

CONSTRUCTION INDUSTRY INSTITUTE®

PROJECT OBJECTIVE SETTING

Construction Industry Institute

3M	ABB Lummus Global
Abbott Laboratories	ALSTOM Power
Air Products and Chemicals	AMEC
Amgen	AZCO
Anheuser-Busch Companies	BE&K
Aramco Services Company	BMW Constructors
BP America	Baker Concrete Construction
CITGO Petroleum Corporation	Bechtel Group
Cargill	Black & Veatch
Celanese	Bovis Lend Lease
ChevronTexaco Corporation	Burns & McDonnell
Colectric Partners	Butler Manufacturing Company
ConocoPhillips	CB&I
Dofasco	CCC Group
The Dow Chemical Company	CDI Engineering Solutions
DuPont	CH2M HILL Constructors/IDC
Eastman Chemical Company	CSA Group
ExxonMobil Corporation	Day & Zimmermann International
General Motors Corporation	Dick Corporation
GlaxoSmithKline	Emerson Process Management
Intel Corporation	Fluor Corporation
International Paper	Foster Wheeler USA Corporation
Eli Lilly and Company	Fru-Con Construction Corporation
NASA	Graycor
Naval Facilities Engineering Command	Hatch
Ontario Power Generation	Hilti Corporation
PSEG Power	Honeywell International
Petrobras	Jacobs
Pfizer	Johnson Controls
Praxair	Kellogg Brown & Root
The Procter & Gamble Company	Kiewit Construction Group
Rohm and Haas Company	Kværner
Shell Oil Company	Lockwood Greene
Smithsonian Institution	M. A. Mortenson Company
Solutia	Parsons E&C
Southern Company Services	Perot Systems Corporation
Sunoco	Primavera Systems
Tennessee Valley Authority	Rust Constructors
U.S. Army Corps of Engineers	S&B Engineers and Constructors
U.S. Department of Commerce/NIST	The Shaw Group
U.S. Department of Energy	Siemens Westinghouse Power
U.S. Department of Health and Human Services	Stevens Painton Corporation
U.S. Department of State	Technip USA Corporation
U.S. General Services Administration	Turner Construction Company
U.S. Steel	Victaulic Company of America
Weyerhaeuser Company	Walbridge Aldinger Company
	Washington Group International
	Williams Group International
	Zachry Construction Corporation
	Zurich North America

Project Objective Setting

**Prepared by
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Project Organization Task Force**

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Executive Summary

All parties involved in the construction process—owners, designers, and constructors—strive for project success. A study performed by the CII Project Organization Task Force has concluded that the objective-setting process is a major determinant of this success. This publication summarizes several key areas of the study.

The first area examined is the management of objectives throughout the owner's, designer's, and constructor's organizations. The management process is illustrated, and three typical problem areas impeding effective objective setting are identified. An approach for managing project objectives is then outlined and defined.

Also discussed is the process of communicating objectives between owner, designer, and constructor. Several mechanisms are discussed that promote and inhibit communication of objectives. A method for diagramming and analyzing communication channels is presented that can be used to improve objective communication and thereby improve chances for project success.

The task force developed a tool to quantify agreement between various project participants. This tool, called an Agreement Matrix, is presented and explained. A process using the matrix for managing project objectives also is explained. A correlation exists between the agreement index (calculated by using the matrix) and the assessed degree of project success for the projects examined. The Agreement Matrix is promoted as an efficient feedback device for identifying, communicating, reinforcing, and controlling project objectives. Examples of the matrix applied to actual projects are included to illustrate its use.

Introduction

A basic element of planning is the establishment of objectives. The objectives guide numerous decisions required throughout a project. These decisions involve trade-offs between time, cost, quality, and various technical, aesthetic, and administrative performance characteristics. The process by which objectives are formulated and communicated is fundamental to project success.

Objectives originate from the owner's internal organization, which may include marketing, engineering, operating, and financial departments. Projects are transmitted, clarified, modified, and tempered internally until sufficient detail is developed to obtain the necessary corporate approval to proceed with the project. Many would argue that the process of establishing objectives is a team responsibility. Typically, the owner's project objectives should guide the establishment of objectives by the designer and the constructor. The owner's objectives may be formally communicated in writing (ideally) or verbally and informally communicated or implied through bidding documents, contract documents, correspondence, and meetings. The designers and contractors each combine their perception of the owner's objectives with their own business objectives and suborganization objectives to develop a guiding set of project objectives. This process, as depicted in Figure 1, is a top-down flow of information with no feedback to ensure that communication has been accurate. Figure 1 illustrates the three major phases in the process: formation, communication, and integration. Each phase is critical to project success, and within each a feedback device is needed to guarantee that accurate communication of objectives and their priority level has occurred.

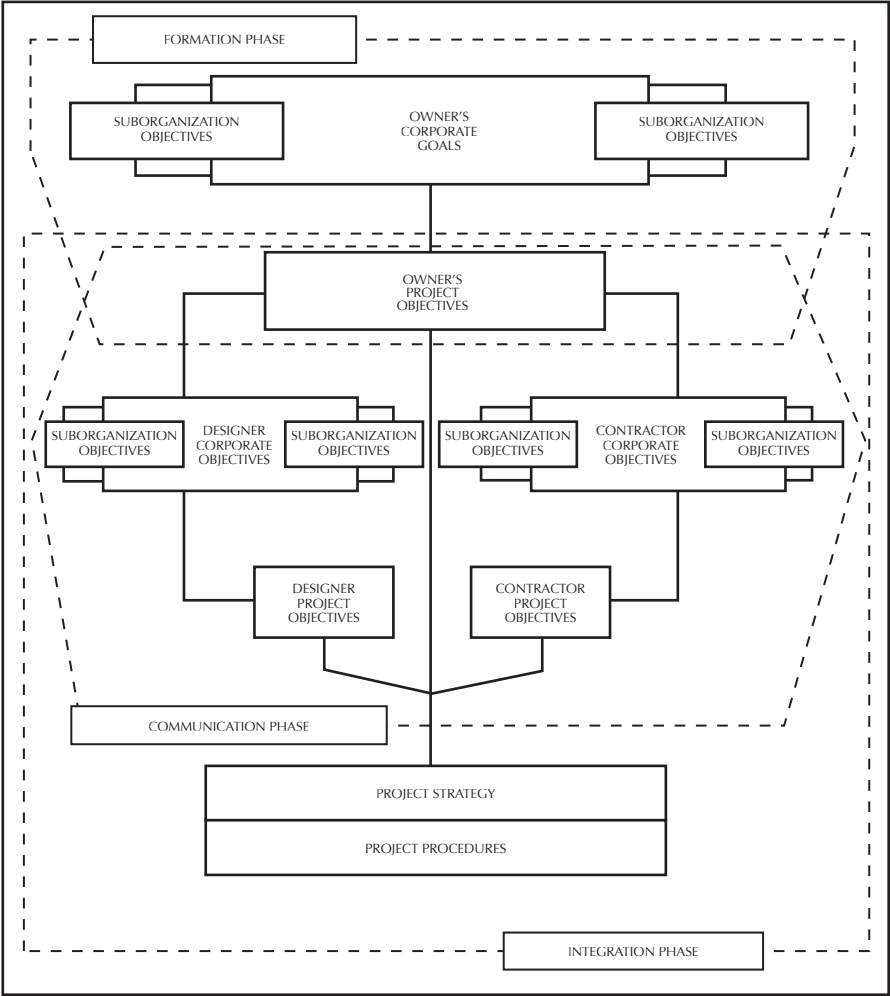


Figure 1. Objective Setting Phases

Managing Project Objectives

Management of project objectives involves the three phases shown in Figure 1. These three phases are interdependent and overlap during the objective-setting and management process. The formation phase consists of the methods used by the owner's organization to bring together the corporate goals and suborganization objectives to form a single set of project objectives. The communications phase is the means by which the owner disseminates, directly and indirectly, the project objectives developed in the formation phase. The integration phase represents all efforts on the part of the owner to bring together the designer's and the contractor's project objectives with the owner's to form an integrated project strategy. All of these phases are the responsibility of the owner, regardless of how many outside agencies are contracted to aid in the planning, programming, design, and construction of a project.

Several problem areas exist in the objective-setting environment. The first area for potential difficulty arises in the process of blending the various suborganization objectives (i.e., marketing, engineering, operations, and financial objectives) into a consistent and stable set of well-defined, owner's project objectives. A second potential problem area exists within the designer, and contractor organizations in combining the corporate goals with the objectives peculiar to each functional suborganization. A third problem area is the potential for the project objectives of the owner, designer and contractor to be dissimilar or incompatible with each other in developing a single project strategy.