The **21st-century** organization

Big corporations must make sweeping organizational changes to get the best from their professionals.

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About half a century ago, Peter Drucker coined the term "knowledge worker" to describe a new class of employee whose basic means of production was no longer capital, land, or labor but, rather, the productive use of knowledge. Today, these knowledge workers, who might better be called professionals, represent a large and growing percentage of the employees of the world's biggest corporations. In industries such as financial services, health care, high tech, pharmaceuticals, and media and entertainment, professionals now account for 25 percent or more of the workforce and, in some cases, undertake most typical key line activities. These talented people are the innovators of new business ideas. They make it possible for companies to deal with today's rapidly changing and uncertain business environment, and they produce and manage the intangible assets that are the primary way companies in a wide array of industries create value.

Productive professionals make big enterprises competitive, yet these employees now increasingly find their work obstructed. Creating and exchanging knowledge and intangibles through interaction with their professional peers is the very heart of what they do. Yet most of them squander endless hours searching for the knowledge they need—even if it resides in their own companies—and coordinating their work with others.

Article at a glance

Professional employees, who create value through intangible assets such as brands and networks, now constitute up to 25 percent or more of the workforce in financial services, health care, high tech, pharmaceuticals, and media and entertainment.

Making professionals productive enables big corporations to be competitive, yet most of them do little to improve the productivity of these employees.

Corporate organizational structures—designed vertically, with matrix and ad hoc overlays—make professional work more complex and inefficient.

Companies must change their organizational structures dramatically to unleash the power of their professionals and to capture the opportunities of today's economy.

The inefficiency of these professionals has increased along with their prominence. Consider the act of collaboration. Each upsurge in the number of professionals who work in a company leads to an almost exponential—not linear—increase in the number of potential collaborators and unproductive interactions. Many leading companies now employ 10,000 or more professionals, who have some 50 million potential bilateral relationships. The same holds true for knowledge: searching for it means trying to find the person in whose head it resides, because most companies lack working "knowledge markets." One measure of the difficulty of this quest is the volume of global corporate e-mail, up from about 1.8 billion a day in 1998 to more than 17 billion a day in 2004. As finding people and knowledge becomes more difficult, social cohesion and trust among professional colleagues declines, further reducing productivity.

A flawed organizational design

Today's big companies do very little to enhance the productivity of their professionals. In fact, their vertically oriented organizational structures, retrofitted with ad hoc and matrix overlays, nearly always make professional work more complex and inefficient. These vertical structures—relics of the industrial age—are singularly ill suited to the professional work process. Professionals cooperate horizontally with one another throughout a company, yet vertical structures force such men and women to search across poorly connected organizational silos to find knowledge and collaborators and to gain their cooperation once they have been found.

Worse yet, matrix structures, designed to accommodate the "secondary" management axes that cut across vertical silos, frequently burden professionals with two bosses—one responsible for the sales force, say, and another for a product line. Professionals seeking to collaborate thus need to go *up* the organization before they can go *across* it. Effective collaboration often takes place only when the would-be collaborators enlist hierarchical line managers to resolve conflicts between competing

organizational silos. Much time is lost reconciling divergent agendas and finding common solutions.

Other ad hoc organizational devices, such as internal joint ventures, co-heads of units, and proliferating task forces and study groups, serve only to complicate the organization further and to increase the amount of time required to coordinate work internally. The result is endless meetings, phone calls, and e-mail exchanges as talented professionals—line managers or members of shared utilities—waste valuable time grappling with the complexity of a deeply flawed organizational structure.

A new organizational model

To raise the productivity of professionals, big corporations must change their organizational structures dramatically, retaining the best of the traditional hierarchy while acknowledging the heightened value of the people who hatch ideas, innovate, and collaborate with peers to generate revenues and create value through intangible assets such as brands and networks. Companies can achieve these goals by modifying their vertical structures to let different groups of professionals focus on clearly defined tasks—line managers on earnings, for instance, and off-line teams on longer-term growth initiatives—with clear accountability. Then these companies should create new, overlaid networks and marketplaces that make it easier for professionals to interact collaboratively and to find the knowledge they need.

Companies can not only build this new kind of organization but also reduce the complexity of their interactions and improve the quality of internal collaboration by implementing four interrelated organizational-design principles:

1. Streamlining and simplifying vertical and line-management structures by discarding failed matrix and ad hoc approaches and narrowing the scope of the line manager's role to the creation of current earnings

2. Deploying off-line teams to discover new wealth-creating opportunities while using a dynamic management process to resolve short- and long-term trade-offs

3. Developing knowledge marketplaces, talent marketplaces, and formal networks to stimulate the creation and exchange of intangibles

4. Relying on measurements of performance rather than supervision to get the most from self-directed professionals

The ideas underlying each of these policies may not be entirely new, but we don't know of any company that applies *all* of them holistically—and this failure limits the ability to perform up to potential. A company that tries to simplify its vertical organizational structure without helping large numbers of self-directed professionals to collaborate more easily might increase its efficiency, for example. But that would be more than offset by a decrease in its effectiveness.

Simplify the line structure

The first design principle is to clarify the reporting relationships, accountability, and responsibilities of the line managers, who make good on a company's earnings targets, for all other considerations will get short shrift until short-term expectations are met. To achieve this goal, a company must establish a clearly dominant axis of management—product, functional, geographic, or customer—and eliminate the matrix and ad hoc organizational structures that often muddle decision-making authority and accountability. Dynamic management and improved collaboration, as we show later, are better ways of accomplishing the purposes of these ad hoc structures.

A company that aims to streamline its line-management structures should create an effective enterprise-wide governance mechanism for decisions that cross them, such as the choices involved in managing shared IT costs. These mechanisms are typically created by defining and clarifying the decision-making authority of each member of the senior leadership team and establishing enterprise-wide governance committees as required. It may also be necessary to take important support functions, which demand focused management, out of the line structure, so that specialized professionals (rather than line managers, who are often, at best, gifted amateurs) can run these functions as shared utilities.

Finally, to promote the creation of enterprise-wide formal networks, parallel structures and parallel roles should be established across the whole extent of the company. Defining the role of the comptroller or the country manager consistently throughout it, for example, helps the people in those roles to interact and collaborate.

Manage dynamically

Once the newly simplified vertical structure allows line managers to limit their attention to meeting the near-term earnings expectations of the company, it has the luxury of focusing other professionals on the long-term creation of wealth. The advantages of such a separation are obvious. As one executive we know put it, you don't want people who are engaged in hand-to-hand combat to design a long-term weapons program.

Ongoing multiyear tasks such as launching new products, building new businesses, or fundamentally redesigning a company's technology platform usually call for small groups of full-time, focused professionals with the freedom "to wander in the woods," discovering new, winning value propositions by trial and error and deductive tinkering. Few down-the-line managers, who must live day to day in an intensely competitive marketplace, have the time or resources for such a discovery process.

Not that companies should forgo discipline while undertaking such a project. In fact, the portfolio-of-initiatives approach to strategy enables them to "plan on being lucky" by using the staged-investment processes of venture capital and principal investing firms, as well as the R&D processes of leading industrial corporations.[1] Companies that take this approach devote a fixed part of their budgets (say, 2 to 4 percent of all spending) and some of their best talent to finding and developing longer-term strategic initiatives. Each major one usually has a senior manager as its sponsor to ensure that resources are well invested. Once an initiative is ready to be scaled up—when revenues and cost projections become clear enough to appear in the budget—it can be placed in the line structure.

Of course, at the enterprise level, companies must manage their short- and long-term earnings in a way that integrates their spending on strategic initiatives with the overall budget, so they will need to adopt a systemic, effective way of making the necessary trade-offs. What we call dynamic management can help: a combination of disciplined processes, decision-making protocols, rolling budgets, and calendar-management procedures makes it possible for companies to manage the portfolio of initiatives as part of an integrated senior-management approach to running the entire enterprise. Dynamic management forces companies to make resource allocation trade-offs, explicitly, at the top of the house rather than allowing them to be made, implicitly, by down-the-line managers struggling to make their budgets. This change further simplifies the line managers' role.

>>> *How can managers translate the concept of corporate performance into an operational reality? See "Managing for improved corporate performance" (www.mckinseyquarterly.com/links/17884).*

Develop organizational overlays

Having stripped away unproductive matrix and ad hoc structures from the vertical organization and clarified the line structure, a company must develop

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[1] Lowell L. Bryan, "Just-in-time strategy for a turbulent world," *The McKinsey Quarterly*, 2002 special edition: Risk and resilience, pp. 16–27 (www.mckinseyquarterly.com/links/17773). The primary stages of such an investment process are diagnosing the problem or opportunity, designing a solution, creating the prototype, and scaling it up, with natural stopping points, midcourse corrections, or both at the end of each stage.

organizational overlays in the form of markets and networks that help its professionals work horizontally across its whole extent. These overlays make it easier for them to exchange knowledge, to find and collaborate with other professionals, and to develop communities that create intangible assets.

Because these market and network overlays help professionals to interact horizontally across the organization without having to go up or down the vertical chain of command, they boost rather than hinder productivity. Companies that establish such overlays are making investments not only to minimize the search and coordination costs of professionals who exchange knowledge and other valuable intangibles among themselves but also to maximize the opportunities for all sorts of cost-effective, productive interactions among them.

We believe that moving simultaneously into knowledge marketplaces, talent marketplaces, and formal networks will make all three more effective. A knowledge marketplace, for example, helps members of a formal network to exchange knowledge, which in turn helps to strengthen the network. A talent marketplace works better if the people who offer and seek jobs in it belong to the same formally networked community. In combination, these techniques can make it possible for companies to work horizontally in a far more cost-effective way.

Knowledge marketplaces. For the better part of the past 15 years, knowledge management has generated a good deal of buzz. Despite heavy investment, the benefits have been limited. Real value comes less from managing knowledge and more—a lot more—from creating and exchanging it. And the key to meeting this goal is understanding that the most valuable knowledge of a company resides largely in the heads of its most talented employees: its professionals.

Exchanging knowledge on a company-wide basis in an effective way is much less a technological problem than an organizational one. As we have argued, to promote the exchange of knowledge, companies must remove structural barriers to the interaction of their professionals. These companies must also learn how to encourage people who may not know each other—after all, big corporations usually have large numbers of professionals—to work together for their mutual self-interest. What's the best way of encouraging strangers to exchange valuable things? The well-tested solution, of course, is markets, which the economy uses for just this purpose. The trick is to take the market inside the company.

How can companies create effective internal markets when the product is inherently intangible? Among other things, working markets need objects

of value for trading, to say nothing of prices, exchange mechanisms, and competition among suppliers. In addition, standards, protocols, regulations, and market facilitators often help markets to work better.

These conditions don't exist naturally—a knowledge marketplace is an artificial, managed one—so companies must put them in place.[2] In particular, the suppliers of knowledge must have the incentives and support to codify it (that is, to produce high-quality "knowledge objects"). "Buyers" must be able to gain access to content that is more insightful and relevant, as well as easier to find and assimilate, than alternative sources are.

Knowledge marketplaces are a relatively new concept, so they are rare. We have found that building an effective one in a large company requires significant investments to get the conditions in place—but that such a marketplace can indeed be built. A successful mechanism of this kind substantially improves the ability to create and exchange knowledge and dramatically cuts search and coordination costs.

Talent marketplaces. A company can create similar efficiencies by developing a talent marketplace that helps employees in a talent pool, either within a single organizational unit or across the enterprise, to explore alternative assignments varying from short-term projects to longer-term operating roles. Simultaneously, anyone with assignments to offer can review all of the people looking for new opportunities. As with marketplaces for knowledge, companies must invest in their talent markets to ensure that gifted men and women looking for new jobs hook up with managers seeking talent.

Companies must define the talent marketplace by specifying standardized roles, validating the qualifications of candidates, determining how managers receive the job seekers' performance evaluations, and so forth. The other requirements include pricing (the compensation for a particular role or assignment), an exchange mechanism to facilitate staffing transactions, and protocols and standards (how long assignments run, the mechanics of reassignment, the process of conveying decisions to reassign employees). Talent marketplaces do exist—particularly in professional organizations—but like knowledge marketplaces they are at an early stage of development.

Formal networks. People with common interests—such as similar work (industrial engineers, say), the same clientele (the automotive industry), or the same geography (China)—naturally form social networks. These networks lower the cost of interaction while increasing its value to all participants.

[2] Lowell L. Bryan, "Making a market in knowledge," *The McKinsey Quarterly*, 2004 Number 3, pp. 100–11 (www.mckinseyquarterly.com/links/17774).

A network often provides them with increasing returns to scale: the larger it is, the more chances they have to find opportunities for collaboration.

Social networks do face problems. They often have limited reach (for example, because they don't extend to many potential members in far-flung units and geographies). What's more, they sometimes operate inefficiently (several conversations might be required to reach the right person), may rely too much on the participants' goodwill, and, most particularly, can fail to attract enough investment to serve the common good of all members effectively.

The solution, for a company, is to boost the value of the network by investing in it and formalizing its role within the organization. One such move is the designation of a network "owner" to build common capabilities (for instance, by making investments to generate knowledge). Others include developing incentives for membership, defining separate territories (the existence of more than one social network may confuse would-be members), establishing standards and protocols, and providing for a shared infrastructure (say, a technology platform supporting the network's activities).

In fact, a formal network with specific areas of economic accountability can undertake many of the activities that have inspired companies to use matrix management structures. A formal network relies on self-directed people who work together out of self-interest, while a matrix uses a hierarchy to compel people to work together. In addition, a formal network enables people who share common interests to collaborate with relatively little ambiguity about decision-making authority—ambiguity that generates internal organizational complications and tension in matrixed structures.

Although social networks flourish at many companies, only a few have formalized them. That next step, though, is one of the most important things a company can do, because it removes unnecessary complexity from horizontal interactions among talented people across organizational silos.

Measure performance

The final set of ideas rounding out this new organizational model involves relinquishing some level of supervisory control and letting people direct themselves, guided by performance metrics, protocols, standards, values, and consequence-management systems.

To be sure, accountable leaders must control large companies even as many of their workers become more and more self-directed. But what's needed is inspired leadership, not more intrusive management. Of course, management will continue to be vital—particularly to get value from the many

employees who will go on laboring in "industrially engineered" processes and to hold all of a company's workers and managers accountable for their performance.

But as the workforce increasingly comes to consist of self-directed professionals, leaders will have to manage them by setting aspirations and using performance metrics that motivate them to organize their work, both individual and collective, to meet those aspirations. One successful CEO once told us that to motivate behavior, measuring performance is more important than providing financial incentives to reward it. The challenge is that to measure it effectively, the metrics must be tailored to individual roles and people. Get the metrics wrong and unintended behavior is the result.

To motivate the collaborative behavior that makes this new organizational model work, companies must create metrics that hold employees individually accountable for their contribution to *collective* success—an idea we call holding people "mutually accountable." Such metrics are particularly important for senior and top managers but are required, more broadly, for all self-directed workers. People who are great at developing the abilities of other talented people or at contributing distinctive knowledge, for example, should be more highly valued than those who are equally good at doing their own work but not at developing talent or contributing knowledge.

A new organizational model for today's big corporations will not emerge spontaneously from the obsolete legacy structures of the industrial age. Rather, companies must design a new model holistically, using new principles that take into account the way professionals create value. Big companies that follow these principles will get more value, at less cost, from the managers and the professionals they employ. In the process, they can become fundamentally better at overcoming the challenges—and capturing the opportunities—of today's economy. Q

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