

TopCAT Honors Green Innovation

The word “sustainable” entered the corporate lexicon as an economic development term in the late 1980s. The emphasis then was on conservation, on preserving resources and minimizing impact. Twenty years later, the concept of sustainability has evolved. What was once a matter of social responsibility is now the driving force behind what is emerging as the hottest trend in business: Green Tech.

Last year was a watershed year for clean technologies. According to the National Venture Capital Association, clean tech investments by U.S. venture capital firms in 2007 hit \$2.6 billion from just 168 deals. In May, Marc Gunther, Fortune senior editor, referred to green initiatives at old school heavyweights like Caterpillar, DuPont and General Electric as “further signs that the greening of America is unstoppable, and that products and services that help solve big environmental problems can be good for business.” By October, Green IT led the Gartner, Inc. list of the top 10 strategic technologies for 2008.

TechColumbus celebrated Central Ohio's green tech innovators last week at the 2007 TopCAT Innovation Awards. Six companies were nominated to receive the Green Innovation TopCAT award, a new category this year, and in this TechColumbus newsletter, we take a deeper look at these nominees – what makes them tick and what makes them green.

Sustainable IT

Sustainable IT, per CIO magazine, encompasses “the manufacture, management, use and disposal of information technology in a way that minimizes damage to the environment.” Manufacturing a PC consumes ten times the machine's weight in fossil fuels and chemicals. That's quite a carbon footprint. The added post-consumer imagery of discarded monitors, widgets and battery packs log jamming landfills and leaching toxins is enough to make even the most hardened IT enthusiast question to the “necessity” of a new Hi-Def monitor. Thankfully two Central Ohio entrepreneurs have been on the case for years. Each offers a unique green tech solution that supports both the bottom line and the environment.

Horizon Datacom has been buying, refurbishing and reselling network equipment since 1995. In that time, the company has been responsible for the recover and reuse of thousands of tons of equipment. CEO Vicky Nosbisch is more than a pioneering entrepreneur. She is a tireless advocate of sustainable IT.

“The sheer bulk of technology goods I've seen sitting in warehouses and the back of data centers waiting for the landfill is heartbreaking. Most people have no idea,” Nosbisch said. “We built Horizon Datacom around the simple fact that

enterprise-grade networking hardware can be refurbished and put back into useful life. Many businesses, but especially small- and medium-sized businesses, can receive years of useful life out of a piece of recovered equipment. In the last twelve years we've created a vibrant company that does business worldwide. I'm proud of what we do. Not just because we've been successful, but also because of what we do to keep equipment out of waste stream.”

Less than 10% of discarded cell phones are recycled. That means of the 143 million cell phones retired in 2007 in the U.S., most end up piled up somewhere out there in the great silicon graveyard.

Dublin-based e-Cycle, Inc. has found a better way for businesses and consumers to deal with wireless obsolescence. In the past year alone, e-Cycle has diverted over 1,000,000 cell phones and wireless accessories, which equates to over 200 tons of e-scrap, from U.S. landfills while helping to raise hundreds of thousands of dollars for national charitable and corporate organizations.

“Whether you want to recover the most value from used wireless equipment, securely destroy corporate or personal data, or need wireless products disposed of in an environmentally responsible manner, we provide the simple one-stop solution,” said Tonia Irion, Vice President of Marketing for e-Cycle.

e-Cycle, Inc. recycles wireless phones and accessories, including cell phone chargers, car adaptors, and batteries. The truly obsolete are recycled, but equipment that is still in working condition is refurbished and resold on secondary markets in the U.S. and abroad, which promotes reuse and provides wireless technologies to the less fortunate.

Sustainable Innovation

Green IT initiatives are one way to foster environmentally responsible behavior and to promote sustainable business practices. Other companies focus on creating new materials and processes to reengineer business practices with an eye toward sustainability.

Ross Youngs is an entrepreneur and an award-winning inventor. He founded Univenture, Inc. in 1988 in response to the market potential he foresaw in the manufacture of flexible, functional packaging, storage and presentation products for optical media (CD/DVD). Today, Univenture is ready to meet the market again with biodegradable media packaging materials made from renewable sources, including corn.

Youngs is excited about the opportunity. “Univenture has been designing eco-friendly products and packaging based on the ‘Reduce, Reuse, Recycle’ philosophy for 20 years and we are thrilled the new sustainable materials we are utilizing meet customers' desire for getting attention and noticed in the marketplace and being socially conscious”

Branded EcoEndure, Univenture's eco-friendly materials are suitable to commercial composting facilities and feature corn-based films and biodegradable polypropylene. Most recently, the DVD of “An Inconvenient Truth,” the Academy Award-winning documentary featuring Al Gore, hit shelves worldwide wrapped in a Univenture envelope made from renewable plant-based plastics.

Transmet Corporation is the world's largest producer of rapidly solidified metals, producing millions of pounds of specialty metal particles annually. For over 20 years the company has quietly supplied the energy industry with specialty high performance products. To hear Transmet President and Co-owner P. Douglas Shull say it, borrowing a slogan, “We do not make anything you would use; we make a lot of the things you use better.”

Transmet's latest innovation, known as Fast Melt, melts aluminum two times faster and provides a 35% reduction in melting energy costs. This simple technology has been in use at Transmet for over one year and the results are well documented. The technology is patent pending and negotiations are in progress for a worldwide distributor.

Sustainable Living

Some green tech innovations are simply that: technologies to improve quality of life. For the team at General Innovations and Goods, Inc.



The 2007 TopCAT Innovation Award for Green Innovation was presented last week to Dr. Bruce Monzyk (center) and Battelle. Also pictured are Dan Rogier of AEP (left) and Ted Ford of TechColumbus (right).

(GI&G) that means designing products and technologies to help us all to breathe a little easier. GI&G develops and manufactures patented photonic air disinfection technology. Essential a highly-efficient air cleansing system that produces no ozone or other harmful byproducts, the GI&G technology has recently proceeded through a series of clinical trials, including a study funded by the National Institutes of Health which demonstrated its effectiveness improving the health of children suffering from asthma by reducing the number and severity of asthma attacks in children dramatically.

Acid Mine Drainage (AMD) water is a toxic byproduct of coal and metal mining activities and certain types of large construction projects. AMD-polluted seep water, hydrogen sulfide odor, and soil with toxic metal ions and high salt content contaminate the water in thousands of sites throughout Ohio, Pennsylvania and West Virginia, as well as countless others around the nation and the world. The Acid Mine Drainage Value Extraction Process developed at Battelle by a research team led by Dr. Bruce Monzyk purges toxins and contaminates from AMD waters at lower costs in higher yield, with less energy consumption and with great effectiveness than current technologies allow. It is the only process that purifies all of the AMD water to secondary drinking water standards and does not produce toxic landfill waste. It holds tremendous promise in terms of mitigating environmental impact and risks to human health from industrial activities as well as reducing the incidence of costly infrastructure repairs due to damage from AMD waters.

Dr. Monzyk and his team took home the TopCAT award last Thursday, but these six companies and the efforts of their ownership, management and staff are each outstanding examples of Central Ohio's contribution to creating a more sustainable, more livable world.

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