

2010



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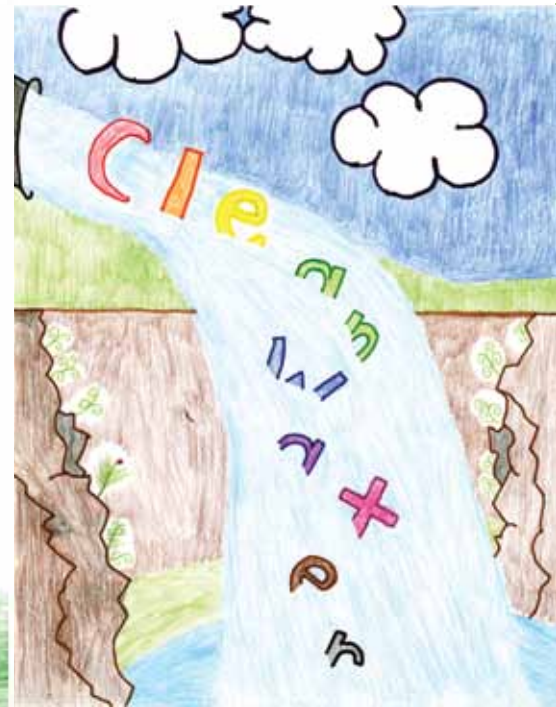
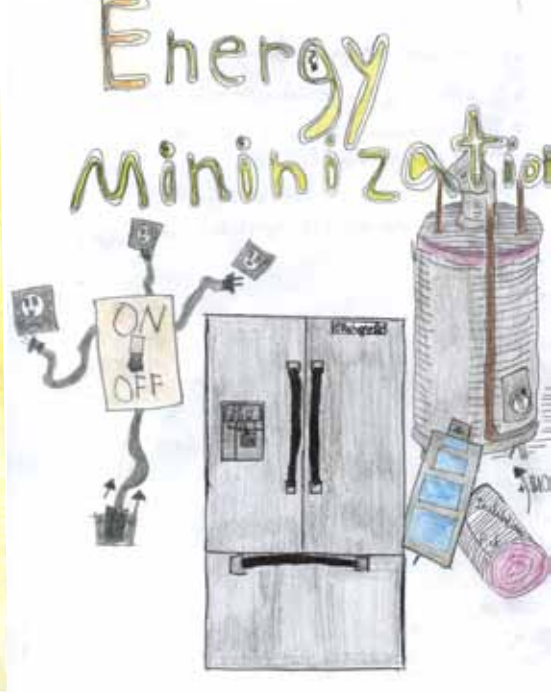
KNOLL  
ENVIRONMENTAL,  
HEALTH & SAFETY  
ANNUAL REPORT

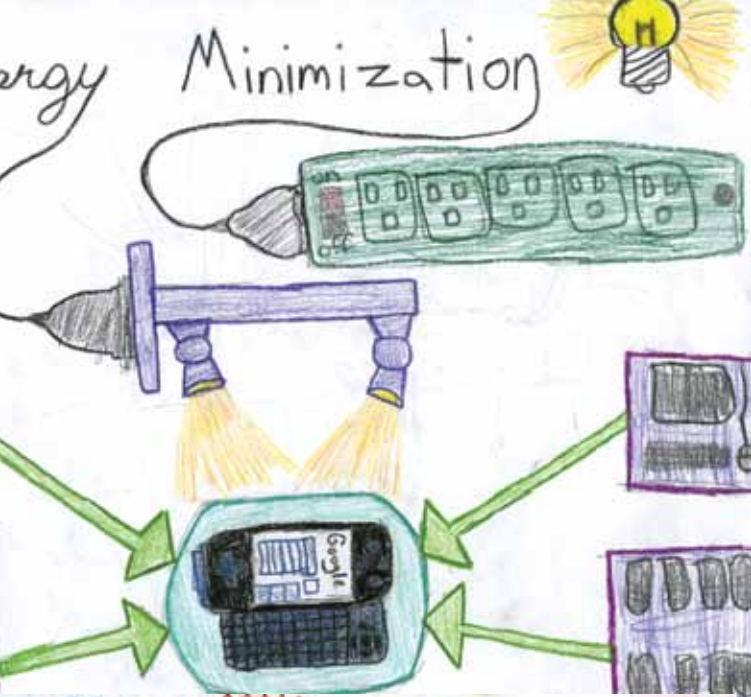
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THE 16TH ANNUAL ENVIRONMENTAL HEALTH & SAFETY REPORT PUBLISHED BY KNOLL



**Knoll**



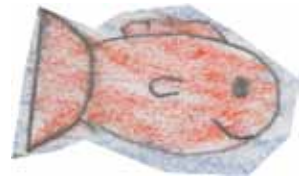


In 2010, Knoll once again sponsored the Annual Environmental, Health and Safety Art Contest for school children at the Upper Perkiomen Middle School in East Greenville Pennsylvania. Some of the winning entries, chosen by professional artists, are featured in this report.

“Our focus on modern design and sustainable practices continues to transform Knoll.”

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**Benjamin Pardo, Knoll Design Director**



# CLIMATE CHANGE

## Knoll Makes Climate Change Advances on Multiple Fronts in 2010

Knoll has invested over \$3 million in the last five years in energy efficiency initiatives and infrastructure. These include efforts targeted at reducing CO<sup>2</sup> emissions, a major contributor to climate change. As reported in the 2009 EHS Report, the company was two years ahead of its end-of-2010 deadline in meeting and exceeding its commitment under the Chicago Climate Exchange (CCX) to reduce greenhouse gas emissions at its facilities by 10% over a 1998-2001 baseline and to pay for energy offsets if it failed to meet its goals. Actual reductions totaled 10.4 % as of the first quarter 2009, and the final CCX audit will be released in spring of 2011.

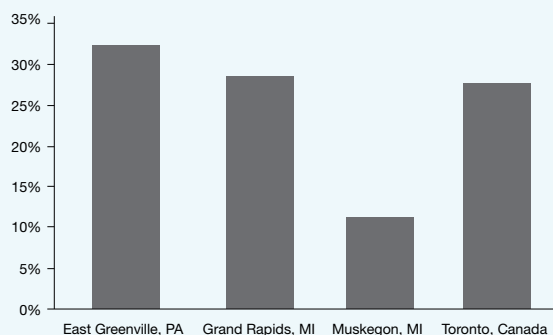
This achievement is an important milestone on our journey, but it's not our final destination. Knoll had an energy efficiency program in place before it made its CCX commitment, and the company continues to implement its Comprehensive Energy Management Plan now that CCX has been completed.

### Beyond CO<sup>2</sup>: Tracking Total Greenhouse Gas Emissions

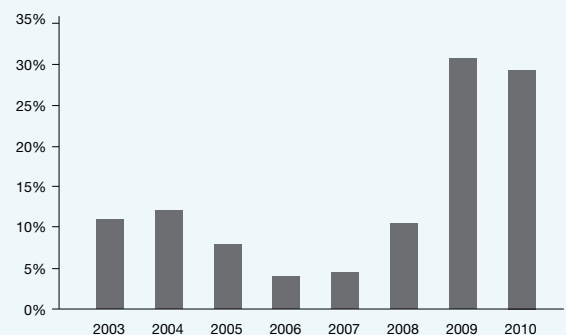
While CO<sup>2</sup> emissions are critical to climate change, other greenhouse gases, including NO<sub>x</sub> and methane, also play key roles. Pollutants such NO<sub>x</sub> (nitrogen oxide) contribute to global warming, affect climate change, and have a serious impact on health. Methane is 21% more potent as a greenhouse gas than CO<sup>2</sup>. In 2010 Knoll continued its efforts to reduce or eliminate these gases from its processes. Knoll facilities are already virtually VOC-free.

Overall between 2003 and 2010 Knoll reduced its emissions by 20.76% on an absolute basis

Percentage Reduction non-CO<sup>2</sup> GHGs All Sites



CO<sup>2</sup> Reduction All Sites



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## In 2010 Knoll pursued the following initiatives to address emissions contributing to climate change:

### Air Wars

This best practices initiative focuses on increasing efficiency and reducing waste in compressed air operations at Knoll manufacturing sites.

Compressed air uses six times more electricity than an electrical tool to do the same job. Reductions in compressed air usage and waste result in substantial energy and cost savings.

At the Toronto facility significant advances were made in replacing compressed air-powered screw guns with cordless electric tools. Where feasible, compressed air guns used to blow-clean equipment were removed and replaced by hand cleaning with brushes and brooms, reducing compressed air power usage and associated waste. In addition, air shut-off solenoids were installed on remaining compressed air-powered equipment to prevent compressed air waste through leaks when equipment is not running. In 2010 Air Wars achieved energy reductions of 89,368 KWH with savings of \$9,777.

The Muskegon facility implemented modifications in compressed air intake processes. By powering compressors with dense air taken in from outside the plant, instead of less dense air from inside, the facilities realized increased efficiency of compressors and associated energy savings.

### Wireless Control Energy System

The functional capability of the Kanepi wireless control energy savings system installed in the East Greenville Lubin fabrication building in 2009 was expanded in 2010. The system makes it possible to provide lighting for hubs of activity as needed and for configurations of lights to be changed electronically using software commands as conditions on the floor change (for example, by turning the lights off when a workstation is empty). An additional 25% of system nodes were activated in 2010, bringing a total of 85% on line; experiments on load-shedding capabilities were conducted; and

tests were implemented to assess the efficacy of applying the system across all manufacturing sites.

In 2010, with 85% of system nodes active, the company saved an additional 180,000 KWH of electricity and \$1,600 in energy costs. When all nodes are activated total savings are expected to reach \$300,000 per year. With the Kanepi network and energy management system, Knoll was able to shed power at critical times and receive rebates. East Greenville load shed 800 KWH in 2010.

### Agility Project for Maximizing Efficiency

Selected stand-alone wood operations at the Grand Rapids manufacturing facility were transferred to East Greenville where similar operations were in place. By shutting down stand-alone operations, Knoll realized a net sales-adjusted CO<sup>2</sup> reduction of 4%.

### Activity-Based Energy Metrics

In 2010 Knoll Energy Manager Barry Bach continued to develop and test procedures for measuring the energy consumed and CO<sup>2</sup> emitted in the manufacture of individual Knoll products. Metrics are gathered for every manufacturing process and material used in the production of a given system, casegood or chair. These metrics can be used to generate accurate carbon footprints, normalized for production volume, for all Knoll products in order to compare performance across facilities, better inform investment decisions, and achieve greater efficiencies. Activity-based metrics from the company's own processes are now being used in place of industry data, making Knoll LCAs (Life Cycle Assessments) more accurate and powerful tools.

### Purchasing Green Energy

In 2010 Knoll purchased e-certified green wind energy to supply all-electric power at the East Greenville Lubin facility.



*“We always look at economic value as well as environmental value. You spend money up front on the environment, but in the long-run you get money back. Knoll saves money every year as a result of our energy program.”*

— Lou Newett, Environment, Health and Safety Manager, Knoll, Inc.

### Zeroing In on Zero Waste

Knoll has the goal to become a zero waste company. In 2010 the company increased diversion of waste from landfill from 79.58% (2009) to 88.55%. New procedures and protocols developed for the Zero Waste Program in 2010 resulted in recycling more, converting more organic material to energy, and eliminating from production processes those materials that could be neither recycled nor burned.

“Our first choice is to recycle,” explains Knoll East Greenville EHS Manager Chris Marozzi. “We carefully separate recyclables at our facilities to keep them out of landfill. But for wood and plastics that cannot be recycled, converting to energy is a good solution.” Knoll sends wood scrap and non-PVC plastics that cannot be readily recycled to regulated and permitted EfW (Energy from Waste) facilities. Improved measures in 2010 doubled over 2009 the amount of sawdust and wood diverted

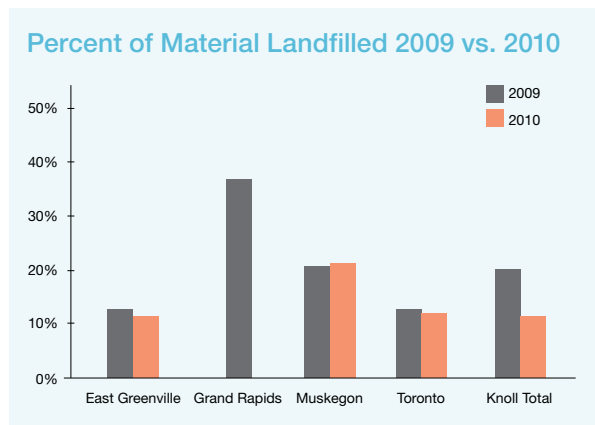
from landfill to energy from waste. Under the new procedures, the Lubin East Greenville facility lowered its compactor waste by 4.65 tons in 2010.

### Energy from Waste

Energy from Waste (EfW) is a greener energy source than coal and oil and is classified as “renewable” by the US Department of Energy. EfW facilities burn solid organic waste at very high temperatures to produce steam for generating electricity. Combusting one ton of waste in an EfW facility prevents the equivalent of one ton of CO<sup>2</sup> from entering the atmosphere. It is estimated that EfW facilities prevent 30 million tons of carbon dioxide from entering the atmosphere every year.

Methane is created by the decomposition of organic materials. In 2010, as part of its goal to become a Zero Waste company, Knoll reduced methane emissions from its facilities and products with initiatives on two fronts. On the production end, it diverted organic waste materials (primarily wood) that could not be recycled from landfill to energy-from-waste facilities. And at end of product life, it reduced methane emissions by keeping Knoll products, as well as those of other manufacturers, out of landfill through the *Full Circle* program. (See page 10).

**In 2010, Knoll increased diversion of waste from landfill from 79.58% to 88.55% company wide**



“Deforestation is an important piece of the climate change issue. Trees sequester carbon and help contain it in the soil. When you deforest, you release all that carbon. But deforestation also has a huge impact on soil erosion and loss of water quality and on the preservation of plant and animal species that are native to a given forest ecosystem. The biggest threat is in the developing world where deforestation is tied to illegal logging and unsustainable agricultural practices. It’s important that we manage tropical forests in a way that limits deforestation and also provides livelihoods and incentives for preservation. I think that’s what FSC® certification tries to do—to promote the best models of environmentally and socially responsible forestry practices that are out there.”

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**Jason Grant, Member Forest Certification Committee,  
The Sierra Club**

# ENVIRONMENT- ALLY RESPONSIBLE MATERIALS, PRODUCTS & PROCESSES



Knoll is the first company to earn BIFMA level™ 3 certification in multiple product categories.

Of just nine products in the contract furniture industry to earn the highest BIFMA sustainability rating in 2010, seven are manufactured by Knoll. They include three systems: Antenna™ Workspaces, AutoStrada®, and Dividends Horizon®; two chairs: Generation by Knoll® and MultiGeneration by Knoll™; a storage system, Calibre®; and Reff Profiles™, a wood office product.

The level™ standard is a voluntary product standard developed by BIFMA, the Business and Institutional Furniture Manufacturer's Association, to support safe, healthy and sustainable workplace environments. Products, organizations and facilities are scored on sustainability criteria in four areas: Materials, Energy and Atmosphere, Human and Ecosystem Health, and Social Responsibility. The program establishes prerequisites, requires third party certification including audits of manufacturing plants, and mandates annual reviews to maintain certification. Level points may be applicable to LEED®.

Scientific Certification Systems (SCS) provided the third-party certification of Knoll products to the level™ standard. SCS, an organization with a 25-year history that has earned respect for its integrity and scientific rigor, was the first to certify products to the level™ program.

Points in the four sustainability areas: Materials, Energy and Atmosphere, Human and Ecosystem Health, and Social Responsibility are awarded for the Organization (possible credits 17), Manufacturing Facility (possible credits 38) and Product (possible credits 35.) The total of these three scores provide the final level™ score (maximum possible 90 points). Certification is awarded at three levels: Entry-level 1 (32-44 points), level 2 (45-62 points) and level 3 (63-90 points).

Knoll EHS Manager Lou Newett, who spearheads the company's environmental efforts, explains: "We submitted seven products for level™ certification in 2010 and all seven were certified level™ 3. Knoll facilities already operate at the level™ 3 standard, so it is a matter of submitting all of the documentation on our individual products for third party certification. This is an ongoing process for us."

**To earn level™ 3 certification Knoll products received the following points.**

**Generation by Knoll® chair 76 points:**

- + Organization 12
- + Manufacturing Facility 37
- + Product 27

**MultiGeneration by Knoll™ chair 76 points:**

- + Organization 12
- + Manufacturing Facility 37
- + Product 27

**Dividends Horizon® 71 points:**

- + Organization 12
- + Manufacturing Facility 32
- + Product 27

**Reff Profiles™ 71 points:**

- + Organization 12
- + Manufacturing Facility 32
- + Product 27

**AutoStrada® 69 points:**

- + Organization 12
- + Manufacturing Facility 32
- + Product 25

**Antenna™ Workspaces 69 points:**

- + Organization 12
- + Manufacturing Facility 32
- + Product 25

**Calibre® 63 points:**

- + Organization 12
- + Manufacturing Facility 32
- + Product 19

**In 2010 Knoll Provides FSC® Certified Wood as Standard for 95% of the Wood in Systems and Tables Manufactured at Knoll Facilities**

In 2010, the first full year of operation for the FSC® standard program, Knoll provided FSC® certified wood without asking, at no surcharge and at standard lead times on all general office plan open systems, casegoods and tables, with the exception of certain products from the KnollStudio Collection. The FSC® Certified Standard applies to the core of all Knoll products with laminate and domestic cherry, maple, oak and walnut natural veneer surfaces and related core Knoll finishes. These include the open plan systems Antenna™ Workspaces, AutoStrada®, Currents®, Dividends Horizon®, Equity®, Morrison, Reff Profiles™ and Template™ ; as well as The Graham Collection®, Interaction™ Tables, Magnusson® Desks and Upstart® Tables.

In recognition of this achievement, Knoll FSC® certified Furniture was named one of the "Top 10 Green Products" for 2010 by BuildingGreen, Inc., publisher of The Greenspec Directory and *Environmental Building News*. In reporting on the "Top 10" Greensourcemag.com noted:

*"All of Knoll's standard furniture lines that incorporate wood now come standard with wood harvested from sustainable managed forests as certified by the Forest Stewardship Council (FSC®)... Knoll is the only furniture company—and perhaps the only company of this size in any market sector—that has made such a significant commitment to sustainable forestry and FSC®."* (greensourcemag.com January+February 2011)

Knoll is the largest contract supplier of FSC® certified Furniture in North America and one of the largest commercial manufacturers of FSC® products in the world. The company has been able to achieve these milestones because it has spent more than a decade putting in place the necessary infrastructure and outreach: developing the supply chain for sustainable wood; creating the business and manufacturing processes and protocols for



sourcing, tracking and incorporating FSC® wood into product; and building FSC® certification into the ISO 14001 process.

Knoll chooses FSC® certification over other industry-sponsored certifying programs because FSC® has the most stringent standards and maintains a presence on the ground, in the forest.

SmartWood, a program of the Rainforest Alliance, remained the Knoll third-party FSC® wood certifier in 2010. And Knoll, in its ongoing efforts to find suppliers of FSC® certified materials, continued to work with the Rainforest Alliance in 2010 to source non-domestic FSC® wood veneers.

Making FSC® standard is an extension of the Knoll Sustainable Wood Policy, which is targeted to protect endangered forests and promote sustainable harvesting of wood resources. “The FSC® program is perhaps the most significant environmental issue that Knoll has undertaken because of its impact on the biodiversity of our forests—a critical area often overlooked in the environmental sustainability picture. The impact is massive,” says Lawrence Bouchard, EHS Manager at the Knoll Toronto facility.

### Greening the Supply Chain

One of the greatest challenges for the FSC® Standard program was creating the supply chain. In 2010 Knoll advised its wood suppliers that all wood going forward would have to be FSC®-compliant or the company couldn't do business with them. Most suppliers came quickly on board—including some who had been supplying non-FSC® materials before Knoll instituted the FSC® standard and had no interest until then in being certified. “Our stand on FSC® compliance along with other market pressures changed their minds,” explains Lawrence Bouchard. “Most of our suppliers realized that if they didn't get on board with FSC® certification their future would be very limited. The supply chain work was huge. It took a lot of work to get the documentation in place. But there's a real swing in the supply chain now. It's an evolving process.” Knoll has actively assisted some suppliers like DIY Sales (UK) Ltd. to become FSC® certified.

*“Level™ certification complements our long-standing commitment to third-party programs that provide independent verification of environmental standards. The BIFMA sustainability program reinforces our leadership efforts to pioneer clean manufacturing policies that protect the biosphere and conserve natural resources.”*

— Lou Newett, Environment, Health & Safety Manager, Knoll Inc.



## DIY Supplier Profile

DIY SALES (UK) LTD has been a veneer supplier to Knoll for the past 15 years. Knoll has always been at the forefront in making sure that their product comes from sustainable sources, and as one of the links in their chain of supply, it was therefore important for us to become FSC® certified. Knoll made us aware at a very early stage that we needed to be certified in order to keep supplying them successfully. Becoming certified can be a little complicated and the Knoll team helped us enormously in this regard. They put us in touch with the certification board; they also aided with the risk assessment, and checked the paperwork in the early stages of our dealings together after we became certified to make sure our documentation was in order. Furthermore, if we have any questions about FSC® issues, the door to Knoll has always remained firmly open. In other words Knoll looked upon our certification very much as a partnership project. Since we have become certified other opportunities have become available to us in terms of customer base, and we very much appreciate Knoll's help throughout the whole process.”

— Richard Harris, DIY Sales (UK) Ltd.

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## KnollTextiles Continues the Focus on Environmental Fabrics in 2010

KnollTextiles introduced The Omni Collection featuring six new fabric lines to its collections in 2010. Of these, four contain recycled polyester content of 51% - 100%, and one is made with 74% organic cotton. All new fabrics are GREENGUARD Indoor Air Quality Certified®.

### The Omni Collection includes three upholstery fabrics, one drapery fabric, one panel fabric and an innovative tape yarn wallcovering

*Pony Up*, designed by Dorothy Cosonas, is a large-scale undulating striped upholstery fabric made of 75% post-consumer recycled polyester and 25% post-industrial recycled polyester.

*Spot On*, designed by Dorothy Cosonas, is an organic upholstery fabric with an all-over pattern and slight visual texture. It is woven of 74% cotton and 26% nylon.

*Ransom*, which can be used for upholstery or wrapped panel applications, has a honeycomb weave structure and is made of 100% post-industrial recycled polyester.

*Logic*, designed by Suzanne Tick, is a panel covering that can be used for both segmented tiles and large wrapped wall applications. A jacquard woven fabric with overlapping grid layers that reflect the shape and movement of the city landscape, it contains 51% post-industrial recycled polyester.

*Guild*, designed by Suzanne Tick, is a woven material for vertical application made of a tape yarn developed exclusively for KnollTextiles. The material, which gives the appearance of elegant grasscloth when applied to a wall, contains 65% post-industrial recycled polyester.

### Green Bar

The new fabrics *Pony Up* and *Ransom* bear the “Green Bar” designation, which indicates that they contain at least 49% recycled content, at least 75% rapidly renewable material (natural fiber), or Eco-Intelligent fiber. These bring to 83 the total number of Knoll Green Bar designated fabrics. Green Bar fabrics can help companies, healthcare organizations and educational institutions achieve LEED® certification.

### In 2010 KnollTextiles continued to offer:

*Ultrasuede textiles* made with 80% post-industrial recycled microfiber from a film processing plant that makes film used in products such as plasma screen TVs. Knoll has been the exclusive supplier of Ultrasuede to the contract market since 2006.

*Eco-Intelligent® Polyester fabrics* made of fiber that is a “technical nutrient” designed to be safely recycled into new fabric with no hazardous by-products and produced and dyed with environmentally safe ingredients including a catalyst that replaces the heavy metal antimony, a known carcinogen.

*Terratex® fabrics*, which are available with 100% recycled content fabric and are certified Green-e, meaning that 100% of the electricity used to make those products is matched by Green-e certified renewable energy certificates that support clean wind energy.

*Crypton Green fabrics* that combine post-consumer recycled polyester fibers with an optimized chemistry for reduced environmental and indoor air quality impact. The Crypton Green formula provides moisture, stain, odor and bacteria resistance with low VOC emissions.





## Full Circle Pilot Projects Prepare the Way for Launch

In 2010 pilot projects were conducted for *Full Circle*, the Knoll program of integrated sustainable solutions for office furniture, fixtures and equipment (FF&E) that businesses no longer use or want. The first such comprehensive one-stop program in the contract furniture industry, *Full Circle* diverts products from landfill by reselling, repurposing, recycling and converting waste to energy.

Knoll developed the program in partnership with ANEW, a non-profit organization dedicated to extending the life cycle of FF&E, architectural materials and building assets in an economically, socially and environmentally responsible way. *Full Circle* alliance partners include InstallNET, a company with more than 250 independent quality furniture installers across the U.S. and Canada; and Covanta Energy, which owns and/or operates more than 40 Energy-from-Waste facilities in the U.S. that produce clean, renewable energy and recycle metals.

Knoll research indicates that customers want a more sustainable way to dispose of their surplus FF&E, but they are put off by the limited scope of existing take-back programs, the cost of shipping used product long distances for recycling, and the piecemeal nature of the process in which third-parties handle only one aspect of surplus management. *Full Circle* is a comprehensive sustainable turnkey solution that applies to projects of all sizes, includes Knoll and non-Knoll furnishings, and encompasses all furniture, fixtures and equipment: from desks, chairs and carpeting to telephones, HVAC systems and elevators.

Working in collaboration with the Knoll dealer, ANEW develops a *Full Circle* Decommissioning Strategy for clients who are relocating or renovating a space based on the customer's own objectives. Options include Resale, in which usable FF&E is sold to capture financial value for the customer, either as a profit or to help offset the costs of FF&E removal, recycling and/or transportation to an Energy to Waste facility; Repurposing, in which usable FF&E is

donated to local non-profits for social equity in the community and the tax benefits of donating to a 501(c)(3) organization (ANEW); Recycling FF&E that has no resale or repurpose value; and Recovering Energy by converting waste to clean energy, diverting from landfill anything that cannot be recycled. The process concludes with Reporting to the customer, which may include documentation for use toward LEED® Certification. (Various aspects of the *Full Circle* program, including donation and recycling, can earn LEED® Material Resources, Construction Waste Management credits.) More information is available at [www.knoll.com/FullCircle](http://www.knoll.com/FullCircle) FAQs.

### Full Circle pilot projects were designed to test and fine-tune the program. Here are some results:

**Client 1** A Canadian oil company with 200 office suites. The main goals were to divert materials from landfill and to realize economies by reselling and recycling. Through *Full Circle* 76 suites were resold and 120 were recycled. 34.6 tons of surplus FF&E were diverted from landfill. Resale/recycling saved one-third of projected disposal costs.

**Client 2** A University in Virginia with 75 workstations. The main goals were to dispose of the surplus in an environmentally responsible way and to do it very quickly. (There was a one-week turnaround.) Client had hoped to repurpose, but the furnishings were in poor condition. *Full Circle* recycled the total project and 22 tons of office furniture were diverted from landfill. The financial cost to the university was no greater than the cost of landfill, and the environmental costs of dumping were avoided.

**Client 3** A mortgage company in Texas with 20 workstations. The main goal was to offset disposal costs. *Full Circle* resold 6.8 tons and repurposed .3 tons. A total 7.1 tons of surplus were kept out of landfill with no cost to the client.

**Client 4** A California marketing company with 50+ pallettes of used office furniture in off-site storage.

The main goals were to dispose of the material economically and responsibly. *Full Circle* resold the stock. 30 tons of furnishings were diverted from landfill and the total cost to the client was \$300 in freight.

**Some important lessons were learned from the pilots:**

- ▶ Full Circle needs to continue expanding education for clients and dealers about the true costs of sending surplus FF&E to landfill: the environmental costs paid in contamination of water supplies and climate change, and the financial costs incurred in handling, transportation and landfill fees. To meet corporate social responsibilities, clients should be advised to establish a budget for disposing of surplus as they would for any other business activity.
- ▶ Full Circle can improve economic benefits when a client is divesting FF&E from several locations.
- ▶ Full Circle can maximize economic benefits with advanced planning.
- ▶ Some environmentally conscious designers are now writing RFPs to include manufacturers' sustainable strategies, and this is raising awareness of divesting surplus as another component of a furniture/facility project. Leaders in the design industry are recognizing that the *Full Circle* program delivered by ANEW, InstallNET and Covanta provides a socially and environmentally sustainable solution that meets their clients' needs.
- ▶ Energy from Waste is required to achieve 100% diversion from landfill. (Even highly recyclable products may contain non-recyclable parts and materials.)
- ▶ "A return or a cash neutral solution is generally desired and is an attainable outcome dependent on surplus value, and is a win-win for the environment, the community and the client," explains ANEW executive director Lila Tsuda Grant. "The process is simple and easy, and costs are very competitive as demanded by the industry. At the end of the day ANEW issues a certificate documenting metrics, a receipt for tax purposes, and a great story."

## Landfill Basics

Thousands of tons of surplus furniture end up in landfills every year. Some of it contains materials that emit toxins as they break down over time, and these toxins can enter the water supply, creating health hazards for humans, animals and the environment. Methane gas created by the decomposition of organic materials, including wood and paper, can contribute to climate change. Diverting surplus FF&E from landfill is the sustainable thing to do.



## Knoll Continues Support for Clinton Global Initiative in 2010

Knoll was the first company in the contract furniture industry to join the Clinton Global Initiative (CGI), an international effort that brings together current and former heads of state, global CEOs, heads of foundations and major philanthropists, directors of non-governmental organizations, and prominent members of the media to devise and implement innovative solutions to some of the world's most pressing challenges. For the fifth year, in 2010 the company continued its support of this global effort to address climate change, economic issues and social justice as a sponsor of CGI's annual meeting held in New York City on September 22-23.



## Design for the Environment: Antenna™ Workspaces, MultiGeneration by Knoll™ and Spark™ Developed Using DfE Criteria

Knoll leadership in sustainable products is based on infrastructure strategically built to support sustainability in all aspects of our operation. Design and development are governed by *Design for the Environment* (DfE) policies and procedures, including a Product Commercialization Process in which stringent SMART® criteria are embedded.

In 2010 Knoll used the DfE Program in the development of Spark™ and MultiGeneration by Knoll™ chairs and the Antenna™ Workspaces system. As with every new Knoll product under development, they were required to meet targeted environmental standards at critical steps in the process. Standards include those relating to materials (e.g. PVC cannot be used), material content (e.g. minimum recycled content must be achieved) and production processes. Under DfE procedures, purchasing parts from a new vendor requires documentation of vendor practices and the documentation is reviewed by third-party auditors. When new materials are sourced, suppliers must provide documentation of sources and of post-consumer and post-industrial recycled contents. Knoll products under development undergo Life Cycle Assessments (LCAs) during design and development to measure potential environmental impacts. Final and complete LCAs are performed for all new products put into production.

### Purchasing is a Key Player in DfE

*Design for the Environment* is a collaborative process that involves many areas of the company, including purchasing. “The Purchasing Department helps source materials,” explains Katherine Perkins from Knoll Product Development Purchasing. “Every design is a group effort. Design, engineering, purchasing and marketing all take part in the discussions and there’s constant feedback.” Purchasing finds suppliers for the sustainable materials specified for Knoll products: aluminum with recycled content, FSC® wood, and plastics that meet sustainability criteria. It’s less complicated

for some materials, like aluminum, where a supplier either offers recycled content or it doesn’t. To source plastics, Knoll materials engineers work with leading companies like DuPont that are constantly researching and developing new materials. “The environmental issues with these materials are more complex because the recycled and bio-content alternatives are usually not as structurally sound as their virgin or petroleum-based standard material,” Perkins explains. “DuPont works to develop and improve these innovative alternatives, and they pro-actively join us in trying to resolve our environmental challenges.”

Material toxicity is a major concern. “We have toxicity reporting forms with links to codes such as CA Prop 65 that target chemicals that can cause cancer, are endocrine disrupters, or have other negative health and environmental effects. We require all of our suppliers to certify that their products contain non-harmful amounts of these chemicals and meet the code requirements.”

The availability of materials that meet Knoll standards influences design and development decisions. For example, in developing Antenna™ Workspaces, the initial intention to offer the product with anodized finish was abandoned because recycled content aluminum cannot be successfully anodized. Rather than purchase aluminum without recycled content, Knoll opted to offer Antenna™ Workspaces only with powdercoat finish. And as ABS edge banding does not generally allow the larger T moldings possible with PVC, T moldings were ruled out in favor of edging made with the less toxic material. “It’s a challenge to meet the cost requirements and also meet our environmental requirements,” Perkins says. “There are continuing issues about the availability and expense of recycled content materials and those with unusual or specific attributes. And processing is sometimes more difficult.” That’s where specialists with technical understanding of materials play a key role. Knoll purchasers continue to source materials all over the

world to support the *Design for the Environment* standards that have helped earn the company its reputation as a sustainable leader in the industry.

### Other DFE initiatives in 2010

- ▶ Knoll continued to perform LCA's on its products using the on-line open LCA Sustainability Assessment Software developed by Andreas Ciroth, PhD, of GreenDeltaTC in Berlin. Knoll East Greenville EHS Manager Chris Marozzi, one of a select group of LCA practitioners nationwide accredited as an LCA Certified Professional (LCACP) by the American Center for Life Cycle Assessment, worked directly with Dr. Ciroth to test an advanced version of the tool, which has just been publicly released. In addition to Antenna™ Workspaces and MultiGeneration by Knoll™, LCAs were completed for Dividends Horizon®, AutoStrada®, and Reff Profiles™.
- ▶ The majority of PVC was replaced by ABS (Acrylonitrile butadiene styrene) for standard edges on laminate work surfaces. ABS is less toxic than PVC and does not require the use of solvents in the manufacturing process.
- ▶ The Toronto facility replaced all urea formaldehyde adhesives used for pressing wood veneers with non-toxic PVA adhesives.
- ▶ Phase II reductions under CA formaldehyde emissions standard for hardwood plywood (HWPW), particleboard (PB) and medium density fiberboard (MDF) were achieved in November

2010, two months ahead of the due date. Between 2009 and 2010, HWPW emissions were reduced from 0.08 to 0.05; PB from 0.18 to 0.09; and MDF from 0.21 to 0.11

- ▶ Environmental purchasing specifications were updated to include minimum recycling content for packaging materials. (See chart below).

#### Minimum Recycling Content Packaging Materials

Material	Post Consumer Content (%)	Total Recycled Content (%)
LDPE, LLDPE	25%	35%
HDPE	25%	35%
PET	10%	25%
Corrugated Cardboard	25%	40%

- ▶ New procedures were developed to control the supply chain for exotic woods, and an audit was conducted at the China facility of Knoll's major engineered wood veneer supplier.
- ▶ Corporate compliance audits were conducted by independent auditors at the Knoll Toronto facility and at the facilities of leather suppliers Edelman in Getzville, New York and Spinneyback in New Milford, Connecticut. The purpose was to ensure that operations meet the requirements set out in the Knoll EHS Management Plan. The corporate compliance audit is conducted once every three years, on a rotating basis, at all Knoll North American facilities.

## The State of Michigan Designates Knoll Grand Rapids Facility a Clean Corporate Citizen

Knoll has been named a Michigan Clean Corporate Citizen, a designation that recognizes excellence in clean technology, waste management and other key environmental factors. The Grand Rapids facility first earned the honor in 1998 and has continued to qualify for renewals at three-year intervals. The latest designation was awarded in November 2010 and extends through November 2013.



### Knoll Works with BIFMA on Environmental Product Declarations

In 2010 BIFMA continued work on developing Environmental Product Declarations (EPDs), which will be the “nutrition labeling” for furniture products. Knoll’s Chris Marozzi serves as a member of the BIFMA committee charged with writing Product Criteria Rules, the bridge between LCAs and the final EPDs. These rules are intended to provide uniform and consistent criteria for measuring the environmental attributes of products so that contract furniture customers can be assured that Environmental Product Declarations mean the same thing from one manufacturer to another. The committee is expected to complete its work in 2011, after which the rules will be peer reviewed and submitted to ANSI for accreditation.

### Education, Training and Communication

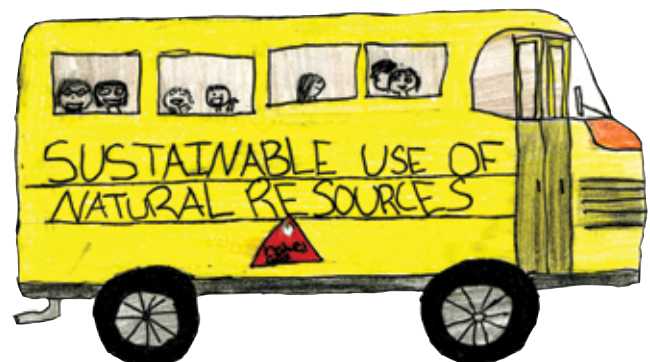
In 2010 Knoll offered education and training to support its sustainability programs and goals.

- ▶ Lou Newett, Knoll Manager of EHS and Lila Grant, co-founder of ANEW, introduced the *Full Circle* Program to Knoll associates, designers and clients in the Los Angeles showroom and at NEOCON in Chicago. Presentations were also given to A&D firms in Chicago, Dallas, Kansas City, Los Angeles, Minneapolis, Philadelphia, Phoenix, New York City and San Diego.
- ▶ Newett was a featured speaker at the USGBC Greenbuild International Conference and Expo, held in Chicago on October 4-7, 2010.
- ▶ Newett conducted an educational session on EHS purchasing requirements to the Knoll Global Sourcing Team to raise awareness of toxicity requirements for component parts and to educate on how to use procedures in place to verify and document vendor compliance.
- ▶ SMaRT® and LCA presentations were made to design firms and dealers in the Dallas Fort Worth area.
- ▶ An LCA presentation was given to the A&D community in New York City.

### Knoll Takes Sustainability to School

For the sixteen years of its publication, the Environmental, Health & Safety annual report has been illustrated with artwork created by students from the communities in which Knoll facilities are located. Each year the company sponsors an art contest for students in the 7th and 8th grades. Young artists choose the subject of their drawings from among six categories: Clean Air, Clean Water, Sustainable Use of Natural Resources, Health and Safety, Energy Minimization and Waste Minimization. Students research their subjects, teachers use the project as a teaching opportunity, Knoll gets thoughtful and beautiful artwork for its publication, and everybody has some fun. All participating students receive a small prize. Twelve winning drawings are selected by a professional artist/educator, and the winners, announced at a school awards ceremony, receive Savings Bonds.

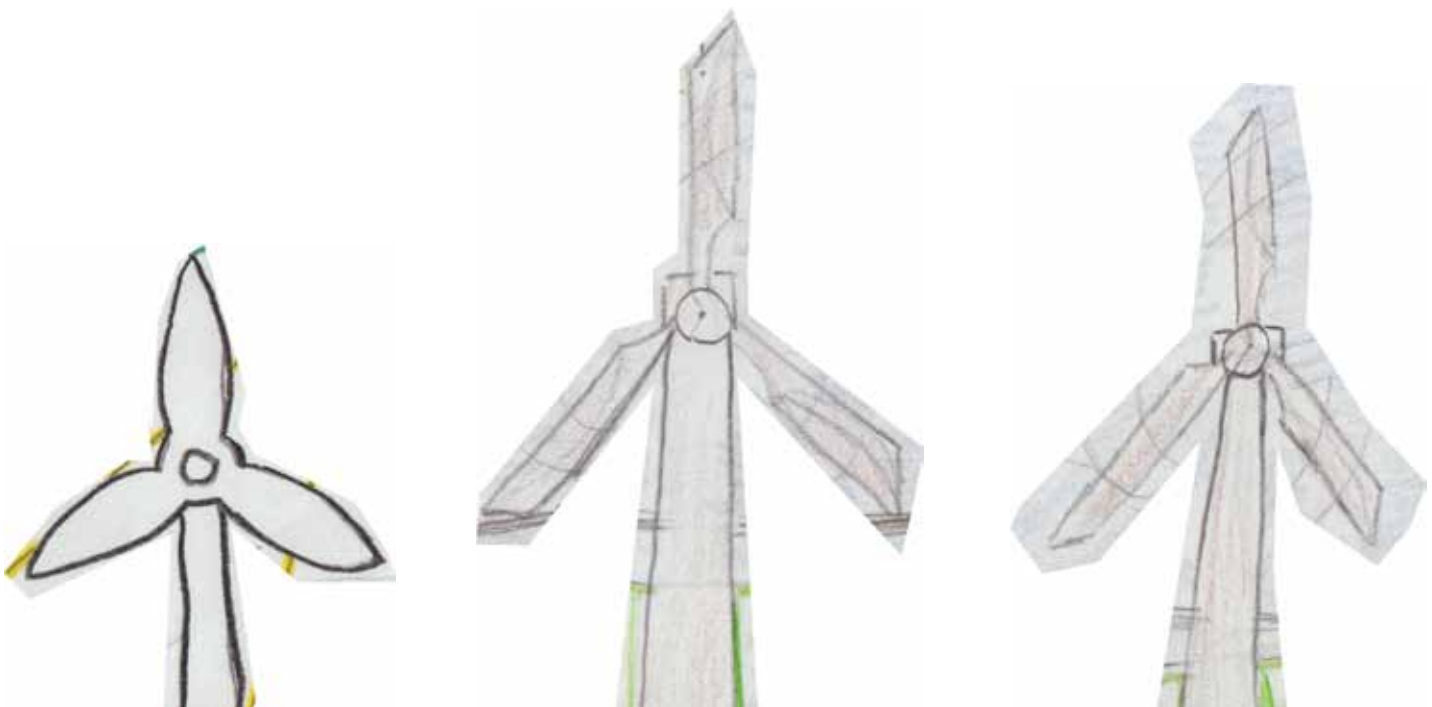
Ann Lalik, Gallery Director and Arts Coordinator at Penn State Lehigh Valley, has been judging the Knoll EHS art contest for a decade. “This is a good way to understand ideas about the environment,” she says. “Making art helps ingrain the information. When I see an idea popping up several times I think, ‘this is something the teacher emphasized and the kids remember it.’” Ms. Lalik judges the work on pleasing design, proportion and color, successful presentation of the message, and innovation. “I love it when there’s something that’s out of the box. We’re not looking for pretty. It has to work. And it’s so insightful when they write about their idea on the back of the drawing. I judge a lot of things,” she explains. “But I really enjoy this. It recognizes excellence and encourages students, and it’s a great way of connecting with the community and enhancing education about the environment.”



“The specific criteria for a Green Value Score for sustainable manufacturing will include a minimum of three SMaRT<sup>®</sup> certified products, FSC<sup>®</sup> certification, and a Clean Vehicles Standard. The total score will be computed on a scale of 25 to 100 points. The more certified products, the higher the score. Like LEED<sup>®</sup>, any score is good but the higher the score the better you are. We expect that Knoll will rank among the highest scoring companies because of its long record of sustainable practice.”

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**Michael Italiano, CEO Capital Markets Partnership**



# THIRD-PARTY CERTIFICATION

## Knoll Expands Third-Party Certification of Its Products and Processes in 2010

Knoll has been a contract furniture industry pioneer in advocating and submitting its products for independent third-party certification. The company is a strong supporter of certification by independent, respected third-parties because it provides the most impartial and trustworthy foundation for broad compliance. Such certification helps ensure that all manufacturers are held to stringent, uniform environmental standards. It tells customers that they can trust a manufacturer's claims about the environmental attributes of its products.

In 2010 Knoll expanded its commitment to third-party certification by participating in the new BIFMA level™ standard designed specifically for the contract furniture industry. The company took this step in order to give its customers comparable measures of sustainability with which to assess its products in relation to those offered by other manufacturers in the industry. Knoll is the first company to have a system product certified at level™ 3 (the highest possible certification) and the first to have products in multiple categories certified at level™ 3. (See page 5.)

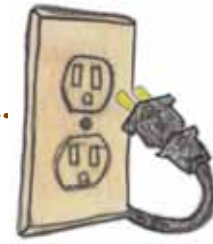
Knoll supports the BIFMA level™ standard's tiered approach for achieving sustainability because it encourages companies to develop infrastructure and practices over time that will lead to more sustainable products, a goal to which we all aspire. Stowe Hartridge-Beam of SCS, a level program third-party certifier explains it this way: "The value of a tiered system is that a product is not in or out. The level standard is saying, 'this product is so far along on a journey toward sustainability.' Level 1 means a company has drawn a line in the sand, level 2 that it is getting a little better and level 3 that it is doing a good job. A company's position along the standard will move, and the fact that level is a 3-year certification with required renewal means that a company can create a baseline and show improvement over time."

In addition to BIFMA level, Knoll continues its commitment to the original "benchmark" certifications, which have a distinguished track record for driving long-term, meaningful change. LEED®, FSC®, GREENGUARD and SMaRT® are acknowledged leaders whose sphere of operation extends beyond the furniture industry and Knoll continues to adhere to the high standards set down by these certifiers as it pursues its goal of becoming a sustainable company.



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## In 2010 Knoll received and/or maintained certifications from the following:



▶ **CCX (Chicago Climate Exchange) Phase II (2007-2010)**

▶ **Cradle-to-Cradle and SCS (Scientific Certifications Systems) certifications for textiles**

▶ **ISO 14001 (International Organization for Standardization)**

▶ **FSC® (Forest Stewardship Council)**

FSC® is the international standard setting body for defining and measuring a well-managed forest and providing traceability through chain-of-custody certification. Knoll FSC® certification ensures that Knoll products bearing the FSC® mark are manufactured with wood from forests that protect environmental, social and economic values. In 2010 the company completed the first year of its FSC® Certified Standard Program for all general office plan open systems, casegoods and tables, with the exception of certain products from the KnollStudio Collection. (The standard applies to the core of all Knoll products with laminate and domestic cherry, maple, oak and walnut natural veneer surfaces and related core Knoll finishes.) During 2010 Knoll required that wood suppliers for the above-designated products who were not already certified become FSC® certified or forfeit Knoll business, and the company assisted several vendors with documentation to achieve FSC® certification.

The Rainforest Alliance, through its Smartwood program, audits and administers Knoll's chain-of-custody certifications. In addition, as part of its Controlled Wood Policy, which establishes detailed procedures and protocols for all wood purchased by the company for use in its products, Knoll partners with the Rainforest Alliance to leverage the company's power in the marketplace with suppliers to increase the long-term supply of FSC® certified wood.

▶ **GREENGUARD**

GREENGUARD Indoor Air Quality Certified® certification is the gold standard for identifying products that meet stringent testing criteria and have no adverse impact on indoor air quality. In 2010 Knoll certified products included all Knoll North America systems and seating; 94% of textiles; most KnollStudio products; and all KnollExtra accessory products except poster boards.

▶ **GREENGUARD for Children & Schools<sup>SM</sup>**

GREENGUARD for Children & Schools<sup>SM</sup> is an even more stringent standard developed for sensitive populations. All Knoll Office Seating products, the Antenna™ Workspaces system and Reff Profiles™ now hold GREENGUARD for Children & Schools certification.

▶ **LEED® (Leadership in Environmental Design, an initiative of the USGBC (US Green Building Council))**

Knoll has a total of 11 LEED® certified facilities, including its LEED® Gold Certified 350,000 sq ft Lubin Manufacturing Facility in East Greenville, PA and 10 showrooms/sales offices nationwide:

- ▶ Knoll San Francisco showroom LEED® CI Silver
- ▶ Knoll Philadelphia and Miami showrooms LEED® CI Silver
- ▶ Knoll Chicago Sales Office LEED® CI Gold
- ▶ Knoll Atlanta, Dallas, Washington D.C., Phoenix and Seattle showrooms LEED® CI Gold
- ▶ Knoll Toronto showroom LEED® CI Platinum
- ▶ The Lubin facility was re-certified to the Gold standard in 2010.

Knoll maintains LEED® (recycled content) databases for all its products, and new databases are created as products are introduced. In 2010 databases were created

for Antenna™ Workspaces, MultiGeneration by Knoll™ and new KnollStudio products including the Jehs Laub Lounge Collection, the Joe D'Urso Lounge Collection, Risom kids chairs and table and the Spark™ chair. Creating LEED® databases for KnollStudio products requires vetting detailed information on materials used in manufacturing Knoll products from hundreds of suppliers in six countries on three continents.

In 2010 Knoll supplied LEED® documentation on Knoll systems, seating, furniture and textiles for 185 client projects. The following projects containing Knoll products achieved LEED® certification in 2010:

- ▶ *Bain & Company*, Chicago, IL: LEED® CI Silver
- ▶ *Dallas Center for Architecture*, Dallas, TX: LEED® CI Silver
- ▶ *Denver Museum of Nature and Science*, Denver, CO: LEED® CI Gold
- ▶ *Gensler Seattle*, Seattle, WA: LEED® CI Gold
- ▶ *GGA*, Washington, DC: LEED® CI Platinum
- ▶ *IRMA*, Ann Arbor, MI: LEED® NC Gold
- ▶ *Museum of Contemporary Art*, Denver, CO: LEED® NC Gold
- ▶ *Northeastern University*, Boston, MA: LEED® NC Gold
- ▶ *PEW*, Washington, DC: LEED® CI Gold
- ▶ *Polsinelli Shugart*, LLC, Denver, Co: LEED® CI Gold
- ▶ *US Trust*, Falls Church, VA: LEED® CI Silver
- ▶ *Wyndham Worldwide Hdqtrs.*, Parsippany, NJ: LEED® CI Silver
- ▶ **BIFMA level™**  
BIFMA level™ Certification Program is a voluntary product standard developed by the Business and Institutional Furniture Manufacturer's Association to support safe, healthy and sustainable workplace environments. It assesses manufacturers' organization, production facilities and products, and awards

certification at three levels. In 2010 Knoll submitted 7 products for level™ audits and all seven won level™ 3 certification, the highest level possible. Knoll level™ 3 certified products include three systems: Antenna™ Workspaces, AutoStrada® and Dividends Horizon®; two chairs: Generation by Knoll® and MultiGeneration by Knoll™; a storage system, Calibre®; and Reff Profiles™, a wood office product. Dividends Horizon® was the first system product in the contract furniture industry to achieve level™ 3, and Knoll was the first company in the industry to earn level™ 3 certification for products in multiple categories.

▶ **SMaRT®**

SMaRT® (Sustainable Materials Rating Technology) from MTS (Market Transformation to Sustainability).

SMaRT® is a comprehensive sustainability standard covering areas including Public Health and Environment; Renewable Energy and Energy Efficiency; Bio-based or Recycled Materials; and Innovation in Manufacturing. SMaRT® addresses 80% of the world's products and has been adopted by more entities than any other product certification. It mandates an ISO-compliant LCA as a prerequisite. SMaRT® is in partnership with the federal government to educate manufacturers and purchasers on credible sustainable product attributes and prerequisites.

Knoll is far ahead of others in its industry in developing products to meet SMaRT® criteria and its rigorous auditing requirements. Knoll was the first contract furniture manufacturer to achieve SMaRT® certification for the Life® chair in 2007, and in 2009 Generation by Knoll® became the first task chair to earn SMaRT® Sustainable Platinum. Other Knoll SMaRT® certifications include the Chadwick Chair, SMaRT® Gold (2008); and Template, Moment and Calibre® office systems, SMaRT® Gold (2009). In 2010 Knoll submitted MultiGeneration by Knoll™ and ReGeneration for SMaRT® auditing, with certification expected in 2011.

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## Knoll Works with Capital Markets Partnership To Develop Sustainable Manufacturing Standard/Green Value Score® for Capital Investment

Investors get the picture. Green buildings and certified sustainable manufactured products are more profitable and less risky. Green buildings have top of the market rents, highest occupancy and valuation. So shows the data and results of an Investor Survey by Capital Markets Partnership (CMP) with S&P covering over \$3.3 trillion in assets with investors. The Capital Markets Partnership (CMP) is a nonprofit, nonpartisan coalition of investment banks, investors, governments, countries and NGOs created by Market Transformation to Sustainability (MTS). A primary CMP purpose is to provide a sustainable investment framework for the capital markets. Its stated goals include “2.8 million green buildings and 1.2 million certified sustainable manufactured products by 2015 to stimulate the economy and stop imminent irreversible dangerous climate change.”

CMP was founded in 2005 and launched its Sustainable Investment Initiative in 2009 at the New York Stock Exchange. Lou Newett, Knoll EHS Manager, is an officer of the National Consensus Committee that drafted standards for the Initiative in 2010. Other officers include Vickie Tillman, Sustainability Senior Vice President, McGraw Hill; Kevin Mclean, Senior Vice President, Eaton; Ed Mirsky, Senior Vice President, UBS. The Sustainable Manufacturing Underwriting Standard/Green Value Scores will provide information essential for

investment in sustainable companies and is intended to facilitate the development of new green building investment products including cheaper costs of capital, new market tax credits, asset backed securities and equity funds, new certified organic products investments, and investment in publicly-traded, energy-efficiency products. Market tests of the Green Value Score will be conducted in 2011. Knoll participation is part of its effort to support environmental, social and financial sustainability in the business sector. “The numbers show that institutional investors are driving sustainability,” Lou Newett explains. “Our assumption is that if a company discloses, competitive peer pressure will force other companies to comply. Big investment firms are looking at this, and they want to sell stock. If they can demonstrate that a company has a good environmental story, institutions with a culture of social responsibility will invest.”





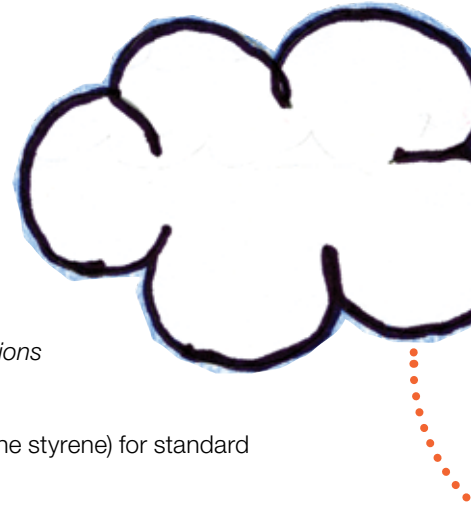
# THE KNOLL 8

Knoll has established a set of ambitious standards for guiding and reporting on our progress toward becoming a more sustainable company. They are mandated in a comprehensive Environmental, Health and Safety Plan and are defined under Eight Principles that are the foundation of this report:

1. Protection of the Biosphere
2. Sustainable Use of Natural Resources
3. Waste Reduction and Disposal
4. Conservation
5. Risk Reduction
6. Safe Products and Services
7. Environmental Restoration
8. Informing the Public



# Protection of the Biosphere



We will strive to make continued progress toward reducing or eliminating the release of any hazardous substance in an effort to safeguard all habitats affected by our operations.

*We will continue to reduce the use and/or emissions of hazardous air pollutants and volatile organic compounds from our manufacturing operations through the introduction of clean technologies.*

- ▶ In 2010 the majority of PVC was replaced by ABS (Acrylonitrile butadiene styrene) for standard edges on laminate work surfaces.
- ▶ The Toronto facility replaced all urea formaldehyde adhesives used for pressing wood veneers with non-toxic PVA adhesives.
- ▶ Knoll U.S. manufacturing facilities were more than 95% hazardous air pollutants (HAP) and VOC free.
- ▶ The Grand Rapids facility was awarded Clean Corporate Citizen designation by the State of Michigan in 2010. The honor recognizes excellence in clean technology, waste management and other key environmental factors.

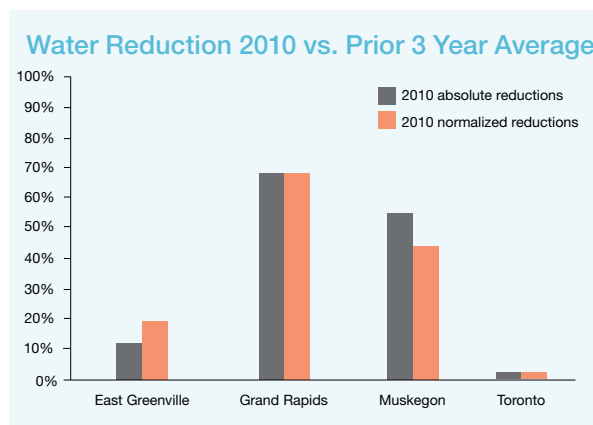
*We will provide water treatment facilities that meet or exceed discharge criteria.*

- ▶ In 2010, the state-of-the-art water treatment facility in East Greenville treated 15,272,575 gallons of wastewater.

*We will monitor storm water, conserve water use and develop processes to minimize water pollution.*

- ▶ In 2010 the plafORIZATION process for pre-treating metal parts at the East Greenville facility delivered savings of approximately 1,000,000 gallons of water.
- ▶ At the Muskegon facility counter-flow systems were installed on washers to reduce water usage and discharge. The installation was completed in mid 2010, and first full year savings data will be available in 2011.
- ▶ The Muskegon facility continued to pipe wastewater to a county treatment facility that employs sludge ponds and settling ponds to treat water, which is then used to irrigate food-producing farm plots on the property.

**In 2010, Knoll facilities achieved the following water reductions over a base line representing an average of reductions for the prior three years.**





## Sustainable Use of Natural Resources

We strive to make the best use of renewable resources, such as water, soil and forests, and conserve non-renewable natural resources.

*We will make sustainable use of renewable natural resources through efficient use and careful planning.*

- ▶ In 2010 KnollTextiles offered a wide range of fabrics made with natural fibers (e.g., linen, cotton, wool) from rapidly renewable sources.

*We will continue to seek opportunities to use sustainable forests in our products.*

- ▶ 2010 marked the first full year of implementation of the Knoll Sustainable Wood Policy which established FSC® Certified Wood as standard without asking, at no surcharge and at standard lead times on office systems, casegoods and tables with the exception of certain products from the KnollStudio Collection. The new standard applied to 95% of wood-containing products manufactured at Knoll facilities.
- ▶ Knoll continued to partner with The Rainforest Alliance to certify sustainable forestry compliance under its SMARTWOOD program and wood provenance under FSC®-Chain of Custody protocols.

*We will minimize the use of wooden pallets.*

- ▶ Knoll continued to repair, reuse and recycle pallets at all facilities. In 2010, 999.87 tons of wood pallets were recycled.

*We will attempt to recycle or make beneficial use of wood scrap generated in our manufacturing operations.*

- ▶ Knoll facilities recycled 5,242.74 tons of wood scrap and 2,583.61 tons of sawdust in 2010.
- ▶ In 2010 East Greenville sent 100% of its wood scrap to a waste-to-energy facility nearly doubling the amount of saw dust and scrap diverted from landfill over 2009.
- ▶ The Toronto facility continued to burn wood scrap as heating fuel in the winter and use excess heating capacity to provide hot water for finishing processes in the warmer months. Burning wood scrap in place of natural gas reduced total gas consumption by 20,919 MCF in 2010.

*We will continue to recycle steel, aluminum and other metal components.*

- ▶ In 2010, Knoll facilities recycled 3,988.89 tons of steel and 131.18 tons of aluminum.

*We will continue to seek recycling opportunities for scrap generated in our manufacturing operations.*

- ▶ In 2010, Knoll facilities recycled a total of more than 702.9 tons of corrugated cardboard, 106.41 tons of paper and 83.67 tons of textiles.

*We will continue to utilize post-consumer and post-industrial materials in our products where practical.*

- ▶ In 2010, the majority of the wood used to make composite board products at the Knoll Toronto, East Greenville and Grand Rapids facilities contained an average of 95% post-industrial material.
- ▶ KnollTextiles fabrics include products made of 100% post-consumer recycled content.
- ▶ 83 KnollTextiles fabrics carried a “Green Bar” on their label in 2010, indicating 49%+ recycled content or 75%+ natural fiber.

*We will be environmentally responsible in our purchase of materials.*

- ▶ The Knoll FSC® Certified Wood Standard and Sustainable Wood Policy certified through The Rainforest Alliance ensured that wood materials used in our products in 2010 came from environmentally responsible sources.
- ▶ All Knoll leather goods were obtained as by-products of the meat packing industry. No hides or skins from endangered species were used. An audit of leather suppliers was conducted in 2010 to verify compliance.

# 3

## Waste Reduction and Disposal

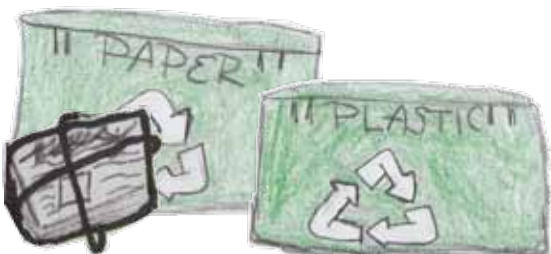
We will reduce, recycle, and, where possible, eliminate waste and will dispose of all waste using safe and responsible methods.

*We will seek opportunities to reduce waste and recycle process scrap from our operations.*

- ▶ As part of its Zero Waste program Knoll increased overall diversion of waste from landfill from 79.58% in 2009 to 88.55% in 2010.
- ▶ In 2010 Knoll facilities recycled virtually 100% of all aluminum and steel scrap generated in manufacturing. In addition, wood, leather and fabric scrap was recycled for beneficial use wherever possible. The East Greenville, Grand Rapids and Muskegon facilities recycled printer cartridges.
- ▶ Knoll facilities also recycled 80 pounds of batteries and 3.27 tons of glass in 2010.
- ▶ In 2010 the Grand Rapids plant diverted all waste except metal (which was recycled) to the City of Grand Rapids’ waste-to-energy facility, keeping 2,786.50 tons of waste out of landfill.

*We will dispose of our waste only in well-operated permitted facilities.*

- ▶ All Knoll manufacturing facilities adhered to stringent mandates for disposal of waste in approved and monitored facilities.



# 4

## Conservation

We will conserve energy by improving the efficiency of our internal operations and the goods and services we sell. We will make every effort to use environmentally safe and sustainable energy sources.

*We will conserve energy and improve energy efficiency.*

- ▶ In 2010 the Toronto facility continued its Air Wars energy conservation program focused on increasing efficiency and reducing waste in compressed air operations. This resulted in energy reductions of 89,368 KWH and savings of \$9,777.
- ▶ Activation of the Kanepi wireless control system for lighting at the East Greenville facility was expanded to include 85% of system nodes in 2010, saving an additional 180,000 KWH of electricity and \$1,600 in energy costs for the year.
- ▶ The Muskegon facility implemented modifications in compressed air intake processes, powering compressors with dense air taken in from outside the plant, instead of less dense air from inside, realizing increased efficiency of compressors and associated energy savings.
- ▶ Timers were installed on air socks that help circulate air at the Muskegon facility to automatically shut off power at 6-hour intervals and eliminate unnecessary energy consumption in case of human failure to turn systems off.

### Paper recycling

- ▶ Estimated 1,809 trees saved
- ▶ Estimated 744,870 gallons of water saved in processing

Recycling paper vs. using new paper reduces air pollution by 95% and water pollution by 80%.

### Steel recycling

- ▶ 9,972,225 pounds of iron ore saved
- ▶ 478,667 pounds of limestone saved

Recycling steel vs. using new steel reduces air pollution by 86% and water pollution by 76%.

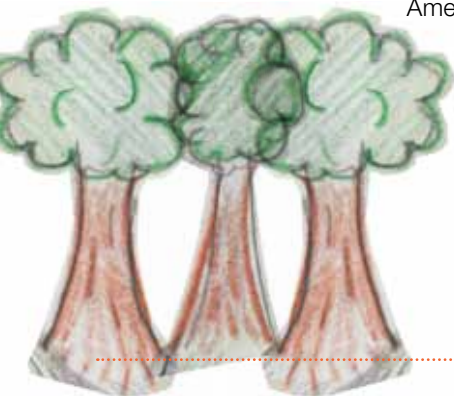
### Aluminum recycling

- ▶ 1,666,091 KWH of electricity saved

Recycling aluminum vs. using new aluminum reduces air pollution by 95%.

*We will implement a program to upgrade existing low-efficiency motors to higher efficiency motors.*

- ▶ In 2010 Knoll continued to specify high-efficiency motors on all new equipment purchases at all North American facilities as part of its sustainable Procurement Policy.



- ▶ Total Preventive Maintenance (TPM) was performed at all manufacturing facilities. It requires machine operators to monitor and maintain motors to optimize energy efficiency.

*We will implement a program to upgrade existing lighting, where practical, at each facility.*

- ▶ Lighting upgrades (bulbs and ballasts) have been completed at Knoll East Greenville, Grand Rapids, Toronto and Muskegon East facilities. In 2010 the Muskegon West facility completed the first phase of lighting upgrades to T8's, reducing CO<sup>2</sup> emissions by 23.2 tons and saving \$3,235.00 per year in energy costs.



## Risk Reduction

We will strive to minimize the environmental health and safety risks to our associates and the communities in which we operate through safe technologies, sound transportation practices, safe facilities and operating procedures, and preparing for emergencies.

*We will design our processes to prevent injury to the health and welfare of Knoll associates, the community and the environment.*

- ▶ The Knoll facilities safety incident rate in 2010 was 4.62%, which is 21.7% below the woodworking industry average of 5.9%.
- ▶ In 2010 Knoll developed a new metric for manufacturing facilities using three-year total incidence rates (TCIR) and days away from work (DART) rates to better measure our performance.

*We will develop and implement health and safety policies and programs to help prevent injury and illnesses to our associates.*

- ▶ Knoll facilities conducted continuous ergonomic reviews at workstations under the Knoll Employee Health and Safety Analysis program. This practice identifies how work processes might be redesigned and what additional working aids are required.
- ▶ The Muskegon facility instituted orientation training on safety and environmental procedures for temporary employees to reduce injury rates among this group.
- ▶ In 2010 the Safety Score Card system at the Toronto facility was successful in increasing accountability of supervisors on the floor, providing data for ensuring compliance with health and safety regulations and targeting areas for improvement. The Toronto metals plant had no reportable injuries for the year in 2010.
- ▶ Knoll U.S. manufacturing facilities continued to offer a voluntary stretching program that includes instruction and 10 minutes of free time at the start of each shift for stretching exercises.
- ▶ All facilities continued to maintain safety teams, regular safety inspections and monthly safety meetings.

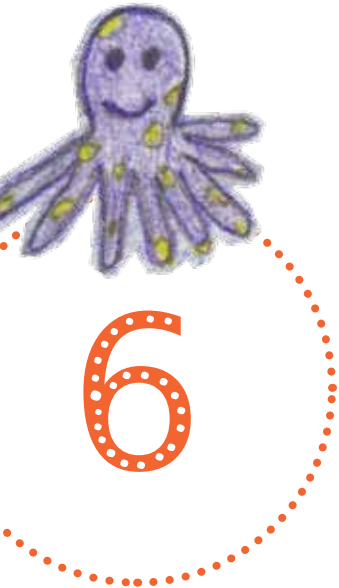


*We will develop and implement health and wellness awareness and illness prevention programs.*

- ▶ Knoll manufacturing facilities continued the hearing conservation program that includes testing of all workers in in-house hearing booths with physician review of test results, provision of hearing protection and education.
- ▶ In 2010 Knoll provided free flu shots to associates and their families. Additional nurses were brought in to administer the program.
- ▶ Weight loss programs at the Grand Rapids, East Greenville and Muskegon facilities provided nutrition and exercise guidelines and weekly weigh-ins to improve employee health.
- ▶ The Knoll East Greenville, Grand Rapids and Muskegon facilities conducted successful blood drives.

*We will design and develop training programs to provide Knoll associates with the necessary skills and knowledge to fulfill the objectives of the Environmental, Health and Safety Plan.*

- ▶ In 2010 Knoll U.S. facilities conducted regular safety meetings, showed safety videos, trained volunteer safety observers, and created safety posters and newsletters.
- ▶ Knoll facilities continued to train employee First Responder volunteers in CPR, AED (Automated External Defibrillator) and first aid.
- ▶ In 2010 Knoll EHS teams monitored ISO/OSHA compliance and best practices through uniform procedures in all facilities.

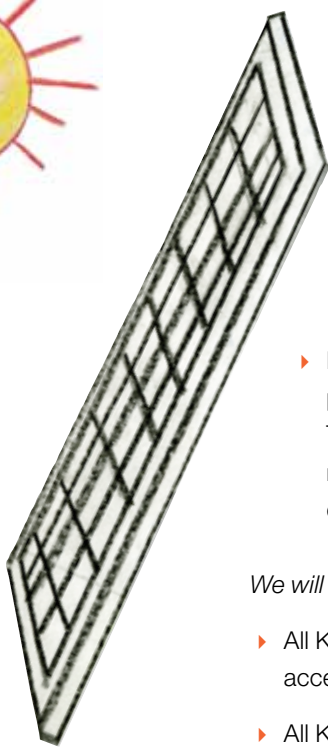


## Safe Products and Services

We will reduce and, where possible, eliminate the use, manufacture or sale of products and services that cause environmental damage or health or safety hazards. We will inform our customers of the environmental impacts of our product or services in an effort to prevent unsafe use.

*We will design and engineer durable products; investigate using recycled materials in the design of our products; and design safety features and ergonomics into our products.*

- ▶ In 2010 seven Knoll products earned BIFMA level™ 3 certification. Level™ is a voluntary product standard, developed by the Business and Institutional Furniture Manufacturer's Association, to support safe, healthy and sustainable workplace environments. Knoll Dividends Horizon® was the first system product in the contract furniture industry to achieve level™ 3. Six additional products: Antenna™ Workspaces and AutoStrada® systems; Calibre®; Generation by Knoll® and MultiGeneration by Knoll™ chairs; and Reff Profiles™ made Knoll the first company to earn level™ 3 in multiple product categories.
- ▶ Knoll continued in 2010 to design and engineer durable products that use recycled materials in their manufacture, have high recyclability, and include ergonomic and safety features.
- ▶ Knoll Environmental Design Guidelines were followed in the design and development of new products in the pipeline. Guideline principles include economy of materials, recycled content, clean technology, ergonomics, durability and ease of assembly and disassembly. LCA (Life Cycle Assessment) was completed for the MultiGeneration by Knoll™ chair; the Dividends Horizon®, Antenna™ Workspaces and AutoStrada® systems; and Reff Profiles™.



- ▶ KnollTextiles added six new fabric lines to its collections in 2010. Of these, four contain recycled polyester content of 51%-100%, and one is made with 74% organic cotton. These bring to 83 the total number of Knoll Green Bar designated fabrics, which contain at least 49% recycled content, at least 75% rapidly renewable material (natural fiber), or Eco-Intelligent fiber. All new fabrics are GREENGUARD Indoor Air Quality® certified.
- ▶ KnollTextiles continued to offer Crypton Green fabrics that combine post-consumer recycled polyester fibers with an optimized chemistry for reduced environmental and indoor air quality impact; Terratex fabrics made of 100% recycled content; Ultrasuede textiles made with 80% post-industrial recycled microfiber; and Eco-Intelligent® Polyester fabrics made of fiber that is a “technical nutrient” designed to be safely recycled into new fabric with no hazardous by-products.

*We will provide independent testing to help assure the safety of our products.*

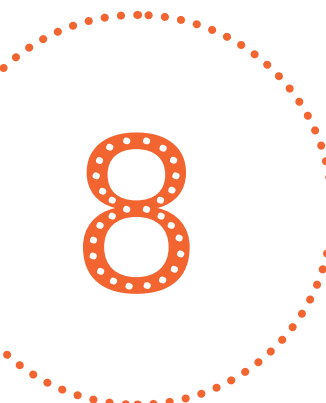
- ▶ All Knoll systems and seating, 94% of KnollTextiles fabrics, most KnollStudio furniture and all KnollExtra accessory products except poster boards are GREENGUARD certified.
- ▶ All Knoll office seating and Template and Calibre® Storage Systems are GREENGUARD for Children and Schools<sup>SM</sup> certified.
- ▶ Knoll performs structural testing of our products using ANSI/BIFMA protocols. Products are tested in our Quality Assurance Laboratory and independently at outside labs certified by the Canadian General Standards Board (CGSB).
- ▶ All Knoll urethane foam cushioning on seating products meets or exceeds requirements of California Technical Bulletin 117 (CAL 117).
- ▶ Most Knoll seating products include upholstery options that comply with California Technical Bulletin (CAL 133), the most stringent flammability test protocol in the industry.
- ▶ All Knoll systems are listed products with Underwriter’s Laboratories. Listing includes periodic testing of upholstered vertical panels and UL audits of Knoll and component suppliers’ factories four times per calendar year.



## Environmental Restoration

We will comply responsibly with the law to address conditions we have caused that endanger health, safety or the environment.

- ▶ In 2010 Knoll caused no conditions that endangered health, safety or the environment.

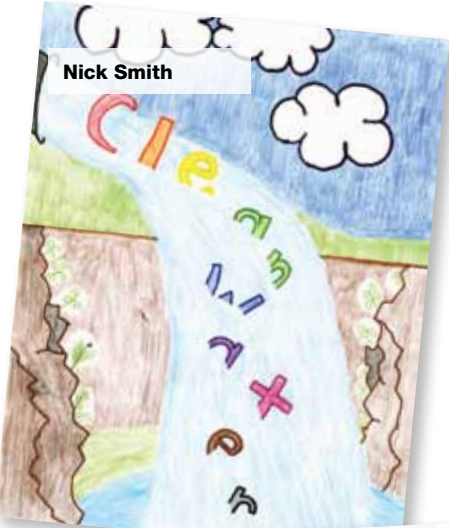


## Informing the Public

We will comply with the law to inform in a timely manner those who may be affected by conditions caused by our operations that might endanger health, safety or the environment and will encourage associates to report dangerous incidents or conditions to management.

- ▶ No pollution incidents occurred in 2010 at any Knoll North American facility that affected the surrounding community or required public notification.

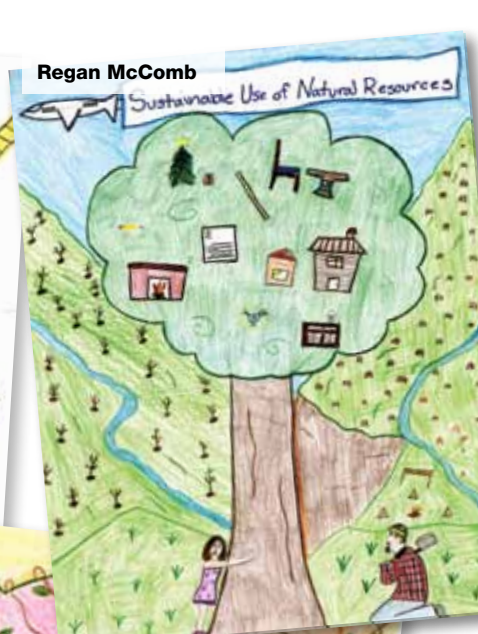
Nick Smith



Brandon Reese



Regan McComb



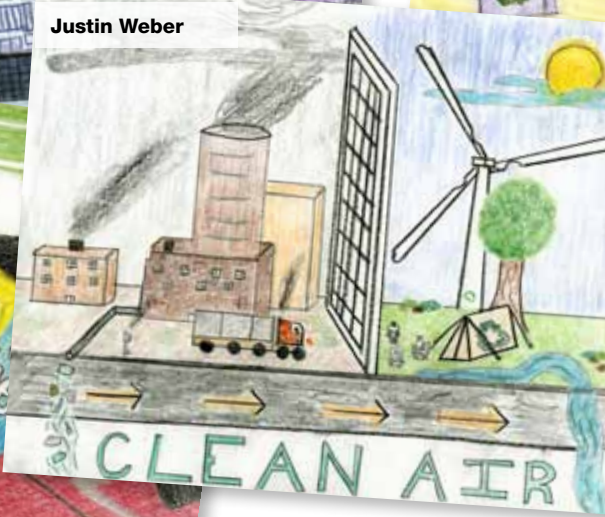
Alec Pritchard



Emily Hannan



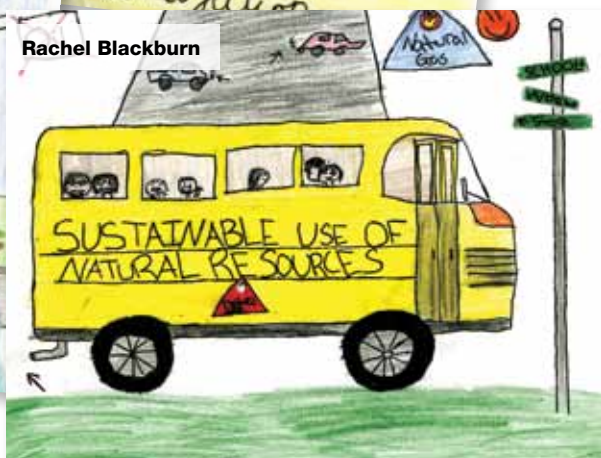
Justin Weber



Morgan Rynn



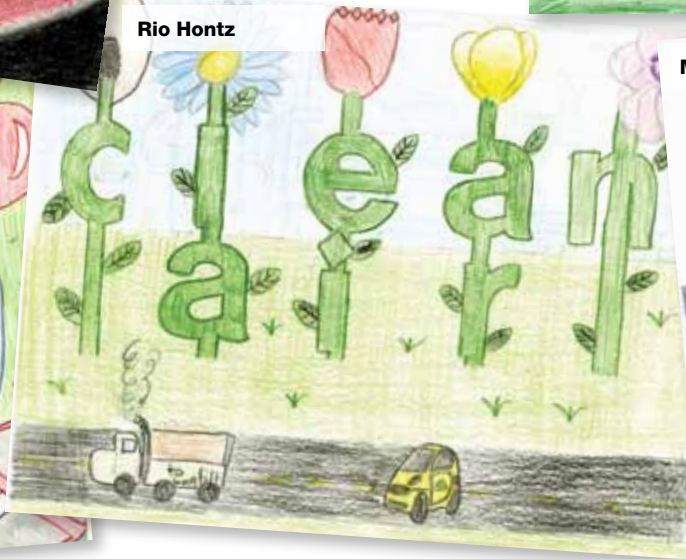
Rachel Blackburn



Levi Stoudt



Rio Hontz



Mitchell Cairns





# Ecofont

“The green font with holes”

During printing, Ecofont “shoots” holes into the letters that you have typed, and can save up to 25% on ink or toner. Considering ink is expensive and polluting, this could add up to substantial savings.

Ecofont software will be available via [www.ecofont.com](http://www.ecofont.com) by summer 2010. Users can choose to print in an environmentally friendly Ecofont version of one or more of the well-known fonts, such as Arial, Verdana and Calibri. Ecofont versions of corporate typefaces can be added to the software at the customer’s request. The software can be used in Microsoft Word and Outlook versions 2003, 2007 and 2010.

Ecofont won the 2010 *European Environmental Design Award*, an initiative of DiMAD (Asociación Diseñadores de Madrid).

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## More printing tips

- ▶ Only print when necessary and use a modern, efficient printer and unbleached paper.
- ▶ Print double-sided (automatic duplex) or print Ecofont in combination with draft mode.
- ▶ A printer sends a signal when the cartridge is almost empty. It does this on the basis of the number of prints, not on the basis of the actual ink or toner level™. So keep using your cartridge until your prints are (almost) no longer legible.
- ▶ If you throw away most of your prints the same day you print them, you can use the temporary ink made by Xerox. After 24 hours, the printed text disappears and you can reuse the paper.

