

## GREEN EXHIBITING

## HP's Lean, Green Exhibit Machine

To clean up its act for the 2008 International Consumer Electronics Show, Hewlett-Packard Co. redesigns its exhibit — and leaves competitors Green with envy. *By Charles Pappas*

Every year, Hewlett-Packard Co. ships its exhibits to more than 200 large-scale trade shows in the United States. With these particular exhibits weighing in at a whopping 7,000 pounds, that means HP was shipping approximately 700 tons of unrecyclable carpet, polyvinyl chloride (PVC), plywood, and more via fossil fuel-spewing semis from New York to Chicago to Los Angeles and beyond, emitting an estimated 30 tons of carbon dioxide every month.

But in 2007, HP began searching for Greener exhibit pastures to reflect its emerald-hued corporate image. The fact is, despite its environmentally toxic exhibit program, HP was Green back when ecological correctness was reserved for tree-hugging hippies. For example, HP started recycling its computer print outs and punch cards in 1971, 15 years before the country's first statewide mandatory recycling law went into effect. It initiated its LaserJet print-cartridge return and recycling program back in 1991. And it stopped making products with ozone-depleting chemicals in 1993, two years ahead of an international ban. Today, HP's environmental efforts are still considered remarkable — it's the only U.S. company in the top 10 of the London-based Accountability Rating, an index ranking how well the planet's 100 largest companies measure their effect on the environment.

But a company is only as Green as its brownest link. And for HP, that weakest link was its trade shows booths, which were about as Green as a coal-burning power plant. HP knew that Greening its exhibit was a matter of necessity. Looking ahead to the 2008 International Consumer Electronics Show (CES), the company planned to promote its environmental stewardship and showcase its eco-friendly products and recycling programs in hopes of appealing to what Joel Makower, author of "The State of Green Business, 2008" says are the 70 percent of consumers who are eagerly purchasing eco-friendly products over less ecological equivalents. But if HP touted its Green products in an exhibit made of pollutant-spewing, energy-wasting materials, it would be like discovering PETA officials picketing cruelty to animals while wearing leather, eating veal, and purchasing lipstick tested on bunnies. So according to Milena Pastori, HP's design manager for corporate event marketing, "HP wanted not just its products but also its booth to prove how it can impact the environment in a friendly way."

### It Ain't Easy Going Green

Despite all its years of eco-conscious products and programs, HP was, well, green when it came to Green booths. **So starting in March of 2007 — nearly 10 months before the 2008 show — Pastori began drawing input from a team that included its exhibit house, Warren, MI-based H.B. Stubbs Co. LLC; Birsel + Seck Studio of New York, which designed several of the booth's components; San Francisco-based Paper Plane Studio which designed the new exhibit-graphic system; and Digital Pond, which produced the graphics.** Also deeply involved in the brainstorming was Glenda Brungardt, trade show manager for HP's imaging and printing group, who typically leads the efforts for HP's large consumer shows. From the start, HP knew it couldn't just swap out non-Green elements for Green ones like bad bulbs on a string of Christmas lights. "Instead of retrofitting the booth piecemeal, we rethought it entirely from a Green perspective," Brungardt says. That meant looking at the exhibit's potential environmental footprint — the impact of every material in it from manufacture to shipping to eventual disposal — and exploring ways to shrink that footprint.

### Get the Message?

To underscore the exhibit's eco-friendly design and appeal to eco-conscious consumers, fabric panels inside Hewlett-Packard Co.'s exhibit encouraged attendees to, "Imagine a sustainable future. Rethink expectations. Reduce your carbon footprint. Make choices that make a difference. Save resources. Choose technology designed with the environment in mind. Conserve. Promote innovation. Stand for responsibility. Decrease your impact. Recycle with confidence. Lead change."

### Green Scene

Connecting its exhibit to its other eco-friendly efforts, Hewlett-Packard Co. remade its old, 30,000-pound booth into a leaner, Greener model of environmental consciousness. Aluminum, X-Board, formaldehyde-free plywood, bamboo veneer, and recyclable carpet replaced the more toxic PVC, maple veneers, and MDF, resulting in a booth almost 30 percent lighter.



First, HP decided the new booth should be as lightweight as possible to minimize the amount of diesel fuel used to ship it. The company also wanted the design to emphasize modular and flexible components that could be reassembled into various sizes and shapes so that HP could reuse them for other shows instead of tossing out the bulk of the booth after just one use. The team also decided to research Green alternatives to traditional exhibit materials. Once those materials were located, they were evaluated based on cost, the environmental impact of their manufacturing process, whether they had some kind of certification as a Green material, and how well they would hold up over 200 trade shows a year.

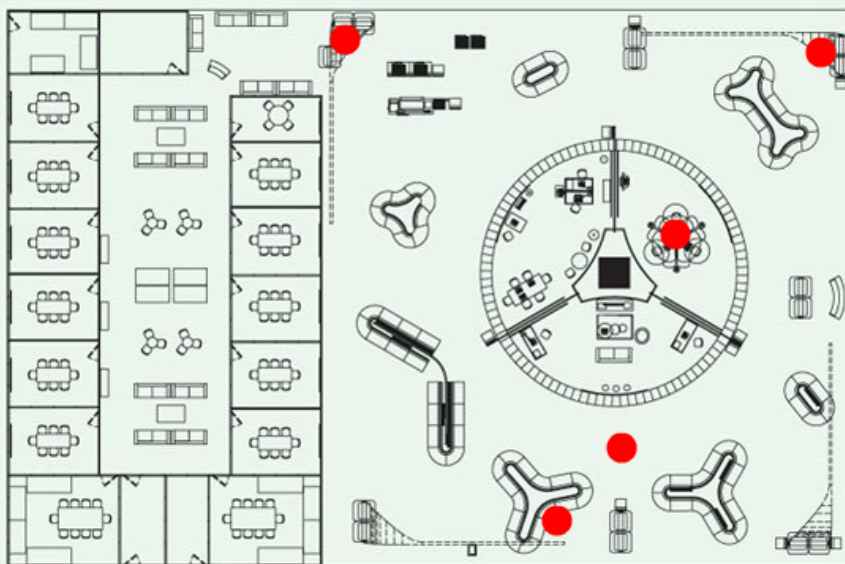
But anyone who has ever tried to Green an exhibit would know from experience that constructing a more environmentally friendly property is not as easy as customizing a Build-a-Bear. Few industries have the problems faced by exhibitors, who rely on products which are assembled, disassembled, packed, and shipped dozens or even hundreds of times a year. Finding Green versions of standard materials that can withstand the rigors of exhibiting is extremely difficult. "There is no one-stop shopping source for Green materials," says Doug Atwood, vice-president of marketing programs in the San Francisco-area office of H. B. Stubbs. "And there are no benchmarks that we could find to prove that a given exhibit material is Green, or show what its environmental footprint is."

There is also no authoritative and independent agency that certifies the types of materials that could go into a booth, from carpet to countertops. Moreover, finding apples-to-apples comparisons between Green products' price, availability, and durability is like trying to find a Hummer that gets 50 miles per gallon. Even though HP joined the Carbon Disclosure Project's Supply Chain Leadership Collaboration, which is attempting to craft a single standard approach to measuring the carbon footprint of its member companies' supply chains, the truth is, no one can agree on how to gauge a product's impact on the environment. Do you base it solely on how much energy was used to manufacture it? Do you consider how much energy it saves or it takes to dispose of it? Or do you also factor in how many hazardous chemicals it uses? "It's an imperfect process," Atwood says. "We were in uncharted territory and learning by trial and error. Basically, I Googled a lot."

### The Biggest Loser

Thanks to a bevy of eco-friendly exhibit options, Hewlett-Packard Co.'s booth slimmed down from a hefty 30,000 pounds to approximately 20,000, preventing an estimated 115 tons of carbon dioxide from being released annually into the air during shipment to and from the company's 200 large-scale domestic shows.

*roll over red areas for information*



### Behind the Green Door

Like Thomas Edison who tested — and tossed — 6,000 types of materials for his incandescent bulb's filament before he found one that worked, HP and Stubbs mixed and matched multiple combinations of materials for 10 long and sometimes frustrating months. The goal was to Green a booth that would be 17,200 square feet (14.5 percent larger than the 2007 exhibit) yet consume less energy than its predecessor.

To estimate how well alternate materials might hold up over a year of trade show duty, Stubbs and HP beat up on them like the New York Giants did the New England Patriots. For example, they stuck substrates out for days in the chilly fall weather at Stubbs' Salt Lake City facility to subject them to temperature change and moisture, fried them with a heat gun, gouged them with screwdrivers, and whacked them with a pipe like Tony Soprano discussing an overdue loan payment.

After nearly a year of such experimenting, HP had a Green game plan. It would junk its past exhibit's heavy skyscraper-like towers, which were made from metal and MDF and featured PVC-skinned large-format graphics. In their place, HP would use recyclable aluminum frames. The modular frames would allow HP the ability to take them apart like Tinkertoys and reconfigure them into an endless variety of booths for virtually any size or type of show. When the day comes that HP finally discards the aluminum, it will require 95 percent less energy to recycle it than to make the equivalent amount of aluminum ore.

But the towers were just the tip of the melting iceberg, as eco-friendly alternatives could be found from their overhead peaks to the carpets underneath attendees' feet. For example, HP used to throw away 8,000 square yards of exhibit carpet each year as a result of its trade show endeavors. Starting in 2008, the company now uses a 100-percent recyclable, corn-based carpet from Mohawk Industries Inc., which allowed it to stop contributing an estimated 36,000 pounds annually to the 1.8 million tons of rugs and carpet dumped in landfills every year. Instead of cabinets also made from maple veneer and MDF, HP used a formaldehyde-free plywood made from renewable woods and aluminum for the body of the cabinets, and bamboo veneer for their countertops, translating to an average savings of 2,000 fewer pounds to haul per show.

To replace the old booth's exhibit-display panels made of PVC, a suspected carcinogen, HP tested traditional panels against X-Board, which is manufactured from 100-percent recyclable waste paper. Looking like a cross between corrugated cardboard and a honeycomb, the X-Board proved to be lighter and stronger. As a result, HP reduced its use of PVC panels by more than 90 percent, from more than 2,700 square feet of PVC to only 200. Furthermore, in order to reduce the waste generated by printing show-specific graphics, HP now designs graphics that can be reused at multiple shows that target a range of the company's various audiences, reducing the waste — both economic and ecologic — associated with reprinting graphics. The company even discontinued the containers used to transport the booth, opting instead for formaldehyde-free renewable wooden crates approximately 20 percent lighter than previous ones.

## Greened Acres

Even with all it had done to create an earth-friendly exhibit, HP wasn't going to automatically stand out among the more than 2,700 exhibits at CES just for being Green. In fact, the 2008 CES show floor looked like an environmental food court: Dell Inc., for example, which had recently staked a claim to becoming the Greenest technology company in the world, arrived at CES with a booth using walls made from discarded agricultural fiber and promised to plant a tree anytime someone buys one of its PCs. Nokia Corp.'s booth boasted its new phones made partly from recycled materials, and new product packaging that uses 50 percent less material than before. Even the show itself was preening with Greening; CES management used recycled carpeting, printed literature on recycled paper with soy ink, recycled light bulbs, and worked with Carbonfund.org to offset the estimated 20,000 tons of carbon emissions the show produced by investing in a mix of wind energy, reforestation, and various forms of renewable energy.

But what set HP apart from the rest was how its eco-friendly initiatives were woven throughout its exhibit, from the carpet fibers to the skyscraper towers to the ribbon-shaped logo positioned above the booth (previously made of foam-filled wood, laminate panels, and armored with heavy PVC panels, it was now a lighter, fabric-covered aluminum frame). But if the booth, with its recyclable, energy-saving metal, rugs, and woods was an ecologically sensitive body, its soul was the 100-member staff. Outfitted in eco-fleece T-shirts — made from a polyester fiber 100-percent derived from recycled bottles — and trained to talk about the company's numerous Green initiatives, they walked attendees through the exhibit, and knowledgeably discussed the company's recycling programs. Staffers escorted visitors to the exhibit's Green Office zone, a bamboo-floored setting filled with energy-saving PCs, printers, and more. In one area of the exhibit, HP featured a prototype of a biodegradable desktop printer composed of materials made from corn. In another, a LaserJet printer sat next to a clear box filled with the detritus left after the printer is ground up for recycling. Another similar display showed the various stages printer cartridges go through as they're recycled into a variety of products from auto body parts and fence posts to serving trays and roof tiles.

## Waste Management

Hewlett-Packard Co. placed a transparent box filled with the fragments left after a printer is ground up for recycling, while other displays explained the stages printer cartridges go through as they are recycled into a variety of products such as auto body parts and fence posts to serving trays and roof tiles.





During attendees' visits to the booth, staffers distributed branded eco-friendly pens made from recycled paperboard and recyclable polypropylene, and stressed the fact that everything from HP's entire product line received the Environmental Protection Agency's Energy Star rating. They also discussed the company's Supplier Code of Conduct that places environmental standards on HP's army of suppliers, with regard to both carbon emissions and waste production. Grass-green placards in the booth headlined the "Environmental Responsibility at HP," and told how the company's "long-standing commitment" to "designing for the environment" resulted not only in making it easy for consumers to buy Green products, but to get rid of them safely, too.

The booth served as a fitting backdrop for HP's announcement during the show that by 2010, it will shrink its energy consumption and the resulting carbon-dioxide emissions from company facilities worldwide to 15 percent below 2006 levels. "The booth and HP's initiatives played off each other," Brungardt says. "People told us, 'You guys gave Green sex appeal.'" What's more, while attributing any success to the Greened booth is tenuous at best, Pastori confirms that HP saw a 10-percent increase in leads over its 2007 exhibit.

But even though HP's new exhibit is definitely Greener than the company's past properties, HP knows that there's a lot more work to be done on the eco-friendly front. For example, despite testing at least five potential substitutes for the acrylics used in the exhibit's display cases, Green replacements could not hold their shape more than a few hours or days after being made. Similarly, water-soluble paints, which are free of mercury, lead, and petroleum byproducts, fared poorly next to oil-based counterparts. The Greener alternatives required twice the preparation time and labor: Wood painted with them swelled up, required sanding down, and, consequently, needed more paint. In fact, almost a year after starting the quest for substitutes, HP and Stubbs are still looking for ways to displace acrylic and oil-based paints. "Greening a booth is an ongoing evolution, not a one-time solution," says Atwood. "It's a forever process."

Though HP is still trying to measure the booth's total energy savings, and has just started using its 2008 program as a baseline for future environmental improvements, the company accomplished its goal of shrinking its environmental impact. The average weight of its booth decreased by one-third, from 30,000 pounds to about 20,000, meaning it has prevented roughly 120 tons of carbon dioxide a year from fouling the air during the shipping process alone. That's a substantial achievement given the rule of thumb that as much as 75 percent of a company's carbon footprint can come from transportation and logistics. "It was Herculean effort," Atwood says, "but it was worth it." E

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