

# Going green one step at a time



There's a great deal of talk these days on the challenging road ahead to create a more sustainable way of life. Not surprisingly, MIT Sloan is taking a lead on how to drive this conversation in a more positive and productive direction.

**ON A TRIP TO** Portland, Oregon, it is as clear as the Pacific Northwest air that the notion of sustainability pervades day-to-day life in this scenic city located beneath the shadow of Mount Hood.

Looking for a commuting partner? Free water conservation devices? A photo of Mayor Tom Potter riding his bike to work? Look no further than Portland's official city website, which boasts a wealth of information on walking tours, bike routes, and a sustainability calendar ripe with offerings that include seminars on building LEED certified homes and the basic steps of going solar.

"If the rest of the country was like Portland," says MIT Sloan Professor Henry Jacoby, an expert on global environmental issues, "We'd be in a very different place."



“What Portland has realized,” says Senior Lecturer Sarah Slaughter, one of six instructors of MIT Sloan’s Sustainability Business Lab (S-Lab) course, “is that sustainability was an opportunity for them to differentiate themselves from other cities.”

Indeed they have. According to the SustainLane website—which ranked Portland the “greenest city in America” when compared to the 50 largest urban centers in the U.S.—“Portland’s commitment to creating a healthy, sustainable city runs so deep that the Portland Visitors Association makes fun of the issue in its marketing motto: It’s Not Easy Being Green.”

#### Or is it?

According to Richard M. Locke, a faculty member deeply involved with MIT Sloan’s Sustainability Initiative, being green, or taking the necessary actions toward that goal, doesn’t have to be rife with despair and constraint. In fact, steps toward sustainability—a widely used umbrella term that encompasses issues of environmental and humanitarian concerns—could be seen as a win-win situation, an opportunity for innovations in business practices and the empowerment of new business growth in this burgeoning field.

#### All together now

By the same token, it is also an opportunity for MIT and MIT Sloan to make a significant mark in this area of concern and opportunity, banding together their leading experts on campus to work collectively for the common good.

“I think this is a space that MIT could easily own,” says Locke, the Alvin J. Siteman Professor of Entrepreneurship and Political Science. “One of the things we’re trying to do differently here is not to see sustainability in a siloed approach. What we’ve had is the energy people just talk about energy, and the environmental people just talk about climate change, and the social people only talk about the social side of things, and the building and infrastructure people only talk about that, and they don’t realize that all of those things are linked. We’ve been talking in silos and, as a result, we haven’t actually been able to see the big picture. Now, we’re talking about the social issues, we’re talking about the use of water, we’re talking about labor, we’re talking about all sorts of things, and we have that expertise on campus already.”

“At MIT Sloan, we know something about markets and organizations,” continues Locke. “Other people on campus know a lot about energy, or a lot about water and infrastructure, or a lot about the environment. What we have the possibility of doing here is to bring together that community of experts to work on issues in a systemic way, number one; and number two, technology is going to be an important part of the story. It’s not going to solve it, of course, but technology is going to enable some of the changes we need. What we want to do is link together the

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## Walking the talk

### What individuals can do to make a difference

MIT Sloan Senior Lecturer Sarah Slaughter doesn't just talk the talk when it comes to sustainability.

The bag she carries to her office at MIT Sloan is made of recycled materials and was a gift from her husband and two teenage sons. She gets weekly boxes of produce from a local Massachusetts farm through a Community Supported Agriculture (CSA) program. And despite a spate of championship seasons for some Boston-based sports teams in recent years, her family has resisted the urge for a bigger and flatter television, instead relying on a cable-free set that has already entered its second decade of limited use.

"The only way I'm getting a new TV is if we find one that's really energy efficient or if we can't find parts for the old one anymore," says Slaughter.

Still—despite her own example—Slaughter says others taking steps toward a more sustainable life should not force too many restrictions upon themselves too soon. "I think one of the things that becomes frustrating for people is the notion that 'I should be doing this. I should be taking public transportation every day,' so it becomes an either/or situation and the challenge becomes overwhelming," says Slaughter. "So we need to change it from being an end state to a state of mind. It doesn't have to be all or nothing."

Slaughter and others agree that small differences in lifestyle and habits can collectively add up to big savings in a number of ways. Homes can be made more efficient by sealing windows, fixing leaky faucets, and utilizing compact fluorescent light bulbs (CFLs) and automatic light shutoffs

as a start. Fixing the roof? Consider the addition of solar panels or a solar hot water heating system. Commuters could drive less and utilize public transportation more. And consumers of all types of goods could reflect more before purchases are made, asking themselves the question, "Do I really need it?"

Still, progress on a grander scale will require more effort.

"We need to move soon, but almost any time you get going is better than not going at all," says MIT Sloan Professor Henry Jacoby, an expert on global environmental issues and the director of the MIT Center for Energy and Environmental Policy Research (CEEPR). "We are building up a stock of gases in the sky that are going to stay there for decades to centuries, and there are some possibilities of irreversible changes. It is my perception that we are taking a very great risk if we don't do something in the next 20 years. ...

"Almost anything people do has an effect, not just on their own carbon footprint, but their neighbors as well. But the main thing people have to do is support political action," says Jacoby. "We can't solve this by buying a special light bulb or taking public transportation. People need to get politically active."

People also need to join forces across all sectors, says MIT Sloan Senior Lecturer C. Otto Scharmer, who cites the statistic that between one and two million non-governmental organizations are working to make an impact in either the social well being or health of their respective communities, a sign of "people standing up and trying to make a difference in the face of great global challenges."

"All these small beginnings can add up to a global tipping point in a time period which won't be too late," he says.



technology side with the organizational side in discussions on our choices and strategies. If we can do that—and I think MIT is probably one of the few places in the world that can—we could really show the possibilities, we could show what the limitations are, and we could show how to meet them in a systemic way.

“That,” he says, “is a great opportunity here.”

#### The wake-up call?

Though some scientists and academics, like Jacoby, have been studying the effects of global climate change for more than 30 years, a number of observers pinpoint a notable shift in the public’s perception of such matters following the 2006 release of *An Inconvenient Truth*. Millions flocked to see the Academy Award-winning documentary narrated by former Vice President Al Gore, which warned of the drastic consequences of greenhouse gas emissions and rising atmospheric temperatures and CO<sub>2</sub> levels. For many, it was a wake-up call heard round the world.

“Maybe it’s because you had the movie and then you had the scientific reports

to us to say, ‘Will you work with us on these kinds of issues if we want to understand them better?’ I do see a wake-up call. Is it consistent? No. Not everyone in the organizations that we work with gets it, not all universities are jumping on to this, and, to the extent that they are, sometimes it’s more faddish than real, but I do see a real switch happening.”

Kara Penn, MBA ’07, sees the switch as well.

“The talk of global warming really shifted the perspective of this, and sustainability entered into the public discourse in a way it hadn’t before,” says Penn, the climate solutions program manager for the Jonathan Rose Companies in New York, a firm focused on green urban development and planning. “When you shape the fabric of communities to be more sustainable overall ... you show people, you illustrate to people, that when it’s done well, it actually improves your quality of life. Now we are looking at, ‘How do we carry that mindset to shift perceptions and realities city-wide?’ I’m seeing there is a rapid push in that direction.”

#### Earning the green by going green

Surprisingly to some observers, Wal-Mart is among the corporations helping to lead by example. As the largest retailer in the world—with annual sales greater than \$374 billion, more than two million employees and 200 million customers—the business behemoth has

—Kara Penn

turned its corporate eye to sustainability in recent years, including the consistent pursuit of energy- and emissions-saving measures in its 7,200 stores.

“Much of what they are doing generates significant savings for them, consistent with their culture and mandate

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coming out,” says Locke. “Now, it’s not, ‘Oh you care about this; you must be a tree hugger.’ Now you can really see that people are thinking hard about ‘How do I think about this?’ We see this, for example, at our Executive Education programs. Companies that we’ve been doing a lot of training with are coming



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to constantly reduce costs and pass the savings on to consumers in the form of lower prices,” says John Sterman, MIT Sloan’s Jay W. Forrester Professor of Management and director of the MIT System Dynamics Group. “They’ve been successful in many of these areas. To take one example: When they decided to feature compact fluorescent light bulbs (CFLs) in their stores—and not just stock them but display them in a prominent position where people would see them—sales of CFLs went up substantially. With the number of bulbs they sell this saves a lot of electricity. To cut fuel use in their truck fleet, they installed auxiliary power units (APUs) in all of the trucks so that the drivers wouldn’t have to run the engines when they were taking a break or sleeping. This dramatically cuts fuel use and reduces noise pollution and air pollution, all while saving them money.”

But, as Wal-Mart learns from its own experiences, and forges a path for others to follow, Sterman acknowledges that these long-term investments come with short-run costs—such as the purchase and installation of the APUs for the truck fleet—which can serve as a stumbling block toward sustainable practice and progress.

“Wal-Mart is a huge, successful organization,” says Sterman, “and they see the wisdom of making that investment. Some firms don’t. Without a long-term vision, some companies perceive the initial costs to be too high, deterring them from initiating necessary changes, even when there are substantial long-term gains for the environment, for society, and for the bottom line.”

“It’s the old adage that a dollar in the hand today is better than a dollar in the hand tomorrow,” says Penn. “It’s very hard for people to conceptualize long-term horizons. I’ve heard people say,

‘Well, this problem isn’t going to happen for 30 years.’ People can’t conceptualize what 30 years or 50 years or 100 years in the future looks like, so it’s a short-term benefit over long-term gain. That’s one component of it. In my opinion, people are starting to grasp on to the sustainability concept, but then in day-to-day life, in day-to-day practices, it is a challenge for people to change their behavior. I see that as a place of innovation right now.”

As does Locke, who imparts his vision on sustainability to the 222 MIT Sloan students and fellows per year who take part in either an S-Lab or Global Entrepreneurship Lab (G-Lab) course.

“One of the things we want to try to do is say, ‘Look, there’s all sorts of opportunities here, not just in terms of savings, but also in launching new products,’” says Locke. “There are opportunities to start new businesses, redesign existing businesses and business practices. Given

how MIT Sloan thinks about entrepreneurship, you could really get into starting a business that could run around revamping buildings and retrofitting them, thinking about recycling models or alternative energy models.”

“Sustainability is not a destination, it’s a journey,” says Slaughter. “It’s a constant process of figuring out what needs to be done.”

### The pace of progress

As British philosopher Bertrand Russell once wrote, “Change is one thing. Progress is another.”

But—in the wake of *An Inconvenient Truth* and the scientific reports that had preceded it and since followed—what has hindered the pace of progress toward worldwide sustainability and all it entails? And why have some corporations, governments, and organizations made subtle to substantial differences in their policies and practices, while others have not? A number of theories exist, not the least of which is a lack of accord across all sectors on how to best move forward in a collective, comprehensive manner.

“There is far from consensus on what should be done about sustainability issues,” says Thomas W. Malone, the Patrick J. McGovern Professor of Management and the founding director of the MIT Center for Collective Intelligence. “In fact, there are many people who believe that business should only do things that increase their bottom line or their shareholders’ wealth.”

In his 2004 book, *The Future of Work: How the New Order of Business Will Shape Your Organization, Your Management Style, and Your Life*, Malone delved into this very issue in his final chapter, where he discusses a marketplace for values and how companies must cater to the various stakeholders—and their various interests—for the company to remain viable.

“One of the nice things about markets is not everyone has to agree on everything to keep things working effectively,” says Malone. “If I want Mexican food and you want Greek food, we can both find what we want and we don’t have to agree on what’s best. I think the same thing applies to how people talk about sustainability. If I think the rights of workers in the developing world are very important and you think reducing our carbon footprint is important, each of us can take our values into account in deciding what companies

we want to buy from, work for, or invest in. For instance, many people assume, incorrectly I believe, that all investors only want to maximize their profits. But when I wrote my book I found statistics showing that more than 10 percent of funds under professional management use some kind of socially responsible investment philosophy. That is up from about zero percent 10 or 20 years ago. All investors are human, most humans care about other things besides just profit, and this statistic shows that a substantial minority of people

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## C-Function celebrates sustainability

Given that it was a first of its kind, it seems fitting that the April C-Function on sustainability kicked off with a video poking fun at its all-encompassing and, at times, overwhelming definition, with “man-on-the-street” interviews of varying gravity with students and faculty alike.

“Sustainability means how do we preserve this earth for generations to come,” offered Roy Ben-Ami, MBA '09. “We all need to think about right now, and I'm glad that MIT takes this stuff seriously.”

At least most of the time. The video, now posted for posterity on YouTube, served as a light-hearted way to segue into a serious topic which has received widespread attention at MIT Sloan as a result of the School's Sustainability Initiative and its Sustainability Business Lab (S-Lab) course, which nearly 30 percent of students will take prior to their graduation.

The C-Function's organizers—Arun Lamba, MBA '09, Samantha Joseph, MBA '09, the leadership teams of Net Impact, Energy and Environment, Sloan Entrepreneurs for International Development (SEID), and many dedicated volunteers—offered guests the chance to partake in a recycling relay race, a *Project Runway*-style recycled clothing competition, and a surprise visit by Captain Planet. Students were served organic beer and wine in biodegradable plastic mugs and used corn-based utensils to eat locally grown food.

With a small budget and a big agenda, organizers hoped to make the point that leading a sustainable existence can be creative, cost-effective, and fun, with minimal environmental impact to boot. With 200 people in attendance, only one bag of trash was created (compared to the usual 40 for an event of this size) thanks to recycling and composting.

In addition, as a result of their effective planning, event organizers produced a handbook on how to host a sustainable event in hopes of inspiring future C-Function planners to reduce their own environmental footprint. As it so happens, inspiration is indeed a two-way street. The Sustainability C-Function organizers were all recognized later in the spring with a 2008 Peer Recognition Award for “contributions to the MIT Sloan community that are novel, new, or innovative; start new traditions or improve existing ones; expand opportunities; or are significantly beyond the usual call of duty.”

are already willing to make their financial decisions based on something other than just profit.”

But along with fear of perceived profit loss, imposed regulations, and drastic changes in lifestyle, a lack of “consciousness,” says Donald R. Lessard, the Epoch Foundation Professor of International Management, may be one of the biggest obstacles to overcome.

“We are used to living the way we live and are only beginning to become aware of how unsustainable our life is,” says Lessard, cochair of the MIT Energy

Education Task Force, a part of the MIT Energy Initiative (MITEI). “In the United States, we consume five times as much energy as the rest of the world, and we make choices that, if the whole world made them, we would ‘burn out’ tomorrow. Consciousness drives action, even if often primarily symbolic at the outset. Symbols matter in getting people engaged, but it is important to focus on impact in order to drive the needed change.”

It is also important to focus on leadership, which many agree is of colossal importance in moving the sustainability agenda forward. On this front, momentum is afoot at MIT and MIT Sloan, where a number of collective and individual initiatives are under way, including Jacoby's ongoing work at MIT's Center for Energy and Environmental Policy Research and its offshoot, the Joint Program on the Science and Policy of Global Change. Another initiative is focused on 800 cities that have signed on to become “greener;” yet another, through the MIT Center for Collective Intelligence, hopes to harness the intelligence of people and existing technologies to better address global climate change using an approach similar to that of Wikipedia.

“One part of the solution has to do with a new type of leadership to bring together folks from all sectors—technology, environment, social mindsets, different socioeconomic interests—to optimize the larger whole,” says Senior Lecturer C. Otto Scharmer, an advocate for “presencing,” a social technology to lead profound change based on his Theory U which “illuminates a blind spot in leadership and social experience.”

“The key thing we are missing today is the social technology to bring people together for a leadership journey,” says Scharmer. “One thing we know for sure is this: Whatever the solution is, it involves people from all sectors who can act in innovative ways together.” ● ● ●