Running a Cleaner Race
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 lightening 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
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 $8,000 to nearly $2 million and its staff had increased to 45.

Re-named Nike, after the winged goddess of victory, the company went public in 1980, by then representing 50 percent of the U.S. 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
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, U.S. 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.”

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.

**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 U.S. 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.

**Sustainability Principles**

In a sustainable society, nature is not subject to systematically increasing...

- concentrations of substances extracted from the Earth’s crust,
- concentrations of substances produced by society,
- degradation by physical means,

and, in that society...

- people are not subject to conditions that systematically undermine their capacity to meet their needs.
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:

• 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 U.S. 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.

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.3

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 percent of the world’s pesticides.4 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 percent by 2011.

In an industry that has been traditionally dependent on large amounts of petrochemical-based solvents, Nike reduced 95 percent 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 post-consumer and defective shoes out of landfills.

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**

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**

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 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 percent reduction in waste, a 20 percent increase in the use of environmentally-preferred materials, and maintain our 95 percent 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.”

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

Take the Natural Step, Part Two

In 2007, The Oregon Natural Step Network (ORTNS) celebrated its 10th 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 Robért, founder of The Natural Step. Dr. Robért introduced the Real Change Partnership program (www.alliance-ssd.org), an international research initiative linking university research specializations with real world application using The Natural Step Framework (now the FSSD).

As Nike’s lead on sustainable product innovation, Lorrie Vogel was listening attentively. When Sarah Severn introduced her to Dr. Robért, 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. Robért 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 U.S., Canada, Sweden and from Real Change partner university, the Blekinge Institute of Technology (BTH). The team’s mandate was to help Nike define a vision for sustainable shoes and sports apparel and assist with outlining smart, step-wise initiatives to move toward it.
Case Study

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 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 toward 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.
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

Much has changed since Nike first began to work with The Natural Step on sustainability more than 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 percent 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 percent.

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.

For more information on Nike’s sustainability work, visit 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.

1 Max White, as quoted by Clean Clothes, http://www.cleanclothes.org/companies/nikecase.htm
2 To learn more about The Natural Step Framework and the principles of sustainability, visit http://thenaturalstep.org/our-approach
Review of Nike Considered Index and Support Tools

1 Introduction
Nike has invited The Natural Step to provide external assessment and advice on the Considered Index from a strategic sustainable development perspective. This review covers the overall Index approach, recognizing that there are variations of the Index (e.g. for apparel and footwear). The assessment method is explained below. We refer to different aspects of the Index in this review, so a description of the approach and its parts is provided. We then give an overall assessment, followed by technical examination of different parts of the Index and commentary on its public release.

Assessment Method – Backcasting from Success
The assessment has been conducted using both the sustainability principles and backcasting planning method of the unifying Framework for Strategic Sustainable Development, promoted by The Natural Step in collaboration with its international research and practitioner networks. Four science-based sustainability principles from the framework describe success in terms of the conditions needed for a sustainable society, providing an operational definition of sustainability that allows for a gap analysis between where we are today and where we need to arrive at in the future.

From this ‘whole systems’ perspective, it needs to be clearly stated that there is no such thing as a sustainable or an unsustainable material or product; there are only sustainable material and resource management practices. Product and material sustainability claims therefore need to be viewed carefully, and as part of a journey toward sustainability – one that has many possible pathways.

Understanding Purpose and Context for the Index
All tools serve a purpose. They need to be examined with their purpose in mind, and understood within the context in which they are used. To judge if this Index is a good tool for supporting Nike’s movement toward sustainability, Nike’s overall approach to sustainability must be understood:

• The Index has been developed to aid design and material choices as part of Nike’s Considered design ethos, which is part of an overall company sustainability agenda.
• Nike has long-standing commitments to sustainability in place.
• The tool is integrated into Nike’s innovation process.
• Dedicated personnel support the tool’s development and integration across the organization.
• The Index connects with, draws from and supports many other aspects of Nike’s sustainable business and innovation agenda (for example, procurement sustainability and audit programs, restricted substances lists, company targets and policies, etc).

Just as an analysis of any single move or piece of sports gear used in a football game cannot tell you who will win, one needs to look at the whole picture. Organizations wishing to use the Index and build from Nike’s experience should bear this in mind and ensure they build the necessary competencies and structures in place to make the best use of the results from the Index.

Description of the Considered Index Approach
The Considered Index approach can be described as a set of strategic design innovation tools providing:

1) Insight into the life cycle of materials used in product creation (material scores).
2) Incentives for Nike to make more sustainable products, in line with the company’s priorities and goals (product scores).
3) Communication of the performance results using Nike’s internal standards (Considered benchmarks, e.g. Gold standard).
4) Company targets for continual improvement (stretch goals for meeting company-wide benchmarks of product performance by a given year, e.g. all footwear to be Considered Bronze by 2011).
NIKE CONSIDERED INDEX COMPONENTS

Fundamentally, the Index is a product creation tool, allowing Nike teams to focus on environmental sustainability as product is being taken through the design and development process.

Considered Design Components Table

As such, the tool does not currently evaluate elements such as packaging or transportation. These very significant environmental aspects (and others) are the focus of separate, but integrated initiatives discussed elsewhere in this report.
The two main tools that make up the approach are:

1. **Material Assessment Tool (MAT)** [http://nike-biz.com/Pages/ScoresDetail.aspx]. This tool scores and ranks the material types used to manufacture Nike products from least- to most-preferred. The scoring is based on:
   - Major, known supply chain environmental issues within defined impact categories.
   - A life cycle perspective, from ‘cradle to gate’.
   - Publicly available data that is compiled and aggregated for general material types and typical supply chain scenarios.
   - Third party input from specialists in life cycle assessment (LCA) methods.
   - Weightings are assigned to impact categories, based on Nike priorities.

2. **The Considered Index.** The Index rewards design innovation choices related to product creation by assigning scores to products. It encourages the selection of environmentally preferred materials (as scored in the Material Assessment Tool) as well as other practices where the designer can improve the environmental profile of the product, i.e. less waste generation, use of desired chemistry and an innovation bonus for breakthroughs that can be transferred across models.


Nike uses these tools in a number of ways – for example, aiding procurement decisions, setting of internal standards and more broadly for defining sustainable design performance. Nike has chosen to externally label Silver and Gold standard products, sending a signal to the consumer about Nike's Considered design ethos.

**2 Overall Assessment**

**Using Sustainability as a Driver of Innovation**

Many traditional tools and approaches for measuring product or material sustainability take a static perspective, attempting to measure and assess the scale and severity of known issues and impacts today (primarily a risk avoidance approach). On their own these life cycle assessment approaches have limitations in terms of guiding strategic decision-making toward 1) sustainable resource management and 2) related business opportunities.

It is therefore refreshing to see the approach Nike has taken – combining quantitative life cycle material assessment with qualitatively-derived scores rewarding improvements in product creation.

This approach highlights an evolution in thinking on measuring sustainability away from solely ‘impact minimization’ and movement toward an ‘innovation enabling’ strategic perspective. We believe this Index is a powerful demonstration of an overall ‘backcasting’ approach for enabling sustainable design innovation, not simply a set of tools for measuring movement away from environmental impacts.

**Driving Progress Toward a ‘North Star’ Vision**

For innovation tools to really drive progress toward sustainability, the definition of sustainability itself must be clear – what are we trying to achieve? Companies committed to sustainability must ultimately assess and align their corporate business model and goals with the needs and principles of the sustainable society we are trying to create. Although the Considered Index tools were first created to address a sub-set of known environmental sustainability issues, Nike has since defined its long-term innovation goals using sustainability principles that provide full awareness of the sustainability challenge in both social and environmental dimensions.

This ‘Considered North Star’ vision establishes an ambitious scope of action based on what science says is needed for sustainability and what is relevant for Nike’s business. While the Index does not currently address all of Nike’s aspirations, we have observed that the goals themselves are now driving further evolution of the Index. This guarantees a living rather than static method of evaluation that can continue to grow over time.

The lesson for other organizations is that the use of such tools can only make sense when they are linked to a clear and comprehensive definition of sustainability in combination with relevant company commitments for helping society to achieve this desired state.

**Evaluating the Impact of the Index**

Recognizing that Nike needs a pragmatic approach relevant to designers, the utility of the Index is best assessed by looking at the way designers use it and the outcomes of their work. Designers interviewed in this review noted that the approach helps them:
• Achieve a good overview of the environmental sustainability profile of a product style.
• Identify ‘low hanging fruit’; quick easy changes become obvious.
• Strategically develop a style with sustainability issues in mind.
• Creatively explore design choices, analyzing pricing and testing scenarios for improvements that are cost-neutral.

Nike staff also noted outcomes from the Considered Index as follows:
• Built commitment for Nike Considered’s approach to sustainable product innovation.
• Provided a broader perspective on what designers can do to make a difference.
• Raised enthusiasm and excitement about sustainability by making it tangible.
• Overcame perception that sustainability costs extra by showing cost-neutral improvement possibilities.
• Informed procurement decision-making.
• Challenged designers to compete between product lines.

Anecdotal reports from Nike affiliates who are beginning to use the Index also suggest that it is prompting new questions to be asked of suppliers. Further measurement of the impact attributed to the Index is explained in Nike’s Corporate Responsibility Reports and studies such as the MIT Sloan Management study “Nike Considered: Getting Traction on Sustainability” (Henderson & Locke 2009). The impact on the end-consumer has not been evaluated, though much has been publicly written about the evolution of Nike’s Considered approach and the high profile athletes who wear Considered products.

3 Getting Technical: Index Structure
Here we comment on certain aspects of the Index construction. As the Index and Material Assessment Tool use different scoring approaches we discuss the two tools separately. Assessment of the MAT is included in the next section.

How Comprehensive is the Index?
The Index needs to be acknowledged as a sophisticated tool covering a significant scope of environmental issues relevant to Nike. Looking through the lens of the four sustainability principles we can explore the Index’s strengths and gaps in relation to the full scope of sustainability:

• Key environmental sustainability impact categories (energy, chemistry, waste, and water) have been chosen in order to balance practicality with comprehensiveness. The impact categories cover some issues related to the first three sustainability principles that cover problems associated with mined materials, man-made substances and physical degradation of nature. The approach identifies the least number of variables that can be used to have fairly high confidence that Nike is moving in the right direction toward sustainability. It does not seek to cover everything.
• Social sustainability issues (related to the fourth sustainability principle) are not directly included. Some implications are addressed indirectly (e.g. health effects on workers from chemistry, sourcing from water-scarce regions). Social issues and environmental sustainability issues are inherently connected issues so ideally they should not be addressed in isolation.

This shows that while the tool addresses some aspects under each of the four primary mechanisms of un-sustainability, it does not cover them fully. As Nike has expressed the desire to expand the scope of the Index tools and develop new tools, we suggest that the sustainability principles be used to inform these updates. This would capture issues not currently addressed, such as chemical persistence, release of scarce metals, and more on the social dimension.

Design Parameters within the Index
The overall scoring scheme developed by Nike to reward design choices has been given considerable thought and sensitivity testing to ensure that differentiation between design options is possible. We expect that the scoring reflects a good range of options (best to worst options) for the designer from a sustainability perspective.

Although we cannot comment in detail on the suitability of the design variables in the Index (points rewarded for material selection, waste generation, chemistry and innovation) we believe they strike a good balance of what the designer has control over. There may, however, be scope to expand the scoring to look at the fate of the product, e.g. is it designed for closed loop, durability, or for cold water washing?
Finally, it needs to be noted that the scoring has been developed directly by Nike who does not claim
this to be a third party eco-label. External input on the approach is now being sought.

4 Getting Technical: Material Assessment Tool
In this section we comment specifically on the life cycle assessment approach in the Material Assessment Tool underpinning the Index.

MAT Impact Categories, Weightings and Aggregation
We note the following:

• Nike has used external input and guidance from LCA experts to create a 100-point scoring system from the life cycle data (the details of the LCA approach are not included in the scope of this review). The impact categories included in the scoring reflect Nike's priorities. Weightings are applied to the impact categories so that scores generated in each category can be aggregated into overall material scores.

• In our view, deciding on the importance or significance of particular impact categories over one another (e.g. toxicity vs. climate change) is an impossible task and should not be attempted. They are simply different dimensions of unsustainability to be tackled. The danger in this aggregation is the perception that the best scoring materials are viewed as the ‘most sustainable’ rather than ‘most preferred, based on current priorities’. This needs to be more closely examined, as the potential (and cost) of a material to be managed sustainability can change over time, be region- and scale-specific or be heavily affected by only one parameter. Recognizing that Nike has consulted external parties to develop its scoring approach we simply wish to note the interpretation risk in scoring ‘apples’ and ‘oranges’ together.

• With the above caution noted, other companies who wish to aggregate data from the different impact categories in the MAT and Index may choose to assign different priorities to them. In order for the tools to retain their integrity, the company priorities must be included in a transparent way. The rationale for setting priorities should also be outlined, e.g. perceived importance or urgency of sustainability issues, business priorities, ability to influence, etc.

Data Quality and Validity
All organizations working on sustainability will recognize lack of supply chain transparency and access to meaningful data as key challenges. The MAT employs a somewhat pragmatic approach, working on available information and proxies. The assumptions and data quality used to generate material and product scores need to be understood so that results – the basis for decision-making – are interpreted correctly:

• Publicly-available data has been used.

• Data is not consistently available and expert input has been used to make educated decisions in order to generate scores from multiple sources.

• The scores are also base scenarios for generic material types with significant aggregation. This does not account for the differences between supply chains and suppliers, which are likely to be significant.

• Ensuring that data is accurate and stays current is a key challenge. A clear mechanism for updating the assumptions in the Material Assessment Tool is not apparent but will be essential moving forward.

In the future, industries will need increasingly sophisticated tools to understand the consequences of their activities and plan solutions. Lack of data will need to be addressed. Given this, we would like to see Nike and the industry at large aiming for full transparency in the supply chain on sustainability issues. If this ambitious long-term goal were agreed, rather than create only the generic material scorecards, a further step would be to quantify the uncertainty range and incentivize suppliers to demonstrate where they lie within it. The use of web-based technologies may also be a means for building transparency by crowd-sourcing of data.

Overall, the MAT illustrates the challenge of getting reliable normalized data from manufacturers and suppliers and suggests a requirement for a sea change in industrial practices. Nike’s effort to share its research findings on supply chain impacts needs to be commended for raising this issue to industry attention.
5 Public Release of the Index

It is a hallmark of leadership that Nike is sharing its lessons learned with the industry and opening up for public scrutiny a generic version of the approach – the Nike Environmental Design Tool [http://www.nikebiz.com/Default.aspx]. This should be seen as a significant contribution to the industry dialogue on sustainability performance and it should support the development and convergence on approaches that can be universally applied across the industry.

We suggest that metric tools alone are not enough for industry alignment on sustainability. Capacity building tools should accompany any Index to bring people on board with a shared story of what sustainability means for the industry, using a robust definition. In this way each actor can assess the inherent problems in their own activities and work to generate and evaluate possible solutions.

Knowing the ultimate aims that Nike and other industry leaders are seeking to achieve with their tools is helpful regardless of current demands, the state of tools or available information. Such an approach would help revise current tools by identifying gaps and continually lift the bar as the industry makes progress.

6 Conclusion

We really like this tool as it takes a pragmatic, strategic life cycle management approach where sustainability is viewed as a journey rather than a static measurement of impacts. The use of product scores and labels such as Gold, Silver and Bronze for scoring and communication helps to simplify a complex task, making sustainability concrete enough to bring designers on board, giving them the information and incentives to make a real impact through design choices. Digging deeper one can see the depth of analysis as well as the scope limitations and challenges with data availability and aggregation methods.

This Index is a very sophisticated tool and a powerful demonstration of an overall ‘backcasting’ approach for enabling sustainable design innovation. What sets Nike apart is that it has used scientific principles of sustainability to set the scope for its vision of success for product sustainability. Nike is now using its tools to make progress toward these goals.

It is a hallmark of leadership that Nike is sharing its lessons learned with the industry and opening it up for public scrutiny. We look forward to seeing how Nike continues to evolve its tools to make progress toward sustainability.

7 About this Review

The Natural Step

The Natural Step is an international not-for-profit organization dedicated to sustainable development. The Natural Step acts as a catalyst for society, bringing about systemic change by giving decision-makers a common, science-based understanding of sustainability, and a framework to make decisions in a genuinely sustainable way.

The Framework for Strategic Sustainable Development

The Framework for Strategic Sustainable Development – commonly called The Natural Step Framework after the organizations promoting its development, application and dissemination – has been developed, tested and applied together with researchers, business and political leaders and practitioners all around the world over the last 20 years. It underpins and has inspired many of the world’s pioneering sustainability initiatives and is openly published and freely available for use by all.

The Framework as the Lens for this Review

What makes the framework unique is that it is proven on 3 arenas:

• It is built on scientific consensus, with PhDs, peer-reviewed articles, and international scientific recognition.
• It has been used by practitioners all over the world in organizations of all fields and scales.
• It can be used to analyze and relate all sustainability tools and concepts to one another and to the goal of sustainability.

It is these attributes which make it suitable as a lens for reviewing Nike’s Considered Index from a strategic sustainability perspective.

Scope of Review

This assessment is made drawing on insights by advisors familiar with Nike’s business. It has been reviewed by Dr Karl-Henrik Robèrt within the scope of the international research program Real Change, in which The Natural Step is a founding partner. The review was conducted between December 2009 and July 2010 through interviews with Nike’s Considered...
Team and Index users, training on Considered Index, document review and participation in an NGO stakeholder session. It builds upon The Natural Step’s prior understanding and collaboration with Nike’s Considered innovation team throughout 2008 to support the development of Nike’s North Star Vision.

Contributing Authors
This report has been compiled using input from a number of TNS staff drawn from The Natural Step International, The Natural Step Network USA and The Natural Step Canada.

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The materials in just our NIKE Brand footwear and apparel products come from 900 different material vendors (i.e., supplier companies). We do not source directly with these vendors; they are independent companies that sell materials to our contract finished-goods manufacturers based on our design specifications. To drive sustainability improvements in materials, we focus on the part of the value chain over which we have the most control: product design.

Decisions made in the product design phase determine the majority of a product’s environmental impacts. Nike teams design products with very detailed material specifications, and by providing those teams with the information they need to choose better materials from better vendors, we can improve the sustainability of our products.

To do this, in 2006 we introduced Considered Design. This design ethos – together with evaluation systems for footwear and apparel that we call the Considered Indexes – enables our product-creation teams to easily compare materials and make informed, sustainable choices during the design phase. The Considered Indexes represent years of research and analysis of materials and their environmental impacts (including energy use, GHG emissions, water use, land use, waste and chemical use) and consolidates that information with the major manufacturing environmental impacts (waste and solvents) into a decision-making tool that our teams can use to score their footwear and apparel designs in just minutes.

We provide our product creation teams with extensive training in how to use the Considered Indexes and on the importance of focusing on the sustainability of materials. The teams are given scoring targets for each season of products they design. In the current version of the Considered Indexes, materials make up 35 percent of the score for footwear and 60 percent of the score for apparel, so it’s clear to the design teams that focusing on materials is an effective way to meet their goals.

While the Considered Indexes have been used primarily by the NIKE Brand, our Affiliate brands have also begun introducing and using them to evaluate
their product designs and have committed to adopt the indexes by the end of FY15. For example, Hurley International scored selected apparel designs in FY11.

**Next-Generation Tools**
We are now working to take the Considered Indexes to the next level. We have been on a multi-year journey to refine the footwear and apparel Considered Indexes based on feedback from product creation teams. Updates are expected to launch in FY13.

In addition, we have significantly upgraded the materials rating tool embedded in the indexes and are calling the new tool the Nike Materials Sustainability Index (Nike MSI). Development of the Nike MSI finished in FY11, and designers are beginning to use it in FY12 (see infographic below).

One major improvement in the Nike MSI is that it rates material vendors in addition to materials themselves, providing strong incentives for the vendors to become more environmentally sustainable. We score material vendors on criteria such as whether they are complying with the Restricted Substance List (RSL) testing requirements and the Nike Water Program requirements; if they take part in materials certification processes, such as the Global Recycle Standard; and whether they have ISO 14001 certification or operate out of certified “green” buildings. Rating higher on these types of criteria will increase a vendor’s overall Nike MSI score.

We also hope the Nike MSI will drive vendors to develop more environmentally preferred materials, which will score higher on the index.

We have collaborated with and trained material vendors to familiarize them with the new Nike MSI. As of the end of FY11, we had trained approximately 500 vendors.

Learn more at [http://goo.gl/35cI5C](http://goo.gl/35cI5C).