Construction
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The Implementation Planning Model: Steps to Success

Implementation Resource 246-2

Version 1.2

The Implementation Planning Model: Steps to Success

Construction Industry Institute
Implementation Planning Model Research Team

Implementation Resource 246-2

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1
Introduction

No organization can continue status quo for an indefinite period of time. The reasons behind this need for improvement and change are varied and heavily dependent on organization culture, market demands, competition, and work force demographics to name a few. However, even with these varied forces working for and against change, an organization must resolve itself to the need to improve and modify procedures on a regular and continuing basis. Given this demand for continuous change and the introduction of new practices, the question arises, "Why has the capital facility investment industry been traditionally reluctant to introduce and implement new practices?" Of particular concern is the question, "Why do the practices identified through CII research efforts still face resistance to implementation within CII organizations?"

The requirement to aggressively consider the adoption of new and/or improved practices and the need to facilitate this adoption prompted the CII Implementation Strategy Committee to undertake the current research into how to successfully undertake implementation efforts.

Relationship to Implementation Pyramid

The Implementation Pyramid is particularly relevant for implementing ideas from CII research (Figure 1).

Figure 1. The Implementation Pyramid

The current effort builds upon the Implementation Pyramid by recognizing that the greatest challenge to organizations initiating change and new practices is the development of an implementation plan that provides enough detail so that all parties understand the roadmap that is going to be followed during the implementation process. The Implementation Pyramid recognizes the need for a plan, but does not provide a specific outline that an organization should follow when developing a plan for a specific implementation process. This new work fills this gap by primarily focusing on the expansion of the fourth level of the pyramid, "Implementation Plan and Goals."

By combining the Implementation Pyramid with the guidelines introduced in the new Implementation Planning Model, an organization can develop a roadmap that meets its specific needs. Specifically, the Implementation Pyramid can provide an organization with a big picture model of the steps required in the implementation process. When introducing a plan that will be used to implement a new practice, the Implementation Planning Model can be adopted to develop specifics. In this manner, the two implementation models provide a comprehensive support structure for an organization that is approaching the implementation of new practices.

How to Use the Implementation Resource

Chapter 2 provides an overview of the implementation process for the Implementation Planning Model. The 10-step process includes all of the components introduced in this Implementation resource. It is recommended that this overall perspective be understood prior to embarking on a study of the individual Implementation Planning Model elements. As illustrated in Figure 2, an understanding of the implementation process can be obtained at several levels of detail. At the highest level of overview is the 10-Step Process. The next level of overview is an understanding of the implementation plan development process. Underlying this process is the Implementation Planning Model. Finally, the measurement processes provide specifics for how to measure progress through the plan.

To assist the organization in successfully completing an implementation process, the Implementation Planning Tool is an Excel spreadsheet that is provided to automate the calculation and diagram processes introduced in Chapters 5 and 6. See Appendix F for a description of how to use the Implementation Planning Tool.

As illustrated by these increasing levels of detail, the model introduces a number of new terms and processes related to new practice implementation. The combination of these items can make it challenging for the reader to understand the complete model at one time. The authors recognize this challenge and recommend that the reader approach the development of an implementation plan as a process rather than a single effort. Specifically, the reader should not be tempted to write a plan from this document at one sitting following the directions from beginning to end. **Rather, it is more important to understand the concepts introduced in the document and develop a plan that integrates the original Implementation Pyramid, the new Implementation Planning Model, and the implementation measurements.**

Figure 2. An overview of how to review the Implementation Planning Model from a high-level perspective through detailed specifics

This Implementation resource is derived from Research Report 246-11, "The Implementation Planning Model: Steps to Success." For a full treatment of this topic, including research performed and basis for the approaches recommended herein, RR246-11 should be consulted.

2

Ten Stages to Implementation Success

The key to success in implementing a new practice is to have a clear perspective on the overall stages required for the entire implementation process. To assist in this overall perspective and as an outline of the critical stages required in the implementation process, the following is an overall guide to the Ten Stages to Successful Implementation (Figure 3).

Figure 3. A 10-Stage Approach to Successful Implementation

The Ten Stages to Successful Implementation

Stage 1: Needs Analysis – The first stage in the process is to conduct a Needs Analysis that lays out the case for implementing a new practice. This case will need to be presented to both management and critical staff, so a compelling argument is required as an output of this stage. Each organization will have a different methodology established for conducting a Needs Analysis, so the specifics of this stage are left to the individual implementer. However, the output of this stage remains consistent for all organizations, a case that establishes the need for the new practice.

Stage 2: Management Buy-In – The second stage of the implementation process is to obtain management buy-in for the new practice. This buy-in will be based on the needs analysis developed in Stage 1. The specific elements that are required in this stage are to obtain the resources, and backing that are required to proceed to the first test implementation of the practice.

Stage 3: Establish Steps (Chapter 3) – The Implementation Planning Model establishes a series of four critical steps that will be followed during the implementation process. The third stage in the overall process is to understand these steps and develop an approximate schedule for the implementation process that is based on these four steps. This will provide an initial perspective on the proposed investment in time that the organization is undertaking for the new practice.

Stage 4: Adapt Matrix (Chapter 3) – Stage 4 is the first core element of the implementation process. In this stage, the implementation team must take the specifics within the Implementation Matrix presented in this document and adapt the generic elements with organization specifics that address the unique requirements of the current implementation task. This process requires the implementation team to understand the steps introduced in the Implementation Planning Model and the specific requirements of the new practice.

Stage 5: Develop Plan (Chapter 4) – Once the Implementation Matrix is adapted for a specific new practice, the implementation team will have all of the fundamental details required to develop an implementation plan. Stage 5 requires the team to translate these details into a plan that meets the requirements of the specific organization. Whether it is a simple or a comprehensive plan, the details identified in Stage 4 will provide the foundation for the plan completed in this stage.

Stage 6: Communicate Plan (Chapter 4) – As detailed throughout this publication, communication is a key strategy for successful implementation. Stage 6 spotlights this strategy by requiring the team to communicate the proposed implementation plan to both management and the proposed test group. The communication should be part of a communication plan that highlights the need for the new practice and that describes the scenario in which it will first be tested.

Stage 7: Perform Change Audit (Chapter 5) – The failure to prepare adequately for a new practice, in the majority of cases, ultimately will lead to a failed implementation effort. Therefore, the first task in the implementation process requires the implementation team to perform a Change Audit that evaluates the readiness of the organization to undertake the implementation process. During

this audit, the team will identify areas where the organization requires further investment prior to embarking on the implementation process. The intent of this stage is to identify potential barriers prior to encountering them during the test implementation.

Stage 8: Implement Tasks/Plan (Chapter 4) – Stages 8 and 9 are an iterative process through the implementation process. In Stage 8, the implementation team will follow the tasks laid out in the implementation plan for each step of the implementation process. Each step in the process has a set of three to five tasks that have been identified as critical for success in that step. Concurrently, potential barriers and strategies are presented to enhance the preparation of the implementation team.

Stage 9: Perform Step Evaluations (Chapter 6) – In conjunction with Stage 8, Stage 9 requires the implementation team to perform evaluations during each step of the implementation process. In these evaluations, the team will determine if the process has achieved the required goals of that step. If the goals have not been reached, then the team will return to Stage 8 to identify areas where additional work is required. If goals have been achieved, the team can proceed to the next stage of the implementation process.

Stage 10: Benchmark – The final stage in the implementation process is to benchmark the new practice both internally and externally. The intent of this benchmark process is to determine if the process is returning the results expected by management and the implementation team. The specific benchmarks that are used in the process will be determined by the individual organization. This process should occur on a regular basis to determine if the practice needs revisiting in terms of either updating the practice or replacing it with a new practice.

3

The Implementation Planning Model

The Implementation Planning Model encompasses several components to assist in the development of an implementation roadmap. The principal additions are: 1) the context of a roadmap that provides a specific path to implementation success, and 2) a recognition of the specific concerns of the capital facilities industry in implementing new practices.

In terms of the roadmap, the Planning Model should be viewed as a series of steps that begins with needs analysis and ends at final implementation and benchmarking. An organization examining the possibility of implementing a new practice should develop an implementation plan that uses the steps as milestones for the schedule and process. As illustrated in Figure 4, the Implementation Planning Model provides the Focus, Tasks, Barriers, Strategies, and Success Indicators for each step in the implementation process. However, each organization has specific and unique circumstances in which these elements must be addressed. Thus, each organization must supplement these with individual schedule, resource, and implementation champion requirements as well as any other specific business elements that must be addressed during the implementation process. By following this process of combining plan elements introduced in the Implementation Planning Model with specific organization requirements, each organization can use the implementation planning model as a starting point for developing an implementation map that will fit the needs of that individual organization and practice.

Figure 4. The planning model provides an outline for a specific organization implementation

The following sections describe each of the Implementation Planning Model components, followed by a sample implementation plan in the next chapter. In terms of the 10-Stage process, the following sections focus on Stages 3 and 4.

Introduction to the Implementation Planning Model

The Implementation Planning Model encompasses four central steps and two landings that represent the entrance to and exit from the implementation staircase (Figure 5).

Figure 5. The overall Implementation Planning Model including the steps, landings, and supports for the implementation process

Additionally, similar to the CII Implementation Pyramid, the entire model is supported by CII Products and Support to ensure the organization has the best opportunity to succeed in the implementation process. These primary model components are introduced as follows:

- **Model Support** – The implementation model is supported by two key elements: CII Products and CII Services. The former represents the array of products that CII offers members to assist in the education process, the benchmarking process, and in developing a cost/benefit argument. The latter represents the array of CII Services that are available to assist an organization during practice implementation including mentors, classes, workshops, reports, and conferences. The combination of these provides a supporting foundation on which an organization can depend during the often difficult road to implementation success.

- **Entrance Step** – The entrance to the implementation model begins with a Needs Analysis. This is the same Needs Analysis detailed in Stage 1 of the 10-Stage process. The timing for this analysis is at the beginning of the overall process, but it must be completed prior to starting the implementation process outlined in the model.
- **Steps** – The four steps represent the phased movement through the formal implementation process from initial preparing through final establishment as a standard practice. As illustrated in the model, each step has a specific focus and success metric. During each step, the organization should emphasize the focus for that step through specific actions and objectives. Each step's strategies and barriers are further described with the Implementation Matrix.
- **Measurement** – Measurement can be thought of as the guiding support through the steps, the stair railing. Organizations should strongly consider measuring and benchmarking progress throughout the model. Issues such as cost of implementation, schedule and training expenses, and cost/benefit analysis should be closely monitored throughout the process and be considered an integral part of the implementation process. In this manner, the organization supports the decisions to continue moving up the steps and towards total implementation.
- **Measurement Platform** – Reaching this platform indicates that the organization has established the practice as a standard operating procedure and is now continuing the measurement and benchmark process by focusing on the overall impact of the process. The method for this necessary data collection is left to the individual organization. However, the organization is encouraged to consider using the CII Benchmarking process to support this effort.

The following sections provide greater detail on the core of the model, the steps. Specifically, the steps are discussed in the context of the Implementation Matrix that details each step including the focus, tasks, barriers, strategies, and success metric associated with each step.

The Implementation Matrix

Organizations must detail the implementation steps and the directives for each step in order to support an implementation process. In response to this need, the Implementation Planning Model steps are further detailed in the Implementation Matrix. The Implementation Matrix is comprised of three structures:

- Implementation Steps – a defined set of phased steps that assist in identifying where in the process an organization exists at any given time.
- Implementation Elements – a defined set of roadmap guides that assist an organization in directing an implementation effort.
- Implementation Specifics – a specific set of deliverables required to meet each element at each step in the process.

Implementation Steps

An organization cannot achieve a new implementation in one step. Rather, the implementation process occurs over a series of steps, each with its own unique challenges and entry and exit points. This publication puts forth the following four steps as the defined structure for the Implementation Matrix.

- Step 1, Preparing – The first step of implementation focuses on the learning and resource allocation requirements that need to be in place for the overall implementation process.
- Step 2, Initiating – The second step initiates the implementation of a practice within a confined environment, either a project or single group context.
- Step 3, Growing – Implementation of a new practice is not a success even though it succeeds in a limited environment in the Initiating stage. For a practice to have impact on an organization, it must extend beyond the confines of its initial test environment. This step focuses on growing the implementation process beyond the Initiating context into a larger number of projects and groups or divisions.
- Step 4, Establishing – The final step within the Implementation Matrix changes the focus of the process from expansion to establishment. Within this step, the organization must finalize its adoption of a practice by establishing the practice as part of the standard operating practices or tools that are incorporated within standard scenarios. **A practice should only be considered fully established if it is elevated to a required practice throughout the organization, at all levels, and in all potential scenarios.**

Implementation Elements

Implementation Elements are the second structure in the Implementation Matrix. The Implementation Elements are a series of guides that assist the organization during the implementation process. For example, the Focus Element provides the organization with a specific group of items that form the focus of attention during each step. The intent of these Elements is to answer the questions, "What should we focus on during this step, what are the challenges that we are going to face, and how do we know when we are done?" Although these are three individual questions, they are often attached into one elongated question that represents the challenge of the implementation process. In response to this frustration, the following Elements are introduced to structure the implementation process.

- Focus – This Element is the easiest of the Elements to understand as it represents the specific issues that need to be addressed within a specific implementation step. For example, during the Preparing step, the specific focus point should be evaluating the readiness of the organization to pursue and adopt a new practice. While this concept is simple, it is often the cause of implementation failure as organizations fail to retain a clear focus in each step.

- Task – Similar to Focus, Task provides an organization with a specific implementation path to follow during each implementation step. The Task Element specifies the small group of high importance tasks that need to be completed during each implementation step.
- Barriers – The Barriers Element changes the focus of the Implementation Elements from a set of guideposts to a set of warnings. Specifically, the Barriers enumerate what might be encountered during that specific implementation step. Although each organization encounters a different set of barriers during individual implementation efforts, the barriers listed within the Implementation Matrix represent those that are most likely to appear for each organization.
- Strategies – In each of the implementation steps, the Strategies Element provides guidance that has proven successful in overcoming barriers that are likely to be encountered. Adopting a strategy is likely to produce a positive effect and negate the barriers that will be encountered.
- Success – "How do I know when I have successfully completed an implementation step?" This question is arguably the most common one encountered during the implementation process. In response to this need for a defining completion moment for each step, the Implementation Matrix details specific completion points through the Success Element. In this manner, the Success Elements can be viewed as intermediate stops on the roadmap.

Implementation Specifics

Implementation Specifics exist at the intersection of the Implementation Step columns and the Implementation Elements rows (Figure 6, next page). At each intersection, the cell contains Implementation Specifics that serve as individual directives for the organization in the context of a specific implementation step and implementation Element. For example at the intersection of the Growing step and the Task Element the following Implementation Specific tasks exist:

- Communication – The organization needs to implement a communication plan that highlights the success of the initial practice implementation and the reasons why this practice should expand to additional projects and divisions.
- Buy-In – The expansion of a practice beyond an initial implementation example requires commitment ("Buy-In") from both management and staff.
- Resources – The organization must commit to providing resources during the Growing step. These resources, including both time and money, are required to highlight the initial success and engage additional practice champions as well as initiate any required training.

These Implementation Specifics will form the core of the implementation plans presented in the next chapter. A complete list of the Implementation Specifics is provided in Appendix A.

Practice Implementation Matrix

Elements	Steps: Preparing	Initiating	Growing	Establishing
Focus	Evaluation of Eight Change Preparation Areas	Introduction of Practice in a Limited Context	Expansion of Practice Beyond Test Group or Project	Marketing New Process to Broad Organization
Task	Change Audit, Change Preparation	Communication, Success Story	Communication, Buy-In, Resources	Standardization, Repetition, New Areas
Barriers	Necessity, Buy-In	Culture, Outside influence, Risk Aversion	Resources, Leadership, Culture	Resources, History, Executive Approval
Strategy	Necessity, Assign Champion	Communications Plan, Champion Support, Provide Education	Communication Plan, Support and Increase Champions, Provide Education, Market Success Stories	Leadership, Communications Plan, Provide Education, Establish Practice Experts, Reward Compliance
Success	Audit Completion	Visible Success Story	Cross-Divisional and/or Geographic Implementation	Accepted Practice

Figure 6. Implementation Specifics at the intersection of Implementation Steps and Implementation Elements

4

Putting Implementation into Practice

The Implementation Matrix provides the detail required to support a step-by-step implementation process. However, the matrix does not put these steps in a format that is generally required by organizational management. Rather, implementation must be placed in the context of a business justification and an implementation plan that details resources and schedules in addition to the Implementation Elements detailed in the matrix for each step. This chapter addresses the need to create a business case for the new practice as well as illustrating two examples of such an implementation plan depending on the needs of the organization.

The Business Benefits for Successful Implementation

The ultimate driver for considering the implementation of a new practice is the economic and business impacts of the practice. If a new practice promises to enhance profit, productivity, or the development of "better" client solutions, then the chances of the practice being considered for implementation are significantly increased. If the practice is considered an experiment or a good idea that may have promising results, then reluctance for implementation and the change that it brings is going to be encountered throughout the implementation process. This is a fundamental fact that all implementation champions need to be aware of and fully prepared for during the implementation process.

Management support can be either a key barrier or a key support strategy for new practice implementation. The deciding factor as to which direction management support is placed is often decided based on the business case developed around a proposed new practice. Therefore, prior to undertaking an implementation effort, an implementation supporter or champion should consider the following elements in developing a business case for the implementation effort:

- The implementation cost – How much is the implementation effort going to cost in terms of both real dollars and staff time?
- The cost of change – How much investment is required to change existing processes to accommodate the new practice?
- The implementation life-cycle – How long will it take to implement the new practice through the different implementation steps?
- The organization benefit – What is the ultimate benefit to the organization if it undertakes the implementation effort?

If the implementation champion can answer these questions and indicate that a successful implementation is probable through a justification of needs to management, then the next step is the development of an implementation plan for the proposed practice.

Organization Specific Concerns

Once a business case is developed for a new practice, development of the implementation plan can occur. However, during this process individual organizations will have specific considerations that must be accounted for in each implementation attempt. The following are typical issues that should be considered for specific details during the implementation process:

- *Overall schedule*. The process outlined in the Implementation Planning Model will have to be adapted to individual schedule requirements. One scenario that is a common deviation from the proposed model is the need to implement the process at a faster rate. In this scenario, an implementation team should consider getting management buy-in for the need, the potential process, and the implementation plan at the beginning of the process. This will reduce the number of steps required prior to the first implementation and the time required to obtain management support. However, implementation is a process and to be successful requires an investment in time.

- *Implementation schedule*. Each organization will require a different schedule to perform a successful implementation process. Factors such as organization barriers, size of the organization, resource availability, management support, and the length of time that an existing practice has been in place will all have an impact on the time required to implement a new practice. Therefore, it is impossible to state how long an implementation process should take. However, each implementation plan should attempt to make this estimate based on individual circumstances and the issues outlined in the model.

- *Resource requirements*. The allocation of resources is a primary barrier to successful implementation attempts. The need for these resources does not change with the development of an implementation plan. However, implementation champions are encouraged to use the proposed implementation model as an outline for supporting a business case to obtain organization resources.

- *Change management*. New practice implementation is closely associated with change management. This association is because a practice implementation triggers organization change. However, association should not be confused with interchangeability. Specifically, an organization should not mistakenly adopt a generic change management approach to implementing new practices. Rather, new practices require specific focal points and tasks that are distinct organization challenges.

- *History/culture*. No organization can overlook its history, culture, and entrenched practices. Although there is no “silver bullet” for overcoming a history or organizational culture that is reluctant to change, the Implementation Planning Model provides an outline for addressing this issue. Implementation champions should anticipate that there will be reluctance to challenging established traditions or the perceptions of historical success.

Implementation Plan 1 – The "Simple" Approach

Depending on the requirements of the organization, the specifics identified by the organization, and the adaptation of the Implementation Matrix, the detail and complexity of the implementation plan will vary. In this first example, an implementation plan outline is presented that emphasizes a simpler plan. The plan is based on actual company experience for implementing a number of practices and represents an approach that emphasizes fewer steps and benchmarks.

In the "Simple" Model, the emphasis is on delivery dates. Using the Implementation Planning Model as an outline, the following steps are established:

Step	Months for Completion	Anticipated Result
Preparing Step	6	Audit Completion
Initiating Step	12	Successful First Project
Growing Step	18	Multiple Group Implementation
Establishing Step	18	Company Practice

The establishment of the steps provides the general outline for the implementation schedule. To add specific detail, each of the steps is developed using the Implementation Specifics as a guide. The Implementation Specifics are then combined with organization specific information. An example of this combination is illustrated for an implementation effort for a new project delivery process (PDP) (Figure 7, next page). As outlined in this "simple" approach, the plan focuses on delivery, tasks, and resources. The overall approach is to convey to management that an understanding of the tasks required for the step exists and that specific resources are going to be required to complete the step. An example of the complete plan is provided in Appendix B.

Although the "simple" approach may not be appropriate for every implementation effort or organization, it is a proven path for many organizations that focus primarily on completion dates and final results. It should be considered a starting point for all organizations that are beginning the implementation process to determine if the fundamental questions have been answered in terms of allocating appropriate resources to the implementation process.

Proposed New Practice:	Project Delivery Process (PDP)
Step:	Preparing
Months for Completion:	6
Anticipated result:	Audit Completion and Implementation of Change Preparation
Champion:	Sue Smith, Director of Pre-Project Planning
Primary Tasks:	The primary tasks for this step are as follows: • Change Audit – Conduct change audit to determine current level of readiness for new practice implementation. • Change Preparation – Enhance areas where current gaps exist in preparation for change. • Approval – Gain executive approval to test the implementation of the new practice.
Focus of Step:	Assign Champion for overall implementation process, obtain buy-in from management and group, and establish necessity for new practice.
Resources required:	Budget allowance will be required for two personnel to conduct the change audit and interview department personnel regarding the current status of each of the eight implementation areas. A series of department meetings will be required to inform the group of the proposed new practice and the impact it will have on the group and the organization. It is proposed that each person in the group attend one education session to learn more about the potential benefits of the proposed new practice and how it will impact their responsibilities.
Implementation Considerations:	The existing project delivery process has been in place for four years and is considered a standard operating practice within the construction department. Changing this process is likely to cause concern among the group as to why the process is changing and how it will affect current operations. Several individuals were involved in developing the original process and may be resistant to change to the new process.

Figure 7: Example of a “Simple” approach to an implementation plan.
The example is the Preparing Step for a new PDP process.

Implementation Plan 2 – The "Comprehensive" Approach

The sample plan described above will be suitable for a wide range of organizations. However, organizations that require a more comprehensive plan should examine all elements of the implementation process. One approach to such a comprehensive implementation plan is to detail each step of the implementation plan through six components as follows:

- Objective Definition – The focus of the objective definition is to provide a specific definition of the objectives that are the focus of the current phase. The goal of this process is to detail the three to five primary objectives that are being obtained in the current phase.
- Measures and Constraint Definition – With the objective identified, the next issue is to identify the measures that will be used to determine progress during the implementation step. Concurrently, the constraints that exist for implementing the new practice during that step need to be identified to provide a realistic context for the implementation process.
- Alternatives Identification – At each step of the implementation process, it is helpful to weigh the implementation of a new process against alternatives that may exist including a "no implementation" action.
- Barrier and Strategy Identification – Similar to the "simple" model, it is both useful and informative to identify potential barriers that may be encountered during the implementation process. Similarly, if it is possible to identify strategies that will be used to overcome these barriers, then it reinforces the overall confidence in the implementation plan.
- Schedule Development – In a comprehensive plan, a detailed schedule will be developed for each step. This schedule will include specific tasks, responsibilities, and milestones for completion of critical activities.
- Standardization Impact – As a final element, the comprehensive plan will have each step reinforce the overall impact of the new practice by detailing how standardization of the practice is going to assist the organization. In each step of the plan, this element will detail how the activities in the step will assist in the standardization effort.

Using the example of a new Project Delivery Process, Appendix C illustrates the "comprehensive" plan for the preparing step of the implementation process. While the level of detail incorporated in a comprehensive plan may not be necessary for all organizations, the final plan that is developed will be somewhere between the "simple" plan outlined above and the "comprehensive" plan outlined in this section. The underlying requirement for these plans is the same. The implementation plan needs to demonstrate that the group advocating the new practice understands the goals, potential barriers, strategies, and resource requirements for putting the practice into place.

5

Preparing for Change

The previous chapters provided an overview of the Implementation Planning Model and how the model can be incorporated into an implementation plan. Chapters 5 and 6 move from this overall perspective to a focus on two critical elements of the implementation process, 1) preparing for change during the Preparing step, and 2) measuring the progress in each step to determine when a step is completed. These in-depth perspectives provide support for what has been identified during the data collection process as the most difficult questions encountered during the implementation process.

The introduction of a new practice requires a foundation to be put in place prior to the actual initiation of the implementation process. The concept of the Preparing Step is that a successful implementation requires an organization to adequately prepare before expending resources on the implementation process. At the core of this preparing process is the completion of a Change Audit. As described in this chapter, the Change Audit focuses the organization on determining the impact of the practice on the organization as well as evaluating eight specific areas that require attention prior to undertaking the implementation process.

To assist the organization in conducting the Change Audit, the Implementation Planning Tool is an Excel® spreadsheet that automates the calculation and diagram process introduced in this section. See Appendix F for a description of how to use the Implementation Planning Tool.

The Organization Impact

One common mistake that organizations bring upon themselves when preparing to implement a practice is the thought that a practice will have a limited impact. In fact, the introduction of a practice impacts the organization to one extent or another in all its components. To break this down into a tangible understanding, an organization can be divided into four main components that can be affected by a new practice as follows:

- Processes – include any formal or informal procedures that direct how operations are completed within any segment of the organization.
- Structure – how the organization is structured both with formal and informal lines of authority and communication.
- Culture – includes the norms, practices, and shared beliefs and attitudes of the individuals within the organization.
- Business – focuses on the underlying business model that has been incorporated by the organization. Introducing a practice will impact the model by addressing issues such as competitiveness, strategies, and overall strategic management.

Each of these components is tied together in that an organization strives to stay in balance at all times. Specifically, an organization must constantly make decisions regarding the placement of emphasis on any of these components in relation to the others. For example, a decision to change a process will have a direct affect on the structure of the organization by potentially changing formal and informal communication lines. Similarly, a lesser effect may be felt on the culture as a new process may impact an accepted norm and similarly, the new practice may affect the business by changing an underlying strategy. In this manner, every new practice will have an impact on every other part of the organization. The impact may be small, but it is an impact that will be felt in some manner.

The underlying message here is that practices have an effect throughout the organization and the organization stays balanced by managing these effects. However, each proposed change will have a different intensity of effect on the balance. For example, attempting to change a business model has a much greater effect on the system than attempting to change a process for masonry quality control. The level of this intensity translates to the level of preparation that must be undertaken by the organization prior to introducing a practice.

Preparing for Change – The Change Preparation Areas

Within the overall context of affecting the four organization components, eight specific areas must be addressed while preparing for new practice implementation. If the areas are not sufficiently addressed early in the implementation process, the potential to introduce change barriers increases significantly. The eight areas are:

1. Vision – provides the organization with a goal for the completion of the implementation process. A successful practice implementation requires the organization leaders to create a clear vision for the implementation process.
2. Support – required from all levels of the organization, from top leadership through professional staff. This vertical support throughout the organization must be put in place prior to the commencement of the implementation process.
3. Communication – the foundation for any new implementation process, but an area where organizations often fail during implementation. Specifically, failure to keep personnel informed throughout the implementation process will result in misunderstandings regarding the practice and may result in a failure of the process.
4. Roadmap – describes the process and the milestones during the implementation process in order to keep all personnel moving in the same direction at the same rate. The lack of this road map will lead to confusion and miscommunication as people move in different directions and aim for different goals.
5. Necessity – must be established and understood since new practices are often met with resistance; necessity is a foundational element in the implementation process.
6. Champion – an individual who leads the implementation process. This leader will push the implementation effort and subsequently also receive the greatest resistance to the change

effort. Thus, the individual(s) selected to fill this role will need to have the communication skills to overcome resistance.

7. Empowerment – focuses on the need for individuals to have the responsibility and authority necessary to make incremental changes to support the practice. The question for the organization is whether individuals at all levels have the authority to make the incremental changes required for overall success.
8. Education – sufficient knowledge of the proposed practice and the impact of the change to overcome resistance to the practice. This knowledge can only come from education opportunities provided to employees at all levels.

Measuring New Practice Preparation – A Change Audit

With four organization components and eight individual areas, determining where an organization currently stands in terms of preparation for a new practice can be daunting. The result is often to abandon a full preparation and move directly to implementation. Unfortunately, this move leads to an 80 percent failure rate. In response, the Change Audit has been developed to assist in the preparation process.

The Change Audit is based on two steps: 1) determining the overall impact of the change on the organization components, and 2) objectively determining the current state of preparedness in each of the eight individual areas. The process can be completed on the Process Preparation Form (PPF) provided in Appendix D.

Part 1 – Organization Evaluation

The first step in the process is determining the level of impact that the proposed process will have on each of the four organization components. This impact is measured through an Organization Evaluation Number that is used to set a Minimum Threshold Level for implementation. The Minimum Threshold Level will be the required level of implementation that is set for each of the eight change preparation areas to determine if the organization is prepared to implement the practice. The concept for this threshold is that the areas of change preparation must be implemented to a level that is commensurate with the overall impact that the practice will have on the organization. If the practice has been calculated to have a minimum impact on the organization, then the requirement for implementing the change preparation areas will be much less significant than if the organization is addressing a change that has significant organization impact. In this manner, the organization is relating the overall impact of the proposed practice to the individual requirements for the eight change preparation areas.

To determine the Organization Evaluation Number, four impact questions need to be answered on the PPF (Figure 8, next page). The answers should be as conservative as possible to reduce the possibility of underestimating preparation effort. Once the four questions have been answered, the Organization Evaluation Number can be calculated.

Process Preparation Form

1. What level of impact will the proposed evaluation have on the organization **processes?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☐ 3 – Some Impact ☒ **4 – Moderate Impact**
   ☐ 5 – Significant Impact ☐ 6 – Maximum Impact

2. What level of impact will the proposed evaluation have on the organization **structure?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☐ 3 – Some Impact ☐ 4 – Moderate Impact
   ☒ **5 – Significant Impact** ☐ 6 – Maximum Impact

3. What level of impact will the proposed evaluation have on the organization **culture?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☐ 3 – Some Impact ☒ **4 – Moderate Impact**
   ☐ 5 – Significant Impact ☐ 6 – Maximum Impact

4. What level of impact will the proposed evaluation have on the organization **business?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☒ **3 – Some Impact** ☐ 4 – Moderate Impact
   ☐ 5 – Significant Impact ☐ 6 – Maximum Impact

Organization Scoring

Step 1
Use the following point totals for the equivalent answers:
No Impact – 1 Minimal Impact – 2 Some Impact – 3 Moderate Impact – 4
Significant Impact – 5 Maximum Impact – 6

Processes	4
Structure	5
Culture	4
Business	3

Step 2

TOTAL	16	
Total ÷ 4	4	← Organization Impact Score

Step 3
Maximum Impact Influence – Take the Organization Impact Score and average it with the maximum value obtained in Step 1.

Average (Organization Impact Score + Maximum Value in Step 1) = AVG (4+5) = 4.5

Step 4
Round up the value obtained in Step 3 to obtain the Organization Evaluation Number – 5

Figure 8. Example of calculating the Organization Evaluation Number using the Process Preparation Form.

Part II – Mapping the Organization and Area Impact

The second part of the organization measurement process involves the use of a Change Audit Evaluation diagram (Figures 9 and 10).

Figure 9. Change Audit Evaluation Diagram

Figure 10. Example of a completed Change Audit Evaluation Diagram including the minimum threshold level and the individual implementation levels for each area

This is used to map the progress in each of the eight areas against the requirement developed in Part I of the measurement process. To initiate this process, the following steps should be followed:

1. Answer the questions in the Change Audit Evaluation form. Each question focuses on the degree to which the organization has prepared for the eight change areas. Each question can be answered on the six-point scale given on the form. Answer each question as objectively as possible with the emphasis on implementation (not planning) to answer the question, "What has actually been completed at this point in time?"

2. The second step is to transfer the responses from the Change Audit Evaluation Form to the Change Audit Evaluation Diagram[1]. The diagram should be used to evaluate the eight areas in the following manner:

    a. The diagram lists the change area topics from the upper right, correlating to question 1 and then progressing clockwise around the diagram at the end of spokes that radiate from the center of the radar diagram.

    b. The lines in the diagram start at the center correlating to "0" and progress to the outside ring, which correlates to "6."

    c. Starting with the first question in the Evaluation Form, graph the answer from the question on the appropriate spoke and ring. In the illustration, Question 1, Develop a Vision, has received an answer of "2." This answer is translated to a point on the second ring of the appropriate spoke.

    d. Translate the remaining answers to the Evaluation Form questions onto the appropriate question spokes and answer rings. The sample illustration demonstrates this process with points at each ring representing each question.

    e. Connect the points with lines to create a plot that indicates the evaluation for the current implementation stage. The illustration demonstrates an organization that currently has uneven implementation, with Necessity receiving the highest evaluation and Empowerment and Education receiving the lowest.

    f. Next, add the Organization Evaluation Number calculated in Step 4 in Part I to the individual areas in the Change Audit. This transfer process will determine whether the areas have been addressed to a level that is appropriate for the anticipated organization impact.

    g. To accomplish the overlay, take the Organization Evaluation Number and map it as a solid ring on the radar diagram. This represents the Minimum Threshold Level as discussed in Part I. As demonstrated in the illustration, using the score of "5" calculated in Part I, a solid ring (the Minimum Threshold Level) has been placed on the radar diagram.

    h. Compare the Minimum Threshold Level just created with the individual area scores illustrated on the diagram. **Wherever the individual scores DO NOT MEET OR EXCEED the overlay ring, the organization has not sufficiently prepared for the anticipated change impact of the new process.** As illustrated in the diagram, the organization has only met this requirement in the Necessity area. All other areas still require additional focus.

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[1] See Research Report 246-11 for a full explanation of radar diagrams and the method used to graphically evaluate implementation progress.

i. Repeat this process periodically during the preparation process to determine when the organization is prepared to start implementing the process.

The completion of the preceding steps represents the change audit process for the practice implementation model. This audit should be conducted as part of the Preparing step. However, the steps outlined in the Change Audit can be used beyond the scope of CII Best Practices. The underlying philosophy of change impact resulting from new or improved practices remains the same for any change effort.

6

Step Evaluations

The Implementation Matrix within the Implementation Planning Model outlines specific actions that will be required from an organization that is undertaking the implementation of a practice or process change. However, one issue that often arises is when the organization is prepared to enter the next step of implementation. To assist in addressing this issue and making the answer as clear as possible, this chapter introduces a combination of checklists and radar diagrams that assist in determining when an organization has completed a specific implementation step.

To conduct the Step Evaluations, follow this process:

1. Answer the questions in the Step Evaluation Form. Each question focuses on the degree to which the organization has implemented the Elements outlined in the Implementation Matrix. Each question can be answered on the six-point scale given on the form. Answer each question as objectively as possible with the emphasis on implementation, not planning.
2. Next, transfer the responses from the Step Evaluation Form to the Step Evaluation Diagram. These diagrams operate in a similar manner to that introduced for the Change Audit. The following instructions provide an example to illustrate how the diagram should be used to evaluate the progress during the Preparing Step (Figure 11).

Figure 11. Example Step Evaluation Diagram for the Preparing Step

a. The diagram lists the question topics from the upper right, correlating to question 1 and then progressing clockwise around the diagram at the end of spokes that radiate from the center of the radar diagram.

b. The lines in the diagram start at the center correlating to “No Implementation” and progressing to the outside ring that correlates to “Full Implementation.”

c. Starting with the first question in the Step Evaluation Form, graph the answer from the question on the appropriate spoke and ring. In the illustration, Question 1, Perform Change Audit, has received an answer of “Partial Implementation.” This answer is translated to a point on the fourth ring of the appropriate spoke.

d. Translate the remaining answers to the Step Evaluation Form questions onto the appropriate question spokes and answer rings. The sample illustration demonstrates this process with points at each ring representing each question.

e. Connect the points with lines to create a plot that indicates the implementation evaluation for the current implementation step.

f. **When the radar plot contains a solid line along the outer ring indicating “Full Implementation” of all components at the current implementation stage, then the organization is fully prepared to enter the next implementation step.** However, as indicated in the example illustration, when this requirement is not fulfilled, the organization must focus its efforts on increasing the level of implementation of any areas where the points on the spokes do not reach the Full Implementation ring. Although this is the recommended approach, organizations may elect to move to the next implementation step without achieving full implementation. If this course is selected, then the organization should be aware of the areas where full implementation has not been achieved and anticipate that barriers may be encountered as a result of these partial implementations.

A full set of Step Evaluation Forms and diagrams are provided in Appendix E.

To assist the organization in conducting the Step Evaluations, the Implementation Planning Tool is an Excel® spreadsheet that automates the calculation and diagram process. See Appendix F for a description of how to use the Implementation Planning Tool.

7

An Example Scenario: Putting It All Together

The introduction of the Implementation Planning Model together with an example plan and the measurement tools is a significant amount of information for a new implementation champion to absorb and put into place. Therefore, to assist in putting all of this information into context, this chapter provides an overview of an entire implementation process using the 10-Stage approach to implementation. In this illustration, the example plan introduced in Chapter 4 for a new Project Delivery Process (PDP) for the North American Operating Group (NAOG) of ABC Engineering and Construction Services is followed.

Stages 1 and 2: The Needs Analysis and Management Buy-In

The NAOG has been using an existing PDP for five years. Although the PDP has been working satisfactorily, members of the pre-project planning team have been suggesting improvements in the plan for the last two years. To help determine if a new PDP should be developed, a Needs Analysis is conducted. Sue Smith, the director of pre-project planning, will conduct the Needs Analysis. She conducts a survey of the group to determine whether the existing PDP can be retained with minor modifications or if a new PDP development process should be undertaken to implement an enhanced PDP process. The result of the survey points to a strong need for a new PDP, with 68 percent of the respondents indicating that a new PDP should be developed for the NAOG. With this statistic, Smith requests management support for the implementation of a new PDP. Although management is hesitant to agree to fund a full implementation process, the engineering director gives the go-ahead to begin implementation planning.

Stage 3: Establish Steps

The third stage in the planning process is to determine the overall process of implementing the new practice. In this scenario, the four steps in the Implementation Planning Model serve as a guide for the PDP implementation process. Smith establishes that the implementation process will proceed through four steps:

- Preparing Step – prepare the organization for PDP implementation
- Initiating Step – initiate the PDP implementation on a single project
- Growing Step – expand the use of the PDP to all groups within the NAOG
- Establishing Step – establish the new PDP as the standard pre-project planning process for all operating groups.

Stage 4: Adapt Matrix

Once the overall implementation steps are determined, an implementation plan can be developed based on the Implementation Matrix. Smith develops a committee of four from the pre-project planning group to adapt the Implementation Matrix to fit the needs of the pre-project services group. The team reviews the Implementation Elements from the matrix and determines which tasks, barriers, and strategies are appropriate for the PDP effort.

In addition to reviewing the elements in the Implementation Matrix, the team augments the elements with specific items that are appropriate for the PDP effort. The team identifies resources, schedule constraints, and personnel that will be required for the implementation effort.

Stage 5: Develop Plan

Using the adapted Implementation Matrix as a guide, Smith determines that the Engineering Director will be satisfied with a "Simple" plan that spotlights the tasks, barriers, strategies, and milestones for the implementation effort. Based on this determination, the implementation group spends three weeks on the effort to develop the plan. The full results of this effort are illustrated in Appendix B.

Smith presents the plan to the engineering director (ED) for approval. Once again, the ED agrees with the intention of implementing a new PDP, but is concerned that the pre-project services group may not be fully prepared for such an undertaking and is unwilling to provide significant resources until the group can prove that it is prepared for the implementation effort. In response, Smith agrees to demonstrate readiness within eight weeks.

Stage 6: Communicate Plan

The team quickly realizes that the success of the implementation effort is going to be based on its ability to convey the strength of the plan and the need to undertake this effort. In response to this need, the team works with the corporate communications office to develop an initial communication plan for the new PDP. The result of this effort is a series of corporate newsletter articles and several PowerPoint® presentations that the team holds for management and staff. The interest generated by these presentations provides momentum for beginning the implementation effort.

Stage 7: The Change Audit

Based on the Implementation Planning Model, Smith and the implementation committee determine that a Change Audit must be performed to demonstrate readiness within the pre-project services group. Using the Process Preparation Form in Appendix D, the committee first determines the overall impact of the new PDP on the NAOG. The process starts with answering the four questions related to the overall impact on the organization. The group answers the following four questions:

1. What level of impact will the proposed evaluation have on the organization **processes?**
   ☒ 5 – Significant Impact
2. What level of impact will the proposed evaluation have on the organization **structure?**
   ☒ 3 – Some Impact
3. What level of impact will the proposed evaluation have on the organization **culture?**
   ☒ 4 – Moderate Impact
4. What level of impact will the proposed evaluation have on the organization **business?**
   ☒ 3 – Some Impact

Based on the four answers, the group determines the Organization Evaluation Number as follows:

Organization Scoring

Step 1

Processes	5
Structure	3
Culture	4
Business	3

Step 2

TOTAL	15	
Total ÷ 4	3.75	← Organization Impact Score

Step 3

Maximum Impact Influence – Take the Organization Impact Score and average it with the maximum value obtained in Step 1.

Average (Organization Impact Score + Maximum Value in Step 1) = (3.75 + 5) / 2 = 4.375

Step 4

Round up the value obtained in Step 3 to obtain the Organization Evaluation Number – 5

The analysis shows that a change in the PDP will have "Significant Impact" on the organization since the impact on Processes is significant enough that it will have an impact on other areas of the organization.

Following this analysis, the team evaluates the eight individual areas of the Change Audit. The team uses the Change Audit Evaluation Form in Appendix D to evaluate the current state of readiness for an implementation effort. The answers developed by the committee for the group are as follows:

1. The organization has implemented a vision for the new process.
   ☒ 2 – Implementation Plan
2. The organization has put in place support from management and staff who are directly impacted by the new process.
   ☒ 3 – Start Implementation
3. The organization has developed a roadmap for implementing the new process.
   ☒ 5 – Near Implementation
4. The organization has developed a first communication plan for the new process.
   ☒ 3 – Start Implementation
5. The organization has established the necessity for adopting the new practice.
   ☒ 6 – Full Implementation
6. The organization has appointed initial champions for the new process.
   ☒ 5 – Near Implementation
7. The organization has empowered the appropriate individuals to successfully start the implementation of the new practice.
   ☒ 3 – Start Implementation
8. The organization has provided or has a plan in place to provide education opportunities to relevant personnel regarding the new practice.
   ☒ 2 – Implementation Plan

Taking these answers combined with the Organization Evaluation Number calculated through the Process Preparation Form, Smith develops the first Change Audit Evaluation Diagram as illustrated in Figure 12.

Figure 12. The first Change Audit Evaluation Diagram

Stage 8: Implement Tasks/Plan

The analysis of the first Change Audit Diagram is conducted quickly by the implementation team. It is clear from the diagram that the organization has not achieved the required preparation level in five of the eight areas. Of particular concern are the low scores obtained for Vision and Education. Smith directs the committee to put in place actions that will increase these scores since the PDP implementation process cannot commence until the group is adequately prepared for the implementation. In response, the group puts in place the following action items that were agreed should be completed within two months. At that time a follow-up Change Audit evaluation will be conducted.

- Vision – The implementation team will establish a clear vision outlining the long-term value of the proposed new PDP.
- Support – Smith will give presentations to both staff and management outlining the benefits of the PDP.
- Communication – Smith will work with corporate communications to develop a one-page description of the PDP implementation effort that can be distributed in the pre-project planning group.
- Empowerment – The implementation team will identify which individuals are key implementers in the process.
- Education – Each member of the project team identified in the initial implementation example will attend a half-day education course on the benefits of new PDP practices.

After two months, the implementation group feels they have been successful in accomplishing the assigned tasks. At that time a second Change Audit is performed (Figure 13). As seen in the illustration, the team has achieved the required preparation level in all but two of the categories, Education and Support. However, the team feels that the Education level will rise as the remaining individuals complete the education sessions and the Support number will rise as the Initiating Step gets underway. Therefore, the Change Audit is considered complete and the remaining tasks for the Preparing Step are analyzed for completion.

Figure 13. Change Audit Evaluation Diagram

Stage 9: A Step Evaluation

The Change Audit enabled the implementation team to concurrently address the preparation tasks outlined in the implementation plan for this step. Smith feels confident that champions have been identified for the new PDP implementation and that the education process together with the communication plan is countering resistance from those reluctant to abandon the current PDP. The team now believes it is ready to conduct a Step Evaluation to determine if it is ready to move to the Initiating Step. The team completes the Preparing Step Evaluation Form and the Preparing Step Evaluation Diagram as illustrated below and in Figure 14.

As illustrated in Figure 14, the team has reached full implementation in all but two areas. Smith decides that the team is ready to move on to the Initiating Step based on the same premise that was used in the Change Audit. Education will bring up the learning score to the required level and Buy-In will increase as implementation continues. The team decides that it is worth the slight risk of having to come back to the Preparing Step to move forward with the implementation process.

Preparing Step
Evaluation Form

1. The organization has performed a Change Audit to determine if it is prepared to commence a new practice implementation.
   ☒ 6 – Full Implementation
2. The organization has obtained, disseminated, and read materials to learn about the proposed new practice and its possible opportunities and implications.
   ☒ 5 – Near Implementation
3. The organization has assigned an initial champion to oversee the initial new practice implementation.
   ☒ 6 – Full Implementation
4. The organization has identified an initial implementation success opportunity for the new practice.
   ☒ 6 – Full Implementation
5. The organization has disseminated an initial communication that outlines the plan for introducing a new practice.
   ☒ 6 – Full Implementation
6. The new practice champions have obtained initial management buy-in after the change audit has been completed.
   ☒ 5 – Near Implementation

Figure 14. Preparing Step Evaluation Diagram

Stage 8 (The Second Step): The Initiating Step

Smith reconvenes the implementation team to begin the Initiating Step. Returning to the implementation plan, the team identifies two key tasks for this step:

- Implementing the new PDP on a single project to obtain a success story.
- Putting in place a communication plan that will highlight the success story generated in this step.

In addition to these tasks, Smith realizes from the plan a potential barrier: obtaining the resources to document the success story and prepare the implementation for growth in the NAOG. Additionally, risk aversion may begin to play a part in the process as project managers may be reluctant to move from a process that has proven to be successful.

In response to these concerns, Smith selects a new bridge that the group is designing as part of a fast-track project. She knows the project manager well and believes he will be open and supportive of the new PDP. Additionally, the project is considered only a moderate risk as this type of project is a specialty of the firm. This eliminates many of the unknowns that could cause delays that may reflect poorly on the new PDP. This combination of project manager support, moderate risk, and a project that is common to the firm appears to be the right mix of elements that will lead to the success required in the Initiating Step.

During the 12-month design effort, Smith and the implementation committee follow the use of the PDP closely on the project. Where necessary, the team increases the education sessions to expound on the benefits of the new PDP and how to use it effectively. At the same time, Smith is providing regular updates to the engineering director on the success of the communication and education strategies.

Stage 9 (The Second Step): The Initiating Step Evaluation

At the close of the design effort, the success story is documented and integrated into the communication plan. Smith gets additional support from the engineering director, who is now willing to support the implementation effort into the Growing Step. Smith completes the Initiating Step Evaluation Form and the Initiating Step Evaluation Diagram (Figure 15). As seen in the diagram, the implementation team has successfully implemented all of the tasks required for the completion of the Initiating Step. The team is now ready to enter the Growing Step.

Figure 15. Initiating Step Evaluation Diagram

Process Support: Measurement

The completion of the first test case required one additional element before it was ready to be communicated to other groups: a set of measurements to determine the effectiveness of the new PDP. The implementation team had identified this need early in the process based on the Implementation Planning Model, which outlines the measurements to be used throughout the implementation process. Based on the role that the new PDP will play in the project process, the team developed three measures as follows (Note: an individual organization should develop measures that are appropriate to that organization and to the practice being implemented):

- Planning Effort – a measure that compares time spent on pre-project planning between similar projects.
- Planning Leverage – the difference in the amount of design rework required due to missed engineering issues in the pre-planning effort between similar projects.
- PDP Adoption – the percentage of individuals on the project team that actively used the PDP to guide the pre-project planning effort.

Using these measures as a basis for determining initial progress, the team applied the measures to the initial implementation effort. The result was an indication of strong success on the first case study. The Planning Effort measurement showed a decrease in effort, the Planning Leverage returned a moderate decrease in rework, and the PDP Adoption showed a 90 percent usage rate by the project team. Given these measurements, the team felt confident going into the Growing Step.

Stage 8 (The Third Step): The Growing Step

Smith initiates the Growing Step with an in-depth discussion with the ED. The discussion focuses on the potential barriers that the team has identified in expanding the use of the PDP throughout the NAOG. Specifically, as the plan states, the barriers of resources, leadership, and culture have been identified for broader PDP implementation. The common thread in all of these issues is the need for strong support from the ED and upper management. Using the success story, the measurements, a list of growth projects, and a list of office champions that the implementation team has identified, Smith makes her business case for buy-in and support. The ED is convinced and agrees to endorse the effort with resources for the additional champions, an expanded education effort, and will provide a written endorsement in the new communication plan.

With this buy-in from the ED and a commitment of resources, the implementation team focuses on getting the new champions ready to introduce the PDP in their respective offices and working with corporate communications to develop an effective communication strategy for the NAOG. The list of 10 projects identified by the team across the NAOG will take approximately 18 months to complete. However, if all goes according to plan, the team by then will have a full set of measurements to justify establishing the PDP as a new standard operating practice.

Stage 9 (The Third Step): The Growing Step Evaluation

Six months into the Growing Step, the team is monitoring four projects with the respective champions. Three other projects are scheduled to start in the next month. Smith decides that the team should complete the Growing Step Evaluation Form and the Growing Step Evaluation Diagram to obtain a benchmark of where the process currently stands. The result is illustrated in Figure 16. As seen in the diagram, the team has an excellent start. The only area of concern is Education. The team identifies this as a critical task and decides that more effort needs to be made over the next three months to get new project teams educated on the benefits of the PDP.

Figure 16. Growing Step Evaluation Diagram – First Evaluation

The mid-term analysis provides the team with a refocusing of effort on the tasks required for the Growing Step. Using a combination of marketing and leadership support, the team spends the next 12 months working with implementation champions in each office to ensure that the success of the new PDP is being communicated and that each project team member receives educational opportunities. Concurrently, the team is using the measurements established for the Initiating Step to measure progress and success in the Growing Step. The team achieves its 18-month goals, and a reevaluation of the effort through the Evaluation Diagram shows that the Growing Step (not shown) has been successfully completed.

Organizational units may resist the proposed change even if proven successful in "sister" locations. This may require a Change Audit specifically focusing on the "hard to convince" so that implementation barriers can be effectively addressed.

Stage 8 (The Fourth Step): The Establishing Step

The last step in the implementation process is often the most difficult. The need to standardize the new practice in all areas of the organization can be daunting. Barriers that may be encountered in new groups, different histories in different parts of the organization, and obtaining a final approval from the executive level all can derail the implementation effort. However, Smith and the implementation team have a defined set of tasks outlined in the implementation plan and have anticipated the likely barriers that will be encountered. In response to the potential barriers, the team has adopted a strategy that rewards compliance with the new PDP and establishes a corporate web site that communicates the new PDP and the projects that have adopted the new practice.

Although it takes 18 months to achieve standardization, the team is rewarded with a number of success stories that demonstrate the value of the new practice. With each demonstration, the team highlights the project on the web site and has the ED send a message to the project team congratulating them on their effort and thanking them for using the new PDP practice. The combined communication and reward effort is working as the team experiences few of the anticipated barriers. The combined use of success stories and reward structures has influenced key personnel to adopt the new PDP and replace the older version, even though the older version has a strong history in the organization. At the core of this success are the implementation champions, who are now being referred to as Practice Experts and are now available to assist groups throughout the NAOG in their implementation efforts.

Stage 9 (The Fourth Step): The Establishing Step Evaluation

The group evaluates their effort at the end of the 18 months through the Establishing Step Evaluation Form and the Establishing Step Evaluation Diagram (Figure 17). The team, pleased with the implementation effort, is in full implementation in almost all categories. Progress is still required to implement and market the practice throughout the organization. However, the team has demonstrated that the new PDP is providing measurable benefits to the organization.

Figure 17. Establishing Step Evaluation Diagram

Stage 10: Benchmark

Before the team retires as an implementation group, it benchmarks the NAOG against similar groups within and outside the organization for pre-planning effectiveness. The team uses a combination of internal benchmark measures and outside consultants to determine the level of effectiveness of the new PDP. The results show significant progress has been made in raising the effectiveness of the NAOG in the pre-project planning phase. These results are provided to management as a closing chapter for the implementation effort and the team agrees to reanalyze progress on the overall PDP effort in nine months to determine if further refinements are required.

8
Conclusions

The introduction of new practices will impact every component of an organization. The adoption of new practices is a trigger for many potentially disruptive responses including reluctance by personnel to adopt a new or improved practice, reluctance by management to provide resources, and a challenge to implementation champions regarding the necessity for the proposed practice. Although these responses may be different for each organization, no organization should enter an implementation process without understanding the potential for both positive and negative responses. However, the potential for negative responses should not preclude any organization from attempting to adopt new or improved practices. In short, a reluctance to introduce practices will ultimately lead to stagnation within the organization and perhaps organization failure. Thus, implementing new and improving existing practices are critical components in the continuing improvement of the organization.

The Implementation Planning Model is intended to help organizations reduce the likelihood that negative responses will stop practice implementation. The underlying premise is that a well-designed implementation plan will guide an organization to a successful outcome. However, the model is not a fail-safe approach to implementation. Rather, an organization must evaluate individual circumstances to determine where the model needs to be expanded to fit specific needs.

Appendix A: The Complete Implementation Matrix

As stated earlier in this document, the intersection of each Implementation Step column with each Implementation Element row creates a set of Implementation Specifics that should be interpreted as a set of guidance objectives during each step of the implementation process. The following details provide an outline of each set of Implementation Specifics as they appear in the Implementation Matrix.

Preparing Step

The focus within the Preparing step emphasizes actions that analyze the readiness of the organization to implement a new practice.

- Focus
  - Evaluation of eight change preparation areas – Is the organization prepared to implement a new practice? This is the singular focus of this first step and should be the overriding concern of the organization.
- Task
  - Change Audit – The eight areas of preparation that are detailed in this document provide an audit basis for an organization to determine if it is prepared for a new practice. The first task required is to conduct a change audit to determine the readiness of the organization to implement change.
  - Change Preparation – Once a change audit has been conducted, the organization will have a basis to determine where inadequacy exists in terms of change preparation. In response, the second task for this step is to reinforce the areas identified as weak during the Change Audit. Of particular importance during this step is for the organization to resist the temptation to enter the implementation step before adequate preparations have been instituted and to ensure that personnel have adequately learned about the proposed new practice including its opportunities and potential implications on the organization.
- Barriers
  - Necessity – The most common barrier that will be encountered during the Preparing step will be the wariness of the organization to recognize the necessity of implementing a new practice. The degree of this wariness will be in direct proportion to the length of time an existing process has been in place or the breadth of use of existing practices that are being proposed for replacement.
  - Buy-In – The second barrier that will be encountered is a lack of buy-in by personnel at various levels within the organization. Specifically, proponents of a new practice will encounter reluctance from staff and management as they demonstrate a lack of “buy-in” into the plans to introduce a new practice.
- Strategy
  - Necessity – Addressing the Necessity barrier, the Necessity strategy emphasizes the development of a case that spotlights the necessity for introducing a new practice. The basis of this necessity can come from a number of sources including, financial

challenges, competitors, new markets, or organization evolution. Whatever the driver that is selected, the necessity strategy requires the organization to use a forcefulness that will awaken personnel to the immediate need to pursue the new practice.

  - Assign Champion – Any new practice requires an individual or group of individuals to lead the way during the implementation process. These Champions need to be identified, assigned, and allowed to set an implementation plan during the Preparing step. The successful implementation of this strategy will result in individuals becoming identified with the new practice and leading the pursuit of a successful implementation.

- Success
  - Audit Completion – The Preparing step is completed when each of the eight change areas in the change audit pass the minimum requirements for change preparation. It may take an organization several Change Audits to successfully meet this requirement, but this requirement must stay in place as an indicator of stage success.

Initiating Step

The focus of the initiating step is to successfully implement a new practice in a limited environment, either a demonstration project or within a specific group or division.

- Focus
  - Limited Context Implementation – The focus in the Initiating step is limited and bounded by necessity. The organization requires a limited demonstration of the potential success of the new practice. This is the primary focus that must be retained during this step.

- Task
  - Communication – The first task is the initiation of a communication strategy that will communicate to staff and management within the limited environment why this practice is being tested and why it is important that the test gets the greatest opportunity to succeed.
  - Success Story – Obtaining a successful story to communicate to others within the organization is the second task. Simply stated, the task to be completed is to document the environment in which the practice was implemented, the results of the test, and the anticipated benefits that will result from a broader implementation.

- Barriers
  - Culture – People will resist change when they do not see the necessity for change. This is a fundamental trait of people in general and of conservative engineers in particular. This trait, together with other human reluctance for change, will create a culture barrier that must be overcome prior to a successful new practice implementation.
  - Outside Influence – The second barrier that is likely to be encountered during this step is the reluctance to adopt a new practice that was not developed within the group or organization. This reluctance to outside influence may gain strength as the practice gains strength and increases influence within the organization.

- Risk Aversion – Minimizing risk is gaining importance throughout the engineering industry. New practices represent risk. Therefore, risk aversion is a barrier that will impede the new practice adoption.

- Strategy
  - Communications Plan – Continuing the focus on "getting the message out" to the organization, the primary strategy required in this step is the development and implementation of a communications plan. Although the specifics will be different for each organization will differ, the common thread is that the development of the communications plan will force the organization to focus on a set of communication points that emphasize the reasons behind the pursuit of the new practice.
  - Champion Support – Once a champion is assigned during the Preparing step, the support for the champion's activities must be put in place during the Implementing Step. Specifically, activities such as travel, communications pieces, and in-house presentations must be made available to allow the champions to successfully communicate the reasons for the new practice.
  - Provide Education – Educate the staff and barriers will be easier to overcome. This is the philosophy behind the Provide Education strategy that emphasizes the use of education to blunt barriers and attempt to gain support by reluctant staff.

- Success
  - Visible Success Story – Success during the Implementing step is reached when a visible success story within the limited implementation context is achieved. The success does not have to have organization-wide impact, but it does require a basis from which a story can be communicated to the rest of the organization.

Growing Step

The expansion of the new practice beyond a limited context is the focus of the tasks within the Growing step.

- Focus
  - Expansion of Practice – The successful implementation of the new practice in a limited environment is a good beginning, but it cannot be seen as the end point. The focus of the Growing step reflects this sentiment. Specifically, the focus of this step is on the expansion of the new practice implementation beyond the test environment to a larger project and/or group distribution.

- Task
  - Communication – A continuation of the communication task in the Initiating step, communication in the Growing step emphasizes the development and deployment of a communication plan that reaches the entire organization. This task requires the staff to consider geographic distribution, technical divisions, and business unit divisions as the multiple constituencies that must be touched with the expanded communication plan.

- Buy-In – Convincing staff and management that an expansion of a practice is necessary is a challenging task. However, the Buy-In task requires the individuals involved with this process to accomplish this task. Specifically, a plan must be initiated to obtain buy-in from parties at all levels who are responsible for either supporting or implementing the practice. The individuals championing the practice should identify as many individuals as possible in this task who must give their buy-in to ensure the success of the practice.
- Resources – Growing a new practice beyond a limited context requires resources. Reflecting this need is the Resource task which requires practice advocates to take the necessary measures to obtain resource commitments to support the expansion effort. Of particular importance is the need to obtain additional champions who have the ability to "fan out" throughout the organization and market the new practice.

- Barriers
  - Resources – As discussed in the Task section, the Growing step requires resources. However, obtaining these resources is likely to be a barrier that is encountered during this step. Thus, any focus on expanding a new practice must anticipate that management will be reluctant to provide the resources necessary to ensure successful expansion.
  - Leadership – Expanding the implementation reach of a new practice requires building bridges between divisions that may be geographically distributed. Building these bridges or ones that connect similarly divided groups requires leadership. This requirement is likely to appear as a barrier as this leadership may not appear to support the new practice.
  - Culture – This is the same barrier that was seen in the Initiating step. Specifically, people will resist change when they do not see the necessity for change. This is a fundamental trait of people in general and of conservative engineers in particular. This trait, together with other human reluctance for change, will create a culture barrier that must be overcome prior to a successful new practice implementation.

- Strategy
  - Communication Plan – This is a continuation of the need for a communication plan as detailed in the Initiating step. In the case of the Growing step, communication gains greater importance as the communication plan must address a broader audience, many of whom will not have the technical familiarity with the proposed practice.
  - Support and Increase Champions – The role of the champion increases during the Growing step as a greater number of offices are impacted by the new practice. Therefore, the support for the champions must increase including an increase in the number of champions that are appointed to support the new practice. It is unrealistic to retain a focus on the practice with only one champion during this step. The successful organization will recognize this and put the appropriate resources into place to increase the number of champions and give them the support necessary to spread the message of the new practice.
  - Provide Education – A time tested strategy for reducing cultural barriers is the influence of education. Specifically, if people understand the basis for introducing a new element into the standard working procedures, then their reluctance will begin to recede. The

same principle is required in this stage. The organization needs to provide education opportunities to the staff which detail both the need and the impact of the proposed practice. The source for this education can either be internal or external, but it is preferable that somebody other then the designated Champions deliver the education materials to reduce the bias associated with the materials.

  - Market Success Stories – This final strategy is based on the success marketing introduced in the Initiating step except that it focuses on a broader audience and incorporates additional examples. In this strategy the organization needs to incorporate a broad spectrum of success examples and make them available to as large an audience as possible.

- Success
  - Cross-Divisional or Geographic Success – The success indicator for the Growing step is once again similar to the Initiating step, just broader in its implementation. Specifically, the goal of this stage is to have successful implementations in a number of geographically distributed locations if appropriate and/or a number of groups or divisions. In this manner, the completion of the Growing step witnesses a broad implementation basis on which the organization can now focus establishing the practice as a standard practice.

Establishing Step

- Focus
  - Marketing the Practice – The final focus for the implementation process is the transformation of the practice from a demonstration to a standard practice. Although there are technical and managerial actions that must be undertaken to achieve this, the underlying focus of the step is a concentrated marketing effort to both management and staff that this practice has demonstrated its usefulness and now should be incorporated into the organization as a standard practice.

- Task
  - Standardization – The initial testing of a practice and the expansion of that practice in different parts of the organization may have resulted in the practice being altered by different groups to accommodate their specific requirements. This may be appropriate, but it is necessary at this step to standardize the basis of the practice to ensure standardized application throughout the organization. Therefore, the identification and documentation of the essential core of the practice is the focus of this task.
  - Repetition – The second task emphasizes the need for groups to repeat their use of the new practice where possible. Although an initial test by a group was necessary during the Growing step, repeated use of the practice is the difference between a test phase and an established practice.
  - New Areas – The final task is the introduction of the new practice into any areas that have not previously tested the new practice. Specifically, at the completion of this step, every group in the organization that may use the practice should be familiar with the new practice.

- Barriers
  - Resources – Once again the need for resources presents itself as a potential barrier to successful implementation. As the resource gains acceptance in the organization, the approval of resources may become more difficult as the need for these resources becomes less apparent.
  - History – The reluctance for change will once again emerge as a barrier to change in this step, but it may emerge as a focus on the history of the organization. Specifically, the broader the impact of a new practice, the more likely the staff is to invoke the historical precedence for old practices. It is at this step that the refrain will be heard, "We have done it this way for 50 years, why are we changing now?"
  - Executive Approval – The final barrier that may emerge in this step is gaining executive approval to establish the new practice as a standard operating procedure. Once again, the reluctance to adopt change may erect a barrier to advancement.
- Strategy
  - Leadership – The final step of the implementation process requires leadership to overcome the final barriers. Specifically, it is in this step that leaders are required to demonstrate the benefit of the new practice and reward individuals who effectively adopt the new practice. It is also required that leaders begin to "insist" that those individuals who are resisting change, "get on board" and begin to adopt the new practice.
  - Establish Practice Experts – Similar to the establishment of practice Champions, the establishment of practice experts throughout the organization will provide the organization with a core group of individuals who have the knowledge to assist new users in the implementation of the new practice. This assistance will begin to reduce the feeling that a new practice has been adopted with no support for new users.
  - Reward Compliance – Although not every organization chooses to adopt rewards as a method to establish a new practice as standard procedure, the use of rewards should be considered as a reinforcement of the overall establishing goal. A documented strategy for enhancing compliance is to reward groups who are adopting a practice and demonstrating positive results.
  - Communications Plan – This is an expansion of the plan initiated during the Growing step to emphasize the move from expansion to establishment of the new practice.
  - Provide Education – This is an expansion of the education focus initiated in the Growing step to provide as many affected individuals as possible with the opportunity to learn about the new practice and why it provides advantages to the organization.
- Success
  - Success in the final step is achieved when the new practice is no longer considered a new practice, but is considered a standard operating procedure and is adopted by all areas of the organization. This last component is a key to establishing success. Until the practice is adopted as a standard operating practice and groups are expected to use the practice, the final success threshold has not been fully achieved.

Appendix B: Example of "Simple" Implementation Plan

The following tables illustrate sections of a "simple" implementation plan for a proposed new Project Delivery Process (PDP). The sections are designed to emphasize the main elements of the process to convey the primary focus to management. The sections were developed directly from the Implementation Specifics outlined in the Implementation Matrix.

Proposed New Practice:	Project Delivery Process (PDP)
Step:	Preparing
Months for Completion:	6
Anticipated result:	Audit Completion and Implementation of Change Preparation
Champion:	Sue Smith, Director of Pre-Project Planning
Primary Tasks:	The primary tasks for this step are as follows: • Change Audit – Conduct change audit to determine current level of readiness for new practice implementation. • Change Preparation – Enhance areas where current gaps exist in preparation for change. • Approval – Gain executive approval to test the implementation of the new practice.
Focus of Step:	Assign Champion for overall implementation process, obtain buy-in from management and group, and establish necessity for new practice.
Resources required:	Budget allowance will be required for two personnel to conduct the change audit and interview department personnel regarding the current status of each of the eight implementation areas. A series of department meetings will be required to inform the group of the proposed new practice and the impact it will have on the group and the organization. It is proposed that each person in the group attend one education session to learn more about the potential benefits of the proposed new practice and how it will impact their responsibilities.
Implementation Considerations:	The existing project delivery process has been in place for four years and is considered a standard operating practice within the construction department. Changing this process is likely to cause concern among the group as to why the process is changing and how it will affect current operations. Several individuals were involved in developing the original process and may be resistant to change to the new process.

Proposed New Practice:	Project Delivery Process (PDP)
Step:	Initiating
Months for Completion:	12
Anticipated result:	Successful First Project
Champion:	Sue Smith, Director of Pre-Project Planning
Primary Tasks:	The primary tasks for this step are as follows: • Communication – Initiate a communication strategy that will communicate to staff and management why a new project delivery process is required and what the benefits will be. • Success Story – A success story will be documented to communicate to others within the organization the benefits of the new PDP.
Focus of Step:	The organization requires a limited demonstration of the potential success of a new PDP. The focus is to obtain that demonstration.
Resources required:	Budget allowance will be required for one person to oversee the implementation of the project plan according to the proposed PDP. This person will identify differences between the existing PDP and the proposed PDP and work with the project managers to adjust the process accordingly. The same individual will document the project for the final success story.
Implementation Considerations:	As already stated, the existing project delivery process has been in place for four years and is considered a standard operating practice within the construction department. The primary consideration in this step is that the culture in the group will lead to reluctance toward the new PDP. Additionally, the project managers in the group are very risk averse. This risk aversion could lead to reluctance to adopting the new PDP.

Proposed New Practice:	Project Delivery Process (PDP)
Step:	Growing
Months for Completion:	18
Anticipated result:	Expansion of the PDP beyond the test environment
Champion:	Sue Smith, Director of Pre-Project Planning
Primary Tasks:	The primary tasks for this step are as follows: • Communication – As a continuation of the communication task in the Initiating step, the current communication focus will be to expose the entire organization to the new PDP concept. • Buy-In – Buy-in will be obtained from all parties who are responsible for either supporting or implementing the new PDP. • Resources – Resources will be obtained to support further education of groups on the PDP and to support additional champions who have the ability to "fan out" throughout the organization and market the new PDP.
Focus of Step:	The focus is on the expansion of the new practice implementation beyond the test environment to the overall North American Operations Group (NAOG).
Resources required:	Budget allowance will be required for three new champions for the new PDP. These individuals will require travel budget to introduce the ten other operating groups to the new PDP. Additionally, funds will be required to expand the communications to the NAOG. Finally, resources will be required to provide education throughout the NAOG on the benefits of the new PDP.
Implementation Considerations:	Several potential barriers exist for the successful expansion of the PDP to the overall NAOG. These barriers are as follows: • Resources – The expansion of the PDP will require a resource commitment. If these resources are not obtained, then expansion may not be possible. • Leadership – Expanding the implementation reach of the new PDP will require building bridges between divisions within the NAOG. Building these bridges requires leadership support. If this support is not provided, then expansion may not be possible. • Culture – This is the same barrier that was seen in the Initiating step. Specifically, the groups may resist change to the PDP if they do not see the necessity for change.

Proposed New Practice:	Project Delivery Process (PDP)
Step:	Establishing
Months for Completion:	18
Anticipated result:	Establish the PDP as a Standard Practice
Champion:	Sue Smith, Director of Pre-Project Planning
Primary Tasks:	Three primary tasks will be the focus of this step as follows: • Standardization – Standardize the implementation, adoption, and application of the PDP by each group within the NAOG. • Repetition – Repeated use of the PDP will establish the PDP as an established practice. • New Areas – At the completion of this step, every group in the organization should be familiar with the PDP.
Focus of Step:	The focus is on the establishment of the new PDP as a standard project management practice in the overall North American Operations Group (NAOG).
Resources required:	Budget allowance will be required for the four PDP champions to establish the new PDP as a standard operating practice. Specific resource allocations are required for: • Establish Practice Experts – Similar to the establishment of practice Champions, the establishment of practice experts throughout the NAOG will provide a core group of individuals who have the knowledge to assist new users in the implementation of the new PDP. • Reward Compliance – A strategy for rewarding groups who adopt the PDP will be established. • Communications Plan – This is an expansion of the plan initiated during the Growing step to emphasize the move from expansion to establishment of the PDP.
Implementation Considerations:	Several potential barriers exist for the successful establishment of the PDP as a standard operating practice within the overall NAOG. These barriers are as follows: • Resources – Resources will be required to expand the education process for the PDP and to develop standard operating procedure guides for the process. • History – Reluctance may come from staff who have been using the existing PDP successfully for a number of years. Communication will be a key element in fending off this barrier. • Executive Approval – The final barrier that may emerge for the PDP is again gaining executive approval to establish the new practice as a standard operating procedure.

Appendix C: Example of "Comprehensive" Implementation Plan Element

Proposed New Practice:	Project Delivery Process
Step:	Preparing
Months for Completion:	6
Anticipated result:	Audit Completion and Implementation of Change Preparation
Champion:	Sue Smith, Director of Pre-Project Planning
Focus of Step:	Assign Champion for overall implementation process, obtain buy-in from management and group, and establish necessity for new practice.
Objective Definition:	• Change Audit – Conduct change audit to determine current level of readiness for new practice implementation. o Determine overall impact of change on organization o Determine specific readiness of organization in eight specific change preparation areas • Change preparation – Enhance areas where current gaps exist in preparation for change. o Develop plans for enhancing readiness in specific change areas o Identify persons of responsibility for each area where increased preparation is required.
Resources required:	Budget allowance will be required for two personnel to conduct the change audit and interview department personnel regarding the current status of each of the eight implementation areas. A series of department meetings will be required to inform the group of the proposed new practice and the impact it will have on the group and the organization. It is proposed that each person in the group attend one education session to learn more about the potential benefits of the proposed new practice and how it will impact their responsibilities.
Measures and Constraint Definition:	The primary measure that will be used to determine progress in the Preparing Step will be the periodic application of the Change Audit. Using this tool, the department will gauge its progress in reducing weaknesses associated with the specific change audit areas. The principal constraint that is anticipated for this implementation effort is the lack of agreement on the necessity for the new Project Delivery Process. This lack of necessity may result in a lack of active champions stepping forward to assist in the implementation process.

Alternatives Identification:	The primary alternatives for the proposed implementation are to enhance the existing PDP and to not undertake any new implementation process. In terms of the former, it is possible to update the existing PDP and address weaknesses in the areas of educating new personnel and establishing a strong supply chain. However, this update process will require the input of all senior project managers. Therefore, the effort required to update the existing PDP may not be significantly less than developing a new PDP process. In terms of the latter option, no updates, it is possible to retain the current PDP for another year at which time a new evaluation can be made. However, this option should only be undertaken with the understanding that the PDP has recognized limitations that could result in sub-optimum project results.
Barrier and Strategy Identification:	The existing project delivery process has been in place for four years and is considered a standard operating practice within the construction department. Changing this process is likely to cause concern among the group as to why the process is changing and how it will affect current operations. Several individuals were involved in developing the original process and may be resistant to change to the new process. It is anticipated that a strategy focusing on communication of the necessity for a new PDP will be essential during the Preparing Step. The implementation champion will coordinate with Human Resources to develop a comprehensive communication plan for the initial implementation deployment.
Schedule Development:	The major tasks in this step will be as follows: • Conduct Change Audit • Establish lead personnel for each audit area • Enhance change areas where weaknesses have been identified • Put in place communication plan • Establish measurements for implementation plan • Present change readiness evaluation to management • Select initial project for testing • Finalize implementation plan The full schedule for these tasks is included in the implementation plan attachment.
Standardization Impact:	The preparing stage is an essential component for the final standardization of the new PDP. Specifically, the application of the change audit will identify areas where the organization requires additional preparation for the implementation process. Where these weaknesses are addressed, the organization will be better prepared to establish the new PDP as a standard operating process.

Appendix D: Change Preparation Forms

Process Preparation Form

Part 1 – Organization Evaluation

1. What level of impact will the proposed evaluation have on the organization **processes?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☐ 3 – Some Impact ☐ 4 – Moderate Impact
   ☐ 5 – Significant Impact ☐ 6 – Maximum Impact

2. What level of impact will the proposed evaluation have on the organization **structure?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☐ 3 – Some Impact ☐ 4 – Moderate Impact
   ☐ 5 – Significant Impact ☐ 6 – Maximum Impact

3. What level of impact will the proposed evaluation have on the organization **culture?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☐ 3 – Some Impact ☐ 4 – Moderate Impact
   ☐ 5 – Significant Impact ☐ 6 – Maximum Impact

4. What level of impact will the proposed evaluation have on the organization **business?**
   ☐ 1 – No Impact ☐ 2 – Minimal Impact ☐ 3 – Some Impact ☐ 4 – Moderate Impact
   ☐ 5 – Significant Impact ☐ 6 – Maximum Impact

Organization Scoring

Step 1
Use the following point totals for the equivalent answers:
No Impact – 1 Minimal Impact – 2 Some Impact – 3 Moderate Impact – 4
Significant Impact – 5 Maximum Impact – 6

Processes _____
Structure _____
Culture _____
Business _____

Step 2
TOTAL _____
Total ÷ 4 _____ ← Organization Impact Score

Step 3
Maximum Impact Influence – Take the Organization Impact Score and average it with the maximum value obtained in Step 1.

Average (Organization Impact Score + Maximum Value in Step 1) = _____

Step 4
Round up the value obtained in Step 3 to obtain the Organization Evaluation Number – _____

Change Audit
Evaluation Form

1. The organization has implemented a vision for the new process.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

2. The organization has put in place support from management and staff who are directly impacted by the new process.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

3. The organization has developed a roadmap for implementing the new process.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

4. The organization has developed a first communication plan for the new process.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

5. The organization has established the necessity for adopting the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

6. The organization has appointed initial champions for the new process.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

7. The organization has empowered the appropriate individuals to successfully start the implementation of the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

8. The organization has provided or has a plan in place to provide education opportunities to relevant personnel regarding the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

Change Audit
Evaluation Diagram

Diagram Rings:
1 – No Implementation
2 – Implementation Plan
3 – Start Implementation
4 – Partial Implementation
5 – Near Implementation
6 – Full Implementation

Appendix E: Step Evaluation Forms

Preparing Step
Evaluation Form

1. The organization has performed a Change Audit to determine if it is prepared to commence a new practice implementation.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

2. The organization has obtained, disseminated, and read materials to learn about the proposed new practice and its possible opportunities and implications.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

3. The organization has assigned an initial champion to oversee the initial new practice implementation.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

4. The organization has identified an initial implementation success opportunity for the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

5. The organization has disseminated an initial communication that outlines the plan for introducing a new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

6. The new practice champions have obtained initial management buy-in after the change audit has been completed.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

Preparing Step
Evaluation Diagram

Initiating Step
Evaluation Form

1. The organization has implemented the new practice in a limited test context (project or group).
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

2. The organization has developed a first communication plan that addresses a formal roadmap for communicating the test introduction.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

3. The organization has disseminated an initial success story to highlight the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

4. The organization has identified and acquired support for the expansion of the new practice champions.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

5. Education opportunities have been made available to relevant personnel focusing on the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

6. The next implementation opportunities have been identified beyond the limited context of the current implementation.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

Initiating Step
Evaluation Diagram

Growing Step
Evaluation Form

1. The organization has implemented the new practice in an expanded context (project or group).
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

2. The organization has developed an expanded communication plan that addresses a formal roadmap for communicating the new practice throughout the organization.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

3. The organization has acquired management buy-in for providing the resources to expand the new practice into new projects and divisions.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

4. The organization has expanded the number of practice champions to support implementation in a broader context.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

5. Education opportunities have been made available to an expanded personnel base focusing on the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

6. The success stories from the new practice are being disseminated throughout the appropriate parts of the organization.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

Growing Step
Evaluation Diagram

Diagram Rings:
1 – No Implementation
2 – Implementation Plan
3 – Start Implementation
4 – Partial Implementation
5 – Near Implementation
6 – Full Implementation

Establishing Step
Evaluation Form

1. The organization has implemented the new practice throughout the organization.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

2. The organization has developed a plan for standardizing the use of the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

3. Management is demonstrating leadership by leading the focus on implementing the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

4. The organization has put in place practice experts who can act as references for new implementation areas.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

5. The organization has established a compliance reward structure to encourage broader use of the new practice.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

6. The new practice is being marketed throughout the organization to encourage use and break through final barriers.
   ☐ 1 – No Implementation ☐ 2 – Implementation Plan ☐ 3 – Start Implementation
   ☐ 4 – Partial Implementation ☐ 5 – Near Implementation ☐ 6 – Full Implementation

Establishing Step
Evaluation Diagram

Appendix F: Implementation Planning Tool

Introduction to the Implementation Planning Tool

The Excel® Implementation Planning Tool is designed to assist an organization in completing the Change Audit and Step Evaluations introduced in this document.

The Implementation Planning Tool contains two parts, a Change Audit tool and a Step Evaluation tool.

Change Audit Tool

The Change Audit Tool requires the user to enter two sets of information. The steps for completing the diagram are as follows:

1. Calculate the Organization Evaluation Number which is the potential impact of the new practice on the 4 areas of the organization.
    a. This information is entered on a scale of 1-6, with 1 being no impact and 6 being significant impact.
    b. This information is entered in the box labeled Step 1 in the Organization Score.
2. Once the organization impact information is entered, the Organization Evaluation Number will be calculated automatically.
3. The number will be displayed in Step 4 of the Organization Impact section and displayed as a red ring on the Change Audit Diagram.
4. The second piece of information required is the current state of preparation for each of the 8 change audit areas.
    a. This information is also entered on a 1-6 scale as detailed with the Change Audit worksheet.
5. The answers provided for each area will be plotted on the Change Audit Diagram.
    a. A blue line will be drawn on the diagram linking the answers to all 8 areas.
6. The blue line indicates the actual levels of implementation for the 8 change audit areas.
7. The change audit levels can be compared to the red line that is the required level of implementation based on the Organization Evaluation Number.
8. As per IR246-2, the organization should have all areas meeting the Organization Evaluation Number if possible before moving to the next implementation step.

B10 | 4

Organization Score

Step 1		Step 2	
Specify Level of Impact on Organization	Score	Organization Impact Score	Score
1 Processes	4	Step 1 Total / 4	3.25
2 Structure	3		
3 Culture	2		
4 Business	4		
Total	13		

Step 3		Step 4	
Maximum Impact Influence	3.625	Organization Evaluation Number	4

Scale for Response

1 - No Implementation	4 - Partial Implementation
2 - Implementation Plan	5 - Near Implementation
3 - Start Implementation	6 - Full Implementation

Change Audit Check

Auditing Stage	Implementation Level	Achieved Minimum Level?
1. Vision	3	No
2. Support	4	Yes
3. Roadmap	5	Yes
4. Communication	6	Yes
5. Necessity	4	Yes
6. Champion	6	Yes
7. Empowerment	4	Yes
8. Education	4	Yes

Organization ready for Preparing Stage?	Not Completed

Screen shot from the Change Audit page of the Implementation Planning Tool

Step Evaluation Tool

The Implementation Planning Tool contains four worksheets for Step Evaluations, one for each of the four steps in the Implementation Planning Model. Each of the four Step Evaluation Diagrams is completed in the same manner as follows.

1. The six questions provided at the top of each worksheet are the tasks in each step which should be completed prior to proceeding to the next implementation step.
2. The user answers the six questions based on the 1-6 implementation scale presented on the worksheet.
3. Once the information is entered, the responses will be plotted on the Step Evaluation Diagram with a blue line connecting the answers and completing the diagram.
4. As per IR246-2, the organization should have all 6 areas achieving Full Implementation prior to proceeding to the next step.

Preparing Step	Implementation Level
1 Perform Change Audit	5
2 Learn About New Practices	5
3 Assign Initial Champion	4
4 Identify Initial Success Opportunity	3
5 Disseminate Initial Communication	4
6 Obtain Buy-in After Change Preparation	2

Scale for Response	
1 - No Implementation	4 - Partial Implementation
2 - Implementation Plan	5 - Near Implementation
3 - Start Implementation	6 - Full Implementation

Screen shot from the Step Evaluation page of the Implementation Planning Tool

Notes

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