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BUSINESS EXCELLENCE AND CARE FOR THE ENVIRONMENT

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Perspective

The *Journal of Innovative Management* is a peer-reviewed quarterly journal for experienced practitioners of quality management and continuous improvement systems. The purpose is to facilitate increased learning and innovation by providing people with cross-discipline information about organization transformation through participative planning, problem solving, and innovation. It is written to help leaders, managers, and workers to:

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- ◇ Achieve performance excellence throughout the organization.

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Business Excellence and Care for the Environment

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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. –DuPont¹

About Wessex Water, Ltd.

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

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.

What shall we do? continued

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

Stockholders and stakeholders, continued

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.

Business excellence

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.

Sustainability

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.

Project Sigma

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.

Conclusion

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

Conclusion, continued

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*,³ 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.

Author information

Daniel Green, Ph.D., is Sustainability Coordinator for Wessex Water Services, Ltd., where he works in a policy and research capacity. He covers a wide range of issues, including sustainability reporting, environmental full-cost accounting, carbon management, biodiversity, and stakeholder dialogue.

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About this article

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