



Buckman Laboratories (A)

If you can't maximize the power of the individual, you haven't done anything. If you expand the ability of individual members of the organization, you expand the ability of the organization.

—Bob Buckman, CEO and Chairman of Buckman Laboratories

A major Buckman customer in Australia announced plans to commission a new alkaline fine paper machine in 1998. Not only was it always attractive to get “start-up” business but this particular machine tended to use more chemicals than most paper machines. In addition, the customer’s tender was broken into two areas machine hygiene and retention, with annual revenues estimated to be \$600,000 and \$700,000, respectively. Buckman was a world leader in the area of machine hygiene but had no experience with alkaline fine paper. In fact, the on site person in Australia was young and only had a few years of general experience. Furthermore, Buckman was not a dominant player anywhere in the world in retention, especially for alkaline fine paper machines. Unfortunately the customer wanted to choose one supplier for both areas. Peter Lennon, national sales manager for Australia, and Maria Conte, Area Sales Manager, knew that unlike all of their competitors they could not put together a physical team to work on the proposal so they decided to try a “virtual” global team. Maria sent out a call via K’Netix the Buckman Knowledge Network for help answering very specific questions. She received responses from more than 30 associates worldwide. From that group a team of 10 people from Asia, Africa and North America (U.S. and Canada) agreed to commit to the project on a continuous basis. Not only did Buckman win the contract but also they were asked to trial their program on another fine paper machine operated in Australia by the customer.

Bob Buckman considered K’Netix to be “the greatest revolution in the way of doing business we have seen in our lifetime.” He attributed much of the company’s 250% sales growth (over \$300 million in 1998) in the past decade and high percentage of sales from products less than five years old (34%+) to knowledge sharing. \$7,500 per person per year to implement K’Netix was a significant investment for a company the size of Buckman Laboratories. Yet, over the past five years the company had been able to keep net income in the 3 to 6% range, operating income from 7 to 10.5% and gross profits from 52 to 55%, in spite of worldwide currency fluctuations. By early 1999, however, there were growing financial pressures. In the words of one Buckman executive, “our three target industries are in the tank.” With price pressures in all market segments some executives were

Senior Fellow William E. Fulmer prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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starting to question whether the value Buckman Laboratories added with K'Netix made sense. According to one, "Is it ill timed?"

Company Background

Buckman Laboratories had been a leading manufacturer of specialty chemicals for aqueous industrial systems for over 50 years. It coordinated the activities of 20 associate Buckman companies worldwide; 19 had offices in more than 80 countries, marketing and selling more than 1,000 specialty chemicals manufactured at eight factories. The 20th company, Buckman Laboratories International Inc., provided support functions to the profit centers. There were 200 shareholders including employees, directors and outsiders. Buckman family members owned the largest block of stock.

Founded in 1945 by Dr. Stanley Buckman, the company, from its beginning, emphasized its abilities to create and manufacture innovative and unique solutions for the control of the growth of microorganisms in customer processes. It started with five employees in a small building existing on land that was once a lumberyard. Although offices and laboratories were located on the first floor of the building, a 50-gallon black iron chemical reactor and a steam boiler were placed in the basement. It was sufficient to supply the initial order for 20 gallons of a microbicide, trade named BSM-11, to the company's first customer, Whiting Paper Company. Three years later BSM-11 and its derivatives had become the industry standard for microorganism control. A new production facility was built next door and Buckman Laboratories of Canada was formed.

During the decade of the 1950s, the company's customer base expanded to include the leather, paint, sugar processing, agriculture, paint, coatings and plastics industries. In the 1960s new manufacturing and sales companies were formed in Mexico and Belgium. This expansion was followed in the 1970s with the opening of sales and manufacturing companies in South Africa and Brazil and a sales company in Australia. New products were introduced for water treatment, ranging from swimming pools to fresh water, and a new international headquarters housing all corporate activities, including Research and Development, were built in Memphis.

New Leadership

In 1978, at the age of 69, Dr. Stanley Buckman died of a heart attack in his office. His son, Robert (Bob), who had joined the company in 1961 after earning a degree in chemical engineering from Purdue University and a MBA from the University of Chicago, became the new chairman and CEO. With sales of \$29 million (slightly over 50% from six non-US countries) the company employed 493 people (29% were college graduates)--220 in manufacturing and 79 in field sales positions.

From the beginning of Bob's leadership at Buckman, he wanted to change the way the company operated. As he put it, "We were getting our lunch eaten. We were a multinational organization and needed to be a global organization." He also wanted to change the management style of the organization. "I knew I didn't want to do it Dad's way. Every single business decision had to be approved by my father. I thought, this is too much work."

Even though the company had adopted the slogan "Creativity For Our Customers" in the 1960s, Bob was convinced that the company was too product driven. The company now sought to become "customer-driven." This shift reflected Bob's belief that "cash flow is generated on the front line with customers, by associates ... who have built relationships of continuity and trust, face to face with the customer, one individual with another, over a significant length of time."

A key to the new approach was to expand the sales force—something Bob had tried to convince his father to do for years. According to Bob, “he wouldn’t add them unless he was convinced they could cover cost.” No sales people had been added in the past five years. At the time the average sales person was producing about \$400,000 in sales/year. Bob believed that if the number dropped to \$200,000 per salesperson, per year, he still could make money. With manufacturing plants operating at 49% capacity, Bob shifted positions from manufacturing to sales. His initial goal was to increase the proportion of sales people to 25% of total employment. When that was achieved, the new goal became 30%.

The combination of decentralization and an expanding “multi-cultural, multi-lingual organization” led to recognition that there was a need for a statement of organizational values. According to Bob, it “evolved out of a need to have a common understanding about how we should relate to each other and to outsiders.” Management asked all associates for input and Steve Buckman, cousin of Bob Buckman and CEO of Buckman Laboratories International Inc., spent 18 months collecting and distilling all of the input into what became the company’s code of ethics (Exhibit 1). The code was captured on a wallet-sized laminated card and passed out to every person in the company. According to Bob, “It represented the collective wisdom of a lot of operating companies.” About the same time a mission statement was developed and distributed.

Best Practices

For many years the company had been sending out its PhDs to gather best business practices worldwide and then share with all associates in the company. The problem was, according to Bob, “we couldn’t hire enough PhDs and run them fast enough to do face-to-face exchanges around the world and this method of information exchange was quite costly.” To speed up the response to requests for information from the field “runners” were used to identify people who could answer requests, take requests to them, remind them to answer and then send out the answers. Requests were paper-based, sometimes requiring weeks to receive, process, and return—particularly from non-US locations. Additionally, runners usually contacted the people they personally knew, and often the same people answered identical requests over and over again.

During a 1984 visit to South Africa, Bob and Dr. Dick Ross, then vice-president of marketing, were sitting around drinking beer after teaching a microbiology class. According to Bob, “He was tired and I was tired and I said ‘we’ve got to do this differently.’” Not long afterward Bob read Moment of Truth by Jan Carlzon, the former head of Scandinavian Airlines System (SAS). One sentence in particular struck a chord with him: “An individual without information cannot take responsibility; but an individual who is given information cannot help but take responsibility.” According to Bob, “I spent the next two years trying to prove that statement either right or wrong. I found out it was correct, not 100% of the time, but a high enough percentage to bet the farm on it.”

In 1986 company leadership began to address a more systematic approach to best practices. First, a database was created to which all general managers were connected using IBM’s network for email. Bob was not satisfied. “It was more patchwork and cumbersome than coherent and we had one phone call for email and another for other stuff. Each person had to have a different user name and access code in every country.” A more serious problem was the managers’ reactions. According to Bob, “During the first six months the general managers didn’t share a damn thing. They might send messages like ‘how are you today?’” He concluded that the reason they were not using it was that “they already had access to all the best practices. The people who really needed the information were the people in front of the customer.”

At the next planning meeting Bob announced that field salespeople now were to have access.

Those individuals who have something intelligent to say now have a forum in which to say it. Management can no longer hold them back. These people become obvious and respected in the organization based on what they can contribute to others, not how well they can BS some boss. Those who will not or cannot contribute also become obvious and can be intelligently eliminated from the organization.

Middle management “revolted” at increasing the “span of communications.” According to Bob, “I got pretty blooded. They said, ‘you’re taking away our job.’ I said ‘no. Your job is to help your people succeed and facilitate their success in the world in front of them.’”

Within a year the first formal system to share and capture knowledge within the company worldwide was started, using an electronic file to record how sales associates created new knowledge within the organization. They did so by resolving a problem at a customer’s business either by applying “existing Buckman knowledge,” if it was a well-documented problem, or by developing a new, more effective or efficient solution if it was a new problem. In the late 1980s, if the corporate marketing department reviewed and accepted a “case history” submission, the submitting sales associate received \$100. (A few years later payment was raised to \$200 per submission approved.)

New Needs

During the 1980s the Buckman sales force increased in size three-and-a-half times and new sales companies were established in Argentina, Austria, France, Germany, Japan, Portugal, Spain and the United Kingdom. Plans also were developed for new sales companies in Singapore, Italy and New Zealand and manufacturing facility # 7 was planned for Canada. One associate described many of these new hires as “entrepreneurial—self starter types” and emphasized the extreme rigor of the hiring and training process—“everyone knows what you have to go through to be hired here.”

As the 1980s ended it was clear to Bob that more changes were needed. Borrowing a practice from 3M, he committed each company to a goal of 25% of sales from products less than five years old. (At the time Buckman’s average was 14%.) He also wanted the company to move faster. “As we set up operations in 20 countries... it became obvious that we had to speed up the decision-making process so that we could serve our customers ... promptly.” He reflected on the challenge:

Most companies today gather information on the front line or from some other point of direct contact with an information source, such as the business press or industry connections. This information is then passed sequentially up the line, with each recipient adding his or her “perceptive wisdom” to make it “better.” Finally it reaches a guru who enhances the information with the benefit of his or her “infinite wisdom and experience.” The information then either starts to travel back down the line or is deposited into the knowledge base of the company.

Thanks to this cumbersome chain of communication, by the time the information arrives at the guru, the original source of the information would not recognize it. So it comes as no surprise that the guru’s “wisdom” would often be neither correct nor appropriate. Instead, the goal should be to let the person with the need for knowledge talk directly with those with the latest and best knowledge, eliminating the confusion resulting from delay after delay.

Bob began to think about ways to access the “unconscious knowledge of the organization.”

If the greatest database in the company is housed in the individual minds of the associates of the organization, then that is where the power of the organization resides. These individual knowledge bases are continually changing and adapting to the real world in front of them. We have to connect these individual knowledge bases together so that they do whatever they do best in the shortest possible time.

Before making more changes, Bob wanted to understand how and where people were spending most of their time. A study showed “at least 86% of the time, we did not know precisely where associates were—they might be in any one of 90 different countries, they might be at home, they might be in a hotel room.” Bob concluded, “the office today is a social gathering place. It is not where the work of the organization is done. The real office is where we want to engage our brain.”

If he was going to “cut the umbilical cord,” a reference to keeping people tied to the office, he had to answer some fundamental questions: “How do we stay connected? How do we share knowledge? How do we function anytime, anywhere - no matter what?” The answers came to him in 1989, when he was flat on his back, confined to bed for two weeks after rupturing a disk in his back. Unable even to sit up, Buckman propped a laptop computer on his stomach. “Lying there thinking how isolated I was, I got to thinking about what I wanted.”

What he wanted was information, not just for himself but for all his people--a steady stream of information about products, markets and customers. Bob believed that “if I can give everybody complete access to information about the company, then I don't have to tell them what to do all the time. The organization starts moving forward on its own initiative.” If he could connect people through a network, he could “replace the depth of knowledge offered in a multi-tiered hierarchy with the breadth of knowledge that is the sum of the collective experience of employees.”

On his laptop, Bob described his ideal knowledge transfer system:

- It should reduce the number of transmissions of knowledge between individuals to one, to achieve the least disruption of that knowledge.
- It should give everyone access to the knowledge base of the company.
- It should allow each individual to enter knowledge into the system.
- It should function across time and space with the knowledge base available 24 hours a day, 7 days a week.
- It should be easy to use for those who aren't computer experts.
- It should communicate in whatever language is best for the user.
- It should be updated automatically—the accumulation of technical questions and answers should generate our knowledge bases for the future.

On returning to work Bob appointed a 32-year-old PhD in organic chemistry as his assistant to research the concept of knowledge transfer. Also, a task force was formed to develop a new approach to creating “information that has value for action.”

K'Netix the Buckman Knowledge Network

In March 1992, Bob Buckman created the Knowledge Transfer Department (KTD), with its head reporting directly to the chairman. (See Exhibit 2 for more details about KTD.) The immediate reaction of some in the organization was “There goes our bonus.”

One of the first decisions was to put the company's entire network on CompuServe, the public online service, and give every Buckman salesperson a leased notebook computer with a modem. (Since the phone system in many countries was a problem, KTD developed a system similar

to a library checkout desk for traveling associates. They could sign out survival kits designated for specific countries with adapters, cords and other technological necessities.) For a total of \$75,000 per month in access charges, all Buckman employees would now have one ID and be able to make a single phone call that established a point-to-point link with headquarters. It also provided access to all of CompuServe's global information services, including a limited number of forums for communication. The move to CompuServe took place in 30 days. A common question among associates at the time was "Do we have to do it this big, this fast?"

The KTD team began building K'Netix on the CompuServe platform. Their aim was to make it "user friendly"—point and click. According to a company document, it was to be designed for the "80+% of our associates that are not computer experts." According to one associate, "You're asking people to change. If it's not easy for them, then why would they want to?"

The heart of K'Netix was to be its forums: "open places" where anyone could post a message, question, and/or request for help. Bob believed the forums "would let us start thinking about increasing associates' span of influence." According to a company document:

Think of the forum as a town where the inhabitants greet each other at the message board. All associates are not always there at the same time. Messages are left on the message board. The message board is subdivided into areas (sections) where messages relevant to specific topics are concentrated. All the messages relating to a particular topic are collected together as a thread and filed in dedicated areas within a structure called the library. [Another] ... function of the forum is the conference area where members can meet at a prearranged time and communicate on-line with each other around any topic of mutual interest.

The major forum was to be the TechForum, which would be open to all employees. It initially consisted of 20 sections, each with its own message board, a conference room to facilitate debate and a library section where the communication threads and other pertinent knowledge would be stored. The majority of the sections was devoted to the business areas within Buckman Laboratories, e.g., Pulp & Paper, Leather, Industrial Water Treatment, and was focused on helping customers to improve their productivity. A few sections were focused internally and designed to improve operational efficiency and effectiveness of Buckman Laboratories, e.g., Human Resources.

Ultimately there would be numerous forums—all in English. For some of Buckman's core customers, for example, there would be private forums where the conversations would be about only that customer and advice could be tailored to their needs. In addition, the Customer Information Center would contain all available information about Buckman's customers, including internal memos, documents and sales orders--a complete database on each customer.

Systems operators (Sysops) were appointed to monitor the discussions in the forums, track requests and make sure they were answered. Sysops would try to get answers in 24 hours; if not they would contact people directly and ask them to respond. Additionally, they were to give positive feedback to those who did respond. Since there likely were to be cultural differences and sensitivities, Sysops also were to monitor the content of messages. According to a former Sysop, "We didn't want people in Europe saying, 'Oh, this is an American thing.'"

Sysops appointed at least two industry experts or section leaders in each forum to be the primary answer-givers. (The actual request to serve came from Bob.) These content experts, usually team leaders within various business units, would monitor the discussions in a given area and request additional assistance if needed. According to one of the first Sysops, "These were the experts people used to call for the answers. If they did not know the answers to questions they knew others who might." Once a discussion on a particular topic ended the section leaders and Sysop would

determine which discussions should become a permanent part of the knowledge base. They then would identify keywords, write abstracts, prepare a summary of the discussion points that occurred in each section during the week and post the information as a summary at the end of each week.

The Launch

After informal conferences, discussion groups, personal mailings and a variety of online contests for employees, one day of intensive hands-on training was provided for all associates, with extra help available anytime. Among the messages stressed in the training was, in the words of a Sysop, "We are giving you tools but you have to apply the responses to the problem at hand. You still have to think and apply. We never said, 'You'll get an answer.'"

A few managers immediately took to the system. For example, one vice president made participation part of each employee's annual review. According to an associate, he stressed that "thank you and happy birthday messages didn't cut it." Other managers were less enthusiastic. A common response by some was "I don't have time for this." According to a Sysop, "Bob took them aside and explained that you will have more time if you use the system." One manager reportedly asked his direct reports "how do you know whether people are giving you good information? Clear all of the inputs with me." Other managers were just saying, "don't get on those forums." According to a former Sysop, "Bob quietly dealt with all of these problems." He also actively participated in discussions and would let people know "you haven't been in the forum in a week." He visited all of the worldwide companies, explaining "this is how we will now do business." He stressed that there was to be no across-the-board mandate to use the system and no special incentives for participation.

If we promote the people who do the best job of sharing, we don't need any other incentives. Those of you who have something intelligent to say now have a forum in which to say it. Those of you who will not or cannot contribute also become obvious. If you are not willing to contribute or participate, you should understand that the many opportunities offered to you in the past will no longer be available.

The big question at the launch was, "Would people share their knowledge?" "There was a sense of hesitancy in the beginning," remembers one Sysop. "There were people whose file cabinets were filled with everything they knew, and that was their source of power." According to Bob:

To move from a culture that calls for the hoarding of knowledge in order to gain power toward one that rewards the sharing of knowledge with an increase in power, we need to create a climate that fosters long-lived, trusting relationships. We must be able to trust that we receive the best information that can be sent to us, and those who send must be able to trust that it will be used in an appropriate manner.

Initially some associates raised the question about "what was right and wrong." In the words of one associate, there were "no strict guidelines for what can and cannot be posted on our system." Associates were informed that anything was permitted that did not violate the company's Code of Ethics. Violation of the code would be the only reason anything would be pulled from the system. (This has rarely happened since K'Netix started.) In the words of one associate,

We were told to think of the company as a ship, with the code of ethics as the ship's waterline. You can't shoot below the waterline because you could sink the ship. You are, however, free to do whatever you deem necessary to change the superstructure of the ship to meet the needs of the customer.

As Bob reflected on the new system, he came to believe that the 18 months spent developing the Code of Ethics and the statement itself were “critically important but we didn’t know that when we created the Code of Ethics, didn’t have a clue.” He added, “Our Code of Ethics is the glue that holds our company together and provides the basis for the respect and trust that are necessary in a knowledge sharing environment. These fundamental beliefs are essential to being able to communicate across the many barriers to communication that exist in our company.”

In addition to emphasizing that “freedom to communicate was a cornerstone of peoples’ rights,” management established another “right”—the freedom for all associates, and their families, to access CompuServe and the Internet using their company-funded ID. All connect charges were to be absorbed directly by KTD. Bob felt strongly about this. He had said “don’t quibble about what associates look at and the company has to pay for this.” Employees were encouraged to use the system in a relaxed atmosphere, such as from their homes. One of the unexpected benefits realized was that some of the more senior staff was coached by their more computer literate children.

Some restrictions on communications soon became necessary. When some associates complained that the forums were “too chatty” the Breakroom and Buckman News sections were set up as areas where associates were free to discuss any topic. When someone in R&D posted an unpatented trade secret on TechForum the response was to split off a ChemForum and Customer Forums, each limited to those with a “need to know.” Of the 12 sections created in the ChemForum, R&D and manufacturing staff used five worldwide to discuss new, emerging, unpatented technologies. The remaining seven were used by the individual business functions to share their thoughts on topics of global importance.¹ According to a Sysop, “We hadn’t thought about such a problem. We had wanted to share everything.”

Recognizing that associates worldwide spoke more than 15 languages, a policy was established in early 1994 that all “should feel comfortable using any language they desire when posting messages to the message board.” Three translators were hired and the Sysops would decide which messages were to be translated into English with technical replies to be translated back to the originator's own language. The goal for completion of translation was 48 hours.

The 4th Wave

In early 1994 top management announced a meeting in Scottsdale, Arizona at a fashionable resort, for the 150 best knowledge sharers. Since the selection process was seen to favor people comfortable communicating in English, top users from companies in which English was not the native language also were invited. The high-profile event, dubbed “The 4th Wave,” sparked a considerable discussion and some resentment directed toward the Sysops who made the selections, particularly among those who did not make the cut. (Participation on K’Netix forums immediately and dramatically increased.) According to Bob, “the fourth wave was a way of rewarding those who stuck their necks out in 1993 and did something different and wonderful.”

Prior to the meeting, associates worldwide were asked to discuss in the TechForum the topics they wished debated at Scottsdale. Their suggestions set the agenda for the meeting and influenced the agenda for the strategic planning meeting that immediately preceded the 4th Wave meeting.

¹ In 1998 there were 27 global forums, to which anyone had access, and 24 team forums, that were open to certain “communities of practice.”

The meeting, which cost over \$1 million, was, in the words of one Sysops, “key to building trust in this early stage. They formed their own agenda, played golf and went horseback riding together. They were sharing ideas. They became a team.” Attendees also received a new IBM ThinkPad 755 and leather computer bag and listened to a presentation by Ruben Harris of the Tom Peters Group. Bob Buckman also spoke, emphasizing his view of the future.

In my opinion, to compete in the world where change is coming down the pike towards us like a big freight train, we will have to do a much better job of getting the collective minds of this organization effectively engaged on the front line solving our customer's problems. It is called many names. I call it putting the power on the front line so that we can close the gap better than our competition.

As part of the 4th Wave people were asked for ways to improve K'Netix. One of the issues that surfaced was the relative low level of participation by non-US associates. For example, one European associate estimated that only three to five people from Europe participated sporadically in the Techforum. Some thought there was a language problem. According to a US associate, it was not unusual to get a message from some parts of the world and have to read it three times to understand it. There also were cultural issues that had not been recognized. For example, in some cultures it was not “macho” to type or for engineers to admit they did not know the answer to a technical problem. After a heated debate about whether to have all forums in English or multiple language forums, Bob decided that the advantages of being able to communicate in one's own language outweighed the disadvantages of multiple forums. A Latino forum for Spanish speakers was created immediately and work began on two more forums: one for Europe and one for Asia, Africa and Australia.²

The Early Results

In 1994 management reported sales of \$246 million and an expenditure of \$8.4 million on KTD for the year, plus plans to spend another \$9.7 million in 1995. Bob regularly reviewed traditional financial measures for the company but dismissed using them to evaluate K'Netix.

I used to be a statistician. There are no absolutes. All you can do is increase the probability of success. Now I know the accountants don't like to hear that. We look at it a little differently. How do we change the competitive equation? That's what we started down the road to do. How do we shift the speed of response to the customer's need? It didn't take a rocket scientist to figure out that if we shifted the speed of response from weeks or months to hours or at the most a couple of days, this was valuable. It's very difficult to correlate some of these things to your bottom line results but in our situation we can correlate it to competitive advantage and our ability to compete in the marketplace. That's the more important measure.

There were, however, a few measurements he could cite in assessing its performance.

- 65% of Buckman's associates were out selling, compared to 16% in 1979.
- 33% of sales were from products less than five years old, compared to 22% prior to K'Netix.
- 72% of associates were college graduates, compared to 39% in 1979.

He also could cite several examples where the system had proved especially beneficial. For example, in 1995 someone got on K'Netix and said the special bonus award given each year to the

² By early 1997 the company had 1787 case histories in English and 685 in Spanish.

sales person who recorded the largest year-over-year percentage sales growth was unfair. (The top person in the company got a very large bonus and other top performers got much less.) For several weeks salespeople from around the company traded opinions with Bob over what a fairer system might look like. In the end the disparity was reduced. (See Exhibit 3 for other associate comments.)

Revising the Strategy

In early 1996 there was growing concern about how Buckman Laboratories was to compete successfully against much bigger competitors—some five times larger. The industry was consolidating and customers like Fort James Corporation, Weyerhaeuser and Kruger were reducing their list of vendors. There clearly was a lot of excess capacity in the paper industry.

A steering committee was formed that included consultants and Buckman's leadership. After much research and discussion, top management chose to emphasize "customer intimacy." Top management also formally identified three "key global market targets"—paper, leather and water (approximately 75% of current sales). According to one associate, "in the past the attitude was 'if we can get the business get it.' Our resources were being spread too thin." The essence of customer intimacy was to attract customers in the targeted segments who valued close working relationships and the value-added benefits that Buckman could provide. According to one associate, "After all, we don't sell chemicals we sell our people and their problem solving expertise. We just haul chemicals around." (See Exhibit 4 for representation of how K'Netix would support customer intimacy.) By June the new strategy had been communicated to all associates, was scheduled to be the main topic for all operating companies' annual marketing meetings, and a detailed implementation plan to "personalize customer intimacy" was being developed.

As part of the implementation, top management concluded that the company needed to revise its mission statement, which had been written as part of the first planning meeting in the mid-1980s. Bob put the suggestion onto a forum. After more than a year of discussion, the following statement was issued which subsequently became the new mission statement: "We will create, manufacture, and market specialty chemicals to fulfill the needs of our customers throughout the world. We will be leaders in the control of microorganisms and will participate in selected markets where our chemical, manufacturing, or marketing strengths will give us a competitive advantage."

Bob liked to draw an inverted pyramid with the customer at the top and stress "the customer is most important." One of his most repeated phrases was "*effectively engaged on the front line.*" For him engagement was not a vague concept. "Effective engagement is when an associate takes responsibility for and is actively involved with satisfying the needs and expectations of our customers, so that Buckman Laboratories becomes their preferred choice among all other specialty chemical suppliers." To Bob, it could be reduced to a simple ratio: "The number of people in the organization working on the relationship with the customer relative to the total organization will determine the momentum of the organization." His new goal was to have 80% of associates "effectively engaged" with the customer by the year 2000 and ultimately "everyone in the company should be involved with customers in some way. If an associate is not effectively engaged with the customer, why are they employed?" He added, "We have to be so tuned into our customers that we anticipate what they need."

Bob now turned his attention to finding ways to enable associates to expand their knowledge.

The higher the quality of the individual, the higher the quality of the knowledge that can be brought to bear on any problem that our customers bring to us. If everybody is critically important to the organization's ability to close the gap

with the customer, then how do you expand the associates' minds so that they can be the best that they can be?

For Bob "the next step was to add more opportunities to learn because everybody's knowledge base is deteriorating every day." A new focus on training began with the goal of building a Learning Center that would allow associates to manage their personal and career development. The Center was to provide content ranging from short training courses and reference materials to advanced academic degrees. Courses would be free, with the associate only responsible for a passing grade. As Bob reflected on the new initiatives he stressed a change in management's philosophy.

When we invest in smokestacks, we depreciate that investment over time, while investments in people development are traditionally considered expenses. You need to shift from an expense philosophy to an investment philosophy. In this era of cutting expenses, that's difficult but if we're not prepared to shift priorities, then we'll never make it a major component of what we deliver in the way of value-added to the customer.

New Challenges

By early 1999 Bob was pleased that K'Netix was being widely recognized by others. More than 30 companies recently had visited Buckman Laboratories to learn more about K'Netix. Also, the company had received the Arthur Andersen Enterprise Award for Knowledge Sharing and the Smithsonian Computerworld Award for knowledge sharing in the manufacturing sector, sponsored by Ernest & Young. However, there continued to be new challenges.

- In early 1997, with talk of CompuServe being acquired³, Buckman had brought its system completely in-house. (The cost for network access now would be \$90,000 per month.) Prior to the switch all 1300 associates were given a 72 page book of instructions (and an electronic version) developed by the IT department. The switch took place on schedule--October 1, 1998. Almost immediately forum usage dropped 30%. The vice president of KTD thought it was people getting use to the new system and that fall typically was a slow time of the year. He fully expected the numbers to come back up. Bob, however, thought there was an emergency. "We have to do something about it."
- With increasing price pressures and questions being raised by some about the cost of K'Netix, Bob wondered if it made sense to continue to budget 3.5% to 4.5% of revenues each year.
- As the company grew, Bob wondered, "how do you build trust in a virtual world?"

What's happened here is 90% culture change. You need to change the way you relate to one another. If you can't do that, you won't succeed. It has to do with the fuzzy-wuzzy stuff that's not easy to get your hands on. But it boils down to this: Do you trust the people who give you the information? The first year they think you're crazy. The second year they start to see, and in the third year you get buy-in. What you need is persistence. This whole thing is a journey—a journey without end and it has invaded the fabric of our corporation. This is not a project, with a clearly defined, finite goal, with a beginning and an end. We just kept adding stuff that worked and eliminating things that didn't. It was a continual cut-and-try process, an evolutionary process.

³ WorldCom and America Online split the assets in the summer of 1997.

We never called it “knowledge management.” It just started getting called that in the trade. We need a new term. We do not manage the knowledge in our associates’ heads. Knowledge sharing is just the first step. We want to get to the creative use of knowledge and that requires trust. Do we know how to get there? Hell no.”

Exhibit 1 Company Mission and Code of EthicsMission

We, the associates of Buckman Laboratories, will excel in providing measurable, cost-effective improvements in output and quality for our customers by delivering customer-specific services and products, and the creative application of knowledge.

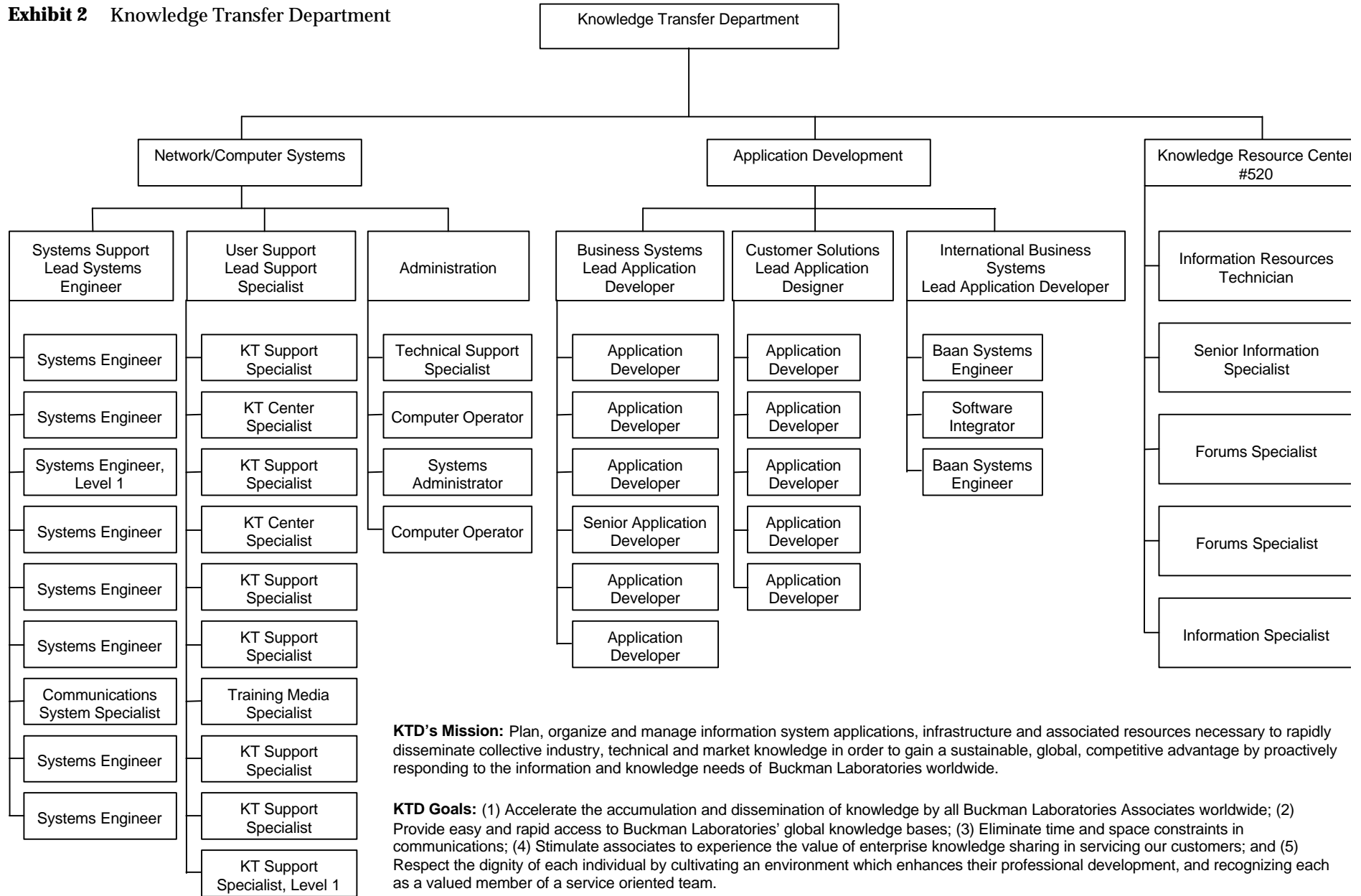
Code of Ethics

Because we are separated – by many miles, by diversity of cultures and languages – we at Buckman need a clear understanding of the basic principles by which we will operate our company. These are:

- That the company is made up of individuals – each of whom has different capabilities and potentials – all of which are necessary to the success of the company.
- That we acknowledge that individuality by treating each other with dignity and respect – striving to maintain continuous and positive communications among all of us.
- That we will recognize and reward the contributions and accomplishments of each individual.
- That we will continually plan for the future so that we can control our destiny instead of letting events overtake us.
- That we maintain our policy of providing work for all individuals, no matter what the prevailing business conditions may be.
- That we make all decisions in the light of what is right for the good of the whole company rather than what is expedient in a given situation.
- That our customers are the only reason for the existence of our company. To serve them properly, we must supply products and services which provide economic benefit over and above their costs.
- That to provide high quality products and services, we must make “Creativity for our Customers” a reality in everything we do.
- That we must use the highest ethics to guide our business dealings to ensure that we are always proud to be a part of Buckman Laboratories.
- That we will discharge the responsibilities of corporate and individual citizenship to earn and maintain the respect of the community.

As individuals and as a corporate body we must endeavor to uphold these standards so that we may be respected as persons and as an organization.

Exhibit 2 Knowledge Transfer Department



KTD's Mission: Plan, organize and manage information system applications, infrastructure and associated resources necessary to rapidly disseminate collective industry, technical and market knowledge in order to gain a sustainable, global, competitive advantage by proactively responding to the information and knowledge needs of Buckman Laboratories worldwide.

KTD Goals: (1) Accelerate the accumulation and dissemination of knowledge by all Buckman Laboratories Associates worldwide; (2) Provide easy and rapid access to Buckman Laboratories' global knowledge bases; (3) Eliminate time and space constraints in communications; (4) Stimulate associates to experience the value of enterprise knowledge sharing in servicing our customers; and (5) Respect the dignity of each individual by cultivating an environment which enhances their professional development, and recognizing each as a valued member of a service oriented team.

Exhibit 3 Examples of Associate Comments about K'Netix

- “It does not matter if you are a sales associate, a regional or district manager or a corporate VP—everybody talks to everybody.”
- “Now the discussion is open to everyone, not just the two people on the phone - it's a whole new level of interactivity.”
- “We haven't eliminated face-to-face time. We've tried to make it more effective.”
- “Rather than picking up the phone, someone can communicate with a mass of people faster. People here have become addicted to the speed.”
- “We're moving away from products to a service company. The product is almost irrelevant. We're more of a consulting company.”
- “If you are in a global company, there's somebody awake and working all the time. Having K'Netix gives us the capability to respond. We wake up, they go to sleep - when they wake up, the answer is on the screen. It's unbelievable. Our customers now see a difference in us and our competitors.”
- “The customer acknowledged that the network was a factor in our landing the deal. We might come in with less experience than a competitor but we can show that we can tap into a worldwide resource where others can't. That's a competitive strength.”
- “We used to carry around stacks of notebooks, and the trunks of our cars were full of files. Now half of that stuff isn't even necessary. We can fire up our laptops, pull up the most current data sheet, and have global real-time communication in a matter of seconds. Basically, the only thing we can't get out of the computer is the chemical itself.”
- “I recently spoke with -----, ex-Buckman, now working for Allied Signal. We talked a bit about internet, and during our talk he explained that he was always in favor of the Buckman ... system, but that he only started really appreciating it since he is working for Allied Signal. Allied Signal does not have such a kind of opportunity for its personnel, and he really misses a way in effectively and quickly getting and giving information throughout their worldwide company. Their company has a small system, but Buckman, he said, is years ahead in this matter. And remember he only knows the system from four years back, when he left. And our system has grown a lot the past four years.
- “You have to depend on people you may not see and direct people you rarely see. I can't know everything so I can't be an expert. You can't control who becomes an expert. It requires more trust.

Exhibit 4 Customer-Specific Problem Solving

