Eco-friendly designs? Priceless

by Shari Shallard



In February, Nike revealed the new Brasil National Team Jersey. The fabric uses up to eight recycled plastic bottles per jersey, and therefore scores high enough on Nike's Considered Index (the in-house system on which the Environmental Apparel Design tool is based) to be called a 'Considered Design'.
Nike

The news of Nike releasing its Environmental Apparel Design tool to the industry has made headlines (see *WSA* Jan/Feb 2011), largely because the tool has such promise for promoting sustainable development. But more headline grabbing was the fact that this tool – which Nike has been developing for seven years, at a cost of $6 million (€4.4 million) – can be used for free (and the code is up for grabs).

Open Source tools are often associated with anti-establishment developers and innovators – the work of people motivated not by financial gain but by a desire to contribute something to some cause or body of people. Other times open source releases are calculated steps towards generating publicity for a greater product.

It would be easy to assume that Nike's latest move is geared towards the latter of those objectives; it surprises some that this megabrand would release the embodiment of such enormous intellectual property and financial investment at no cost. But it shouldn't. A closer look at this tool and the ideas leading to its launch paints an exciting picture of the kind of company Nike is becoming.

The Environmental Apparel Design Tool

The Environmental Apparel Design (EAD) tool was created to help designers recognise the environmental impact of the materials and manufacturing processes being considered for a design. Users enter information regarding a design – including the fabrics and embellishments being used (and their respective percentages), how the garment is finished, and several other factors. The tool then assesses the design's environmental impact (taking into account energy, waste, water, and toxics) and scores the design – first rating the design on individual areas, then providing an overall score.

To form the Materials score, for example, the tool looks at fabrics (including blends), trims, coating/lamination, postindustrial or post-consumer end-of-life (single fibre garment), scoring them on processes (from growing and extraction practices, chemistry, energy intensity, energy source, water intensity and land use, waste, recycled content, to end-of-life), use of environmentally-preferred trims, coating/

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lamination, and recyclability. To assess Waste, the tool looks at pattern marker efficiency, and scores a design based on the percentage of waste that would be generated through fabric cutting scraps at the garment factory. And in scoring Garment Treatment, the tool considers post-assembly garment treatments (such as dyeing, laundering and distressing), and deducts points based on the relative eco-footprint of various finishes.

A key strength of the tool is its ability to suggest alternatives. A company can look at the specificities of the results and determine to what extent various – often simple – changes could improve a product's impact on the environment. Choosing to use a higher percentage of recycled polyester or making the decision to use a different finish, for example, could raise an item's score dramatically. Of course, each company will reach its own conclusions based on the cost versus benefit of any such change – but at least the information is there to be considered.

The Nike Vision

Based around Nike's Considered Design Index – and part of the company's ongoing Considered Design initiative – the EAD tool is credited with turning 13 million plastic bottles into the South Africa 2010 football jerseys. According to Nike, the company's fabric suppliers sourced discarded plastic bottles from Japanese and Taiwanese landfill sites and then melted them down to produce new yarn that was ultimately converted to fabric for the jerseys. More recently, Nike unveiled Brazil's new national team jersey; the fabric in each jersey is made from up to eight recycled plastic bottles – scoring high on the Considered Index and earning the distinction of being a 'Considered Design' jersey.

The release of EAD is actually in step with the direction the company has been headed for years – beginning perhaps with 1990's Reuse-a-Shoe programme, and continuing through 1995's first recycled-content shoe box, to 1997's introduction of organic cotton, to 2005's Considered Boot (the first of many sustainable 'Considered' products), to a company ethos articulated through Nike's North Star Vision.

This mission statement was developed in consultation with The Natural Step, an international nonprofit organisation dedicated to education and research in sustainable development. The North Star Vision begins with a meditation of sorts on the current relationship between commerce and the planet – acknowledging that businesses have historically viewed their impacts on natural resources as externalities – and the need for a fundamental shift in that relationship. "Our North Star," the statement reads, "is grounded in addressing sustainability at the very core of our business, beginning with design. But it extends across everything we do. Our commitment is to create extraordinary performance products for athletes while managing our business within nature's limits."



Nike's Environmental Apparel Design tool was created to help designers recognise the environmental impact of the materials and manufacturing processes being considered for a design.

Nike

Sharing the Vision

This philosophy – managing the business within nature's limits – explains why an EAD would be a vital investment within the company. The EAD cost an enormous amount of time and money to create, and it has proved its worth by enabling Nike to create products that are cutting edge in their combination of high performance ability and lowered environmental impact – propelling the company to become a visible leader in performance wear sustainability. Why risk giving up that cutting edge? Why release the EAD as an open source tool?

Being open source means that the tool itself is free and the source code behind it is available – which means other users, even Nike's competitors, can adapt the tool to suit their own needs (as opposed to a tool that is free but is only available without code or even one that is free but comes with advertising or some other sort of revenue model behind it). A senior developer for a global online services provider (who asked not to be named) concedes that it is unusual for a large corporation to release a valuable tool, especially accompanied by the code. "In the early days," he tells *WSA*, "many industry people did not believe it would happen at all – and then it did. There are lots of motivations for releasing something open source. Coding people often

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claim not to be motivated by money; they may be looking for fame, or a challenge, or even to make a so-called difference."

In Nike's case, he says, "they stand to lose a competitive edge by giving away such valuable intellectual property. There's also a good chance they're going to lose a lot of time to support issues – answering questions related to the tool and even simply maintaining the server on which the tool's website is based. But they stand to gain a pass to Heaven and probably really good publicity."

According to Nike, however, the decision had a purer motivation: releasing this tool with the supporting data and methodology can expedite industry-wide collaboration and encourage the market to more widely adopt principals of sustainability. "By releasing the tool," said Hannah Jones, vice president of Nike Sustainable Business and Innovation "we want others to improve on it and we hope to inspire further collaboration to create global industry standards for a level playing field, encourage widespread industry adoption of sustainable design practices and have more sustainable products available for the consumer."

Nudging the industry in a greener direction is somewhat essential for Nike to fulfill its North Star Vision, as the statement envisions fairly radical shifts from today's business model. "Through innovative design, we can design out waste, chemicals and energy, and design in new materials and new approaches," reads the North Star Vision. "When we integrate this elevated consciousness into the design process, we maximise the value of our products and minimise the impact of their production… We anticipate a future that seeks out and rewards new models of consumption and growth, separated from material consumption."

New models of consumption and growth rely on agreement among businesses and consumers as to what new values replace outdated ones; the EAD tool can be a first step in articulating and measuring those values.

Assessing the EAD

At Nike's request, The Natural Step spent about seven months reviewing the tool by interviewing the Considered Team and Considered Index users, reviewing documents, undergoing training on the tool, and participating in an NGO stakeholder session. Their findings show an overall appreciation for the tool's aims and abilities, while pointing out a few points that users should consider to make best use of the tool.

The authors praise the way the EAD tool does more than the traditional system of giving static sustainability scores: "It is refreshing to see the approach Nike has taken – combining quantitative material assessment with qualitatively–derived scores rewarding improvements in product creation… [highlighting a] 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."

Through interviews, the review identified many of the tool's strengths, including the ability to more easily identify quick and simple changes, to explore design choices (analysing pricing and testing scenarios for improvements), and to correct the misconception that sustainability has to cost more. Nike affiliates beginning to use the tool, the review pointed out, also appeared to be asking more questions of their suppliers.

Companies and individuals planning to use the EAD should consider reading The Natural Step's entire review; the piece, available on the Nike website, offers interesting insights (including areas that the tool, Nike, or the industry as a whole should more fully address) and admonishments such as this: "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."

And perhaps the biggest testament to Nike's evolving culture of sustainability: "While the Index [the in-house tool] does not currently address all of Nike's aspirations," the review reads, "we have observed that the goals themselves are now driving further evolution of the Index."

Good for everyone

This year promises even more announcements of Nike's substantive moves towards increased sustainability, with the release of a Footwear Design Tool, a Material Assessment Tool and a Water Assessment Tool – plus the full adoption of a new shoe box that is 100-percent recycled fibre and reduces fibre content by approximately 30 percent (saving millions in packaging costs).

There are cynics in the blogosphere calling Nike's grand moves strategic public relations moves aimed at staying relevant and trendy. Such voices are largely drowned out, though, by sustainability advocates who are thrilled to see one of the world's most visible and powerful brands using its seemingly infinite intellectual and financial resources to benefit the Earth's all-too-finite resources. And if Nike gets some good publicity in the process? Good for them. If only more brands would seek such noble-minded attention.

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