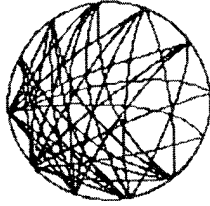


CHAPTER 3



THE POWER OF PURPOSE

Do, Doing, Done

Purpose is the *sine qua non* of virtual teams. Nowhere is this clearer than at Eastman Chemical Company, which has taken a long but dramatic leap. An old-line industrial manufacturing company, Eastman is becoming a model 21st-century team-based network organization replete with virtual teams.

Eastman's Chemistry of Organization

As one of the key architects of its transformation, Dr. Robert Joines, Eastman's manufacturing vice president for Europe, the Middle East, and Africa, says:

Eastman is a huge system of 800 to 900 interlocking teams that criss-crosses the company—and even includes our customers and suppliers. When we think of doing something, we think of teams. And, today, Eastman is almost a seamless organization.'

The time by car between any two of Tennessee's big cities—Memphis to Nashville, Nashville to Knoxville, Knoxville to Chattanooga—is under five hours. In our search for great virtual teams, we made the drive east from Nashville in the center of the state on I-40 on an early summer's night. The sun setting behind us colored the sky ahead, painting the peaks that become the Appalachians the shades of their names. Here, where Tennessee, Virginia, and North Carolina converge, the Blue Ridge meets the Smoky Mountains.

Smoky blue turned to black by the time we topped the last hills to our destination. Suddenly a surrealistic "whiteprint" of light flashed below us, shimmering strands of luminescence that sparkled for acres, pipes pushing up to 90-degree turns then angling down into elaborate twists of conduits. A spaceport? A city of the future? Tucked away in the small town of Kingsport is one of the world's largest chemical manufacturers—and an acknowledged world-class management system.

Spaceship Eastman

It was in this valley conveniently situated on both a navigable river and a railroad that, at the urging of a local entrepreneur, George Eastman decided in 1920 to invest in a defunct chemical plant. He needed a reliable chemical supplier for his developing photography business some 700 miles to the north, Eastman Kodak in Rochester, New York.

Three quarters of a century later, Eastman Chemical Company, which spun off from Eastman Kodak in 1994, is a \$5 billion plus global operation with 17,500 employees manufacturing 400 products. Although you cannot go into the corner store and buy anything with the Eastman label, you would have a hard time not buying something with an Eastman product in it. Need a toothbrush? An Eastman chemical is an ingredient in the plastic handle. Soft drink and liquor bottles, pain killers, peanut butter, tires, carpet, mascara, stonewashed jeans, brake fluid, garden hoses, thermos bottles, latex paint, tennis balls, and, of course, Kodak film all contain Eastman chemicals.

Today Eastman Kodak is still Eastman Chemical Company's largest customer, but it is only one of 7,000 who buy its products around the

world. Nestled in the northeast corner of Tennessee, Kingsport is the chemical company's world headquarters. Manufacturing operations stretch across six American states, Canada, Mexico, The Netherlands, Malaysia, Argentina, Wales, Hong Kong, and Spain. In 1993, Eastman became the first (and still only) chemical company to receive the U.S. government's highest kudo for quality, the Malcolm Baldrige National Quality Award.

We reported on Eastman in *The Age of the Network*.² There we told the story of a traditional firm that reinvented itself as a networked organization while still retaining important elements of hierarchy and bureaucracy. Since our first report, there have been some changes in Eastman's organization and a handful of "firsts" at the company. For example, as a result of the spin-off from Kodak in January 1994, Eastman must now deal with investors for the first time. With its global presence growing rapidly (the goal is 50 percent of its sales from markets outside the United States by the year 2000), the company has had to strengthen its geographic links. For the first time, it named regional presidents in Europe, Asia Pacific, and the Americas.

In this book, we explore the virtual teams fueling Eastman's transformation.

Teams Every *Which Way*

It took a quality crisis of business threatening proportions—and nearly two decades of work—to move the company to the structure it now has.³ The company began its renaissance in the late 1970s when it lost market share of a major product due to poor quality. With a focus on traditional quality approaches and a lot of common sense and creativity, Eastman went about redesigning how it did its work from the shop floor to the very top of the company. Today, *everyone* works in teams and usually in multiple teams.

Ask people at Eastman why they won the Baldrige Award and they will point to their quality philosophy that rests on team alignment. "It's a consensus style of management," says Earnest Deavenport, Eastman's CEO since 1989, "that is much more based on team than individual

decisions. There is more empowerment of teams than you find in a conventional organization. Many fewer decisions get bumped up to me to make individually.”

Eastman is a complex mix of permanent, temporary, face-to-face, ad hoc, geographically distributed, culturally diverse, vertical, and horizontal teams. Some have traditional team leaders. Some rotate leadership. Some are quite formally chartered. Others less so. There are multiple executive teams and hundreds of shop floor teams.

Almost all Eastman teams cut across space, time, and/or organization boundaries.

Eastman has all types of virtual teams. It has shift teams that are responsible for keeping operations going around the clock. Short-term project teams are invariably cross-functional. While sometimes collocated, more often these teams follow the typical pattern of coming together and then going apart (see Chapter 6). They meet as necessary to plan and align their work then carry it out individually or in smaller groups.

The presidents of all the manufacturing facilities comprise a self-directing executive-level virtual team. They are members of the same organization with common problems and responsibilities situated in different locations. They rotate the chair every quarter. “We had teams working in the operational level, but somehow it seemed we didn’t trust plant managers. We did away with that and said, ‘Why don’t you guys work together to manage manufacturing for the whole world?’” comments Deavenport.

Longer lasting process teams as well as customer and supplier teams are distributed and cross-organizational. Although most virtual teams need some face-to-face time together to function effectively, especially at the beginning, they can become “more virtual” over time. Eastman has a supplier team, for example, that had many face-to-face encounters when it began but increasingly fewer as time passed. Once the group

established trust and set up its processes of interaction, it continued to make quality improvements without meeting. The virtual team functioned asynchronously in different places and organizations.

As it opens new chapters in its teaming journey, the company has begun to look at *time* as a major resource. “Everyone has the same amount of time available—24 hours a day,” observes Lynda Popwell, Eastman’s vice president of Quality and Health, Safety and Environment (QHSE). “We want to make sure that everyone in the company is focused on creating value for the company in everything that we do. Period. We want to reduce the complexity and to work on only those things that really add value to our customers.”

At one point, Popwell stopped to count how many teams she was on and found it was too many. “I had been invited to be on a number of teams and I had accepted these offers until all of a sudden I realized it was too many. Then you have to assess and use good quality management principles to figure out what your priorities are.”

Getting Quality Together

Because Eastman is a manufacturing operation, good teamwork on the shop floor is synonymous with good quality in its products. One of its earliest “improvements” came as a simple recognition in the late 1970s:

the four shifts per day were simply one ongoing team spread out over 24 hours.

“At that time, we had a ‘tag and you’re it’ shift change mentality, four different people around the clock running four different shift teams,” says Will Hutsell, Eastman’s senior associate in Corporate Quality. Very little information passed between shifts. When one shift left, the next would come in and readjust all the control room dials, as if the people before them had no idea what they were doing. Operators had to ask permission to make any changes and, of course, they punched time clocks.

During the initial implementation of continuous improvement efforts, Eastman took groups of the shift foremen off the job for quality management training. Instead of working their normal shifts, they came

together as a group for training and planning improvement projects. These foremen (who are now called team managers) would then go back to their work areas and hold team meetings with their operators to develop plans for implementing the projects.

“Before long, the control rooms were transformed,” Popwell explains. “The operators had the skills and information they needed to do their work without asking anyone’s permission. In time, they stopped punching time clocks. Operations improved enormously and control rooms were clean.” Eastman was on its way to a Baldrige.

Today, Eastman’s training process is a sophisticated operation that reaches across the company. For example, to be trained as coaches, people leave their jobs for 14 weeks of intensive education in modern management thinking, skill building, and practice. Initially, they set up training programs and had people attend individually, but they found that approach not to be very effective. So groups of managers started attending together, creating sufficient critical mass of shared experience in the organization to sustain the learning when people returned to their jobs.

At the same time that Eastman reinvented work on the shop floor, it also made many other significant changes that raised the trust level in the company:

- ? It equalized benefits across the organization. Everyone has the same vacations for years served and everyone has access to the same healthcare plan.
- ? The executive lunch club became the business dining room, open to anyone with a business need.
- ? It eliminated the traditional performance appraisal system that distributed people’s performance across a bell curve and replaced it with an employee development system.
- ? After experimenting with team rewards, it stopped them because it proved impossible to draw indisputable lines around “the team.” Individual teams depend on the overall interteam environment; they cannot succeed without it. Eastman now has a companywide bonus program.

Beginning with Purpose

All Eastman teams have a vision and a mission and most have charters and sponsors. In many cases, teams accept a written charter with a signing ceremony that commissions the teams.

“Because there are many teams at Eastman, it is essential that we always define the purpose of each team,” Hutsell says. Without clear purpose and an established process for defining it, confusion not quality would rule at Eastman.

“Typically a broad charter is put in place and the team is empowered to see if it makes sense,” he says. “The team can modify its own makeup.” Using Eastman’s Quality Management Process, teams pay attention to questions such as Do we have the right purpose? and Do we have the right membership? This helps keep teams on track.

The newly formed Latin America Team, for example, came together for several days to define its vision, goals, key results, roles, and responsibilities. With the purpose set, the team continues to meet but not everyone needs to attend every meeting.

“You must look at the purpose,” Hutsell cautions. “Only when you have that right can you get from here to there.” Eastman’s early attempt to use one of the most fundamental quality tools, Statistical Process Control, a quantitative method for improving quality, failed when the company tried to implement it without fully making clear its connection to purpose.

From Intent to Results

The best predictor of virtual team success is the clarity of its purpose and the participatory process by which the group achieves it. Eastman teams thrive in a culture infused with purpose.

Purpose starts at the top, but is not dictated by the top. The Senior Management Team is the keeper of the Strategic Intent. This document contains both the company’s vision, “To be the world’s preferred chemical company,” and its mission, “To create superior value for customers, employees, investors, suppliers, and publics.” The Senior Management

Team is also custodian of the document known as “The Eastman Way” that sets out its values and principles. It emerged from an intense mid-1980s internal review of trust and barriers to team success. The document makes explicit the culture required to support teams working across organizational boundaries. It also serves as the touchstone for innumerable changes that make a difference in the day-to-day working life of Eastman employee-owners.

While written down and published, the Strategic Intent is also a dynamic document. It serves as the framework for overall long-term company strategy and the shorter term initiatives known as MIOs, Major Improvement Opportunities. Everyone in the company is involved in the planning process. Organizations bring the knowledge of their part of the business—specifically including customer needs, competitive comparisons, company and supplier capabilities, and risk assessments—together with the Strategic Intent to develop Strategic Alternatives. These are then formally submitted to the Eastman Executive Team that forms the overall strategy and makes selections among alternatives.

With the strategies set, the organizations develop goals, their own MIOs, and their criteria for success, known as the key results areas. With concrete measures in hand, the virtual teams develop plans using Eastman’s Quality Management Process in which everyone in the company is trained. Eastman’s version of the familiar “plan-do-check-act” continuous improvement cycle adds a step at the beginning. Before “plan,” there is an “assess organization” step where the team focuses on clarifying its purpose in interaction with customers and in alignment with the company’s strategy.

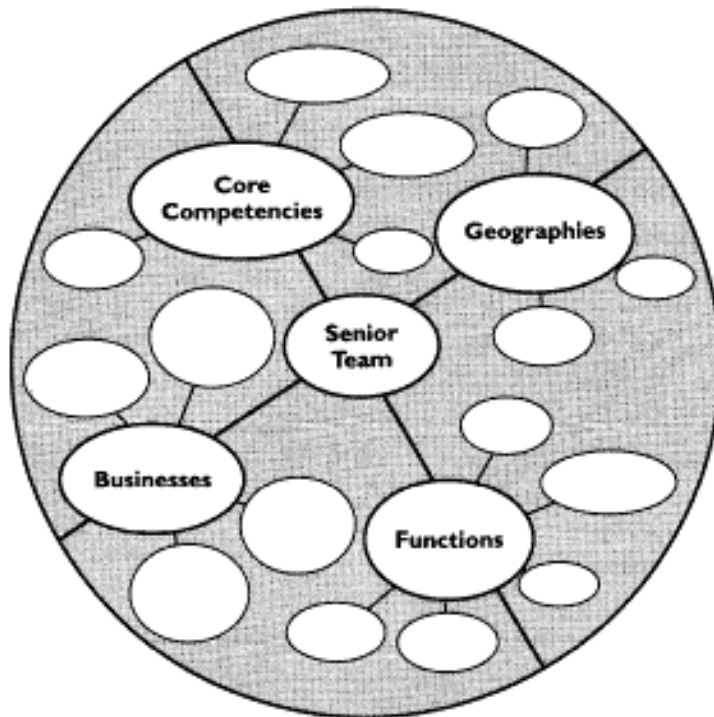
Early in its team journey, Eastman made a mistake that many companies do: They convened teams and focused on the mechanics of the meetings such as following agendas and drafting plans without giving the teams a clear purpose. “We learned how important it was for each team to understand its relationship to improvement projects and improved business results. Without this understanding and sense of purpose, teams did not accomplish what they were capable of accomplishing,” Popwell says. That turned around when the teams took on specific projects with clearly defined expectations. Eastman values time spent gathering information, developing and choosing among alternatives, creating

implementation plans, monitoring and documenting progress, celebrating results, and even formally disbanding. The process itself generates continuously increasing value.

Pass the Pizza

For people interested in organizations, Eastman is famous for its unique organization chart, its “pizza with pepperoni” depiction (see *The Age of the Network* for the detailed chart⁴). Hierarchy, bureaucracy, networks, and teams all have their place in this organization-in-the-round (Figure 3.1). The company expects people to communicate horizontally not vertically. There is no going up a chain of command, across to another

Figure 3.1 Eastman Organizational Design



function, and then coming back down another chain of command to get something done.

Eastman is organized in four vectors: Businesses, such as Coatings, Inks, and Resins; geographies (Worldwide Business Support); competencies, like Polymer Technology; and functions, such as manufacturing.

Deavenport created the circular chart in 1991, he says, because he wanted “to signal the organization that this was a different structure, a networked structure, a team effort, not business as usual. We’re all in this together.” While the chart preserves the logic of hierarchical levels, “the artist in you has to come out to see the pizza chart as different from a hierarchical one,” Deavenport comments.

Playing Out Purpose

“We develop a yearly business plan for HSE (Health, Safety, and Environment) that links my organization to the overall company strategy,” explains Popwell. “We gather inputs from business organizations, manufacturing sites, communities, regulatory agencies, audits, assessments, and benchmarks. We conduct gap analyses using our key results areas. Using all these inputs, we develop our plan for the year, establishing the initiatives for HSE at the corporate level, along with the specific supporting plans for achieving the overall plan. It’s a living document that we modify as circumstances change. This process is repeated by my direct reports; it establishes Inkage throughout the company and ensures that everyone clearly understands the purpose of what they are doing. This is *my* pizza chart,” she says, pointing to a page in the business plan with a swirl of circles that describes her organization.

“We use our business plan to know where we are going,” she says. “We can do gap analyses to see where we need to make adjustments. All

Purpose is the metaphorical campfire around which members of the virtual team gather.

Eastman organizations use a similar planning process to align with corporate goals and with their stakeholders.”

Purpose generates the internal spark of life for task-oriented, boundary-crossing virtual teams. To survive, they must turn their purpose into action, using it to design their work and organization. Some teams receive a fully formed charter; others go off with a vague sense of desired direction. Some team members think that setting purpose is important while others do not. Most team experience lies between these extremes as people struggle to understand and express their purpose.

Abstract to Concrete

We use the word “purpose” to stand for a range of terms from the abstract to the concrete—from *vision*, *mission*, and *goals* to *tasks* and *results*. The essential first step toward making purpose useful is to untangle these concepts. By ordering these terms and relating them to one another, it is easy to adapt this framework to the language of any organization. For example, some call visions “guiding philosophies,” missions “charters,” goals “objectives,” tasks “activities,” and results “outcomes.” Regardless of which words you use, the important point is that they all interrelate. Purpose is a system of ideas that expresses itself differently across the organization yet carries common threads.

Improving Your Vision

In the organization driven by purpose, vision is the font of inspiration, the source that generates the flow of work. When articulated best, visions include a compelling picture of an achievable, highly desirable future. Vision is also the realm of values and philosophy, the intangible but crucial culture of ethics, norms, and the intrinsic value of people that bring life to virtual teams. It does not have to be long. Eastman’s vision is short and simple: “To Be the World’s Preferred Chemical Company.” The word “preferred” carries both the customer focus and the implied strategy of superior quality to achieve the global goal.

Other organizations create lengthy vision statements. The Massachusetts Teachers Association, with 75,000 members—one of the largest unions in the Commonwealth—has a vision statement that covers a page.

Mission (Im)Possible

Mission is the simple statement of what the group does, its reason for being, expressing its identity. Though usually more specific than the vision, it is still quite abstract in its attempt to capture the essence of the organization in a handful of words. One kind of mission statement answers marketing expert Ted Levitt's famous recurring question, "What business are you in?" In a world of fast-changing markets, this question usually goes to the heart of organizational transformation and the teams it spawns.

Virtual teams need particular clarity around vision and mission, setting a broader context for details of work because routine procedures and policies are not available. This is true even when the members of a virtual team all come from rigid bureaucracies. The Office of Law Enforcement Technology Commercialization project, a virtual team funded by the National Institute of Justice, expresses its mission concretely, "To assist private sector entities to bring law enforcement technologies developed in federal laboratories to market."⁵

*"Your Goal—The Sky"*⁶

Goals stand at the midpoint between intangible lofty visions and tangible, practical results. They reformulate the mission—the singular overall goal—into a handful of doable subgoals. Like the population of the groups that think them up, goals are most effective when they are few in number. Goals provide motivation. They are the starting point for work processes, the original way to divide the work into its components. Goals allow you to gaze into the future at the desired outcomes. Embedded in the selected set of goals is a strategy for how vision and mission are going to turn into positive results. Smart goals derive from clearly considered strategies, an effort that may comprise the greater part of the planning process.

When a new international software organization held its first global planning meeting, the group identified 10 cross-cutting goals, then selected three as strategic priorities. Within a year's time, they had substantially accomplished each of the priority goals and established themselves as a business unit.

Task Masters

Tasks are “how” the work is done, the actions that arise as pieces of work that put goals into action. Invariably expressed as verbs, tasks are the specific actions that team members take. Tasks are the signature of teamwork, the very seed of the definition of teams. Purpose becomes quite practical when expressed as tasks. Because they are constantly in motion, tasks can be somewhat slippery to the materialist grasp.

Minnesota’s Department of Natural Resources, which uses virtual teams extensively, employs a 15-member team to integrate its planning and budgeting processes. “We get together about once a month as an entire group and subdivide the tasks so that people who are more geographically contiguous can work together,” says Tern Yearwood who is responsible for the department’s overall strategic planning process. “We also make sure we have the right mix of skills for the task.” By subdividing the work, more people can contribute to the results.

Nothing Succeeds Like Results

Results thud into place as the concrete outcomes of purpose. Reports, presentations, events, products, decisions—outcomes that everyone understands—clearly express purpose. The team creates *something* through its work. For a task action to be complete, there is always a result—however grand or poor—within a given period of time. It is in the nature of the task-oriented team to produce and judge itself by its end products.

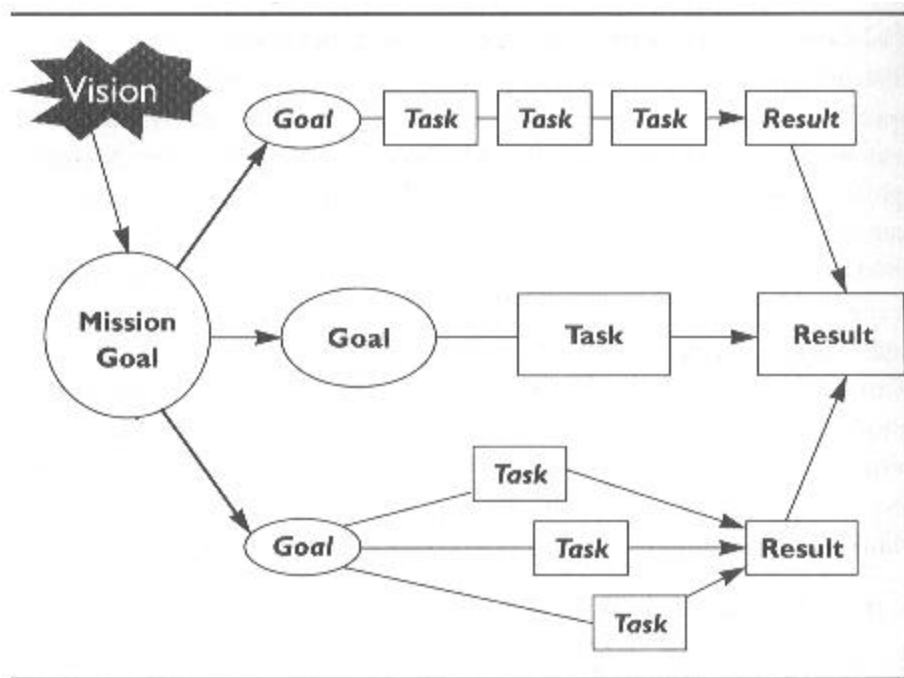
For *Men’s Health*, *Rolling Stone*, and *Esquire* magazines (see Chapter 1), the concrete result of their virtual team’s work was a proposal to their client that won them all lucrative contracts.

Purpose Seeks Results

There is a natural flow to the levels of purpose. Like mountain streams seeking springs, purpose runs from the heights of abstract vision to concrete valleys of results. Putting purpose into action over time produces a dynamic picture of work (Figure 3.2).

Vision flows into mission that becomes the highest level goal. To accomplish the overall purpose, mission segments into subgoals as the first

Figure 3.2 The Flow of Purpose



step toward the division of labor. Tasks are the specific steps taken to achieve results. Some steps are serial, each dependent on the one before. Other task sequences are independent and parallel, coming together at the end. Some tasks are simple and lead directly to results; others are more complex. Most work undertaken by a virtual team will mix all these forms.

Purpose as a Path

To put purpose into motion, plan. The better the planning, the more effective the process. Better processes have a satisfying pay off: They require less time to fulfill the purpose. Many groan at the thought of planning, harking back to innumerable experiences of plans that were shelved, contradicted by higher authorities, perhaps detailed to a level of mind-numbing minutiae. As bad as planning can be, for virtual teams

there is no other way. They must clarify and refine purpose into the process of work to accomplish results. This means planning.

We naturally know how to plan in a general sort of way—and do so all the time. The design of work for virtual teams follows a universal pattern of behavior that we use repeatedly every day—the path. Each time we envision a result that we act upon, we conjure up a little bit of planning, whether to go to the kitchen to get a cup of coffee, to the store to get a magazine, or to the garage to get the car fixed. We have an image of what we want in our minds (a goal) and we rehearse the steps (planning the tasks) that will take us to get what we want (the result).

Goal ∼ Tasks ∼ Result

These interrelated terms reflect the universal pattern of work: a motivating source, a target at the end, and a sequence of steps that connects the source and the target over time.

Short paths or long journeys, the logic is the same. Most of the journey lies in the middle, between goals and results, in the province of tasks, the doing. While tasks are the path itself, the pieces of work that fit together over time, process is the sequence of actions. Tasks are verbs—for example, plan, develop, decide, negotiate, do, write, deliver. Each task is itself a little bundle of *cause-and-effect*. Results do not just appear by magic at the end; they grow over time in the course of doing work, performing tasks. Tasks produce interim results, parts of the final result.

Corporate Breakdown

Virtual teams truly are microcosms of the organizations that spawn them. This becomes increasingly evident the higher the group is in the organization. At the top, the senior team most literally and directly expresses that truth. There all the work components come together, and the organizations of all the major players cross boundaries.

Put into the language of purpose, the structure of hierarchy and bureaucracy can be seen as a way to break down the work of the company as a whole into interrelated chunks.

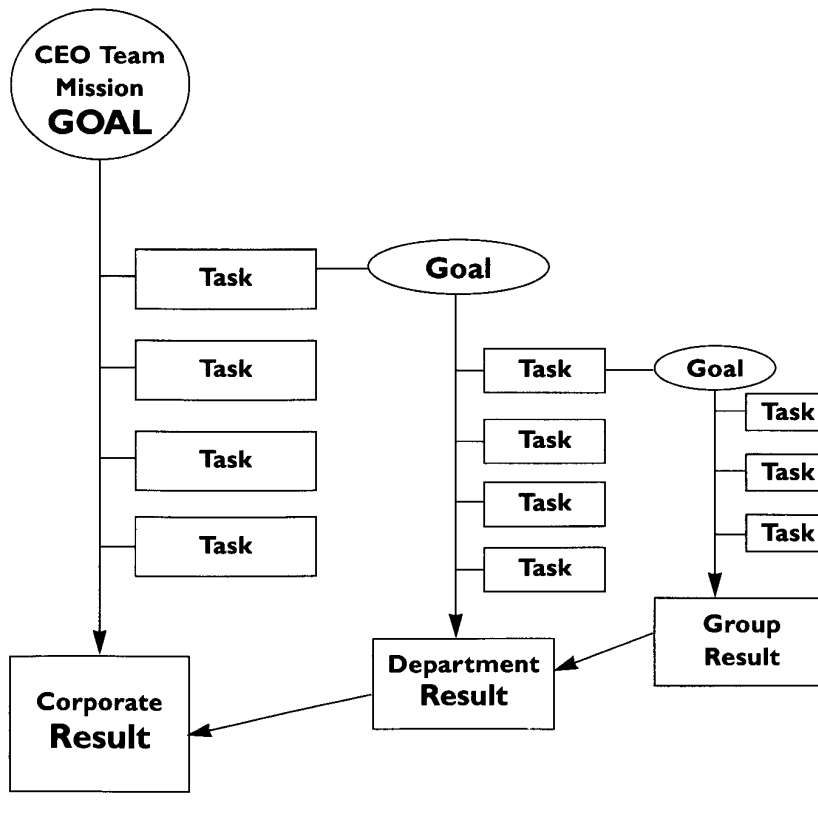
Look to the interplay between goals and tasks to see this little recognized but profound fact of business life: Goals at one level generate tasks at the next level, where the assignment is in turn taken on as a goal. Vertical and horizontal work process design is a very natural and practical way to organize teamwork at every level of an organization. Although it is not a conventional way to view corporate structure, the goal-driven work process offers teams a way to look at how their work interrelates across the company (Figure 3.3). The purpose-oriented approach to organizational design is essential for extensive virtual teamwork.

The board of directors, representing the owners, sits at the top of the organization together with the highest ranks of senior management. In most business organizations, senior management generates the vision and provides direction, whether bold or timid, vivid or obscure, conscious or unconscious. The hierarchy of goals is established based on what the owners want: profit, growth, and other returns important to them. The corporate goal is to get these bottom-line results.

To reach positive corporate results, the company creates value through its work. Most organizations (save those which operate on a completely ad hoc basis) divide the work as a whole—literally—into divisions and departments (both derive from the same root word meaning *divide*). Each has its own mission—for example, marketing, research and development, engineering, production, sales, and distribution departments (functions) or divisions based on factors such as products, geographies, or industries. To make its contribution to the joint work effort, a large organizational component like marketing may further subdivide its piece. Internally, it creates its own departments and groups, each of which has separate charters (written or “just understood”) based on the work assigned from above. A sequence of interrelated positional teams is created at every level with their own work to do that carries its expected outcomes.

The conscious formal design of an organization in this way is just what Eastman means by its “vertically interlocking teams.” Eastman’s

Figure 3.3 Corporate Purpose Breakdown



permanent teams start at the top with the executive team. “This is where the interlocking functional teams begin, the vertical ones. You become a member of the team because of your job function,” explains Popwell. “I’m on the executive team because of my function. The executive team is Earnie’s [CEO Earnest Deavenport] team and it sets company strategy. Everyone on Earnie’s team has their own team. I have the directors of health, safety, product safety and regulatory compliance, environment, and legal representation on my team.”

So it goes down the line, with a person from this level serving on a cross-functional team while also serving as head of the team at the next level down.

The vertical team structure that Eastman makes explicit exists in most organizations whether or not they recognize it. Many executive and management groups function as staff rather than behaving as teams with consciously interdependent tasks and an explicit responsibility to optimize across the larger organization. Behaving as staff has its role but executives can be even more effective when they function as *teams*. Ideally, the formal organization design would perfectly reflect the intended markets and the products and services that the company produces. Today's perfect form is tomorrow's mold to break as markets shift, technologies change, and knowledge advances.

While vertical teams are the functional, geographic, and product components, the horizontal teams are where they work on cross-organizational processes. "Processes are how the work gets done. These teams deal with key issues," Popwell says. For example, Eastman's vice chairman and executive vice president Wiley Bourne's team consists of the new regional presidents in the geographies, the hierarchy of the team. At right angles to this team are teams that deal with specific issues such as the Latin American Growth Team with members in Mexico City and functional people in Kingsport and in Argentina.

Eastman's vertical interlocking teams are the most permanent, but some cross-functional process teams are also quite permanent, such as the Order Fulfillment Team, the Eastman Training Process Team, the New Business Generation Team, and the Innovation Team, a multilevel team that involves people from every major area in the company including technical service, the business organizations, sales, and research and development.

Innovation is part of a key group of horizontal teams centered on the company's seven core competencies, which it regards as the foundation for the company's Strategic Intent. "It is the responsibility of core competency teams to make sure you have the skills and hardware to do the job," says John Steele, Eastman's director of Technology Core Competency. Within three scientific competency areas, 26 technical "engines" have been identified, each with a technology leader and team of experts.

“[In polymers] we have a stake in polyesters so that engine is polycondensation where we are trying to judge whether we have the pilot plants, labs, skills, and knowledge to meet business needs.”

Detailed Digital Vision

While the importance of clarifying purpose does not by itself distinguish virtual from conventional teams, the depth and clarity of its expression does. The purpose problem is two-fold for virtual teams:

- ? Crossing boundaries of space, time, and organization only further complicates already complex communication. An inherently messy process of creating a coherent, productive, and lasting purpose in the early stages of a team’s life is even less tidy for a virtual team. It needs dense and frequent communication.
- ? Once developed, the team must make the purpose and plan explicit in symbols, words, diagrams, tools, and handbooks. The plan also must stay updated, flexible, and adaptable in order to serve as a coordination hub for distributed work.

The problem with a complex purpose is people’s need to grasp it in simple ways. Establishing purpose is first a conceptual problem, then a display problem, and finally a navigation problem.

“Periodically, we go back to our original purpose, our shared mental model. Building such a model has been extremely helpful in communicating across geographies and cultures. Some teams produce explicit pictures of what their mental models have become in terms of numbers and graphics. It gives us a vision of where we are headed that allows us to plan for what we need in terms of specifics such as logistics, sales, and technical service,” Eastman’s Hutsell says.

Interactive digital media offer a wealth of untapped potential for virtual teams to expand their communication capacity. At the same time, the expression and direct use of the power of purpose really comes into its own with the World Wide Web and intranets.

With the Web, mental models, whether expressed as outlines, lists, diagrams, or art, can easily be displayed for and used by the team and its

partners. These mental models can then become portals—quite literally as “clickable” links and maps—to layers of more detail about goals, tasks, results, people, resources, organization, and every other kind of information that may be important to a team’s work (see Chapters 7 and 8).

Mental models—ranging from broad perspectives on the market, estimates of risk, and organizational strategies to budgets, product designs, work processes, and agendas—have been the province of hierarchy. Typically, they are locked in the boss’s head or file drawer, developed through experience, and communicated to others as needed. This works in the world of slow pace and simple purpose where people are not expected to think for themselves. But fast-paced virtual teams facing complex problems need to share a conceptual framework of their work. With the advent of digital electronic media, they have a powerful new communications tool that brings purpose alive.

In the networked world of the Information Age, purpose is the new source of legitimacy and power.

The Authority of Purpose

Nothing is more important to the virtual team than a clear sense of purpose. Hierarchical groups can fall back on force as their source of authority. Bureaucracy can turn to rules and regulations. Virtual teams require something more to mold them and hold them together. When new forms of organization emerge, so do new sources for developing cooperative social structures, new premises of authority and power. To see how authority works in virtual teams in the age of the network, we need to start at the beginning.

Four Ages of Authority

The ability to demonstrate competency, inspire passion, and recall the voices of the ancestors were the foundations for authority and power in the Nomadic Era. Leaders in traditional nomadic cultures (including those surviving today) had the ability to influence people but generally not to force them to do anything.

Charisma and tradition ruled nomadic cultures.

Eventually nomads put down permanent roots to tend farms and build cities. Hierarchy arose.

Hierarchies use force to defend resources, maintain social stability, and control technology.

In business, the people who sit at the top of the hierarchy—the owners—have the power to hire and fire, to give out rewards, and to inflict punishment. They may promote and demote employees, grant and refuse raises, acknowledge people or place them on probation. The extraordinary power of owners is nowhere more evident than in their exclusive right to buy and sell a business as a whole or in parts.

When agriculture gave way to industry, brute force yielded to the rule of law.

Bureaucracies use law and its derivatives—rules, regulations, policies, and procedures—as the fundamental basis for authority and legitimacy. Bureaucrats take their authority from their place in the administrative structure, drawing on the legal perks of their positions.

In most organizations, people's positions reflect both the reward and punishment power of hierarchical rank with the resource control power of bureaucratic specialty. As Eastman's vice president (hierarchy) of Quality and Health, Safety and Environment (bureaucracy), Popwell has the formal responsibilities of both her rank and her function.

Purpose has always been important if not central to small groups and teams. In the information era, it takes on a new aura as the source

of legitimacy itself. The legitimacy conferred by jointly held purpose is uniquely vital to virtual teams. Because of the diminished role of traditional authority, they need some other guiding force.

Virtual teams develop an inner authority based on their members' commitment to shared purpose.

Strategic alliance teams, for example, consist of people from different companies. They lack a common hierarchy or set of administrative policies since the employees who populate them have totally different reporting structures. In cross-functional teams, perhaps the best-known type of virtual team, no common authority figure may tie them together until they reach the CEO. Such is the case with Intel's Native Signal Processing project, a technology breakthrough requiring the efforts of dozens of groups and literally thousands of people throughout the company whose only common reporting structure comes together at CEO Andrew Grove.

Knowledge Power

Inside or outside formal channels, within a company or between firms, people with an idea inspire or recruit others to join them and a virtual team forms with purpose as the essential glue. Ad hoc teams self-legitimize through common purpose.

New forms of authority exist long before they become dominant. Law emerged in the hands of Hammurabi and Solon thousands of years before the rise of constitutional governments like the United States that submitted military force to democratic rule. From laws, rules, and regulations, industrial bureaucracies constructed newly dominant modes of authority.

Just as each age strengthens a new source of authority, so does it bring a new basis for the other half of the governance equation—power.

In virtual teams, power comes from information, expertise, and knowledge, the new foundations of wealth.

Purpose defines the work that, when reduced to its parts, becomes tasks. Specified tasks require specific expertise. Experts have always had power but not the kind that they do today. Peter Drucker regards knowledge as so critical to people in the emerging information economy that he uses the word in the plural—we need multiple “knowledges” to survive.⁷

People with common purpose work out a cooperative set of goals. They come together with the hope that by combining efforts they can achieve great results. To get to results, they naturally divide the work into tasks that require people with specific skills, capabilities, and experiences. People with needed expertise and knowledge have power to the degree to which the work requires them (Figure 3.4).

Virtual teams have an especially tough job. They need to cope with all the traditional sources of power and they must harness the new forces of information and knowledge power.

- ? Though it remains unclear how organizations will adapt the reward and punishment systems of hierarchy to virtual teams, hierarchy clearly has far less influence in the new world of virtual work.
- ? The importance of position in virtual teams varies enormously. Some individuals come to the virtual team as anointed leaders. In other situations, everyone temporarily (and sometimes uneasily) sheds their rank and takes on multiple new identities. Formal positions still exist, but they often are not determining factors in virtual teams where the structure of the work takes precedence.
- ? Because of their ability to reach anywhere for members, virtual teams can easily include people with a wide diversity of knowledge and skills. By deliberately seeking difference, the team

Figure 3.4 Sources of Authority and Power

| | Source of Authority | Source of Power |
|--------------------|---|---|
| Individual | Charisma | Personal |
| Small Group | Tradition | Affiliation |
| Hierarchy | Ownership | Reward/Punish |
| Bureaucracy | Law | Position |
| Network | Purpose ↓ Goal-Based Authority | Knowledge ↓ Task-Based Power |

reaps the creative benefits of a broader range of viewpoints and expertises.

Everyone on a virtual team is or should be expert in something needed for the group to accomplish its work. The more important the work, the more highly valued are the required skills. Like architects, consultants (who represent relatively pure instances of people with expert-based power) build teams to work on a specific project then build another team to satisfy the needs of the next project. Each team composition differs depending on its requirements.

Rewarding People for Success Together

“Just look across the street,” Eastman’s Popwell instructs, pointing toward the company’s huge coal gasification project. “This state-of-the-art facility produces chemicals from coal, using advanced environmental controls. At one time, there was a lack of communication between those

two departments—Gasification and Acetic Anhydride. They worked as a team across department lines to solve the problem, resulting in a savings of \$1.5 million. This is a good example of synergy that results in a better solution.”

With a common purpose, the two teams established strong links. There is a very strong incentive for Eastman teams to come up with ideas that save the company money. The more profitable the company is, the higher everyone’s bonus.

In the first year after they went public—what they call “the spin”—Eastman instituted one more new thing that they jokingly say is “much better than the ham biscuits,” a traditional part of reward events: the Eastman Performance Plan, a *companywide reward*.

The payout in 1995 was significant: Everyone across the company got a 30 percent bonus.

“One of our goals is for everyone to be owners in the company,” Pop-well says. Through a 5 percent salary give-back, employees created a base pool. The first 5 percent of the annual payout then comes back to them in an employee stock ownership program. “This makes us all owners and managers and that encourages Eastman people to make good business decisions at every level,” she says.

The payout is based on return on capital minus the cost of capital. In the first year after the spin, the payout was 17 percent. “The Performance Plan rewards everyone at Eastman—the big team—based on company results. We have teams that link across the company, vertically building on our interlocking team structure. We have horizontal teams that manage and improve processes that cut across organizations. And we have teams that span the global regions around the world,” Popwell says. “All these teams are focused on the corporate strategy and goals, because we don’t want to optimize one area and jeopardize another area. Our employees are very interested in the well-being of our company. You often hear people say, ‘This will affect our payout.’”

“Why do we have teams?” Popwell asks. “It’s not because they are stylish. If you teach people to reach a level of understanding and goal sharing, you can get beyond consensus. You come out with a solution that is much better than any one individual could have come up with. That takes you to a higher growth level which is what you need for major improvements. The why of having teams is fantastic!

“Don’t let us con you into thinking this has been easy,” she warns. “It’s been a difficult journey, and everything is not a success story. We have had to learn quite a bit as we’ve gone along. The reason we’ve been more successful as we’ve become larger and more global is because we have had the cross-functional team ethic. We’re used to working in teams.”