



## A Natural Step Case Study

NIKE



### RUNNING A CLEANER RACE

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With annual revenues of \$18.6 billion, Nike, Inc. is the world's leading manufacturer of athletic shoes, apparel and equipment. Nike directly employs 30,000 people around the world, 6,000 of whom work at Nike World Headquarters near Beaverton, Oregon. As of 2006, Nike products were manufactured by nearly 800,000 workers in 700 contract factories located in 52 different countries.

As one of the biggest brands in the business, Nike became a lightning rod for criticism in the 1990s when activists began to publicly denounce labor conditions in its overseas contract factories. Like others in the industry, Nike's initial responses were defensive and reactive. In the years that followed, however, the company's policies and practices reveal a marked shift toward proactive responsibility and engagement with stakeholders.

In 1998, The Natural Step began to work with Nike to help it apply the principles of sustainability to its business operations, and the company formalized its commitment to sustainable commerce with an official policy statement later that year. Hundreds of Nike employees were trained to use The Natural Step Framework between 1998 and 2001, leading to numerous innovative programs to further its sustainability goals. In 2008, Nike partnered with The Natural Step again to help assess and further develop its approach to product innovation by defining a long-term vision for sustainable products. The resulting North Star vision and innovation goals position Nike to become a leader in sustainable product innovation and navigate toward a sustainable future.

### FROM HUMBLE BEGINNINGS TO GLOBAL PLAYER

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Nike began as a partnership between University of Oregon track coach Bill Bowerman and one of his runners, Phil Knight. Bowerman thought he could improve runners' performance with better equipment, while Knight, a graduate student at Stanford Business School, wanted to test out his plan to import high-tech, low-priced athletic shoes from Japan. Calling themselves Blue Ribbon Sports, the pair invested \$500 each for their first shipment of Japanese shoes to Oregon in 1962. Less than a decade later, the company's revenue had grown from \$8000 to nearly \$2 million and its staff had increased to 45.



Bill Bowerman – Olympian, Olympic coach, and co-founder of Nike coaching track at the University of Oregon.

Re-named Nike, after the winged goddess of victory, the company went public in 1980, by then representing 50% of the US running shoe market. By the end of 1982, every world record in men's track was being set by athletes wearing Nike shoes, establishing the company as the dominant global force in athletic shoes and apparel.

## RESPONDING TO CHANGING EXPECTATIONS

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In practice, sports apparel and footwear production is rarely managed directly by brand owners, but is contracted out to supplier factories, many of whom further sub-contract the work to other factories and to home-workers. By the early 1990s, it became clear that the rights of many contracted workers were not adequately protected by the state or contract factory. Nike drew heavy criticism for contracting to factories which allegedly violated minimum wage and overtime laws and used child labor.

As one of the most visible brands in the world, and the dominant player in its market, revelations such as these brought Nike into the centre of unprecedented controversy over labor rights in a globalized economy. In an article by the *Clean Clothes Campaign* about Nike's labor and environmental practices, US activist Max White explained the reasons many activists were focusing their efforts on Nike. 'Nike is not the worst company on the planet. Reebok and others use the same workers and contractors in the same countries. Nike is, however, the largest such company...If Nike reforms, they will trumpet the change and other manufacturers will have to follow.'<sup>1</sup>

The controversy of the 1990s compelled Nike's management to re-evaluate the company's standard operations. Nike drafted its first code of conduct for contract labor in 1991 and distributed it to factories the next year, making it the first code of its kind for the sporting apparel industry. All contract factories were required to sign the document, which banned the use of forced or child labor and committed them to compliance with local laws on wages, benefits, overtime, and environmental protection. The code was later amended to include the right to free association and collective bargaining. In 2005, Nike became the first company to publicly release supplier details of Nike branded products.

In 1993, the Nike Environmental Action Team (NEAT) was formed as an umbrella for all environmental staff and functions in the company. NEAT's mission was to develop answers to the problems that Nike's production – and the sports industry as a whole – pose to the environment, and to integrate the solutions into the company's business practices. Many at Nike viewed the formation of the NEAT division as building on a tradition of honoring nature in Nike's physical surroundings. "The ethic was always there," notes Sarah Severn, Director of Corporate Responsibility Horizons for Nike, "but we didn't see early-on how it applied systematically to the business." This organizational realignment set the stage for a re-visioning of the company's environmental policy, led by Severn.

"Corporate responsibility must evolve from being seen as an unwanted cost to being recognized as an intrinsic part of a healthy business model, an investment that creates competitive advantage and helps a company achieve profitable, sustainable growth."

**MARK PARKER**  
CEO, NIKE INC.

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<sup>1</sup> Max White, as quoted by Clean Clothes, <http://www.cleanclothes.org/companies/nikecase.htm>

## THE NATURAL STEP TO A SUSTAINABLE NIKE, PART ONE

Severn joined Nike through their European offices in 1993 in a marketing strategy role, but her personal interest in the company's environmental programs drew her to the US to help build NEAT in early 1995. After reading Paul Hawken's *Ecology of Commerce*, Severn brought the NEAT team to Portland, Oregon to hear Hawken speak about the book and The Natural Step Framework.

The more Severn and her team learned of The Natural Step Framework, the more they came to see it as the essential structure for achieving sustainability. Aside from meeting financial goals, the four principles of sustainability were the 'real rules' because they define the natural laws that a sustainable business can operate within. Severn began to see her challenge as helping Nike's senior management change its view of sustainability from a peripheral or tactical issue to a strategic opportunity that is central to the company's business. Making a case that sustainability should be a core tenet of the company's mission proved to be an easy link; "after all, how can you have a company that's about health and fitness and yet be degrading the environment in your operations?" asks Severn.

### **The Principles of Sustainability<sup>2</sup>** **To become a sustainable society we must...**

1. Eliminate our contribution to the progressive buildup of substances extracted from the Earth's crust.
2. Eliminate our contribution to the progressive buildup of chemicals and compounds produced by society.
3. Eliminate our contribution to the progressive physical degradation and destruction of nature and natural processes.
4. Eliminate our contribution to conditions that undermine people's capacity to meet their basic human needs.



<sup>2</sup> To learn more about The Natural Step Framework and the principles of sustainability, visit <http://thenaturalstep.org/our-approach>

## FORMALIZING THEIR COMMITMENT

In late 1997, NEAT began rewriting Nike's environmental policy to reflect the company's emerging focus on sustainability. Formally approved by Nike senior management in June 1998, the policy committed the company to the following far-reaching initiatives. In the same year, CEO Phil Knight announced new initiatives to improve factory working conditions and improve conditions for contract workers:



Then-CEO and Nike co-founder Phil Knight announces initiatives to improve conditions in overseas factories.

- Integrate the principles of sustainability into all major business decisions.
- Scrutinize environmental impacts in day-to-day operations and throughout every stage of the product life cycle.
- Design and develop product, materials and technologies according to the principles of sustainability.
- Promote sustainable practices throughout the supply chain and seek business partnerships with suppliers who operate in a similar manner.
- Educate employees, customers, and business partners to support the goal

## BUILDING CAPACITY FOR SUSTAINABLE DEVELOPMENT

NEAT began educating employees in the principles of sustainability and The Natural Step Framework as early as 1995. After attending a five-day TNS US workshop in Chicago, Laila Kaiser, Sustainability, Learning and Communications Manager at Nike, developed educational programs on sustainable product design for 700 employees, bringing the topic of sustainability to the fore.

In order to further integrate The Natural Step principles for sustainability into the fabric of the business, Nike launched its Sustainability Initiative in 1998 to build internal skills and knowledge about sustainable business development. More than 400 people participated in the nine-month long Shambhala action and learning program, which resulted in the birth of a considerable number of ideas and plans to make Nike more sustainable. According to Kaiser, the product and process innovations delivered a short term return on investment of \$2 million USD over nine months.

In addition to the specific project achievements, the effort also produced several important qualitative results:

- Built a critical mass of formal and informal leaders
- Shared learning and "best practices" company-wide
- Created a common language, framework, and vision for sustainable business practices
- Improved employee morale, resulting in increased employee retention and job satisfaction for those that were engaged in sustainability efforts

- Created a base for metrics to be used in Nike's first Corporate Responsibility Report
- Laid the groundwork for future sustainable design and innovations

## GETTING DOWN TO ACTION

Over the years, Nike has undertaken a number of initiatives addressing the environmental life cycle of its products –from design to manufacturing to marketing to post consumer use – and their impacts on living systems at each step. In August of 1999, Nike began a process to phase out polyvinyl chloride, or PVC, a durable and inexpensive plastic known as vinyl, from its products due to the serious concerns around its manufacture and disposal. Given that this compound can comprise up to 30 percent of a shoe, the decision was an important step in Nike's path to sustainability. Removing PVC required cooperation throughout Nike's supply chain and innovation from design and production teams. Today, PVC has been eliminated from all but a few products.<sup>3</sup>

In addition, Nike has been incorporating organic cotton into its T-shirts and knit products since the late 1990s. Conventional cotton production uses more chemicals per unit than any other crop, and accounts for a total of 16% of the world's pesticides.<sup>4</sup> In order to reduce its contribution to the progressive buildup of chemicals in society, Nike has committed to increasing the amount of organic cotton in all of its garments to at least 5% by 2011.

In an industry that has been traditionally dependent on large amounts of petrochemical-based solvents, Nike reduced 95 per cent of its solvent use between 1995 and 2003 by using water-based cements, primers and cleaners. The hazardous chemical reduction program has contributed to safer working conditions, a reduced environmental impact, and substantial cost savings for Nike factories. Estimates of overall raw-material cost savings were about \$4.5 million in 2003, without counting savings related to labor, storage, or shipping.

Nike's Reuse-A-Shoe program grinds used athletic shoes and uses the recycled materials in surfaces for basketball courts, athletic tracks, artificial soccer fields, playground fall protection, and other recycled products. Since its 1990 inception, the program has successfully kept more than 21 million postconsumer and defective shoes out of landfills.

"This is good for the environment, and good from a profitability standpoint. Our stakeholders and our stockholders want to see that."

**LORRIE VOGEL**  
GENERAL MANAGER, NIKE CONSIDERED



Nike's Reuse-A-Shoe program has helped create more than 250 recycled sport surfaces.

<sup>3</sup> Nikebiz website. Sustainable Materials (Accessed October 20, 2008)

[http://www.nikebiz.com/responsibility/considered\\_design/sustainable\\_materials.html](http://www.nikebiz.com/responsibility/considered_design/sustainable_materials.html)

<sup>4</sup> Bircher, Sam. (March 2007) Institute of Science in Society Press Release: [Picking Cotton Carefully](#).

Finally, while the boxes used to package Nike shoes were already 100 percent post-consumer recycled material and made in a closed loop system, in May 1998 new machine technology was applied in the manufacturing of all Nike corporate boxes, reducing the raw material fiber by an additional 4,000 tons and saving the company \$1.6 million annually. In 2008, Nike's shoe box materials and construction were redesigned, which will eventually reduce the materials by 3 percent and result in an estimated \$6 million savings.

## GENESIS OF A CONSIDERED APPROACH

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In 2005, Nike launched a line of shoes designed to incorporate the principles of sustainability. This line, named Considered, marked a shift in the way sustainability was addressed at the design level and the genesis of a more considered approach to Nike's business practices. To qualify as Considered, Nike products must be significantly more sustainable than conventional products. Considered is best described as a design ethos that focuses on creating products made with fewer toxics, less waste, more environmentally preferred materials and sustainable product innovation. Combining sustainability, performance and innovation, Considered reflects Nike's ongoing commitment to athletes as well as the social and environmental playing ground that consumers, employees and stockholders depend upon.

Nike's Considered group is the team of employees responsible for applying the Considered design ethos to products and business models throughout the company. As sustainability becomes mainstreamed in Nike's business operations, initiatives are increasingly being moved forward by employees with backgrounds in business or design. A case in point is Lorrie Vogel, General Manager of Considered, who left her position as an Innovation Director at Nike to head the division. "When I started with Considered, one of my goals was integrating us into the business model as a whole and getting designers more involved," Vogel recalled.

## CREATING INCENTIVES FOR CHANGE

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In order to better evaluate the environmental footprint of all Nike products and develop incentives for change amongst Nike design teams, the company developed the Nike Considered Index. The index uses a lifecycle approach to examine design and production factors such as material selection, solvent use, garment treatments, waste, and innovation for footwear and apparel. Considered products are rated as gold, silver or bronze.

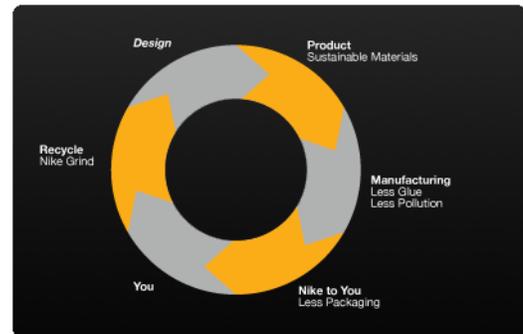
Already, the index has been a key leverage point for Nike designers, successfully channeling the company's competitive nature to focus on sustainable design innovation. The company exceeded its own initial expectations for the number of products that meet Considered design standards as designers rose to meet the challenge of developing more sustainable products. Prominent athletes such as Steve Nash and Michael Jordan have promoted gold standard shoes, adding star power to the Considered line. The Steve Nash "Trash Talk" shoe was among the first sports performance shoes to be rated gold under the Considered Index.



Nike's Steve Nash "Trash Talk" shoe is the first performance basketball shoe made from manufacturing waste.

## the Nike story

Nike plans to share the Index with the sports industry in 2009 in the spirit of industry-wide collaboration towards sustainability. The company's goal is to have all footwear meet the bronze standards at a minimum by 2011, all apparel by 2015, and all equipment like balls, gloves and backpacks by 2020. "If we do this across the company, we will have a 17% reduction in waste, a 20% increase in the use of environmentally preferred materials, and maintain our 95% reduction in volatile organic compounds (VOCs)," Vogel explained. "Once we hit our goals, we'll put out a new index that will take us even further."



The Nike Considered approach: evaluating the impact of a product at every stage in its life.

## TAKING THE NATURAL STEP, PART TWO

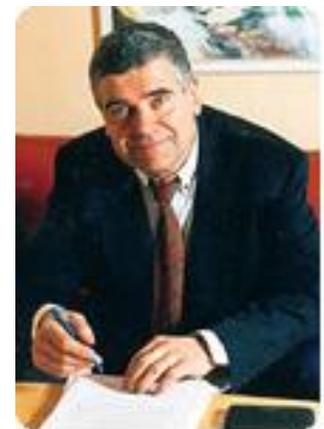
In 2007, The Oregon Natural Step Network (ORTNS) celebrated its 10<sup>th</sup> anniversary at the Tiger Woods Centre at Nike Global Headquarters outside of Beaverton. "The anniversary event was a milestone for both Nike and The Natural Step," Regina Hauser, Executive Director of the Oregon Natural Step Network recalled. "Both of our organizations had come a long way in our understanding and application of sustainable development over the past decade. Nike's understanding of the connection between sustainability and success made it an important part of that celebration."

The event, convened around the theme of sustainability and success, featured talks by author Bob Willard (*The Business Case for Sustainability*), Ray Anderson, CEO of Interface Inc., and Dr. Karl-Henrik Robèrt, founder of The Natural Step. Dr. Robèrt introduced the [Real Change Partnership program](#), an international research initiative linking university research specializations with real world application using The Natural Step Framework.

As Nike's lead on sustainable product innovation, Lorrie Vogel was listening attentively. When Sarah Severn introduced her to Dr. Robèrt, Vogel described some of her team's work on sustainability, and commented that their biggest challenge was making decisions that involved trade-offs between different sustainability goals.

"Dr. Robèrt said, 'Well, where do you want to be?'" Vogel recalled. "For me, that was a bit of a light bulb moment. It made me realize that we were spending a lot of energy on how to reduce our overall impacts, but hadn't clearly defined a vision of where we wanted to be in the future. We needed that vision to help us choose projects based on what will get us closer to our end goal."

In response to a request from Nike, The Natural Step convened an international team of sustainability experts from The Natural Step offices in the US, Canada, Sweden and from Real Change partner university, the Blekinge Institute of Technology (BTH). The team's mandate was



Dr. Karl-Henrik Robèrt, founder of The Natural Step.

to help Nike define a vision for sustainable shoes and sports apparel and assist with outlining smart, step-wise initiatives to move toward it.

Although The Natural Step often begins projects with a focus on building awareness and capacity around sustainability in an organization, Nike's previous training and the extensive sustainability work they had already pursued made this step more of a refresher. As Chad Park, Senior Sustainability Advisor from The Natural Step Canada, explained, "Working with Nike was unique in that there was very little convincing needed about the importance of sustainability for the business, the value of a rigorous science-based approach, and the merits of the backcasting method of The Natural Step Framework. Instead, Nike was more intent on *applying* the Framework to their context. Beginning a project with this level of awareness, respect and commitment makes it possible to get much further in a short amount of time – and achieve some deep change."

An initial TNS training provided an introduction to the Framework for newer employees and an update for others. Severn, who had participated in the original TNS trainings a decade earlier, commented: "For me the big piece was watching younger generations of designers and developers go through the TNS workshops. It was great to see them get so excited about sustainability. They agreed that we need to be working toward sustainability as a company, and they could see how the TNS training would be meaningful in their jobs."

The Natural Step project began with an assessment of Nike's work to date by interviewing employees and spending time at the global headquarters in Oregon. Jim Goddard, Director of Considered Innovation at Nike, reflected. "Having the TNS team asking questions that weren't naïve and were obviously grounded in experience helped tip the Nike interviewees to engage with them more – that was a big help in getting started."

The TNS team found that the support from upper management and Nike's experience in sustainability initiatives were significant strengths. Programs like the Considered line, the use of organic cotton, Reuse-A-Shoe and many others provided a rich base of experience and success to move forward from. The Natural Step team used its Sustainability Lifecycle Analysis (SLCA) tool to

"What really impressed me working with [TNS] in the past year was their ability to take the principles of sustainability, understand the business model they were being plugged into and come up with clear and concise statement of what that means for the business."

**JIM GODDARD**  
DIRECTOR OF CONSIDERED  
INNOVATION, NIKE

"The challenge for the Nike Considered team and the broader corporate responsibility team is to make sure people are able to translate [sustainability] into actionable, practical steps. The beauty of The Natural Step is that it is a step by step process, so you can drill down from the big vision and ask what are the things we already have going on that are taking us in the right direction, what is going on that takes us in the exact opposite direction that we may want to rethink, and what are the innovations that we need to look for?"

**SARAH SEVERN**  
DIRECTOR OF CORPORATE  
RESPONSIBILITY HORIZONS, NIKE

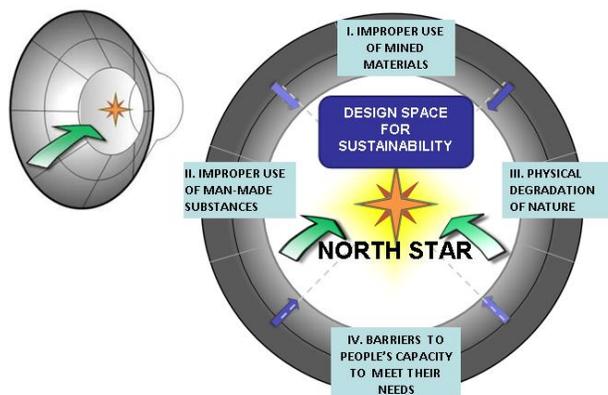
develop an understanding of what Nike had already accomplished and identify the remaining gap toward sustainability, including specific areas they could focus on in the future. Although Nike already had a strong understanding of their current operations, The Natural Step was able to offer a unique perspective, informing their analysis with a strong systems-thinking approach using the principles of sustainability. One area that emerged from the SLCA was the need to expand the scope around toxic substances. While Nike had made very strong progress towards the elimination of known toxins from its products, The Natural Step helped them expand their thinking to include all persistent and systematically increasing substances, whether they are known to be toxic today or not. In addition, The Natural Step Framework's inclusion of human needs as an essential part of sustainability helped Nike integrate thinking around social sustainability beyond corporate responsibility and into its overall sustainable design principles.

## FINDING NIKE'S NORTH STAR

After undertaking a baseline assessment of Nike, The Natural Step began a series of visioning sessions to co-develop Nike's long term sustainability aims. The result is a compelling vision that can guide not only the Considered line, but Nike as a whole. The vision begins with an inspirational statement that describes the goal at a high-level.

"We call it an 'audacious' goal, knowing that we'll be spending a lot of time making little bits of progress toward it," Goddard explained. "But at least we'll be making progress in the right direction. It is a far off, guiding light that lets us make sure we stay on track."

The second part of the North Star is a set of specific innovation goals that will provide concrete direction to designers and ensure that the North Star can be translated into practical short, medium and long-term goals. One of the key goals is to design products that are fully closed loop, using the fewest possible materials and assembled in ways that allow them to be recycled into new products or safely returned to nature at the end of their use. Other innovation goals address healthy chemistry, water stewardship and climate stability. Underpinning these innovation goals are The Natural Step sustainability principles, which will serve as an ongoing guide.



The design space for sustainability is constrained by The Natural Step's sustainability principles.

## Nike's Innovation Goals

1. Closing the Loop
2. Sustainable Materials
3. Climate Stability
4. Water Stewardship
5. Thriving Communities
6. Athletes as Change Agents

One of Nike's strengths is the company's emphasis on innovation and dynamism. Helping their designers understand the mechanisms of un-sustainability allows them to create their own innovative solutions for moving towards Nike's North Star. As Vogel explained, "Designers want to do the right thing. What they do best is problem solve, so we needed to make sure they understood the problems of un-sustainability so they could design the best solutions." The Natural Step's principles of sustainability form the "rules of the game" for designers, whose challenge is to work within them to develop more sustainable products and bring Nike closer to its North Star.

## LAST WORDS

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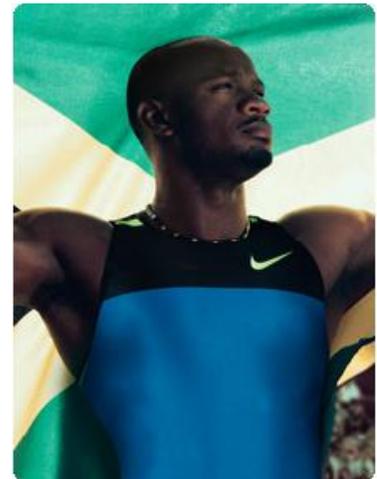
Much has changed since Nike first began to work with The Natural Step on sustainability over a decade ago. Sustainability is becoming a mainstream concept and technical innovations are becoming increasingly available. Nike's next steps include looking to universities and other companies for innovative ideas to supplement their own.

"We used to be very much go-it-alone; we thought we had to solve all the problems ourselves." Severn notes. "We have learned that sustainability requires us to work collaboratively to find solutions with other partners."

As Natural Step Senior Advisor Richard Blume notes, Nike has already begun to collaborate across the industry through work with Levi Strauss and the Organic Cotton Exchange. "Nike has already shown a lot of leadership in that regard. They are trying to change the industry and engage other companies to do the same," he said.

Nike will continue to refine its innovation goals and create action plans to move forward on each individual goal. An important element of their work is to understand how they can contribute to healthy communities and human needs by designing more sustainable products. The innovation goals address the social component of sustainability by emphasizing the importance of returning clean water to communities and removing toxic materials from the waste stream that might otherwise end up in landfills.

Three of Nike's Considered products were showcased during the 2008 Beijing Olympics: the PreCool Vest, which keeps athletes cool before performance, Swift running and rowing apparel, and medal stand shoes. The vest is composed of recycled material from the Nike Grind program, and is constructed without glue or chemicals. The running and rowing apparel uses 100% recycled polyester. Nike reports that its use of recycled polyester has diverted 20,700 pounds of polyester waste from landfills. The medal stand shoe is made using Nike's environmentally preferred rubber formula, which reduces the use of harmful chemicals by 97%.



Jamaican sprinter Asafa Powell ran the anchor leg of the gold medal winning and World Record setting Jamaican men's 4x100 meter relay at the 2008 Olympics in Beijing. His racing suit, pictured above, is part of Nike Considered athlete apparel line, and is made from 100% recycled polyester.

Nike launched the Considered design ethos and sustainable line of footwear and apparel in New York City in October 2008. The event was held at 7 World Trade Center in Manhattan, the first commercial office building in the city to receive the Leadership in Energy and Environmental Design (LEED) certification. In an interview with the Reuters News Agency, CEO Mark Parker explained, "We're trying to reduce costs and improve margins, to make the company more profitable while reducing the footprint we have on the planet." Parker announced that Nike's long-term vision for Considered is to design products that are fully closed loop. These would be produced using the fewest materials possible and designed for easy disassembly, allowing them to be recycled into new products or safely returned to nature at the end of their useful lives.

In an effort to continue to build employee capacity and engagement in Nike's sustainability efforts, the company is making an online sustainability course available to 100 of its employees worldwide. The Natural Step's one- and four-hour interactive, online courses provide practical sustainability education and help learners apply sustainable development concepts to their day-to-day work and lives.

"The Natural Step and Nike have been working together to create a more sustainable future for over 10 years. Nike's progress has been tremendous. We are proud to be partners in their journey."

**DR. KARL-HENRIK ROBERT**  
FOUNDER OF THE NATURAL STEP



Ethylene Vinyl Acetate (EVA), commonly used in the midsoles of footwear. Waste scrap is collected during production of the midsoles, ground into fine particles and then re-used in Nike sockliners and new midsoles.

## ADDITIONAL INFORMATION

For more information on Nike's sustainability work, visit [www.nikeresponsibility.com](http://www.nikeresponsibility.com)

This case study was written by Kim Mackrael for The Natural Step, and is based on an original case study written by Brian Lanahan in 1999 and updated by Marsha Willard in 2003. Thanks to Richard Blume, Jim Goddard, Regina Hauser, Chad Park, Sarah Severn, and Lorrie Vogel for granting interviews to The Natural Step, and thanks to Richard Blume, Chad Park and Anouk Bertner for editing this case study. Photos courtesy of Nike, Inc. and The Natural Step.