teamwork

Multifunctional teams help companies cut through bureaucracy and unleash creativity to improve their bottom line

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Whether they produce polyethylene or penicillin, all companies are feeling greater competitive pressure. Today, they share the same urgency for cutting costs, improving efficiencies, and, most important, for speeding products from the laboratory to the customer’s hands.

To help them meet these goals, companies across a wide range of industries have been focusing on their professional workforces—devising ways to optimize their performance. And an increasing number of companies are reorganizing these employees into powerful cross-functional teams that bypass the traditional and bureaucratic department-by-department approach to product or process development.

Fortified with representatives from such diverse disciplines as research, marketing, finance, manufacturing, engineering, and service, as well as vendors and customers, these teams can cross-examine a new product or process at every stage from conception to commercialization. The team matrix structure balances entrepreneurial approaches with access to corporate resources. It allows companies to create a synergy that they might never achieve if they waited for isolated departments to bridge their efforts. Consequently, teams work to optimize performance, profitability, development, and efficiency and thus ensure growth.

Proponents of cross-functional teams say they are simply more reliably productive than any other organizational configuration. “In short, we do believe that teams are the only way to succeed in today’s environment,” says Kelvin Cooper, senior executive director for candidate synthesis enhancement and evaluation at Pfizer Central Research, Groton, Conn.

And companies like Pfizer that set up their first cross-functional teams years ago are now busy developing more sophisticated mechanisms for supporting those groups and optimizing their efficiency.

Although chemical and pharmaceutical companies equally value the power of cross-functional teams, they crave their benefits for different reasons. In the chemical industry, where sales are growing a mere 4% per year on average, teams help companies prune costs and dominate mature markets, notes James R. Bowers, vice president for chemical industry consulting at the Hay Group, a Philadelphia-based human resources consulting firm. They are a key element in company strategies for meeting shareholder expectations and improving their returns.

Chevron Chemical, for instance, says that “basic economies” is the main driving force behind the formation of its multifunctional teams, which have increased in number over the past few years. “We’re leaner, so we must work together more and [bridge] various functions to save time and resources and produce better products and solutions for our customers,” says Robert Buesinger, manager for polymers research and development and customer technical service at Chevron.

Chevron is forming cross-functional teams to enhance product application and development, boost customer satisfaction, slash overhead costs, and redesign work processes. “We’ve always had a team-based structure,” Buesinger says, “but getting the perspectives of different functional groups is a mandatory part of team formation now.”

In the pharmaceutical industry, where sales are growing a more sprightly 8% per year, cross-functional teams help companies beat competitors to the market, which can yield big benefits. Bellwether companies win more market share and more time under their patents to enjoy exclusive control of a market niche, says Bernard R. Tyrrell, national sector head for pharmaceuticals at the Hay Group. Today, it’s not unusual for a drug company launching a new chemical entity to rake in a whopping half-billion dollars in sales in the first year, he explains. “Companies are marshaling their resources so that within 24 hours of FDA approval, they have product being shipped to pharmacies.”

Merck, for example, has launched more new products in the past five years than during any other comparable time span in the company’s history. It’s no coincidence that Merck’s reliance on cross-functional teams has risen tremendously over that same period, says Scott Leavitt, a director of business strategy at the company. Cross-functional teams have been a key component in “a new approach to managing our business” to deal with sea changes both inside and outside of Merck. For one, the company’s workforce is growing rapidly. Today, 58,000 people work for Merck, which is 11,000 more than five years ago, Leavitt reports. “At the same time, the market in which we op-
erate has grown more crowded, more complex, and more competitive."

To compete today, companies need to be more innovative than ever. And cross-functional teams, which allow for the cross-pollination of ideas, are the perfect forum for coming up with creative solutions or products, says Donald Nelson, vice president of employee resources for central research at Pfizer.

"Team diversity leads to more ideas," Chevron's Buesinger adds. "When you have the benefit of different perspectives, you can come up with better ways to solve problems." The company has been able to elevate its level of customer service, thanks to its feedstock quality teams—which bring together manufacturing, lab, and technical support folks, as well as business unit and marketing people. Collectively, team members have developed more efficient systems to inventory raw material quantity and quality. This, in turn, allows Chevron to better anticipate the needs of customers and provide products that meet their exact specifications.

Teams can also help companies keep functional divisions and international boundaries in sync. At Merck, for instance, cross-functional teams allow the company to more efficiently coordinate strategies, objectives, and resources around the needs of its individual therapeutic franchises. The company's worldwide business strategy teams—which bring together key executives across the organization—develop global franchise strategies and identify and resolve ongoing issues related to a franchise, such as HIV or osteoporosis, Leavitt says.

One of the greatest benefits of the cross-functional team structure is that it allows for a continuity that's lacking under the traditional departmental struc-

Chevron's polyethylene management team discusses performance improvement projects. Left front: Robert Buesinger; seated: Steve Smith and Ron Abbott; standing, from left: Mitch Krutilek, Bill Bybee, and Ed Miller; at computer: Steve Galland.

chemists, biologists, and employees with strong manufacturing experience "who can ensure that the assay we are developing is sound technically and can be manufactured." Along each stage of development, some of the same people are still involved; they know the history of the research and can foster a smooth transition. Now as a team, "we can see the big picture," she says.

When employees are organized into well-managed cross-functional teams, "information flows earlier to the right people," says Nelson. When Pfizer first established its advanced candidate management teams, which included a significant marketing presence, "we suddenly had fast access to a lot better market data that could guide us through the product development pipeline."

Under the departmental structure, "R&D would make something, throw it over the wall to manufacturing, and hope that they picked up where we left off," employing the exact same processes and getting the same results, says Jane Bryant, R&D project manager for an assay development team within Abbott Laboratories' Diagnostics Division, Abbott Park, Ill. That's not a problem for her anymore.

Her assay development team includes some members of Merck's worldwide business strategy team for arthritis, which helped to ensure that strategic, clinical, manufacturing, and marketing issues were addressed and communicated throughout all areas. From left, standing: Beth Seldenberg, Gary Sederer, Robert Silverman, Sumeet Sud, Erroi McKinney, Grey Warner, and Wendy Dixon. From left, seated: Scott Leavitt, Thomas Salzmann, Roger Perlmutter, and Javier Rodriguez.
Employees must nurture different skills to thrive under team umbrella

The days of working alone at a lab bench or in an office cubicle are all but gone. Today, many companies expect their professional employees to participate on cross-functional teams in which they collaborate with colleagues from other disciplines. As a result, the rules of the game are changing for both prospective employees and those already on the payroll.

To get ahead, they must demonstrate and sharpen different skills than their colleagues did even 10 or 15 years ago.

Certainly, excellence in an individual discipline will never go out of style. “First and foremost, we always look for functional expertise,” says Scott Leavitt, director of business strategy at Merck.

“I can’t see that ever changing.”

However, the most successful employees today are those with great interpersonal skills. The communicative team player has the edge in today’s job market, attracting the best employers, reaping the most coveted awards, and enjoying enhanced job security.

Increasingly, managers value people who are open to working on teams. “Good teaching behavior begins with a good teaching attitude,” says Peter A. McCarthy, senior executive director for drug discovery and head of chemistry recruiting for Pfizer Central Research, Groton, Conn. “Someone with a teaching attitude understands their dependence on other team members and values them for their skills and contributions. A team player understands that the team succeeds or fails together; there is no way to claim personal success in the face of team failure.”

That kind of cooperative spirit really paid off for two structural chemistry teams at Schering-Plough Research Institute, Kenilworth, N.J. Staffed with the same types of professionals, each team set out to determine the three-dimensional structure of a different enzyme encoded by the hepatitis C virus. That structural data is critical for synthetic and computational chemists as they set out to design and synthesize more specific inhibitors with high affinity for the target proteins. Rather than compete, each team helped the other, notes Patricia C. Weber, senior director for structural chemistry. Even though the teams worked in separate laboratory areas and did not attend the same meetings, they were diligent about informally sharing advice and progress. The insights they gained from each other helped the teams determine the structures more quickly than if they had been working alone, she says. “The communication has just been excellent,” Weber says.

Indeed, it’s important for employees to possess strong communication skills both in delivering and in receiving information. In a team environment, the clear communication of ideas, questions, and answers is critical, says Joseph C. Coury, a process technology specialist for Albemarle at its Houston plant.

To be successful on a team, employees must also have an abundance of self-confidence in their area of expertise. Team members must be comfortable enough to “admit when they are wrong without fear of embarrassment,” Coury says. “They must not be afraid to make educated guesses and ask questions. They must always be willing to qualify opinions and conclusions so as not to mislead.”

Cross-functional teams generally have only one person representing each discipline, “so each person must be able to communicate results as well as accept suggestions from people outside that area without feeling threatened,” notes Weber. A confident team member is free to be more open-minded and “willing to listen to what appears to be a far-out idea from a nonexpert.”

Even while team members must remain strong in their area of expertise, they must also cultivate a broad perspective. “Today, researchers are expected to be more broadly conversant across scientific disciplines while maintaining expertise in a smaller number of disciplines,” Weber says. This reflects not only a culture change toward teamwork but also the evolution of computer technology that allows researchers to simultaneously examine several aspects of a project and quickly access information from a multitude of sources, she says.

To encourage employees to be more broad-minded, Pfizer brings in employees from other disciplines in the company to help train its newly hired medicinal chemists. When they become members of a team, “we want them to consider more than just the chemistry; they need to think about what the drug metabolism and biology team members are thinking about,” Pfizer’s Kelvin Cooper says.

As they look at their projects from different perspectives, “it’s crucial that the team leaders and members be flexible and open-minded,” says Timothy C.

Cross-functional teams may be as valuable for their ability to expedite product development as they are for their ability to squelch it. Often, cross-functional teams are the best vehicle for deciding whether a company should enter a new market or continue to undertake a product or process that is already in the pipeline. At each step along the way, they can ask whether the candidate is a viable marketable product or provide any distinct market advantage.

Although cross-functional teams can be a tremendous boon to companies, they also have the potential to create roadblocks and to squish innovation. “Companies have to ensure that their multifunctional teams speed the decision-making process, not increase bureaucracy and slow it down,” says Larry Cunningham, vice president for human resources at biotechnology company Centocor, which merged with Johnson & Johnson early last month. Eduardo Baralt, a lead research chemist within Chevron Chemical’s Petrochemical Technology group, echoes that point. Companies can fall into the trap of forming a team to deal with an issue that is “not really that crucial or could best be resolved by one or two people rather than 10,” Baralt says.

Managing a new team can be tricky. “When teams first form, there’s often a lot of counterproductive conflict,” says Bow- ers. Individuals may understand the importance of working on a team, but functioning as a group may not come naturally. “The team has to find a way to coalesce and set some standards and expectations that will allow it to move forward and actually achieve its goals.”

Indeed, every successful team needs to establish ground rules to govern...
ish, manager for new product development at Hercules’ Food Gums sion. “Team efforts are hard work everyone.”

ing part of a team can also be stressful, especially for new grad-
s, Couvy says. Generally, technical staff are assigned lofty goals, and ev-
each team member is held accountable specific contributions. “To maint-
their health and job performance, duties must have a plan to cope h these stresses. Those who take e of themselves and manage their es are the ones who will perform ter in a team environment.”

Despite the accompanying hard rk and stress, employees generally e being part of a team. If the meet-
gs are run well and the team is pro-
active, employees generally will buy to the process, Leavitt says. One
of being on a team is that em-
ployees are more likely to believe they can make a difference, notes Eduardo Aralt, a lead research chemist for hevron Chemical’s Petrochemical technology group. In the past, when people worked more independently, an employee was never sure if his or her contribution eventually led to a better product or made a difference in a proj-
es. Now, as part of a team, each individ-
ual is involved in a greater part of the life of a project. “You get to see the im-
 pact that you ultimately have over production, for example. That in itself really is a big reward,” Aralt says.

Personally plays a role, too, in whether an employee feels good about being part of a team. “Some scientists enjoy working alone and following their own ideas on their own timetable,” Weber says. “For them, it can be frustrating to present preliminary results just because it’s time for the monthly team meeting.”

On the other hand, many people natu-
rely appreciate the synergy that comes from the exchange of ideas between team members. “What I like most about being on a team is the interaction with other people,” says Vasudha Sulline, an associate scientist within Abbott’s Diagnostics Division. “Coming from a chemistry background, I am able to learn a lot from team member participation, says Nel-
son. For example, leaders need to make sure that each team member gets equal “air time” at meetings to prevent one in-
dividual from dominating the team’s results or recommendations. “And, as mundane as it sounds, we are constantly pushing to clarify roles and responsibilities, so that each team member has a good sense of what he or she is expected to contribute,” he says.

Managers also need to ensure that team members are thinking outside their functional areas. “The challenge becomes, how do you take someone who has done tremendous things individually and motivate that person to shift gears and become a team player?” says Tyrrell of the Hay Group. This is especially important in the biotechnology business as companies move from the research lab into product develop-
ment and form their first cross-functional teams.

Developing a cross-functional perspective is an important goal in many in-
dustries. “In our environment, at least, science and business have to blend to-
gether,” says Martha Caughley, human resources manager for Abbott Laborato-
ries’ Diagnostics Division. “Scientists are not isolated in a lab anymore; they are helping to solve real problems and make crucial business decisions.”

Requiring top scientists to think along business lines can pay off. At Merck, for ex-
ample, the company’s top researchers are expected to wear the hats of both sci-
entist and business leader, Leavitt says. For example, Roger Perlmuter, executive vice president of worldwide basic research and preclinical development, led the strategy team for Vioxx. Another of Merck’s top scientists, Joanne Wald-
streicher, executive director of clinical re-
search at Merck, serves on the prostate health worldwide business strategy team. She has played a key role in integrating the company’s science and marketing ef-
sorts for Proscar. Merck’s treatment for benign prostatic hyperplasia, an enlarge-
ment of the prostate gland. “Is she tops in her area of research? Absolutely,” Leavitt says. “But, like Perlmuter, she also views herself as accountable for the overall business success of her products.”

To help its employees develop the skills they need to be effective on cross-
functional teams, Hoechst Marion Roussel has launched an initiative called Pro-
cess Improvement and Team Effectiveness. Reaching from team members to top management, this training strategy is designed to significantly optimize project team dynamics and improve performance and productivity throughout
How do students get team savvy?

It's always been tough for graduates to adjust to the first job out of college. It's not easy to take years of theoretical course work and apply them to a real industrial environment. But now, new hires face additional challenges as they start jobs that require them to work effectively on cross-functional teams. As new employees, few have had the opportunity to hone the skills necessary for working in these groups.

What's more, the tenets on which teams are based are often contradictory to the doctrine for university success. In college, students spend years focused on one discipline, creating a mind-set around biochemistry or chemical engineering, for example. And all work is done independently. "Success is based not on how you cooperate with your peers but on how you compete against them," says Eduardo Baralt, a lead research chemist for Chevron Chemical's Petrochemical Technology Group. In contrast, when these students start a corporate job, they are usually assigned immediately to a team that requires them to view problems across disciplinary boundaries, work closely with others, and share their knowledge in order to succeed, he adds.

However, there are ways to alleviate that culture shock. Students can get actual hands-on experience with cross-functional teams by participating in work-study programs. Chevron Chemical, for example, offers cooperative programs for students at the University of Houston's downtown campus and Texas A&M. Both sides benefit from the deal, Baralt says. "Students gain experience working on a team; we gain additional resources for projects as well as a chance to know people we might want to hire when they finish school."

Students at the University of Wisconsin, Madison, can gain experience working on a multidisciplinary team by participating in a unique Technology Enterprise Competition. Now in its third year, the competition requires students to form cross-disciplinary teams and create a business plan for a new technology-based business. Each team must include at least one student with a science or engineering background and one student with a business background. The final plans and presentations are judged by a panel of entrepreneurs, venture capitalists, and business professionals.

The competition is sponsored by the Technology Enterprise Cooperative, a University of Wisconsin, Madison, campus-wide organization supported by the College of Engineering, School of Business, and College of Agriculture & Life Sciences. The cooperative's mission is to give faculty and students the opportunity to experience the technology-based entrepreneurial process firsthand.

Chemical engineering students made a showing in the 1999 competition on a team that tied for second place. That group developed a business plan to license technology and reprocess the U.S. government's piles of uranium hexafluoride into useful products. "We have found that many students do not have an opportunity to interact with peers from other disciplines," says Margaret Tongue, director of the student leadership center. "Yet when they go out into industry, they will most certainly be working with these other disciplines at some time. The team skills they learn in this competition will allow them to build connections to other disciplines that may be valuable later."

The competition is also meant "to foster and develop creativity, innovative thinking, and an entrepreneurial spirit in our students," Tongue says. By participating in the competition, students enhance their creative problem-solving skills and gain experience in building teams, applying knowledge, and developing new technologymbased ventures. In short, it prepares students for a future in a competitive industry in a way that university course work cannot.

That kind of experience is valuable when it comes time to secure a job. Those who recruit and hire chemists say they favor candidates who have experience working alongside scientists in other disciplines or with people outside the research realm. But they are quick to point out that valuable experiences can occur outside the academic or industrial environments. Students can demonstrate an aptitude for teamwork in a variety of settings.

Often, summer job experiences give students insight into how teams work and allow them to develop skills that translate into the business world, says Martha Caughey, human resources manager for Abbott Laboratories' Diagnostics Division. She recalls a candidate who had gained valuable team experience as an assistant manager at a fast-food restaurant. "On a daily basis, he had to clearly communicate the expectations for each employee, maintain productivity, and resolve conflicts. Even though his experience was not in an academic or industrial setting, he was able to demonstrate all the traits we look for in a great team leader."

Extracurricular activities can be another avenue for building team-oriented skills, says Elizabeth Gallimore, a human resources project analyst for Chevron Chemical. When recruiting, she looks for candidates who have served on teams in school or in the community. In the past, she has been impressed with candidates who have done missionary work, built houses for the homeless, or worked with disadvantaged children. Gallimore notes: "When a candidate stands for values like protecting the environment, giving back to the community, and helping the less fortunate, we assume that they have humility and compassion—traits that can be attractive in team members and leaders."

the company's Drug Innovation and Approval process.

Still, few companies offer training programs aimed at developing strong team members. "Companies have always offered employees training or development programs designed to sharpen 'hard' technical skills," Bowers says. "However, most companies fail to offer training on 'soft' skills such as interpersonal communication, especially for employees outside management." What they fail to realize, he adds, is that the softer behavioral skills are what differentiate the successful teams from the ineffective ones.

Still, some companies offer training programs that dovetail with team concepts. For example, Abbott's Diagnostics Division offers a class on diversity awareness that encourages employees to value thoughts, opinions, expertise, and management styles that might be different from their own, Caughey says. The class is not designed specifically with team members in mind, but it teaches employees to be more open-minded, which is a valuable skill for any effective team member to have, she notes.

Many companies say the best way to groom employees for their roles on teams is through mentoring. "If a manager senses that a new hire is not fitting well into a team or is having problems adjusting to teamwork, then it is important to step in and help," Pfizer's Cooper says. At Hoechst Marion Roussel, managerial candidates must be able to demonstrate an ability to coach and mentor, as well as to develop and nurture strong teams.

To boost morale and optimize team member productivity, team-focused companies are using the same incentives they always have: awards, promotions, bonuses, and salary increases. However, they are struggling with the
details: Whom do you reward—the individual or the entire group? Indeed, "the multifunctional team structure is putting pressure on organizations to take a different view of compensation," says Centocor’s Cunningham. "It’s important for companies to align their rewards system around team objectives." However, many companies concede that they are just learning how to do that.

The reward structure within Pfizer’s Discovery Research group still revolves around an individual’s performance, says Peter A. McCarthy, senior executive director for drug discovery and head of chemistry recruiting for central research at Pfizer. The company recognizes exceptional team efforts with teams and celebrations, but raises and bonuses are not currently handed out in groups. "While matters have improved dramatically in my 15 years at Pfizer, I think most employees would agree that we don’t do enough to recognize and reward teams and teaming behavior," he says.

Some company compensation policies lean the other way. These firms reason that it’s not always appropriate to single out a few individual employees for their technical expertise and performance when they are part of a team. If employees are asked to work in sync as a team, then it follows that they be rewarded as a team. "It is so critical that team members work together effectively. I think that many of us here feel comfortable with rewarding the entire team," says Patricia C. Weber, senior director for structural chemistry at Schering-Plough Research Institute, Kenilworth, N.J. For example, the President’s Award, the company’s most prestigious award, recognizes exceptional teams by presenting each member with a cash award.

Some companies hesitate to reward entire teams because it removes the personal accountability that some employees need to motivate them. "Under the team reward structure, slackers enjoy the benefits of being on a team that succeeded despite them, not because of them," says the Hay Group’s Bowers. "And so the challenge is to come up with measures for personal contributions that equate to effective teamwork." When judging employee performance, companies need to focus on how an employee might have made a team more effective rather than on technical criteria such as the number of customer transactions handled. In other words, companies need to send the message that "being a catalyst for change may be more important than being a superstar," he says.

Sometimes, the best way to determine an employee’s effectiveness is through peer review. The traditional review system—in which a supervisor sizes up an individual employee—is becoming obsolete in today’s more team-oriented companies. Because most teams include only one person from a functional area, it’s rare that an employee and his or her supervisor work together, Bowers points out. That makes it difficult for the supervisor to assess the employee’s performance. So, as people work increasingly on teams, the best reading of their effectiveness will come from the people they work with and the people who represent their internal and external customers.

Finding ways to hold every team member accountable can be critical. "The performance of team members is probably the most important factor for success in any company," Pfizer’s Cooper says. "Without input from all the different types of people, things can get bogged down very quickly." But when team members are in sync, "they can really break through barriers."