# The Necessary Revolution: Creating a Sustainable Future

Peter Senge and Bryan Smith

## The Industrial Era is ending.

Its extraordinary successes—advances in literacy, life expectancy, human rights, and technology—have propelled us headlong into a myriad of side effects: food and water shortages, cyclonic destruction, prolonged drought and rising sea levels. To delay acknowledging the need for lifestyle and business changes—"The Necessary Revolution"—risks our very survival.

What only a couple of decades ago was still a vigorous scientific debate has become as close to a consensus as scientific communities ever achieve: human-induced climate change from greenhouse gases concentrating in the atmosphere has reached a threshold of significant social and economic impact—and we are only now at the start of experiencing the effects.

Stabilizing atmospheric carbon dioxide will require a profound reversal: a 60–80% reduction in growing worldwide emissions in the next twenty years. This is the "80–20 Challenge," and this manifesto presents inspiring, real-life examples of how this is starting to happen.

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The Industrial Age, the age of the machine and mechanistic thinking applied to more and more aspects of life—from the conversion of nature into "natural resources" to the recasting of human beings as insatiable "consumers"—is ending.

The myriad effects of this historic transition hit the headlines daily: prolonged droughts, food shortages, skyrocketing oil and energy costs, civil unrest, increasing weather instability, rising sea levels. Water, topsoil and other critical raw materials—including those used in the manufacture of your iPod, cell phone and laptop computer—grow scarcer as the "take-make-waste" drumbeat drones on like it has for the past 250 years.

Just as the Iron Age didn't end because we ran out of iron, the Industrial Age isn't ending because of the decline in opportunities for further industrial expansion. It is ending because individuals,

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companies, and governments are coming to the realization that its side effects are unsustainable and alternatives are possible. Indeed, creating these alternatives is already shaping the most important innovation opportunities in the world.

No one had a master plan for the Industrial Revolution; no ministry was put in charge; no single business led the way. Rather, countless acts of initiative and daring created a critical mass of unstoppable changes. So it must be with the next epoch.

What would an economy look like that, in Buckminster Fuller's words, operated entirely on "our energy income rather than our energy capital?" Or that generated no waste, where "all waste equals food for another system," as green designers William McDonough and Michael Braungart put it? Or one in which Marshall McLuhan's image of the "global village" was not merely a clever metaphor, but part of our conscious understanding of a world of ever greater interdependence—where none of us is secure if all of us are not secure?

But there are two big differences from earlier times of profound change:

- Today, these changes are happening around the world, as new ideas and innovations spread rapidly from one place and one system to another.
- Nature has provided us with a time clock in the form of rising levels of CO2 and other greenhouse gases in the atmosphere.

Although human-induced climate change is only one of several unsustainable side effects of global industrial expansion, it has the advantage of being the easiest to measure globally. Today, the world's scientific community can, for the first time, tell us approximately how long we have to effect a U-turn in the Industrial Age economic system—and it is not long. The time for the "Necessary Revolution" is now.

## THE URGENCY OF THE "80-20 CHALLENGE"

All this talk about the Industrial Age may seem quaint and irrelevant to you. After all, in the U.S. and Europe, most of us work in white-collar or service-related jobs, not in factory assembly lines or mines. But immediate circumstances can be misleading; we have simply shifted the locus and composition of industrial activity, while its scale has continued to grow dramatically.

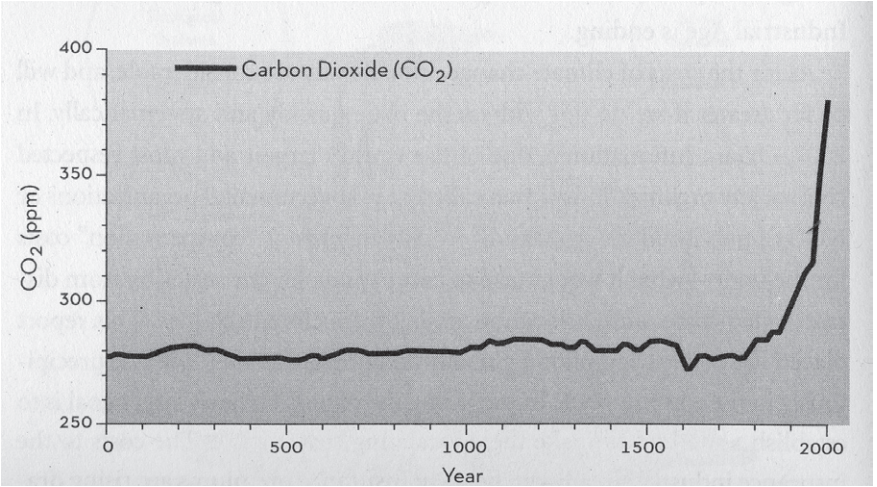
Sitting behind the world of bits and bytes is a worldwide engine of industrial expansion moving faster than ever before. The last quarter century has seen the most dramatic increase in industrial activity the world has ever known. More than four times as many automobiles have been produced since 1980 than in the preceding 100 years. Since 1980, annual steel production worldwide has almost doubled. More coal is mined around the world today than ever before, much of it used to power our PCs, iPods, flat-panel TVs, and PDAs. One clear measure of this expansive industrial system is the rise in atmospheric carbon dioxide.

But immediate circumstances can be misleading; we have simply shifted the locus and composition of industrial activity, while its scale has continued to grow dramatically.

As the first illustration shows, the level of CO2 in the atmosphere is now over 35% higher than in 1850, and has been growing exponentially since the mid-18th century start of the industrial era to about 380 parts per million today. Carbon dioxide levels prior to 1850 were relatively stable—not only for the 2,000 years shown, but for the preceding 500,000 years. In fact, studies of

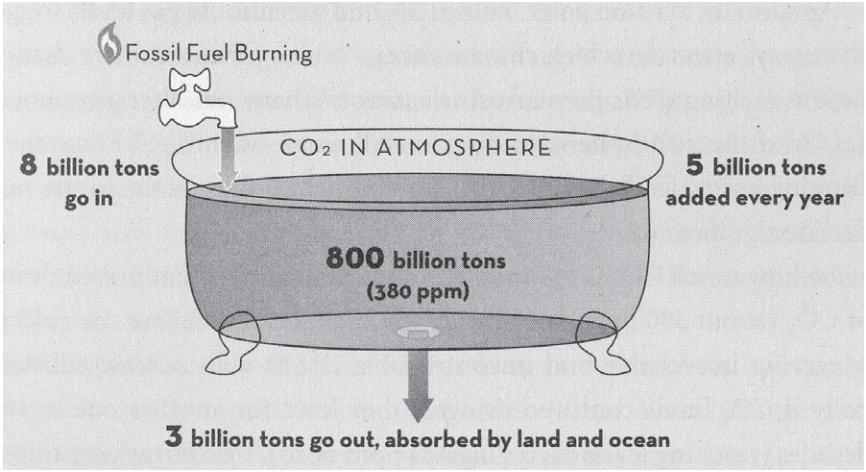
long-term natural temperature cycles show that CO2 levels have never exceeded 300 ppm during the past half million years.

Today, the atmospheric CO2 level continues to rise rapidly because CO2 emissions from combusting fossil fuels in our power plants, buildings, cars, trucks, airplanes, and factories each year far exceed the amount of CO2 that is being removed through natural carbon sequestration.




Basic climate-related systems thinking starts with understanding that the difference between inflows and outflows of CO2 into the atmosphere works just like a bathtub. That is, the CO2 level rises as long as more flows into the atmosphere than flows out (see the second illustration). Today, about 8 billion tons per year go into the atmosphere from burning fossil fuels, of which about 3-4 billion tons are absorbed, meaning that the level of CO2 increases by 4–5 tons (about 2 ppm) per year.

The simple fact that CO2 levels will continue to rise as long as inflows exceed outflows often causes confusion, even for many in important leadership positions, and results in the belief that curtailing emissions growth alone will solve the climate change problem.




CO2 flows are measured in tons of carbon equivalent—2.1 billion tons of carbon equivalent = 1 part per million (ppm) CO2)

As long as the inflow of CO2 emissions into the atmospheric bathtub continues to exceed the outflow of CO2 removed from the atmosphere, at some point the bathtub will "overflow."

What exactly does "overflow" mean? The most compelling definition centers on what scientists call "runaway climate change." At some point, the bathtub level rises enough to trigger self-reinforcing processes that feed on themselves and are beyond human control. Examples include shrinking glaciers and polar ice caps that reduce reflective areas, cause more absorption of heat from the sun, and accelerate warming further (called the "albedo effect"); and melting arctic permafrost that releases previously frozen methane, another potent greenhouse gas that also further accelerates warming. These processes are already occurring, albeit on a small scale compared to what could happen soon.

No one can say for sure how much CO2 is too much, but the emerging scientific consensus is that atmospheric CO2 levels must be stabilized soon (probably at or below 425 ppm). This brings us back to the "80-20 Challenge." Given that annual emissions will soon reach 9 billion tons (with the long-term capacity of land and oceans to absorb CO2 decreasing), stabilizing atmospheric CO2 at levels that minimize the threat of catastrophic consequences will require a 60–80 percent reduction in emissions within the next two decades.

Shifting from the business-as-usual path of rapid worldwide growth in emissions to a path of falling emissions needs to start, literally, in the next few years.

Rajendra Pachauri, chair of the Intergovernmental Panel on Climate Change (which shared the 2007 Nobel Peace Prize for their leadership on climate change), recently stated: "If there's no action before 2012, that's too late. What we do in the next two to three years will determine our future. This is the defining moment."

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## NEW THINKING, NEW CHOICES

The Industrial Age emerged from a way of thinking that eventually penetrated all of society's primary institutions—from business to government to education—and has been based on mental models such as these:

- Energy is free (or costs so little that it rarely shapes decisions).
- Non-substitutable resources like water and topsoil are unlimited.
- Waste and toxicity embedded in products and process is someone else's problem.
- Relentless growth in GDP defines healthy societies.
- Technology defines progress. What is most exciting is the next new machine.
- The Western consumption-oriented, waste-creating lifestyle is the best lifestyle.
- Anxiety, frenzy, and stress are inescapable aspects of a successful life.
- Freedom means being able to ignore the consequences of your actions.

A shift in the prevailing mindset is now under way, as the old mental models are being replaced by these new ones:

- Energy is precious, and human society must tap the same sources used by other living systems on Earth (mostly the sun and wind).
- Nature generates no waste and neither should we.

- A healthy economy is a regenerative one that works on the basis of understanding living systems and nurtures life.
- Good technologies do more and more with less and less.
- A healthy society's first priority is the well-being of children—now and in the future.
- Freedom means growing and developing as unique, purposeful, and conscious human beings in a rich network of caring relationships with other human beings.

Of greatest significance is that these fundamental shifts in mental models are being enacted today by thousands of individuals and organizations working to create a more sustainable world.

To us, their work is the best evidence that a future very different from the Industrial Age is starting to emerge, and their actions are the best source of insight on how to help bring it into being. In particular, they demonstrate a mastery of three areas that have been core to our work in organizational learning over the past 25 years:

- *Learning to see the larger systems*, both individually and collectively, of which they are a part, including organizations, complex supply chains, industries, cities, and regions. This gives them insight and perspective that shapes their strategies. They then work to design products, service offerings, organizational and public policies, and business models that promote the health of these systems rather than pursuing quick-fix solutions that often end up making the overall situation worse. Without the capacity to see systems and their own place within them, people and organizations will naturally focus on optimizing their piece of the puzzle, rather than building shared understanding and a larger vision.

- *Collaborating across boundaries* that previously divided them from others within and outside their organizations. Changing how unsustainable systems work cannot be separated from changing how we work. This starts with building relationships of trust and genuine mutuality among people who previously had little of either. Without skills in collaborating, people do not learn how to develop the collective systems intelligence to tackle complex problems.

- *Shifting from a reactive problem-solving mode* to creating futures they truly desire. Creating healthy societies truly matters to people. When people work together toward such goals, there arises a level of commitment, imagination, patience, and perseverance far beyond what you see when people are just reacting to problems. Without a creative orientation, there is no genuine commitment to longer-term visions, goals, and desired outcomes, and it is easy to ignore the challenging work of seeing larger systems and transforming relationships.

These three capabilities must continually develop together in institutions as well as individuals, because institutions and the networks they create shape how our present world operates—and they hold the greatest promise for systemic change.

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## THE BUSINESS RATIONALE FOR SUSTAINABILITY

Scan any newspaper or business magazine, and it's clear that the sustainability wave is breaking over the entire corporate shoreline, including the financial sector, and top-performing companies are leading the charge.

Goldman Sachs, one of the world's leading investment banks, recently examined six key industry sectors—energy, mining, steel, food, beverages, and media—and studied the companies considered leaders in implementing environmental, social, and governance policies and strategies. Goldman Sachs found that these companies have outperformed the general stock market by 25 percent since August of 2005. In addition, 72 percent of these companies outperformed their peers over the same period.

For business leaders, such studies prime their boards to ask "What tangible financial benefits will accrue if we reorient our business? Can our company continue to be profitable, and even grow in the value we create, if we commit to helping shape a regenerative economy?" Such questions concerning the business rationale for particular strategies inevitably come down to understanding risk versus opportunity.

While the specific short- and medium-term risks vary for each company and industry, many are already widely evident. For example, the property and liability insurance industry is suffering increasing losses due to climate instability. Swiss Re, the world's largest insurer, demands that companies have an explicit strategy for dealing with climate change or it refuses to offer liability insurance to their directors.

The ultimate risks of ignoring sustainability issues are clear. If we continue to put more toxic waste into the environment and more CO2 into the atmosphere than can be naturally disposed of, or if we insist on extracting and wasting more natural resources than can be replaced, business in the

traditional sense will cease to exist. You can't have a fishing industry if there are no fish, or a soft-drink company without clean water.

What is required today is a new way of thinking about facing these business risks head-on and finding the opportunities on the other side of those risks.

Nowadays, the vast majority of a company's market value is based on brand and reputation, as opposed to the so-called hard assets. And brand and reputation are affected by a rapidly growing set of vocal, powerful external stakeholders, ranging from non-governmental organizations (NGOs) to consumer activists and government at all levels. Consequently, corporate brands are rushing to embrace sustainable environmental efforts in unprecedented numbers.

The opportunities start with genuinely building brand credibility and becoming the type of organization that will attract and retain the best talent.

But there are other reasons to embrace leadership in a regenerative economy, including the following:

**1. There is significant money to be saved.** Companies in all sectors, from IBM to Alcoa to Wal-Mart, have achieved massive savings opportunities from reducing waste and energy usage. DuPont saved $3 billion thanks to their intense focus on slashing greenhouse gas emissions and associated energy use, while growing their business by 30 percent. GE Industrial saved $12.8 million per year just by upgrading the lighting in their plants to their own high-efficiency lights, and saved $70 million in their annual energy expenses as they worked across the company to reduce their energy use and greenhouse gases.

**2. There is significant money to be made.** Spending $100 a ton to dump waste in a landfill can quickly add up. As *Fast Company* reported in November 2007, General Mills sells its oat hulls, a Cheerios byproduct, as heating fuel, earning more than it used to spend to dispose of them.

In 2006, General Mills recycled 86% of its solid waste, earning more from that than it spent on disposal. A leader in sustainability-driven innovation, GE is well ahead of its plan to double annual revenues from $10 billion to $20 billion over five years from its suite of environmentally friendly Ecomagination products.

**3. You can provide your customers with a competitive edge.** As the price of computing power steadily falls, we are rapidly approaching the point—it could occur as early as 2009 —where the cost of powering and cooling large computers and servers will exceed the cost of the hardware itself. IBM's Project Big Green, which seeks to dramatically reduce energy consumption in its own data centers and those of its customers, could save its customers about 40 percent in IT costs and increase IBM's share of the market.

**4. Sustainability is a point of differentiation.** About half the fleet at Enterprise Rent-a-Car—more than 334,000 vehicles—gets more than 28 miles per gallon (nearly 10 times the number of fuel-efficient vehicles offered by its closest competitor, according to Enterprise). The company is currently adding thousands of hybrids and flexi-fuel cars, and is even making investments in research for alternative fuels.

**5. You can shape the future of your industry.** Years before U.S. car companies caught on to this good idea, BMW and other European automakers realized that enlightened self-interest was a good thing, giving them a chance to help shape the direction of Extended Producer Responsibilty regulations that now require all auto companies selling cars in Europe to take back their cars at the end of their life. Savings from their investments in designing cars to be remanufactured and effective disassembly infrastructures are now in the hundreds of millions of dollars annually. Sony Europe has played a similar leadership role in the EU in helping to build a cost-effective system for the take-back of used electronic equipment.

**6. You can become a preferred supplier.** Costco and other food retailers focus on long-term, reliable suppliers that can meet their quality targets, and when these targets include higher social and environmental standards, unique supply partnerships emerge. For supply chains to be truly robust and sustainable, all players in the chain must be leaders in radically reducing their environmental impact and meeting stringent demands for social responsibility globally. The world's best companies will accept nothing less than consistently demonstrated leadership, presenting an enormous opportunity for suppliers who can commit to meeting these standards.

**7. You can change your image and brand.** Companies in every industry, from small firms to large global enterprises such as GE and Shell, can successfully remake their reputations and brands through serious investments in environmental initiatives. Nike, once a pariah for its weak labor oversight, is now rated one of the top brands for social and environmental stewardship. Even giant retailer Wal-Mart, for example, is using "going green" as the vanguard effort to offset the negative press coverage it has received for treatment of its employees and its impact on small local businesses. People are understandably skeptical to what extent such changes are substantive versus "greenwashing," but increasingly vigilant watchdog organizations will help the public separate the wheat from the chaff.

## NEVER DOUBT WHAT ONE PERSON AND A SMALL GROUP OF CO-CONSPIRATORS CAN ACHIEVE

Many real-world successes start small and then, through attraction and collective effort, attract wider involvement and grow to a significant scale. They unfold in the same way that the original Industrial Revolution did, but at a vastly accelerated pace, as the following account from Sweden illustrates.

Of all modern industrial countries, Sweden is probably the farthest along in weaning itself from fossil fuels. Today, the country depends on oil for only 30 percent of its energy, down from 77 percent in 1970. (The U.S. depends on fossil fuels for 85 percent of its energy needs.)

In 2005, a government-sponsored commission announced its intention to make Sweden the "world's first oil-free economy," starting with an existing "BioFuel Region" that encompasses 22 municipalities roughly 200 miles (about 320 km) north of Stockholm. Here, lower-emission ethanol is as readily available and economical as ordinary gasoline. (Cars running on ethanol made from sugarcane or cellulose are estimated to emit 85 to 90 percent less greenhouse gases than gasoline-powered cars.) In 2007, 15 percent of all cars sold in Sweden were fueled by ethanol, up from 2 percent in 2000. All the major Swedish motor vehicle manufacturers, including Scania, the largest truck manufacturer in Europe, now offer flexible-fuel cars or trucks, which run on either ethanol, conventional gasoline, or a blend.

One might assume that changes of this magnitude required a massive government effort involving tens of thousands of people, substantial government subsidies, and years of extensively funded research. But for many years, no such support—government-sponsored or otherwise—existed. Instead, countless local networks developed quietly, catalyzed by the efforts of small groups of committed and courageous leaders from the public and private sectors.

One such leader is Per Carstedt, owner of a large Ford dealership in northern Sweden.

Carstedt lived in Brazil for several years, where he attended the 1992 United Nations Conference on Environment and Development in Rio de Janeiro—the first global sustainability conference or "Earth Summit." Carstedt found himself deeply immersed in what he called "big-picture questions," among them: "How long could the industrialized economies, propelled by access to cheap energy, be maintained?" Seeing the scope and scale of changes that were necessary, he asked himself: "What can one person do?"

An answer came when a foundation requested that he help get ethanol cars into the Swedish market. After many inquiries, Carstedt found an ally at Ford Motor Co. in Detroit in charge of a small "flexible fuel" vehicle program that helped him buy three of the cars in 1995. "Ford had no program for this," says Carstedt, "and didn't even know we were doing it."

**Building a market for flexi-fuel vehicles in Sweden.** Although the cars generated little interest in Sweden, Carstedt persevered. He and a colleague from the Swedish Ethanol Foundation Program (later renamed the BioAlcohol Fuel Foundation) spent the next four years traveling from city to city until they formed a buyers' consortium of 50 municipalities, companies, and individuals committed to buying 3,000 cars. In essence, Carstedt was arranging a field test, engaging others—primarily local government officials—to help build momentum for his idea.

As they imported more cars, ensuring the availability of ethanol became the obvious next step. So, members of the BioAlcohol Fuel Foundation, which Carstedt became chairman of in 1998, ratcheted up a new campaign of persuasion aimed at gasoline retailers, often coming up with the financing themselves.

"By 2002, we had 40 stations in the entire country, and in June 2004, we inaugurated the 100th. I think I was at the official openings of the first 50," Carstedt says with a laugh. The number of fueling stations doubled in 2005, doubled again in 2006, and reached 1,000 stations (25 percent of the nation's total) in August 2007. "The first 100 stations took 10 years to develop," Carstedt says. "Nowadays we add 100 stations every three months."

**Creating a business "green zone."** Knowing that greenhouse gas emissions from transportation account for only about a quarter of all emissions, Carstedt found himself also wanting to address the sustainability challenge more completely.

So, in 1997, when expanding the family car dealership in Umeå, a city in northern Sweden, he and a kindred spirit, architect Anders Nyquist, decided to "build the most environmentally friendly car dealership in the world." It would work like a natural system—recycling wastewater, conserving heat, and being as energy-efficient as possible.

The idea evolved into what Carstedt and Nyquist dubbed the "Green Zone," a block of businesses that included Carstedt's car dealership, a McDonald's restaurant, and a gas station (selling both gasoline and biofuel). Applying the concept of industrial ecology (in which wastes from one industrial plant are used as supplies for another) and using only existing, proven technologies, they designed systems connecting the businesses—for example, piping excess heat from the restaurant kitchens to the car dealership and the filling station. Overall energy use dropped until it was only 20 percent of that used by comparably sized conventional retail neighborhoods.

To Carstedt's surprise, his small pilot inspired many more. The Green Zone started to draw media attention from around the world, attracting more than 500 official study visits between 2000 and 2006.

"A lot of my talks about biofuels and climate change, and the 'whole systems approach' were too theoretical for most people," he notes. But after seeing the Green Zone's tangible example, others "… could start to take the next steps by themselves," explains Carstedt. "They didn't need me or others to tell them what had to happen."

**Helping green concepts go global.** Carstedt is now helping coordinate a €25 million (US$39.4 million) global project funded by the European Union that involves 10 regions seeking to follow in northern Sweden's footsteps—including Rotterdam, Madrid, Nanyang (China), and São Paulo, Brazil.

"Once people grasp this reality of climate change," Carstedt says, "you must help them focus on … how to pinpoint an opportunity, some action they can take. You don't unleash that energy, either in individuals or in organizations, if you don't help them to see the opportunities."

Per Carstedt is living proof that you don't need a Ph.D. to think about larger systems. The questions that he began to ask upon returning to Sweden are ones that any of us can ask if we think about the larger reality we are part of, and where the prevailing forces are heading.

As the next story relates, these unusual times warrant unusual collaborations, and you can expect to encounter many more in the years to come.

Many real-world successes start small and then, through attraction and collective effort, attract wider involvement and grow to a significant scale.

## UNCONVENTIONAL ALLIES: COCA-COLA AND THE WORLD WILDLIFE FUND

The unorthodox teaming up of The Coca-Cola Company and the World Wildlife Fund, one of the largest nonprofit environmental activist groups, represents a significant shift in thinking by both organizations and affords an insightful view of how sustainability collaborations are playing out in the real world today.

To be open to a five-year partnership with a multinational corporation such as Coca-Cola, the WWF had to rethink its own mission and vision.

"The established NGO model is about funding, not partnership. But this one goes beyond money," says Suzanne Apple, lead WWF coordinator of the Coke partnership. "You have to help people see the abundance of resources available—for example, the talent and knowledge within the corporate sector. We may know all about watersheds, but we discovered that [Coke] had some very sophisticated watershed analysis as well, and they know a lot more than we do about commercial decision making, which can have impacts well beyond plants and facilities."

Global companies such as Coca-Cola exert enormous pressure on supply chains through their purchasing power alone, a fact the WWF acknowledges and hopes to influence.

"Coke is a leading buyer of sugar in the world. They are a major buyer of aluminum cans, of citrus, and one of the largest purchasers of coffee, as well as glass," continues Apple. "If we can work with a company like Coca-Cola and shift their purchasing to sustainable sources, it can have a huge impact."

**Evolving from philanthropy to collaboration.** The Coke-WWF alliance transitioned from being primarily a philanthropic relationship to a more collaborative partnership in early 2006 with a series of planning workshops in different parts of the world. Coke's aim was to expand its technical expertise in order to achieve its corporate aim of "giving back to nature" the water that Coke's operations extract, and to set up independent verification of progress. As expected, some culture shock ensued.

Having had no prior history of working with an international NGO such as the WWF (beyond providing corporate contributions), most Coke employees were uncertain about how freely they could engage in substantive discussions about conditions in their regions of the world.

"Your bias should be towards engagement and understanding one another, not trying to make all our objectives align too quickly. This takes patience," says Jeff Seabright, Coke's VP for Environment and Water Resources. "There is really a large gulf separating the reality of these two organizations, and you need time to appreciate that and start to bridge the gulf."

**Forging a common understanding in the wilderness.** The joint WWF–Coke team embarked on a field trip to the headwaters of the Yangtze River, where the Qingyi Nature Preserve is located.. For three days, their accommodations were a Chinese "summer camp" facility that consisted of little cabins and "outdoor plumbing."

As the group left Xian for the countryside, Apple was sitting on the bus next to one of the Chinese bottling company managers. Born and raised in Hong Kong, he had worked for Coca-Cola for 27 years and was at that time living in Shanghai. Apple recalls that, as he looked around at the countryside, he said, "Wow, I've never been this far outside the city before. This is amazing!"

During the short stay, the locals who lived in the nature preserve cooked all meals for their guests, using food they had grown in the preserve.

"We had lunch with people and visited them in their homes," recalls Apple. "This is actually a sort of bed-and-breakfast program that the WWF established to create income for the farmers, so they won't destroy the forest and can manage with their existing farmland."

**Transforming hearts and minds.** "By the last night of the field trip, after we'd done a little karaoke," recalls Apple, "[The Chinese manager] raised his glass of warm beer to toast everybody and said: 'This has changed my life. The last 48 hours have changed the way I view my job and the way I view China. I want us to be the first division to lead this process. I want all of you to come and meet with my bottlers. I'm going to organize the first bottler meeting. And, by the way, can you come to Shanghai and lay out the whole challenge about climate change to me, so we can understand that as well?'

Apple was stunned. "Yet, as I think about it now, maybe it is not really so surprising" she said. "You could say that, within less than three days, this man's life had been transformed and he now wanted to lead this. As I see more of these sorts of gatherings, I think that we are simply allowing people to really enter into each others' lives, to walk in each other's shoes a little bit, and to allow their hearts as well as their minds to open.

"Water really matters," she continues. "The people who live in these delicate habitats where the sources of our water start really matter. Even though we may have lived in ways that separated us from this reality, it is still possible to reconnect to it if we have half a chance."

As this work unfolds, so too does understanding of its purpose.

"We don't need to force a superficial connection between what Coke would say is their business priority and what WWF would say," says Dan Vermeer, Global Water Initiative Director and member of Coke's corporate water and environment staff. "It may be more that we just need to see how our successes really depend on the same things. I think we are discovering that all we have to say is, 'Look, we don't have exactly the same set of objectives, but there's enough of a common ground if we think systemically about this that there really is a basis for working together. This is in the interest of all of us."

## WHAT CAN *YOU* DO?

Life beyond the Industrial Age is not only about our relationships with the earth, with one another, and with other species. It is also about our relationship with ourselves, what it means to be human. It's not just about the kind of world we are trying to create, but about a deeper understanding of who we are in it, both in the present and in the future. You do not have to be president or CEO of anything. Per Carstedt is a car dealer. Neither Suzanne Apple nor Dan Vermeer sit at the tops of their organizations. What these people and countless others share is a conviction that change is not an option and that their organization, and they, have an important contribution to make.

All great journeys begin with small steps. At this crucial time, how can you act effectively in your unique situation—here and now—to create a more sustainable future in your organizational context, be it a school, a large or small business, or a community organization? Millions are already redesigning the future by becoming engaged in challenging the Industrial Age mores that are propelling us to the brink of natural calamity. Ask yourself "what's truly important to me?" Take stock of your role and points of influence. Build a small core team of inspired partners. Start now. The future is awaiting our choices.

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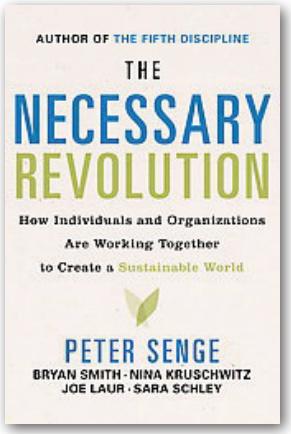


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