



# Doing Well by Doing Good

New Center Improves the Bottom Line through Sustainability

BY MARLA VACEK BROADFOOT

Jay Golden once took time off from his undergraduate studies at Arizona State University to serve as a gun-toting environmental crimes detective. Now, 30 years later, he brings that same passion and fervor to his work at the Nicholas Institute, as the newly appointed director of the Duke Center for Sustainability and Commerce.

Sustainability and Commerce—or “corporate sustainability”—is reducing the environmental, economic and social

footprint left by corporations, so that future generations have the same opportunities as the current one.

Our planet is in a state of rapid urbanization and population growth. The population is going from 6 to 9 billion people, almost half of which will be considered middle class. More people means more products being purchased and more resources being used up, putting more strain on an already stressed environment in terms of climate change, natural resource

depletion and energy shortages. Changing the way corporations do business could make a difference in reducing those effects, Golden said.

“Corporations play a big role in the sustainability of our planet,” he said. “Almost half of all greenhouse gas emissions in the United States are attributable to consumer products. At Duke, our center is developing the methodologies to help quantify the role of corporations, and then to model and identify ways to reduce



those impacts throughout the full value chain. That means modeling every step from natural resource acquisition, manufacturing, distribution, retail sale, consumer use and eventually disposal, reuse or recycling.”

Golden has long been a pioneer of corporate sustainability. He earned his Ph.D. in engineering from the University of Cambridge, and a master’s degree in environmental engineering and sustainable development from a joint program of the Massachusetts Institute of Technology and the University of Cambridge. Golden was then hired as the first faculty member in the first full school of sustainability at Arizona State University. There, he focused primarily on the engineering side of the built environment and finding ways to reduce energy and climate impact.

But Golden quickly became frustrated with the amount of time it was taking to effect positive change, and started to expand his work to the corporate side by exploring how to measure and report changes in sustainability to consumers. So when he got a call from an executive at Wal-Mart asking for his help in making their operation more sustainable, he eagerly entered into a partnership with the world’s largest retailer.

“If you can move that size ship towards a more sustainable future, that carries a lot of weight and a lot of opportunities,” said Golden.

The Sustainability Consortium, which Golden founded and now serves in an

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advisory role, includes not only Wal-Mart but also a number of other leading retailers and manufacturers from around the world such as Disney, Proctor & Gamble and General Mills. Together, those corporations are working to come up with a global standard to measure, report and ultimately to score the impact of their products.

A number of similar industry-led efforts are also underway. In late January, Golden brought approximately 100 thought leaders to Duke to brainstorm on a variety of sustainability issues. Among the participants were the Federal Trade Commission, which regulates how corporations communicate the sustainability of their products; international organizations like the World Bank; industry partners from apparel to retail to manufacturers; and pure university researchers from Duke and collaborative institutions like Yale, Cambridge, Cornell and Stanford.

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Even before coming to Duke, Golden had been collaborating with researchers at the Nicholas School as director of the Sustainable Energy Fellowship. The program consistently receives 10 times the number of applicants as there are spots, which Golden says is a sure indication of how keenly interested students are in issues of sustainability, energy and consumerism. Some of these issues are social rather than environmental in nature, and have begun to

arise as more products are purchased from developing countries, each with their own societal norms for employment. For example, in some African countries the oldest child, who might be under 18, provides the financial support for the family. That practice might be against the law on this continent, but is a way of life on others.

Golden feels that the social aspects of sustainability will likely require an even more educated and mature approach than has been used to tackle the environmental aspects. Through the new center, Golden hopes to cultivate the future leaders who will address these issues, first through new courses on “Life Cycle and Sustainable Systems” and later through the development of a two-year certificate program that will cover both the drivers of sustainable systems, as well as the tools and analytics used to measure sustainability.

He also plans to tap into a number of different partners at Duke—the Pratt School of Engineering, the Nicholas School for the Environment, the Sanford School of Public Policy, the Fuqua School of Business, the Duke Center for Global Health and the Duke Center on Globalization, Governance and Competitiveness—to help his center create useful models of sustainability.

“Having global health, energy and the environment as major foci for this university is a great benefit,” said Golden. “Duke’s commitment to trans-disciplinary research will make it possible for us to develop what has been sorely needed in this field—a way of modeling sustainability that is timely, effective and user-friendly. You shouldn’t have to have a Ph.D. in engineering to be able to use these models to make your company better.” 