategic goals and projects can be better aligned
- Portfolio of projects not well articulated with respect to priority or resource balance
- PM standards not fully defined or practiced consistently
- Project manager training is inconsistent and not formalized
- Project roles and responsibilities need better definition
- Risk management is inconsistent
- Project report methods can be improved upon

Future State

- Projects are clearly aligned with strategic goals
- Project portfolio process prioritizes projects and aligns resources
- UI adopts consistent standards aligned with *PMBOK*® *Guide*
- A formal training program is implemented and available to all project managers
- Every project will have roles and responsibilities defined clearly for all stakeholders
- A risk management methodology is developed and implemented for all projects
- Project reporting is adopted as part of the portfolio management process

progress and other environmental factors. Exhibit 1 captures the initial plan's high-level work breakdown structure that was used.

Plant the Seeds for Portfolio Management

Concurrent with developing the Program Plan, the PMC conducted an informal survey of the state of project management within the company. This survey determined that performance improvement areas existed, as many suspected. But the survey served also as an awareness tool that demonstrated that UI was serious about the value of improving its project management capability.

Generally, the survey findings pointed to insufficient project information, particularly for major projects, for good decision-making at all levels. There were pockets of project management improvement activity within three of the nine functional or newly designated process areas. The application of those approaches though

was ad hoc. Project roles and responsibilities continued to be a source of concern. Qualifications for project managers were not defined. Resource management information was limited. The definitions of the various project types within UI were not standard.

In the early stages of preparing and implementing the Program Plan it was important to have strong and frequent communications with the senior management team, which consisted of the President and Process Area Executives who also would become the Portfolio Management Team. Since PMC's Director was a member of that group, he would frequently:

- Provide progress updates as part of routine meetings
- Solicit feedback and ideas for making the whole movement stronger
- Interact positively with stakeholders every step of the way, ensuring understanding of and commitment to proposed changes.

Several presentations in the early months helped educate and inform senior managers. One particular technique was to constantly

paint the picture of the “to-be” state to which the Program Plan was driving. Exhibit 2 illustrates this point.

Perhaps more germane to the PPM effort was the initial inventory taken of all current and planned projects. For approximately six months, the PMC worked to assemble a reasonably defined list of projects. Working with each of the Process Area Executives, the PMC was able to identify projects as either strategic, compliance, or operational. Through this exercise the senior management team came to agreement on a standard definition for projects and understood the value of knowing, on an aggregate level, what projects were in the pipeline. Moreover, the inventory exercise not only added value by assembling a composite picture projects underway, but also afforded the opportunity for both the Process Area Executives and the PMC to understand each other’s context.

We were also careful to continually examine and present realistic benefits of the initiative. We used a white-paper method to reinforce the “to-be” state in terms of benefits to which senior management could relate and measure. They could expect that with perseverance toward and focus on project management with excellence, UI would in good time reap the benefits of its effort. Those benefits include:

- Optimizing customer value
- Gaining high levels of productivity and efficiency
- Realizing revenues at a maximum rate
- Commanding predictability in our capabilities
- Capturing opportunities and avoiding major negative risks
- Controlling project scope, schedule, and budget with greater precision for delivering project value.

Good Internal Alliances

One of the positive techniques for making the PPM initiative successful early was the alignment with other related initiatives. For example, a separate initiative was looking at the whole process of strategic planning, including a balanced scorecard approach. We were careful to link project portfolio management with effort, noting that the balanced scorecard noting that it too was a tool for executing strategic intent. In the Project Plan ties were made between what the PMC was doing and how it supported strategic goals.

Also, the PPM initiative was linked to the project management guideline development. The UI Project Management Standard Practices Guidebook, as it is called, captured the up-front project selection practice so that users of the Guidebook, primarily project managers, could see the entire process. The PM Guidebook communicated how the system would work and established a documented commitment to companywide practice. The PM Guidebook incorporated many of the valuable practices and tools already existing at UI and involved most of the key project management leaders from the process areas during its development.

As part of the overall capability improvement effort, the PMC sought to establish a practice community for project management. This became known as the Project Manager’s Forum. Approximately 30 project managers across the company actively use this Forum to stay abreast of developments and offer input to such things as training needs and the PM Guidebook. Specific to portfolio management, the Forum members are positioned to have a

greater understanding of managing strategic projects, as well as help carry the message to a wider audience.

One especially important alliance was and continues to be with UI’s Finance Area. The two groups collaborated on project business case approaches and simplifying project justification methodology. A key concept in this relationship was the idea of review gates to align project funding with corporate strategy.

Create the Project Portfolio Approach

Due to the dynamic corporate environment, the need to staff the entire PMC, and the ability of the organization to internalize change, the PMC knew that developing the portfolio management system would have to be done incrementally. On several occasions, the senior management team, which was to become the Portfolio Management Team (PMT) was presented concepts and trial balloons for understanding and input. The PMC drew the picture of here’s the problem we want to solve and this is an approach to fixing it, what do you think? This worked well because it generated both positive and negative feedback that resolved issues. An example of what came out of this type of interaction was a limitation on the scope of the PPM system. The PMT came to the realization that not all projects would be treated the same. Strategic projects would be the primary focus of the PMT. Since compliance projects were de facto “priority,” they fall under the purview of the PMT. Operational, or “keep the business running” projects, would be left to the direction of the Process Area. However, the master project inventory, of all project types, would be maintained by the PMC.

Considering project portfolio management, we looked at what the system we envisioned would include:

- Defined, current, and validated corporate strategy (values, vision, mission, goals, etc.)
- Strategy implementation plan defined at the various business levels
- Project selection processes, including selection, prioritization, hold, and cancel criteria
- Project business case process
- Project portfolio steering team with agreed-to rules of operation
- Project portfolio performance review process, including change control and re-prioritizing
- Resource allocation management process
- Project authorization and closeout system
- Project portfolio management administration support, including manual or automated project management information system
- Portfolio metrics system tied to strategic goals/balanced scorecard
- Attitude of cooperation and continuous improvement.

Without these critical elements established, there is little reason to believe a project portfolio management system will be fully effective. So, these elements became our building blocks that we would work with over the course of implementing the whole system.

It was quite clear, however, that to improve many of the project management practices in question, there needed to be common information on all projects, regardless of their type. To that end, the PMC developed what became known as the Project Brief, which served as the platform for capturing basic project information for decision-making. It became the required ticket for project approval

Exhibit 3. Example Forced Scoring Using Five Projects

Project	A	B	C	D	E	Score/Rank
A	****	0	0	0	1	1
B	1	****	0	0	1	2
C	1	1	****	1	1	4
D	1	1	0	****	1	3
E	0	0	0	0	****	0

and the basis for the project charter. In the case of strategic projects, a companion business case is required. The Project Brief became the foundation of the Project Portfolio Management System.

The Project Brief is a basic, three-part spreadsheet file. The first page captures basic descriptive information, with an emphasis on capturing elements previously overlooked that tended to create problems for projects once they got started. For example, the Brief elicits information on internal and external resource requirements, critical competencies needed, constraints, risks, urgency, complexity, and type of project. Page two captures a high-level project description where the author addresses why the project is needed, what its objectives are, what deliverables it will produce, and what are the anticipated benefits. Page three offers instructions for filling in the first page.

With this tool, critical information is generated for decision-making as to the efficacy of the project. It starts the discipline of a well-managed project portfolio. The Brief stays with the project until it's finished or cancelled, keeping a consistent stream of current information. For all strategic and compliance projects, the PMC maintains the Briefs for the PMT.

Implementation: Basic Methods

The PMC relied on several basic methods for implementing the PPM system. Some of these are highlighted here.

The formation of the Portfolio Management Team was a natural transition for the senior management team. It includes all nine Process Area Executives, chaired by the President. The PMT's purview is strategic and compliance projects; it is understood that the PMT owns these projects. All business decisions concerning these projects are made by the entire PMT. The PMT delegates for each project one of its members to be the primary contact person for the project manager. While technically the project manager reports to the PMT, the delegated member facilitates that interaction.

As the PPM system developed, it was helpful in showing the system and roles in one-page diagrams, which made it easy for quick reference by participants and which served as a communications device that the PMC could use with various audiences.

One of the pragmatic decisions that the PMC and PMT made concerning resource management had to do with the availability of complete and current resource data. Everyone understood in a theoretical sense that you would like to be able to push the magic button and see a current display of all committed and planned resource allocations. The PMT realized that level information availability would be developed later as part of the Program Plan. However, everyone also understood the value of being very careful about over-committing resources to the detriment of people, budgets,

and schedules. The PMT members took on the responsibility for having a good handle on resource commitments in their own organizations as background for making decisions on strategic and compliance projects. Moreover, this new approach to examining projects before committing to them extends to looking at interactions among projects more closely.

The PMC designed and piloted a basic method for selecting and prioritizing strategic projects. Members of the PMT propose strategic projects for consideration. Each proposal must include a completed Project Brief and Business Case. The PMT will not further consider a project without this information. Once the PMT is satisfied that a project meets the requirements to be prioritized as a strategic project, the following method is used.

1. Each member of the Portfolio Management Team will individually force rank the set of strategic projects under consideration. Each project will be compared one to another, which will yield the individual's ranking or prioritizing. A judgment will be made as to the relative strategic importance of each project based upon business case information and the Project Brief. A sample of this technique is shown in Exhibit 3. Moving across each row, the project in the left column is compared to each of the other projects. For example, Project A is considered less important than Project B, so a 0 is entered. Project A is considered more important than Project E, so a 1 is entered, and so on until the matrix is completed. The sum of the 1s is entered in the far right column. Ties should not occur in the individual's ranking.

2. Individual score sheets will be collected by the PMC representative who, without divulging each individual's scoring, will then sum the ranks for each project and provide a summary average. Projects will be ranked from highest score to lowest. The PMT will have an opportunity to "lobby" for 10 minutes or other agreed-to time to move any rankings, or break ties.

3. Once the rankings are agreed-to, the PMT will consider the project cost of the top-ranked project and the funds available to support it, moving down the list until available funds have been allocated or exhausted.

4. For the remaining ranked projects, the PMT will decide whether to put these projects "on hold" or eliminate from future consideration altogether.

5. This basic process is repeated when new strategic projects are introduced subsequently through the portfolio process.

PMT Role With Projects Selected

The PMT authorizes and prioritizes strategic projects with consideration of compliance projects. This happens at a quarterly PMT meeting during the year, or, if necessary, at a special session. Also,

during quarterly sessions the PMT reviews the aggregate portfolio to make sure the right projects are being performed. In the interim, strategic projects will generate monthly status reports, which are shared with the PMT although the monthly meeting may just involve the designated PMT representative-sponsor. Another interface between the project and the whole PMT happens at the end of project phases where there is a formal review for authorization to proceed to the next phase. The focus of the PMT during these reviews is on the business aspects of the projects, which includes a reassessment of current priorities. These are not technical review meetings. The PMT reserves the option to cancel or suspend the project in the overall interest of the value of the project portfolio.

PMC Coordinating Role

The PMC is careful not to be perceived as another layer of bureaucracy. Its role with respect to project portfolio management is to (1) provide leadership for developing the capability, and (2) coordinate and support the PMT operations. This means developing and coaching the PMT on its operations standard and helping it stay current with other project management capability initiatives, such as, planning for an enterprise project management tool. It also means being the “knowledge management center” for project briefs, business cases, and project inventories. The PMC makes sure that the PMT is meeting according to its own procedures, and that information from meetings is captured and distributed appropriately. The PMC developed a PMT standard that documented all the operations and processes that the PMT adopted.

Refining as We Go

While the initial pilot of procedures occurred during the fourth quarter of 2001, and the PMT Standard was prepared first quarter 2002, we anticipate that it will take another year to refine the details of the project portfolio management system. It will be valuable to have a full year of the PMT handling issues that the dozen or so strategic and compliance project will bring. This will test the prioritization process and resource allocation assumptions for all the projects. Incrementally, adjustments for improvement in the process will undoubtedly be made.

The PMT is open to and expects continuous coaching and mini-training from the PMC. This can be as simple as a 10-minute refresher presentation on the prioritization process, or as complex as creating and using appropriate metrics for the PMT.

The initial approach to metrics that the PMT will use focuses on key indicators of project success. Using a “dash board” approach, project managers will prepare monthly, quarterly, and end-of-phase assessments of the health of the project and its outlook. The metrics include the outlook for the next on five key factors: budget, resource, schedule, risk, and value proposition. For each of the five factors, the project manager will assign a green, yellow, or red indicator. Then an overall project indicator is assigned. As you would expect, the reasons, the evidence if you will, need to be well articulated. No factor is assigned a condition color without compelling evidence to support it to the PMT. In fact, it is incumbent upon the

project manager to get the project team’s concurrence with the message that goes forward to the PMT.

It was critically important during the first year of planning and implementation to have a valid communications plan. This plan will continue to be important as we go forward. Quarterly, the PMC reviews the communications plan to make sure that the right interactions are happening with stakeholders. There is a discipline needed to ensure that both formal and informal communications are happening to bolster the overall PM Capability Improvement Plan as well as the immediate initiatives of the day.

Information gathered from external sources is also being used to forward the PPM initiative. While this field is still evolving, we have been able to confirm the effectiveness of our procedures while learning new ways of managing the process by talking with other companies who are implementing a PPM system.

Summary

The success of UT’s Project Portfolio Management System is based on several factors:

- The business need was recognized by senior management, who endorsed change.
- The value of the project management discipline had been proven in high-visibility projects.
- Program level planning helps formulate the big picture and provides incremental direction for improvement.
- Program activities are treated as short-term projects.
- A common definition of project management terminology and straightforward procedures helped forge a solid foundation for the PPM system.
- A viable communications plan helps keep the program alive.
- Change goes forward only with the consensus of those involved in the change.

Finally, the PMC is careful to practice what it preaches, while it balances capability improvement with supporting major strategic projects.