Payoff
Organizations need IS professionals who can generate results--and at a pace that can significantly leverage the organization's ability to create value. To meet this need, IS departments must transform their model of operation. This article describes a new management process in which IS works with business management to establish organizationwide information technology initiatives.

Introduction
For business and IS management, the information technology imperative is to construct the organizationwide systems and capabilities needed by businesses to compete. For IS professionals, this means developing a totally new viewpoint regarding the role information technology (IT) plays in building the business of the future. The new viewpoint embraces the idea that without IS professionals' involvement in and significant understanding of the business—from strategy creation through systems implementation—the business itself will stand in jeopardy. IS and business management must act as true partners following this new management process, each supporting the other with goals well aligned toward a common end: creating the optimally performing company.

The New Management Process
To put into practice this notion of partnership and mutually supportive involvement, IS and business managers require a totally new way of working together. This is essential because the restructuring initiatives being undertaken by corporate America require change management on a scale never previously encountered. Information technology is envisioned as the strategic enabling ingredient in this restructuring. Unless business and IS management agree to partner and work together, the corporation will never accomplish this goal.

Global Demands
Companies are being realigned to address global business opportunities. Global is not just another word to describe conducting business as usual, in autonomous, diversified, unintegrated entities around the world. Information technology is the key to transforming business capabilities from parochial to global. Unless IS and business management can put the pieces together, they will fall short of the global corporation.

Most of corporate America is constrained by information technology islands of automation: solutions that effectively address single, localized, usually departmental issues but that are disconnected from and unresponsive to the needs of the integrated business. This problem is compounded by different processing platforms, programming languages, software packages, communications protocols, data base technologies, and skills—all of which prohibit easy connections between islands of automation. The result is a web of systems that make it impossible to leverage the organization's technology resources to generate true business advantage.
Managing the IT resource to move from these automation islands to organizationwide, global systems requires the development of a new management process—one that is based on a clearly articulated management template. Such a process enables the organization to establish and maintain a focus on those projects that are critical to developing and maintaining a competitive edge.

**Fundamental Managing Principles**

First, it is important to articulate the principles that govern the new management process. Paradigm shifts always present a challenge and require a more fundamental base of understanding from which to build. The new management process is not a cookbook approach to solving problems. It must be described and understood within the context of a dramatically different role for IT.

Six managing principles govern this new process of management:

- Linkage to strategy.
- A focus on business benefits.
- The concept of quickstrikes.
- Defined roles and responsibilities.
- Creeping commitment.
- Linkage to architecture.

**Linkage to Strategy**

Organizationwide IT initiatives must be:

- Driven by the business vision and strategy.
- Tied to specific quantifiable benefits.
- Based on the redesign of the business process.

This linkage to strategy clarifies what problems must be solved and, more important, how success is to be measured. Translation of vague corporate vision statements into specific performance goals permits the organization to grasp how information technology can play a leading role in vaulting the corporation ahead. Expectations are clearly understood at the beginning of the transformation process.

There are distinct implications for IS professionals. First, IS management must understand the full business vision (ideally by participating in its development) and be able to communicate it throughout the IS group. Second, business vision and strategy must be translated into conceptual statements of those tasks that the organization must perform exceptionally well to achieve its vision, as well as measurable business objectives (i.e., specific, quantified performance goals, most of which are nonfinancial) that in turn clearly set out the organization's goals. Finally, these new goals trigger a process of reevaluating the organization's strategic business processes. At present, many organizations may have
no significant IT component, yet designing a new way of conducting business in the future is fundamental to doing business cheaper, better, and faster.

A Focus on Business Benefits

Executive participation is essential to enable transformation; the ongoing measurement of performance and benefits against strategic objectives drives the transformation process.

Business transformation clearly requires investment. One of the missing ingredients in the management of traditional development efforts has been rigorous financial analysis at all stages of the development process, to revisit initial financial assumptions and to incorporate and test the new information. This process implies incremental funding, with go or no-go decision points. Also implied are sunk costs that may or may not be recovered.

The new management process is based on the assumption that program financials will be revisited and challenged at each phase of the process, so that the learning acquired at each phase becomes incorporated into the analysis. The corporation is able to continually answer the questions: Is this program accomplishing what it set out to achieve? Is it worth it?

The Concept of Quickstrikes

Quickstrike initiatives—defined as small technical and nontechnical projects of short duration that produce immediate business benefits—can be implemented early on to speed the realization of overall program benefits. The underlying concept of the quickstrike is that benefits should not accrue solely at the end of a program; they should begin to be reaped in the early phases of a program and continue throughout its life. The intention is to move the program in the direction of becoming self-funding as soon as possible—thereby avoiding the traditional model of delayed realization of benefits. Interim benefits must be used to fund the program.

Defined Roles and Responsibilities

The new management process defines expectations about behavior that put performance goals on the table and ensure that all players are aware of their role. This principle is basic; however, it is an element of process design that is often forgotten. Ensuring that each group is aware of its role in the new management process facilitates the program and the organization's success. The explicit nature of this principle is what is important, so that individuals become aware of and accountable for their contribution to the whole.

Creeping Commitment

Work should be performed according to a standard work process, which produces interim deliverables that permit the continuous management of risk and capital investment. The organization's commitment to a specific transformation program should grow as the program moves through the various phases of the management process. As the strategic vision is defined and clarified and as ever more detailed pieces of the plan are fleshed out, the organization's commitment level—and financial appetite for the program—grow.

The new management process builds creeping organizational commitment through its rigorous gatekeeping requirements, which ensure that the process is managed and
monitored. As a transformational program moves forward through the management process, the corporation takes the opportunity to identify and test its assumptions about the program's inherent risk and rewards. Only at the point of maximum information, when the risks have been well calculated, is major capital committed.

**Linkage to Architecture**

A technological and business architecture is needed to coordinate and integrate individual projects over extended periods of time. New business processes and information systems must be consistent with this architecture.

The new management process embraces the concept of architectural standards for organizationwide information technology to guide the development of new systems capabilities. These standards—as they relate to technologies, data, communications, applications, and systems—are analogous to the plumbing, heating, ventilation, air-conditioning, and electrical systems standards for a new residential construction project. Without these standards, a house is apt to run on the wrong voltage or be missing drainage pipes. Similarly, without IT architectural standards, organizationwide systems become yet additional islands of automation, akin to existing departmental solutions in that they are useful only to a limited segment of the business.

**Objectives and Deliverables**

The new management process contains six phases, each with a specific set of objectives and deliverables. As shown in Exhibit 1, each phase of the management process generates a series of quickstrike opportunities and benefits analyses. The glue holding the process together is a tight system of program management activities. Combined, these three factors generate the creeping commitment necessary for the organization to ultimately buy into the program and implement the required systems capabilities. Exhibit 1 embodies the managing principles previously discussed. The six phases, which are usually undertaken in sequential order, are described in the following sections.

**The New Management Process**

**Phase 1: Vision and Business Objectives.**

This phase is used to articulate the corporation's high-level business vision and strategic objectives. It is supported by precise, quantified performance targets. This phase of the management process includes a first pass at the business program, which is a statement of the objectives, scope, and goals of a specific organizationwide initiative and its supporting financial business case.

**Phase 2: Business Architecture.**

This phase entails the identification and definition of the high-impact business processes supporting the business vision. It is the statement of a business model of the organization and serves as the foundation for the IT architecture (phase 3). The business architecture's specific deliverables include a map of the critical business processes as they currently exist and of the business process requirements of the future. Another critical deliverable is an initial plan—the improvement action plan—with key steps to achieving the new business architecture.
Phase 3: The IT Architecture.
This phase develops the computing structure, beginning with an idealized top-down and bottom-up view of the information systems requirements to support the business process. This phase creates a blueprint for technology that enables the organization to conduct business in new ways with strategic potential.

The first step in formulating this architecture is baselining the architecture in place. Other important deliverables for this phase include the risk assessment (an evaluation of the risks inherent in the architectural choices made), a restatement of the business case that incorporates this new information, and the architectural migration strategy and plan. Phase 3 is an important phase for the identification of quickstrike initiatives.

Phase 4: Design and Engineering.
This phase covers the translation of business and IT requirements into the guidelines and specifications critical to systems engineering and development efforts at the individual project level. Each broad organizationwide program may consist of several systems projects that need to be managed independently. The design phase of the management process includes requirements definition, software evaluation and selection, conceptual design, and detailed design as its key deliverables.

Phase 5: Building and Implementation.
This phase includes the coding, testing, documentation, piloting, training, installation, maintenance, and system migration activities involved in realizing an information system and propagating it throughout the business. The important deliverables for this phase are the developed system, the first implementation, and subsequent system migrations.

Phase 6: Benefits Audit.
This phase entails the ongoing activities to measure performance improvements and program benefits and to ensure that continuous improvement is derived from the effort. Key deliverables for this phase are the benefits evaluation, system evaluation, and an identification of the lessons learned from the project. These lessons need to be consolidated, project by project, to the broader program level to share the learning across projects and other similar transformational programs.

Roles and Responsibilities
Each phase in the new management process is supported by a group of executives (see Exhibit 2) charged with specific responsibilities to produce a detailed set of deliverables. The matrix in Exhibit 3—which identifies the roles and responsibilities of these key individuals as well as new organization structure implications—highlights how this process differs from the traditional approaches.

The New Organization
Overview of Roles and Responsibilities

<table>
<thead>
<tr>
<th>PARTICIPANTS</th>
<th>Business Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Office</td>
<td>Executive Steering Committee</td>
</tr>
<tr>
<td>DELIVERABLES AND ACTIVITIES</td>
<td>(content review)</td>
</tr>
<tr>
<td>Vision and Business Objectives</td>
<td>PR</td>
</tr>
</tbody>
</table>
Perhaps the most important ingredient in making this process work for the organization is well-orchestrated communication about the process throughout business and IS departments. Exposure to the new management process can be generated through executive awareness sessions, comprehensive documentation, training modules, and educational programs to train the trainers. These efforts support the new ways of accomplishing business, but require time and attention from both business and IT partners.

The ideal way to move forward with the new management process is to educate the organization and then to apply this process at the start of a new organizationwide initiative. Most corporations do not have that luxury, however, because they are already in the midst of undertaking several such initiatives simultaneously.

Conclusion
Companies can learn valuable lessons from incorporating this new management process, even in midstream. For example, the process can reveal whether staff members on critical programs understand what their roles are. It can also determine which key phases have been given short shrift or eliminated altogether.

Serious commitment at the highest level of the organization is the key to making the transformation process work, especially when the change involves reorchestrating the way in which units vital to the corporation work together. Traditional IT management must also accept the challenge and embrace this new management process to truly transform the organization.

Bibliography

Author Biographies
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Phase 1: Vision and Business Objectives

Decision Points: Proceed with design?

Deliverables: Vision statement, Business objectives

Phase 2: Business Architecture

Design IT infrastructure?

Business architecture blueprint

Phase 3: IT Architecture

Begin detailed specifications?

IT infrastructure buildable blueprints

Phase 4: Design and Engineering

Build?

Detailed specifications

Phase 5: Building and Implementation

Evaluate results?

Improved solution

Phase 6: Benefits Audit

Actions Required?

Postimplementation plan

SOURCE: Nolan, Norton & Co.