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INTRODUCTION

The Right Combination of the Right Projects Done Right

Interest in project management continues to grow astoundingly in the twenty-first century. Since the early 1990s, membership in professional project management associations such as the Project Management Institute (PMI) and the International Project Management Association (IPMA) has grown from a few thousand people to hundreds of thousands. Projects have become recognized as a valid way of working not just in the traditional industries, such as engineering, defense, and construction, but in every corner of the private, public, and even voluntary sectors. Libraries of books have been written on the topic.

The rate of project success, however, has failed to keep up with the growth of the profession. Megaprojects continue to show cost overruns. Sizable sums are spent on information technology projects, some of which are never implemented. A majority of organizational projects fail to deliver even half the benefits they were designed to provide.

This book pinpoints the reasons for these shortcomings and puts forth a series of solutions. Those solutions are founded not on advocating standard practices but rather on a fresh way of looking at the problem. Einstein is reputed to have said, "You can't solve a problem using the thinking that created it." And this book presents fresh thinking about what is involved in managing projects—to manage projects consistently and successfully, across the enterprise. It focuses on the growing trend toward broadening the scope of traditional project management. That broadened scope takes place in two different directions.

The first expansion is stretching out the span of the traditional life cycle. A classic view would say that project management starts when the project is authorized and funds are provided and that it ends once the tasks outlined are completed and it's turned over to whoever is responsible for the next ongoing stage, such as operations. The broadened view extends the project life cycle both "upstream" into "mission and vision" and "downstream" into "total asset life cycle management." This is a growing worldview—the Japanese Project Management Forum, for instance, has developed a model known as P2M that adds a "mission model" to the front end of projects and a "service model" to the back end. In this view, projects start during the thinking stage, when feasibility is still under consideration, and are completed only when the business results or benefits, as initially proposed, are in fact achieved.

The second expansion is to encompass multiple project settings and related organizational issues, which fall under the umbrella known as enterprisewide project management. This trend started gaining momentum in the 1990s and continues to grow as companies come to grips with the challenges of responding to market demands by systematically managing multiple projects through improved portfolio management and project support groups such as project management offices. Broadening the view of project management diffuses its implications throughout the enterprise and brings to light major issues not traditionally dealt with under the project management banner.

Three "Rights"

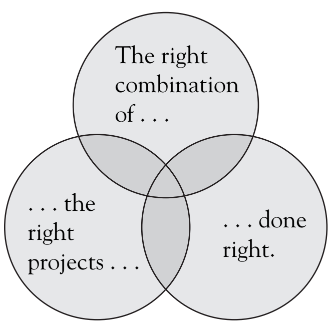
Prosperity in organizations hinges on the successful application of a simple formula: *the right combination of the right projects done right*. So prosperity depends not only on good strategy but also on implementing that strategy effectively. Success thus depends on the effective management across the enterprise, involving an array of unique, timely, and finite initiatives called projects.

The *right projects* are designed to meet specific needs like cost reduction, new product launches, capital expansion, marketing campaigns and quality enhancement. To be effective, these right projects have to be *done right*—they must meet objectives within specific guideposts of quality, time, and cost. These *right projects done right* are major components in achieving success in organizations. Yet these right projects done right must be applied in the right combination. In other words, balance is needed to ensure that overkill isn't applied to, say, marketing projects, without making sure that product launch will come through as envisioned. To take another example, spending money on improving the quality or lowering the cost of existing products makes sense only if adequate attention is paid to the new products that will replace the present ones in the marketplace.

So it takes all three project *rights*—right projects, right combination, right implementation—to attain solid success. Two rights won't make it, just as a two-legged stool won't stand firm. Our triad of rights is key to both prosperity and survival in all project-sensitive organizations (see Figure 1.1).

The challenge of achieving the right combination of projects lies firmly with top management; doing the right projects involves line management, project sponsors, and other stakeholders; and doing projects right is of primary concern to the project management community and to individual project teams.

Figure 1.1 The Three "Rights"



So in spite of the fact that distinct groups deal with the specific issues in enterprisewide project management, the views are closely intertwined. As outlined in the ensuing chapters, each "right" concerns different criteria for success and focuses on factors critical to delivering that success (see Exhibit 1.1).

Other factors not directly related to the management of projects also strongly influence the well-being of organizations. These include investment policies, operating efficiencies, human resource management, leadership, systems, procedures, strategies, and organization

Exhibit 1.1 Focus on the Three Rights

Right	*Responsible Parties*	*Criteria for Success*	*Critical Success Factors*
The right combination of . . .	Senior management	• Strategy implemented • Productivity improved • Right projects done • Projects done right	• Portfolio management • Continual improvement • Comprehensive and reliable metrics
. . . the right projects . . .	Project governance, executive sponsor, "client," "owner," "operator"	• All benefits realized • Stakeholders satisfied	• Clear and attainable goals • Stakeholder commitment • Benefits processes • Project strategy
. . . done right.	Project manager, project team	• Time, cost, quality, scope, technical performance, safety	• Clear and attainable goals • Capable and effective team • Adequate resources • Clear technical requirements • Effective planning and control • Risk management

structures. So the survival and future status of companies partially hinges on the appropriate application of general management principles. Indeed, this determines the status quo of most organizations.

Yet the *future* of organizations rests heavily on how well a multitude of new initiatives or projects are carried out across the enterprise. For that to happen, two groups must join hands in an effort to put future business strategy flawlessly into place. And how well enterprisewide project management is carried out depends strongly on how well the two groups understand each other and work together.

Two Groups, Shared Objectives

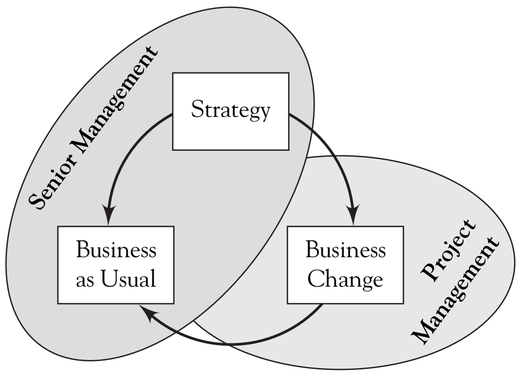
Two related yet distinct groups hold the key to business and organization success. The first group, devoted to strategy, direction, and design, accounts for two legs of the three-legged stool: picking the right projects and selecting the right combination of projects. These actions set the stage for the second group's transforming the strategies and decisions into tangible results by doing projects right.

The two groups are made up of people with different motivations, backgrounds and viewpoints—the first of people whose calling is to divine the future and develop a winning business strategy, the second of professionals obsessed with getting things done. Each looks at the world through very different eyes. But in spite of these differences, business strategists and project managers are interdependent partners who must in fact conspire to move companies toward their goals. The functions differ, yet they are highly complementary; and for companies to be successful, these sometimes-at-odds camps must interact synergistically (see Figure 1.2).

The World as Seen by Top Management and Business Strategists

Top managers and business strategists are charged with seeing that company goals are met and that bottom-line objectives are achieved consistently over the long haul. This requires keeping eyes on an

Figure 1.2 Two Groups with Shared Objectives but Different Viewpoints



ever-changing horizon and involves charting the course of the enterprise in a way similar to that of a sailing vessel scheduled to pass through stormy seas. Just as certain currents and winds can be fathomed in the sailing analogy based on historical data and maps, so can certain economic and industry trends be foreseen in the business arena. These are the *known unknowns*—the exact timing of the currents and winds are unknown, but the probability of the occurrence of natural phenomena is known. In business, the known unknowns include peaks in toy sales at Christmastime, ice-cream sales in the summer, and the sale of mittens in wintertime. The exact numbers are unknown, but the trends are foreseeable based on historical data. (*Unknown unknowns*, such as volcano eruptions and terrorist attacks, are also part of the top-management kaleidoscope and must be dealt with as well. This means that flexibility and agility have to be factored in to the strategies so that the organization isn't toppled by nasty surprises.)

Upper management is out to "win the war," meaning to prosper over the long term. This may mean retreating in certain market situations or taking a loss position while investing in a given market. It could even mean losing a battle or two and possibly sacrificing a project here and there when that makes strategic sense. The results over the long time frame are what matter.

Aside from strategic development, which invariably involves projects, top management also focuses on operational issues, since efficiency in operations is a key success factor in any organization. The operating area usually represents the core of the organizations' activities; it's what companies are about. Yet since companies strive for organizational efficiency, paradoxically, for that to be achieved, project management once again comes to the forefront. That's because increased operational efficiency is generally brought about by the implementation of projects, whether they be of the continuous improvement type or those involving quantum leaps, such as building a new factory with state-of-the-art technology and subsequently deactivating the older facility. Top management faces major decisions that will ultimately spell out success or failure. For instance, it's up to top management to decide to improve existing processes (where one may run the risk of "upgrading the past") or to wipe the slate clean and go for cutting-edge systems and technology (which may involve monumental investments).

The World as Seen by Project Managers and Teams

Project managers and team members, on the other hand, are charged with achieving specific deliverables (completion of projects), so they must zero in on given targets. Traditionally, company goals are set by the business strategists, and project managers are tasked with carrying out the projects that take those strategies from dream to reality. So a prime quality of project managers is *tunnel vision* aimed steadfastly at achieving results. Successful project managers have a fixation about getting the job done, whatever the assignment may be.

Unlike business strategists, who strive to achieve sustained, long-range corporate success, project personnel are tasked with meeting finite objectives: to complete projects as defined, within cost parameters, time constraints, and quality specifications. So whereas top executives and business strategists are akin to generals in a war room who ponder and push about various alternatives and struggle through the analyses of relative advantages and disadvantages, project teams are made up of officers and soldiers out on the battlegrounds who carry out the plans and deal with daily happenstance. The project team deals with the field maneuvers and in-the-trenches matters to achieve desired outcomes. In the case of the military, this may signify taking out a bridge or arriving at a given destination pinpointed on the map. In project parlance, it simply means getting a given project completed as specified.

The battlegrounds of the military and business are both mined with booby traps and unforeseen factors. Some of these changing scenarios affect the business strategy, and others influence the course of specific projects. And some fall into the fuzzy area in between, affecting both the overall picture and project objectives, thus calling for a collaborative approach between business strategists and project people.

The Gaps to Be Bridged

Since gaps exist between the responsibilities and the mind-sets of the key players in the two groups, challenges in communication are commonplace. Therefore, major alignment is called for, aimed at dealing with the fuzzy area between strategic planning and project implementation where roles and responsibilities are unclear and communication and relationships are equally opaque.

Bridging the gap means organizing the company's portfolio of projects so that the contribution to an organization's objectives is maximized. This requires formal interfacing to make sure that completed projects contribute substantially toward corporate targets. Effective alignment requires major improvement over the well-known "grenade over the wall" approach, in which the business planning staff identifies and characterizes projects and then tosses the project objectives over to an uninformed and uninvolved project management group that is shackled with successfully completing a project, which may or may not be fully aligned with company objectives.

Any primer on modern management says to involve people, to get "buy-in," to make sure everyone is on board before charging ahead. The *concurrent engineering* approach to managing projects is based on this theory. Yet the corporate-strategy-to-project-implementation transition is sometimes overlooked—perhaps because of past fine performance by both the business planning people and the project management group. Normally, both of these groups do a sterling job in their respective areas.

In most companies, however, hundreds of strategically important projects are under way: transformation projects, continuous improvement programs, plant expansions, maintenance fix-ups, worker empowerment, resizing, outsourcing, and qualify-of-life projects. Managers, who in the old days supervised people or acted as information brokers between lower and upper corporate levels, now act as project managers or as managers of project managers. Since the nature of work for managers has changed, a corporate commitment to the art and science of managing projects must be promoted throughout the organization.

To avoid the grenade-over-the-wall syndrome, early involvement by the project office is required. Though this principle seems sound, its practice presents a challenge. First, the business planning people may prefer to plan without the help of perceived "outsiders." Then there's the likelihood that the right project people are busy on other projects—they are not sitting around waiting to brainstorm on a new business proposal or analyze its early progress. Finally, there's the effort required by senior management and sponsors to articulate the interface between the business planning people and the project management office. This calls for various forms of alignment if the organization is to achieve its project-related goals.

Aligning People Behind the Business Strategy

Alignment of players in support of a common business strategy is a key factor to achieving success in all company settings. Since the word *alignment* implies being lined up, heading in the same direction, an effective management approach needs to be found to make the organization converge toward completing the business strategy. Thus management style and corporate culture come into play.

Many of the managerial postures used in the past to line people up might not work today, as times are changing. Here are some of the postures that tend to be less effective in these complex, evolving times:

- *Macho management*. The macho managerial style discourages effective planning while challenging project managers to "prove that it can't be done." Phrases like "Where there's a will, there's a way," "Don't tell me why it can't be done; go out and find a way of doing it!" or even "If you can't do it, I'll find someone who can!" are typical of this kind of corporate culture. This virtually makes effective project planning into a "career-limiting option" for those with courage enough to push against the stream. "Just do it" makes a highly effective advertising slogan for sporting goods but is much less effective as a means of aligning an organization's efforts behind its strategy.
- *Incentive-riddled estimating*. In many companies, particularly those involved in competitive tendering, estimating becomes embroiled in a political process. Target completion dates and impossible resource budgets are the primary incentive system in the organization. In one company, this was even reinforced by a project accounting system, which prevented any work being booked to a work package in excess of the estimate. This meant that section leaders would play a game of "hunt the open work package" to find some way of booking people's time so that they could get paid at the end of the month! In a culture like this, not only are project managers encouraged to cut corners, but top management also hears only what it wants to hear—until it is too late!
- *Flying blind*. Sometimes behavioral habits are part of a deeply held system of "shared values," such as "individual autonomy." One large semipublic economic consultancy identified strong commercial benefits from changing to a project team style of working. This involved estimating and planning the work involved in any particular assignment. Unfortunately, no one in the organization was prepared to account for their time using time sheets or a comparable

mechanism. As a result, there was no basis for any kind of effective project planning.

- *Mixed messages*. The "systems" of an organization (one of the key determinants of its culture) can reinforce undesirable behavior. One organization issued a very strong message from the top that people were to break down departmental barriers and work in teams. At the same time, the way people got recognition and promotion in the company was by achieving their individual objectives, which were set with their own line manager and reviewed in individual appraisals.
- *The presence of the past*. One automobile manufacturer has such a poor history of industrial relations that it releases different information to management members of the project team than it releases to union members. The resulting suspicion in the team and distrust of potential ripples from the project contributes significantly to the fact that more than 80 percent of the organization's projects fail due to cost or time.
- *Management by committee*. In some public sector organizations, there are specific problems involving "collective responsibility." This is a euphemism for no one taking responsibility for anything but committees being set up to deal with every point. In this environment, projects almost inevitably run late and end up with cost overruns.

Ineffective as these cultures may have proved to be, the need still remains to align the hearts and minds of people behind the organization's strategic intent.

Aligning People Behind the Portfolio of Projects

Whereas a business strategy lays out broad directions and determines what is to be accomplished, the portfolio of project defines how the strategy is to be put into effect. A mobile telephone company, for instance, might decide as a strategy to increase market share in a part of the country where business lags behind shareholders' expressed wishes. To make that happen, multiple projects may be required—for example, a marketing campaign, technology upgrades, and physical installations. These projects then become part of the portfolio of projects, and the players involved marshal forces behind each project, which in turn contributes to the overall company goal.

All of an organization's projects belong in its portfolio of projects. Some of those may be freshly approved, while others are in the planning or implementation phases and still others are nearing completion. Aside from differing in timing, they are likely to vary in nature, including strategic initiatives, capital expenditure, product launch, and operational improvement. The challenge for top management includes keeping a company's project portfolio aligned with the business strategy and with available resources and at the same time ensuring that projects are aligned with one another and with the organizational structure.

Aligning the Portfolio with the Business Strategy

An organization's portfolio of projects is the offspring of the business strategy. Based on those strategies, projects are developed that aim at transforming them into the results envisioned by the strategists. The company then achieves its goals based on a powerful alignment between proposed strategies and projects successfully carried out to completion.

For that to happen, collaboration is required between business strategists and project strategists aiming at answering the following questions:

How many projects should make up the core of the portfolio?

What kind of projects?

How should they be organized?

Who will be responsible?

When will they be launched?

Are sufficient resources available?

The answers to these questions depend on company culture, previous practice, present needs, market demand, and stakeholders' opinions. Once these factors have been taken into account and the corresponding project portfolio criteria determined, much of the alignment challenge is taken care of. At least it's that way in theory.

In practice, things may work out differently. Scenarios change while projects are under way; priorities fluctuate as different players move in and out; projects—sometimes based on personal agendas—spring up out of the woodwork and try to nestle themselves into the portfolio of projects.

So although a top-down strategy-to-project alignment is indeed a major priority for an organization's portfolio of projects, a process is required to ensure that the bottom-up project proposals are appropriately screened so that they align with company strategy.

Aligning the Portfolio with Available Resources

The clamor for resources is constant in the arena of projects. With the ever-present pressure to do "more with less," resources of all types are invariably scarce. Although all resources can be translated into money, the shortfalls usually take the form of sparse information, space, people, material, or equipment. Poor performance on projects is often linked to a shortage of one or more of these factors.

Since resources in all organizations are limited, the challenge that both business planners and project planners face revolves around getting the most mileage out of available resources. The demands sometimes require an almost magical ability to conciliate the conflicting priorities, bordering on "resource juggling." Although magic may happen in spurts, solid resource management is the best way to handle the perennial resource problem. The following are some of the classic approaches:

- *Planning*. Starting with strategic planning, the strategists need to take into account the resources available and design their strategic packages so that they will be consistent with reality. Once the planning reaches the project level as well, project planners need to stay within the guidelines.

- *Budgeting.* Budgeting amounts to detailed cost and financial planning. Since money is the ultimate measuring stick, the aggregate project budgets will determine if available resources are allocated optimally.
- *Resource leveling.* If planned uses for available resources are peaking at the same time (say, several projects require heavy computer programming simultaneously), resource leveling is the solution. This requires shifting some of the programming work forward and some of it backward so that the resources are applied smoothly over time.
- *Prioritizing.* When major clashes occur between projects, the solution is often to prioritize, with the resource green light being given for priority A projects while B and C projects are kicked off whenever resources become available.

What if the portfolio's requirements can't be aligned with available resources? Let's say an organization's ambitions far outdistance traditional levels of investment, and company goals can be met only by reaching out beyond available resources. Does this make alignment impossible? No, it's just a different situation. In this case, the answer resides in obtaining outside resources. Although the resources are not readily available (whether they be material, equipment, labor, intellectual, or purely monetary), the projected return on investment for the portfolio of projects justifies rounding up external support to bring the full portfolio in on time.

Aligning Projects with Each Other

Technical alignment between projects or subprojects is also fundamental. A sample is illustrated by the fabled meeting of the East-West transcontinental railroad where one of the south rails matches up with the north rail from the other direction, leaving the other north and south rails dangling off to the side.

Not only do projects require coordination with one another for available resources, but they also need to be aligned with respect to interfacing both during the project implementation stage and subsequent operations.

Project teams tend to be sharply focused and sometimes develop an "egotistical" view of priorities with respect to their projects, so alignment of projects with each other presents a challenge. A tug-of-war may develop over scarce resources. Since all project managers and respective teams are ultimately judged on the degree to which they successfully complete their projects, collaboration between projects is not an easy task.

The project team that tugs the most will tend to gain the resources, yet that doesn't mean that a company will derive the most benefit from that result. Perhaps another project could have a greater impact if it were accelerated or given increased resources.

In resource-scarce settings, a superior power is needed to referee between the conflicting priorities. Project teams unable to peacefully resolve the quest for gaining limited resources need to be able to appeal to a higher authority. Exceptions to the rule are independent projects that have a budget that allows them to reach outside the organization when resources are inadequate.

Aligning Projects Within the Organizational Structure

The appeal to higher authority in the case of disputed resources is facilitated when the organization is structured adequately. Since organizations vary tremendously in culture, tradition, and previous experience in the practice of managing multiple projects, projects may be aligned in differing ways.

A classic approach is the matrix organization. This structure uses functional groups that maintain pools of human talents and resources, which are then allocated to specific projects on an as-needed basis. A separate multidisciplined project-based structure is maintained for each project, and each project is designed to draw from the same pool of human resources. So in a capital expenditure engineering project, functional engineering groups for civil, mechanical, electrical, and instrumentation would be the discipline repository for projects A, B, and C.

Project offices, sometimes known as project management offices or project support offices, are another way of dealing with the challenges faced by organizations that deal with multiple projects being implemented simultaneously. These offices are charged with maintaining a basic project methodology, doing basic reporting, and helping manage the priority and resource conflicts that naturally pop up in the multiproject setting. Some project offices may span an entire organization (corporate project management office), and others may be limited to a departmental sphere of influence (department project management office). More detail is given in Chapter Four on the project office concept and how it helps ensure that the right combination of the right projects is done right, and Chapter Five contains a description of how one of the world's leading companies (Hewlett-Packard) has applied the concept.

Each of the six forms of alignment we have discussed presents its own challenge, and the chapters in Part One focus primarily on how organizations can approach these challenges and achieve organizational alignment through enterprisewide project management.

Projects Versus Processes

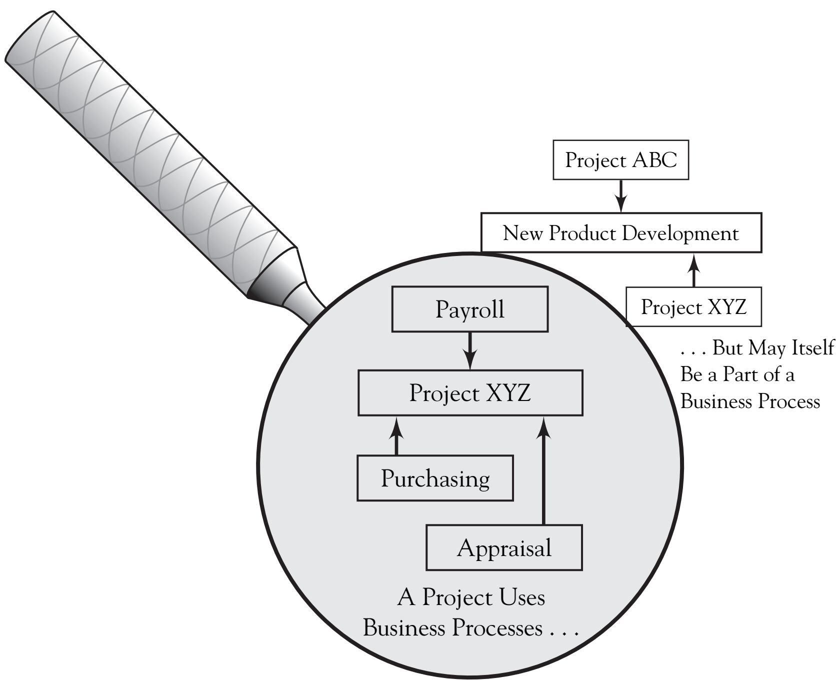
With the expansion of the project management worldview into more and more areas of organizational life, projects have become the way in which many organizations have chosen to structure work to become better equipped to cope with upcoming challenges.

The case can be argued that there are two different views on how we think about organizational work: processes (operations, transactions) and projects. Processes are about coordinating people who have specific work-related competences and tend to be organized into functional departments so that they work together effectively to satisfy the repetitive demands of the organization's current customers and stakeholders. Processes are essentially about what happens today in an organization.

Projects, by contrast, are about introducing beneficial change to the organization. In this context, project management is essentially interwoven with the management of change. Projects often involve totally new initiatives that affect the organization's future capability to perform and produce. Continuous improvement, although not comprising new endeavors, also results in enhancing the capability of the company and is often treated in the form of projects. So there is thus an element of choice whether a given piece of work is treated as a process or as a project. The picture becomes further diffused by the fact that projects and processes are so heavily interdependent, as Figure 1.3 shows.

On one hand, projects contribute to organizational processes; for example, a specific new drug development project forms a part

Figure 1.3 How Processes and Projects Interrelate



of the pharmaceutical company's drug development process. On the other hand, processes contribute to individual projects; for example, the estimating process will be followed on every project.

Why is this distinction relevant? Here are some of the reasons. Many management techniques, such as statistical process control and benchmarking, have been developed specifically for repetitive processes—they are about improving something that is inherently predictable. These same techniques cannot be applied directly to projects without significant adaptation, since by definition, every project is unique, although certain families of projects may contain predictable elements. In fact, managing unpredictability is the primary challenge in managing projects. Management decisions that make perfect sense in a predictable process world are the height of folly in a project environment. For example, it can be effective to run "lean and mean" on processes and gradually reduce resources in order to provoke improvements in efficiency. In a project setting, however, such a posture would reduce the project team's ability to think through potential problems and perform effective risk management.

Summary

Business strategists and project managers may appear to come from different worlds, yet they have strongly shared objectives. Their functions are highly complementary, since business strategists aim at medium- and long-term survival and prosperity, whereas the project teams zero in on completing short-term projects in pursuit of the organization's declared goals. To make that happen, people have to be aligned behind the business strategy—they have to know what it is, believe in it, and be motivated to contribute to its fulfillment. Specifically, the players need to be charged up about completing the projects that make up the portfolio, since that is ultimately what makes the strategy come true. The key to successful project portfolio management is overall alignment. First, the portfolio has to be aligned with the business strategy and with available resources. Then the projects have to be aligned with each other and within the organizational structure. A distinction is drawn between project and processes, both of which are important. Projects are generally associated with future capability of the organization, yet project management is also applicable in situations requiring continuous improvement (enhanced capability). Present capability is the task of ongoing processes, but future potential depends on *the right combination of the right projects done right*.