

The Sustainable Supply Chain

To make progress on environmental issues, **Peter Senge** says, organizations must understand that they're part of a larger system. Senge, the founder of the Society for Organizational Learning, a faculty member at MIT Sloan School of Management, and the author of *The Fifth Discipline* and *The Necessary Revolution*, spoke with HBR senior editor Steven Prokesch about the challenge of leading organizations at a time when their supply chains need to be radically transformed.

HBR: What does it take for an organization to get serious about issues like water, energy, and waste in its supply chain?

Senge: It starts to get real when people believe these matters are strategic—that they will shape the future of the business. I use the word “sustainability” as little as possible because it’s so generic; it makes people’s eyes glaze over.

To confront these issues practically, you need employees who are innovative—who have the skill and the vision to redesign products, processes, and business models—and who understand the business context. Most important, they need to be able to tell a story about why this is a meaningful journey.

If they're stuck in the mind-set (so popular in business schools, unfortunately) that a company exists to maximize return on investment capital,

with an emphasis on short-term financial performance, they won't get very far.

You're describing a big change in perspective for most companies.

To me, it's Leadership 101. It starts with “Who are we?” and “Why are we here?” In a great book called *The Living Company*, published in 1997, Arie de Geus described a study conducted by Shell in the early 1980s of companies that had survived for more than 200 years. What those organizations had in common was an understanding of themselves as a human community first and a machine for making money second.

We've lost a lot of that sense of company as community. But a business is a group of people working together. You can't build a new vision without a





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strong, community-oriented culture—which, by the way, is rare. It sounds good, everybody nods their heads, but the gap between that idea and the way most managers manage is enormous.

Okay, assume a community-oriented culture. What challenges must be overcome to make a business more holistic from end to end?

The first challenge is to understand the larger system you’re in. The second is to learn to work with

people you haven’t worked with before. Those two skills might seem distinct, but in practice they’re interwoven. The system is too complicated for one person to grasp. It crosses too many boundaries, both internal and external.

The third challenge has to do with how you perceive sustainability. They might not say this, but most companies act as if sustainability is about being less bad. There’s certainly a need to reduce your carbon footprint. But people don’t get excited about incremental changes like that. They need a more ambitious vision.

The environmental movement is a big culprit in this. There has been so much rhetoric about how bad business is that people inside companies feel guilty, and guilty people aren’t going to do bold things. But that’s crazy! Innovation is what good businesses do best. They’re all about creating new sources of value. NGOs and governments can’t possibly solve these problems alone; business innovation is essential.

Sustainability issues are often supply chain issues.

How do you effect change across a supply chain?

First, you focus on the nature of the relationships. In most supply chains, 90% of them are still transactional. If I’m a big manufacturer or retailer, I pressure my upstream suppliers to get their costs down. There’s very little trust and very little ability to innovate together. That must change, and it is starting to.

Second, you learn to work with NGOs and other nonbusiness entities. They’ll give you access to expertise that you can’t grow fast internally. Water is a classic example. A few years ago, Coca-Cola decided to cut the water used to make a liter of Coke from more than three liters to 2.5 liters. But it was overlooking the 200-plus liters it took to grow the sugar that went into that Coke. The company found that out because it partnered with the World Wildlife Fund, which knew how to analyze the water footprint of the value chain. Coca-Cola now knows the difference between drip-irrigated sugarcane and flood-irrigated sugarcane.

Why do corporations need NGOs?

For credibility, especially in Europe. People don't trust the business-as-usual mind-set—for good reason. I don't think it's so different in the U.S. If a credible NGO certifies your product, your brand can gain hugely if you are willing to change your practices. NGOs can also provide knowledge. No business knows what Oxfam knows about the plight of farmers or what WWF knows about biodiversity and watersheds. The best businesses don't just hire the sharpest people; they also keep expanding their expertise by partnering with NGOs that have deeper and broader knowledge.

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What role do leaders play in confronting supply chain challenges?

These are all leadership issues. But when I say “leader,” I don't necessarily mean the CEO or even bosses in general. You can't possibly source everything sustainably, as Unilever has declared as a 2020 goal, unless you engage thousands and thousands of people around the world. You'll need technical innovations, management innovations, process innovations, and cultural innovations. The people who figure those out are leaders, by definition, and most of them won't be senior executives. All the word “lead” means, if you look at its Latin root, is to step across a threshold.

Does leadership ever come from outside the organization?

Sure. When someone comes into an organization—a new hire or even a new supplier—he or she will ask, “Why do we do it this way?” The answer is often “Just because.” Now, 90% of those habits may be perfectly okay. But 10% are completely dysfunctional, particularly when the world around you is changing. A cool part of sustainability work is uncovering the assumptions that lead people to do things in a way that's out of touch with the company's larger reality.

How do you get the ball rolling inside organizations?

In some cases, it starts when the CEO steps back to reconsider the organization's relationship to the world. Or when people deep in the business discover some problems, collect some data, and then try to find people who have the skills to do something. Gradually, they build up a network of people who are fascinated by the problem and excited about finding a solution. Nothing motivates designers more than being told that something's impossible, like eliminating a toxin that has always been part of a product or process. That started to happen after Nike's first toxicological study of its products and supply chain more than 10 years ago.

The key is not your position; it's your passion, your ability to form networks, and your organizational savvy. This is where young people sometimes run aground; they've got energy and passion but don't have a clue about the culture of the organization or where the natural pockets of power are.

Obviously, if you're talking about operational changes, you need operating managers. Things get a lot more real when you talk about negotiating and writing contracts differently and changing metrics to gauge more-sustainable sources.

You've written that we're coming to the end of the industrial age—and that the industrial age was a bubble. What do you mean?

For more than a century, financial historians have used the “bubble” metaphor to explain why smart people act really stupidly together. Inside the bubble, there's a reality, a language. But outside the bubble there's a larger reality that asserts itself eventually. And the bubble bursts. If you think of the industrial age as a bubble, then maybe the larger realities (like finite resources) are starting to assert themselves.

Some people think the industrial age is already over; we're now in the information age. But that's a serious misunderstanding. The industrial age has always been punctuated by radical shifts in dominant technologies: the electric light, the automobile. The internet is just the most recent. The industrial age has been the era when machines and machine thinking shaped our lives. Leaders need to imagine life—and their businesses—outside that bubble, where efficiency, productivity, and the maximization of return on capital are balanced by the imagination, passion, and trust that shape creativity and innovation. ♥

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