Improving the way organizations run through participative planning and management.
Most business people understand that a business can’t be sustainable if it isn’t competitive and that it can’t remain competitive if it isn’t sustainable. People sometimes argue in favor of one side or the other, but I don’t think that does much good because they are two sides of the same coin. The relevant issue is how to run the day-to-day business in a way that delivers the profits that are needed today while simultaneously developing the business in a sustainable direction.

When dealing with the short-term perspective, there does seem to be points of deviation in thinking about what helps competitiveness, and what leads to sustainability. It is not uncommon to see people working to maximize current profits, even when this actually does damage to the future competitiveness and sustainability of the business.

The view I am about to offer is very much based on my experience in the forest products industry. In our company, we view sustainability as being natural, which is common sense, because our business is based on a renewable and recyclable raw material—wood. We have learned, over the years, to plan our operations in such a way as to avoid using this natural resource in a manner that is beyond nature’s ability to regenerate it.

Stora Enso is one of the leading forest products companies in the world, with an increasingly global presence and an ambition to become the leading company in the world within its field. We are based in Helsinki, Finland, and have an international office in London, England. Our main production areas are in Finland, Sweden, Germany, and the United States.

Our core products are magazine papers, newsprint, fine papers, packaging board, and timber products. Three things drive sales in our business: advertisement, food packaging, and building. We produce about 15 million tons of paper and board per year, making us the world’s biggest paper maker. Sales are about 13.5 billion euros per year. We employ about 43,000 people.

Sustainability at Stora Enso means keeping up an industrial tradition. The “Stora” part of the company started in Sweden in the year 1288, more than 700 years ago. So I think I can speak from a documented tradition of a corporate ability to make a sustainable business.

Sustainable development has been on the global political agenda for quite some time. The word “sustainability” has its roots in the concept of “sustained yield,”
which emerged from scientific forestry in late eighteenth-century Germany. But it was not until the Rio Conference, ten years ago, that the concept became more broadly known. At the recent follow-up conference in Johannesburg, South Africa, the nations of the world agreed on the direction for future work in sustainability. At the same time, there were quite a few voices claiming that very little has happened, both before and after Rio, and even in Johannesburg. For many people, the threats to our future have become even more serious, through increased worries about conflicts, natural disasters, and climate change.

If we look at development from a corporate viewpoint, however, one can see almost the opposite situation. I was in Johannesburg and felt, from our point of view, that it was rather successful. Many companies have been working hard to focus on sustainability. Let me give you a few examples from our own industry.

I think the most elementary issue is solving the acute environmental problems that were created in connection with post-World War II industrial growth. One large-scale example is Lake Vänern, Sweden’s biggest lake and the fourth largest in Europe.

Figure 1 shows the content of oxygen-consuming substances in the lake, in terms of chemical oxygen demand (COD). Over the years, Lake Vänern has been the recipient of wastewater from industrial operations (mainly from the forest products industry), local municipalities, and agriculture. At excessive levels, there may be a lack of oxygen, resulting in damage to fish.

The outflow from the lake has been kept under observation for many years, as it is the source of drinking water for Gothenburg, Sweden’s second largest city. Developments from more than 100 years shows, in a drastic way, that the content of COD increased several times over, until major changes occurred in the early 1970s.

Clearly this graph is rather encouraging. It shows that targeted efforts, in combination with modern technology, can give excellent results. COD has been restored to the same level as before the expansion of the industry, even though today’s level of production from pulp and paper mills is much greater than before. But now it is concentrated among a small number of large and technically advanced units that are capable of bearing both the necessary technology and the cost of
Problems from post-war growth, continued

Applying environmental management systems

The need for a common playing field

environmental protection measures.

This effort demonstrates that we can solve environmental problems by going forward, not backward. It is an example of success—it’s not a complete solution but it does represent a first stage.

As we gradually solved the emissions-related issues, our environmental perspective widened. The approach we’re taking is based on a more holistic view of life and economics. It means the implementation of environmental management systems—the European Union’s Eco-Management Audit Scheme (EMAS) and ISO 14001. This includes broad participation by our co-workers and has achieved continuous progress with our stakeholders.

Stora Enso has a leading position in the implementation of these systems. The proportion of our pulp, paper, and board production capacity covered by ISO 14001 and EMAS is more than 90% now. Our efforts have paid off in the form of less impact on the environment, reduced emissions and landfill, and increased confidence with stakeholders. One independent verification of this is that we have, in the last four years, been a top performer in the Dow Jones Sustainability Index, receiving the highest total score in 2002 for the forest products and paper industry sector.

Another consequence of our broadened environmental approach is that it now includes a larger number of issues along the value chain, offering additional opportunities for developing in a sustainable direction, and building competitive strength.

I want to discuss one rather critical and fundamental problem for achieving competitiveness—not just when it comes to environmental conditions but for many basic factors as well—the lack of a common playing field. European industry, especially in the Nordic countries, has been subjected to considerably stricter regulations than its competitors. The demands for cost-increasing actions have been high. Since 1970, the Finnish and Swedish forest products industry together have spent six billion euros—about 15% of their total expenditures—on environmental investments. Corporations in many competing countries, especially those outside Western Europe, have been spending much less. Seldom, and then only for very short periods of time, have there been any price premiums for those at the forefront of environmental developments. So we have been experiencing different cost-driving conditions, but still have to compete with the same market prices as firms that don’t have to incur the environmental costs that we do.

To enable sustainability, both short and long term, we need a uniformity of legislation among the nations of the world in the environmental arena, and by this I mean the entire issue, including emissions limits and the process of granting permits. If we don’t create this uniformity, there is a considerable risk that those companies that demonstrate a genuine commitment to sustainable development will be at a competitive disadvantage, or even be forced out of the market, which would not advance the course of global sustainability.
Looking for synergies and cost-reduction opportunities

Obviously, companies that have to absorb expensive environmental costs need to find ways to pay for them, so we study our internal operations and make them as efficient as possible. We also seek to identify investments that enhance productivity and product quality and result in synergistic effects that are sufficient to warrant the investments from a business point of view. For example, the industry, over a business cycle, generates enough inorganic growth to enable investment in increased capacity. These investments lead to new technology and better environmental performance.

Creating a new focus

In certain areas it has proven possible to apply a new way of thinking that has generated both environmental and cost benefits. In our forest operations, we have, over the last ten years, changed from a basically production-oriented focus to an approach where diversity, conservation, and good production processes are more-or-less equally valued targets. And where the new priorities add costs to the operations, there are other factors that allow us to save costs. For example, some of the most conservation-valued parts of the forest are also expensive ones to harvest and plant. By avoiding harvesting in these areas we can save money, thereby improving both competitiveness and economic sustainability.

Shifting transportation modes

We performed detailed individual assessments of energy demands and emissions for significant transportation chains of products, from forest to customers. That led us to the conclusion that we had to create a completely new system of transportation from Sweden to continental Europe. We had to shift from conventional ways of transportation thinking. Instead of using the congested, environmentally unfriendly roadway traffic system, we moved to a combination of sea and rail transport that gives us a new level of freedom. We call the system BasePort.

With cooperation from the Swedish Rail authorities we received permission to increase our loading dimensions and loads on the rails. They even rebuilt some bridges and other structures to get these much-wider containers that we needed onto the railroad. And we also found major advantages in loading trains much more tightly.

We developed a vessel for sea transport that could be loaded rationally and that would run smoothly through rough waters without the typical lashing and securing of the cargo. We looked for ways to automate the loading and reloading at both ends of the chain. We also built the system in such a way that speed could be reduced, which would save a lot of fuel (and the expense of fuel).

An example of what has been achieved so far is the transportation chain from the Kvarnsveden paper mill in central Sweden to Lille in France (see Figure 2 on the next page). Carbon dioxide and NO\textsubscript{x} emissions have decreased significantly—50% for carbon dioxide and 75% for NO\textsubscript{x}—because of the new system. And this resulting environmental quality gain is something we share with our customers. Whatever products, they will all benefit from improved environmental profiles.
Now, is there a problem with the timeliness of shipping, because we slowed the system down? Actually no. The problem with European truck transportation is not that trucks are too slow, but that they are not moving enough. They are often stalled in traffic congestion or standing in warehouses. If you have a system that moves all the time, you can go more slowly, and it is much easier to plan, much more precise, and the total time from production to customer is shorter.

All of this transportation improvement doesn’t only result in benefits for the environment. This is a less expensive system. We save 15–20 million euros annually in transportation costs. And this proves one of our theories; under the right circumstances there will be a positive correlation between the environment and profits. Our work demonstrates that new solutions are possible that are not only good for the environment but are also the most cost-efficient.

Another example is our liquid packaging board. Stora Enso is one of the world’s leading producers of packaging board, especially for foods and liquid packaging. Through close cooperation with leading customers we have gradually enhanced the product to make it lighter, while maintaining the same level of functionality. In Figure 3 you can see how we increased the number of packaging units made from one unit of wood pulp by 50%. This means resource efficiency gains in production and transport processes, as well as a reduction, of course, in the amount of packaging waste that has to be dealt with.

It is interesting to note that the rate of improvement has not slowed down through the years. I consider this a very concrete example of a development that is in line with the intention of the EU’s IPP Initiative. (IPP—Integrated Product Policy—is the term given to the EU’s develop-
Liquid packaging board, continued

Stora Enso is moving forward on a voluntary basis, which in our view is preferable to legislation. It is obvious that the same resources give opportunities to increase competitiveness along the entire value chain, both to us and to the customers.

Our new environmental perspective looks at the entire product chain, including suppliers and customers. We are working toward a life-cycle focus that provides the opportunity for optimization and improvement from a holistic perspective.

In conclusion, let me say that developing strength for our products, in conjunction with our partners, suppliers, and customers, is an important way of building competitive advantages, and I think sustainability is one of the key components for building such partnerships.

I have offered a few examples of win-win situations for sustainability and competitiveness, but I want to stress that these concepts do not always go well together. Rewards for excellence in sustainability come long term, but there is often a short-term price to be paid, and it’s not going to be paid by our customers. As a producer of goods and services, we have to be able to absorb additional costs by improved overall performance and continuously developing our competitiveness. We have to do this by continuously thinking about improvement in all parts of our operations, with the environmental aspect as one of several.

It is therefore logical for us to include environmental quality as one of many elements in “Excellence 2005,” Stora Enso’s comprehensive TQM approach to continuous improvement. Stora Enso’s objectives are to continue to systematically generate improvements in its day-to-day business, and to earn the confidence and trust of its stakeholders and of society at large. That is the real key to sustainability.

Author information

Björn Hågglund joined Stora Enso in 1991. Dr. Hågglund worked at the Royal College of Forestry from 1968–1977, latterly as an Associate Professor. In 1977, he was appointed Professor and Head of the National Forest Survey at the Swedish University of Agricultural Sciences. From 1983 through 1984 he was Dean of the Faculty of Forestry. In 1985 Dr. Hågglund was appointed Director General of the Swedish National Board of Forestry and he stayed in this position until he joined Stora Forest in 1991. In December 1997 he was appointed CEO of Stora and after the merger with Enso, deputy CEO of the new company.

Dr. Hågglund is member of the board of Stora Enso Oyj, the board of Confederation of European Paper Industries (CEPI), the board of the Employers’ Federation of Swedish Forest Industries, and the board of the Marcus Wallenberg Foundation. He is also Chairman of the Stora Enso Environmental Committee and the Research & Development Committee.

About this article

This article was developed from Dr. Hågglund’s keynote address at the forty-sixth European Organization for Quality Congress, held at the Harrogate International Centre, Harrogate, England, October 2, 2002.
A Crisis of Leadership and Management

Frank Steer, MBE, President, European Organization for Quality (EOQ), and Director General, Institute of Quality Assurance (IQA), London, England

Values, ethics, trust, and business

I would like to pursue with you a theme that’s been causing me some concern for some time, and to register with you the thought that we are faced with a crisis of leadership that is pervading commercial life throughout the developed world. I feel a growing certainty that to ensure the quality of top management—the leadership that they have to demonstrate, and the example that they have to set, if these are to mean anything—boards of directors have to put their houses in order and swiftly. Increasingly, the public perception is that too many senior corporate executives have committed serious breaches of trust by cooking the books, shading the truth, and enriching themselves with huge stock option profits whilst shareholders suffer breathtaking losses.

Meanwhile, and despite a decade or more of boardroom reforms, it’s a commonly held view that many directors seem to have become passive players when issues of integrity arise. Boards appear unwilling to question or to follow up on even the most routine issues. If the governance of the modern corporation isn’t very badly dented, then at the very least, it’s going through a severe crisis of confidence. In many ways, Enron and its alleged dealings with Arthur Andersen, as reported in the media, are something of an anomaly where greed, lax oversight, and outright fraud combined to unravel two of the world’s largest companies. However, the inevitable result is growing investor outrage and disillusionment.

Directors that fail to direct, and chief executive officers that fail to execute moral leadership, are arguably the most serious challenge facing corporate life today. Unchecked, that rising bitterness and distrust could prove costly to business, government, and society. The very integrity of capitalism is at risk. If investors continue to lose faith in corporations, they will choke off access to capital. Capital is the fuel that has powered the world’s innovation and economic growth. A loss of trust threatens our ability to create new jobs and to re-ignite our economies. It also leaves a taint on that great majority of executives in corporations who do act with integrity.
Values, ethics, trust, and business, continued

We are faced with the situation where, certainly in the U.S. and the U.K., most of the economic indicators are strong. Unemployment is low, inflation is low, and interest rates are down, which is good for business investment. The U.S. Treasury Secretary recently said that America has a strong economy and predicted good growth in it. And this is despite, even very recently, warnings of a double-dip recession. So the prospects ought to be looking good, yet everywhere stock markets are in what appears to be a long-term downward spiral.

And the cause, put simply, is greed and appalling mismanagement by leaders in industry. They have damaged confidence in business and damaged the desire of investors to support these enterprises with their hard-earned money. The consequent harm to pensions, business, the economy, and the projections for spending the contents of the public purse on much-needed improvements to our public services is almost incalculable.

Revisiting the concept of corporate social responsibility

At a recent gathering organized by the EOQ at Chalmers University in Göteborg, Sweden, some of the best minds in the quality field in Europe questioned the issue of corporate social responsibility. They sought, initially, to put some boundaries around what is meant by the term. The point, of course, is that there are no real boundaries, other than those in our minds. The reality is that the whole issue of governance, and the responsibilities it carries, is far bigger, deeper, and wider, perhaps, than what was in the thoughts of those who coined the phrase. Corporate social responsibility certainly means far more than handing out television sets to a local hospital, donating computers to a local school, or organizing a fundraising event for a local charity.

We now face a global crisis for business and for individuals, created almost entirely by a failure of directors to realize the societal implications of their manipulation of the books and their insouciant disregard for the visitation of Armageddon on the world's financial markets. What may have seemed like a convenient game of creative accounting is destroying lives—wrecking people's plans for the future that they have worked so hard to secure. It is damaging—possibly irretrievably—the potential for sound growth and is driving businesses with honest and straightforward management processes into terminal decline, through no fault of their own.

So much for the condemnation of what's happening.

A challenge for the quality movement

The main quality management models—EFQM, Baldrige, ISO 9000:2000—place a requirement upon enterprises to address the society in which they work, live, and serve. In an increasingly global business environment this responsibility transcends national and regional borders, and the impact is more and more far-reaching.

It was the quality movement—us—that had a hand in writing and agreeing to the models. It was the quality movement that accepted the standards they enshrined. It was the quality industry that set and maintains the auditing and verification standards that are applied to the models. It is, therefore, the quality movement that
A crisis of leadership and management needs to review the standard it has set for the worlds of business and government, and to define what it really means when it seeks to address the societal aspects of commercial and public enterprise.

The importance of redefining the parameters is paramount, not just because it is necessary to hold to the fire the feet of those who seek to work around the rules. It is also to help to nourish and guide those who wish not only to play by those rules, but by their example help us to write them.

This is an issue we should be pursuing. The blinkers must be taken off. The issue needs to be addressed across its entire breadth and throughout its entire depth. If people are to believe in the values we propound as quality professionals we have to be seen to be doing something to address this issue that appears to be growing in compass and in its effect.

The temptation to feel overwhelmed and to use, for example, icebergs and the mass that lies beneath the surface as an analogy is considerable. But to do so would belittle those many directors, managers, and entrepreneurs who actually do struggle—honestly and with integrity—to fully exercise their responsibilities.

The IQA recently surveyed senior decision-makers in the U.K., regarding their views on quality management in the light of recent accounting scandals. The majority of senior decision-makers reported being in favor of making quality management systems compulsory—56% felt that compulsory standards in organizations of more than fifty employees would increase accountability to the public and to shareholders. This figure rose to 63% for companies with a turnover of more than £20 million per year.

Now I do not believe that quality systems can be achieved through legislation. Executives cannot be forced to implement management systems that they don’t want. I just think it’s interesting that a majority of British businesses felt that it was something that they would wish to do, and would be content to have.

Many activists cast the fundamental issue as one of corporate greed, but I think that’s probably off the mark. Corporations are incapable of a human emotion such as greed. Corporations are artificial structures created by law. The real question is why corporations behave as if they were greedy.

The answer, I believe, lies in the design, structure, and framework of corporate law, which leads many company executives to believe that their duty to the public interest involves, simply, compliance with that law. Obedying the law, however, is in many cases seen simply as a cost to be minimized, which can be achieved by using all sort of devices—lobbying, legal hair-splitting, and jurisdiction shopping. In many cases little thought is given to the damage that these activities may inflict on society and on the public interest.
A role for the quality movement

We can seek to change that design, that structure, that framework. We can attempt to make corporations more responsible to the public good by curbing the ethos that the pursuit of profit takes precedence over societal considerations. If the global quality movement is serious about its beliefs and about its message, then the time to demonstrate that is now. This briar of governance and its societal responsibilities has to be grasped and standards set that offer a meaningful, balanced, and practical framework within which organizations can work, and through which they can demonstrate their adherence to acceptable norms. And the IQA survey shows that we would gain support of the business community. It is, therefore, up to us to show leadership on this issue.

It is the quality of governance that needs to be reinstated so that the strengthening of a corporation’s business position becomes as important as its bottom-line profit. This is something IQA will seek to address, both nationally and internationally, looking for the improvements that will strengthen the application of standards by which business is governed.

During the two years of my presidency of the EOQ I will seek the support of my colleagues in the four member organizations that make up the thirty-six national members of the EOQ, each representing their national quality movements, in making some progress in addressing this issue. I believe it rates as the most serious one facing us in the short-to-medium term.

I am also hopeful, in the process, that governments will support us and help in the setting of the standards that rule the way business is conducted. Legislation is one thing, but that takes an extremely long time. The contribution that I believe we in the quality movement can make is to come at it from a business perspective and ensure that we put in place standards, supported by government, to actually make the difference.

For example, when we help ISO develop new standards for corporate governance—which I understand they are considering—we need to have the support of government to make certain that the rules are such that we can live by them, that they are sensible and practical, and that they are rules that can be made to stick. They must also be rules by which organizations that aspire to achieve certification can actually live by and that will instill confidence in the people investing in those companies. I think that people are terrified to invest money in stock markets because corporate governance issues have driven the confidence of so many out of investing in the market. And we need to invest in corporations if business is going to improve.

I think there is a desire out there, from businesses that are being properly run by people of integrity, to have a proper solid framework from which they can demonstrate and prove to the world that they are worth investing in.

I suspect that the ISO model has started to do it, but there is a long way to go in trying to make people aware of what we’re trying to do, and what the government is trying to do, and to give people confidence in companies that do practice solid, sound, sensible business practices. I’m reassured by the fact that the ISO 9000 model
A Crisis of Leadership and Management has changed its focus considerably and one of the important things of the new model is that it’s required to be on the boardroom agenda. It is not something to be dumped on the quality management department to deliver. The chief executive and directors have to take an interest in what is going on and, if the system is properly audited, it will have lifted the bar one level. What we’ve got to do now—in the quality fraternity—is decide where that bar is, work out what the impact of the new ISO standard is, and then decide upon raising that bar yet further to increase the public trust in the conduct of business.

The EOQ has elected a British president—Frank Steer, MBE, Director General of the Institute of Quality Assurance (IQA). Steer’s two-year term began in October 2002. Over the last two years, the EOQ has built a vision to improve its alliances and outreach throughout Europe. Steer, who was closely involved in developing this vision, is committed to its success. He comments: “The main focus of my role as president will be to bring about convergence of the quality movement throughout Europe. The EOQ aims to launch a wide debate on how the European Union could promote corporate social responsibility at both European and international levels. Intrinsic within its recommendations is the need for a partnership approach among member states and I will be striving to ensure such alliances are forged. As part of our commitment to outreach, I will also be working to ensure that all our European colleagues who wish to develop and enhance quality systems are given the opportunity with maximum support from the EOQ.”

Frank Steer joined the IQA as Director General in November 1999 following a successful career in the British Army, where he rose to the rank of Brigadier General. Steer held a wide range of assignments in the army, including managing the logistic support of Berlin (and standing on the wall the night it came down), working as Head of Resources in NATO Headquarters in Brussels, and serving as Support Chain Director for the British Army, based in England, with responsibility for the policy and procedures used in the purchase and management of Army repair parts.

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Local sustainability/sustainable development efforts are essential for corporate survival. Only those companies and industries that provide value to society in a way that is protective of the world's resources will be allowed to operate into the twenty-first century. –DuPont

Wessex Water is a regional water and sewerage company. We supply drinking water to some 1.2 million people in 513,000 properties, and sewerage services to 2.5 million people. We service a 10,000-square kilometer area in southwest England that includes Dorset, Somerset, Bristol, Bath, most of Wiltshire, and parts of Gloucestershire and Hampshire.

Wessex Water continues to be rated by the industry regulator, OFWAT, as the most efficient water and sewerage operator in England and Wales. This is a reflection of the hard work and ingenuity of our staff and our continued investment in new technology.

Our investment over the last five years in meeting new standards and improving the existing infrastructure totals £393 million and the new plant and equipment we have installed has added £4 million each year to our operating costs. Our operating and financing expenditure, together with our capital investment, significantly exceeds the annual income from customers' bills. As a consequence, our borrowings are rising rapidly. With a total debt now over £0.5 billion, first-class financial management is essential. Our finance team continues to do an excellent job in providing one of the lowest costs of funding in the industry.

As a result of the 1999 price review, Wessex Water reduced customers' bills by an average of 10% from April 1, 2000. Wessex Water's financial results for the year to March 31, 2001 reflect this reduction. Turnover was £257.5 million, a decline of 8%, while profit before tax reduced by 29% to £89.5 million. Our policy of paying two-thirds of profit after tax remains unchanged, and dividends for the year fell by one-third to £47.7 million.

We have set ourselves the challenge of not only delivering investment and service as cost-effectively as possible but of also promoting sustainable solutions. This means considering the environmental and social aspects of everything we do. Protecting the environment is a major priority. To highlight these issues, our annual report now incorporates not only our financial accounts but also our “green accounts,” which clearly state the targets we have set, and our delivery, as we move toward the objective of being a truly sustainable water company.
The environment grows important in strategic thinking

It is my observation that environmental issues are becoming a practical and a strategic concern in business. There are two important drivers of this view. One is that the human impact on the environment is an issue that we must deal with. It has huge implications for our corporate and personal well-being and is possibly the biggest issue that we face in the twenty-first century. The second is that engaging with the environmental agenda is worth doing. Varied interests are pushing business and industry in that direction, and there are opportunities for creating wealth and jobs, and enhancing well-being.

To explain this a bit more, I will concentrate this article on three broad issues: (1) The context of global environmental issues, (2) The drivers for businesses engaging with the environmental agenda, and (3) Some reflections on quality.

The context of global environmental issues

Over time, our views of nature have evolved. To our ancestors, nature seemed something that was unpredictable, a thing to be feared. As our knowledge of the planet improved, exploitation of what appeared to be limitless resources increased, and this drove exploration and colonization. By the eighteenth century we had a largely utilitarian view of the environment—that it was there for us to use and manipulate as we saw fit—although in the arts world a more romantic view of our relationship with nature also flourished. The European Enlightenment also propelled our scientific understanding of the world around us, which led to major advances such as the theory of evolution.

In the twentieth century, there was a growing tension between humanity’s dependence on the environment and its willingness to exploit the earth’s resources. Until very recently, however, that tension hadn’t been widely recognized as a valid and serious problem. The difference today is that we’ve become much more aware of the fact that the dramatically increased world’s population—growing from just one billion people in the 1800s to over six billion people today—places much greater impact on the planet.

The nineteenth- and twentieth-century thinking

In the last 200 years, the dominant view has been that people—especially in the technologically advanced nations—can have mastery over the planet. And that our use of the earth’s resources can carry on indefinitely, subject only to human endeavor and ingenuity.

This view may have been understandable 250 years ago, at the beginning of the Industrial Revolution, when natural resources were abundant. The constraint to growth, at that time, was a shortage of healthy, educated people. A machine that could do the work of 200 people was highly attractive when one couldn’t find those 200 people in the first place.

Twenty-first-century awakening

Today the situation has reversed. We have an abundance of people, and environmental resources are in short supply. The human race is gradually becoming
PERSPECTIVE

Twenty-first-century awakening, continued

aware of its impacts on the environment, often due to incidents such as the Exxon Valdez oil spill and Chernobyl nuclear accident. The environment is also suffering from many small day-to-day impacts at the level of the individual, such as the emissions from over 600 million cars worldwide. The planet’s finite carrying capacity is being exceeded. Many people no longer believe that society’s vast and ever-increasing waste products can be simply and safely absorbed by the environment.

Recalling the fable of the goose that laid golden eggs

Our impacts on the environment are such that we are actually jeopardizing the very resources that generate well-being and economic activity in the medium-to-long term. After all, the environment has functions upon which we rely for sustaining life itself. It provides mineral resources. Watercourses break down waste within threshold levels. Plants, land areas, and oceans transform carbon dioxide into carbon-based material such as food, fiber, and chemicals. Insects pollinate plants. Forests provide timber and slow down water runoff. The soil recycles nutrients. And the atmosphere regulates climate.

So, what do we in “society” do? We overload freshwater sources with chemical and biological waste, starving them of oxygen in the process. We devise synthetic, toxic chemicals that persist in the biosphere for centuries. We deplete fisheries to the point where we can no longer sensibly use them.

We replace a diversity of vegetation with single crops—monocultures—eliminating the wild grasslands that sustain the insects that we need to pollinate the crops in the first place. Carelessly removing large areas of trees accelerates flooding, sometimes drowning people—3,700 people in the Yangtze Basin in 1998—and strips away topsoil.

We also overload the atmosphere with carbon dioxide, now at the highest level concentration in hundreds of thousands of years, and we don’t fully understand the impact of that change on the climate.

What would a financial analyst say about Earth, Inc.?

If the earth were a business listed on the stock market, our activities would cause any economic analyst to worry. We expect growth and dividends from the productive use of environmental resources, but we are effectively liquidating our capital resources in the pursuit of current income.

What shall we do?

I invite you to consider eight environmental drivers that businesses interested in quality and excellence must be aware of:

1. Current and future regulation

Regulation brings ever-tighter standards on water pollution, waste management, and end-of-life producer responsibility. Taxation, in some countries, is gradually shifting from “goods,” such as human labor, to “bads,” such as pollution. Taxes on fossil fuel energy, vehicle emissions, and mineral extraction are examples.
What shall we do? continued

The market is also responding to voluntary measures, such as incentives for environmentally friendly land management, capital allowances for energy-efficient equipment, and emissions trading. In this way environmental costs are gradually moving from “being out there somewhere” to becoming internalized in the profit-and-loss account.

2. Stakeholder opinion

Through the media, the internet, and better education, the public is now better informed. Consumers will readily challenge companies to deal with environmental impacts through nongovernmental organizations and street activism. Boycotts of companies are almost commonplace. Shell, Monsanto, Nike, McDonald’s, and many others have felt the effects.

Change is gradual, of course, because consumers still respond more to price signals, but things have changed a great deal since the 1960s. Governments are also encouraging, or even forcing environmental reporting by businesses.

Admittedly, while some companies admit to the need to engage with environmental issues in a meaningful manner, many just seem to raise the barricades even higher.

3. Investor opinion

Investors are conscious of risk and opportunity. Some are interested in long-term value creation as much as short-term profit maximization. Businesses that appear to be a safe bet and are aware of environmental and social issues could be a more attractive proposition and able to get finance on better terms.

An example of long-term thinking in this way is Morley Fund Management’s sustainability matrix. This is used for rating companies. One part of this rating shows whether a company's products are compatible with environmental, social, and economic sustainability. In another part, the company's vision and management practice is rated.

4. Cost of losing an environmental resource

Perhaps most stark is the potential loss of the environmental resource. When this happens, companies can be forced to change location, change business, or cease trading altogether. Europe's fishing industry is at risk in this way. Decades of failure to balance supply and demand, and lack of successful cooperation, has led to vastly depleted fish stocks. This is leading to severe measures to restrict fishing, which means small businesses are closing down.

5. Supply chain pressure

If a large business wants to assure customers of its environmental credentials, the process can cascade through its supply chain. Suppliers ask questions of their suppliers and so on, hopefully leading to environmental improvements and better market position in the process. In the United Kingdom, Marks & Spencer and B&Q are making notable progress in this way.
6. Corporate identity

There are positive drivers, such as market identity. Ecover, the Body Shop, and producers of organic foods are examples of businesses whose identity is based on environmental credentials, often linked to health issues. The Cooperative Bank, in Manchester, England, has created an identity through its strictly enforced ethical and environmental policies, which they believe account for 25% of its customers and 26% of its turnover.

7. Saving money

Protecting the environment is not necessarily costly or a threat to jobs. Some examples are highlighted in Natural Capitalism,2 by Paul Hawken et. al. One illustration is from a Dow Chemical location that, for twelve years, conducted an employee contest for energy and waste-savings ideas. Some ideas were simple, such as lowering steam pressure. The contest saved an average of $110 million each year, and the average payback time was only six months.

Professors at the University of Zurich’s Chemistry Department noted the cost of toxic waste disposal from laboratory experiments. They wondered if the waste could somehow be made useful and prevent a disposal problem. So they involved students in turning chemical waste back into reagents. This cut waste by 99% and saved the school $20,000 annually. Students even volunteered holiday time to carry on the experiments because they enjoyed doing that work.

8. A growing market

The environmental goods and services sector is growing. The Organization for Economic Cooperation and Development estimates that its value will reach around $600 billion by 2010.

The relationship of environmental issues to quality

The environmental issues that are confronting us today require the adoption of a wider notion of quality. The idea of quality of life is now rightly placed alongside the consumerist idea of standard of living. In the twentieth century, businesses encouraged and fulfilled public demand for material possessions and products, apparently improving standard of living.

This approach is now being challenged subtly. It is now understood that people’s fundamental needs take them beyond being mere consumers of products in some sort of moral vacuum. People also want safety, security, health, community, and a good quality environment. Quality, in this sense, can be promoted by responsible business practice.

Stockholders and stakeholders

From a qualitative standpoint, businesses are answerable to a wide set of stakeholders in addition to their shareholders. These include customers, employees, governments, communities, nongovernmental organizations, and other businesses. Together, these provide companies with their license to operate.

Thus, any business whose commitment to quality lies not only in its products
and its process but also in its vision and direction must respond to society's values expressed through buying behavior, regulation, global treaties, taxation, and new market opportunities. These can all affect the bottom line, both in terms of income and costs.

So what is a business excellence response? Is it to behave passively, expecting future generations to pay for any environmentally irresponsible behavior that happens now? I hope that is not the case. I am encouraged by business excellence models that emphasize the organization's impact on society and the environment.

The quality movement has recognized these opportunities for environmental regulation with the creation of environmental management systems such as ISO 14000 and EMAS. This approach goes part of the way. By using techno-fixes and procedural solutions you can check whether you are doing things right in the smartest way. But it does not tell you whether you are doing the right thing in the first place.

Here we must go back to the wider idea of quality and ask if the products and services we're producing are compatible with customers' or communities' definition of a quality existence. If not, the difference between product price and the actual cost to the environment, society, and the economy should be revealed. Society might not want that product or it might be regulated out of existence. This is what sustainability is about. We need to know what we can keep doing today that won't destroy our future opportunities. We must face this.

The quality movement is starting to take an interest in this issue. ISO 14001 is one example. Project Sigma (not to be confused with Six Sigma) is another. Project Sigma is a pilot sustainability management system being run partly by the British Standards Institute. It uses guidelines that help companies ask themselves whether their activities meet the fundamental principles of environmental, social, and economic responsibility. It also offers measurement and management tools. Project Sigma has gained international attention in just two years.

Combining care for the environment with business excellence is growing in urgency, and is getting increasing attention. Such a focus can help companies recognize their strategic, mid- to long-term strengths, weaknesses, and opportunities.

In our indifference or arrogance we have tended to treat nature as something to overcome. We forget that billions of years of design and evolution have gone into the natural world. It is the most comprehensive, fully implemented quality management system that we have. The component parts are optimized to fit into their surroundings. Nature doesn't tolerate waste. All matter is reused or recycled.

Some visionary innovators have learned from nature. Antoni Gaudi took
inspiration for designing pillars by studying the London plane trees in Barcelona. Velcro® was invented after observing the barbs of seeds. As documented in Janine Benyus’s book, Biomimicry, an increasing number of designers are catching on to the use of nature as a guide and mentor.

The environment is our physical life support system and we abuse it at our peril. But if we learn to protect the environment, it will reward us with countless opportunities.

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Organizations as Complex Responsive Processes of Relating

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Plans and planning
One of the most common practices in organizational management is planning. Yet organizational life often turns out to be different from the plans that are formulated. Why does that happen? Why do we keep on crafting these strategic documents, using a language of setting long-term goals and achieving visions and missions, when these plans often fail to materialize? And, even more fundamentally, why is it that we expect to be able to plan what is going to happen in an organization?

Starting with questions and discovering chaos
Those questions were on my mind several years ago as I was looking for something to read. I happened to pick up a 1987 book by James Gleick called Chaos: Making a New Science. I thought I would read that instead of the novel I was considering, just to find out what it was all about. As I read the book I became interested in the field of nonlinear dynamics, which includes chaos theory and complexity theory. Some of the ideas in the complexity sciences were provocative, providing me with a motivation to challenge the dominant ways in which we were currently thinking about organizational planning and management.

Why plans can fail to materialize
In trying to understand what chaos theory was all about, I was struck by the theory's implication that unpredictability is a property of nonlinear interaction. If this has anything to do with human interaction, then organizations could well be characterized by intrinsic unpredictability. And if that is the case, then it is perfectly understandable that our plans are not materialized. If our intentional interacting with each other produces intrinsically unpredictable outcomes in the long term, then our planning efforts cannot be expected to lead to the outcomes we intended; something else will happen. And that then opens up a whole lot of questions about how we are going to think about what we do, and how we actually do what we do.

Paradox is normal in nature
Another striking aspect of chaos theory is that it presents paradoxes as being normal in nature. The dominant western way of thinking, however, tries to eliminate paradox. Ever since Aristotle we’ve regarded an encounter with paradox as a sign that we are not thinking properly and we therefore try to resolve or eliminate the paradox in one way or another. But what chaos theory is indicating, and why I think it's so challenging, is that dynamic patterns are paradoxical in that these patterns are both stable and unstable, and predictable and unpredictable, at the same time.
To illustrate what I mean, a weather system is understood to be mathematically chaotic. (When I use the word chaos I'm using it in the very precise meaning of mathematical chaos, not the normal understanding, which is utter confusion.) This means that the weather is a system driven by deterministic, nonlinear equations that produce unpredictable outcomes over the long term. But it's not just unpredictable; we're talking about something that is predictably unpredictable, or unpredictably predictable. It's not confusion. It has pattern.

While it might look confused at first glance, a deeper examination reveals a coherent pattern emerging in the iterative operations of the system's nonlinear laws. The weather is operating in a dynamic with patterns that are stable and unstable at the same time, predictable and unpredictable at the same time. We predict seasons; we predict that there will be probably a lot of rain at this time, but just when and how it's going to take place we can't predict over more than a short time into the future. So we're not talking about something that is completely unpredictable; we're talking about a system producing patterns that are recognizable and paradoxical.

Traditional science was a project to get closer and closer to certainty. It was based on the idea that you can progressively uncover the certainty, at least in principle. This new science of chaos is making it clear that this is not so, pointing to the conclusion that we can never know with certainty because nonlinear interaction yields unpredictable change over long time periods.

One of the great writers in complexity sciences, Ilya Prigogine, called his latest book *The End of Certainty*. I think that this is a very challenging shift in the way we're thinking because so much of our thinking about organizations has been imported from traditional science. Systems thinking, for example, is an import from engineering sciences and biology. So when we hear from natural scientists that a fundamental assumption, like the existence of certainty, has been challenged, then I think it's important to see what that means for our thinking about organizations.

It has become increasingly clear to me that one can't take chaos theory, or the theory of complex adaptive systems, and simply apply it to organizations, as many writers are attempting to do. Rather, the value of the complexity sciences is that they provoke us to explore the way we're thinking, rather than trying to rush into applications. In fact I have now come to believe that these sciences do not have any application to human organizations. But I do think they have implications for how we are thinking about our lives and our organizations.

The first book I wrote that had to do with chaos theory and organizations came on the market in 1991. At that time I said that one could understand organizations to be chaotic systems. I now see that I was completely wrong about that. One cannot say that an organization is a chaotic system or a complex system. When I
wrote the book on chaos I had not heard about complexity theory. When I discovered complexity theory it became clear to me why one couldn’t apply chaos theory to organizations. The reason is that chaos theory is a mathematical theory to do with nonlinear, recursive, deterministic equations. However, human actions are not driven by deterministic laws or rules. If they were, we could never learn anything, and there could be no human choice or human freedom. So all that chaos theory might be useful for is to provide us with some thought-provoking metaphors.

I then wrote a book about complexity, published in 1996, in which I said we could think of organizations as complex adaptive systems. I no longer think that's possible, either. I now think that the theory of complex adaptive systems is useful only as a source domain for analogies with human action. One can turn to the ideas of complex adaptive systems and then look at them as an analogy that one might then use to provoke thinking about human interactions. Of course an analogy means taking abstract relationships from one domain, without any attributes, and using them in another domain in which we have to supply the attributes.

Those who study complex adaptive systems write computer programs to simulate the dynamics of interactions among large numbers of agents. An example would be the human brain, which has ten billion neurons, or agents, all interacting with each other. Some major questions are: (1) How does such a highly complex system produce coherent patterns, which are our behavior and our thoughts? (2) How does the brain do so in the absence of any controlling neuron, and in the absence of any blueprint or program? (3) How is it that coherence—pattern—comes about in the interaction of very large numbers of entities?

To study such questions, the tool being used is computer simulation. Computer simulations are essentially taking, as an equivalent of a living entity, a computer program that is designed to interact with other computer programs, and observing what happens. One can observe that the computer programs are self-organizing. That means they interact with each other on the basis of their own local rules, and in this interaction there emerges an overall pattern in the complete absence of any blueprint or program for that overall pattern. So the key concepts are self-organization and emergence, which means that interaction is patterning itself. It means that the entities are interacting with each other on the basis of their own local rules and there is no strategic plan, blueprint, program, or anything of that sort; yet there is the ongoing coherent pattern of some form of order.

It's important to remember that all the computer simulation is doing is demonstrating that self-organization and emergent patterns are possible in the medium of digital interactions. Each of these computer programs is simply a bit-string of zeros and ones, or on-and-off connecting current, so you can't directly apply this insight from a computer program to anything unless you make an interpretation.
For example, a number of scientists have been using computer simulations to aid their understanding of the evolution of life. They ascribe the attributes of living species to the computer simulation to explain evolution as an emergent self-organizing process for which there is no overall program or plan.

Similarly, if we want to take this insight about the possibility of self-organization and emergence-producing pattern in terms of human action and interaction, then we have to bring to this abstract relation the attributes of being human. That means we have to bring to it some theory of human psychology and human sociology. That is what colleagues and I have been doing, and we have presented our thinking over the past two years in a series of six books. We have been trying to find ways of understanding ourselves—our actions and interactions—in terms of emergence and self-organization by taking these ideas as analogies to be understood in terms of particular theories of sociology and psychology.

Here's an example of the problems that occur when trying to directly apply complexity ideas to human organization. I will use a popular idea of "simple rules" used in many books and papers on complexity in organizations. It is interesting how many of these papers and books pick up on a computer simulation created by Craig Reynolds called boids. His question was, as he watched birds lifting off a lake in huge numbers and saw them flock in patterns across the sky, how are they doing that? To demonstrate how they might be doing it, he programmed a simulation called boids. Each boid is a little computer program consisting of three rules: keep a distance from your nearest neighbors, match the velocity of your nearest neighbors, and move towards the center of the flock.

I think it's very important to keep looking very carefully at what the computer simulation is doing. It consists of many thousands of these boids. Each boid is those three simple rules, and each is exactly the same. It is a homogeneous system consisting of entities that are all exactly the same, and these local self-organizing interactions do produce flocking behavior. Therefore, it's a plausible explanation that something like that might actually go on with birds. However, it is very important to notice that entities that are all the same, following the same three rules, can only ever do one thing, which is flock.

It's a bit peculiar, then, to think that one could simply apply that kind of analogy to human beings in human organizations and say: "Ah, all we need to do is find three (or thirty-three) simple rules for human interaction, and we'll produce complex behavior patterns." Of course, what is so attractive about this idea is that it means one would be able to produce (and control) the behavior that we want to have occur in groups of people.

In their zeal for a desired state, people are rushing to an immediate solution.
They want to pick up on a three or thirty-three or fifty-three simple-rules idea with a hope that if everybody follows those simple rules the organization will become more flexible and innovative and creative. This is a complete misunderstanding of what the boids simulation is showing. It couldn't possibly produce the desired result of flexibility and creativity in a human organization. If a group of people were to follow even 233 simple rules, all of them the same, all the time, they'd be completely stuck. There would be no innovation, no creativity—just sameness. Moreover, the big questions that complexity theory poses about the issue of control in organizations are neatly sidestepped as soon as you do this.

The kind of simulations that might offer some insight into human organizations are those in which the agents are heterogeneous—where the local rules that organize the interaction of the agents evolve. Peter Allen, from Cranfield University, shows convincingly that novelty can emerge only in a simulation in which there are differences between the agents. It is only then that anything like human interaction emerges. For me, this is another very powerful insight that the complexity sciences can offer us—a very clear explanation of how diversity is essential to the emergence of anything novel and creative.

In fact, these heterogeneous complex adaptive systems are pointing to a different kind of causality, a causality that we call “transformative causality” in our books. In transformative causality, the iterations of interaction produce emergent patterns of behavior that display continuity and transformation at the same time, or identity and difference at the same time. These simulations point to how novelty comes about, how creativity comes about. Novelty and creativity come about through the amplification of difference. Because nonlinear interaction has this property of being able to amplify differences, it creates the possibility of evolution—something different and new.

If we take seriously that a pattern of interaction, which is an organization, emerges in the context of local interactions, then there could be a change in the overall pattern only if the local interactions change. But you wouldn't be able to know in advance just what that emergent pattern would be.

This has very big implications for how we think about control. If human interaction is of this self-organizing, emergent kind, then it is not possible for anyone to be in control of its evolution. That means there is no one person in control of an organization. At first that sounds a bit startling, but of course it isn't all that startling. Who, for example, is in control of the human race? I've never met anyone who imagines for a moment that someone is in control of the human race. But nevertheless, with billions of people interacting, there are still coherent patterns of behavior that keep emerging. We have a word for this—history.

I also want to emphasize that when I'm talking about emergent pattern in
human interaction I’m not necessarily talking about something good. “Good” and “bad” are labels we apply to patterns that emerge. Coherent patterns do emerge as terrible wars, and as creative innovations.

When we start moving to the complex way of thinking that I have been suggesting, it becomes more understandable why various improvement attempts are not working. When encountering a problem we often tend to jump to the question, “So what should we do?” I want to suggest that we don’t jump to that question so fast. One of the most counterproductive things that people get asked to do in management development programs is to identify the five new behaviors that they are going to adopt on Monday morning. The result is that important thinking is cut off at that point.

Instead of asking the question, “What should we do?” I always ask the question, “What are we doing?” To come back to the question of strategic plans, if what is happening in an organization is not being caused by the strategic plan, then what is going on? Something clearly is going on; otherwise nothing would be happening. The problem is that we’ve become too accustomed to looking back at the tools we’ve created (e.g., a control system or the strategic plan) and think, “That’s what counts!” That kind of thinking diverts us from trying to understand what everyone’s actually doing (and not doing) and why that’s happening.

One of the really important points that I’m trying to develop about our way of thinking is that the first step is to take very seriously our own experience. We must work to clearly understand just what it is that we are doing together in our groups, or in our organizations, that leads to the emergent patterns that are our experience. These patterns of behavior are the organization. They happen as a result of all the things that people are thinking and feeling and doing, so let’s pay attention to that on a day-to-day basis.

Why do we design various control systems and put together strategic plans? I think the reason for a great many of these procedures and systems is that they do serve a purpose; otherwise people wouldn’t be doing them. I believe that the purpose being served is that they are social defenses against anxiety. Because if no one is in control, and we don’t know where we’re going, and we don’t know an awful lot of the time what we’re doing, then if one holds that in mind for too long it’s extremely anxiety provoking. So the way we deal with anxiety is to find some kind of defense mechanism or procedure to avoid feeling the anxiety.

However, it is important to recognize the anxiety, and look carefully at the defense we’re using against the anxiety, because it might be having adverse affects. If we have an understanding of this possibility, we would begin to look differently at a strategic plan. To begin with, we’d no longer just accept it as truth. We’d look deeper to see if it is defending against something. We would ask ourselves, “What is the
anxiety here? Are there other ways that together we can deal with the anxiety that are more useful?” So it’s that kind of questioning that looking at our own experiences can bring about.

I think that a lot of the systems that we put in place today actually make people ill, so how we’re thinking is of great practical importance. That is one of the reasons why I want to challenge systems thinking as a way of thinking about ourselves. Let me give you an example. In my business school last year, we were subjected to a quality assurance inspection by the Quality Assurance Agency that exists in the United Kingdom to inspect and examine all universities, which are then ranked from one to 100.

At the very first meeting called by the dean, a consultant well-versed in getting people through this procedure said, “There is no option. Every one of you will have to follow all of these procedures. And if any one of you makes one mistake, you will be letting your colleagues down and you will cause the business school to slip down the league, and that will bring the whole university down the league with you.”

Well, you can imagine how this created an enormous amount of anxiety. It immediately silenced everyone because they were too frightened to speak out in a way that might damage their colleagues. We all sat silently but were becoming enraged. So what did we do when we left the room? We got together in little groups and started saying very nasty things about this consultant and the dean. To my shame, I was doing the same thing.

We were embarking on a process of scapegoating, which was not being paid attention to by anyone. Instead, the focus of attention was on a system of goals for learning, strategies for achieving them, and, above all, monitoring performance, which required leaving a paper trail of enormous proportions to “prove” that quality learning was being delivered. No attention was given to the human processes that this mandate was triggering or whether these supported or undermined the whole project.

The link with health issues is that long-term absences on the part of the staff increased to a record high. People had back problems; they became very distressed; and no account of these consequences was taken by policy makers when they set up these frankly absurd procedures.

This quality assurance system in education is quite ridiculous because it requires setting objectives for each session one teaches and coming up with ways of checking to see if people have learned what they were supposed to learn. How are we told to do this? By filling out and filing forms. The rules were that we had to complete all of the prescribed forms, which then had to be placed in a special box for each course. When the course was over, the box went to a large box room.

I was actually evicted from my office to make space for all the boxes; there was a box for every course, and a whole department was set up to make sure all these boxes were properly kept. My box, of course, was duly inspected by the staff, who
found something improper and corrected it. Naturally all the boxes were correct for the inspectors even though they had not originally been—so what was the connection between the bits of forms and the real quality of what went on in the classroom?

Then came the inspectors, other academics from other universities, who knew just what was going on, but no one said anything about what was actually going on. The inspectors did talk to some students, but of course the students were carefully selected and coached to say the right things. So we had a few days of “completely out-of-it” processes, and we can begin to see how this whole procedure had nothing to do with authentic quality—it was in fact a system of counterfeit quality.

It is the kind of thing that one begins to contest because it is based upon a way of thinking that is really cybernetics. A prime example of a cybernetic system is a central heating system. So we have imported from engineering a way of thinking, an engineer’s idea of control, and applied that way of thinking to people. In the process, I doubt that anyone stopped to consider this question: How have we come to think that we are little central heating systems, and our organizations are bigger ones?

The problem is that we seem to mindlessly design and install procedures and systems that are based on totally taken-for-granted ways of thinking. In this case it was using simple cybernetic engineering control thinking to create a complex human quality assurance system. I’m not saying that people should not plan or that we should not have control systems. What I am trying to suggest is that we should explore more carefully how we are using strategic plans and various control systems. We need to see what they are actually doing, and understand what is actually happening.

In drawing on analogies from the complexity sciences to develop a different way of thinking, colleagues and I have been turning to the writings of the sociologist Norbert Elias (1897–1990) as a way of understanding the analogies in terms of human action. He did some very interesting work, published first in 1939, looking at how the way in which we experience ourselves had emerged over the last few hundred years. He actually used words and concepts of self-organization and emergence without knowing anything about complexity science. Elias was trying to point out how the evolution of what we call western civilization came about through interaction among people without any program or blueprints. He asked, “How would we explain this coherence over the centuries in the absence of any kind of plan?”

His answer was that what we call civilization emerges in the interweaving of many, many peoples’ intentions and plans. What happens to us in organizations and society, if we’re going to say it’s emergent, is not the same thing as saying, “It just happened,” or “It’s self-organization that has something to do with empowering people in greater democracy.” It has nothing to do with that at all. If we’re saying that coherent organizational patterns emerge, we’re saying they emerge because of what everybody is doing and not doing. What emerges is the interweaving of all our
Our civilization emerges from our interactions, continued

intentions. So we can keep intending the next act, but what none of us can do is get outside the process of interacting and control the interplay or the interweaving itself. All we can do is continue interacting.

Everyone has thoughts and desires and will do some planning

As a senior manager, I might formulate my plan for the organization, but others in other organizations will be doing some planning, too. So what will actually happen in our organization will not be determined by any one plan. It will be determined by the interweaving of them all. That means individuals can do what they like but they may not be able to accurately plan the future that comes about.

I think this is true of all human interactions, even at the family level. What happens to my family doesn't start and end with me. I have intentions about what I would like to happen, or where I would like to go on holiday, but where we end up depends upon the interactions among us. We may find some kind of compromise, or some acceptable way of going forward, which may not be what any of us initially thought or started off wanting.

Understanding power

When one pays attention to that kind of local self-organizing interaction, one immediately sees the great importance of power. What is power? Power is often thought of as something that someone has; one is powerful and another is not. Thinking in a more complex, interactive way, power is an aspect of our relating to each other. We can't survive without being in relationship with each other, and as soon as we enter into a relationship with anyone we are being constrained by them and we are constraining them at the same time. We cannot be in relationship without constraining each other. And, paradoxically, at the same time, we are enabling and being enabled. So when one moves to a way of thinking that we're calling complex responsive processes of relating, one places power at the center of what one is trying to understand.

Functionalizing

When a powerful person makes a statement about following a simple rule, or a vision, or whatever statement he or she makes, it becomes a gesture that will call forth many responses throughout the organization. But what those responses are going to be can't be controlled by the executive, no matter how powerful he or she is. What is involved is what we call a process of functionalizing. There are two aspects. One is communication, the communicative interaction between us. The other aspect is the power of relating that exists among us.

Complex responsive processes of relating

I have said that complex adaptive systems provide analogies for human action. However, part of the complexity of human relating is that people don't always adapt to each other—they often intentionally refuse to adapt to each other. But in doing so, they are still responding. So there is this complex dynamic going on of adapting and not adapting, of responding, of relating. And all of that taken together is what
Complex responsive processes of relating, continued

we mean by complex responsive processes of relating. We are using the term processes, rather than systems, to indicate our shift away from thinking about human beings as systems. And central to these complex responsive processes of relating, and what they actually are, are communicative interactions among us and power relating among us.

How we view time

The normal idea of time is that the present is just a dot that separates the past from the future. A great deal of the thinking about organizations pays no attention to the present. It's all about the vision for the future, or the understanding of the past, so that you can make predictions. So what you're doing when you have that kind of attitude is locating all meaning in the past or the future.

When you shift your thinking to a complex responsive process idea, you're paying attention to local communicative interaction and patterns of power relating. What you're actually doing, then, is focusing on the present. George H. Mead (1863–1931), whose theory of the emergence of mind and self out of the social process of communication became the foundation of the symbolic interactionist school of sociology and social psychology, writes very interestingly about what he calls the “specious present,” which we call the living present.

Mead says that we're always acting in the present. Of course, as soon as you start thinking about that, you realize that the present is actually the only time in which you can ever do anything. So it's strange that we are not really focusing on what we're actually doing together in the present. In the living present we're always acting with expectation, anticipation, and intention for the future.

In a sense, the future is actually in the present, in the form of our expectation. But we're also always acting in the present, on the basis of our past. So the past is in the present, in the form of the particular story we're telling ourselves as we're doing what we're doing.

If you have this view of time, the future is changing the past because the kinds of stories we tell ourselves about our past, as the basis of our action, are being influenced in the present by what we're hoping for in the future. What we're hoping for is being influenced by the story we're telling about our past. So you get this circular process of how we are acting and interacting in the present.

Our research

The research methodology at the Complexity and Management Centre involves people taking their own experience of their own work in organizations seriously. The methodology does not involve sending researchers into an organization to observe what people are doing there. Instead, our research consists of people, who might be in an authority position in an organization (such as chief executive) who are reflecting upon their own interactive experience in their organization and writing evaluative, reflective narratives of what they are doing and experiencing.

The justification for doing this as research is this: If it resonates with other people's experience, provokes their thoughts, and makes a contribution to knowledge, it's useful research. For example, one chief executive is writing about what
Our research, continued

leadership means. In doing this, he is immediately shifting the way he practices his role and is then reflecting and writing about it. That is the kind of way that I think any discussion has a positive impact.

Culture

An organization's culture is the emergence of pattern in the form of habits. What we call culture is that aspect of our emergent interaction that is iterated as continuity. But there is always a potential for transformation and cultural shift. So different parts of an organization would experience different cultural patterns, different habits of mind, which would naturally emerge. And through interaction among people, culture would continue to be transformed as well. Again, this idea of paradox exists—what is continually emerging is continuity and potential transformation at the same time.

Influence

From a complex responsive process perspective, one influences others in that everything one does is playing a part in what emerges. What one can't do is to get outside the interaction and directly influence it. Systems thinking is based on the idea that one can be outside the system and design it or move it.

Paradox of control

I'm not trying to say one should give up the idea of trying to control what is going on because I'm constantly trying to control what is happening around me. I just accept that I'm not often going to succeed in exactly the way that I thought I would. That gives me a different attitude about control, because in complex responsive processes, although none of us is in control of the processes and none of us is in control of the conversation, it is nevertheless controlled—self-organization is itself a form of control. In our interactions with each other we constrain and enable each other, and that is control. We can't do just whatever we like and remain in relations with each other.

Paradox of freedom

I think human freedom is paradoxical. We're free on one hand, and we're not on the other. For example, at my school we were told we had to follow that quality assurance procedure. It was made very clear by the vice chancellor, who thought it was stupid, too, but was compelled to do it by the government. We were asked to please not make a fuss and just get on and do it. We then said, “Yea, okay, then we have to do it.”

The freedom came in how we did it. And, of course, the freedom came in knowing that the whole thing is a farce, that it has no meaning. And the government, the policy maker, presumably doesn't want to have a farce, so they call a meeting and force us to follow the procedure. But what they can't force is to make it meaningful. What they can force, and I think this is universal, is to have people follow procedures, but they cannot force them to produce something that has value and quality.
The importance of conversational life in organizations

Of course no one of us, or group of us, will ever see or understand the full pattern of what is emerging. But developing more reflective conversations with each other on what we feel is emerging will inevitably alter what does emerge. So in the perspective I’m adopting I’m placing a great deal of importance on the conversational life of organizations. From this perspective, how would you think of the role of the leader? How would you think of the role of the consultant? The contribution is to participate in the conversation as fully as possible, by listening carefully to what is going on, and trying to understand what sort of meaning is emerging. One must develop the conversational life of a group to accomplish this.

It’s important to understand ourselves in group contexts. We typically try to see what we want to see and get what we want to get. But when we’re in a group context we’ll be constantly challenged about that. I think that is how meaning shifts and how organizations evolve. You can see how organizations change where people talk differently and misunderstanding is as important as understanding, because in not understanding each other we keep going and something new might emerge.

Groups of people can become stuck in terribly repetitive conversations. The contribution needed is for someone who is able to participate in a richer kind of way, and a more challenging way, to help groups of people develop a different kind of conversation. We’re trying to focus attention on ordinary everyday conversations in organizations as the process in which people jointly act. They may be agreeing, they may be disagreeing, they may be covering things over, they may be exposing things— it’s really merely focusing on what is happening. The way we now think is a result of cultural evolution over hundreds of years. I’m not expecting that there will suddenly be massive changes in thinking.

Summary

Complexity sciences provide us with a demonstration of possibility, and with insights into the nature of nonlinear interaction among large numbers of entities. To me these insights, first of all, have to do with the dynamics of patterns of behavior that are paradoxical— stable and unstable, predictable and unpredictable, they exist at the same time. The questions then become: How would we think about organizations if we embrace paradox, if we live with paradox, instead of trying to eliminate it? How would we understand organizations and ourselves, our actions and our interactions, if we took the insight about self-organization in which pattern and coherence emerge in local interactions? It’s in local interaction that widespread coherence emerges, which we may think is according to some plan; in fact it isn’t, because it has emerged from local interactions. Once we’ve seen how vital diversity is to the emergence of the novel and creative— to evolution— how would that affect how we think about organizations?

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Organizations as Complex Responsive Processes of Relating

About the Complexity and Management Centre

The Complexity and Management Centre is part of the Business School of the University of Hertfordshire, England. It was set up in 1995 to create links between academic work and organizational practice using a complexity perspective, in which the inevitable paradoxes and ambiguities of organizational life are not finally resolved but held in creative tension. This perspective draws on insights into evolutionary theory emerging in the natural sciences, strands of social constructionist thought in the social sciences, and various psychological understandings of the dynamics at work in networks of human relationships. The Complexity and Management Centre seeks new ways of working with these ideas, emphasizing the self-organizing potential of ordinary conversation in which people reflect together on their personal experiences. It publishes a series of Complexity and Management Working Papers; its directors edit the book series Complexity and Emergence in Organizations published by Routledge.

The Complexity and Management Centre also runs a program leading to the degree of Doctor of Management, in association with the Institute of Group Analysis.
University of Wisconsin-Stout
2001 Malcolm Baldrige National Quality Award

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Organizational Profile

A focused organization

Charles Sorensen—It’s exciting to be the first university to earn the Malcolm Baldrige National Quality Award. I expect, in this age of accountability, universities throughout the country may seek to follow a course similar to our own. If they do, they will raise the standards and quality of service of their establishments.

The University of Wisconsin-Stout (UW-Stout) has been historically characterized by themes that are clearly within the Baldridge philosophy. We’ve always been an extremely focused university. Early on, we chose to narrow our interests and concentrate on fewer specific programs but to strive for total excellence within those selected domains. Never denying the need to study theory, our focus has been to wed theoretical material with practical applications. And in the best tradition of higher education, we recognize that we are here to meet the needs of our society and world, and believe we have successfully accomplished that. In turn, we are consistently able to serve in leadership roles because of our innovative and creative learning environments and social impact.

UW-Stout background

UW-Stout is part of the University of Wisconsin (UW) System—one of the most respected state school systems in the country. The system is governed by a single Board of Regents and is a system in the truest sense of the word, working collaboratively to serve the interconnected and interrelated state and local communities.

When I was first hired as Chancellor in 1988, the UW System president referred to UW-Stout as a crown jewel in the system due to its unique mission. Students can
UW-Stout background, continued

earn a B.A., B.S., or B.F.A. degree, and our twenty-seven undergraduate programs all lead to professional career opportunities. We also offer an M.S. and Ed.S. in seventeen graduate programs. Every program combines theory with practice and focuses much student experience on the particular discipline studied and away from the campus itself. Our historic triadic approach of state university teaching, research, and public service is responsive and effective, and has afforded us the capacity to meet a number of social needs. Our heavy reliance on data collection and analysis, and our decision making based on that analysis, has also allowed us to reach toward excellence by relying on rational experience and knowledge to power structural policy.

If you take a quick look at our organization, you might think we’re a very traditional school. We have an Academic and Student Affairs Division with three separate colleges: the College of Arts and Sciences; the College of Human Development; and the College of Technology, Engineering, and Management—each of which is headed by a dean. (Of course, we have a Dean of Students as well.) The second division is the Administrative and Student Life Services Division, composed of Human Resources, Facility Management, and Business Services, along with the auxiliary branches of Residence Halls, Student Center, and Food Service. The third division, the Chancellor’s Division, includes Information Technology, Affirmative Action, Public Relations, and the Stout Foundation.

The management and support branches provide service for slightly over 8,000 students a year. Certain departments also support the 500 faculty members and research staff, and the approximately 700 service staff employed at the university.

Leadership

Charles Sorensen—Over time, we have refined our concept of leadership. We no longer look at leadership as stemming from a single office but now talk about leadership systems. Leadership is seen as emerging from a network of interrelated parts. One essential element of the overarching leadership structure involves the major internal constituents of our campus and government life. Wisconsin has a very strong shared governance system for faculty, academic staff, and students. In fact, the “rights of governance” are actually embedded in the state statutes.

Five unions represent classified support staff. Three senates—the Faculty Senate, the Senate of Academic Staff, and the Student Senate—provide strong multi-directional communication and endow these critical constituent bodies with a voice that informs all UW-Stout discussions on policy and recommendations to the Chancellor. A Chancellor’s Advisory Council (CAC) was organized in 1996 to provide horizontal integration for our organization and to promote collaborative decision making.

We may look like a traditionally organized university, but we aren’t. The nineteen members of the CAC, which has incorporated very open and democratic processes, is uniquely UW-Stout in character. Crucially, our focus is on the students,
as is shown in the center of Figure 1. The CAC provides leadership and performs several functions critical to our student-centered approach. Major policy and resource decisions are made only after CAC discussion, with recommendations to the Chancellor. In this manner, we can set definite directions and deploy necessary resources for implementation. Thus, the CAC creates an excellent forum to identify issues for discussion and helps the school communicate effectively with all internal and external stakeholders.

The CAC is central to managing and operating the campus. In effect, it brings together, in one representative body, a process that includes a campus-wide discussion on budget-setting priorities, a review of our planning and performance, and guidance for integration of short-term and long-term goals. It aids in assessing both the results of planning and the metrics showing improvement. Finally, it also enhances our organizational performance through effective team building.

The Chancellor's Advisory Council, continued

The Administrative Leadership Team

In conjunction with the CAC leaders, our Administrative Leadership Team focuses thoroughly on teamwork. This leadership team consolidates planned formal agendas for our monthly meetings and evaluates their effectiveness. The team directs these monthly agendas toward expanding and deepening personal and professional relationships, exchanging ideas freely on emerging or existing issues, visiting off-site organizations that are either Baldrige recipients or those remarkably performing “outside the box,” and inviting external leaders to visit our campus, to encourage improvements within our system.

Team efforts

Major decisions made since 1996 have been successful because of our team-building efforts and collaboration. Team-based processes have allowed us to ascertain problems, then address concerns, and thus rectify situations and promote the further solidarity of the entire school.

This collaboration and team building has led to some notable decisions and
changes. For instance, working together, we have been able to identify issues in relation to undergraduate and graduate workloads. We were also able to focus very concretely on upgrading the university’s technology infrastructure with a new relational database and a new network. We designed a successful computer cost-share program for our faculty. Additionally, we concluded that by 2002, we would systematically adopt a laptop environment—a totally digital wireless environment for our campus. And teams have been set up to work on a very important priority for the campus—an implementation plan to examine employment issues for women, called the “Equality for Women” initiative.

We are about more than just a professional career

UW-Stout doesn’t only educate men and women for professional careers. We also provide an environment that fosters public responsibility and community service. Every senior leader is involved in some type of community or volunteer service, and we encourage students and faculty to do likewise. We also have a formal leadership program for students, and we’re a strong partner with community government and business organizations.

Strategic Planning

Diane Moen and Claudia Smith—Strategic planning at UW-Stout is rewarding. Everyone has the opportunity to influence the course of action, the allocation of resources, and the expression of meaningful and measurable results.

Factors influencing development

The Baldrige process has helped us to learn what really contributes to the development and success of strategic planning. Substantially, the process must be engineered to adapt to the specific climate and needs of the organization. It should strengthen ties between resource allocation, and community planning and understanding. For instance, we have experienced budget cuts and increased restrictions on funds received, so reallocation of funds for university priorities, when needed, has to be understood and supported by the people who are feeling the effects of the redistribution.

Research and planning

When we first applied for the Baldrige Award we asked a neighboring company that had received the award a great number of questions, particularly involving how the administration was able to gain staff approval for the entire planning process. The CEO looked at us incredulously and declared, “I own this place. I say what the focus is going to be, and that then becomes the focus.” Unfortunately, that’s not quite how it works in the world of public higher education.

In higher education, leaders have to collaborate with a campus community to develop a planning process and to identify university priorities. The State of Wisconsin statutes set forth rights and responsibilities for campus faculty, including the right to participate in institutional policy development and decision making, especially with regard to academic and personnel matters. Significantly, the statute delineates a cooperative process between faculty and administration, and demands
Research and planning, continued

the absence of any division between the two in terms of planning and concerted action. At UW-Stout this collaboration is reflected in strategic and short-term design and in the budgeting process.

Precipitating conditions

We wanted to make a positive change in our organization and we wanted to make it fast. In addition to compensating for declining state support, we recognized that we had to change if we hoped to improve other key processes as well. We realized that organizational excellence required an increased overall system efficiency and effectiveness, a structural reorganization of our academic colleges, a more complete agreement between new leadership and their positions, and a deeper incorporation of technology into our infrastructure. We understood that a growing lack of community trust in the administration had to be transformed, as did a negative perception of various centralized decision-making procedures.

Significant changes

A fuller awareness of these needs crystallized for UW-Stout in 1996 and fomented significant changes that resulted in improved communications regarding decision making and policy enactment. This, in turn, resulted in redesigning planning processes, strengthening shared governance on campus, reorganizing the Faculty Senate, and establishing the CAC. For us, this was simply a planning revolution!

Four keys to success

As we created a new planning process at UW-Stout and new methods for identifying resources supportive of university priorities, four keys to success emerged: (1) meaningful leadership commitment and support, (2) detailed planning methods, (3) inclusive and participatory processes, and (4) substantial multidirectional and multilevel communication. These keys assisted us in our efforts to make beneficial organizational shifts and readjustments.

Meaningful leadership

An improved emphasis on meaningful leadership was the first key to our success. We realized that deepened leadership commitment was critical to achievement and had to be blended more completely into the university dynamic to facilitate greater institutional harmony.

The CAC now functions in that needed leadership role. As a leadership team, the CAC sets and deploys organizational direction and expectations, maintains communication with all university units, and provides an open leadership that admits significant staff input and expression, all in an organic effort to advance the university’s mission. Leadership commitment doesn’t solely involve the head of our institution but is communicated to the entire leadership team. Although time- and attention-consuming, it is nevertheless worth the price to be paid.

Detailed planning

The second key to successful policy action involved more explicitly articulated planning. To bring about really significant change in strategic design, we aggregated the many scattered personnel and procedures involved with the planning process to
create the Office of Budget, Planning, & Analysis (BPA; Figure 2). The BPA now coordinates central planning by performing institutional research, supporting institutional planning, performing fiscal analyses, extending fiscal policy development, and administering the capital budget and annual operating processes.

The BPA is a powerful combination of functions that has strengthened the community in various ways. The office has deliberately made more effective use of data to increase informed decision making. The BPA has increased the cooperation on campus with an inclusive planning process, has furthered alignment of available resources with university policy, has brought into existence better support for university experiments and trial solutions, has tightened and clarified draft proposals, and has advanced the precise community focus needed to keep the university on track.

Community participation is the third key to success in our process and has led to a heightened organizational effectiveness. This practice more fully identifies important priorities, which leads to better community understanding of the university’s overall needs. Clearly this improves the quality of resource decisions and generates meaningful input from faculty, staff, and students (either as individuals or through governance and administrative structures). It also deepens communication, understanding, and trust among administration, faculty, and students. It reinforces campus focus, acceptance of policy, and allocation of resources. Finally, it makes transparent the vision of university goals, priorities, and strategies.

Good communication is the fourth key to successful campus planning and implementation. The campus purposefully encourages a widespread distribution of information. Open communication and information take the mystery out of planning and decisions. There are no secret resolutions or veiled informational sources in this process. Rather, as part of planning, we promote open forums for the campus community to discuss progress, priorities, and potential budget-related programs. Senior leaders regularly attend weekly governance meetings. The Chancellor and Provost work personally with each academic department on an annual basis. We also make use of various college presentations, data postings, analytical reports,
360° communication, continued

information contained in the UW-Stout web site, and campus-wide mailings to support information dissemination and open community communication. These methods have leveled the communication structure and provided direct lines to campus administrators to assist them with priority setting, fund allocation, outcome determination, and the celebration of successes.

Intended outcomes

The planning process at UW-Stout has several intended outcomes:

- Facilitate planning and informed discussion
- Increase faculty/staff satisfaction with organizational planning
- Encourage community participation and its proactive response to crucial external and internal concerns
- Elevate the quality of community agreement and the decisions achieved
- Develop greater trust in the administration
- Foster widespread campus understanding of the university’s strategic plan and budget

Simply put, we thought that this process provided us with an opportunity to make the best of the resources we had. Maximizing those resources, we believed, would produce educational excellence and quality opportunities for UW-Stout students and employees.

A new strategic planning model

In 1996, we started creating a new strategic planning process by throwing out the old planning process. By 2001 we had designed a model (Figure 3) and began using it. The first step in the evolution of this new process involved validating our

Figure 3. Strategic Planning Model.
A new strategic planning model, continued

 existing mission statement. As we started planning, our mission statement became the cornerstone—that indispensible bedrock that guided our actions when developing vision, values, goals, and strategies.

The short-term planning process

The second part of the planning process involved revamping the short-term planning that now generates our annual budget (Figure 4). At the time, we did not yet have a very clear campus vision, but we did understand our short-term needs; this revamped process would at least resolve the critical and immediate concerns of the campus.

We decided that the developmental process for short-term planning and budget processing must be totally inclusive. We received input from governance groups, existing planning and budget committees, and individuals. This inclusive involvement greatly increased community commitment to the process itself and contributed to its success. It also ensured that the process fit the campus.

CAC Summer Retreats

Our short-term planning process begins with the CAC Summer Retreats; typically, two are held. To prepare for these retreats, we review enrollment management information, previous university priorities still seeking resolution, current university priorities, university-wide performance data, survey data, and financial information. We consider inputs stored from previous group sessions, and we weigh environmental scanning reports performed by the UW System as well. We identify areas needing improvement and draft potential university priorities.

Fall Focus Groups

Next, we conduct Fall Focus Group sessions. All faculty, staff, and students are invited to participate in these sessions, where potential university priorities are reviewed and discussed. CAC members attend all of the nine facilitated focus group sessions and listen to participants from all levels and units of the campus community. During these sessions, faculty, staff, and students have direct communication with university administration, thus ensuring that the communication is unfiltered and unedited.

Nine budget forums are held when it is convenient for faculty, staff, and students to attend. All attendants are given drafts of the agenda prior to the meetings. At the outset of each session, the Chancellor typically gives a short presentation on the goals and outcomes of the previous year, the current year’s focus, and
Fall Focus Groups, continued

the proposed focus for the coming year to provide attendees with some historical context and the nature of that session’s focus.

During the sessions, CAC members (specifically the Chancellor, Provost, Vice Chancellor, and deans) are visible and make it known to the employees that they are listening to what is being said. Furthermore, all comments are recorded and the common themes are subsequently extracted to ensure that our focus remains directly related to the university’s community and its interests. In turn, that information is channeled back to the participants and the CAC. The latter uses this thematic knowledge to continually refine university priorities. Those unable to attend the budget forums can submit their views by way of a response depository accessible through the university web site; this provides us with important information that would have otherwise been lost. As participants exit each session, they also indicate in writing the degree to which they felt the agenda confronted real community concerns.

Budget planning sessions

During the fall and winter, the CAC has two or three budget planning sessions. The group meets to review data from the Fall Focus Groups, set performance outcomes, prioritize and finalize the university’s goals, and work out effective strategies to meet them. Budget planning is campus-wide, so each university division develops and submits its own annual operating budget. The Chancellor provides open budget forums, usually in February, to communicate final decisions on university priorities and resource allocations.

Stakeholder visioning sessions

UW-Stout holds a stakeholder visioning session every two or three years. Invitees include education administrators, business and industry leaders, legislators, local government officials, Board of Regents members, administrators, and governance representatives.

These sessions help determine whether the vision and goals of the university are in accord with stakeholder needs. Participants are sent a binder of materials before the meeting so they can prepare for the session. The binder includes analytical data about the university, the current strategic plan, and articles concerning the future of higher education. After the session, a final report is prepared by the facilitators, which gives us knowledge empowering long-term direction. This report has been subsequently used in our annual university priority identification process.

Our most recent session was held in June 2001. We invited people in the K–12 district, technical college representatives, politicians, business leaders, students, and our board members. The session itself was facilitated by nationally recognized figures in tune with higher education issues who were able to focus on our strengths, weaknesses, opportunities, and threats. After the speakers piqued the group’s interest by discussing important national issues, we broke into small parties and worked on potential opportunities for UW-Stout. The discussions were very interactive and insightful. The stakeholders were able to discover a number of unrecognized campus opportunities and hit the target precisely with a number of observations.
Another key to progress is the interweaving of the budget with the university’s objectives and goals. It can be very tricky to bring the university’s plans and objectives into accord with actual budget limitations.

To help create this congruence, the BPA creates a spreadsheet for the CAC, detailing all of our priorities for the past, present, and coming fiscal year. The spreadsheet includes either the known dollar amounts or a proposed reasonable financial estimate. We include, on a related spreadsheet, a set of columns that display our different sources of revenue (i.e., the different financial centers we can access to address various needs). There are occasions when the required resources exceed the financial resources that are available, and we can shift certain financial elements around to make adjustments. Sometimes this shifting is impossible, but often, we can make a multi-year (rather than single-year) intervention to manage and unify a present goal with an accompanying present financial reality. At such time the adjustment must be thoroughly discussed with the CAC so that the different funding accounts and sources are known to all community members.

The financial spreadsheet is very important and promotes a positive community environment. This type of open communication engenders a campus atmosphere with a high level of trust—people realize that you aren’t hiding information from them. Members then act as community solution makers rather than as mutual antagonists who might request that funds be cut in other departments before they are taken from their own. These actions lead to helpful perceptions in terms of campus building, and that has been a very positive development for us. With people working together, the community can really begin to flourish.

The final link in the short-term planning process involves the planning retreats held by each college and division. The information from these retreats is incorporated into the university planning process by the membership linked to the CAC. Of course, all of these processes are not totally linear and sequential. For example, the Fall Focus Groups sometimes provide us with “loud and clear” corrective information that leads directly to priority modification and redirection.

The process is messy, interactive, and never ending but always well received, productive, and worth the effort.

One example of a plan developed through the short-term planning process is the UW-Stout Equality for Women Plan, a current priority for the university. In 2000, a committee was formed to examine educational opportunities, newhirings, promotion, and retention involving women at UW-Stout. It also scrutinized issues concerning learning, quality of work environment, and balance of work and personal life to ensure that a woman’s experience at UW-Stout was a positive one.

The priority itself involves an action statement and an implementation strategy. The equality plan shows connection points among specific strategic planning goals. It presents the methods employed to accomplish each goal and identifies the
CASE STUDY

The Equality for Women Plan, continued

individuals and groups responsible for the plan’s expression. Material and funding sources are identified, reviewed, and discussed, as are historical data and peer comparisons. Key performance measures are also designed while attempts are made to set specific goals or at least a general visionary direction. And finally, certain analyses are undertaken semi-annually to determine whether course correction or renewed attention is needed in strategy deployment.

Deploying and implementing the plans

Several action plans are deployed by the university, including the academic plan, annual university priorities, capital plan, division plans, and diversity plans. The CAC aligns campus resources with priorities. Because it is knowledgeable about funding sources, it reviews available finances for reallocation and approaches decision making from a universal rather than a territorial viewpoint. Both the CAC and the Strategic Planning Committee (SPC) perform semi-annual reviews with reference to action plans. To maintain forward momentum for strategic goals, the council also alerts the Chancellor to areas requiring attention.

Responsibility for follow-through

UW-Stout follows a number of specific steps when executing and measuring various plans. The CAC identifies the major strategies for implementation. For each specific priority, we assign a responsible individual or group to it. There is clear communication throughout the whole campus as to who is responsible for the deployment of any priority. Often we will also convene a team to enter further into the discrete intricacies of an issue and to set a reporting timeline for evaluating strategy deployment. At the reporting deadline, the responsible members should be able to explain to the CAC how each strategy can be most rationally met.

At six-month and twelve-month periods, the progress achieved for each objective is reviewed at CAC meetings. This process communicates something important to the community—it shows that the university’s leadership is urgently concerned with core priorities. When the leadership team willingly spends several annual meetings on planning, on fusing resources to planning, and on expecting high-quality performance reports, it gets the attention of people involved and underscores the high standards we want honored within the larger community.

Performance measures and analysis

The annual tasks in the UW-Stout strategic planning model also address performance measures. Performance measures rely on information sources and solid data to identify areas requiring attention. In the early years of our planning evaluation, it was difficult to obtain peer comparisons and gather relevant trend data. Applying for the Baldrige Award only sharpened more acutely our awareness that such procedures were necessary, and resulted in our determination to clearly outline all pertaining data sources. While, in the past, our comparative data was compiled only from other UW institutions, we now compare ourselves to other universities with comparable missions and like-minded programs as well.
In addition, the SPC monitors performance measures to track campus goals. The measures are few in number but provide adequate evidence for campus actions.

The strategic planning model also requires a biennial situational analysis. To accomplish this analysis, UW-Stout chose to use the Strengths, Weaknesses, Opportunities, and Threats (SWOT) methodology. As a methodology, SWOT serves two functions. First, it acts as an analytical tool for examining organizational internal strengths and weaknesses. Second, it works as a data collection instrument for surveying various external opportunities and threats. While this tool is generally used in the preliminary stages of decision making and as a forerunner to strategic planning, we chose to engage it at the end of our planning evolution to facilitate the next round of the strategic planning cycle.

The biennial situational analysis gathers data from three sources—internal surveys, external surveys, and stakeholder visioning sessions. Internal surveys identify what the institution’s advantages are and what our institution does well (strengths), and what is done badly or could be improved or avoided (weaknesses). External surveys focus on interesting trends or changes in technologies, markets, or government policy (opportunities) and obstacles facing the organization or the actions of our competition (threats). Stakeholder visioning involves surveying to ensure that we are meeting the needs of the stakeholders of the process.

The information from the situational analysis is included in the material for our CAC Summer Retreats to make the leadership team aware of the factors that are exerting influence on the institution. We receive additional feedback by comparing our internal data against the results of various national surveys, namely the ACT Student Opinion Survey and National Survey Student Engagement (NSSE) Survey. These comparisons offer an external validation of internal indications for which we had no real substantiating knowledge. We also consider the surveys as an additional knowledge source. Academic program directors use the data to deliver course work to meet the standards set by employers.

We try to make sure that we are asking the right questions. It’s a matter of trial and error but we try to craft questions that elicit comparison-rich data. The understanding obtained has been helpful in a number of cases, as with promoting the quality of the UW-Stout student center and residence life programs. Within the three years that we’ve been working with the Baldrige Criteria, the amount of comparative and benchmarking data has increased considerably, and we see that as a very positive sign. It gives us an idea of where we stand and how we can advance our methodology and progress.

The strategic planning process at UW-Stout leads the organization into taking positive planning and implementation measures seriously. It involves faculty, staff, students, and stakeholders in meaningful discussion. Everyone has the opportunity...
Dealing with change

Shirley Murphy and Cynthia Gilberts—There’s an adage that higher education should heed to deal with change: Common advice from knowledgeable horse trainers includes the wisdom “When the horse dies, dismount.”

This seems simple enough, yet in higher education the advice is often not taken. Rather, we choose from a wider array of “alternatives,” which don’t always bring out the best possible resolutions in a situation. So we might switch riders, move the dead horse to a new location, appoint a committee to study the horse, arrange site visits, try to ride the dead horse better, increase the standards for riding a dead horse, compare how we are riding now with how we rode ten or twenty years ago, or blame the horse’s parents for the problem, arguing that it must have originated in breeding or upbringing.

At UW-Stout we have embraced real and substantial change. To do that, we had to dismount our dead horse. We began to deliberately reconsider what and how we were accomplishing things, and whether we were genuinely succeeding. We observed our strengths and weaknesses. We used the Baldrige Criteria and the examiners’ feedback report to generate improvement methods. And we stopped blaming our predecessors for problems and started creating innovative solutions to better meet the changing needs of our students and stakeholders.

Stakeholders and needs

Our internal stakeholders are our students, faculty, and staff. Our external stakeholders include alumni, employers, business and industry partners, the Menomonie community, feeder schools, and the UW System Board of Regents. Each unit supplies important input for our university’s operations. We know that to serve our students and stakeholders well, we need to develop increasingly effective ways to assess their needs and determine their satisfaction.

We assess and evaluate student needs and satisfaction throughout their academic career by using a wide variety of on-campus, state, and national assessments. For example, we require new students to take an English and math placement test, an on-line computer skills survey, and a special needs assessment. The results are analyzed to determine correct course placements, to identify special needs for housing and computer resources, and to frame new student programs.

Program directors gather information on student needs through formal advising meetings and informal contact. Each semester, students evaluate courses and have the opportunity to participate with a program advisory committee. Students are also included in a regular review of their academic program. A survey assesses student satisfaction with general education courses, personal development, and improvement in critical thinking, writing, and speaking skills. The Dean of
Student listening posts, continued

Students’ Office also acts as a listening post for students. The student complaint process is based in this office, allowing the Dean of Students to gather information in his/her role as advisor to the student government.

Student input

Students at UW-Stout have ample opportunity to participate in university policy through many avenues. At our university forums, students can ask questions and voice concerns on general topics, such as budget and strategic planning, as well as on various specific issues, such as the laptop computer initiative, student technology fees, and recreation/athletic services. Students also hold memberships on different campus advisory committees. And the Student Retention Committee supports students by working primarily to maintain freshmen and sophomore enrollment levels. As a campus-wide committee, it assesses student needs, researches best practices, and makes recommendations to the Provost.

Student retention

Helping students make the transition from high school to college is important. Research shows that student retention is often connected with a positive relationship to a faculty member or significant staff person on campus. This makes our advising system and learning-centered residence hall programs very important to the retention and well-being of our students. Each student is paired with faculty or practicing academic staff to assist them with academic advisement and career planning. Residence halls send out quarterly newsletters to assist new freshmen. We have a career exploration class that helps undecided students determine the right major for them. We also have a Strategy for Academic Success class to help students establish better study skills and make a more effective transition to university life. We have introductory classes in most of our academic programs to allow students to meet their program director and students in similar programs, which helps them with adjustment and engagement. We also extended our fall orientation program to help students connect more with the university.

Parents’ role in student retention

Retention partly involves parents, too. Early communication with parents is important to student retention, so we created a Parent Information Card. It’s a small card, almost like a credit card, that has a student picture on one side with space for the student’s name, address, and e-mail address. On the flip side are printed twelve important university phone numbers (e.g., the Dean of Students’ Office, Financial Aid Office, etc.) to provide parents with a quick source of information. Parents can also ask questions and obtain answers at an active parent web site that stems from the Dean of Students’ Office.

Alumni

When students graduate, the alumni association continues to invite information from them. Alumni concerns and expectations are illuminated through the University Foundation and the Alumni Association. These associations hold social gatherings for alumni throughout the world. They also preserve databases and
Alumni, continued

interactive web sites for over 50,000 graduates. Graduate information is also acquired and compiled by employees who work on our quarterly newsletter. In addition, the ACT Alumni Outcome Survey is regularly used to assess the satisfaction of our graduates with the education they received. The Alumni Office staff keeps abreast of changing alumni needs through these evaluations and through other university associations.

Employers

We also work to ensure that employers are well served. Our Placement Office develops and maintains excellent relationships with the employers who hire our students. We list each employer on the Placement Office web site and on a vacancy bulletin in the Placement Office. Each fall, employers are invited to attend a three-day career conference to meet and recruit students. Program directors and faculty often fraternize with employers during this time to assess employer needs. Our Placement Office annually surveys employers and attempts to continually rediscover the employment skills needed in the workplace. These processes enable us to ceaselessly sharpen our focus and reshape the approach we take with our programs.

Three outreach centers

UW-Stout also identifies the needs of business and industry partners through three outreach centers—Stout Technology Park, the Stout Technology Transfer Institute, and the Stout Vocational Rehabilitation Institute. Stout Technology Park, established in 1990, houses twenty manufacturing and service industries. Each tenant in the park has an ongoing relationship with UW-Stout, allowing our faculty to serve in a consulting role with certain business organizations. Within the Stout Technology Transfer Institute are several centers, including the Northwest Wisconsin Manufacturing Outreach Center. This award-winning institute works with manufacturers in thirty-three countries and helps them improve their performance models and processes. The Stout Vocational Rehabilitation Institute is a large campus-based operation providing a wide array of educational training and research-oriented resources to employers. It also furnishes direct services to people with workplace disabilities. Strong partnerships with these three units enable UW-Stout to anticipate and address the emerging needs of the extended business community.

Our involvement in the community

UW-Stout also gathers data from the Menomonie community and feeder schools. Because UW-Stout is the largest employer for residents of the city of Menomonie, UW-Stout senior leaders regularly meet with their community leaders and the Chamber of Commerce. University faculty and staff serve on key Menomonie governance groups such as the city council, the school board, and the library board. A large number of our students come from feeder schools in the three surrounding counties. Feedback from these feeder schools is obtained through our admissions staff and program directors. We also work with many other groups that supply information on the needs of these communities and their cooperating institutions.
Input from the Board of Regents

We also listen to the UW System Board of Regents, which is composed of key stakeholders. Senior leaders meet with the board on a monthly basis to discuss current issues. Stated needs are subsequently summarized during CAC sessions and used to plan for and actualize future improvements. Members of the board also turn in regular surveys, gauging their satisfaction with the performance of UW-Stout.

Three sources of important data

Student and stakeholder needs can sometimes be addressed at a departmental level, but often solutions to these needs require that changes be made university-wide. If the solution requires a university-wide response, recommendations are made to senior leadership teams or governance groups, who review relevant data and make or approve recommendations for major campus changes. The relevant data that drives these decisions is culled from three campus— the BPA Office, the Placement Office, and the Enrollment Services Office.

The BPA Office provides the campus with information and tools for budget development, institutional research, and capital planning. It conducts environmental scans by analyzing local, state, regional, and national data, and studies peer and best practice comparisons. Each year the Placement Office develops a report that summarizes state and national studies, salary surveys, and employer feedback. This report enumerates crucial emerging employee skill areas and is used by senior leadership and program directors to pinpoint needed programs, identify existing programs requiring modifications, and establish enrollment areas based on employer projected needs. And in conjunction with this planning, our Enrollment Services Office prepares weekly and monthly reports on present and future student enrollment numbers. These reports enable the campus to plan and maintain stable control over the number of students in each program.

Measuring success

By measuring the satisfaction of our stakeholders, we know that our efforts are succeeding. Our freshmen retention rate has increased from 69% to 78% in a five-year period for both male and female populations. In a Satisfaction with Education survey, over 80% of our alumni agreed that they would attend UW-Stout again. Contributions from alumni continue to increase. Currently, the foundation’s assets are approximately $21 million, up from $2.9 million in 1990. An employer assessment of student preparation for work life suggests that our student preparation compares very favorably with national measures. Graduates in Rhode Island were identified as best-in-class, with 83% of employers indicating satisfaction with student preparation (Measuring Up 2000; The National Center for Public Policy and Higher Education, Wichita, KS, 2000). Remarkably, we surpassed that, with employers consistently rating our students as 99%–100% prepared for work upon graduation. Success while working with the Menomonie community can be seen in our new $8.9 million recreation/athletic complex, which was planned and funded by students, donors, the community, and the Stout Foundation. And in 2001, the UW System Board of Regents Satisfaction Survey rated UW-Stout 3.5 or higher in five major categories (on a scale of one to four, with four being the highest).
An overview of recruitment

To guide our recruitment activities and retention efforts, our Admissions Office collects valuable information regarding our student and stakeholder populations. In addition to national, state, and regional market research surveys, we also make use of focus groups, advisory councils, prospective student evaluations, and feedback from parents and guidance counselors.

Campus-visit feedback

One very effective method of collecting valuable feedback is the use of a campus visit questionnaire. Prospective students and their families who visit the campus are sent an evaluation card enclosed with a letter thanking them for their visit. The card is a quick way to examine all aspects of their visit. We get about an 80% return, and the feedback received certainly keeps us on our toes. This feedback is shared with all staff in department offices across the campus. We use it to tailor adjustments and changes in our on-campus visitation program.

Visiting the campus

We provide a variety of opportunities for people to experience the campus. These include individual family visits, campus preview days, and pre-college programs. We also encourage and welcome visits by specific groups, such as multicultural student groups and upward-bound programs. At a time when competition for quality students is increasing noticeably, we recognize that a university needs a top-notch visitation program. Research has revealed that the “campus visit” is an important factor for students in deciding on a college. Key elements to success include a courteous and knowledgeable frontline receptionist, who is often the first contact for potential students; highly trained admissions staff and campus tour guides; an extraordinary faculty and staff who recognize their key role in the recruitment process; and quality maintenance, custodial, and groundskeeper personnel, who keep the university operating and looking its best.

The STEPS Program

Another unique program, initiated in 1997, is our Summer Technology & Engineering Preview at Stout (STEPS) Program. This technology and engineering course sequence exposes sixth-grade girls who excel in science and math to careers in those fields. Annual follow-ups are conducted with these young women until their senior year in high school. We ultimately hope that these students will decide to attend UW-Stout after their high school graduation.

Additional recruitment practices

We make use of other recruitment efforts as well. For example, we market our university by sending special mailings to high school guidance counselors. We also make use of market research to guide us in designing attractive publications and easy-to-use web sites. Specific annual newspaper ads also act as a special recruitment initiative. For instance, during the weekend before and of Mother’s Day we print our “Mother Knows Best” advertisement in the local papers. Market research suggests that the most influential person in a student’s college choice is often “Mom,” so we target marketing campaigns to reach her. We want to recruit both students and their
families, and we want both to feel comfortable with an attendance decision. And, ultimately, we really want to cultivate solid relationships with both students and their parents. Such policies are small ways to begin such a development.

Pre-application follow-up

Before students apply to UW-Stout, they often contact us through e-mail, a letter, a telephone call, or by visiting an admissions counselor at a college fair. We respond to such initial contact by sending follow-up mailings to those interested. We hope the mailings themselves encourage candidates to apply for admission. One mailing is a handwritten postcard sent to each student following a campus visit, written by the student who provided the campus tour. This little postcard has received rave reviews. One mother called to say that her son had just received the card and was so impressed that he decided to enroll at UW-Stout!

Once a student has applied for admission and has been accepted, a series of five contacts are then made by the Admissions Office. One special follow-up activity is our Phone-A-Thon, which is conducted in late March. Our student tour guides make amiable calls to reaffirm each candidate's university acceptance and to reextend the invitation to attend. When the telephone calls are completed, approximately 70% of the students confirm attendance to the school.

Employee placement ratings

And finally, to entice potential students to attend UW-Stout, we broadcast our placement ratings to anyone willing to listen. National and state market research shows that one of the top five factors influencing college choice is employment placement upon postsecondary graduation. Many universities register their high graduate placement rates, but few break down those overall figures into terms related to discrete fields of study. In two recent surveys conducted by the UW System, UW-Stout continued to rank number one in job placement for graduates, in top salaries obtained, in offering programs well recognized by employers, in providing high-quality instruction, and in creating an atmosphere where student care is evident.

Measuring recruitment success

In measuring our recruitment success, three important indicators come to mind. First, our follow-up efforts with students better enable us to predict our show rate (i.e., the number of accepted applicants who actually enroll at UW-Stout) each year. Second, an improvement in freshmen academic profiles has been noticed, which, in turn, has led to increased retention rates. And third, we have been able to reach our annual enrollment target, a crucial measure of our success.

Conclusion

Today we are a campus that thinks and communicates more effectively than we did previously. Our stakeholders are increasingly satisfied, and our recruitment and retention efforts have paid off, allowing us to prepare more students for a successful life after college. Our “horse” is now a strong living thoroughbred, healthy, ready, and fit for a prosperous future.
**Performance measurement and analysis**

**Information and Analysis**

Ross Olson and Joseph Brown—UW-Stout’s mission, values, and strategies provide the platform for selecting, analyzing, evaluating, and managing data and information to support market, student, and stakeholder needs. These data and information are used to plan strategies and budgets, review and compare process performance, set goals, anticipate changing conditions, and identify root cause issues and opportunities.

Applying its mission, values, and stakeholder needs as a foundation for developing strategic goals and annual plans, UW-Stout has a four-step process to select, align, use, and improve its organizational performance measurement system: (1) select key indicators that align with and provide an assessment of both strategic and annual progress, (2) identify goals based on comparisons and best practices, (3) ensure data integrity, and (4) evaluate the effectiveness of indicators in identifying cause and effect.

**Data ownership**

UW-Stout’s approach to data gathering is to enter data one time, one place. To achieve this, we use the concept of data ownership. Data and information requirements identified as part of the strategic planning process are organized into three primary operational areas: (1) academic student data are gathered from faculty and staff in three colleges and consolidated in the Academic and Student Affairs Division (ASA); (2) business, human resource, safety, and equal opportunity data are gathered from student and support service areas and integrated in the Administrative and Student Life Services (ASLS) area; and (3) information technology (IT) operational information (data and information performance) is collected and integrated by the Chief Information Officer (CIO). Further, the BPA Office collects and integrates operational results to determine short-term performance, and results of studies, surveys, and special reports for use in longer-term planning. The BPA analyzes and correlates these data sources to determine operational areas for improvement and strategic trends.

**Using the information**

UW-Stout uses an integrated relational database to consolidate and retrieve university-wide academic and administrative operational and strategic information. Key operational data are also consolidated in the Factbook, an extensive set of trends and comparative information on students, faculty, and programs, kept on our website. Critical information integrated at the ASA, ASLS, and CIO level is further incorporated for organization-wide short-term decision making at the CAC and actions deployed through the various councils, committees, and governance organizations. Longer-term BPA analysis is integrated during the strategic reviews and CAC Summer Retreats.

**Performance indicators**

Performance measures and indicators (and review frequency) to monitor operational and long-term progress toward goals are selected in the strategic planning process and refined by the SPC, ensuring alignment with student, stakeholder, and employee requirements. UW-Stout’s performance indicators are designed to (1) address the breadth and depth of its operations, including tracking and analyzing...
Performance indicators, continued

strategic goals, annual plans, and day-to-day operations across all stakeholder groups; (2) create a balanced focus on students and all stakeholders; and (3) evaluate university-wide processes performance. These data are also structured to facilitate root cause determination by segmenting within specific groups and categories of financial accounts, students, and stakeholders. For example, UW-Stout can track the total academic life-cycle performance and satisfaction of students and student groups from admission application/transfer-in to graduation and after graduation as alumni. Unlimited segmentation of student data by academic program, gender, membership in a diversity category, etc., provides flexibility to analyze the effect of program or process changes on unique student segments. Similarly, performance and satisfaction data for each stakeholder group (e.g., employer satisfaction with graduates’ specific skills) are segmented and correlated, providing the capacity to analyze relationships between outcomes and processes.

Comparative data

UW-Stout selects comparative data based on the following criteria:

1. Best appropriate non-educational or educational organization comparisons establish national leadership goals and performance levels for strategic indicators.
2. UW System mission-similar universities and other nationally known higher education institutions establish national best higher education practices and stretch goals for process improvement.
3. UW System and UW comprehensive comparisons and best practices establish leadership in our primary market.

Performing benchmark and comparative studies and using the results for improvement is a widespread activity throughout all university units. When the BPA identifies comparative results indicating improvement opportunities exist, the CAC, ASA, and/or ASLS Division ensure the effectiveness of benchmarks by deploying the results through process improvement action plans, meetings, and reports. Councils, committees, and the colleges use comparative and benchmark results to identify improvement areas and implement process refinements. Individual and cross-organization units also perform their own benchmark analysis or participate in peer group studies to identify improvement opportunities or to justify proposals for new methods of operation. Best practice information is also communicated through membership in professional organizations. Figure 5 on the next page illustrates an abbreviated set of benchmark studies performed over the last five years, what unit performed the study, the relationship to strategic goals, and the alignment to the three criteria described above.

Continuously reviewing the system

UW-Stout ensures explicit linkage of performance measurements with changing needs and direction by (1) aligning measures and indicators to strategic plans with semi-annual review, (2) identifying action plans and the responsible organization, (3) identifying resource implications, (4) evaluating benchmark comparisons, and (5) defining and tracking key measures of performance. The BPA Office
Continuously reviewing the system, continued

UW-Stout’s data-driven decision making uses a full range of analytic tools to plan and evaluate university performance.

At the macro level, the Board of Regents, governor, legislature, and key state agencies develop plans, incentives, disincentives, and mandates to be analyzed for strategic summits, task forces, and conferences discussing significant educational...
issues among themselves and with national leaders brought to the state by the UW System. Similarly, macro-environmental analyses of educational and non-educational trends, opportunities, and challenges are performed. UW-Stout senior leaders assign offices and committees/teams to participate in this analysis and to determine potential impacts. The Chancellor consults with one or more of the leadership councils and senates to set boundaries, goals, and analysis objectives for committees, offices, and individuals.

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**Performance analysis, continued**

The CAC Summer Retreats are the primary mechanism for addressing overall organizational health and strategic planning. Committees, councils, senates, and units prepare correlations and projections encompassing all areas of the university to be used in planning. Managers of auxiliary units (housing, dining, intercollegiate athletics, etc.) project five-year business plans addressing projected fee rate changes, revenue, expenditures, reserve levels, capital plans, and debt service. Budget decisions, such as allocating additional funds to a particular service (e.g., fleet vehicles), rely on scenarios addressing solvency projections and comparative pricing/availability data. Projections of student-applicant show rates, enrollment mixes for student support-service demand, and tuition revenue are developed each term. Inferential statistics, such as correlation, factor analysis, and regression, are used to analyze surveys (e.g., student and staff satisfaction, climate, and evaluation of services) and in database-grounded studies such as salary equity and faculty workload.

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**Top-down analysis**

In addition to this top-down analysis, throughout the university, committees, teams, and operational units analyze external and internal information (from advisory groups, partners, students, community, stakeholders, and benchmarks) to evaluate and improve existing programs and processes. The analyses and recommendations from these planning efforts are interlocked with senior leaders, the senates, and/or the CAC as appropriate. Key institutional entities such as the Provost’s Council, SPC, and the senates perform additional analyses, and also interlock with the CAC. Senior leaders, leadership councils (CAC, Provost’s Council, ASLS Council), the senates, and standing committees/teams all formally review key organizational performance evaluation measures.

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**Bottom-up analysis**

Directors of academic and administrative offices responsible for daily operations monitor process measures. Each of the entities (senior leaders, councils, senates, committees, operational offices) is responsible for analyzing performance gaps and identifying improvement opportunities. Depending on the magnitude of the issue, these entities are then responsible for performing root cause determination, gathering more information, or bringing the issue to the awareness of the appropriate senior leader, committee, or council for action. In addition, these entities perform causal analysis on key performance indicators and develop richer, more direct, and more discerning causal measures, if required.
This daily monitoring and analysis process ensures the university actually addresses the critical components of organizational health. For example, as funding rules change at the system level, UW-Stout analyzes the impact and determines the best approach to maximize resources for the organization. Several years ago, it was determined that earning a certain level and type of tuition revenue beyond a mandated revenue target would provide additional base funding flexibility. Understanding the dynamics of excess tuition revenue relies on analyses of student mix (full/part-time, graduate/undergraduate, resident, etc.), course costs, enrollment life cycle forecasts by student type and estimates of nonpayment, fee remission, and other UW System rules. The changed funding rules encouraged adult student access and discouraged increases above enrollment targets for traditional students. As a result, the university modified freshmen and transfer student targets and focused on encouraging customized instruction targeted to adult learners. This commitment to use the data and analyses that underlie the tuition revenue key indicator has resulted in effective revenue growth.

UW-Stout ensures that faculty/staff and educational program processes are aligned to organizational-level performance analysis through (1) broad organization-wide participation, (2) widespread deployment and access to data, and (3) review and feedback loops. Academic and administrative areas assess daily performance through direct operational and behavioral indicators and by monitoring in-process, end-of-process, and student and stakeholder satisfaction indicators. Performance indicators are aggregated weekly, monthly, or quarterly and compared to action plans, annual goals, and trends, and reviewed with the appropriate senior administrator or review committee.

Semi-annually, the SPC reviews progress on strategic goals, related action plans, and results against expected performance levels in its key indicators. This review is an opportunity to anticipate changing governmental, regulatory, or demographic trends and to evaluate the effectiveness of academic and operational results achieved from these action plans. New studies (such as salary equity and faculty workload) provide benchmarking and evaluation criteria for strategic and budget planning and goal setting, including identifying where action plans need to be altered or where stretch actions are required. As this organization-level trend analysis of key indicators identifies gaps compared to goals and benchmarks, the CAC, other senior leaders, or the senates organize teams or committees with defined responsibility and accountability for implementing continuous or breakthrough improvement actions. This process ensures that organizational analyses are aligned with annual and strategic plans, measures, and goals.

UW-Stout employs a user-centric approach to information management. The underlying principle is availability of the right data, to the right constituency, by their preferred method, at the right time.
Accessing data 24/7, continued

UW-Stout’s approach is to put as much of its essential information on the website as possible for information sharing, analysis, and communication and relationship building. Students, faculty, staff, and all stakeholders access data and information twenty-four hours a day, seven days a week, on UW-Stout’s high-speed, fully redundant computer network and through high-speed web access in all administrative buildings, classrooms, and residence hall rooms. Constituents communicate by e-mail, and the network provides rapid access to all essential data residing in residential databases. Tools and training are provided so students can register, access personal information (e.g., financial aid data, account information, and grades), and maintain their resumes on the website. Faculty members readily access data such as student rosters, individual student degree progress, course availability, and research. Key performance indicators such as graduation and retention rates are also current and accessible for timely analysis. Performance reports can be easily customized on any database dimension using a user-friendly, graphical interface application. When new applications are introduced, or ongoing needs assessments identify gaps, training is provided to the appropriate user community. As evidence of their commitment to information access and use, UW-Stout is the first university in the UW System to make laptops mandatory for all incoming freshmen in the 2002/2003 academic year.

Ensuring data availability, reliability, and accuracy

To ensure timely delivery of high-priority data, UW-Stout uses analytic tools such as traffic shaping to determine the type of data being accessed. This analysis enables the university to establish access priority, giving the highest priority to important decision-making information. Data scrubbing is another tool used to ensure data reliability and accuracy, and UW-Stout uses network-level internet caching to improve individual user access performance. UW-Stout is also the leader in UW System data warehousing. Information sharing of spreadsheets, word processing, etc., is ubiquitous.

The CIO and TIS department provide alignment

UW-Stout’s CIO and Technology and Information Systems (TIS) department are responsible for evaluating, maintaining, and improving the university’s information infrastructure.

To keep data and information availability mechanisms current with longer-term direction, UW-Stout aligns its IT functional plan with its strategic plan. The IT strategic planning process is a collaborative forum for user and user-group feedback, consistent with UW-Stout’s overall planning approach. Annually, via the Learning and Information Technologies (LIT) Council (reporting to the CIO), constituents review IT plans, provide feedback and identify additional data information requirements, and set their priorities. The CIO is a member of the CAC and the SPC, and participates in the CAC Summer Retreats. The CIO is also a member of the UW System IT organization, where technology and education industry trends are evaluated, System-wide initiatives are planned, and campus-specific needs and best practices are shared. CIO involvement in these processes ensures that needs for
The CIO and TIS department provide alignment, continued

Hardware and software quality

changing information sources, new and more efficient and effective tools, and user community needs are evaluated, supported, and aligned to strategic goals.

UW-Stout uses the following criteria to ensure hardware and software are reliable and easy to use: (1) form and function must meet user requirements, (2) solutions are standardized where appropriate, (3) graphical user interfaces (GUIs) are used when available, (4) software is Windows®- and web-based, (5) constituents are trained, and (6) potential problems are transparent to the user.

Applying the IT strategic planning process and using operational feedback loops, users are involved with TIS in hardware and software selection. Hardware reliability is monitored, and TIS tracks incidents and makes improvements where required. UW-Stout recently implemented web-based incident reporting and tracking. Standardized Windows® and MS Office® software ensure consistent quality and the availability of widespread support to the technical and user communities. Publishing standards are deployed to ensure the quality and consistency of web-based publications. GUIs make access to complex performance data and analysis easy for users. Our Procedures Guide is a comprehensive set of procedures and standards to ensure consistency of use and operation. UW-Stout trains faculty, students, and staff as new applications are brought on-line, and on a continual basis as refresher courses are required. The UW-Stout network makes potential hardware reliability problems transparent to users through redundant, switchable hardware and network connections with backup power and mirrored, hot-swappable RAID storage. In addition, computer labs have service-level agreements with TIS. Helpdesk calls are prioritized and handled based on severity.

Conclusion

As noted above, the IT strategic planning process, LIT, UW System IT interlocks, and operational feedback loops from users are the primary methods to implement new System-wide initiatives, best practices, and strategic goals. These practices help us to keep current with educational service needs and directions, and satisfy our stakeholders.

Faculty and Staff Focus

Donna Weber and Wayne Argo—Without talented people to put your plans into effective action, you clearly aren’t going very far. The UW-Stout workforce enables the organization to achieve high performance. Our education, training, and development support UW-Stout’s overall objectives, and our climate and work environment impact staff well-being and satisfaction. In short, we have been able to make effective action by training gifted people who can make plans work and work powerfully.

Structure

The university is comprised of a traditional organizational structure (Figure 6 on the next page). Governance at UW-Stout is shared and involves the Faculty
Structure, continued

Collaboratively, UW-Stout uses a set of established committees and other cross-functional structures to achieve effective communication, cooperation, and knowledge sharing.

The strong two-way collaboration between administration and faculty/staff begins with the CAC. This body has broad representation from all areas and employee classifications.

Faculty and staff are also supported by senates and university-wide committees. All university units and senates attend regular meetings to communicate priorities and to brainstorm and develop policy designs.

To help establish and sustain communication with classified and support staff, we hold monthly meetings with union and management representatives. In these meetings, issues are discussed and resolutions are formulated to rectify and resolve small problems before they intensify. Often, when a new committee is created, the Chancellor will ask the union to provide a representative to be a part of the committee to ensure that the union employees are represented for that particular issue.

Sharing of best practices

UW-Stout has an open democratic structure that is horizontally flat in terms of power relations. Best practices are openly shared across campus and within the UW System. Colloquiums and web camps are offered to faculty and staff, and educa-

Staff support and communication

Senate, the Senate of Academic Staff, and the Stout Student Association. The Faculty Senate consists of representatives from all academic departments and facilitates the flow of information to senior management and to all academic department members. The Senate of Academic Staff includes representation from all areas reflecting academic staff. The Stout Student Association has membership from all student groups and represents all student bodies, including those living off campus. Representation from all three of these groups furthers the campus-wide multidirectional communication that is so vital to our organization.

Figure 6. Organizational Structure.

[Diagram of organizational structure]

Chancellor

Provost/Vice Chancellor for Academic and Student Affairs

Vice Chancellor for Administrative and Student Life Services

Assistant to the Chancellor for Affirmative Action/Equal Opportunity

Director of University Relations

Assistant Chancellor for Development

Chief Information Officer

UW-Stout has an open democratic structure that is horizontally flat in terms of power relations. Best practices are openly shared across campus and within the UW System. Colloquiums and web camps are offered to faculty and staff, and educa-

[Figure 6. Organizational Structure]
CASE STUDY

University of Wisconsin-Stout: 2001 Malcolm Baldrige National Quality Award

Sharing of best practices, continued

tional support units also provide opportunities for sharing best practices. The UW-Stout group of web masters serves as a campus resource, and the Business Managers Council (those who handle financial transactions for their units) meets regularly to share information, techniques, and tips. Best practices are also shared on campus in certificate programs for classified staff. In such ways, the university disseminates information and shares communication.

Employee development and recognition

We strongly encourage employee development at UW-Stout. This development can often be tied directly to Stout’s strategic plan. For example, the campus-wide laptop initiative necessitated a need for technology training. To facilitate this training, a strategic program was created that led to the recruitment of new staff to educate faculty in making effective use of such specific technical innovations. (Incidentally, UW-Stout supports training and professional development with financial assistance such as tuition reimbursement and grants.) Monthly Administrative Leadership Team meetings are also held to identify best practices within industries, which are then translated into formulations relevant to educational systems, to adapt industrial best practices to our needs.

Recognition for faculty and staff excellence is provided through merit awards, promotion adjustments, and educational preparation changes. All unclassified persons employed at UW-Stout are assigned educational preparation code numbers according to the level (degree and/or credits) of education possessed. Compensation systems address performance, longevity, and salary issues. Other forms of recognition include letters of congratulations, articles in campus newsletters, and funded chairs and professorships. Other faculty and staff opportunities include paid sabbaticals for instructional faculty, conference attendance, professorships, workshops, and many other activities. Professionals and high-performance staff get to that level partially through relevant training and support. We want to retain as many of these high-performance employees as possible by recognizing and acknowledging their accomplishments.

Employee evaluation

All employees and position descriptions at UW-Stout are evaluated periodically. Probationary faculty, academic staff, classified staff, and senior management undergo a formal evaluation process on an annual basis. Tenured faculty undergo a continuous review process that culminates in a formal review every five years. Included with these processes is an affirmative action and equal opportunity employment assessment for all supervisors. In addition, UW-Stout makes use of a yearly campus governance evaluation for senior administrators.

Training identification and feedback

UW-Stout’s approach to education training and development is three tiered and focuses distinctly on (1) the campus itself, (2) its various departments and units, and (3) its specific staff and faculty. This approach has yielded significant results and has led to a highly trained, efficient, and flexible workforce.
### Campus-level training and development

At the campus level, developmental needs and necessary educational training are identified annually by the CAC. Priorities are then set and broadcast through the campus via listening sessions. In the process, feedback is received from the campus community and particular training needs are articulated. Resources are subsequently aligned with priorities. Appropriate training and curriculum are then developed. Next, training is delivered and, finally, the effectiveness of the training is assessed and the results are funneled back to the CAC.

### Unit-level training and development

Educational and training needs at the unit level are usually defined through various retreats and planning sessions. Through these retreats, input is obtained from all divisions and used to estimate whether the university community’s efforts parallel and support the university’s vision. During these sessions, needs are again identified and discussions are used to explore the best delivery methods. Training is then presented, and assessment is conducted.

### Individual-level training and development

At the individual level, educational training and development is related to Stout’s performance evaluation system. Position descriptions are reviewed to help align required employee duties and responsibilities with university, division, department, and individual priorities and goals. All essential employee skills are also identified during those periods.

### Using different means to provide training

Training at UW-Stout encompasses every available means. CD-based programs can be checked out and used, and web-based programs, accessible at any time, are offered at all computer terminals. Our women’s mentoring program provides useful information requested by program participants. In addition to information sharing among participant and community members, the web masters group also offers important assistance by providing courses that expand job skills for individuals working in various departments.

### Training effectiveness

The primary short-term methods that UW-Stout uses to gather feedback on training effectiveness and satisfaction are surveys and performance evaluations. For longer term measurements, a number of instruments including focus groups and performance indicators are put to work. Key organizational needs are defined in UW-Stout’s strategic planning process and woven into strategic goals. The areas attended are then targeted for education training and development. These needs obviously change as goals, strategies, benchmarks, and responsible parties progress.

### Measurements of staff well-being

The key factors affecting staff well-being are included in Figure 7 (on the next page). Data pertaining to staff well-being is reviewed annually, at which time trends are demarcated and priorities fixed.

Campus morale at UW-Stout is appraised annually. A detailed survey is distributed once every three years, while a shortened one is circulated during the...
Measurements of staff well-being, continued

other two years. While the difference in the surveys is primarily in length, all employees at least have the opportunity to respond every year should they so choose. Although time-consuming, the analyses of these surveys provide senior management with valuable information that has led to definite positive changes in university policy and action. As a result of such surveys, for instance, faculty have been given additional university support with academic workloads. Also as a consequence, better methods of multidirectional communication have been founded and utilized. We are also pleased to observe a reduction in worker compensation claims, which serves as another well-being indicator.

Conclusion

UW-Stout has come a long way in listening to and working with faculty. This is a continuous process, and one that requires active, ongoing, and acute attention. The work is never ending but is crucial for the establishment of a vital and dynamic university environment.

Process Management

Julie Furst-Bowe and Robert Johnson—In terms of new developments, we strive to keep our programs current and related quite specifically to the needs of society. Despite our relatively small program numbers, we don’t hesitate to initiate new degrees when they align with our mission and are highly valued by our employer base. During the past five years, new bachelor’s degree programs have been initiated in telecommunications, graphic communications management, industrial management, and applied science. A new master’s degree program was initiated in human resource development, and a new education program was initiated in school psychology—all partially the result of student, social, and employer demand.

The process for program design is consistent throughout each of the UW System schools (Figure 8 on the next page). Each new program begins with a comprehensive needs assessment that estimates the demand level. If a strong need is identified, faculty then work with advisory committees to develop implementation plans for the new program. Each academic program has an advisory committee consisting of a program director, faculty, students, and employers. The implementation plan includes a complete curriculum for the new program as well as any plans for additional staff, new facilities, or other resources needed to launch the program successfully.
Although the process for program design is consistent throughout the UW System, we take a unique approach to program management. Although UW-Stout program directors are faculty members with partial administrative assignments to oversee programs, they don’t report to department chairs as typical faculty members do. In fact, we don’t view directors as tied to a single department at all. Rather, after receiving input from their advisory committees, directors work as independently and collaboratively as the need entails to best develop their programs. They are champions for the individual academic programs and are given the freedom to contact departments across campus if that contact leads to proper curriculum construction. For example, the program director for manufacturing engineering may need the math department to develop a specific course series, and would work with them to construct the needed course work.

In addition to their curriculum work, program directors are also immersed in many other activities both on and off campus. They are heavily involved in student recruitment, student advisement, and networking with employers and their professional associations.

The delivery of programs has changed quite dramatically during the most current years. Recently, we added many statewide, and actually worldwide, programs, to our campus-based curriculum. We are also designing and offering new programs through partnerships with other institutions. One such program is our “2 + 2 + 2” program. In this program, students complete two years of high school (including apprenticeships), then two years at a state technical college, and then two final years at UW-Stout. At the end of this sequence they earn a bachelor of science degree.

We also offer degree completion programs for working adults who have finished an associate’s degree or equivalent but who need further schooling for professional advancement. And many of our graduate programs are available either on-line or in weekend formats to meet the needs of working professionals.
Key delivery indicators

Our program directors monitor several key indicators, including enrollment numbers in programs, course evaluations (administered each semester), and student satisfaction levels, to determine program effectiveness. Of course, we look at the level of student learning as well, which is very important. We also closely monitor retention and graduation rates for students in every program. And finally, we review job placement rates for each program and the level of employer satisfaction with graduates.

Measuring student learning

For ten years, we have required each of our programs to conduct assessments. Each program has a definite set of learning outcomes. Program directors, working jointly with their advisory committees, develop assessments that determine the extent to which students have mastered learning objectives. The assessment methods vary among programs and may include portfolios, standardized examinations, evaluations from student internships, research papers, and final capstone projects. Our program directors are required to report annually on the assessment results. They are furthermore required to demonstrate how the understanding extracted from the data is being used to power improvements within programs.

The program review process

The review for all of our academic programs is very systematic. A campus-wide committee conducts a patterned review of all programs through a regular cycle. The first step involves a self-study written by the program directors. In this self-study, the directors address specific criteria put forward by the Planning and Review Committee (PRC) and reference comparative data collected by the program directors. Next, all of the stakeholders for that program are surveyed, providing excellent feedback for grasping a program’s effectiveness. With that input, the PRC then drafts a report that is widely distributed across the campus to all stakeholders. The report contains strengths of the program, opportunities for improvement, and recommendations.

Support services

UW-Stout support services play an important role in the total experience students receive from the school and community. Student life services include a wide variety of support services such as housing, food service, a student center, police, parking, and student health, among others. Educational support services at UW-Stout are designed and delivered to enhance academic programs and to facilitate active learning, student success, and student and stakeholder satisfaction. These services include placement, co-op, and internship services; multicultural services; the Dean of Students’ Office; an advising center; disability services; a counseling center; and a library learning center. Our enrollment services include an admissions office, financial aid services, and a registration and records office. The BPA Office performs institutional research, supports institutional planning, and administers the capital and operating budget for the university. And our university services operation deals with purchasing, safety and risk management, mail services, and university store components.
Strategies for continuous improvement

All support services at UW-Stout follow procedures for continuous improvement. The procedures themselves are used to identify needs, deliver services, measure success, and improve and adjust system components. Service and support needs are determined through strategy development, planning processes, and student and stakeholder feedback. We utilize a wide variety of strategies to improve support and meet stakeholder needs, including forums, committees, councils, surveys, reviews, and data collection and analysis.

Community forums

Community forums are used frequently to solicit input and feedback from the people living and working within the campus area. Forums are used extensively during UW-Stout’s inclusive and participatory budget process. Because there are numerous budget forums, virtually every employee on campus has several opportunities to add personal input. Recent success in changing our campus parking system was partially due to holding eighteen parking forums that petitioned information from virtually everybody on the entire campus. Last spring, broadly based participation in open forums that included not only students, faculty, and staff but residents from surrounding neighborhoods and cities as well, allowed us to create a new comprehensive master plan for our north campus residential community that met both campus and community needs and concerns.

Committees, councils, and teams

We utilize many councils, committees, and teams at UW-Stout. Cross-functional teams are formally established committees that are designated specific tasks and duties. One example is the Educational Activities Committee, a shared governance group with fifteen members, including instructional and non-instructional staff administrators and students. This committee is responsible for reviewing and making recommendations to the Faculty Senate on issues such as admission standards, pre-registration rules, opening week activities, the academic calendar, class size, attendance guidelines, workloads, grading policies, and student concerns.

Our leadership councils consist of professional, administrative, and student life staff. These councils give pragmatic direction for the achievement of our mission, vision, and goals for educational support areas.

Many support services also utilize advisory committees to provide input and feedback and to evaluate programs and services. For example, the library, student center, and dining services all have advisory committees. We also have a multicultural student advisory committee. Our academic programs all draw upon advisory committees as well.

Most of these committees, groups, and teams are recommending groups, data-gathering groups, and solution-oriented groups with a specific charge. Their reports and recommendations are sent to the CAC where major decisions are reviewed before they are implemented.

Surveys

UW-Stout makes extensive use of surveys in the continuous improvement processes for educational support services. Student satisfaction with educational
Surveys, continued

support services is measured and compared to that of other institutions annually through the ACT Student Opinion Survey. We conduct surveys by telephone as well. We even use surveys to determine the type of cereal we serve in the dining commons and the background music we play in our student center. Surveying even “the little things” ends up benefitting the students we serve. We take these assessments seriously and use the information gained to better the community. If you aren’t using the knowledge you’ve worked so hard to distill, then the understanding is wasted.

Reviews

External and internal reviews are an integral part of our continuous improvement process. External food service consultants have been hired to improve university dining services. As a result of consultant recommendations, we’ve made organizational changes, increased marketing efforts, modified menus and services, and added new products to better meet student needs.

A review of student life services by a consultant team made up of internal and external members resulted in a major reorganization and various improvements within the student life services unit. Internal reviews of educational support services are conducted by the Educational Support Unit Review Committee (ESURC), which reviews all non-instructional subsystems on a seven-year cycle (reviews are conducted sooner when need entails). The committee estimates whether units are meeting institutional needs and priorities. It also assesses quality and performance standards and encourages further planning for improved efficiency and effectiveness.

Results

Our continuous improvement process really works. Over 97% of our graduates are placed in career positions, while 90% find employment relating to their majors. In 2000, UW-Stout had 571 employers recruiting on campus and over 344 employers at our campus career conference; both of these numbers are significantly higher than those of our peer groups. Survey results show that the student support rates for library services, career services, job placement, financial aid, and security are all higher than the national average. National benchmarking survey results indicate that students are more satisfied with the Stout student center and dining service than both national and peer comparisons. UW-Stout budget processes also result in minimal end-of-the-year variances. And UW-Stout has slashed its energy expenditures in terms of BTUs per square foot by 51% since 1973 and remains one of the lowest of the major competitors in energy use. University purchases from minority vendors have actually increased from just over $300,000 in 1996/97 to $580,000 in 2000/01—one measure of success with regard to our diversity efforts. In support of our endeavor to become a laptop campus, live student data connections in our residence halls have increased from forty-five in 1996/97 to over 1800 in 2000/01. And we’re pleased to announce that in the fall of 2001 we had over 2,300 live connections in residence halls housing 2,700 students. Clearly, our continuous improvement process is assisting in providing quality support services to stakeholders at UW-Stout.
Conclusion

Our continuous improvement process for educational design, delivery, and support services is inclusive and participatory. It facilitates open communication and the dissemination of information, expands opportunities for listening to community voices, deepens the university's commitment for ceaseless improvement, nurtures our fullest potential, and intensifies our passion for future improvements. The process works. It aids every goal we have and substantially fosters the vision we initially created. And it provides our most important stakeholders—our students—with a quality education and university experience that brings out the best in who they are.

Journey to Excellence and Key Results

Robert Sedlak—If you look at the quest for university excellence as a story of sorts, then you have to know who the players are and what the setting is. Of course, this story has to revolve around the reality and perceptions of the involved players, the courses undertaken, and the completed transformations. And certainly, you have to know how the story ends as well.

The “players” in our story are the state government, the Board of Regents, the University of Wisconsin System administration, the senior leadership of the various institutions, and the governance bodies (primarily the Faculty Senates and the students). The setting is a university campus in Menomonie, Wisconsin—a town of 14,000 residents located about seventy miles from Minneapolis/St. Paul. It is 1990, and our Board of Regents just adopted the Baldridge Criteria as a model of excellence and asked all involved constituencies to work toward improvement within its boundaries.

Each campus in the UW System set in motion its own plan for criteria implementation. At UW-Stout, we began by hiring consultants, engaging faculty and staff in extensive training exercises, and developing a rich understanding of quality improvement tools and the language of quality systems. Cross-functional teams were set up across twenty areas, and a quality council was formed to scrutinize the progress made by various teams.

If truth be told, these activities were originally viewed as interesting academic exercises only. Initially, campus buy-in was lacking; it wasn’t easy to get all parties to agree and act upon a unified conception of a quality community. We had always been a data-driven organization, and the feature of Total Quality Management (TQM) was respected. But what we lacked was the integration of these elements into a university-wide planning and implementation system.

Between 1990 and 1996

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Campus-wide concern

This lack of integration did not really manifest as a general campus-wide concern until 1995. During that year, because of continuous reduction in state support, the university was required to permanently eliminate $1.5 million from its base budget—about 5% of its total operating allowances. At the same time, an instructional technology revolution had solidified, and funding was needed to overhaul various components of the campus computing environment. These two
Campus-wide concern, continued

contrasting realities finally brought various system shortcomings to the awareness of the general campus citizenship.

Tensions increase

To meet the challenges, we collapsed the number of university divisions from three to two and the number of colleges from four to three. However, these consolidations, while creating efficiencies, also created tensions as different reporting structures emerged. The Board of Regents was also monitoring various accountability indicators: the campus was expected to increase efficiencies—“to do more with less”—while continuing to serve the needs of the state. Tensions intensified, while faculty morale languished. General trust levels decreased as well. And campus governments were also calling for budgeting decisions to make the campus more openly participatory and data based.

Starting the turnaround

The health of the entire institution was at risk. We realized we had a few problems that required immediate attention. Thankfully, the foundation laid by our earlier work in TQM allowed us to reinvent the manner in which we functioned and to regain trust levels throughout the organization. We started by listening to the faculty’s greatest concerns and proposed recommendations. We addressed many of those concerns by taking a number of the solutions proposed and putting them directly into practice. Subsequently, the senior administration made a serious time commitment toward making those processes work.

Making changes

We also expanded the Chancellor’s Advisory Council; all internal constituency groups were included, as were all the deans of the colleges, to deliberately channel more voices into our decision-making groups. We also constructed our Budget, Planning, & Analysis unit to provide objective and unbiased data for planning and decision-making reports, centralizing much of the data analysis function and further integrating data into university life planning. We opened our annual budgetary planning process more to community participation and assimilated that new configuration into our strategic process, strengthening community trust and making budget decisions and the motivations fueling them increasingly understandable and acceptable to the community at large. Moreover, the process improved communication. Last, senior leaders began work with monthly team-building exercises to establish greater trust among the team members themselves.

Quality improvement programs

We also refined our quality improvement process. We had initially eliminated outdated programs, planned for innovative new ones, and added improvements to our current offerings. To this we now architected an educational support unit modeled after our academic program review. The unit membership inspected the non-instructional sections of the campus—everything from custodial services to admissions. The unit reports focused on improvements as well and were used to broaden campus awareness of the role that non-academic units play in advancing university purposes.
Finally, we began to make actual improvements in our general university practices. We created a fixed schedule to regularly examine the various systems in place. Improvement opportunities were identified through strategic annual planning, the Baldridge assessment, and regularly scheduled improvement reviews.

As a result, we were able to build greater trust. People began to feel increasingly empowered, and students started unifying themselves with the effort to better the university itself, even funding an initiative to better the campus community by agreeing to an annual 5% tuition supplement. Faculty and staff started reporting higher levels of satisfaction with the planning and budgeting process. In fact, the Faculty Senate felt such confidence in the process that they abolished their budget and finance committee. Emergent priorities resulted in directing greater budget allocations toward instruction and in lowering student:faculty ratio from 20:1 to 19:1. New freshmen retention rates increased, leaping from 69% to 78% within a five-year period. Over an eight-year span, student graduate employers expressed increasing approval for student efficacy with regard to communication, technical skill, problem solving, and leadership. Furthermore, in 2000, at least 90% of our freshmen registered their overall UW-Stout educational experience as “good” or “excellent,” exceeding the Masters Comparative Group and the national average.

These results, which stemmed from rethinking and remodeling our previous activities and systemic conditions, could not have materialized without a sense of community trust and empowerment. Today we have a staff much more satisfied with our processes, students more fully engaged with their education, and employers giving higher rankings to the UW-Stout graduates they’ve hired.

In conclusion, one might ask, “How exactly does this story end?” The answer is obvious; it doesn’t end. It just continues. Perhaps you could say that we’re just beginning a sequel. We want to continue to design and deploy innovative student programs, even in the face of declining state support. We will continue to launch new programs. Moreover, faculty have been rethinking and revising their courses over the past three years. Three pilot programs have also taught us other lessons about “what works” and “what doesn’t,” and we aim to incorporate that learning into new projects.

We also recognize that we aren’t flawless. We didn’t receive a perfect score on our Baldrige application, so we know we can get better. And we know that our students and stakeholders expect us to improve without stopping. But that’s what education is about—it’s about getting better all the time, learning, showing growth, achieving, emulating, and then surpassing set standards. Education is about taking students from their present level to a greater and higher one, where they always act from their personal best and from a center of individual creative excellence. As a Baldrige recipient, we also feel that it is our responsibility to help other institutions of higher education. We want to encourage them to make full sense of the Baldrige Criteria and utilize them to set and reach their own highest standards and capacities.
Then they'd be better able to understand that excellence should be judged not solely by external reputation, but by the depth and quality of performance, care, and service.

**Author information**

Charles Sorensen is Chancellor of the University of Wisconsin-Stout. Under his leadership, UW-Stout has witnessed substantial change. Eight new academic programs have been added, admissions standards have been increased, capital projects have increased substantially, and there has been a sharp focus on distance education. In 2002, UW-Stout adopted a digital environment, requiring all students to lease a laptop computer as an entrance requirement. A strong advocate of planning, he promotes the use of quality tools in an educational environment, and is a member of the Board of Trustees for the National Council for History Education.

Diane Moen is the Vice Chancellor of Administrative and Student Life Services. Ms. Moen began her career at UW-Stout in 1978. She is active in professional organizations and serves as an Executive Council Member for the National Consortium for Continuous Improvement in Higher Education.

Claudia Smith is a Professor of Art History at UW-Stout. Dr. Smith has been a leader in campus governance as a member of the Faculty Senate and as a senate officer. She is currently vice chair of the Faculty Senate and will serve as chair in 2003/04.

Shirley Murphy is the Associate Dean of Students. Dr. Murphy has been in higher education for sixteen years. In her current position, she has budget and personnel responsibilities and chairs UW-Stout's Student Retention Committee.

Cynthia Gilberts is the Executive Director of Enrollment Services and Director of Admissions at UW-Stout. Dr. Gilberts began her career at UW-Stout in 1977 and was promoted to her current position in 2000.

Ross Olson joined UW-Stout in 2001 as Director of the BPA Office. Mr. Olson has twelve years of budgeting and analysis experience in both the private and public sectors. Prior to joining UW-Stout, he was employed by Northwest Airlines for nine years.

Joseph Brown has been with UW-Stout for thirty-two years. He is active with the National Association of College and University Telecom Administrators and with the University of Wisconsin Council of Chief Information Officers. Mr. Brown has served as UW-Stout's Chief Information Officer for the past five years.

Donna Weber, Assistant to the Chancellor for Affirmative Action, began her career at UW-Stout in 1984, teaching in the Psychology Department, and assumed her current position in 1995. She is president of a regional partnership of three counties and a state board member of the Wisconsin Women in Higher Education Leadership.

Wayne Argo has served as the Director of Human Resources at UW-Stout for seventeen years and has been in the human resources profession for over twenty-five years. He has served as president of the Wisconsin Chapter of the College and University Professional Association-Human Resources, and is chair of the University of Wisconsin Insurance Association.
Julie Furst-Bowe has been in higher education for more than fifteen years. She has been at UW-Stout since 1990, and served as graduate program director and department chair prior to assuming her current position as Associate Vice Chancellor. She has been extensively involved with Baldrige efforts at UW-Stout and serves as an examiner for the Baldrige Awards Program and for NCA’s Academic Quality Improvement Project.

Robert Johnson is Assistant Vice Chancellor for Student Life Services. Mr. Johnson has over thirty years of experience in education. At UW-Stout, he served as Residence Hall Director, Student Center Director, and Executive Director of Student Life Services prior to assuming his current position. His areas of responsibility include University Dining Services, Housing and Residence Life, Student Center, Student Health Services, University Recreation, and Police and Parking Services.

Robert Sedlak has been on the faculties of Northern Illinois University and Southern Illinois University prior to coming to UW-Stout in 1983. He has held a variety of administrative roles, including Assistant Dean for Research, Associate Dean for Graduate Studies, and Associate Vice Chancellor. He has been Provost since 1998.

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