



Core Competency Toolkit

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Core Competency Toolkit

Prepared by the

Construction Industry Institute

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Executive Summary

Developing and safely executing capital projects that minimize the life-cycle cost of constructed facilities are usually the primary goals of any business that relies on capital investments for growth. The problem is that of deciding the extent to which contractors and suppliers can be relied upon during the development, engineering, procurement, construction, and startup of capital assets.

Owners' internal engineering organizations have the primary responsibility of making these decisions and forming effective work relationships with contractors and suppliers. These engineering organizations are continuously under pressure to demonstrate that they are effectively utilizing in-house engineering and project personnel while using contractors and suppliers where practical. As a consequence, headcount of in-house engineering and project personnel often becomes one area where some owners engage in cost-cutting activities.

Some owners form alliances and soon learn that even the alliance relationships need to be constantly managed, and that no real alternative exists for being a prudent buyer of services, regardless of the type of contractual relationship. Therefore, it is critical for owner companies to have a clear framework to communicate and manage their work relationships with the providers of project development and execution services.

CII developed the Owner-Contractor Work Structure (OCWS) in 1997 to provide owners with a decision-making process to identify project competencies, determine whether these competencies are core or non-core to the owner, and decide upon the most effective approach to outsourcing different project competencies. This publication, a new version of the OCWS process, constitutes a practical toolkit for defining the extent of involvement of owner and contractor personnel in various project activities or competencies, and provides a rational approach for hiring as well as outsourcing decisions.

Seamless alignment of owner and contractor personnel is a key to project success. The updated OCWS process, simplified to encourage greater use, will ensure proper alignment between specific engineering, construction, and project management skills that owners and contractors provide to projects. Achieving such alignment will minimize costs associated with maintaining in-house engineering and project management personnel.

Introduction

Why Is an Update Needed?

Shortly after publishing its *Owner/Contractor Work Structure (OCWS) Process Handbook* in 1997, CII conducted a survey in conjunction with the Center for Construction Industry Studies (CCIS) to assess the use and effectiveness of the OCWS process. The findings from the survey indicated that the OCWS process was not used by the owner community, which then led CII and CCIS to investigate the reasons behind the lack of use and to improve the process itself.

Three case studies were performed with CII member organizations in which the process was implemented in different situations. This effort provided a richer understanding about the practicality of OCWS process use. The case studies also validated the applicability of the process for decision-making with regard to evaluating and outsourcing of various project-related human resources. Another study was then conducted to validate the steps in the OCWS process and to confirm its value to industry.

As a result, the original OCWS process was modified substantially. The basic framework of capital project outsourcing based on competencies did not change. Also, the original benefits of the process cited by CII were confirmed. These benefits are:

- Systematic approach to determine key project competencies and their outsourcing.
- Vehicle for documenting decisions related to competency evaluation and outsourcing.
- Vehicle for discussion when different viewpoints are represented (i.e., stakeholders).
- Rationale for evaluating project skills and resources needed.
- Instrument for eliminating gaps and minimizing overlaps through alignment of work relationships between owners and their contractors.
- Instrument for rational organizational change.
- Source for improved capital project effectiveness and an ingredient in achieving project success.

How Much Effort?

This toolkit is intended as a guide to assist in the decision process for defining owner and contractor roles in capital projects. The users of the process need to decide the steps and tools that are relevant for achieving their objectives. As a consequence, the effort involved in using the process could vary substantially depending on the objective and the scope of the application. In a survey of project executives and managers that were familiar with the OCWS process, the average estimated effort for an owner team to implement the corporate or capital program level OCWS was approximately six person-months; the average estimated effort to implement the project level process was approximately one-half person-month for a typical capital project.

What Is the Benefit of Using the OCWS Process?

The main benefit of using the OCWS process is ensuring proper alignment between specific engineering, construction, and project management skills that owners and contractors provide to projects. The need for such alignment continues to increase as owners look for ways to outsource project functions. Particularly in manufacturing in the U.S., Canada, and other nations in the Western Hemisphere, owners continue to face increasing pressures to reduce the number of in-house project personnel as they compete with low-cost manufacturers overseas. Contractors, conversely, are moving engineering operations to developing economies in search of low-cost labor.

Regardless of whether the OCWS process is used for an individual project, the entire project portfolio, or for forming owner-contractor alliances, seamless alignment of owner and contractor personnel is a key to project success. The OCWS process is designed to enable owners to achieve such alignment of owner and contractor resources while minimizing the costs associated with maintaining in-house engineering and project management personnel.

Owner/Contractor Work Structure Basics

The OCWS process provides a qualitative definition of the work relationship between an owner and the contractor(s) involved in the planning, design, and execution of specific project competencies. The process, conceived as owner-driven, was developed from the owner's perspective since owners sponsor and are the stewards of capital investments. Every project begins with the owner's business objectives, and the owner defines the extent of the contractors' role in the project supply chain to achieve those business objectives.

Project Competencies

Project competency is defined as the work process that comprises functions and associated critical capabilities needed to develop and execute capital projects. A list of 30 competencies (see Appendix A) was developed to serve as a starting point for users of the process. During implementation of the OCWS process, project competencies and the work relationship decisions for each competency are formally documented.

Key Terms

The OCWS process presents a number of terms and definitions that the users must understand. Definitions for key terms in the OCWS process are as follows:

- **Project competency:** A project work process that comprises specific functions, deliverables, and associated critical capabilities needed to develop and execute capital projects.
- **Owner-contractor work relationship:** A continuum of owner and contractor involvement in performing a particular project competency, characterized by the following three levels of involvement: perform, lead, and provide input. Five work relationship types are as follows:
 1. Owner Performs (OP)
 2. Owner Performs and Contractor provides Input (OP/CI)
 3. Owner Leads and Contractor Performs (OL/CP)

Authors' note: The term "contractor" here and throughout this book is intended to imply a contractor in the traditional sense, or a designer, supplier, or alliance partner. The term "owner-contractor work structure" is defined as the strategic distribution of roles and responsibilities between the primary project participants based on key project competencies.

4. Contractor Performs and Owner provides Input (CP/OI)
 5. Contractor Performs (CP)
- **Owner/Contractor Work Structure (OCWS):** Distribution of roles and responsibilities defined for each competency in terms of one of five owner-contractor work relationships for all project competencies.
 - **Functions:** Activities and deliverables that describe the work involved in performing a competency.
 - **Critical capabilities:** Knowledge, abilities, skills, and experience that are necessary to perform competency functions.
 - **Core competency:** A competency for which the inability of the market to provide it in an effective and/or reliable way makes in-house ownership of the competency critical to project or program success as measured by capital cost, schedule, asset operability, or life-cycle costs.
 - **Non-Core competency:** A competency that could be either outsourced or performed in-house, depending on the project circumstances and the owner's strategic goals for in-house ownership versus outsourcing of competencies.

Five types of owner-contractor work relationships are defined to characterize the owner-contractor work relationship continuum shown in Figure 1. The five relationships are defined as follows:

1. **OP:** The owner performs all functions involved in the competency using owner resources and the owner's work process.
2. **OP/CI:** The owner performs most functions using its work process with contractor input. The majority of work is performed using owner resources. The contractor provides input or acts as a consultant.
3. **OL/CP:** The owner leads overall function performance with contractor performing detailed work using the owner's work process. The owner leads by setting guidelines and directing, reviewing, and approving the work. The contractor provides resources to perform most of the competency functions using the owner's work process.
4. **CP/OI:** The contractor performs most functions using the contractor's work process with input from the owner. The majority of work is performed using contractor's resources.
5. **CP:** The contractor performs all functions involved in the competency using contractor resources and the contractor's work process. The owner may still provide guidance, but plays a minimal role beyond specifying the work to be performed and providing project management oversight.

Figure 1 provides a conceptual illustration of the owner-contractor work relationship continuum with the five types of owner-contractor work relationships shown on this continuum. The location of the inter-organizational boundary determines the type of work relationship that is most appropriate for the competency being evaluated. The shaded region illustrates an example of a work relationship for a particular competency.

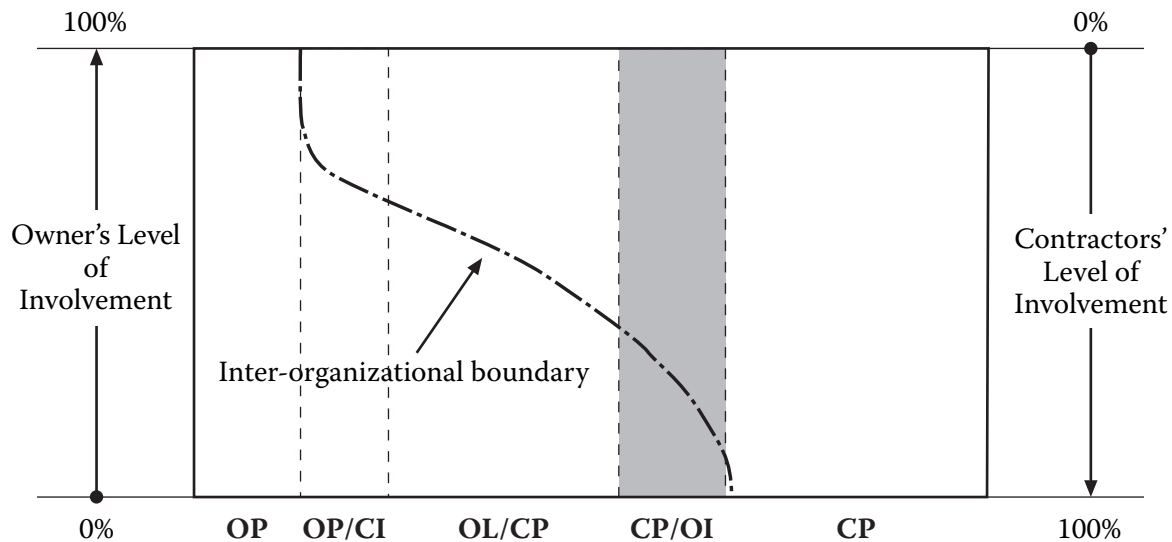


Figure 1. Owner-Contractor Work Relationships – CP/OI

The location of the inter-organizational boundary for a particular relationship also provides a conceptual approximation for the extent of resources that the owner and the contractor would bring to executing the functions associated with that competency. For the example shown in Figure 1, the owner would provide a relatively small proportion of resources required for the highlighted relationship (CP/OI) chosen for the particular competency. The contractor would provide the majority of the resources because the contractor is responsible for performing the functions associated with the competency as defined in the contractor's work process.

Summarizing, the OCWS comprises all project activities from inception to operation of the constructed facility, defined in terms of project competencies and a specific work relationship that characterizes the level of owner and contractor involvement for performing each project competency.

Overview of the OCWS Process

CII developed the OCWS process to assist owner and contractor companies in determining project competencies and in making rational decisions about the most appropriate owner-contractor work structure for capital projects based on these competencies. The OCWS process relies on the perceptions of organizational decision-makers about competencies needed to develop and execute projects and the ability of the market to provide those competencies to projects. The decision process was developed for use both at the corporate level to address the needs of the owner's overall capital program and on a project-by-project basis for specific capital projects.

The OCWS Process

The OCWS process was originally developed using IDEF0 (*Integrated Computer-Aided Manufacturing DEFINition*), a technique widely used to model industrial decision processes. Two applications of the OCWS process were developed: a project level application and a capital program level application. The capital program level process is shown in Figure 2.

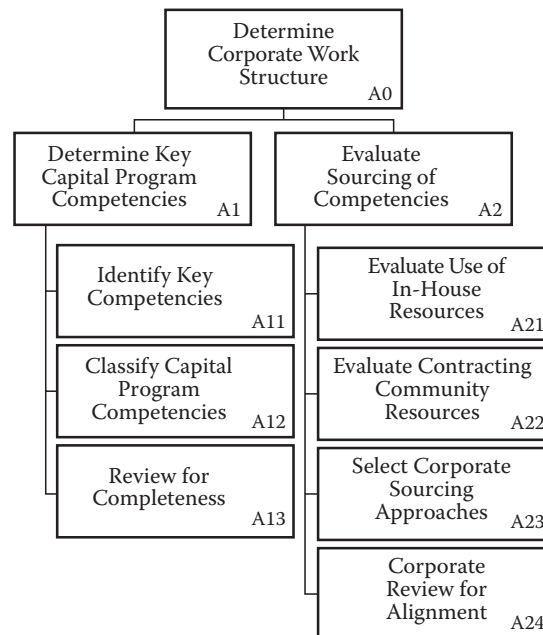


Figure 2. Owner-Contractor Work Structure Process: Capital Program Approach

The capital program OCWS approach involves two key steps: Determine Key Capital Program Competencies (A1), and Evaluate Sourcing of Competencies (A2). The first step focuses on defining project competencies that managers of capital programs are typically held accountable for and classifying those competencies into core and non-core categories. The second step focuses on resource availability in-house and in the contractor community to define the most appropriate work relationship for each competency. The capital program process ends with an alignment review to ensure that all stakeholders such as business, operations, and engineering are aligned on the proposed work structure. Though the key concepts in the capital program and the project level application of the OCWS process are the same, the capital program level application should precede the project level application. The capital program application provides a framework to communicate the corporate strategy to project teams that can then make project-specific sourcing decisions regarding work performed in-house versus outsourced.

The project level application of the OCWS process involves an additional element that determines the OCWS (A3) by project phase. The purpose of this step is to enable the owner and the contractor(s) to make changes in the work relationships during various phases of a capital project. The project level process functions are shown in Figure 3.

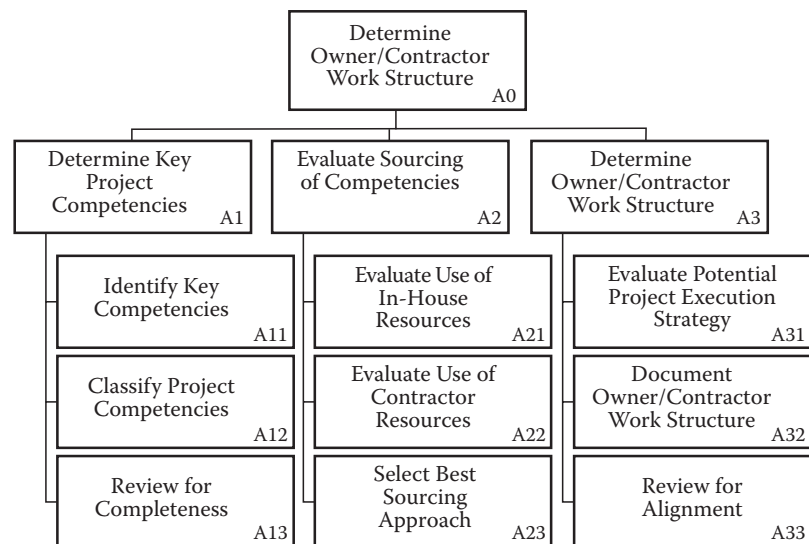


Figure 3. Owner-Contractor Work Structure Process: Project Approach

The Owner/Contractor Work Structure Process Handbook included pre-printed worksheets for users to document key decisions such as the core/non-core classification and work relationship assignment for each competency. The worksheets were not sufficiently flexible because they could not be modified. This issue became apparent during the CII-CCIS case studies as the users wanted to modify definitions and add project competencies. Therefore, electronic worksheets were created for the case studies. This decision led to the development of electronic worksheets for use with the updated process (see Appendix A). In addition, the use of the worksheets to support OCWS process decisions was described by detailed (and often complicated) decision flow charts. While the information provided through the flow charts was excellent, the charts themselves were difficult to follow because of the high level of detail.

The Updated OCWS Process

The updated OCWS process is illustrated in Figure 4 (next page). The updated process uses a single illustration to present both the project level application and the capital program level application. A key difference is the recognition of owner resources. The capital program application does not consider existing owner resources until after the sourcing decisions are made and the capital program work structure is developed. The project level application considers existing or available owner resources for a specific project prior to making work relationship assignments.

The purpose of the capital program level application of the OCWS process is to formulate a sourcing strategy for each project competency and estimate the number of in-house engineering and project personnel required to support the strategy. On the other hand, the owner/contractor work structure for a particular project needs to take into account the capital program strategy and the circumstances surrounding the project, including availability of owner and contractor resources. The owner's ability to effectively and reliably source project competencies from the market may also be driven by local market conditions for some competencies. Therefore, a review of resource availability within the owner and contractor community is an integral part of forming *project* OCWS work relationships, but is not recommended for formulating a *capital program* OCWS strategy.

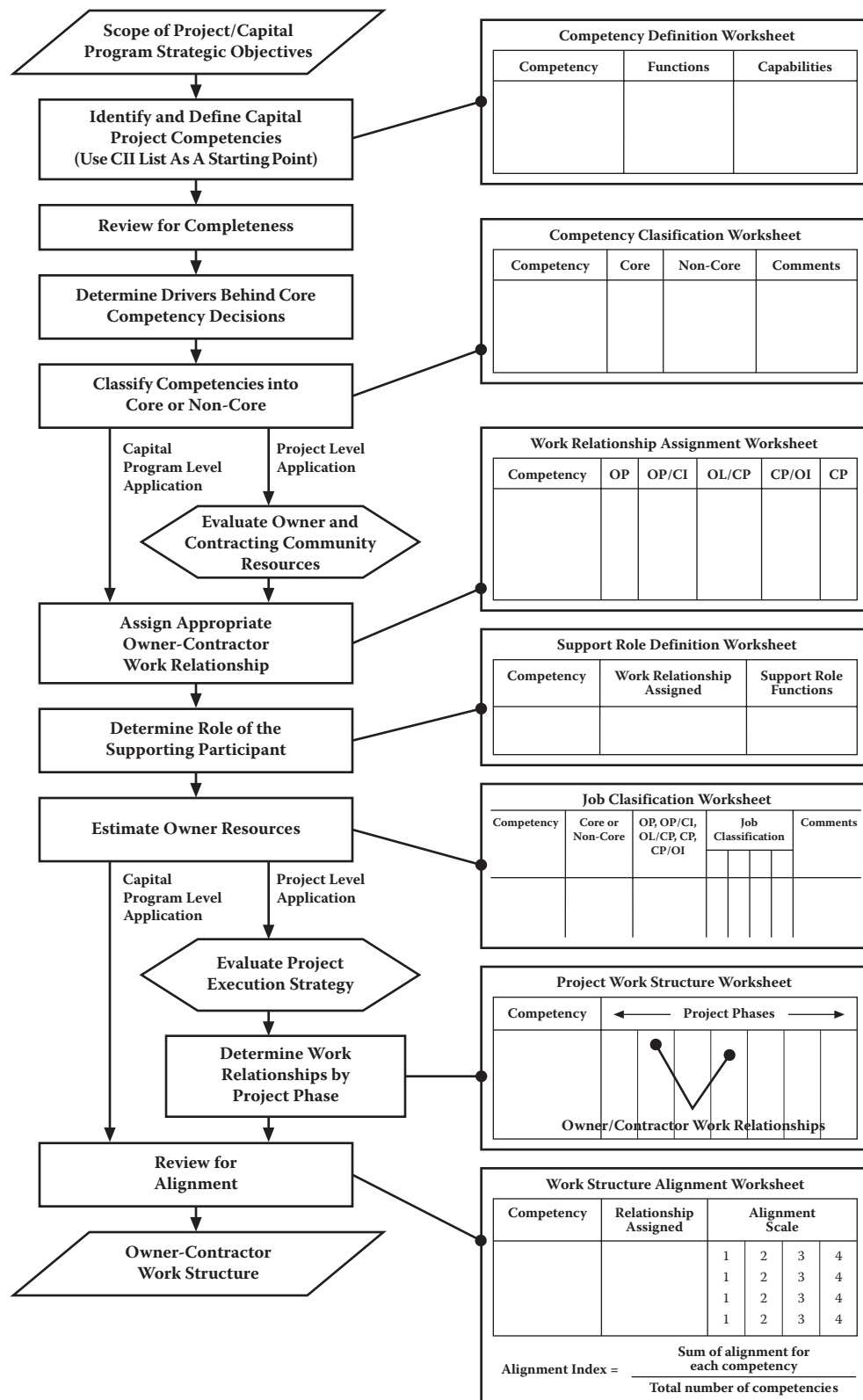


Figure 4. Owner-Contractor Work Structure Process

Project level application of the OCWS process also involves aligning the owner/contractor work structure with the project execution or delivery strategy. Therefore, the project level application of the OCWS process involves the additional step of examining whether OCWS work relationships should change over the life of the project. At the end of the OCWS process application, the project team reviews the alignment among team members to ensure acceptance from all those who can influence project outcomes.

The updated OCWS process shown in Figure 4 illustrates an approach for making decisions regarding owner and contractor strategic roles and responsibilities. The process provides steps and worksheets that are used to document decisions regarding the selection and sourcing of project competencies.* Project professionals who reviewed the updated OCWS process agreed that this could assist owner companies in the formation of effective work relationships with designers, contractors, suppliers, and consultants. Owner project executives also agreed that the OCWS process offered a useful mechanism to structure alliances with contractors.

* Downloadable electronic worksheets are available on the CII website at <http://construction-institute.org/111-3.zip>

Core Competency Tools

The objectives of the Core Competency Toolkit are to:

1. Assist owners and contractors in the formation of optimal work relationships based on capital project competencies.
2. Assist owner companies in “rightsizing” the in-house engineering and project organizations.
3. Assist companies in the formation of alliances for capital projects.

The process and the tools involved in the process are illustrated in Figure 4 in the previous chapter.

A prerequisite to effective use of the OCWS process is the users’ understanding of owner policies and procedures including their procurement practices. For a project level application the project objectives, key success factors, and the scope of the project are also critical to effective use of the OCWS process. Employing a facilitator for implementing the OCWS process is important because decisions based on the process are likely to generate a considerable amount of discussion among the user team. The composition of the team using the OCWS process must include representatives from all those departments and business units that have influence over the owner’s in-house staffing or are affected by the performance of capital projects. The team members could include but are not limited to the following representatives: Business, Manufacturing or Plant Operations, Engineering, Technology or Research and Development, Procurement, Quality, and Human Resources.

OCWS Process Tools

The OCWS process shown in Figure 4 is described in terms of process steps and worksheets. These tools are discussed in relation to actions needed to implement them and tips that will aid in implementation.

Process Step 1 — Identify and Define Capital Project Competencies

All key competencies required for capital projects are identified and clearly defined in this step. The **Competency Definition Worksheet** is completed, based on the objectives of the project or the capital program, key project performance factors, company policies and procedures, characteristics of capital project(s), and pertinent historical information. If the eventual goal of using the OCWS process is to arrive at the minimum sustainable number of engineering and project management personnel, it is also important to align the competency definitions with job classifications used by the Human Resources Department. All of the owner's engineering and project-related job classifications must be covered in the competency definitions.

Project competencies should be defined and, at a minimum, described in terms of work process functions. In addition, defining the associated critical capabilities for each competency provides a framework not only for competency sourcing, but also for hiring decisions. Critical capabilities comprise the knowledge, skills, abilities, and experience necessary to perform competency functions. Such detailed definitions constitute a common language that facilitates a thorough understanding of competencies and the work relationship assignment for each competency. Project competencies may be further defined in terms of key work process deliverables.

Competency definitions are important for gaining alignment on the core/non-core classification of competencies, one of the subsequent steps in the OCWS process. As a starting point for users, most of the project competencies, functions, and associated capabilities are defined on the Competency Definition Worksheet in Appendix A. This worksheet provides a list of 30 competencies, more than 170 functions, and about 150 capabilities typically needed on capital projects. A sample from this worksheet is provided in Table 1, showing the definitions for two capital project competencies. This information is particularly relevant for clarifying the roles and responsibilities of the owner and contractor, and may be suitably modified to fit the needs and objectives of the company using the OCWS process. For example, owner companies can define sustainability or security as distinct competencies that may improve the chance of success for some projects.

Table 1. Example of Competencies, Functions, and Capabilities

Competency	Functions	Capabilities
Conceptual Cost Estimating	• Determine estimate basis (scope) for facility components • Determine historical basis • Convert estimate basis to costs • Check key cost ratios • Review estimates with team	• Ability to visualize the entire project • Understand technology involved • Design and construction knowledge and experience • Understanding of how major facility components fit together • Understanding of estimating process • Knowledge of project control processes
Environmental Compliance/ Permitting	• Determine what permits are required and when • Identify regulatory agencies and establish communication channels with them • Acquire and maintain knowledge of requirements • Conduct environmental assessments	• Understanding of laws and corporate facility requirements • Understanding of permitting process and relationship to design stages • Understanding of owner's business • Knowledge of process by-products • Engineering knowledge • Public relations and communication skills • Understanding of risk and liability

Specific actions to implement Process Step 1 are:

- Form team of stakeholders that has a stake in capital assets and is knowledgeable about the owner's project development and execution work process.
- Identify a neutral facilitator who understands short-term as well as long-term strategic objectives of the corporation.
- Review each project competency as a team using the 30 competencies as a starting point — definitions, functions, and critical capabilities.
 - Decide the following:
 - Use competency as is.
 - Eliminate competency if it does not apply to the organization, or combine with another to align with job classifications and career paths.

- Modify competency to fit Human Resources job classifications and career paths.
 - Add new competency(ies) – define then identify functions and critical capabilities (e.g., sustainability and/or security).
 - Define competency, functions, and critical capabilities; use functions and critical capabilities to determine which job classifications are involved in the competency.
- Document results on Competency Definition Worksheet.

Tips!

- Limit basic definitions to one or two sentences.
- Limit the number of competencies to facilitate reconciliation with staffing allocations.
- Limit the number of functions per competency to between three and 10 – define the key functions only.
- Keep the process moving — modify competency content as other steps of OCWS process are performed.
- Avoid delaying the process because of different stakeholder viewpoints.
- Summarize competencies by different categories as shown below:
 1. Business Planning Competencies
 - Business Development
 - Financial Approval
 - Setting Project Goals, Objectives, and Priorities
 2. Project Management Competencies
 - Conceptual Cost Estimating
 - Process/Conceptual Design
 - Project Controls
 - Project Management
 - Project Management Oversight
 - Project Planning/Scheduling
 - Risk Management
 3. Engineering and Construction Competencies
 - Convert New Technology to Project
 - Constructability
 - Construction Management
 - Construction
 - Legal/Contract Administration
 - Commissioning/Startup
 - Definitive Cost Estimating

- Detailed Design
- Preliminary Engineering/Scope Development
- Procurement
- Technical Expertise

4. Functional Project Competencies

- Alliances/Partnering
- Benchmarking/Metrics
- Environmental/Permitting
- Field Quality Control
- Lessons Learned
- Maintenance and Operability
- Safety
- Team Building
- Total Quality Management

Process Step 2 — Review for Completeness

A review of the competencies, competency definitions, functions, and the associated critical capabilities is conducted to confirm that all key competencies are identified, adequately defined, and are aligned with the company's job classifications.

Specific actions to implement Process Step 2 are:

- Review with senior decision-makers that manage key functions such as Business, Engineering, Operations, Purchasing, Quality, and Human Resources.
- Obtain corporate alignment on these basic building blocks of the OCWS.

Tips!

- Have stakeholder reviews, but assign someone to make final decision.
- Have third party review by an individual not involved in development of competency definitions but who is familiar with the company's capital project development and execution processes.
- Remember, changes can be made as the process is further implemented based on core/non-core decisions and work relationship assignment decisions.

Process Step 3 — Determine Drivers Behind Core Competency Decisions

This step helps the team members align the competency definitions with the strategic objectives of the owner company's capital program. The drivers that lead to classifying a competency as core to the owner are evaluated in this step. Some examples of such drivers include the following:

- Proprietary technology or work process
- Criticality of competency ownership to sustaining competitive advantage
- Efficiency of the market in providing competency resources when needed
- Effectiveness measured in terms of safety, cost, schedule, or quality
- Risk and liability

Any available data about advantages or disadvantages of in-house ownership or outsourcing of specific competencies must be an important part of the drivers behind core competency decisions.

Specific actions to implement Process Step 3 are:

- Assemble same team of stakeholders.
- Review strategic objectives of owner's capital program and the expectations of the business from the capital program.
- Review definition of core competency.
- Brainstorm set of drivers that would influence core competency decisions.
- Discuss each driver.
- Determine if driver is an important element in guiding decisions on whether a competency is core or non-core.
- Decide which drivers will be used in the core versus non-core competency decision.
- Document list of drivers.

Tips!

- Expect participants to protect their turf.
- Ensure that owner's strategic objectives are clearly defined.
- Keep stakeholders involved – facilitation is critical.
- Ensure that consensus is reached.

Process Step 4 — Classify Competencies into Core or Non-Core

Each competency is classified as either core or non-core, based on the drivers behind the core competency decision. Core competencies are those that help the owner sustain a competitive advantage in the business environment. In the words of Peter F. Drucker, “... core competencies define where an organization must excel in order to maintain leadership.” Non-core competencies can be sourced from the market with relative ease by following well-developed procurement procedures.

A competency generally should be considered core if an efficient and reliable market does not exist to provide resources for performing that competency. Market efficiency implies the ability of the owner to obtain competitive proposals from multiple contractors for performing competency functions when needed by the owner. A competency also may be considered core if in-house resources demonstrate measurably more effective performance when compared with contractors. Effectiveness may be measured in terms of safety, cost, schedule, operational performance, or life-cycle costs. The inability of the market to reliably and/or effectively perform competency functions may make in-house ownership of the competency critical to project or program success. Because of the criticality of core competencies to successful project performance, such competencies must reside with the owner. The classification of each competency as core or non-core is documented on the **Competency Classification Worksheet** (see Appendix A). Table 2 (next page) provides an illustration of information contained on this worksheet.

Specific actions to implement Process Step 4 are:

- Review competency and decide whether the competency is core or non-core to the project or capital program.
- Discuss the rationale for this decision based on the core competency drivers.
- Check decision on Competency Classification Worksheet.
- Document rationale in comment column of Competency Classification Worksheet.
- Repeat for each competency.

Table 2. Illustration of Partially Completed Competency Classification Worksheet

Competency Classification Worksheet				
No.	Competency and Definition	Classification		Comments
		Core	Non-Core	
1.	Conceptual Cost Estimating: Preparation of estimates at various stages of scope development for purposes of project option selection.	X		Drivers for the core classification are: front end project development, cost effectiveness, and risk tolerance.
2.	Environmental/Permitting: Ensuring compliance with environmental laws and regulations, filing permit applications, and site assessments.	X		Drivers for the core classification are: risk and liability considerations.
3.	Project Management: Management and coordination of project development and execution.		X	Project Management oversight competency will be provided by the owner.
	Total			

Tips!

- Prepare the competency classification worksheet in advance of performing this step by including all those competencies that were identified in Step 1 on the worksheet (use electronic worksheets cited in Appendix A).
- Post the drivers of core competencies where everyone can see them.
- Use computer projection so core/non-core decisions and comments can be posted as each competency is evaluated.
- Ensure that the group reaches consensus for each decision.
- Use a facilitator to keep the process moving.

The discussion of core versus non-core decisions may lead to clarification and/or redefinition of some competencies.

Process Step 4a (for project specific use only) — Evaluate Owner and Contracting Community Resources

Step 4a should be implemented at the project level for project teams evaluating available resources before deciding the work relationship that makes sense for the project. This sub-step is suggested because the project team is not only deciding on a particular strategy (e.g., capital program focus), but also must develop and execute the project.

Specific actions to implement Process Step 4a are:

- Evaluate whether in-house resources are available.
- Evaluate if in-house resources have critical capabilities to perform role in competency.
- Consider type of organizational relationship (e.g., one-off, repeat business, or alliance/partner) the owner might have with “contractor.”
- Evaluate availability of contractor resources.
- Evaluate potential to perform functions for different competencies.

Tips!

- If competency is core and owner resources are not available, consider hiring staff or agency staff supplementation (e.g., contract staff).
- If the owner is involved with an alliance/partner, consider working with the alliance/partner in evaluating resources.
- For projects, solicit expressions of interest from contractors with information on competencies and specific resources available.

Process Step 5 — Assign Appropriate Owner-Contractor Work Relationship

Assigning a work relationship from the five alternatives (OP, OP/CI, OL/CP, CP/OI, and CP) for the overall capital program differs from assigning those relationships for a specific capital project. For the capital program, the choice of owner-contractor work relationship is based on the overall strategic objectives of the company and core/non-core classification. For example, a strategic objective of improving the company’s financial performance by altering the number of in-house engineering or project management personnel has important implications on the choice of owner-contractor work relationships and vice versa.

It is recommended that owner companies use the OCWS process for the overall capital program before asking a project team to define project-specific owner/contractor work relationships. After developing the OCWS at the capital program level, project teams should then take into account the capital program OCWS as well as the adequacy and availability of owner and contractor resources (see Step 4a) for developing the project-specific owner/contractor work relationships. Based on these considerations, the **Work Relationship Assignment Worksheet** is completed in this step. The OP, OP/CI, and OL/CP work relationships imply that the competency is core to the owner because these work relationships use the owner's work process. The remaining two work relationships imply that the competency is non-core because they involve using the contractors' work process. Table 3 provides an illustration of information contained on the Work Relationship Assignment Worksheet.

Specific actions to implement Process Step 5 are:

- Review each competency and determine the work relationship that best fits that competency.
- Discuss the rationale for this decision based on whether the competency is core or non-core as indicated on the Competency Classification Worksheet.
- Check decision on Work Relationship Assignment Worksheet.
- Identify the type of contractor that might perform the "Contractor" role in the work relationship and document this decision under the column "C" on the Work Relationship Assignment Worksheet.
- Document rationale in comment column of Work Relationship Assignment Worksheet.
- Repeat for each competency.