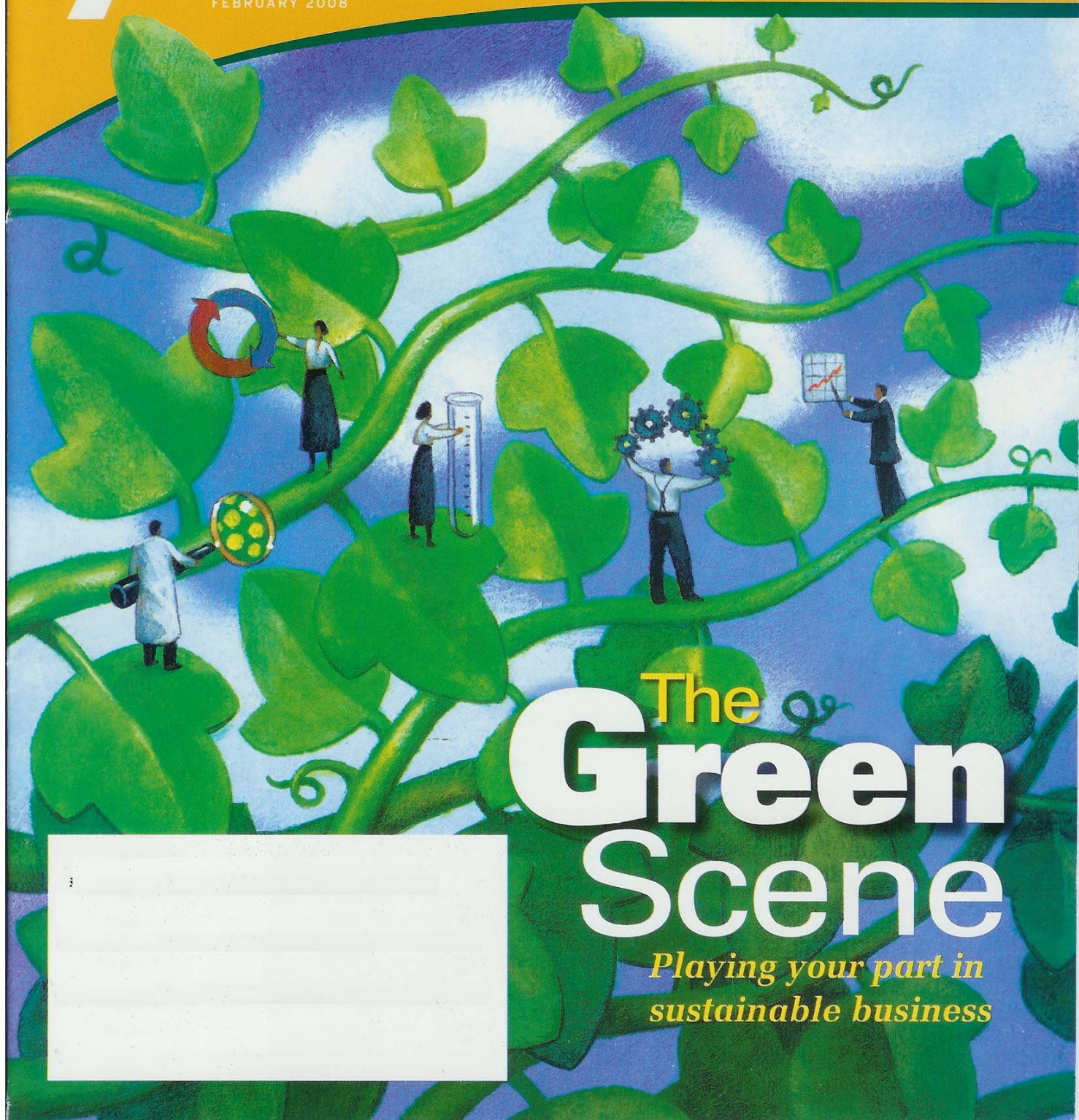


APICS

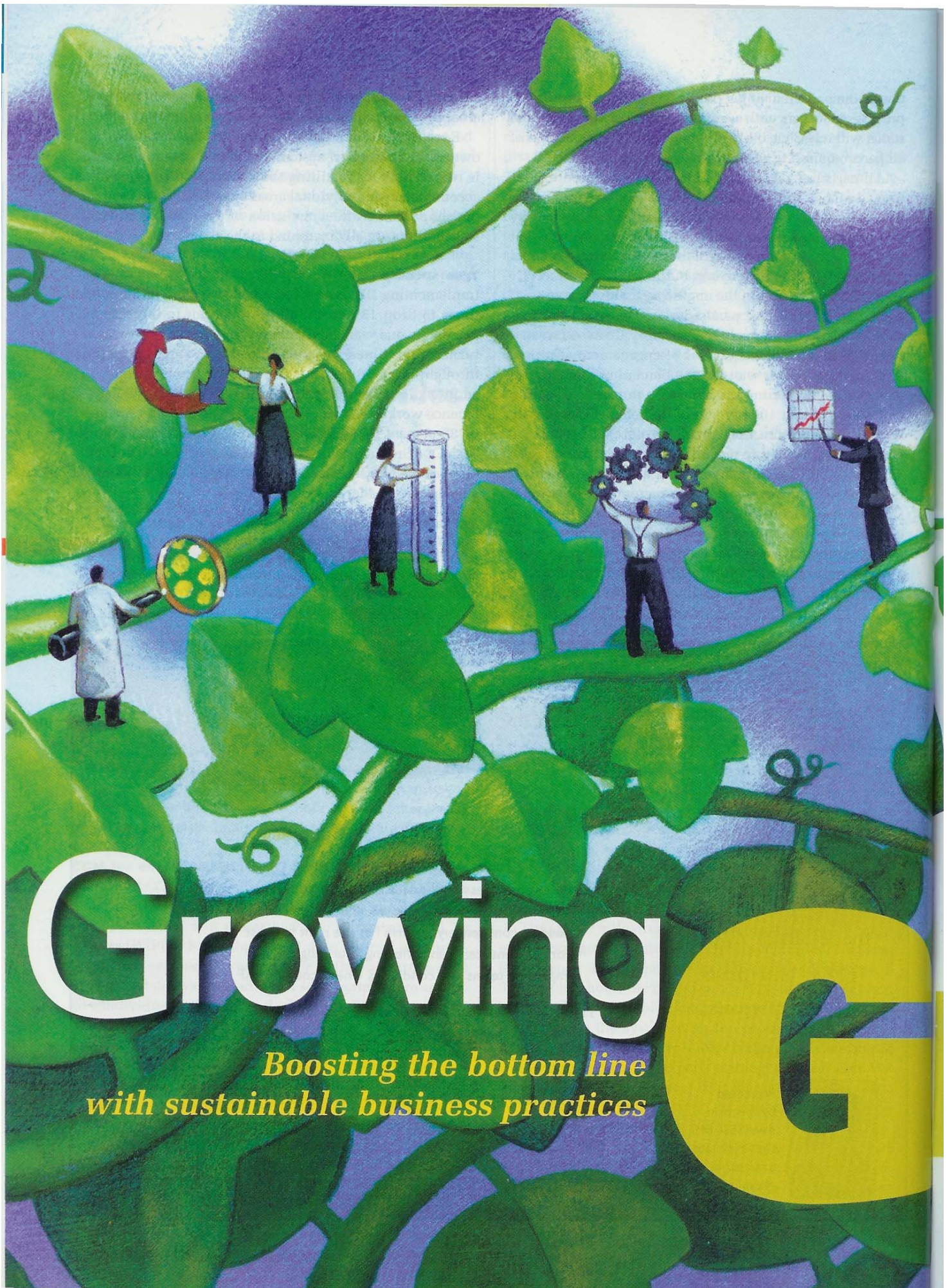
FEBRUARY 2008

- 24 Escalating port volume
- 28 TOC for first-rate MRO
- 36 Essential supply chain trends



The Green Scene

Playing your part in sustainable business



Growing

*Boosting the bottom line
with sustainable business practices*

G

Going green is among today's trendiest topics and most far-reaching fads. The sustainability craze has everyone from politicians to rock stars talking about hybrids, solar power, and energy-efficient appliances. Bottled water is becoming passé, and getting people to recycle no longer requires umpteen public service announcements. The environment has been a media magnet of late, and the excitement doesn't seem to be fading.

The good news for Mother Earth is that a large percentage of the population is taking notice, jumping on the green bandwagon, and bringing about positive change. Big business also is playing a role, and executives are fervently promoting their companies' sustainability initiatives.

While some company leaders aren't as interested in going green as they are in merely getting in on the sustainability trend, John Davies, vice president of the Sustainability Forum at AMR Research, says many are taking a truly progressive approach. "There is a certain amount of hype associated with all things green right now," he says. "But I think most people doing green things in manufacturing don't care about hype ... If all the press stopped tomorrow, people would still be focused on sustainability."

Davies believes green has gained momentum due to the convergence of three key events: new regulations, thinning resources, and business leaders going after previously unseen or disregarded waste. Once you take a view from an environmental perspective, you start seeing a lot of money sitting on the table, he says, offering the example of Wal-Mart President and CEO H. Lee Scott Jr. and his colleagues, who recently began studying existing technologies with a greener eye.

"They evaluated something as simple as an auxiliary power unit on a truck, which is used for air conditioning or heating, depending on the season. Before, Wal-Mart drivers used to run the engine. Today, they have a little side engine that uses tremendously less fuel [and is] much less polluting," Davies says. "Now, all their trucks

are saving 15 percent of the fuel. You can translate that directly to emissions."

Davies says Wal-Mart leaders next started looking at products and asking questions such as, "Do we really need to have toothpaste triple packaged?"

A greener future

As resources become increasingly constrained, corporate decision makers will have to find new means for survival. Interestingly, some visionaries have recognized this for decades. Kristen Kinley, Ford sustainability communications manager, reminds us that Henry Ford was a pioneer in this realm, experimenting with soy-based materials and ethanol during the days of the Model T.

"Sustainability is not new at Ford," Kinley says. "The challenge is how we meet [customer] needs with various products but, at the same time, be good corporate stewards to the environment."

Ford designers have begun incorporating more green fabrics and materials into the next generation of their vehicles. For example, the 2008 Ford Escape features seat fabric made from 100 percent post-industrial materials. And the company's Lincoln MKR concept vehicle uses renewable soy foam seat bases and mohair carpet; reengineered oak on the instrument panel, which has been recycled and reassembled grain by grain; and leather that is tanned with a chromium-free process to minimally affect the environment.

"The technological advancements we've made as we address solutions to climate change and fuel efficiency are helping us to build a rounded portfolio of products for our customers," Kinley adds.

Another leader in sustainability initiatives is Caterpillar, a manufacturer of construction and mining equipment, diesel and natural gas engines, and industrial gas turbines. "The sustainability of our world and the sustainability of our business are inseparable," says John Disharoon, Caterpillar sustainable development manager. "Our customers operate in industries—infrastructure

reen

BY ELIZABETH RENNIE

"If all the press stopped tomorrow, people would still be focused on sustainability."

development, mining, oil and gas, power generation, forestry, transportation—that are at the heart of many of the world's sustainable development challenges. In almost every instance, our customers are being challenged to do their work more efficiently and with less impact on the environment ... It's not just that preserving our planet is the right thing to do; it's that these issues are fundamental to our business, to our customers' success."

Caterpillar's power generation products provide more than 135,000 megawatts of electricity worldwide, which Disharoon says is equal to the combined capacity of the 50 largest U.S. electric utility plants. Customers are using alternative fuels to power reciprocating engines and gas turbines and converting harmful gases into clean, useful energy. At one of the world's largest landfills in Brazil, 24 Caterpillar generator sets are converting methane into power for 7,000 homes.

The company also contributes to materials conservation through its remanufacturing business. This advanced form

of recycling takes end-of-life products and returns them to same-as-new condition. The process minimizes waste and reduces the need for raw materials to produce new parts.

"These efforts are paying off for our investors and our environment," Disharoon says. "Since 2001, we've grown our remanufacturing business by nearly 70 percent. Last year, Cat Reman and our subsidiary, Progress Rail, together recycled over 2.7 billion pounds of material. That's millions of products that helped to generate a second life with their material and didn't end up in a landfill."

Disharoon adds that sustainable development is an integral part of a strategy for meeting his organization's long-term growth targets. Company decision makers have set specific goals to become more sustainability driven in all areas of the business. "These goals align our interests with market needs and customer opportunities," he says. "They enable us to sharpen and maintain our focus on substantial, sustainable, and profitable actions."

Sustainability makes sense

More and more, forward-looking business leaders are demonstrating how sustainable development can create value for customers, investors, and the environment. In fact, when done correctly, it is surprising how going green accomplishes all three goals.

For example, whereas optimizing truck routes may save fuel and help reduce carbon dioxide emissions, it also saves dollars. Leaders at beverage company Foster's learned this after working with RedPrairie to improve their



What Can I Do?

Everyone affects the sustainability of the marketplace and the planet in some way. It is thus essential to include all employees, suppliers, and partners in the pursuit of sustainable development.

Employees must be educated about what it means to be sustainable—not only how to act or behave in a sustainable manner, but how to build sustainability into their everyday responsibilities, says Kristen Kinley, sustainability communications manager for Ford.

"Companies can't just become sustainable overnight. They have to define it for their organization," she says. "Defining what it means for their company is the first step, and then [defining] what it means to them and their company's future."

Bob Salvucci, president and CEO of MCA Solutions, says it's also important to recognize the personal benefits involved with going green. He offers the following ideas:

- Measure, analyze, and set goals to reduce unforeseen situations.
- Improve first-time fill rates with smarter parts stocking. This saves time and leads to reduced transportation costs and less fuel burned.
- Decrease emergency air-freight expediting by making sure the right parts are stocked in the right place.
- Use proactive and predictive service to fix items remotely rather than having a technician go on site, thus cutting down on transportation-related emissions.

- Minimize the disposal of excess parts.
- Employ effective remanufacturing practices. Understand when it's best to try to fix the broken part, rather than buy a new one.

Perhaps the most significant personal advantage is gaining confidence in one's career, says John Davies, vice president of the Sustainability Forum at AMR Research. "Looking for opportunities for cost savings and environmental initiatives is one of the greatest means to job security you can find," he says. "Sustainability initiatives are just going to continue in importance going forward."

warehousing operations, truck throughput, and overall efficiency. With a new warehouse management system (WMS) in place, goods now are received and directed more efficiently from production to warehouse and then on to end-point distribution.

SYSPO customers are benefiting from the firm's new material yield system, which enables plastic, sheet metal, plywood, lumber, and tubing manufacturers to use remnants, rather than sending them to the scrap pile and, eventually, the landfill. The tool automatically determines how cuts best can be made from standard-size sheets, rods, and tubes in order to maximize yield and minimize scrap—and eliminate countless man hours spent on tricky calculations.

Bob Salvucci, president and CEO of MCA Solutions, says his firm helps customers augment their service supply chains through recycling and reusing products and spare parts, rather than replacing them. "The aftermarket service business is a significant driver of profitability for [original equipment manufacturers], and it is also an area that is ripe with opportunity for increasing efficiency and reducing waste," Salvucci says. "Lowered inventories of spare parts means fewer new buys, less excess disposal, reduced environmental impact, and lower processing costs."

Probably the most common example of "sustainability meets good business sense" is the act of going paperless. Corrugated Services Inc. employs green strategies in its human resources department, using Sage's Abra Benefits Enrollment to save thousands each year in reduced paper use and the elimination of data entry errors. Corrugated Services company leaders say they always have had a healthy respect for the environment. The company makes its containerboard using recycled process water, uses linerboard made of 100 percent recycled fibers, and burns natural gas in its boilers to produce steam.

Taking paperless a step further is one benefit of the software-as-a-service (SaaS) model, which involves a software vendor providing its customers with solutions via the Internet. Sean Rollings, vice president of product marketing with SaaS provider NetSuite, says, in addition to helping people work more productively, the technology offers some interesting perks for the environment.

"All you need is a browser, so people can work in an office, work at home, or [work] nationally and internationally," Rollings says. "You don't have as many people commuting—cars, planes, traffic, airports—and you don't have as many dedicated buildings ... with servers that generate heat, with air conditioning and coolant all pulling a lot of energy."

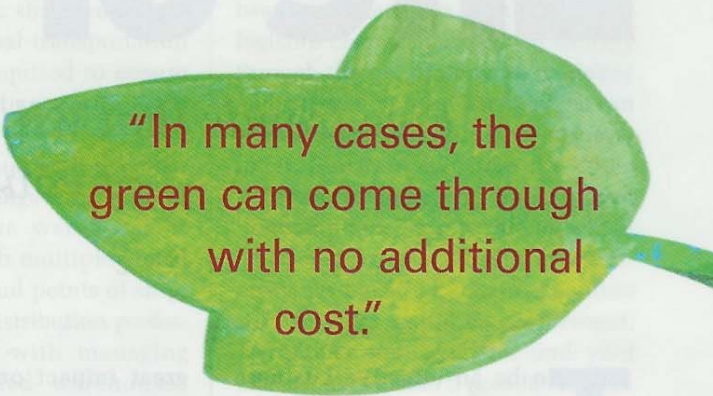
He also cites the massive growth in e-commerce, noting that having fewer retail sites means fewer dedicated resources, less inventory, fewer distribution centers, and more efficient shipping. There is tremendous positive cost impact, but also a very positive green impact.

"In the supply chain, all we've ever thought about are customer service levels and cost," Rollings says. "If you take that a little bit further, you can not only plan together among your supply chain partners to have those cost reduc-

tions and high customer service levels, but also plan for the green aspect ... For example, 'Do we need this big warehouse in a very hot climate that's going to use electricity, with people driving there, shipping out of there, and all the pollution associated with that?' People are thinking about this now, and the good news is, in many cases, the green can come through with no additional cost because a lot of these aspects were cost reductions we were going to do for efficiency anyway."

Next steps

Experts overwhelmingly believe sustainability is much more than just a passing fad. This already is being evidenced by the European community's Restriction of Hazardous Substances (RoHS) and the Waste Electrical and Electronic Equipment (WEEE) directives. RoHS restricts the use of certain hazardous materials in the production of various electrical and electronic products. WEEE provides collection, recycling, and recovery practices for electrical goods.



"In many cases, the green can come through with no additional cost."

Davies says regulations are coming in the United States that will affect all industries and, he believes, heavy industries the most. "There is going to be carbon legislation," he says. "It may not get passed by this president. But, with the next president, there is going to be legislation that puts a price on carbon and creates carbon markets. I think you can almost go to the bank on that."

As such, corporate decision makers should promptly establish the carbon footprints for their operations. The World Business Council for Sustainable Development (www.wbcsd.org) and the World Resources Institute (www.wri.org) are two organizations working together to set a standard for this reporting.

"This is not going to be just a 'feel good' or corporate culture initiative; it's going to be driven by business requirements and legislation," Rollings says. "People are looking at this for the long haul. Sustainability is really becoming a part of the business." ■

Elizabeth Rennie is managing editor for APICS magazine. She may be contacted at editorial@apics.org

To comment on this article, send a message to feedback@apics.org.