

Campus initiatives show growth potential, but first they must grab hold.

By Karla Hignite

o you know sustainability when you see it? The results of an institution's commitment to environmental, social, and economic health are often subtle. They aren't always evident, and they can be measured by what you don't find.

While every isolated action is important-from paving bike lanes to perking fair trade coffee to paying workers a living wage—the core value of sustainability transcends individual efforts. Campus advocates and practitioners who have been planting sustainability ideals for years declare that absent a strong network of support nurtured across disciplines, departments, and stakeholder groups, the probability that any initiative will reach full height is hampered. A holistic focus is needed to capitalize on curriculum changes and operational investments tilted toward a sustainable future. And that's what appears to be happening: More institutions are embracing systemic sustainability, pairing theory and practice and involving students in key problemsolving and decision-making roles (see sidebar, "Stretching Muscles and Minds").

ity Take Root?

Why Now?

College and university sustainability projects have been around for years. The more recent push to connect academic and operational initiatives and reposition sustainability at the campus core is gaining ground in part because related issues have entered mainstream public debate. "There is growing awareness concerning how various social, economic, and ecological issues interrelate," says Judy Walton, executive director of the Association for the Advancement of Sustainability in Higher Education (AASHE).

In one example, serious concerns about energy supplies and costs in the midst of unstable economies, devastating natural disasters, and burgeoning development of population giants such as China and India have heightened discourse about a shared future on this planet. Combined, the 4,100 higher education institutions in the United States also represent a vast economic engine with a definite capability to leverage spending and consumption patterns in positive ways, says Anthony Cortese, president of Second Nature and AASHE cofounder. The question is: Does higher education have the will to be a key player in teaching and modeling sustainability? In the face of escalating operational costs alone, can it choose not to?

For Cortese, the problem drills much deeper. He argues that, at a macro level, higher education has made far more progress in modeling sustainability than it has in teaching about sustainability. "A sustainability focus requires that we as a society focus simultaneously on systemic solutions for building healthy, economically strong, and secure thriving communities." And yet, we still tend to view health, economic, political, security, environmental, population, and other major social issues as separate, competing, and hierarchical, says Cortese. Likewise, higher education

itself is generally organized into specialized areas of knowledge and traditional disciplines, emphasizing individual learning and competition and producing graduates ill prepared for cooperative efforts.

"Because they prepare most of the professionals who develop, lead, manage, teach and work in, and otherwise influence society's institutions...higher education institutions bear a profound moral responsibility to increase the awareness, knowledge, skills, and values needed to create a just and sustainable future," argues Cortese. Understanding how to create a just and sustainable society must become a fundamental principle taught throughout all education levels and disciplines. "Sustainability is not one more issue that higher education must deal with—like computer literacy. It really is central to an institution's mission and function."

The number of alliances and coalitions that have formed in recent years to support sustainability show that it is gaining attention if not acceptance as an organizing value for setting mission (see our online exclusive this month at www. nacubo.org for a list of resources). At the least, says AASHE Associate Director Julian Dautremont-Smith, society in general and local communities in particular are increasing expectations for higher education to respond to global challenges in sustainable ways. While early campus efforts represented more of a scattershot approach, Dautremont-Smith is excited about a recent convergence of four key areas in which he believes institutions can make a substantial impact: energy, facilities, food, and curriculum.

Hold the Carbon

Skyrocketing campus energy costs are encouraging more institutions to revisit long-term heating, cooling, and lighting options. More attractive than ever: conser-

vation and alternative energy strategies.

Berea College, located in a southern Appalachian Kentucky community of 12,000, serves 1,500 undergraduates. Through its campuswide energy master plan, Berea is in the early stages of a multiyear project to redesign its energy system and slash consumption by 45 percent by 2015, says Diane Kerby, vice president for business and administration. In addition to building retrofits, Berea is transitioning from a 65-year-old coal-fired heat plant to natural gas. The roughly five miles of buried insulated pipe will bear only a 3 or 4 percent loss of energy compared to a 30 percent loss from the current central coal plant and will require about half the space, says President Larry Shinn. Geothermal technology represents another piece of Berea's new energy plan. Entertaining this option meant the college had to slow its renovation process and hire an engineering firm to learn about geothermal requirements and benefits. Today 5 of Berea's 70 buildings are heated this way.

"The entire process has entailed stepping back to figure out how to take a late 19th-century campus with \$140 million in deferred maintenance in 1995 and turn it into something with a smaller environmental and financial footprint," says Shinn. It's been a somewhat slow, building-by-building approach, but the outcome will be measured not only in cumulative energy savings but in knowledge gained, says Shinn. "Along the way we are educating architects, contractors, our staff, and community members, whom we've invited to be part of our process."

Shinn argues that the greatest cost of ecological design is when you do little. "Cutting energy use of a single building by 15 percent is a good start, but if you can make bold steps to cut campuswide energy use by 40 or 50 percent, that will certainly cost more upfront but will save much

more and more quickly." Leaders must base investments on fact, including costs of not implementing energy efficiency and renewable energy. Institutions that don't begin to pay attention to the need to conserve energy and water will pay mightily in the not-too-distant future when greater percentages of operating budgets are required for utilities, says Shinn. "We all need to calculate what we will spend in 10 years if we don't do anything now."

Walter Simpson couldn't agree more. As energy officer for the State University of New York at Buffalo (UB), he believes that a key thrust of any campus greening effort must be energy conservation. "Simply put, energy reflects the single largest environmental impact of a campus—and the biggest potential payback," says Simpson. "You can do many things, but if you aren't serious about conservation, you are simply missing the boat."

In the world of energy conservation, Simpson is a marathoner. He's been catalyzing UB's energy efficiency efforts since 1982 when he pitched the idea for his job to university administration by promising to pay his own salary from reduced energy costs. Since then, the combination of conservation efforts employed by Simpson and UB's facilities staff has paid off handsomely, resulting in an estimated annual savings of \$9 million. Even so,



Energy conservation must be a top priority for campuses that are serious about sustainability efforts.

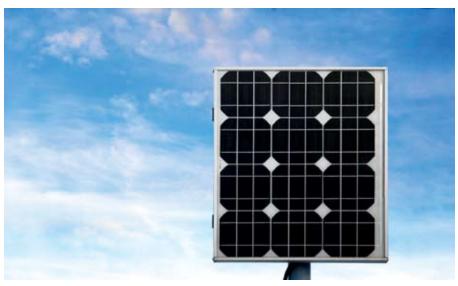
says Simpson, UB's energy team is still scratching the surface.

On a campus as big as UB—with 27,000 students and 10 million square feet of buildings—severe energy price fluctuations can spell the difference between a \$20 million and a \$30 million energy bill during a single year, says Simpson. The big culprit: continued reliance on fossil fuels. "In addition to implementing dramatic conservation measures, making any real dent in energy cost savings requires a radical departure from current consumption

practices. From an energy perspective, you aren't really talking about sustainability until you can cut fossil fuel use by 60 or 70 percent." So far, UB has achieved about a 30 percent reduction—nowhere near where it needs to be, Simpson notes.

Until recently, the university was New York's largest purchaser of wind-generated electricity. "We've taken small steps in the right direction for renewable energy, but when you look at total consumption, renewable still represents less than 5 percent of our total energy source," he points out. This semester Simpson has rallied the involvement of several engineering students to analyze renewable energy options on campus, and he hopes to expand the research into a course this fall that will consider energy from a fully sustainable perspective.

"I could take you building by building and give you two tours of this campus. On the one hand I could point out some impressive conservation measures we've taken, but in the same breath note dramatic inefficiencies that still exist. In reality, this campus is still a giant waste machine. There is so much more we could be doing." Simpson says what he most needs is a big boost from the top. "To really start making the transition to energy sustainability, we need active involvement by campus leaders. This should be a campus priority."



National standards for new construction and existing facilities are raising awareness about smart design. Solar panels are one example of smart design.

Certified Sustainability

A second component pushing campus sustainability forward is the establishment of accepted criteria, says Dautremont-Smith. While many institutions are developing critical internal benchmarks for measuring progress toward specific goals, national standards offered by external industry groups have done much to raise awareness about available and proven technologies and applications. Probably no other group is more recognized in campus sustainability circles than the U.S. Green Building Council for its levels of LEED (Leadership in Energy and Environmental Design) certification for both new construction and existing facilities. "Not only do national criteria help shape the debate around credible assessment tools, they also provide the basis for healthy peer pressure and public recognition," says Dautremont-Smith.

Look no further than the University of Florida for well-earned kudos. UF is sending a strong sustainability message with its certification achievements. Rinker Hall, a learning lab for architecture and building construction students, models the design and efficiency standards that students are being taught. The new LEED gold facility is the second LEED-certified building on the Gainesville campus, where another 14 buildings are registered as LEED projects, says Kim Tanzer, UF School of Architecture professor and faculty senate chair.

Beyond its built environment, UF has received a prestigious certification from the Audubon Cooperative Sanctuary Program. When the suggestion was made to seek sanctuary status for the university's golf course, UF's associate vice president of finance and administration spearheaded a proposal to apply the standards across the entire campus, says Tanzer. The designation recognizes a high level of environmental stewardship in wildlife habitat management, resource conservation, and outreach associated with the 2,000 contiguous acres of the Gainesville campus, which includes 23 conservation areas, some off limits to human traffic.

Stretching Muscles and Minds

Persistent activism from students demanding change to campus life has offered a huge boost to institutional sustainability. Before Julian Dautremont-Smith became associate director of the Association for the Advancement of Sustainability in Higher Education, he spearheaded a successful student initiative to bring his alma mater—Lewis & Clark College in Portland, Oregon—into compliance with greenhouse gas emissions targets of the Kyoto Protocol on climate change.

Students at Lane Community College in Eugene, Oregon, have been central to campus projects ranging from native landscaping to building a biodiesel processor for converting food waste into biodiesel fuel. Berea College students are leading a campaign to influence the energy choices of the Kentucky institution, with a goal of deriving 10 percent of total campus energy from renewable sources by 2010.

Research regularly meets the real world at the University of Florida, where Kim Tanzer helps students consider ways to improve the campus and community. "One of my students researched the benefit of applying film to glass to see whether the university could save money and reduce energy costs," says Tanzer, a professor in the university's school of architecture and chair of the faculty senate. Results revealed that costs associated with applying and maintaining the film in Florida's humid climate would be greater than actual energy savings. "That instance in which the research told us *not* to do something was as useful as telling us what to do and provided an important real-world lesson for the student." Another student has made recommendations to "green" the president's home by, among other changes, installing energy-efficient appliances and improving insulation. Plans are in the works to include the residence in a communitywide parade of homes tour.

Part of Nan Jenks-Jay's position as director of environmental affairs and planning and professor of environmental studies is to help students integrate projects and courses in the context of sustainability efforts at Middlebury College. Ongoing conversations about how to reduce the institution's carbon footprint linked students, faculty, senior administrators, and staff in seeking a solution. Together they inventoried carbon outputs, researched impacts and regional economic benefits, and analyzed investments for migrating to a boiler system that burns wood chips—a recommendation currently under consideration.

What's for Dinner?

A third area of increased campus sustainability focus is within food services. Specifically, local food initiatives are carving a place at more institutions.

Middlebury College has been setting its table with local produce and dairy for decades. One third of its dining budget is shared among 35 suppliers in Vermont, says Nan Jenks-Jay, director of environmental affairs and planning. In an age of mass transport and wide food distribution networks, she says, that takes more effort than many may think.

One tangible benefit for students is fresher food, but the bigger payoff extends beyond campus boundaries. Support of local and regional production and labor sources strengthens local economies and bolsters community relations, says Berea's Kerby. Berea recently formed a steering committee of students, faculty, and staff to develop a local food initiative through which the college will become a patron and a producer, growing some of its food on existing farms located on campus. The proposal will also formalize the college's commitment to buy locally produced

15

Give It 20 Years

The 1992 Earth Summit in Rio de Janeiro drew attention from many academic disciplines, but engineers in particular from around the world took note, says Carol Carmichael, director of the Institute for Sustainable Technology and Development at the Georgia Institute of Technology, Atlanta. That event and discussions stemming from it were the driving force behind Georgia Tech's decision to discern what sustainable development meant for its future.

Start at the end. Top university leadership, backed by financial support from the General Electric Fund, launched an exploration of changes to the undergraduate engineering curriculum, the logical place to start, since nearly 60 percent of Georgia Tech undergrads are engineering majors, says Carmichael, "For us, it made sense to start with what would take longest to implement. Our plan was to work in phases beginning with faculty development, since any curriculum change entails getting current faculty on board, new positions recruited, and research programs and facilities built." A steady progression of campuswide meetings in these early years produced an agenda for incorporating a sustainability focus not only into the engineering curriculum but all degree programs and institutional operations.

Key to Georgia Tech's process was allowing faculty time to explore the topic of sustainability and the university's particular role in this arena. "One of the biggest faculty concerns centered on the integrity of the institution—to make sure that whatever we did under the umbrella of sustainability would be as high in quality as everything else we do," says Carmichael.

Practice what you teach. Phase two, implemented in conjunction with faculty development, focused on building credibility and trust. "For the campus to talk about sustainability in its curriculum but not model it would have been hypocritical," she says. Georgia Tech's senior vice president for administration and finance played a key role by engaging the professionals in his organization with a vision of how sustainability could be used to advance a more efficient yet appealing campus environment. The institution applied the same holistic approach of its academic review to transform master planning efforts encompassing architecture, landscaping, operations, and contractor standards.

Go back to the beginning. A third, recently launched, phase revisits the curriculum. Throughout the past 13 years as Georgia Tech has added faculty members and research programs, courses have blossomed across the curriculum. "For the next

seven years, we're looking to weave sustainability into the full academic program in a way that makes sense within each discipline, recognizing that what a chemical engineer should understand might be different from what someone studying communications should know," says Carmichael. A twopronged approach will focus on general education offered during the first two years across all majors as well as specific courses within individual majors.

Georgia Tech's ultimate goal for its two-decades-in-themaking commitment to institutional transformation is to incorporate a sustainability component for every student in every major and to reinforce and model sustainability in all aspects of campus life. "Sustainability begins with an understanding of the connections among science, technology,

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and society. My sense is that if we do a good job teaching that, we will begin to understand that sustainability is about putting problems in an appropriate context to solve them." Or, as Georgia Tech faculty have come to view sustainability—about creating a world in which we would want to live, says Carmichael. "That has great conceptual appeal because it invokes our collective creative powers to initiate change and allows us to view sustainability not as a constraint but an opportunity."

Pass the torch. Plans under way will allow that mind-set to live on. As the result of an earlier capital campaign, Georgia Tech currently has 21 endowed chairs and professorships for specific areas relevant to sustainability. As the university prepares for its next capital campaign, it has hired a full-time development professional dedicated to working across academic units on fundraising specific to sustainability efforts.

For Carmichael, the long-term funding focus is critical. Because endowments reflect commitments for generations, they reinforce another key concept of sustainability-that of intergenerational planning.

food and make evident the institution's economic link to its community, says Kerby. "Establishing guidelines for purchasing targets will entail working closely with local producers to determine their capability and may require helping local farmers get organized, perhaps by forming cooperatives, so they can meet Berea's increased needs."

According to Cortese, sustainability blossoms in such instances when colleges and universities start to understand their mutual interdependence with their local and regional communities. And understanding occurs to the extent that institutions view themselves of their communities and not merely *in* them.

Changing Coursework

No discussion of what campuses are doing to promote sustainability would be complete without considering what they teach. While decades-long environmental studies programs have produced wonderfully trained specialists, the harder part—and arguably the greater need—is to infuse the full curriculum with a sustainability focus, says Cortese. Among the institutions to comprehensively tackle this challenge is the Georgia Institute of Technology, where the process has proven intensive and long term (see sidebar, "Give It 20 Years").

Berea has been sustainability-minded since its founding, with a long-standing commitment to educating students of limited economic means and a strong focus on interracial education and servicelearning opportunities. More recently, concerted efforts toward ecological proficiency have grown central, with a multidisciplinary sustainability and environmental studies program. And students aren't only learning about sustainability in the classroom. Ecovillage is the college's newest residential component for married and single parent students who, along with their children, experiment with environmentally responsible living through everyday practice. Vegetable gardens, fruit trees, a greenhouse, and a wetland are accompanied by technologies that help residents dramatically reduce energy and water use by up to 75 percent.



Students and local economies reap the benefits when institutions support regional food initiatives.

That kind of modeling and experimentation are vital for sustainability as a core value to take root, believes Cortese. "Ultimately the entire educational experience of students is a function of not only what they are taught, but how they are taught and the way in which an institution conducts research, manages operations, designs facilities, purchases materials, invests resources, and interacts with local communities," he says. "In many cases, we think of these as separate activities. They are not. All parts of the university are critical in creating transformative change in the individual and collective mind-sets" (see

If sustainability
makes such good
sense, why aren't
more institutions
heading down
this path? Why
aren't some further along? One major
impediment to a full-scale
sustainability focus is denial

sidebar, "Comprehen-

sive Commitment").

Sustainability is making its way into the curriculum at a growing number of colleges.

of the real-world challenges we

all face, says Shinn. "College campuses are good at this. Not all scientists agree, therefore we don't think we should move forward. The very diversity of opinions on campus can create a certain skepticism about taking any action."

Half Full

Despite its unrealized potential, sustainability is gaining ground to an extent that should dissuade glass-half-empty thinking. The promise that a sustainability focus can permeate a campuswide agenda certainly seems feasible. But most veterans caution that cultivating a sustainability

mind-set still requires getting down in the weeds.

For Simpson, putting
a commitment in
ink can encourage
desired actions and
attitudes. More institutions are developing
socially and environmentally responsible
purchasing policies
and spelling out specific
benchmarks for everything
from tons of waste recycled
and kilowatt hours saved to zero
sweatshop-produced products sold

in the bookstore. *Not* having written policies and standards can be a real impedi-

ment, says Simpson.

One achievable goal in his mind would be shifting the entire UB campus to 100 percent post-consumer content recycled copying paper. "Currently about 60 percent of the campus has converted. Getting the remaining 40 percent on board would be much easier with a campus policy," he says. "We can do only so much by knocking on doors to make a plea for voluntary transition."

Good policies are one thing. Implementing those policies is another matter. UB has energy-conserving temperature polices, but compliance is a challenge, Simpson admits. "We do our best, knowing that each degree of overheating is costing

of future costs and who will pay."

Likewise, cost-cutting decisions should be considered in light of potential impacts to other program areas, says Simpson. His goal of moving UB from 35 percent recycling of solid waste to 50 percent or better should get a boost with improvements in construction debris recycling. His bigger concern now is what appears to be a setback in office paper recycling. UB's incremental transition from fully benefited state cleaners to contract cleaning crews who are paid low wages and no benefits has resulted in high worker turnover and a sloppy job of keeping recyclables out of the waste stream, he notes. "Understandably,

industry asking for graduates with the kind of knowledge, skills, and values needed to move society toward a sustainable future.

Influencing a significant shift in the priorities of external funding sources is another key challenge, says Debra Rowe, professor of renewable energies and energy management at Oakland Community College, Bloomfield Hills, Michigan, and senior fellow of University Leaders for a Sustainable Future. "Many foundations that fund sustainable production in non-industrialized countries—such as fair trade coffee or sustainably harvested wood—don't yet recognize that sustainability initiatives within higher education in the United States are necessary to create healthy demand for these sustainable products."

Ironically, while colleges and universities are a hotbed of learning and innovation, they often miss key opportunities to educate.

us more than \$300,000 a year." Deep cuts in energy use and kicking the fossil fuel habit will be possible only when everyone sees the urgency of addressing problems such as climate change and is ready to make sacrifices for the sake of achieving genuine sustainability, says Simpson.

The invisible nature of daily consumption is another impediment, notes Cortese. "We simply don't see the waste stream associated with the manufacture of goods and products or their disposal." Making that waste expressly visible should be a key strategy for institutions in teaching sustainability, he says.

The invisibility of stakeholders can also stunt efforts, says Simpson. While cross-disciplinary collaborations have begun to flourish, the tendency still exists to leave out at least one key constituent. Too often, when institutions engage in new construction, fixed budgets force decision makers to shave on first costs without factoring in long-term operation and maintenance costs that will eventually become burdensome, says Simpson. "Who is missing is the next generation. Any decision ought to require children in the room as a reminder

when university employees start to believe that their efforts to separate materials are a waste of their time, they lose interest in recycling, and the program begins to unravel." As Simpson asserts, this is also a living wage issue that shows how sustainability has a justice component.

Externally, the ways in which institutions are evaluated present a significant obstacle, Tanzer believes. "In addition to assessing institutions on studentteacher ratios and their volumes of library holdings, what if institutions were also accountable for their energy consumption?" On the positive side, commitments to diversity and access do give sustainability a foothold in the larger debate, she notes. "If institutions would begin measuring the criteria by which students choose the institution-including decisions based on an institution's sustainability focus and programming—perhaps national rankings would some day include these aspects in their priority mix."

As Cortese suggests, one way to expedite that kind of influence on accreditation standards would be to seek a strong voice among employers in business and

You Are What You Fund

Internally, how to pay for sustainability initiatives requires creativity. Rowe believes bonds offer one great way to fund a package of sustainability projects. "While an individual project may not have a return on investment that would meet that of a bond, the combination of projects that focus on both the social and environmental components of sustainability can meet that ROI and allow a much greater number of projects to be implemented."

Budget incentives don't hurt. The promise of payback can set significant savings in motion that pay for other initiatives and programs, says Tanzer. With approximately 75,000 people on its Gainesville campus each day, UF is a city unto itself. "Specific steps we take to reduce energy consumption can have a big impact on institutional savings." The university has the ability to measure energy use within each building and is working on an incentive program to reward departments and units that reduce consumption by giving half the savings back for them to use as they wish.

Jenks-Jay believes institutional funding should be used to encourage further innovation. "Funding to explore and experiment with campus sustainability can not only result in savings back to the institution but can also reinforce the very purpose of higher education." In 1999,

Comprehensive Commitment

Lane Community College in Eugene, Oregon, is approaching sustainability from all angles. It's the first community college in the state to sign the Talloires Declaration, a 10point plan for achieving environmental literacy and sustainability that has been signed by more than 300 colleges and universities around the world. Beyond leadership and board support, a strong institutional commitment to innovation and learning, and a governance system geared toward participation, Lane is blessed to be part of a community with a high level of awareness around sustainability issues, says Marie Matsen, vice president for operations. The mayor of Eugene recently launched an ambitious initiative to bring together businesses, agencies, and higher education and K-12 institutions to develop a sustainability plan for the entire city. "That puts us in an enviable position compared to most institutions trying to focus on sustainability," Matsen acknowledges.

Organizing for today. For its academic endeavors, Lane offers two-year degree programs in energy management and renewable energy technology and provides traditional and custom learning opportunities for professionals within the energy industry through its Northwest Energy Education Institute. Structurally, Lane's sustainability depart-

ment, housed within operations, includes three full-time staff: a recycling and surplus property coordinator, an energy and indoor environmental quality analyst, and a sustainability coordinator. Informally, the college started a sustainability group open to students, faculty, and staff that has taken on a life of its own, says Matsen. In addition to developing long-term goals and establishing benchmarks for recycling, energy and water use, landscape maintenance, wastewater and storm water treatment, and transportation, the group hosts educational workshops and informal "green" bag lunches.

Preparing for tomorrow. While some of Lane's long-term goals include building all new construction according to LEED platinum criteria and eventually becoming an energy producer—right now the college is doing the hard work of developing a plan for how to get there. Lane already recycles more than 55 percent of its solid waste and is currently the largest purchaser of commercial wind power from its local utility, an amount that accounts for 10 percent of Lane's total energy consumption. "Because we are one of the biggest users of energy in our community, we're one of the biggest polluters," says Matsen. "But that also means we can become the best model for the future."

Middlebury initiated an environmental grants program with a mere \$1,000. After seeing the results of first-year projects, the president was so impressed that he offered \$10,000 from his discretionary fund to support the next grant cycle, says Jenks-Jay. Since its inception, the program has awarded \$69,000 to fund 56 projects, and the college is now working to permanently endow the program.

Grants are available to anyone on campus, but to reinforce the collaborative spirit of sustainability, proposals that include involvement by more than one group—such as students and faculty or students and staff—are more highly ranked, says Jenks-Jay. "Many of the grants have served as the catalyst to lead to permanent systemic changes on campus." For instance, one grant made it possible to offset the initial higher costs of using a 100 percent recycled, no-bleach paper stock for the college magazine. In making the switch, the college is planning to partner with

other institutions in a bulk purchase agreement to bring down overall expenses on a permanent basis. Beyond inspiring innovation and creating collaborations among staff, faculty, and students, she believes the grants program models the foundation required for larger societal sustainability by breaking down barriers, encouraging trust in partner relationships, and building an ethic of joint problem solving.

That kind of close-knit collaboration presents a bigger challenge for an institution the size of UF, but the university's sustainability committee is striving to bring together the hundreds of faculty members working in some aspect of sustainability. For starters, the committee is developing a dedicated Web section for faculty research to capture their projects and to encourage at least virtual interactivity, says Tanzer.

In building interactions, it's important to cast a wide net when identifying campus sustainability, says Cortese. "Those who work to improve public health may not think that what they do relates to sustainability. But the health of individuals is an essential component of a sustainable society."

Germination

Ultimately, the benefits of sustainability are lost if not communicated—externally, internally, and at all levels, says Cortese. He believes one indicator of whether an institution is moving toward a sustainable future is what it is doing to promote its initiatives in every manner possible.

Ironically, while colleges and universities are a hotbed of learning and innovation, they often miss key opportunities to educate, says Cortese. "I have toured six new LEED silver buildings on campuses in the past six months and only one had information about its sustainable design and what that means for the community. Two of those buildings were freshman dorms." Finding ways to celebrate and communicate everything being done by anyone—administrators, business and

operations staff, faculty, and students—is critical for shifting a campus community in favor of sustainability.

According to Cortese, other essential elements of germination are these:

- Is sustainability recognized as a core goal of education and practice by the president, trustees, and senior academic and administration officers?
- Is it incorporated into the mission and vision?
- Are academic and operational policies in place and relations established with the local community to help move in this direction?
- Are specific rewards and incentives in place for faculty and staff that make sustainability an obvious goal?
- Have indicators been established and measurement processes put in place to benchmark progress?
- Does the institution have a comprehensive communication plan that not only celebrates what it is doing but also connects those activities with the social and economic health of its larger community?

Even after an institution has embraced and internalized the concepts of sustainability, it still must commit to ongoing internal education, says Shinn. "We will always have an influx of new faculty, staff, and students each semester. In trying to make sustainability part of the air we breathe, we must continue to entertain the broad philosophical question about humans in relationship to their natural and fabricated environment."

From a practical standpoint, engaging that philosophical debate is more easily accomplished if sustainability efforts are centralized. A Berea graduate, Tammy Clemons serves as sustainability coordinator for her alma mater. "Part of my job is simply making sure that the campus community has access to information about green purchasing practices and recycling," says Clemons. Currently she is compiling best practices so that others are aware of what they can do without reinventing the wheel. Assessment efforts include monitoring performance metrics for a range of activities and 24 progress indicators established by Berea's campus environmental

Learn More at Hawaii Conference

With the spread of sustainability as a priority focus joining campus sectors, associations serving academic, business, operational, planning, and student leaders are likewise collaborating on behalf of their individual and institutional members. The newly formed **Higher Education Associations** Sustainability Consortium (HEASC) is an informal network of associations with a shared commitment to advancing sustainability within their constituencies and within the higher education community by supporting the programming of other member associations, exchanging information and ideas, and engaging in joint projects.

One such collaboration is The Campus of the Future: A Meeting of the Minds conference in Hawaii, July 8-11, cohosted by NACUBO, APPA, and SCUP. These three HEASC members also collaborated to copublish the soon-to-bereleased book *The Business Case for Renewable Energy: A Guide for Colleges and Universities.*

policy committee. The college also tracks students' awareness of and commitment to environmental issues from the time they enter as freshmen to when they graduate.

Education, another component of Clemons's role, may be as straightforward as explaining how a product is offered on campus. Recent energy efficiency measures to turn off display lights on vending machines required signage to let people know that the machines were operable. "Part of teaching sustainability is modeling behavior," says Clemons. "It's important to show that you don't have to suffer to be sustainable but can still operate in ways that contribute to personal comfort

and convenience without harming other people, cultures, or the environment." To the extent that institutions model these behaviors, Clemons believes municipalities will take note of the possibilities and potential for sustainable living.

Other venues for bringing campuswide sustainability front and center include formal governance structures. Middlebury College's environmental council is a standing committee of appointed faculty, staff, and students that recommends policy, educates the campus community, and advises the president about projects and their progress. Jenks-Jay believes that the prominence given to serving on the council and to her own role speaks volumes about the institution's commitment to placing sustainability at its core. She was recently involved in the search for a new vice president for facilities and is serving on the committee to name a new architect firm responsible for campus design under a new master plan. A newly revised college mission statement clearly identifies a commitment to environmental stewardship in both curriculum and campus practices, says Jenks-Jay. "Sustainability isn't an addon here, but is central to the decision-making infrastructure of the institution."

Beneath the Surface

As higher education cochair for the U.S. Partnership for the Decade of Education for Sustainable Development, Rowe has seen a national trend toward sustainability in both the higher education and the corporate sectors. And for those that haven't yet found their sustainability footing? "My experience is that many colleges and universities can already find a sustainability focus somewhere within their mission," says Rowe. "At its core, sustainability is about educating students and the larger community of the challenges our society faces and providing them with the skills and knowledge to engage in solutions."

Seeds worth planting.

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