Improving the way organizations run through participative planning and management.
Boeing Airlift & Tanker Programs
Malcolm Baldrige National Quality Award Winner, 1998

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Leadership
David Spong—The Boeing Company has five organizations that report into the office of the CEO. These five organizations are the commercial airplane company, space and communications, military aircraft and missiles, shared services, and the people organization. The Airlift & Tanker Program is part of the military aircraft and missiles division. About 97 percent of our business is composed of the big C-17 plane. Our company had revenues of $2.6 billion last year, with 9,800 employees and 1580 suppliers from 43 states. Most significantly, our return on net assets was 169 percent!

A turbulent history
If you always do what you've always done, you'll always get what you've always gotten. The corollary to that is, if you want to change the outcome, you must change the process, the product, or both. You cannot just talk about it in different terms, or look at it in different ways. You've got to change something. Oftentimes you need a crisis to create change, and we certainly had one. In 1991 we had an adversarial relationship with our customers — if they wanted us to do something, we told them to send money, or we asked them “why is that likely to do us any good?” Our airplanes were delivered late, over budget, and we only achieved quality by extensive rework and repair. Yet, there weren't any bad people. People hungered for leadership and a good management system. When the U.S. government said they would only order 40 airplanes unless we fixed the problems, our employees put up a banner in
A turbulent history, continued

the factory that said, “40 and beyond.” They sent the message that we were going to do something about it. We formed a team, we invested in the program and the product, and we agreed to work together. It was a novel concept, but it worked.

Using TQM and Baldrige principles

We started down the Total Quality Management journey in 1991. We tried to align ourselves with the Malcolm Baldrige principles, and we used an internal assessment to guide us and give us feedback. Our executive compensation was tied to that internal assessment score. In 1997 we applied for the Baldrige National Quality Award at the request of our CEO. We really didn’t want to do that; we had other things to do and, by the way, we didn’t think we could win. However, he was persistent and we applied for the award. We received a site visit, but we didn’t win. It was disappointing, but we had some good feedback and we were still on the journey. The message I got from our employees was that we should apply again in 1998, because we could win. Between ’97 and ’98 we had significant improvement in all categories. This goes to show you that if you use the principles and apply them, your organization will get better.

Now employees make quality a priority

Our employees believe in quality. In the last two years, we’ve done a few internal surveys. We’ve asked the question: Does your supervisor believe in quality over cost, quality over schedule, and schedule over cost? The results are shown in Figure 1. Most of the people believe their supervisor values quality. I find that I have to talk about quality in every sentence. If I don’t, people think that I don’t believe in quality any more. So as leaders, if you’re not sending that message, you have to force yourself to send it. The good news is that after awhile it comes naturally.

![Figure 1. Employees Believe in Quality](image-url)

Over the years, Boeing has made significant improvements in quality, as evidenced by the data in Figure 1. In the last two years, the company conducted internal surveys to gauge employee beliefs about quality. The results showed that a majority of employees believe their supervisors value quality over cost, quality over schedule, and schedule over cost. This indicates a strong commitment to quality improvement. As leaders, it’s important to consistently communicate the importance of quality to ensure that it remains a priority. With proper application of Total Quality Management and Malcolm Baldrige principles, organizations can experience substantial improvements in all areas, as Boeing has demonstrated.
Organizations tend to improve along a curve. You may start out by thinking you're pretty good, but you're the only one who thinks that, so you launch an improvement journey. The first thing that happens is you start to feel a lot worse about yourself. The rest of the world may feel a little better about you, but you're digging up some bad internal stuff. At this point, you have to stay the course. That's what leaders do. You cannot delegate leadership. You have to live it. As you go along, you eventually turn the corner and head upwards. You're never going to feel as good about yourself again as you did at the beginning. That's positive because you now believe in continuous improvement. You know you've got to keep working at it. The good news is that people regard you more highly than they ever did before. When our program was in trouble, we were never as bad as people said we were. Now, we don't believe we're as good as everyone says we are. I want to live up to what the rest of the world says about us.

Our leadership system is an evolution. We didn't start out by drawing a model and saying, “let's live this chart.” We developed systems and we could see positive results. We drew it out so that we could talk about it, explain it, and improve it. We kept what worked and eliminated those things that didn't. Everything starts in the middle of understanding our stakeholder requirements (see Figure 2).
Understanding your customer tends to be an automatic. But people sometimes forget that the workforce is a pretty important stakeholder, as are the suppliers, the community, and the shareholders. We then as leaders must lay down the stakeholder requirements and expectations and be prepared to communicate them. The next is to set direction, establish vision and values, policies, priorities. You can put them on the wall, but that doesn't mean very much. They only mean something when the leaders live, emulate, and follow them. You must role model them.

The next leadership element is organize, plan, align, and empower your teams. Get out of their way and let them do their jobs. Give them the responsibility, the authority, and the accountability, and ask them to tell you where there's a problem so that you can help fix it. Then perform to plan and analyze the performance. One of the things we tended to do in the past is to shoot the messengers. But you really need to know what the problems are and how to fix them, and you need the people to be able to tell you those problems in an non-confrontational way. You have to accept bad news in a supportive way, because you need all the messengers you can get. You also have to develop, reward, and recognize performance. Recognition is an investment, and it pays off in employee motivation.

The next block is learn and improve and, of course, lead into continuously improve. Take every opportunity you can to understand what you did wrong. Figure out what you're going to do about it and continuously improve. Even if you're 100 percent on something, there's another way to do it. You can always improve on what you're doing.

After we had won the Baldrige Award, an employee called me up, very concerned, and said, “What do we do now that we won?” My first reaction was, “Could you go build an airplane?” I didn't say that. But in fact, no matter what, even though you think you're standing on Mt. Everest, there's always another piece to conquer. We all need goals as human beings to continuously improve. So this is my goal. In 2004 we're going to apply for the Baldrige Award again. And we're going to win.

**Strategic Planning**

Jay Kappmeier and Cindy Malaway—How do you go from winning a large and promising defense contract to almost having it cancelled? Well, fighting with your customers and eroding their confidence seems a good starting point. By the early 1990s we were doing all that and more. We'd forgotten some great advice—the first thing you do when you find yourself in a hole is to stop digging. We couldn't seem to stop digging, and the hole just got bigger. To give you an idea of what it was like, we reorganized the company in 1989 and decided to change the title of our middle managers to business unit managers, or BUMS. The Air Force told us, “Don't call them BUMS,” but we did it anyway. So when things began to go wrong some customers began to call us “stumblebums.” Every time a customer called back in
A rough start with Business Unit Managers, continued

Reinventing customer and supplier relationships

By 1997, the Airlift and Tanker Program had achieved an outstanding customer relationship. How did we do it and how can you do the same? We started by reinventing our relationships with our customers. Our leading executive and the Air Force program leader sat down and had heart-to-heart discussions about fixing our broken relationships and making our product as great as they knew it could be. They set up onsite meetings, processes, and organizations. They built relationships so we could build and function as one team committed to program excellence. They demanded that these relationships exist at all levels. Our one-team approach resulted in joint integrated program management. If you visit us today you'll find many teams that are jointly managed and staffed by both the customer and Boeing. Everything is done jointly, from decision-making to process improvements. We share metrics and data and jointly assess the health of our production program. To facilitate our joint efforts we and the customer restructured our organizations to focus on the product and align ourselves to execute the program.

Here's one example of how that works. Let's say we have an issue with a fuel pump. There's an individual in the Boeing organization who is assigned to fuel pump design and development. There's also a corresponding individual on the customer side with that same orientation. Those individuals work together to resolve the fuel pump issue. They're linked to the product. These individuals are also part of a larger team responsible for the system that includes the fuel pump. Other team members include Boeing, Air Force, and supplier reps from engineering, manufacturing, business resources, parts management, and all of the other functions related to that system. The team works together on planning activities, this year's requirements, next year's requirements, daily actions, everything concerned with their particular system of the aircraft. Everywhere you go you'll see multifunctional teams just like this one, and that's what we call Joint Program Management.

Customer satisfaction relies on excellence in production, quality, and relationships

What we learned from Joint Program Management is that there are two pieces to customer satisfaction, only one of which is producing the product or service they want. Production is certainly important, and it must be done in an excellent manner. That means you deliver a high quality product, you do it on time, and within the agreed upon price. You meet or exceed customer demands and satisfactions, and you anticipate all of their needs. Second, where we had been sorely lacking, you must build excellent customer relationships. Perhaps some of you come from companies where you never have a problem with your product, where you don't have a customer who thinks you should be doing more, or you don't have a new customer who doesn't understand how you're doing business today? We are not like that. We occasionally have problems, and we have customers who think we should be doing...
Customer satisfaction relies on excellence in production, quality, and relationships, continued

It's one thing to say you've learned about the components of customer satisfaction, but how do you know how well you're doing? How do you measure customer satisfaction? We and our customer answer that question as a team. We work together to select various types of assessments to determine both operationally and subjectively how our company performs in a number of areas. Several customer satisfaction measures we use are specifically tied to U.S. government contracting requirements. One of those on the operational side is called an award fee. An award fee is an amount of money above and beyond the price the government is required to pay on a particular contract. We receive an award fee if we exceed what the customer actually requires us to do. That gives us an indication of how happy our customer is about our operational performance on each contract. On the relationship management side, the government uses a contractor performance assessment report to do just that, rate our performance as a government contractor. The government views this as their way to assess for future business. We use this same metric to assess and improve customer satisfaction. Again, a good score indicates customer satisfaction, and this becomes part of our permanent record of performance with the government. It affects our ability to secure future contracts, not just for Airlift and Tankers, but for the entire Boeing company. For example, C-17 program performance will be a major factor in determining whether the U.S. government procures future equipment from a competitor or from Boeing. In addition, we do many of our own assessments and customer surveys, so it's a ceaseless quest trying to understand what our customers think of us.

Measuring customer satisfaction

We don't have a complaint hotline, where we sit around and wait for a customer to call to tell us what's gone wrong. We're already out there with them, listening and learning together. We're asking them: What do you need today? What are your problems today? What do you want done? It's a daily activity! Every day we're working with the crews who fly our aircraft, and the maintenance folks who support it. The teams meet periodically to review how our product is performing, and what it needs to meet changing military requirements. Those requirements are then fed into the procurement system, and those result in changes to our C-17. One thing that's really exciting and different from some other U.S. government programs is that we meet with the pilots who fly the C-17 and the crews who maintain it, and we jointly prioritize aircraft system improvements. These teams keep us focused on...
Proactively testing customer needs and requirements, continued

customers' real requirements and allow us to move forward with a single view. The process requires a lot of meetings, but we really believe in it because it creates total customer involvement and we both have requirements that result in change that both we and the customers want.

A model for teamwork

So what do we do differently as a result of all this learning? We created a significantly different business environment in which we have one shared vision with our customer, and in which we understand and respect each other’s position. We created an environment for change. President Clinton called our efforts a model for public and private sector teamwork. Our Air Force customer publicly acknowledged that we had developed a new relationship with them that was appreciated and valued. Let me give you a quick example of how much our customer relationship has improved. Charleston Air Force Base was the first home of the C-17. We have Airlift and Tanker support staff there for our customer. One general in charge of an Air Force base, talking about our relationship, said, “I have to be careful what I think about at night while sleeping, because the first thing next morning I’ll find it on my desk.” That was probably a slight exaggeration. However, we have an excellent relationship. That’s quite a difference from the days when we were known by our Air Force customer as “stumblebums.”

Winning a new contract meant building the business for the long term

After we reinvented our relationship with customers and we had things working great, we finally got what we wanted. We won the quest for 80 more airplanes, bringing our contract total up to 120 C-17s. We knew we had to have a plan to perform and deliver on the promises we made, or we risked losing that wonderful customer relationship we worked so hard to build. We fully intended to be in business for the long haul. We chose to follow the Baldrige criteria to design a planning process used to ensure our future.

Valuable lessons in planning and strategy

We learned valuable lessons at every step along the way. The first step in our planning process is to thoroughly assess and understand the environments that influence our major business decisions. For instance, we work with our customer requirements and planning groups to learn what they’re seeing in the future, what their budget will be, what equipment they need. We assess the financial environment of our company and our customers. We evaluate the potential supplier base as well as our workforce. We assess the requirements of our corporation, our community, and our environment.

We found that our strategies had to be based on a realistic assessment of the market, our customers, and our competitors. Based on our assessments we identify our objectives and targets for the next 10+ years. These are the things we want to achieve. We include everything from market capture and new products to facilities and financial results. Next we perform a gap analysis to compare our objectives and
targets with our current market and operational capabilities. We then develop strategies to close the gaps between where we are and where we want to be. The end result is a strategic plan the team presents to senior management for approval. Based on the strategic plan we develop implementation plans.

This is all done by a team that works at all levels of the organization. The team develops the implementation plans, brings them back to our executive leaders, and receives approval for their plans for the next year. So that's the process we use to plan for our future.

Figure 3 shows how we depict our process to develop specific integrated plans for markets, process improvements, workforce, and information systems. Those are four integrated plans and they work together. The plans translate requirements into allocated resources, that is, budgets. The plans are then available for reference throughout the rest of the year, and this next point is critical. You cannot allow disconnected projects to consume resources while your real requirements go unfunded or underfunded. If that happens to you you'll never close the gaps.

How do we use these plans? If our business requirements drive us into a market where we don't have workforce skills, or our workforce skills are not as developed as we need them, then we have to adjust that workforce plan to gain the skills necessary to meet our business goals. Or let's say that as a result of our market assessment we know that there's a large market for C-17s out there, but we have to dramatically reduce our price to capture that market. That may mean that we have to have some significant process improvements. So the process improvement plan must reflect that need. How does it translate to the average employee? I can assure you we don't ask them to memorize our plans. Instead, to execute the integrated plans we establish challenging but achievable goals that will flow down to the lowest level to which it may apply. We call this goal flowdown. We ask everyone for feedback. There's a heck
of a lot of communication back and forth. We have a lot of negotiating. And finally the goals that we flowdown come back up in the form of agreements. Based on these agreements each team develops its own action plan to achieve the goal they've agreed to accomplish. Action plans tell every single person in every work group in the organization what they need to do during the next period to implement the strategies in our plans. This ensures that every person is doing something to contribute to strategies at the strategic level.

The goal setting process aligns our strategic direction with individual performance at all levels. This helps align the organization. There's nothing worse than an organization without alignment. There can be planning up on top, plans in the middle, and plans at the bottom, but if they're all going in different directions the organization basically goes nowhere. But when everyone understands the objective and is moving in the same direction due to goal development, strategic direction goes forward. This is probably one of the simplest yet most important points we want to make. The force of everyone going in the same direction is very powerful. You have to plan for and work at alignment. Once goals are set, teams measure their performance against the goals, and they're directly tied to our strategies. The data is shared with customers and suppliers at every level of the process. As you'll hear later in our Information and Analysis section, the data are then rolled up through the system in a similar manner.

As a result of this process we have Airlift and Tanker goals that represent our strategic objectives. These goals reflect our strategic direction over a number of years, not just this year's activity (see Figure 4).

Figure 4. Airlift & Tanker Goals

- Excel on current programs (quality, schedule, cost)
- Improve operational and supplier performance
- Increase workforce motivation and performance
- Expand commercial and military markets
- Achieve Operating Plan commitments

From these goals we develop detailed program, process, supplier, and workforce goals. Regardless of all this process and planning, business success really depends on a satisfied customer. And as we've learned, that means delivering what the customer wants flawlessly. Doing that requires both product and service excellence and relationship excellence. We're proof that a company really can reinvent its relationships with the customers. You saw how we started with adversarial relationships and a vote of no confidence on a daily basis. But here we are today with a reputation for customer satisfaction that is actually a competitive advantage. People want to do business with us now and in the future.
Information & Analysis and Process Management

Debbie Collard and Bill Halcyn—You've heard about the problems that plagued this program—poor quality, late delivery, and cost overruns. We believe that for the most part we've improved in those areas because of our programs in process management and information and analysis. The decision to start those programs did not come easily. I’d like you to imagine for a moment that you have just been told by your largest customer the exact month, day, and hour that you will go out of business. That's a pretty scary thing. For us, that was our reality. Now I’d like you to imagine that you're in that room with the executives and the senior managers, trying to figure out a way to prevent that reality from happening. There's this chaotic banter, and some executives are going over the long laundry list of things that need to be changed. Other executives are pushing for a reorganization. Some executives are in the back of the room scratching their heads wondering what they're going to do because they weren't planning on retiring. One pointed out that we could probably save a little bit of money if we built our planes without tails. But then the voice of reason broke through, and someone said, “You know, we've got to manage our processes, and we've got to use data to make decisions from here on out.” There was a strong backlash, and we heard comments like, “It will take too long,” “It will only add more work,” and “Our business is too unique.”

What we found is that it actually helps improve your processes, so it doesn't take as long to do the same amount of work. We also found that it doesn't add more work. Instead it changes the way you do the work, so it makes you more efficient. Yes, our process is unique. But it's not so unique that you couldn't also use process management successfully. We want to share with you how we did it.

Although the face of process management has changed over the last six years, in the beginning we knew that we needed to do several things. We knew we needed to gain control of what we were doing, with joint expectations, metrics and goals with our employees, customers, and suppliers. We knew that we wanted to make decisions based on data from those metrics. We wanted to engage our entire enterprise by integrating the many company, customer, and supplier initiatives that were already targeting first-time quality. In short, process management was a way to link our people, processes, and goals. In getting ready to use process and performance management, we had to begin with the absolute basics. We had to ask ourselves, “what is a process?” We defined it as something that consumes resources, according to some requirements, and uses specific tasks to transform inputs into outputs. Once we had defined a process we needed to develop an approach to meet our process needs. Our approach had to cover everything in one process model, it had to
improve using a single disciplined approach, and it had to measure what we were doing with a balanced set of metrics.

Figure 5 depicts that overall approach. It defines our organization as a collection of processes, and it covers everything we do.

We summarized all of our activities in eight process families. Below those process families, we have 58 level one processes, below which are 766 subprocesses. The top box of our enterprise process model is our enterprise management process. These are all of the things that you would do to lead our organization. The middle layer, process families 2.0 to 7.0, covers all the processes needed to produce any product or service. This is the lifecycle of a product, beginning at the point when you first acquire the business, all the way through to support after delivery. We structured it in a way so that this model can be applied to any product. This wasn’t easy, but consider the advantages. Process management is for everybody, not just for a few teams. When you want to make improvements strategically, you can turn to this model and say, “I need these processes for strategic improvements.” It also enables you to take people from different areas of that model, and link them together for improvements on a greater scale.

Process Based Management, or PBM, is a seven-step methodology we use to manage everything in the enterprise process model and improve those things. Simply put, every process in the model is managed and improved using the same seven disciplined steps. Together these steps enable us to know the process, understand the capability of the process, and understand where that capability should be. Step one allows us to know the process. In this initial step we define our process as simply as
we can, so that we can get our arms around what we need to understand. Steps two, three, and four help us understand the capability of our process. In step two we establish metrics to measure process performance from our customers' perspectives. We establish some metrics because the customer wants us to, but we also establish metrics so that we can tell how healthy our business is. The bottom line is that we do everything we can to ensure that our metrics do not paint a good picture when the customer is really dissatisfied. Keep in mind that we have external customers like everyone else, but we also have internal customers, meaning the next department, or the next process to which you give your product. We get buy-in from both our external and internal customers as to how we define and measure our processes. In step three we use the metrics established in step two to determine process performance. In step four we stabilize performance by fixing obvious variations using tools such as variability reduction and statistical process control. The goal here is to make sure that all of our processes perform the same way every time.

Steps five, six and seven take us the rest of the way, and this is where we understand where the capability should be. In step five we take a stabilized process and ask ourselves, “is this where it needs to be stable?” To answer that question we look at our own business needs as well as comparative and competitive data to set goals for each of our processes. In step six we develop an improvement plan to tell us how and why we're going to get those improvements. In step seven, we just do it. We implement those improvements. But we're not done there. We return to step three, after we implement those improvements, to determine if our performance meets those expectations. It is this loop that drives continuous improvement.

Now we'll focus on metrics. We establish measures for process performance. We use four standard measures: quality, timeliness, efficiency, and cycletime. We realized the process performance had to include customer expectations and business results. The balanced set of metrics helped us achieve the desired results in both areas. Quality and timeliness are usually important to the customer, and most relevant in helping us meet or exceed customer expectations. Efficiency and cycletime are usually most important to our own business results. Perhaps the greatest lesson that we have learned, and also the greatest struggle that we have experienced, is that we never want to sacrifice any one metric for the success of the others. We want a balanced set of metrics. These same metrics are used in all levels of our organization. We share data from the executive level on out to the teams and then back up again. We also share the same data with our customers and our suppliers at all levels of the organization. This required us to reinvent those information systems. As a result, our information systems enable us to share the data throughout these process families as well as our customers and suppliers.

We have to give people the information they need to do their jobs. We use the performance management system to share data. Let us tell you how that works.
**Sharing data, continued**

We generate goals at the top of the organization using the integrated planning process. These goals then flow down throughout the organization, on to the different programs and at the same time on to the different functions, business resources, manufacturing, and engineering. Since we share the metrics with our customers and suppliers, and the data with the customers and suppliers, we check these goals to ensure that there's total integration throughout the system.

Once the teams have their goals they measure the performance of their work towards the goals. The teams then collect that data and roll it up to the next level of programs and functions. Those programs and functions ultimately roll the data to the overall airlift and tanker level. Again, data is shared with our customers and suppliers at each level of the process. We use the data for performance reviews. For instance, we have a daily standup performance review with the customer, and we have quarterly reviews with all levels of the Boeing company. After the data are used at the highest level for performance reviews, they're rolled back into the integrated planning process for the next cycle. So it's a process of continuous sharing and improvement of data.

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**Supplier certification**

We include our suppliers in all these activities. They comprise a significant amount of cost to produce our product, and we've integrated them into the operations and process-based management. They are absolutely critical to making our program a success and our customers happy. In short, our suppliers have transcended their usual role of simply providing parts, and have become our partners in the process of doing business.

As part of supplier certification we do three things. First, we look at the supplier's performance measurement systems in terms of quality and on time delivery. Second, we evaluate their application of statistical process control. Third, we assess their business practices to determine how they manage everything, from quality and technology to cost and delivery. These three elements describe our best value suppliers for our program and the taxpayer. The words best value mean that we don't always accept the lowest bid. It means that we choose suppliers that deliver us the highest quality at the lowest cost.

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**Quality results from managing through processes**

So what have we learned from this journey with process and performance management? We learned that if we wanted first-time quality we had to manage through processes. If we wanted to make money, we had to talk processes. If we wanted high performing work teams we had to learn processes. If we wanted improvement from across the enterprise we had to link processes together from the process model. The bottom line is that process and performance management helped turn our company around. It helped us resolve the quality, schedule, and cost issues that once threatened our future. Today we are more competitive than ever, and we believe that using process and performance management deserves a good deal of the credit for helping our company take off in a big way.
Major people issues in the early 1990s

Human Resource Development

Don Pitcher and Diana Meusch—In the early 1990s, morale was at an all time low. Management and the union were fighting. Management felt the workforce really didn't care if the aircraft ever was going to be built. And the workforce felt that management didn't have a clue as to what it took to build the aircraft. It was not a nice place. There was an awful lot of negative emotions and we really were afraid the program was going to die. Obviously we turned our company around, in part by reinventing relationships with our people. We would like to give you an overview of our people approach, and we hope that you'll find some of what we do useful, just in case you'd like to change the culture at your own company.

Communicating the need for change

The turnaround started when management and our senior union officials sat down, talked, and identified those things that needed to happen to reinvent our people relationships. What's important to share with you here is that management not only stated the need for cultural change, but they communicated that need to the people. Keep in mind that nothing had changed on the work floor at this time. But the mere fact that the people recognized that management was aware of the need for a change created a climate of expectation on the shop floor.

Constantly working with stakeholders

At the center of our leadership system are our stakeholders, and workforce in particular. We systematically assess and do workforce planning. We annually go out and identify external and internal issues and things that impact our workforce capabilities, such as demographics, training, or skills we need for future business. Those are the things that our workforce and our leadership need to do to be sure that we can attain our business goals. We also expect our leaders to have certain behaviors. We want them to be role models. We want them to empower their teams. We want them to analyze the performance, motivate their people, and continuously improve. You know, you can't delegate those behaviors. It's no coincidence that at the center of our leadership system is workforce planning. When we do our workforce planning activities, we take into consideration those things that we know are truly important—acquire, retain, develop people, work design to support a team-based work environment, reward and recognition—those things that we expect all of our leaders at all levels to do.

High performance workteams in 1994

Our breakthrough came in 1994, when we implemented high performance workteams; we kicked off with several teams within our wing assembly area. We started to change the way we did business. We organized existing crews into teams. The most experienced members were given the opportunity to apply for team leader positions. After going through rigorous training and testing, the team leaders started to attend meetings and working with management in making departmental deci-
High performance workteams in 1994, continued

The key was when we started to remove our old cloak and dagger style of management. No longer did we go behind closed doors and make the decisions and plans that affected the workforce. The doors were now open for all of our decision-making, which included all of our hourly employees and team makers. We listened to what people had to say. We empowered them to make key decisions about their work and how it would be performed.

We changed our approach to rewards and recognition. We began rewarding teams and individuals. We stopped giving awards for just making the numbers, and started rewarding behavior that was conducive to the direction of the company. We don't reward command and control behavior. It doesn't matter if you make the numbers; if your behavior is adversarial, we won't reward you. Our employees saw what was being accomplished and wanted to jump on board. We not only involved people in team meetings, but we also gave them an equal say. Our policy in meetings became one person, one vote. We created an environment in which everyone was heard. I can recall a safety meeting when an employee stated that she had some ideas on the tooling for her job. “If this could be accomplished,” she said, “I could surely increase my performance.” We started to see the change. We started to see employees attending job related summary meetings where they would write their constraints on the board and challenge managers to remove those constraints. These were some of the age old barriers, and we started to see those barriers come tumbling down.

Does employee involvement really work? Do high performance work teams really work? The results speak for themselves. Since 1994 lost workdays have decreased by 36 percent. Overall production performance has risen by 72 percent. Rework and repair hours have fallen by 68 percent. Grievances are down by 93 percent. This is an indication that we have eliminated those adversarial relationships that have long existed between management and the union.

Employee involvement really works

More involvement leads to higher performance

That is how we see the relationship between employee involvement and high performance. As teams mature, as they get better training, as leaders and processes improve, teams will reach that goal of high performance. Be assured that this change does not occur overnight. Although we did see some immediate results, we understand that this is a journey, and five years into it, we still have some issues to work on. A lot of the teams we're talking about are Integrated Product Teams, or IPTs. These are people that work together on a piece of the product. For instance, a Wing IPT is made up of everyone who's responsible for supporting the wing, including our suppliers and our customers. Usually IPT members are co-located. The IPT is responsible for our product's lifecycle, quality, schedule, and cost performance. It's responsible for executing the plan that builds and supports the airplane. All decisions are made and approved in the IPT, and everyone has an equal say in that process. We know that IPTs are going to continue to be a key factor in changing our culture.
Team development process

It's one thing to create teams, but you must develop them also. We use a development process to help our teams achieve high performance and self-direction. Our managers go through a process to help them move from a command and control mode, to one in which they are conscious and supportive of an empowered team. People learn to work as part of a team responsible for setting its own direction. Boeing truly does believe in investing in the development of all their people.

Reward and recognition

Rewards and recognition are part of our continuous process. We provide awards to teams, and we recognize teams that go above and beyond the call of duty. We integrate rewards and recognition in all of our business plans, from our operating plans to our strategic plans to our strategic implementation plans, all the way down to the team plans, the work that the teams do every day. We've come a long way with our people, but we understand and we realize that the journey continues, and the sky's the limit of what we can attain through people.

Business Results

Rufus White and Mary Simmerman—How did we achieve such wonderful results? In a word, leadership. We believe all business starts with the activities of our leadership teams using the leadership model as a template. The reason we chose to talk about results tied to leadership is to help identify some of the critical links between leadership and results. Everything you read about being strategic at the leadership level, it's very important, but don't ever lose sight of the fact that you have to be engaged. You must look at leadership as a contact sport. That's the norm at Airlift and Tankers. We're not going to discuss the categories of results you might normally see. Rather we're going to review our results directly related to the leadership system.

Results of the workforce survey show that our people believe the leadership does a pretty good job of setting the direction in terms of the company's vision and values (see Figure 6). In addition we believe the workforce survey itself contributes to the positive results. For instance, we perform the survey, we find out what the people think, we put plans in place to improve the things they think need to be improved, and then we take the action. Then we come back and ask, "Do you think we worked on the right things? How did we do?" When people see you're really interested and take this kind of action, their response is very positive.

It's the leadership creating a continuous improvement and innovative work environment. We use the workforce survey not only to measure the temperature of the water, but we let people tell us whether or not the things we've addressed meet with their satisfaction. As you probably know, priorities are an important part of setting direction. You've heard that our number one priority is quality. We spend a lot of time on it. In fact we realize that you can make assembly improvements in a
Employees make Quality a priority, continued

number of ways that wouldn't necessarily result in an improved product. Our leadership focused on quality first, then started to drive assembly, and it resulted in a better product with less effort.

We have a very high correlation between our quality improvement and assembly improvement. We've achieved high results by spending a great deal of time and effort improving the quality of our processes and internal products, as well as the way we manufacture and assemble. Of course it goes without saying that our reduction in assembly hours has also resulted in further cost reduction.

Surveying how employees feel about customers and strategy

Figure 7 shows how our workforce feels about the way we involve them with our external customer, and if they understand and support the strategic direction we set for the organization.
Surveying how employees feel about customers and strategy, continued

We make extensive use of our workforce survey far beyond the basic “are you happy or mad?” type of questions. Our workforce survey tip to you is that if you don’t have a survey, give some thought to doing one. If you have one, go back and dig into it. You’ll probably find a lot of things you can pull out of it that you’ve never thought of.

One reason you see results like this is that we have a high degree of communication thanks to our integrated product team approach. For IPTs to work you must continuously communicate, and I believe the reason we’re effective is that we do this.

Return on sales is a key strategic measure for us and it tells our shareholders how well we’re managing. Our strategies create and improve shareholder value and enable us to consistently and thoroughly outperform our competitors.

Return on net assets is another aspect of our financial performance, and our numbers are among the best in the Fortune Top 25. Some of the very specific tactics that we used were performance based payments with our customers. We eliminated almost all excess inventory, and we dramatically slowed down our incoming parts flow to a just-in-time approach.

Safety, repair, repair and supplier performance

Our leadership team has made safety a priority, because we believe a quality organization is a safe organization. We know that our team empowerment has played an important role in our safety record. We’ve made the individual teams responsible and accountable for their own safety. They’ve done a good job of being safe, and we continue to work on driving this in the right direction.

Rework and repair has proven to be nearly unavoidable in a business like ours where you have high technology and it is labor intensive. Because people are involved, variability exists in the process. However, we’ve been very successful in reducing variability, largely because of our team concept and the fact that we are process oriented. In a relatively short period we have made significant improvements in the time it takes to build an airplane.

We focused on improved work constructions, tooling, and parts supply. We built strong partnerships with our suppliers, because suppliers build more than 60 percent of the C-17. How goes supplier performance goes our business. We have launched several key initiatives to help improve the quality of our supplier base. First we worked very hard to reduce the number of suppliers who become teammates. Then we have a certification program that requires suppliers to maintain a very high standard of performance. That translates to cost reductions. We share with our suppliers all the things that we did to improve our performance. We involve them in our quality journey every step of the way. The entire Boeing organization treats its suppliers in the same manner, as partners and teammates, and the results show that that’s a very smart way to work. So, focus on quality and affordability, and what do you get? The cost of your product is reduced by 83 percent.
Cost reduction

Our cost reduction efforts virtually ensure the sale of C-17s well into the next century. It opened up new markets for us well beyond the traditional U.S. government market. Foreign governments and commercial customers are now very interested in the C-17, based in part on its affordability. Ensuring a future in this way is one of leadership’s key activities.

People make it all happen

Nothing happens without the people. Leadership throughout the entire Boeing company stresses the importance of developing people and recognizing and rewarding them for their good performance. In 1998 managers received more than 80 hours of training and the workforce received over 60 hours of training, better than industry average. What’s really noteworthy here is that we trained to achieve business results. Our managers receive training in people and financial skills. Our workforce receives craftsmanship training and technical certification, and we also help people pursue advanced degrees that are directly applicable to their work. So that’s the key. We train for results.

We know that rewards and recognition are also important, and a small investment can really give you a big return in terms of employee commitment. The key isn’t necessarily what you do, but how often you do it. We reward and recognize our employees on average about three times a year.

Our efforts are paying off

Our ability to learn and improve is shown in our employee productivity. Last year’s improvement was especially dramatic, and a clear indication that leadership’s continuous improvement efforts are really working. We’ve had some impressive gains in revenue per employee (Figure 8). A significant part of this gain came from the process improvements, shown in terms of our process based metrics. Our secret weapon for achieving these results is leadership’s commitment to managing by

![Figure 8. Employee Productivity (Revenue / Employee)](image)
process, empowering our teams, setting goals linked to strategies, and then doing this jointly with our customers. It is pretty simple, and when you do this your customer is satisfied.

Five ways to measure customer satisfaction

We use five measures we use to determine customer satisfaction. We don’t just send out a complaint card once a year to our customers. We survey customers regularly and we use various other tools to assess customer satisfaction. Just like the employee survey, we find out what our customers want us to work on, we put plans in place and work on it, and then we ask them if we’ve improved things enough. This isn’t something only the leadership team does. The entire organization is involved in assessing customer satisfaction, at every level. As we continue our quality journey it becomes increasingly clear to us that if you expect good business results, you must have a passion for excellence. Because of our penchant for quality we have satisfied customers, a happy, healthy workforce, and outstanding financial results.

Journey to Performance Excellence and Lessons Learned

Randy Mizer—We made many mistakes along the way, and we’ve made some major ones. But I can assure you that we learned from each and every one of them. We didn’t start this quality journey to win an award. We started it to survive. We’re in the 18th year of what was supposed to have taken only five years. We now know that it takes time, it is not an event. It takes planning, and there are detours that you have to adjust to. You have to remember your destination, or for sure you’ll get lost. The important things are that we took the journey, we didn’t give up, we took any idea that we thought would work, we involved everyone on our team, and we used the Baldrige Criteria as the roadmap.

Roots in the McDonnell Douglas corporation

Our journey has its roots in the early 1980s when we were part of the McDonnell Douglas corporation. Sandy McDonnell, who was one of the original founders of the Malcolm Baldrige foundation, taught us that there needs to be a framework in order to achieve business excellence. We were not mature enough to learn that lesson at that time. However, during those years we did learn from Juran, Deming, and Crosby. We introduced Quality Circles, Statistical Process Control, and a whole lot of other Quality initiatives. But these initiatives did not yield the expected business results fast enough. Management became very impatient, and they decided to accelerate that process with TQM.

TQM was launched at Douglas Aircraft Company, which was the poorest performing business unit in the corporation at the time. We began by reorganizing the entire management structure. During the first six months we learned how not to do a quality journey. It wasn’t the tenets of TQM that were the problem. It was the
Roots in the McDonnell Douglas corporation, continued

Making an effort at the Baldrige Award

Critical changes in the culture

fact that the company had no framework, no plan, and didn’t know what to do after the old structure had been removed. We did train the workforce on quality tools, process thinking, and management skills. However, the senior managers above them were never trained. So when people went back to work they weren’t allowed to use these tools and skills. The lesson: Cultural change has to start at the top.

In 1991, a very important thing happened at our Huntington Beach facility in California. The value of Malcolm Baldrige was realized. In 1992 our chairman, John McDonnell, saw that value and started an annual Malcolm Baldrige-based internal assessment to assess the performance of each business unit. The assessment included a full application, a site visit from people who were trained internally and senior examiners outside our corporation and industry. What’s more, this was tied to executive compensation. However, we were still without a well thought-out quality initiative plan and we were still suffering from the reorganization. The consequences of this would soon become painfully evident.

In early 1993 we had an awakening on the C-17 program. Our customer came to us and said, “There will be no more work. What you’re doing isn’t good enough. You’re not focused on our problems, you’re not focused on quality. You don’t keep your word. And besides that we just don’t like working with you.” We had just been put on notice. Earlier in 1989 1,200 managers had been removed from their jobs. But now 8,700 people and their families were about to lose a paycheck. We had to change. It was a matter of survival. It was at this point that our quality journey actually started.

First we had to address how we did things and why we did them. Externally we focused on customer relations, not just the product performance but the relationship with all of our customers. Internally, we had lost the disciplines associated with our processes and systems during that period of anarchy that followed the reorganization. We had to work on our processes. This was the focus in 1993. In 1994 some major things happened. We reinvented our organization and created integrated product teams. Roughly 90 percent of the people were moved to product teams that were focused on the product and the service and the customer. What this allowed was the functional groups to continue to look at processes and the improvement of processes. Both groups focused on relationships with our customers. Things were improving so much that we realized we might be successful. We might survive. We decided that we needed to start thinking like a company, and we needed a strategic plan. It was at this point that the true commitment to Malcolm Baldrige was made. From the criteria we developed our integrated planning process.

But there was another major cultural change that was occurring. In 1992 the entire McDonnell Douglas corporation was at risk. We needed to improve earnings, and we needed cash. Money became our number one priority. Schedule became
priority number two because the sooner you could get something done, the sooner you would get the money. And then cost became the number three priority, because if you reduced your cost, you could keep more of the money that came in from your revenues. And then, and only then, could we worry about quality. But in the next two years we changed our priorities. This change was communicated by holding up the production line to fix the quality problems. Our team already knew these things. They already wanted to do quality work. They were angry because they were asked to make their schedule at the expense of quality. What’s more, they also knew that in the end, poor quality cost more money. We were working 30 percent overtime at the time. What they didn’t know, and what they now were told, was that they could challenge the supremacy of schedule. Leadership has never balked, and we have walked our talk. Once they saw that we were consistently supporting them, things happened for the better. Quality, timeliness, cycle time continued improving, and our costs were dropping quickly.

We were about to propose a multiyear contract to the U.S. Air Force that significantly reduced prices. We had to get our entire workforce involved to meet these new commitments. Once again we turned to our internal Malcolm Baldrige feedback. It suggested that we needed to improve our communication system before we could lead at all levels. We established our vision and values so that the people would know where we wanted to go and how we wanted to get there. We deployed our leadership system. We made a final and full commitment to employee involvement. We conducted a workforce survey. We aligned our rewards and recognitions to our values. In 1995 our performance had improved in all aspects. Our customers were delighted. Our people had pride in working at C-17 and in Airlift and Tanker. Our corporation was absolutely delighted because we were exceeding our operating plan commitments.

When we went for the Baldrige Award, as a part of that strategy, we applied to the California Governor’s Quality Award and won the award for management excellence. So now we were validated. We used our California Quality Award and our internal process feedback to fine-tune and deploy our approaches. We focused on special initiatives that would give us the most gains. We addressed customer satisfaction, workforce survey feedback, and in 1997 we submitted for our first Baldrige application and received a site visit. But we didn’t win.

I had the opportunity to address second shift after I got the news. When I told them that we hadn’t won it was like taking a knife into a whole series of inner tubes. You could just hear the exhalation and the disappointment. It wasn’t about two minutes later that this young mechanic stood up and said, “Mr. Mizer, what do I have to do so that we win next year?”

Now I realized that we didn’t need to be told to do anything. We all wanted to
Winning at the state award level, continued

win the award. So we analyzed the feedback, fixed some things, resubmitted, got a site visit, and won it.

High correlation between Baldrige and business results

Throughout our quality journey we have been asked, “Is there a correlation between approach, deployment, and results?” We’re also asked, “How has the Baldrige process really contributed?” There is a correlation. We knew it in our hearts but the facts are proven out, and it’s very clear. As we continued to use Baldrige principles and incorporate the feedback into our activities we kept getting better. A lot better.

Straightforward things led to dramatic success

As we look back over this journey, we had to do basic things that were driven by the need to improve business results. They are very straightforward, but we had to learn them for ourselves. We had to internalize them, and we had to institutionalize them. And the Baldrige provided us the systematic framework by which we could achieve and maintain the excellence. To maximize your results we have learned that all of our efforts need to be integrated, complement each other, and they have to be easily communicated and very understandable throughout the workforce.

From a stampede to a planned journey

When we started our journey back in the early ‘90s there were over a thousand projects. Everybody was headed in every direction and everybody thought they were doing good things. But most of these things were not aligned with one another. We had no strategic direction. The Air Force with their ultimatum provided the initial direction. Using the Baldrige principles and our assessment feedback to guide us, we determined which projects deserved greater effort, which could be eliminated, and which could be combined. Everyone started to get aligned and heading in the same direction. There were still renegade activities, but by the summer of 1995, thanks to our deployment of our integrated planning process and the continuous use of the Baldrige feedback in all areas, we had a clear strategic direction. Now our journey is planned; it is no longer a stampede. Our arrows are finally aligned at the company level down to the workgroup level, and to the individuals who are within that workgroup level.

A list of lessons learned

Our journey has truly been a learning experience. You can find this list in any leadership or quality book, but until you’ve actually wrestled with it and changed, you have not learned:

- Quality must be integrated into all business aspects
- Set challenges high to accelerate improvement
- Do what makes sense for your business
- Significant culture change is required
- Process management focus is essential
A list of lessons learned, continued

- Empower teams to optimize results
- Take time to institutionalize for sustained improvements
- All ideas have value.

Your people want high expectations laid on them. You know what? They'll reach them. Focus on processes and manage through them. Results only come through your people, so empower them and then get out of their way. It takes time to get results, so be patient.

All ideas have value. I firmly believe that sometimes the most powerful ideas are the ones that you finally turn down. Because if you've really thought about them, internalized them, they have challenged your fiber, values and processes. You learn very quickly not to shoot messengers. Finally, this will challenge leadership's resolve and test your values, so stay committed.

Conclusion

We will continue to delight our stakeholders with high, ever-improving program performance. We will continue to use the Baldrige internal feedback process to improve. We'll leverage this recognition that has been given to us to share our approaches across Boeing and throughout industry. We're doing that so we can find some new things and some good ideas that we can steal. In other words, we intend to stay on top.

Four years ago, we had overcome major challenges and survived. We achieved excellence within the corporate world as well as within the Department of Defense. We all liked that feeling and we wanted to keep it. Every year that team gets together, and the first thing we do is discuss where we are and where we're going to go. The number one agenda item is to review and recommit to those intentions. This is a part of Airlift and Tanker Programs' annual strategic planning process as well.

Several years ago I was removed from my job by the chairman of my corporation. Six years ago I was sent to the C-17, the worst possible assignment I could have been given in the whole corporation. I said to my boss, “What did I ever do to you? What have I done wrong?” When I got to the C-17 program I found that almost everyone felt the same way. We were truly in purgatory. Ten years from that day, and only four years from making the commitment to go on this journey, we received the Baldrige Award.

Our quality journey started in the ’80s, had a major derailing in ’89 that set us back for many years, but once we truly committed and changed our culture, our business results have skyrocketed, and now it's a lot of fun.

In conclusion, I encourage you to stick to your journey. If you haven’t started one, I suggest that you exercise the State Quality processes. If your quality journey has failed, please call for help. You do not have to be at the edge of extinction like we were in order to excel. Just set your vision high and take the journey.
Dr. E. David Spong is Vice President & General Manager for The Boeing Company Airlift and Tanker Programs, Long Beach, California. He assumed this position on February 1, 1997. Previously, he served as chief engineer and deputy program manager for the C-17 program. Dr. Spong is also the southern California site manager for Boeing Aircraft and Missiles - Southern California.

A native of the United Kingdom, Dr. Spong holds a Bachelor of Science degree in engineering from London University. He earned a master's degree in engineering from the University of Missouri, and a Doctorate of Science in engineering from Washington University in St. Louis.

J. A. Kappmeier joined The Boeing Company as a Principal Specialist in August 1988. Since joining the Boeing Airlift and Tanker unit on the C-17 Program, he has held management positions in Technical and Field Services, Spares and Equipment Support, Supply Support, Aircraft Delivery, and Integrated Logistics Support.

Jay served 25 years in the U.S. Air Force. His positions included Minuteman Launch Control Officer, B-52 Navigator/Radar Navigator, Wing Staff Officer, Maintenance Supervisor, Squadron Commander, Chief of Maintenance and Strategic Air Command logistics staff. He retired from the Air Force in 1988 with the rank of Colonel.

Jay earned a Bachelor of Arts degree in economics from the Gettysburg College, and a Masters of Business Administration in management from the University of Missouri.

Cindy A. Malawy joined The Boeing Company in 1980 (then McDonnell Douglas) holding various management positions in International Traffic, Import/Export Compliance and Business Development, including Director Export Administration and Special Projects. Cindy currently leads the Operations Group responsible for activities that support domestic and international business development for Boeing Airlift and Tanker Programs. These include the New Business Acquisition process, Industrial Participation, customer relations, consultant administration, sales promotions, human resource planning, management systems and processes, budget planning and training.

Cindy earned a Bachelor of Science degree in 1978 and a Masters degree in International Business from St. Louis University in 1993.

Debbie J. Collard joined The Boeing Company in 1985. Her responsibilities have included product support, process management and project management activities. Debbie leads the Quality Journey Team, which uses the Malcolm Baldrige National Quality Award criteria for continuous improvement. In 1996, Boeing Airlift and Tanker Programs received the California Governor’s Golden State Quality Award for Management Excellence, and in 1997 the division received a Baldrige site visit and was selected as an award recipient in 1998.

Debbie earned a Bachelor of Science degree in business management from the University of Phoenix and is pursuing a Masters of Science degree in organization development from Pepperdine University.

William C. Halczyn began his career with The Boeing Company in 1989 and began working for Airlift and Tanker Programs in 1991. Bill has spent the majority of his career leading process management and has guided process improvement throughout Airlift and Tanker Programs. Bill's work has been instrumental in guiding the processes used in this Boeing business unit on its Quality Journey. Bill earned his Bachelor of Arts from Boston University.

Don Pitcher joined The Boeing Company in 1979 as an industrial engineer working on the DC-10, KC-10, DC-9 and MD-80 Programs, transitioning to manufacturing in 1984. In 1992, Don joined the Boeing Airlift and Tanker Programs assigned to
the C-17 program and has held increasing levels of management responsibility including his current assignment as Director of the C-17 Aircraft Wing Assembly.

Don earned his Bachelor of Science from California State University at Northridge with a double major in political science and recreation management. He will complete his executive MBA at Pepperdine University in April 1999.

Diana E. Meusch joined The Boeing Company in 1981. Her responsibilities have included management training, leadership development, organizational development, and employee involvement. Diana manages the Strategic Planning and Processes group within the People Organization. She has been a member of the Integrated Planning Team for the past four years and was the lead for Category 5 - Human Resources.

Diana earned a Bachelor of Science degree in Business from California State University-Fresno and a Masters degree in Management from Webster University - St. Louis.

Rufus W. White began his career with The Boeing Company in 1967 and began working for Airlift and Tanker Programs in 1991. Rufus has held various positions working for the C-17 Program Office involved with strategic planning, process management, and organizational change. He has led major customer satisfaction and material management projects in addition to his organizational leadership role.

Rufus earned his Bachelor of Arts from Humboldt State University in Arcata, California and his Masters in Business Administration from Pepperdine University in Malibu, California.

Mary A. Simmerman began her career with The Boeing Company in 1986. She is currently responsible for managing subcontracted material requirements, transportation, supplier quality and inventory control as well as conducting business with more than 1,000 suppliers worldwide. Her responsibility includes support for the C-17, BIB, High Desert and Phantom Works. Mary has been a Director in a variety of program management, operations, business management and procurement organizations on the Navy T-45 Trainer Program, the Air Force C-017 Globemaster III, and commercial programs.

Mary earned a Bachelor of Arts degree in business management from the University of Phoenix and will complete a Masters degree in business administration from the Keller Graduate School in June 1999.

Randy Mizer is Vice President of Total Quality Integration for Boeing Airlift and Tanker Programs in Long Beach, California. He is responsible for Strategic and Operating Planning, Process Improvements, Product Definition, Supplier and Materials Management, and Production and Quality Assurance. A veteran of over 35 years with The Boeing Company, Randy has held positions of responsibility in engineering, operations, procurement, quality systems and program management in both space and aircraft organizations. Randy has over seven years on the C-17 program with the Boeing Airlift and Tanker Programs unit.

Randy earned a bachelor's degree from UCLA and an MBA from Long Beach State University. He also is a graduate of the Advanced Management Institute of Claremont Graduate School.

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Texas Nameplate Company
Malcolm Baldrige National Quality Award Winner 1998

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The Journey

A typical small company

Our quality journey began seven years ago when I heard a radio commentator say that less than one third of one percent of third-generation family-owned businesses survive. I did some quick calculations and realized that I had better get to work in order to provide my sons with the same opportunity my father had given to me. Bear in mind, at that time we had no college graduates and less than half of our people had high school diplomas. With a little bit of desire, determination, commitment— and our customer General Dynamics behind us pushing— we implemented Statistical Process Control (SPC) in 1993. Within a few months, our defect rates began to drop and our confidence began to grow. We'd made it to first base.

Applying SPC to lower pollutants in waste stream

Long term survival was not the only reason we began our quality journey. In the early 1990’s we were receiving a lot of attention from city, state, and federal environmental regulators— all of it negative. Regulators hold the person in charge, not the company, responsible, so they had my attention. I had received so many citations for exceeding the limits for suspended metals in our discharge water that I was advised by my attorney not to drive within the city limits of Dallas— if I happened to get pulled over by the police, I’d probably have to spend the night with them. In 1994 we started applying SPC in our water department to improve the quality of our discharge water. Our limit for suspended metals in our discharge water is now twelve times lower than the EPA’s.
ISO Certification and TQM

We used the excitement generated by our success with SPC to adopt Total Quality Management, which involves listening to people, communicating, including the people who do the work in the decision making process. It seemed to me that a lot of it was common sense, although not common practice. By 1995 we had made it to second base, and were eager to try for third: ISO 9002 certification. We became one of the first three nameplate companies in the U.S. to become ISO-certified.

Lessons learned can be applied to every organization

In 1995 we made reservations to attend the Quest for Excellence Conference in Washington, D.C. We had just applied for the Texas State Quality Award and felt we'd be a shoo-in. After all, it was the Texas quality award, and we were the Texas Nameplate Company; they had a star on their logo, and we had one on ours. By the time we found out that we hadn't won, it was too late to cancel the plane reservations. So we came to the quest anyway.

The first evening there we noticed a group in the hotel lounge having a good time. They were the leadership team of Ames Rubber, which had just won the award. We said that we'd applied for the Texas Quality Award and hadn't done very well, so we were there to learn. The CEO, Joel Marvel, and his son Tim, and the Director of Quality said, “That's great that you took the plunge—we'd like to help.” Texas Nameplate won the 1998 Baldrige Award because of the help we've received over the past four years from companies such as Ames Rubber. We learn from each other, big or small—the lessons each of us has learned can be applied by people everywhere.

Leadership teams: BELT and DOIT

When we adopted the Texas State Criteria in 1994, I didn't realize that they were the same as the Baldrige Criteria. I also realized that the leadership category refers to the leadership system: how it sets direction, values and creates systems to address the needs of all stakeholders. [Please note that in the 1999 Baldrige Criteria the emphasis has moved away from the leadership system to the role of the senior leaders in setting direction and guiding the organization.] Our Business Excellence Leadership Team, BELT, comprises seven of our key people who set our strategic plans and originate our goals and vision. The next level of our leadership system is the Daily Operation Innovations Team, DOIT. These are our supervisors; they meet twice a month and they are the ones who actually run the business. They keep up with all the key measures, such as non-conformancies, down time, and cycle time. Because they have ready access to the data, DOIT makes better decisions on the floor today than the leadership team was making three years ago.

We have a number of other teams such as the Corrective Action Team (CATs), Standing Teams, and Production Department Teams that were formed to help us improve our business. We even created a Support Services Team in response to some feedback we received from the Baldrige examiners in 1997.
Our mission and vision statements

TNC mission statement is a little bit dated; we wrote it at the start of our journey four or five years ago (Figure 1). Today we realize that meeting requirements is not good enough. We really have to exceed all the customer's requirements. We wrote our vision statement in response to some feedback we received from a site visit team (Figure 2). It is rather long and detailed, but what it says to us is that we want to be the best in the U.S. at making nameplates; our company slogan is “Star Quality.”

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<tr>
<th>Figure 1. Mission Statement</th>
<th>Figure 2. Vision Statement</th>
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<td>The employees of Texas Nameplate Company, Inc., are committed to meeting or exceeding requirements, communicating with our customers and suppliers to continuously provide quality products and services that offer best value, while achieving a reasonable return for the employees and owners.</td>
<td>Texas Nameplate Company will become the recognized supplier of commercial nameplates in the United States through remarkable leadership, outstanding performance to customer requirements, efficient processes, employee competence, product leadership and proven stability into the future. Our customers will be delighted by our service and will remain our best marketing tool.</td>
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Key business drivers

TNC has seven key business drivers:

• Customer Satisfaction. Every organization needs to measure customer satisfaction— that's simple. Understanding how to use the data is more complex.

• Employee Satisfaction. We use almost the same criteria to measure employee satisfaction. If we have happy employees we have a better chance of having happy customers.

• Process Optimization. We try to improve our processes to increase throughput and increase product quality. We have a team of people who are responsible for process improvement.

• Environmental consciousness. It really doesn't matter how satisfied our customers or employees are, if we don't meet our regulatory requirements we're out of business. We are now on the brink of eliminating one of our waste streams. (See page 43.)

• Controlled growth. We are interested in becoming better, not necessarily bigger. As we have gotten better, our sales have doubled.

• Fair profit. We do not negotiate price. We know what our cost of quality is, our true expenses, and what our competitors are doing.

• External interface. Sharing what we do with others.

Each key business driver has an owner or champion, who is in charge of
monitoring the key measures in addition to their regular work. They report the data from over 150 measures in the strategic planning sessions. (All of the data is also posted in both English and Spanish.)

**Communication**

It is the role of the leadership team to communicate the company’s direction and values. We hold a lot of meetings and reviews at TNC, but we make sure that they are effective. At every one of our meetings we mandate a tape recording. We have facilitators, agendas, and we take minutes. We rotate people in from the shop to be in attendance. We take advantage of our small size— we can make a decision and implement it in less than thirty minutes.

**Strategic Planning**

Scott Weber— When we adopted the Baldrige Criteria, we came to understand that strategic planning drives everything in the business. Figure 3 shows our strategic planning process and how it links together.

### Five step strategic planning process

**Step 1.** We begin the process by evaluating and improving last year’s strategic planning process. During this step we also evaluate the structure and effectiveness of our leadership system. Changes are immediately implemented.

**Step 2.** We conduct a review of our company’s value system, mission, vision, quality policy, slogan, and the key business drivers. Improvements are documented and used in the rest of the process.

**Step 3.** Then we conduct a full operational review, comparing last year’s performance to plan. We identify areas for improvement and areas of success. The gaps we identify become the foundation for the new plan. The short and long term goals support our company vision.

**Step 4.** We perform an analysis of our business environment, including market conditions, customer needs, competition, economic issues, market issues, technology, risks, our company and our suppliers’ capabilities. We invite all of our
employees to submit suggestions for innovative projects for the year.

This year’s planning includes a contingency plan for an economic downturn, and a disaster recovery plan to keep an uninterrupted flow of products to our customer in the case of a catastrophic event.

Step 5. All suggestions for the new plan are categorized, ranked and evaluated for feasibility and the plan is updated. Specific action plans are organized by our key business drivers and our strategies, with measures and accountability for the projects documented.

Step 6. The plan is deployed to all of our team members and stakeholders. The most important element that emerges from our planning process is our nine long-term goals. They are—

- Reduce cycle time
- Eliminate turnover
- Achieve a fair net profit
- Eliminate customer non-conformances
- Achieve controlled growth
- Eliminate formal customer complaints
- Achieve 100% customer loyalty
- Eliminate bad debt
- Eliminate our waste.

Notice that the last five long-range goals begin with the word eliminate; we feel that there is no better benchmark than to eliminate the problem.

Our 1998 strategic plan was very aggressive; we had over 90 action plans that were directed to help us achieve our nine goals. Every action plan was linked to our key business drivers. TNC’s long-range goals are to—

- Reduce cycle time
- Achieve net profit
- Achieve controlled growth in business
- Achieve 100% customer loyalty.

Customer and Market Focus

Bob Mantel, Sales Manager— I wear a couple of different hats at TNC; not only am I the Sales Manager, but I am also the project leader for all of our activities in Customer and Market Focus. We segment our customers by four schemes to gather and analyze information. This helps us to adjust to future market fluctuations, regional shifts, and changing technologies.

1. Industry type. We segment our customers by industry type, see Figure 4 on the following page. Customer needs differ in each segment; for example, the oil industry requires etched products to ensure durability when they are exposed to the outside elements. The computer products are used indoors, so this segment requires screen-printed products. The largest category is general manufacturing, a group too diverse to segment further. We analyze each industry segment to make sure that we have the ability to meet that segment’s requirements. We analyze customer satisfaction differences between the segments, which allows us to understand which customers we are serving best,
Segmenting customers, continued

and what areas of expertise we need to improve. We analyze financial profitability by customer segment to validate our pricing strategies and our performance efficiency.

2. Order size. Our top 50 customers comprise the first segment, which accounts for 50% of our revenue. We use this scheme so we can track the purchasing history of each customer to see if we are gaining or losing market share per customer.

3. Product type. We segment our customers by product type, etch or screen print, to see whether we are gaining or losing market share in these markets.

4. Location. We also segment our customers by four geographical locations. Our primary area is Texas and the surrounding states, which accounts for 84.6% of our sales. The eastern USA accounts for 10.7% of sales; while the central and western states account for 2% and 1.3% respectively. Only 1.3% of our sales are to outside the U.S.

Twenty market breakouts

There are over twenty breakouts in our segmentation scheme and it gives us the ability to track the purchasing history of our customers. We use these market segments when we analyze the market and the economy to identify new opportunities and emerging threats. It helps us to analyze our profitability. Last year and this year we closely monitored sales by segment to determine the impact of the economic conditions. We use our segmentation schemes to determine sales and marketing strategies, and to ensure the most effective coverage and approach.

Customer contact

We make it easy for our customers to reach us to place an order, to complain, to question or just to offer comments using our toll-free number and fax. We also have e-mail, internet service, and 24-hour voicemail to handle customer requests after business hours. Our outside sales reps have cellular phones so that we can maintain continual contact. We employ a full-time customer service manager who is available to help customers with inquiries, requests, and expediting orders.

Our sales department has established a set of seven service standards that they are required to meet. Measurements in these standards are included in our gainsharing program to emphasize their importance. We ask our sales associates to
CASE STUDY

Customer contact, continued

make a minimum of twenty on-site customer visits per week. This allows us to understand what is going on in the marketplace.

We have a maximum eight-hour response time on all quotes. Sales associates are required to follow up on a minimum of five quotes per week that have not turned into orders—we want to know the status of that order. Since we implemented this program, our percent of orders to quotes has increased to 65%. We also require sales associates to call on five inactive customers a week—these are customers who have not purchased a product from us in one year. In 1998 we recovered 78 customers who purchased $72,000 of products through this program. We have a two-hour response time on all e-mail. We make a five-day courtesy phone call to all customers after delivery to ensure that we’ve completely met their requirements.

Complaint management

Our complaint management system captures both formal and informal complaints. Formal complaints come from survey comments, letters, and calls. Informal complaints come into the system from interactions with the customer during site visits, trade shows, phone contacts and e-mail. Every complaint, formal or informal, is recorded on a complaint form. Formal complaints are reviewed every day by the customer service manager and the president.

Because of our process management improvements, we are now able to resolve 100% of complaints before the customer even hangs up the phone. We then track every complaint to closure. The DOIT team reviews each complaint to identify root causes, trends, and resolutions. Whenever a corrective action is required, the customer receives a follow-up call to determine whether or not the action satisfied the customer; we want to ensure their repeat business.

Four types of measures: perceptive, behavioral, contributory, and direct measures

We use four types of measures to determine customer satisfaction:

1. Perceptive measures allow our customers to tell us how we are doing from their point of view. We use an annual customer satisfaction survey as our primary perceptive measure, along with quick response cards, comments gathered at onsite visits, and formal complaints. The customer survey asks questions on:
   - Product quality
   - Quote response time
   - Flexibility
   - Personalized service
   - Reliable performance
   - Packaging
   - On-time delivery
   - Invoicing & credits
   - Complaint handling
   - Best value
   - Competitive comparison
   - Overall satisfaction.

2. Behavioral measures are measures of customer actions that reflect their satisfaction. These types of measures include customer referrals, repeat purchases, complaints, nonconformances, and the use of our Partners for Success program.

3. Contributory measures are measures of our actions that can directly influence customer satisfaction. Our primary measure of this is customer contact, employee retention, customer visits, and customer follow-ups.
CASE STUDY

Four types, continued

4. Direct measures gauge our performance to customer requirements. They include non-conformances, returns, on-time delivery, complaints, cycle time, cost, and quote response time.

Research and onsite customer visits

We conduct research studies throughout the year on our competitors in regard to price, quality, cycle time, and flexibility. We use this data to adjust quickly to market trends and shifts. We have measurable action plans in place to help us make business decisions quickly and to identify areas for improvement.

We also have a program of customer site visits that are led by our company president and include associates from various departments. The site visits have opened our employees' eyes to the root causes of problems, and given us feedback directly from the end user, the person who is actually installing the product. On-site visits have led to fewer customer non-conformances, faster response time, and a spirit of meeting and exceeding customer requirements. We work with our customers every day to improve our processes and strengthen our business relationships.

Criteria for data selection

Information and Analysis

Information and analysis serves as the foundation of TNC's performance excellence. We use several criteria to select the information and data we use:

- It must help us understand our customers and their demographics.
- It must be a key measure of our manufacturing and support processes.
- It must be a measure that tracks the performance of our strategic plans, goals, and action plans.
- It must be a measure of competitive or comparative performance. Competitive data must be reliable and available for collection on an ongoing basis. The data must come from a company that is recognized as either best in its class, or from a direct competitor. This ensures that the data gives us cause for action.
- It must be appropriate to our business, processes, and to provide us with information that will allow us to improve and grow.
- It must be a leading indicator of future performance.

We use the Thomas Registry, Dun & Bradstreet, and the internet as sources for our information. We also use market research firms, survey firms, market sensing studies, associations, and feedback from the Baldrige examiners. We've also formed an informal industry consortium of four nameplate companies to share data to improve ourselves and the industry as a whole.

We begin to collect and use information during our strategic planning process, which aligns our company goals and action plans. We assign the collection of data to the owners of each key business driver. Because we are so small, the person who collects the data is the primary user of the information.

The data collected is presented and validated to our BELT and our employees...
Information used during strategic planning

during our regular monthly reviews. We evaluate and improve our collection of data during our annual strategic planning meeting. We use this data in our day-to-day operation and to set the direction of our company. We conduct multiple reviews—daily, weekly, monthly, quarterly, and annually—to analyze the data and information and to share our learning. The result of our data collection and analysis is to improve our targets and to maintain our direction.

Process Management

Kenny Howard—In 1991 when we began our improvement efforts we designed the process flow of the organization and the production process. When we were ISO 9002 certified in 1996, all of the company's processes were defined and documented in causa and effect diagrams, flow charts, and requirements. Procedures and statistical control measures are also documented in our Quality Control Manual. Figure 5 shows our key process flow. The sales department is responsible for coordinating the design of an order, and shepherding it through order entry, pre-production check, scheduling, and the art department. (Eighty percent of our orders are repeat orders that do not require design specification.) When a new order is made, a prototype is created to verify the accuracy of the design. Order entry and scheduling specify the production process for that particular order.

The production of a nameplate order may take one of many paths throughout its manufacture, depending upon whether it is etched, screened, painted, or punched. The process that each order follows is documented on the departmental quality checklist, called the green sheet (shown in Figure 6), that travels with the order through the production process. The green sheet outlines the specific production steps required for that order and key process requirements. We identified the upper and lower limit of all our processes. Employees make notes on the sheet to communicate issues to other processes. When all the requirements have been successfully completed, the
lead person will stamp the checklist. The shipping department looks at the green sheet, if every process has been checked off, the parts are 100% good. We don't even look at them: we put them in a bag, weigh them, and then ship them to the customer. We are the only nameplate manufacturer that has the confidence in its process control to do this.

Figure 6. Departmental Quality Checklist

| CUSTOMER: __________________________ | TICKET#: __________ 
| ART | Date: | Was blueprint clear? Yes/No | Proof approval? Yes/No | Number of colors:__ | Supervisor/Assistant |
| FILM | Date: |Was touchup needed? Yes/No | Is it a new Art/Rerun/Re-file? | Has film been identified properly? Yes/No | Proofreading done? Yes/No | Condition of film: Good/Fair/Bad | Number of films turned:______________ | Supervisor/Assistant |
| SCREEN | Date: |Material used: SS/BR/AL/Anodized/Vinyl/Mylar | Metal thickness: | Number of flats: | Mesh used: | Number of screens: | Initials of screens: | Supervisor/Assistant |
| ART | Date: |Was blueprint clear? Yes/No | Proof approval? Yes/No | Number of colors: | Supervisor/Assistant |

Figure 7 is an example of the cause and effect charts we have developed for each process in the company. These charts help employees identify problems and

Figure 7. Cause and Effect Chart

| Procedures | Effect | Sales |
| Check payment history | Leadership skills (Hogan) | Training and Knowledge |
| Billing & shipping data | On-the-job training | |
| Complete, daily activity log | Sales meeting | |
| Check payment status | Fax, EDI, email, Phone | Facilities and Equipment |
| Performance Standard | System 36, laptop computer | |
| 95% Error-free work order | Copy machine | |
| Verification of cycle time | Current revision letter | |
| Production requirement | Blueprint, quantity, price, part # | |
| Inputs (Materials) | Attachment A&B forms | Inputs (Information) |
| Order forms | | |
| Purchase order | | |
| Credit & tax data | | |
solutions for issues that commonly arise. We use the four steps of the Plan Do Check Act cycle to evaluate and improve our processes. First, we identify need. Second, we implement preventive or corrective actions. Third, we measure the action that was taken. Fourth, we deploy or re-plan based on comparative data. All of our support processes, such as sales and marketing and accounting, are defined by procedures, flowcharts, or checklists, and the process definitions are reflected in the forms that are used to drive the process. We created the support services committee to allow these teams to work together to define customer requirements and to align their processes. The strategic planning process drives the process requirements; requirements are based on present and planned production volume, financial measures, regulatory issues, employee satisfaction, business growth, and customer satisfaction. Most of our support services are managed through the use of forms, which assure all appropriate steps are completed and all appropriate requirements are met. Support processes use the same PDCA process. Measurements are reviewed by the department teams and by DOIT.

Our facility is laid out by the consecutive steps of the production process. This layout reduces cycle time, reduces accidents, and reduces mistakes while improving the opportunity for communication. We post information and measures in our Quality Corner and hold a series of communication meetings that are structured to help employees share relevant information with others in the company. Our monthly employee meeting is a key opportunity for two-way communication between employees and leadership about the company and department performance and events. Cross training on skills also improves communications within the organization.

We have over 140 suppliers of goods and services, so our relationships with them is critical to the quality of our products. We evaluate our suppliers through the same PDCA process that we use in production and support services. We focus our improvement efforts on providing them the information they need to understand our approach and our needs. We provide suppliers with a letter explaining our quality policy, scorecards to identify their performance level, and a description of how the quality of their product affects the quality of our finished good. We also invite our suppliers to our business excellence seminars to show our commitment to the improvement process.

The quality of our supplier base has allowed us to eliminate incoming inspection on the majority of our suppliers. We allow suppliers to ship-to-stock when: (1) they have significant recognition of the quality of their process, (2) the supplier has had a two-year record of no defects with us, and (3) the supplier is meeting the required specifications of that purchase order.

We use a scorecard to provide feedback to our suppliers on four areas: (1) defects, (2) appropriate paperwork, (3) on-time delivery, and (4) quantities received.
Supplier evaluation, continued

Feedback is provided immediately if a problem is found, and the supplier is asked to correct the problem. All of our production processes have contingency plans in place to adapt our production process to compensate for supplier errors.

We have a strong relationship with our suppliers: 65% of our suppliers have served us for over ten years. We had only three defects that have affected our customers in the past four years.

Quality is everyone's responsibility

In 1998 we made two important process improvements. First, we eliminated the film department, adding the responsibility for that step to two other departments. Second, we eliminated the Quality Control department: the quality of our products is now everyone's responsibility. As a result of these two process improvements, we have been able to reduce our cycle time, increase employee and customer satisfaction, and decrease non-conformances to less than 1%.

Human Resource Development

Sula Reilly—TNC has a team-based environment that empowers all employees to take initiative in their area of responsibility. We have systematically driven responsibility for decision making further into the organization by training in specific areas. Employees on the floor are now responsible for validating their own quality processes and requirements.

When we began our quality journey in 1991, our first step was on-site Process Control Training using a company-based computer course. We then began safety training and leadership skills training. In 1995 we began a strong thrust on formal general education to help employees not only improve their work, but their personal lives as well. [See “Process and Values Driven Change: Making the Baldrige Criteria Work for Us,” Journal of Innovative Management, Summer 1999.]

Giving employees the “big picture”

To give our employees a greater understanding of the “big picture” of their work, we provided a series of monthly training courses about the different aspects of the business. We are also currently cross-training our employees to increase our flexibility and rapid response. All employees are cross-trained on processes within their departments. There are seven employees who are cross-trained in multiple areas of the production and the support processes, allowing us to move them between various departments as business needs require.

Compensation supports work design

Our compensation and benefits structure supports our work design. Our most innovative approach to compensation is a form of risk-based pay we call gainsharing, which rewards employees for their personal performance, improvements in product quality, process efficiency, and attendance. We also have a profit sharing and bonus program. Our compensation ranks in the top 17% of our industry. We also recognize and reward employees who best demonstrate our goals and values. We have service anniversary awards and social events to reward and recognize employees for
special achievements—we use every possible excuse to hold a Texas barbeque.

**Business Results**

Dale Crownover—Texas Nameplate Company is adamant about not emphasizing results. We believe that if we improve our approach, and how well we deploy and execute our plans, then we will get good results. The years we've spent improving our approach has paid off with impressive results. We had a 48% increase in gross sales since 1994. In 1998 our 14-day cycle time was the lowest in the industry—today it is 10 days. In 1998 we had the lowest quote response time in the industry, at four and one-half hours. Today it is two hours and twenty-three minutes. We have only lost two of our top fifty customers in four years.

We have received a number of awards and honors based on our customer satisfaction. In 1997 we were recognized by the Texas Association of the Chamber of Commerce and the Arthur Andersen Dallas Enterprise Award for Best Business Practices (we were finalists for their international award that year also). In 1996 we competed for and won the Texas Quality Award for Small Business. We've also received numerous awards from many of our customers.

We send our customers an annual survey. The three most significant questions we ask are about best value, how we rate compared to our customers in overall satisfaction, and on-time delivery. We conduct over 70 different analyses from this data. In the last three years we have achieved a rating of ‘excellent’ in all 12 questions.

Our quick response card makes it easy for our customer to complain. Every box of nameplates that we ship has a quick response card in it for customers to use to give us immediate feedback. In the last two years we achieved an excellent rating in all categories. When there is a problem, I think that it is important to respond in some way to this feedback. We send a letter and a small gift to show our appreciation, and most importantly we include a description of the fix we made to correct the problem.

Since we began our journey, the number of nameplates we produce per hour has increased significantly, while the number of complaints has decreased (Fig. 8). We now lead our industry with the lowest number of complaints.
CASE STUDY  Texas Nameplate Company, Malcolm Baldrige National Quality Award Winner 1998

Make it easy to complain, continued

customer complaints; in 1997 we shipped 8,000 orders and received only three formal complaints. We are well on our way to achieving our goal of eliminating non-conformances with a current rate of less than 1%.

Improved profits and sales in a market of declining growth

Since 1994, our gross profit has increased substantially, while our cost of sales has decreased, Figure 9. These improvements have taken place in a market that is seeing a decrease in its growth (Figure 10).

![Figure 9. Gross Profit/Cost of Sales](image)

![Figure 10. Percent Growth in Metal Nameplate Market](image)

Figure 11, on the following page, shows how TNC's sales growth has significantly improved since the start of our quality journey. We once trailed our competitors in sales growth, we are now the industry leader.

Our on-time delivery rate has increased, and we are now near our goal of 100% on-time delivery. Our delivery lead times are significantly below that of our
Improved profits and sales in a market of declining growth, continued

It is important to realize that our employee satisfaction has increased substantially during this period. Our employee surveys show substantial increases in all areas, especially pride in company, fair pay, career development and job security. This is the genius of the Baldrige Criteria.

I went to a seminar a few years ago about calculating the cost of employee turnover. After hours of flipcharts, calculations, and overheads, I decided I’d just rather eliminate employee turnover than try to calculate the costs. The result is we’ve reduced turnover 64% in five years.

Because TNC is in a strictly regulated industry, environmental concern is one of our key business drivers. The impact TNC makes on its environment has improved dramatically since 1991. Today the EPA limit for suspended metals in discharge water is twelve times greater than TNC’s limit (Figures 12 and 13).

Employee satisfaction increases

Elimination of a waste stream
We are now on the brink of eliminating one of the waste streams. We will do this by adding some equipment that returns the acid we use in the etch process back into the original acid through electrolysis, creating a co-product of metals instead of a by-product. We are doing this in-process, eliminating what the EPA calls an “end of pot” or waste stream. We are now an industry leader in the US and worldwide in the treatment of wastewater. By the year 2000, we hope to eliminate all suspended metals in our discharge water.

Lessons learned

We’ve learned a lot of lessons on our quality journey:

• Never tolerate excuses. Back in 1991 when we started looking at Process Control, we had a lot of reasons why it wouldn’t work—and we almost succeeded in talking ourselves out of it. Dr. Steven Covey noted that people will almost invariably run away when they see an alligator, although they have never actually seen an alligator chasing anyone. His point was that we are too used to accepting excuses. TNC has adopted the emblem of an alligator with a red bar through it. It reminds us never to tolerate excuses.

• Baldrige training. A mentor of mine recommended that I go to an examiner training session for the Texas Quality Award. He said that it was no big deal and that I would learn about the criteria. I went and found that it was absolutely the hardest thing I’ve ever done. When everybody else was going into the lounge after class, I had to go to my room and finish the homework. But I learned about the criteria, and became a strong advocate of them.

• Respect the process. We applied for the award in ’96 and ’97 and in ’97 we received a site visit. But thank goodness we didn’t win. We were not really prepared mentally or physically. We needed to have so much more faith and confidence in our processes and the examiners.

• Value of the feedback. We got involved with the Baldrige award in order to receive the feedback. It is one thing to brag about your strengths, but under-

Figure 13. Average Water Quality Discharge

City of Dallas requires pH to be between 5.5 and 10.5

<table>
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</tr>
</thead>
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</tr>
</tbody>
</table>
Lessons learned, continued

standing the areas for improvement is even more important. Make action plans—this is how you get better.

• Learn to love data. Using data is the only way you can understand what to prioritize. We have a saying at Texas Nameplate, “If you don’t measure it, don’t talk about it.” Not learning how to use data is where a lot of companies fail.

• The Baldrige Criteria apply to everyone. You may have to adapt the best practice to your company, but you don’t have to reinvent the wheel. You have to make it fit your company’s business and your culture.

• Get help where you need it. There are a lot of consultants out there who can help you. Some of them are so smart, they can help you on everything. We often have different consultants come in on different days, then our leadership team analyzes whether or not they all say the same things. If not, then we readdress it.

• Customer segmentation. It took us four years to really understand what customer segmentation meant. You have to know who your customers are and what market segment they belong to. Only at that point you can identify your customer’s requirements.

• Employee motivation. All people want to do well; and to be a part of something. The sooner you can get your people involved and sharing, the better off your company will be.

• Linkage. Every decision you make links to something else. The seven categories of the Baldrige award link with each other. You can’t do it with five out of the seven, you have to do all seven.

• Strategic planning. So many companies have a strategic plan that they don’t deploy. It’s like going to the prom with out a date. We learned this the hard way during our site visit. The leadership team showed the examiners the strategic plan, but when the examiners asked the employees what it was, they didn’t know.

• Decision making. The DO IT committee does a better job of running the shop today than the leadership team did four years ago because they have the data.

• Comparative data. You can’t say you are the best if you don’t know what the best is. We were told at a supplier conference that we should go out and buy nameplates from our competitors. At first we thought it was a little unethical. But we found out exactly what their quality was, how they packaged them, and how good their customer service program was.

Author information

Dale Crownover is president and CEO of Texas Nameplate Company; he has performed every job within TNC during his years with the company. Dale earned his bachelor of science degree in business management from LeTourneau University, Longview Texas in 1997. In his book, Take it to the Next Level, Dale Crownover writes about the pursuit of excellence.
Scott Weber joined TNC in 1996 as the Director of Administration. He oversees financial data, accounting, human resource planning and administration. He serves on the company's strategic planning and leadership teams. Scott is also a lead examiner for the Texas Quality Award Foundation.

Bob Mantle began his career at TNC as a sales associate in 1993. In 1991 he became Sales Manager and led the company's first Quality Improvement Team (QIT). He has also served on the Board of Examiners for the Texas Quality Award Foundation.

Kenny Howard joined TNC in 1978 as a shear operator. He has received numerous promotions as his abilities became obvious to the TNC leadership team. He is an in-house expert on the ISO-9002 standards and implementation. He facilitates the Daily Operations Innovations Team. Kenny was the first to receive a graduate equivalency certificate under TNC's GED program.

Sula Reilly has worked for TNC a total of 28 years administering human resource programs. She has maintained consistency and coordination between leaders, departments, and employees. She compiled and edited TNC's many quality award applications.
Quality Management: A Natural Fit for Education

Dr. Michael E. Ward, State Superintendent of Public Instruction, Raleigh, North Carolina

The current low rates of unemployment and the increasing technical, economic, social, and political complexity of society have made it very difficult for organizations to find, train, and retrain qualified personnel. The public school systems are a key supplier, perhaps the most important supplier, for every organization. It makes good business sense for industry and education to recognize their customer-supplier relationship. The introduction of the Baldrige Criteria for Education offers the public school system and industry an opportunity to create a closer partnership to improve education. Several states are actively interested in the application of the Baldrige model to education, including Florida, New Jersey, Indiana, New York, Ohio, South Carolina, and others. North Carolina State Superintendent Mike Ward reminds business leaders that sharing their needs and knowledge with the public schools will bring important long-term bottom line benefits for people, schools, and business and a richer cultural heritage for all—Editor.

Everyone has a perspective on what’s wrong or right with public schools these days, and virtually everyone thinks that the schools must improve. The perspectives of those who want schools to improve vary in intensity according to just how good or bad they think things are. But, in general, their observations tend to fall into two broad camps: (1) The no-nonsense perspective; and (2) The nurturing perspective.

What do supporters of a “no-nonsense” perspective say?

- Business, industry, and higher education are tired of applicants who hold a diploma that is often meaningless.
- The only reliable way of holding students and schools accountable is through objective measures like standardized tests.
- It’s better to retain a student and risk some damage to self-confidence than to fool the child into thinking that he/she is doing okay and condemn the child to a lifetime of inadequacy.
- The education community is taking things too slowly. We’re not preparing students for the realities of a highly technical information age.
- Our academic standards, especially standards for the diploma, let students off too easily. No one rises to low expectations.

Yes, these are the comments of those who adopt a no-nonsense perspective on student standards. And you know what? They’re right!

What do supporters of a “nurturing” perspective say?

- Business interests shouldn’t be the only considerations in setting academic
Two different perspectives, continued

Baldrige Criteria for Education unite the two perspectives

Challenges of applying principles of quality management

...
Quality Management: A Natural Fit for Education

We have a governance structure in education, which sometimes doesn’t facilitate accountability. For example, the State Board of Education is appointed by the governor, the state superintendent is elected, local boards have a great deal of autonomy, and so on. Our connection with key partners, like the universities, community colleges, preschools, business, and others are often loosely structured.

Processes

We often have little control over our budget; rather, we are funded by the legislature and our product does not produce direct income back to the organization. Many of our program processes are legislated as well, and may or may not be aligned with our goals.

Human Resource System

We are often directed as to the number and type of positions, with a uniform statewide incentive and evaluation system.

In spite of these challenges, the Baldrige system has been beneficial in North Carolina’s statewide school system. The following sections explain how.

The balance of this article tells the story of North Carolina’s system of public education—our 1.3 million students in 2,000 schools and in 117 school districts, nearly 50 of which have adopted the principles of total quality as their management system for the district, schools, and classrooms. I want you to know about our successes. I will confess our shortcomings and what we must do to go to the next level. But before I do either, let me start at the end. It’s most important for you to know what we hope to become as a statewide system of schools.

Part 1: We have high hopes for our statewide system of schools.

Our strategic priorities are really the aims of our communities—our customers and stakeholders. That is how we’ve chosen to operationalize the voice of the customer—by seeking out and then focusing on the most persistent messages, concerns, and priorities from the community. Forums involving thousands of citizens were held across the state to identify key skills and knowledge for high school graduates. Other forums focused on what parents, business, and higher education expected of students and schools.

The strategic priorities of the State Board of Education are a straightforward reflection of the community’s highest hopes:

• High student achievement
• Safe and orderly schools
• Quality teachers, administrators, and staff
• Effective and efficient operations.

Clarity about what we hope to accomplish is important. Each month the State Board of Education builds its agenda around those four community aims. If an item doesn’t further our efforts toward these important aims, it doesn’t go on the agenda.
When the board sends a budget to the state legislature, funding requests are built around the four community aims. At least twice a year, the board monitors results from the measurement system we’ve developed to monitor progress toward achieving these aims. Figure 1 shows these aims and their measures.

This focus and consistency has a powerful impact. Although adoption of the quality management system is voluntary, a number of local school districts are renewing their own strategic plans by focusing on the four community aims adopted by the state board. The 16-campus university system recently developed a common plan for overhauling teacher preparation and supporting professional development for K-12 educators. This plan was developed with the strategic aims of the state board in mind. The work of the university system’s Center for School Leadership Development is aligned to the four aims and speaks to that alignment in its materials. UNC System President Molly Corbett Broad emphasizes these aims with the university system Board of Governors as well.

Listening to stakeholders, developing a concise, clear set of aims, staying focused, communicating these aims to our partners, monitoring results—all of this has been part of our effort to begin with the end in mind—to be clear about what we want to become as the state-wide system of schools serving North Carolina children and their communities.

Part 2: What we’ve accomplished.

During the past few years, North Carolina’s schools have made significant progress.
Continuous improvement, continued


• In March of this year, the NAEP reading results in fourth grade showed that North Carolina was one of only five states to make significant gains since 1992. The state’s eighth graders scored above the national average in the first administration of the NAEP reading for this grade level.

• In January of this year, Education Week’s annual Quality Counts report described North Carolina as one of only two states in the nation to develop a comprehensive school accountability system. Our ABC’s accountability program holds schools accountable for reaching state calculated annual growth targets in reading, writing, and math achievement. A $1500 bonus is awarded to every certified staff member in schools that significantly exceed their improvement goals, and $750 is provided to each certified staff member in schools that meet their goals. Schools that do not meet their goals and have 50% or more of students performing below grade level are designated as low performing and may be assigned state assistance teams to supervise their improvement efforts. Since implementation of the plan in 1997, the proportion of schools meeting or exceeding performance improvement targets has grown from 57% to over 80%. The number of low-performing schools has been reduced by 90%.

• In performance on state end-of-year tests, the rate of improvement on student proficiency in reading and math has risen by nearly 10% in the past three years.

• The National Education Goals Panel, for the past two years, has cited North Carolina, along with Texas, as the nation’s leaders in educational improvement.

• During the past eleven years, North Carolina students have improved more on the SAT than students in those states where more than 12% of students took the SAT. The total gain for this period has been 43 points.

• The passing rate on advanced placement tests is up from 48 per 1,000 in 1991, to 99 per 1,000 students in 1998.

• School violence is down by 19% since 1994. The number of guns brought to school is down 65% for the same period.

• Seventy-four Job-Ready partnerships are flourishing in 94 of our 100 counties.

I hope that these results provide a sense of the improvements we’re trying to make. But I want to personalize this message by sharing the observations of individuals from a few of the nearly 50 districts involved in the quality movement in North Carolina.

Success stories

Here’s what a classroom teacher said about the impact of Baldrige on student behavior: “The quality principles of leadership, customer focus, goals and measures with a focus on results, and effective processes have helped me with classroom
Success stories, continued

management. By involving my students in making decisions, they have become owners in the process and in their own learning. I no longer feel like I am forcing them to behave. They are behaving because they now have a mission, and jointly established classroom rules. My students are becoming more responsible learners."

An elementary school principal said this about the impact on student learning: “During the course of our quality journey, students have continually impressed us. This past school year the students exhibited great sophistication in their ability to develop criteria for excellent work and appropriate behavior, and assess themselves, their work, their peers, and areas that needed improvement. They ended the year with more than the ability to read, write, and calculate. They left armed with other ‘tools’ needed for success in the real world—teamwork, communication skills, critical thinking and problem solving.”

This is what a parent said about monitoring results: “I love the Student Led Conferences! They teach children how to communicate with parents, and vice versa. They make students more responsible for grades, and require parents to become more involved in their child’s work. The idea of Student Led Conferences is a great one!” In these conferences, the child, with supervision from the teacher, prepares for and conducts the conference with his/her parent.

Many of the examples cited are from individual classrooms—the place where the most important work in education is taking place. It should be noted, however, that the quality principles of leadership, customer focus, goals and measures with a focus on results, and effective processes principles apply effectively to any system—the classroom, school, district, or state. Often, school leaders lay the groundwork for the implementation of Baldrige at the district level first so that there is a foundation of support for schools and classrooms as they adopt the system. Schools and districts that have applied the quality principles are making impressive gains.

We’re pleased by all these signs of progress—and keenly aware of who is doing the heavy lifting: students, teachers, parents and communities across the state. But there is so much yet to do before we reach our aims. This brings me to my third point.

Alignment of effort

Part 3: Strategies for continued improvement: What it will take to move to the next level?

In the midst of all that remains to be done, I believe that five strategies are the most urgent.

Strategy 1: Alignment of effort. If we are to become the statewide system of schools envisioned in our four community aims, we will have to become particularly adept at alignment of effort with our strategic partners. Alignment in loosely structured organizations like our statewide system of schools is difficult to achieve. Alignment in a complex political environment takes time and constant attention. Let me illustrate:

• In North Carolina, governors are elected every four years and each has a different perspective on what will best serve to improve our schools.
Alignment of effort, continued

- The state board of education members are appointed by the governor to eight-year terms.
- The state superintendent is elected, rather than appointed by the board.
- Members of the state legislature often have their own view of measures needed to improve schools—and will sometimes use their lawmaking prerogative to supersede the state board's policy making authority.

In spite of the complexity of this environment, we have been fortunate to maintain reasonably well-aligned behavior—but it's a struggle that renews itself daily. If we are to take the next steps, we will have to work constantly on alignment across the K-12 education system, university and community college system, and with the governor and legislature. We currently have an Education Cabinet chaired by the governor and including the state superintendent, the chair of the state board of education, the state university system president, the community college system president, and the president of the association of independent colleges and universities. The cabinet plays a key role in assuring K-16 coordination and alignment.

In a nonpolitical environment, we have the North Carolina School Improvement Panel that is made up of policy makers and senior leaders from a number of stakeholder constituencies. The panel assisted the state superintendent in bringing the Baldrige system to the state level education system. The North Carolina Partnership for Excellence and the North Carolina Business Committee for Education promote and provide training for the implementation of the Baldrige system at both the state and district levels.

Strategy 2: Develop our knowledge and skills in the quality process

If we are to become the state-wide system of schools we envision, we must constantly develop our knowledge and skills. Working with individuals who understand, and more importantly, can teach the Baldrige system is critical to our continued progress. We need visionaries such as Tom Houlihan, the far-sighted young superintendent who first introduced total quality education (TQE) to North Carolina. He now heads the North Carolina Partnership for Excellence cited above.

Using some of the most knowledgeable teachers and administrators from the TQE districts as trainers, Department of Public Instruction staff members have reversed roles: they have become the learners, which sends a profound message about the mutually supportive relationships that should exist between the state education agency and local school districts.

Working with individuals like Jim Shipley, founder and former director of the Quality Academy in Pinellas County, Florida, and now a full time consultant working with districts and states across the country, we have the coaching we need to monitor and update our strategic plan and the measurement of results. If we’re to take the next steps, we must constantly develop our knowledge and skills.
Build quality in through proficiency promotion

Strategy 3: Build quality in through proficiency-based student promotion

We must call to question educational practices that ignore the principle of building quality in from the beginning. No practice is more antithetical to this notion than moving children ahead through the grades whether they are prepared or not—the practice commonly referred to as social promotion. Such a system cheats communities, cheats the business community, cheats hard-working teachers, and worst of all, cheats students themselves. That is why the State Board has recently adopted a proficiency-based promotion policy for grades 3, 5, 8, and 12, which will require students to demonstrate grade level achievement in order to be promoted. The policy is to be phased in over the school years 2001, 2002, and 2003. The ABCs end-of-grade tests and high school end-of-course tests will be used to help ascertain grade level proficiency, and a new exit exam will assess essential knowledge for high school graduation. There are provisions in the policy for students with special needs and students with limited English proficiency.

The purpose of such a policy is not mass retention of youngsters—rather, it is to force the issue of resources for professional development and early childhood initiatives which build the foundation for successful learning throughout an academic career, and to force the issue of effective intervention, assistance, and remediation for those already at risk of not meeting the demands of the world which they will encounter as our graduates. Such a policy will benefit all, and will benefit most those who have historically fared worst in the system—poor, minority, and disabled students. We can ill afford any undereducated group of students.

Data management and analysis

Strategy 4: Management and analysis of data

We must become more adept in the management and analysis of the data that helps us to monitor results. We all know that what you aim for matters! What you measure is also important and heaven help you if what you’re aiming for and what you’re measuring are different. The North Carolina school districts involved in the quality movement have demonstrated strong ability to develop strategic plans, to improve educational processes, to measure progress, and to produce impressive results on state and national achievement measures, as well as other relevant measures of school progress. If we are to take the next steps, we must become more adept at managing and monitoring results.

Partnerships

Strategy 5: Partnerships

We must create partnerships with a number of key entities. Our statewide School Improvement Panel guides our overall plan of work and is made up of representatives from schools, universities, community colleges, and professional associations. I also meet regularly with advisory groups of teachers, parents, administrators, and students. The panel promotes the understanding of the principles of quality, and is a catalyst for listening to our customers, as well as communicating back to our customers. Panel members are specifically appointed because of their leadership with specific constituent groups and organizations.
There is another key partnership—partnership with business and industry. In November of 1998, when the National Education Goals Panel cited the progress of North Carolina, the report was attended by a study conducted by David Grissimer and the Rand Corporation. Dr. Grissimer examined the improvements in our schools and determined that the progress in North Carolina was most attributable to three things:

First, strong and consistent political leadership—Governor James B. Hunt has relentlessly advocated for public schools, and just as relentlessly insisted that they deliver a better return for the community.

Second, Grissimer attributed the progress to a willingness to stay the course on educational reforms. North Carolina, like many other states, has a history of enacting and sticking with educational reforms in brief cycles—corresponding too often to the election cycle of the legislature. But in recent years, the governor, legislative leaders, and education leaders have resolved to see through our school improvement and accountability plans. Support for the continuity came from several sources, including: improvement in student performance under the current reform plan; purposeful and extensive communication with the state’s political leadership; and evidence of long-desired alignment of purpose across educational, community, and political systems. We’ve been fortunate to have Governor Jim Hunt providing consistent focus, and leading the charge for educational improvement. It’s certainly easier for me, as state superintendent, to build and sustain an effective K-12 policy when the Governor is rallying the entire state around the cause of better public schools.

Finally, the Rand study concluded that North Carolina schools have made significant progress as a result of a strong, consistent, enthusiastic partnership with North Carolina’s business community. When Jim Hunt, a Democratic governor, appointed Phil Kirk, the Republican CEO of North Carolina Citizens for Business and Industry, as the State Board of Education chair, he sent a clear message that education should not be an arena for partisanship.

He also sent the message that there is a shared interest between business and our schools. That’s why organizations like the North Carolina Business Committee for Education enthusiastically support the efforts to introduce the Baldrige system in our school districts. That’s why every one of the TQE districts not only has a university partner, but a business partner who is knowledgeable in the principles of quality.

Partnerships matter.
Partnerships with business and industry have the power to revitalize schools.
Partnerships with people like you!

I will close by challenging you to be involved with schools. Continue the adopt-a-school programs, the donations of resources and equipment, the employee volunteer time, those important “feel good” partnership activities. But do more.
Become involved with the schools, continued

Be an active partner in helping to solve problems, whether it’s reducing the dropout rate, helping to find solutions for inadequate or overcrowded facilities, or rallying the community to provide incentives that help attract quality teachers. And don’t let your notion of partnership stop there.

If schools are to truly respond to the aims of the community, then you must help schools fundamentally change how they do business. And the good news is this—you understand how! You possess profound understanding of what it takes to continuously improve organizations. If you are already sharing your knowledge in partnership with a school somewhere, thank you. If you’re not sharing your knowledge and skills to improve school systems, then you have one more step to take in your quality journey.

Bibliography


Author information

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Donnelly Management by Planning Champion Training

**Author**


**Introduction**

Donnelly Corporation is a maker of automotive mirrors and parts with almost 6,000 employees and $900 million in sales, operating in 14 countries. Donnelly's Management by Planning Process (MBP) is built on the spirit of employee participation, improving understanding, commitment, and results. We consider MBP to be synonymous with the terms Hoshin Planning, Policy Deployment, or Breakthrough Strategic Planning.) MBP adds structure to the change process, allowing Donnelly to adapt quickly and efficiently to the changing business environment.

The MBP champion network is a cadre of people we've trained and developed to implement and support the MBP process in our decentralized organization. They are experts on the planning process. The champions are our principal means to institutionalize the MBP system. This article briefly describes the MBP process, then tells how we prepare the champions to meet the unique challenges of this position and how we manage the champion network.

**Benefits of the supportive MBP process**

Since beginning MBP in 1996 we've had significant improvements in a number of performance indicators: (1) return-on-assets has been 20% over goal, (2) customer defects, as measured by ppm, has improved 76%, (3) scrap costs are down by 29%, (4) productivity has improved by 13%. These figures are especially significant considering the rocky start MBP had at Donnelly. Our former VP of Operations began a review process that was less about review and more about public humiliation. After that VP left the company, we decided to do something different. We benchmarked Toyota and Mack Truck, and had some people from those companies come to work with us. Our COO, Don Viola, said our review process was to be “not only beneficial and helpful, but something that people want to do because they get something from it.” We created a process that is supportive— the goal is to review data early on, to increase understanding, so that we can help each other meet our commitments.

**MBP Background**

MBP is the process Donnelly uses to systematically manage change; we use this process to make the tough decisions about how we are going to grow. There are four major questions that the MBP process answers: (1) Whom do we serve? The target actions that get developed at the team level need to tie back to our five constituents (customers, owners, employees, suppliers, and the community). (2) What are the priorities? (3) Who is responsible for what? (4) How do we measure success?
The process has five major milestones: (1) It begins with vision—knowing where we want to go. (2) That is translated into long-term objectives; for us that is a three to five-year goal. (3) The long-term goal is then translated into a fiscal-year objective—the 12-month plan. (4) For the fiscal-year objective, we need specific, target actions. (5) Next we have the supportive review. We begin the process by generating a plan, which is then deployed. We check through supportive reviews, and, where necessary, identify modifications or changes through countermeasures.

The job of the champion is to help the team leaders prepare for these five milestones and specifically the supportive reviews. At the senior management level there are four supportive reviews a year; at the middle management level there are monthly reviews, and at the team level, they are bi-weekly reviews. Champions can assist any team at any level.

MBP helps us make choices, prioritize, and take action. It emphasizes the need for a vision at every level. Teams need focus, they need alignment, and they need set priorities. They need to know not only what to do and where to start, but also what not to do. To be successful, you have to prioritize. Every team has a list of items, waiting on deck, that they can quickly take up if the resources, time, money and people become available.

When a team is pulling together their annual objectives, they receive the objectives that have cascaded down to them through the corporate hierarchy. They inherit the corporate vision, the corporate long-term objectives, and the annual objectives. They need to marry them to their own vision and objectives. We remind the teams that although Dwane Baumgardner is a very intelligent CEO, he doesn't know what day-to-day life is like on the third shift. He is counting on each team to develop a vision and long-term objectives, and to marry them to the corporate objectives. We use a Goals and Action Matrix, which shows people the relationships between the teams and objectives. It contains the objectives of the team above, their own objectives, and their target actions.

Every team's annual plan includes the next highest level team's objectives. Again, these are all publicly displayed in our facilities and on the company intranet, so that anyone can check everyone else's plan. MBP is also linked to our budgeting process, so that if we need to cut the budget, it is translated back to the target actions.

We have seen a great increase in the number of cross-functional teams now that plans are made visible. In the old days, people in manufacturing would say things such as, “I just don’t understand that sales group. They are obviously not trying to sell the products we make.” And the sales people would say things such as, “What is R&D working on? Certainly nothing that we can sell.” Now that the plans are visible, they can go see what they are working on, which raises a lot of questions that produce a lot of conversations, leading to cross-functional improvement.
The Champion Network

We integrated MBP into our existing management structure by creating what we call the MBP design team. These four people, who have significant roles in the organization, were given responsibility to design and implement the MBP process and the champion network. The design team includes Paul Doyle, Director of Global Organizational Development (OD); Pat Cole, North American Automotive Operations, MBP Champion; Ron Winowiecki, European Automotive Operations, CFO; and Sean Dwyer, North American Automotive Operations OD Manager. The champion network, now numbering almost 50 people, reports to Pat Cole for the portion of their work that involves implementing the MBP system. They remain responsible for performing their regular “day jobs,” and continue to report to their current manager.

Purpose of MBP champions

The purpose of the MBP champion network is threefold. First, we want to have local experts in the process. We need experts on-site who can guide people back who had strayed from the process. The four of us at corporate headquarters in Michigan can’t help the people in Newaygo, Barcelona, Spain, or Mexico as quickly as they want, when they have questions, or run off track. Second, we want to institutionalize the system and obtain feedback from the champions so that we can improve the system. Third, we want to make sure that the team leaders are successful. The presence of the champions ensures that leaders have the knowledge and resources they need. We also wanted to be there in the early stages of implementation to help the leader who is trying it for the first time.

Selection process

Success doesn’t happen automatically. We began building our champion network by creating a selection process. (This is a selective position, people can’t just volunteer. People who want to volunteer are required to get senior management sponsorship.) In most cases, senior management ask the people they feel are capable to become the champion for their area.

Role of the champions

The job description for the champion clearly articulates what we want them to be able to do and, what their role is in the organization. (Figure 1 shows the champion development process.) They have to be experts in the use of the quality, creativ-
Role of the champions, continued

They must be capable to act as local change agents. This means that they must have the ability to manage change or the capacity to learn how. We want them to become experts in the toolboxes, and they should be at least familiar with the local areas functional subject matter. They must be at least proficient in their day job, because they must also be doing this in addition to their regular tasks.

Clarifying expectations

Once the assignment is made it is important to clarify the champions’ expectations regarding workload—how much time will be taken away from their regular job. The work they do will eventually become part of their workload, and be reviewed as such. They will spend approximately five percent of their time in this new role. At this point, we also evaluate them to see if they need specific skill or knowledge development in the required skills.

Competencies

Champion training really begins before anyone is selected. Every new employee receives an orientation program, which describes our business systems. Pat Cole also gives a three-hour overview to all new leaders in North America (an abbreviated version of what the champions receive.) This training gives them the nuts and bolts of the steps of the processes, the responsibilities attached, the timing, and the calendar. All of our training programs are also available on our company’s G-Drive, which functions as an intranet, so virtually everyone in the company can go online at any time and review our training programs.

Champions are taught the Kotter 8-step change model, a simple and easily understood communications tool we use (Figure 2 on the following page). We teach them about process management and process improvement. We also teach them some managerial accounting, because we don’t want their “to do” and “to don’t” list to be a random choice. We want them to be able to make decisions based upon the contribution to business results. Because these people will be conducting the orientation and training in the local areas, we invest a lot of time into making certain they are competent in the use of all the tools.

Training

The core piece of our champion training is a two-day program at a manufacturing site. The program is based on a business simulation where the students are required to physically manufacture an item. We act as their management team. On the first day they are given the financial and operational results of the business, and the human results of the business, the results of employee surveys. Then we walk them through the five MBP phases: they (1) create a vision for their business, (2) establish a strategy, annual objectives, target actions, (3) then they make the changes to the system, (4) rerun the business simulation to generate the new results, and (5) present their supportive review. So in the course of two days, they actually perform the entire MBP process. It is easy to tell someone that the next step is the supportive review. But when you tell them to actually do it, the message is really driven home.

On the second day, we train them on the tools. (We use the materials pub-
Training, continued

Establishing a Sense of Urgency
Examining market and competitive realities
Identifying and discussing crises, potential crises, or major opportunities

Forming a Powerful Guiding Coalition
Assembling a group with enough power to lead the change effort
Encouraging the group to work together as a team

Creating a Vision
Creating a vision to help direct the change effort
Developing strategies for achieving that vision

Communicating the Vision
Using every vehicle possible to communicate the new vision and strategies
Teaching new behaviors by the example of the guiding coalition

Empowering Others to Act on the Vision
Getting rid of obstacles to change
Changing systems or structures that seriously undermine the vision
Encouraging risk taking and nontraditional ideas, activities, and actions

Planning for and Creating Short-Term Wins
Planning for visible performance improvements
Creating those improvements
Recognizing and rewarding employees involved in the improvements

Consolidating Improvements and Producing Still More Change
Using increased credibility to change systems, structures, and policies that don’t fit the vision
Hiring, promoting, and developing employees who can implement the vision
Reinvigorating the process with new projects, themes, and change agents

Institutionalizing New Approaches
Articulating the connections between the new behaviors and corporate success
Developing the means to ensure leadership development and succession

lished by GOAL/QPC.) Actual learning begins before the class starts. They are required to prepare a lesson and teach one of the tools, such as an interrelationship digraph or an affinity diagram. This allows us to coach them on their teaching skills, for one of the responsibilities of the champion position is instructing people on the tools. One of the things we found out about the MBP process and the tools is that at first people are often very hesitant to use them. So we spend time encouraging them to take the risk, and showing how to encourage others to use them.

We have an entire section on the nature of goals, change management, and activity-based management. The senior management also speaks to the group about their expectations and the importance of the champion network. We’ll take them to
Training, continued

Donnelly has several unique self-study opportunities, which we encourage the champions to use. Because most of our operational area is within a ten-mile radius of our corporate headquarters, we are able to host a management reading group. This group meets every two weeks to discuss various materials and case studies; the chairman of the board and the senior VPs sometimes stop in to discuss the issues. We have held these meetings for over a year now, and it is an effective way to continuously improve our learning. We also use our intranet to store an extensive bibliography of training materials, which can be accessed by virtually everyone at any time.

Reinforcing self-confidence on the job

Developing champions for MBP is like developing champions for anything else: they have to master the fundamentals, then they have to build their self-confidence. The initial two-day training program focuses on the fundamentals. We also track their level of self-confidence from the beginning of the two-day session to the end. Although they usually leave feeling very confident, we’ve learned from experience that as soon as they are back on the job, their self-confidence can evaporate.

To counteract this effect we made it easy for the champions to network with each other. We publish a list of the North American and European champions, and their regular functional area on our intranet. An HR champion, for example, can easily find another HR champion for support. We also encourage champions to team up on large projects. It is impossible for even an expert to facilitate a group of 100 or more, so the champions are encouraged to team up to better handle large projects.

Monthly meetings

We hold monthly meetings with the champions where they give status reports—these are not paper documents, these are war stories and success stories. The champions relate their on-the-job experiences to each other: “I tried to work with that force field analysis and it totally failed.” “I tried an interrelationship digraph and got lost half-way through it—it was embarrassing.” “The people are fighting—they can’t agree on anything.” Sharing success is important too: “I tried something new, and it worked in a way no one ever mentioned.” We also discuss upcoming major events and the MBP calendar. The meetings have led us to restock our toolboxes. The MBP champion network is now often tapped into to help facilitate other continuous improvement activities in their local facilities.

Champions are not...

Champions assist the team leader and coach the team, readying them for the supportive review process, but there are a number of things that they do not do. They are not intended to be the expert in the functional area. A champion working in the sales area is not expected to be the source of all knowledge for how to make a sales forecast. They are expected to be experts in the process—not to do the leader’s...
Champions are not..., continued

work. When we started there were a number of leaders who said, “I’m really busy—put this thing together for me.” We gave the champions permission to say, “No, that is not my job.” Eventually we developed the 49/51% rule, which is the leader does 51% of the work, champion does the other 49% of the work to help him get started. The champion helps out, but the leader has the ultimate responsibility for the success of the team. The champion is not the team leader’s MBP staff assistant either—they are internal consultants, not “gofers.” Once that expectation is removed, the champions are able to delve deeper into their role.

Development assessment

We can’t wait a full year to find out how well we are doing, so we’ve developed a review process. We randomly select 25% of all the team leaders, then randomly assign a champion to review them on 23 items. Those items are based on the MBP process. They are a thorough assessment of the team leader’s understanding of the theory, tools and the mechanics of the process.

After we developed the process, we presented it to our COO, Don Viola, for his approval. He said, “The questions are great, but call it a developmental assessment. We have to do QS9000 audits, but I don’t want MBP to attract all the emotions of an audit.” At our first review, we happened to randomly select Paul Doyle to assess Don Viola—who promptly asked if he could reconsider those 23 questions. The random review process has proven to be an efficient way to evaluate how well the process is being implemented.

Champion reviews

The first thing we discovered when we performed the developmental assessment was that we had to do some reviews of the champions as well. All the champions now conduct self-audits, which assess their process and tool expertise. The feedback that we received indicated where we needed refresher training, new training, new tools, and refinements. Our latest review indicated that the champions felt comfortable with the fundamentals and the tools, but that they really needed additional expertise to be a step ahead of the teams. For example, the champions have requested additional training on the creativity tools because they anticipate a future request in this area.

MBP design team and local management maintain oversight

All of this activity is in preparation for the team’s supportive reviews. These reviews are conducted at all levels and the results are publicly displayed on our intranet. Any one can see what the top issues are and who needs help. We use radar charts to give a quick picture of overall performance for every functional area, so an exception is easy to spot. This helps highlight areas for improvement.

The MBP design team continues to meet on a regular basis to ensure that the process is working. We review the audit results, and our original three-year implementation plan. We originally did not have activity-based management as a critical component, but added it halfway through the implementation. We also realized our creativity toolbox was a little short, so we added many of Edward deBono’s tools.
The local management is also involved in improving the MBP process. A plant manager may call on his area champions to look at the results of the audit and make improvements in the process.

An important area that remains to be clarified is responsibility for the overall competency of the champion network. We found that the champions' managers consider them to still be a direct report, and that therefore they are still responsible for the development of that person as an individual, developing that person through the areas of formal training, informal training, mentoring or situational adjustment. We are still working on clarifying this overlap.

When we began, we had laid out a three-year implementation plan. The first year our three objectives were: (1) To have goals and action matrices for the senior management team and all their direct reports. We felt that if we were to get that deep into the organization the first year, we would have success. (2) To train an MBP champion for each functional area (for example, sales, accounting, R&D). (3) To go through the entire five-step cycle the first year, including the supportive reviews.

Our goals for the second year (our current year) was to have goals and action matrices for every team in the North American Automotive operations—207 teams comprising 2800 people. We are well on our way to achieving this goal. We also wanted to get to the point where we could focus more on cross-functional alignment. We are also trying to improve our supportive review process at all levels, so that the accountability loop will become more effective and efficient.

Our goals for the third year are to develop higher quality input in the gap analysis phase and the situational analysis phase and to improve communication of the process to the organization. While a description of the process is available for anyone to access, we feel we need to make it more visible and explicit. We also want to achieve full involvement from every team member in plan development, problem solving, and countermeasures. We also need to increase the number of trained MBP champions. Our original goal was one for every 300 employees. Based upon demand, we decreased the ratio to one to sixty people in the organization. We now feel that we need a ratio of one to forty.

At the conclusion of our three-year implementation plan we want teams to have an understanding of the tools and how they are used. We want people to participate in the creation of the goals and in problem solving, and to get countermeasures in place when there is variance.

We have indicators to show how well the training program is doing. Figure 3 on the following page shows the champion retention rate and the breakdown by position level and job function. The retention rate indicates that people find value in this role.

Here are some of the lessons we learned:
Results, continued

<table>
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<tr>
<th>Retention Rate</th>
<th>Champion Position/Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Originally trained in July 1997—12 are still active (55% retention) 10 are no longer champions • 5 promoted and replaced by others • 2 left the company for outside promotions • 2 self-selected out due to personal workload • 1 went part-time</td>
<td>45 Active Champions</td>
</tr>
<tr>
<td>34 Trained in simulation sessions—• 33 still active (97% retention) • 1 left the company for an outside promotion</td>
<td>Position: • 20 Managers • 9 Senior managers • 7 Professionals • 6 Team leaders • 3 Administrative assistants</td>
</tr>
<tr>
<td></td>
<td>Function: • 9 Product Development • 9 Customer Business Units • 9 Operations • 18 Support Groups</td>
</tr>
</tbody>
</table>

Lessons learned, continued

- We started off with a good financial base: the original three-year budget was $500,000. By close to the end of the second year, we've spent less than $200,000. There is a cost to it—isn't going to come for free.
- Strong visionary leadership is essential to making change. If you don't have that, don't start, it will just be a waste of resources.
- The principles and strategies we used are easily adaptable to a smaller and more centralized organizations.

References


Bibliography


Author information

Patrick Cole is the Management By Planning (MBP) Champion for North American Automotive Operations at Donnelly Corporation. He has many years of experience with human resources and manufacturing management. He obtained his bachelor's degree in behavioral sciences from Grand Valley State University, and has worked towards a master's degree in industrial psychology. He holds a Certificate in Executive Management from the University of Notre Dame and was recently certified as a Senior Professional in Human Resources.

Paul Doyle also contributed to this article. He recently left Donnelly Corporation to become vice president of human resources of GHSP, Grand Haven, Michigan.

Editorial assistance was provided by Carolyn Field.
Change: How It Turned Our Business Upside Down

Author

John Lawrence, Vice President for Business Excellence, Xerox Business Services, Xerox Corporation, Rochester, NY

Editor’s note

John Lawrence has been involved in four major change initiatives during his career at Xerox. The first was in the late 1970’s and early 1980’s when Xerox developed its Leadership Through Quality approach. The second was the 1989 Baldrige win by Xerox Business Products and Systems, the third led to the European Quality Award win in 1992, and the fourth was the 1997 Baldrige win by Xerox Business Services—Editor.

We can’t go back

My position at Xerox Corporation has enabled me to talk to many senior management teams throughout the world—and every single one of their organizations is undergoing enormous change. Leaders often ask how they can cope with this change. Unfortunately, many of them hope to find a silver bullet. They want to find the one thing they can do that will make everything all right so that they can go back to living the way they did yesterday.

The bad news is there is no silver bullet and we can’t go back to the way we lived yesterday.

We live in interesting times

We live in the most interesting time in history. We are moving from an industrial age to an information age society. The most dominant characteristic of this new age is the rate at which change is occurring. And that rate of change is driven by the appearance and application of new technologies—which are developed as a result of the exponential growth of human knowledge. Between the birth of Christ and the middle of the 17th century, human knowledge doubled. It doubled again in the next 150 years. Human knowledge is now doubling every five to seven years. In high technology it doubles every 11 months. If this rate of change continues, when today’s first graders graduate from college, they will confront a society in which human knowledge doubles every 38 days. This change is fundamental, far reaching, and it is fueled by the technology it creates. The rules that once worked in an industrial society no longer work in the information society.

Putnam Investments has a slogan that aptly summarizes this new reality: “You think you understand the situation, but what you don’t understand is that the situation just changed.” In this new world, companies not only need to change; they need to create what isn’t.

Crisis of survival

A crisis of survival was the reason for Xerox’s first change initiative. For many years Xerox’s growth was the stuff of legends. Our first competitor was carbon paper. In the 1960’s and 70’s customers lined up to buy our products while our sales force...
A crisis of survival, continued

negotiated their delivery schedule. Frankly, our success led to arrogance. Then came the competition by IBM, Kodak, and Japan Inc. By the early 1980's we had five years—20 consecutive quarters—of declining financial performance. We learned some hard lessons. During this crisis of survival we tried every conceivable popular approach to turning the company around. None of them worked. In the end we realized that we had to fundamentally change our culture.

Changing from a product-out to a customer-in company

We called this change the Xerox Quality Policy. We changed from being a product-out company, one in which we depended upon our good technology, to a marketing, or customer-in company. This required a fundamental change in our relationship with our customers: they had to become central to everything that we did. And that is a complete turnaround for a technology company. To us the word quality meant satisfying the customer because that is what we could measure.

Making quality the way

The change was lead by David Kerns, the CEO. Imagine the tension created at a Board of Directors meeting by a CEO who argues that stockholder equity should not be the number one priority—it should be customer satisfaction, because that is what will lead to improved stockholder equity. It took us four years, from 1983 to 1987, to operationalize that change. During those intervening years we talked about having coequal priorities of financial results and customer satisfaction. But when the first minute of a typical one-hour meeting was devoted to customer satisfaction and the remaining 59 minutes to the financial aspects, people knew what the real priority was.

At the beginning of each year, David Kearns would bring together the top 200 or so leaders from around the world to review the goals and objectives for the year. By 1986, it was clear we had made some good gains in improving customer satisfaction and improving our quality, but there was also an undercurrent of resistance. The feeling was that we had done some good things with quality, but now it was time to set this quality stuff aside and get on with business. David had picked up on this. At the meeting he had the following words visibly displayed: “Quality is in the Way.” He stood in front of the group and confirmed that this is how they felt. Then the word in was crossed out so the words now read, “Quality is the Way.” David moved to the front of the group and said, “If there is anyone who does not understand what I just did, I will negotiate your exit package at the end of the meeting.” You could hear a pin drop. The message about where we were headed and how we would get there was clear.

People did leave the company, and people did remain skeptical: but skepticism was acceptable, cynicism was not.

When we started our second quality initiative, Norm Ricard, who was then president of the division cancelled the management vote we were to have on it. He said, “We are going to do this, the reason you are here is to help me understand how to do it.” I used to think that it was possible for change of this magnitude to bubble up from the bottom. I will not say that it can’t be done, I simply have never seen it.

Journal of Innovative Management
CASE STUDY

Change from function to process; from command and control to learning organization

Since the start of our first change initiative, Xerox Corporation has evolved from being the copier company, to the document company, to becoming the digital document company. We moved from being functionally oriented to being process oriented, from an analog to a digital-based technology. We moved from managing by command and control methods to reinventing ourselves as a learning organization. We moved from thinking of our people as employees, who check their brains at the door, to understanding that they are the business.

Change from functional excellence to systems excellence

The emergence of an information society has changed the emphasis from high volume to high-value. During the industrial revolution, business leaders made their investments in capital equipment. Leaders now make their investments in people. At this point a fundamental problem emerges: people are people. How can you differentiate your people to create a market advantage?

The answer is that leaders now have to move from an emphasis on functional excellence to an emphasis on systems excellence. Many of us learned in business school to organize according to function. And of course, every time there is a problem, managers reorganize. I often ask senior management to show me the study that indicates the shape of the organization was the cause of the problem. Too often, changing the shape of the organization gives the guilty another six months to find another rock to hide under. And the guilty are usually in management. Dr. Deming had it right—we have to fix the system.

Crisis of opportunity

In 1989 Xerox’s change initiative efforts paid off: Xerox Business Systems won the Baldrige Quality Award. In 1992 Xerox Business Services began a period of stunning growth. Figure 1 shows the growth we experienced; we called it a crisis of opportunity. Our growth demanded that we undergo dramatic change.

Like most companies, we do our share of market studies. The message that we

Figure 1. A Crisis of Opportunity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue History (in millions)</th>
<th>Stock Performance 1990—1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>$376</td>
<td>S&amp;P 500</td>
</tr>
<tr>
<td>1994</td>
<td>$541</td>
<td>Xerox 500%</td>
</tr>
<tr>
<td>1996</td>
<td>$931</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>$2000</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>$2800</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>$4000</td>
<td></td>
</tr>
</tbody>
</table>

Winter 1999–2000
CASE STUDY

Crisis of opportunity, continued

received from the market was that we had to become fast, flat, and flexible to meet our customers’ changing needs. Fast means that we have to respond to our customers quicker than ever before. Flexible means that we have to respond to a wider array of customer requirements than ever before. We can’t do this with a large hierarchical organization. To meet these two requirements, we had to create a flat organization.

For example, when we looked at how we handled customer complaints, we found that we would push that decision up to a higher level of authority depending upon the amount of money it took to correct the problem. We had the notion that if more money was involved, we should add more value to the decision-making process by having it reviewed by someone higher in authority. And the higher the cost, the higher in the chain of command the review would go. The financial review costs ranged from $25 to $10,000. We looked at the levels of financial review and realized that if there were genuine value added in the review process, this would be indicated by the number of times the initial recommendation was changed. We looked at one thousand reviews and found that .0025% of the original recommendations were later changed. We decided to stop this foolishness and let the person who takes the call make the decision—we’d take the hit on the .0025% times the decision was wrong.

The financial community was aghast. They thought we were going to give away the store. Two things happened instead: the amount of money involved went down, and customer satisfaction went up. We found that customers have a certain tolerance level, and when the time it took to resolve their complaint exceeded that limit, their attitude became one of “I don’t care what the original problem was, you are now going to pay.” We found that if you fix the problem quickly that customers will stay with you. They will sing your praises more than if they never had a problem at all.

We had to do three things to become fast, flat, and flexible. First, we had to change the way people think. We gave people a mechanism to help them solve problems and a process for quality improvement. People may argue over which problem-solving process is better, Xerox’s six-step process or some one else’s nine-step process. In the end it really doesn’t matter. What matters is that everyone in the company has a consistent, recognized way to deal with problems. This enables an engineer in the Netherlands to have a conversation with an engineer in the U.S., or a sales person in Detroit to talk with the engineer in Webster, N.Y. Before this, we would waste an enormous amount of time arguing about which approach or process we should use to solve the problem.

Changing the way people think has also meant changing our priorities. Our number one priority became customer satisfaction; number two, employee motivation and satisfaction. (There is still some debate over whether or not that is the correct order because it is obviously hard to delight customers with unhappy employees. It is a healthy debate, but we haven’t changed the order.) Our third priority

Old complaint handling system increased costs

Changing the way people think
Changing the way people behave

became market share; fourth, financial performance; fifth, productivity; and sixth, a strong balance sheet. This is not the usual order of priorities at most companies.

We also had to change the way people behave. Over the years Xerox has hired many “type A” personality types. Meetings had become power plays, where everyone in the meeting would wait and see what the most senior person in the meeting would say, and then line up behind them. Of course, this behavior stymied good ideas and worthwhile discussion. We had to find ways for people to say to higher-ranking officials that they were wrong. We had to change from a situation where people at the top of the hierarchy talk and command and other people do, to a management style that says, “follow me, do as I do.” We had to go back and teach group interaction skills, such as constructive ways to react to problems, without being defensive and attacking. We also taught how to constructively initiate ideas and how to clarify situations by seeking information, giving information, and testing understanding. We also emphasized the importance of bringing in people and ideas to the process, rather than shutting them out.

Understanding the way people learn

Because the changes we created had to happen so quickly, we created a change strategy to improve our learning. We are all used to learning the way we did in grade school: the teacher stood at the front of the classroom and dispensed knowledge. We found by studying other cultures that one of the most effective ways of imparting knowledge was through story telling because it gives context and emotional meaning. Virtually everybody has or has access to the same information today—what matters is who can apply the information so that it creates value. We learned to use different modes of communication, graphics and pictures, as well as story telling to enable us to apply the information we have more effectively.

One of the first things we learned was how to teach every single employee to be a responsible business person, who thinks about the future, delights customers, and manages the bottom line. Eighty-five percent of the people who work at Xerox Business Services are at a customer’s site—they run, in essence, a small business. We had often had a lot of difficulty ensuring that our people understood how a balance sheet works—admittedly one of the driest subjects on earth. What we did was to create a game called Keep the Change, which was based on the Monopoly™ board game. They were exposed to situations that they would encounter on the job. They could learn how to use a balance sheet in a totally safe environment and make mistakes without the financial consequences.

Changing the way we communicate

Xerox learned two important strategies to make sure we communicate effectively: we have our people lead the discussion and teach the classes. On a good day, people listening to a presentation will retain about 10 to 15% of it. But if they are required to teach it, their retention increases to 80-85%. We also learned that adults have different learning styles. Some are action learners, some auditory, some visual. We learned that there is a much better chance that the information will be under-
Changing the way we run the business

stood if we communicate it in a variety of ways.

We also had to change the way we run the business. We centered our leadership on the following principles.

• Be proactive
• Begin with the end in mind
• Put first things first
• Think win/win
• Seek first to understand, then to be understood
• Synergize
• “Sharpen the saw,” taking time to reflect, learn, reenergize.

Today there is an enormous need to bring about change in organizations and manage that change effectively. In the past we strove for functional excellence, now we need to exhibit systems excellence. This raises an important question: how do managers know the system is working? Today, any management team worth its salt ought to be able to answer three fundamental questions. If they can’t, someone ought to question whether they are the right management team.

First question: What is the system you use to run the business? Not only should the leadership team be able to answer that question, but everyone of the leaders ought to have the same answer. In making this point to the senior leadership team of a very large transportation company, the CEO stopped the meeting, then asked all 30 people on the leadership team to draw a representation of their system on a piece of paper. He then collected the thirty pieces of paper, and found that no two were alike. His was a multi-billion dollar company with 30 different visions about how the institution was run. Think of the powerful message that is sent when all the leaders continually communicate the same system. Think of the message sent when they don’t.

Second question: How do you know that the things you are asking people to do are the right things to do for the business? How do you really know where the “dashboard” for your business is? What does your dashboard tell you about all the critical aspects of the business, not just the financial ones?

Third question: How do you know that you can keep the promises you make— to your customers, your people, your stockholders, your stakeholders, and the communities that you live and work in? If the senior leadership can’t answer those questions, the Board of Directors ought to have a conversation about the role of the senior leadership team.

There is a story involving David Kearns that illustrates the need for a leadership system. When we began our first change initiative, David Kearns asked his staff why this company that was so successful was on a going-out-of-business track. He asked the head of engineering, who responded, “We’ve done a number of benchmarking studies and without a doubt, Xerox had the finest engineering
“If we are the best, then why are we on this track?”

organization in the world.” David asked the head of manufacturing the same question. He said that he didn’t understand it either, for without a doubt this is the finest manufacturing organization in the world. David asked the head of Sales and Marketing and received a similar answer. Kerns responded, “If we are doing everything so well, then why are we on this going out-of-business-track?” Clearly, functional excellence alone isn’t the answer. The whole organization needed to operate as a system.

Xerox management model

Figure 2. Xerox Management Model

We also came to understand that leadership must also create alignment between strategy plans and results. The key is to having a process that facilitates the deployment of goals and objectives throughout the company in such a manner that alignment is achieved. By alignment I mean two things:

1. Everyone in the organization understands that what they are asked to do links to what everyone else is asked to do.
2. What people are asked to do is within their process capability to deliver.

The company’s direction cascades down through the hierarchy, with each level setting targets and implementing action plans, Figure 3 on the following page.
Create alignment, continued

Figure 3. Direction Cascade and Catchball

<table>
<thead>
<tr>
<th>Senior Leadership Team</th>
<th>What (Target)</th>
<th>How (Action)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>What (Target)</td>
<td>How (Action)</td>
</tr>
<tr>
<td>Level 2</td>
<td>What (Target)</td>
<td>How (Action)</td>
</tr>
<tr>
<td>All Levels</td>
<td>What (Target)</td>
<td>How (Action)</td>
</tr>
</tbody>
</table>

Business results

Why go through all of this? Obviously to be a leader in your industry. I outlined earlier in this article the progress made by XBS, a division of Xerox which is growing at approximately 35% per year. A very healthy piece of the business. My premise has been, if you get it right with the people, they will get it right with the process that makes delighted customers. And if you get it right with the customers, the business results you want will follow. So how has XBS done? Employee satisfaction levels are at 81%. Not outstanding, there is room for improvement, but it is one of the best in the industry. Customer satisfaction (how customers feel) is at 96%, a benchmark for national providers. Customer loyalty (where customers spend their money) is at 95%. We now have a $2 billion dollar business with revenues up 51% and profits up 122%. This from a business whose revenues in 1993 was about $410 million.

Author information

John Lawrence is the Vice President for Business Excellence for Xerox Business Services. John started his career at Xerox in 1969 in manufacturing. He held a number of positions on the technical side rising to become Manager of Engineering for International Trade. In 1990 he joined the Sales and Marketing side of Xerox where he continues to hold key positions. John received a bachelor's degree in business and humanities from St. Michael's College.

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