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# Taking the First Step

Wendy Jedlička, CPP

*Minneapolis College of Art and Design  
Sustainable Design Certificate Program*

With additional contributions from:

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Sustainable Is Good*

***The longest journey begins with a single step.***

***Lao-tzu (c 604–531 bce)***

How do market forces shape the way we live, work, and even play? What are the economic lessons that can be drawn from nature? What is natural capital and how is it spent? How can we nurture the green thumb on the invisible hand? Today's eco-leaders understand the interplay between producer and consumer, governments and people, stockholders and stakeholders, humans and the environment, and how all of these things interconnect and direct what and how we create.

## Consumption and Renewal

The concept of birth > life > death is linear. It has a beginning, a middle, and an end. We view the things we surround ourselves with as having the same linear quality. Things are made, we use them, and then toss them away. But the reality is, there is no “away.” Products and their packages have a life after we use them, as garbage (landfill or incineration) or feeder stock for new objects (recycling or reuse reclamation). When objects are reborn (recycled or reclaimed) and put back into the system again, this becomes circular consumption and thus imitates nature: making, using, and remaking without limit. Imagine an upwardly spiraling system where we not only refresh what we take and use, but restore what we’ve previously destroyed through linear consumption. To get to this level we need to start reexamining not just how we do what we do, but why we do it.

## Choices, Choices, Choices

Many examples of human impact on the environment abound in both recent and ancient history. The best-known one is the fate of the Easter Islanders. This group, it has been suggested, drove themselves to extinction by their own excesses and severe lack of planning. As we consider the choices we make each day, think about too what must have been going through the mind of the Easter Islander who cut down the last tree, leaving his people no way to build, repair, or heat their homes, build or repair boats to fish (their main food source), or even get off the island. With a simple strike of his axe he sealed their collective fate.

We must hope in our lifetime, we will not be faced with this dilemma, but every choice we make each day adds or subtracts from the resources available

to us tomorrow. Bad choices are accumulating like a death by a thousand cuts. Our salvation will come in much the same way, by regular people making everyday choices.

One of the most powerful avenues for impact we have is what and how we choose to consume. What we buy reveals a lot about how we frame our own impacts. Buying a perfect red apple vs. one that is kind of blemished but just as sweet and free of chemicals needed to attain that perfection, would be a great example.

Heritage Flakes by Nature’s Path uses organic grains, and supports sustainable farming practices and biodiversity efforts. They also really understand their buyer.

Not only does the box illustrate an attractive product, plus key into potential buyers looking for more healthful choices and good taste, they also realize they needed to seal the deal by creating and talking about, their packaging reduction efforts. SAME NET WEIGHT, 10% LESS BOX is featured on the front. Finally, someone addressed one of the things that has been a nagging thorn in the consumer’s side since boxed cereal came on the scene over 100 years ago: how to fill the box and not leave such a huge space at the top. For most people, this is one of those packaged goods annoyances that just must be endured.

On the product’s side panel, Nature’s Path continues the discussion of packaging reduction by providing

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### Nature’s Path: Right-Sized Cereal Box

**Same net product weight, 10% less box. This seemingly small redesign resulted in significant energy, water, and wood resource savings.**

*Same net weight,  
10% less box.*



**Global  
Sustainability**

**USDA  
ORGANIC**

Spring session, Entered to show future.

USDA ORGANIC  
Certification  
KOS  
\* Produced in Canada. Some small amounts of natural  
flavors are added. All ingredients are 100% organic.  
\* For more information, visit us online at  
www.usda.gov/organic. USDA Organic is a national  
certification program for organic products. For more  
information, visit us online at www.usda.gov/organic.

information regarding annual water savings (700,000 gallons), energy savings (500,000 kilowatts), and paperboard savings (about 1300 trees). These are serious and significant impacts all coming from what is in essence just a bit of air space. Now, along with information detailing nutrition and sustainable production practices, not only can the consumer make an educated decision about the food they eat, but about the impact of that choice. By connecting with the consumer on a deeper level, Nature's Path has armed them with the information needed to know they do have a choice — and what instinctively seemed wrong, was indeed very wrong.

As we look at the decisions we make with regard to design, in order to achieve more than simply making things less bad, we have to provide the mechanism for the consumer to participate in the pursuit of good.

Like Nature's Path, we need to consider all of our design choices as part of a greater contract with society. As product producers, we're charged with nothing less than the health and safety of our fellow beings. Nowhere was this contract more brutally illustrated than in the case of the Tylenol murders in the early 1980s, which showed how easily our distribution system can be compromised.

At the time, Johnson & Johnson, the makers of Tylenol, were distributing their product using common and completely legal packaging technology for this product category. To their credit, Johnson & Johnson responded quickly and decisively. They not only pulled all of their products immediately from the store shelves, but became very proactive in the development of tamper-evident packaging — the norm across the pharmaceutical industry today.<sup>1</sup>

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### **Underconsumption**

It's odd to think of not consuming enough, but this in fact is a very real problem. Malnutrition is a form of underconsumption (not having access to enough nourishment), and so is lack of education (not taking in or being allowed access to knowledge). One might also consider lack of research and the foresight it enables a type of underconsumption (not consuming enough time to make sure what you're going to do will be smart in the long run). There are also systematic imbalances caused by underconsumption.

Deer overpopulation and subsequent overgrazing and habitat destruction are due to too few predators to help keep herds in harmony with the area that sustains them. This is a classic example of an imbalance caused by man's interference. The deer herd's health and their environment's health suffers (too many deer for a given area to support), as the deer are underconsumed because the wolves that helped keep them in healthy balance were overconsumed (hunted to near extinction).

By being aggressive about keeping forests underconsumed by small fires, as had been the standard mode of forest management for the past century, too much underbrush is allowed to build up. What had been taken care of by nature's renewal system,

quickly becomes a devastating catastrophe resulting in complete ecosystem collapse. More progressive forest managers have found that working within nature's plan allows their areas to remain healthier, more diverse, and better able to recover after disturbances.

As we begin to look at our products and behavior with an eye to restore what we've been taking out of our natural systems rather than create unstable monocultures for our convenience, looking for balance becomes key. We must look at things as a system and find ways of working to maintain all elements in harmony. Yet to do this, we need to not rush to find "the" solution: one that is convenient for us at the time, but completely ignores long-term impacts.

## **Overconsumption**

Writer Dave Tilford tackled the idea of consumption in a 2000 Sierra Club article, "Sustainable Consumption: Why Consumption Matters":

Our cars, houses, hamburgers, televisions, sneakers, newspapers and thousands upon thousands of other consumer items come to us via chains of production that stretch around the globe. Along the length of this chain we pull raw materials from the Earth in numbers that are too big, even, to conceptualize. Tremendous volumes of natural resources are displaced and ecosystems disrupted in the uncounted extraction processes that fuel modern human existence. Constructing highways or buildings, mining for gold, drilling for oil, harvesting crops and forest products all involve reshaping natural landscapes. Some of our activities involve minor changes to the landscape. Sometimes entire mountains are moved.<sup>2</sup>

An ecological footprint is defined as the amount of productive land area required to sustain one human being. As most of our planet's surface is either under water or inhospitable, there are only 1.9 hectares (about 4 football fields) of productive area to support each person today (grow food, supply materials, clean our waste, and so on) but our collective ecological footprint is already 2.3 hectares. This means, given the whole of the human population's needs, we would need 1.5 Earths to live sustainably. But this assumes all resources are divided equally. The largest footprint, the biggest consumers, are US citizens, requiring 9.57 hectares each to meet their demands. This means 5 Earths would be needed if everyone in the world consumed at that rate. People in Bangladesh, on the other hand, need just 0.5 hectares, with China for the moment at 1.36 hectares.<sup>3</sup>

What will it look like in just a few decades? As China continues to prosper and grow, what will happen when their new population of 1.5 billion citizens demand their fair share of the pie? If the rest of the world continues to use the United States as the benchmark for success, we would need 25 Earths to meet that level of consumption. Something has to change. (Want to make it personal? Calculate your own footprint: [footprintnetwork.org](http://footprintnetwork.org).)

Part of why the United States' footprint is so large has to do with trade access to more than their own account's balance of natural capital. Much of this natural capital comes from countries that have some resources but not much else from which to earn cash. These resources are quickly being sold off regardless of the long-term consequences. With such unbridled access fueling its success, North America (and the United States in particular) hasn't yet developed the deep concern needed to use those

resources efficiently. After six months, 99 percent of the resources to make the things we use are converted to waste — disposed of as finished goods, but mostly as process waste.<sup>4</sup>

How did the United States get into this position? After WWII, the chairman of President Eisenhower’s Council of Economic Advisors stated that the American economy’s ultimate goal was to produce more consumer goods. In 1955 retail analyst Victor Lebow, summed up this strategy that would become the norm for the American economic system: “Our enormously productive economy... demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction, our ego satisfaction, in consumption ... We need things consumed, burned-up, replaced and discarded at an ever accelerating rate.”<sup>5</sup>

This is in sharp contrast to how resources and goods were viewed in preindustrial times, when moving goods around or even making them in the first place, was a really big deal. In those days, Old Country territories occupied for millennia made residents think hard about resource use. What they had around them was pretty much all there would be, so they had to figure out how to make it work. In contrast the New World was perceived as nothing but space, filled with endless vistas of trees (and a few indigenous people) in the way. Because of this seemingly limitless abundance, the New World’s detachment from the realities of resource management and the lingering idea today that resources are limitless and easily obtained, compound the high level of resources demanded per output unit to meet consumption needs. Led by the West, and the United

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States in particular, “Since 1950 alone, the world’s people have consumed more goods and services than the combined total of all humans who ever walked the planet before us.”<sup>6</sup>

### **Restorative Consumption**

The concept of capital (money) has been understood by civilizations since it was brought into common use thousands of years ago. How much we have and how quickly we earn it has come to be the indicator of successful effort.

As we reexamine why and how we consume — looking for ways to move in a more restorative direction — how we measure our success must also evolve.

In 2003, in the first of a series of annual conferences, Brazilian statisticians got together with the ultimate aim of coming up with a globally applicable Index of “Gross National Happiness,” a “Genuine Progress Index” (GPI). This measure was meant to eventually supersede the current global economic indicators embodied by a country’s Gross National Product (GNP) and Gross Domestic Product (GDP).<sup>7</sup>

The 2005 conference focused on the topics of “profiling initiatives around the world that integrate

sustainable and equitable economic development with environmental conservation, social and cultural cohesion, and good governance.” If all developing countries consumed like the West, we would need several Earths to satisfy that “need.” The concept of spending every dime you ever made — like using resources until they’re gone — must change, or we as a species have no hope of survival.

Author Dave Tilford highlighted some of the problems with our current economic metrics in a 2000 Sierra Club article:

In 1998, more than \$100 billion was spent in the United States dealing with water, air, and noise pollution—and considered growth by the nation’s GDP. That same year, criminal activity added \$28 billion to the GDP through replacement of stolen goods, purchase of home security systems, increased prison building, and other necessary responses.

By the curious standard of the GDP ... The happiest event is an earthquake or a hurricane. The most desirable habitat is a multibillion-dollar Superfund site ... It is as if a business kept a balance sheet by merely adding up all “transactions,” without distinguishing between income and expenses, or between assets and liabilities.<sup>8</sup>

The originator of the GDP (and GNP) measure, Simon Kuznets, acknowledges these indicators were not a measure of well-being but only economic activity. Expanding on this idea in her booklet *Economic Vitality in a Transition to Sustainability*, Neva Goodwin notes:

Qualitative improvement of goods as services determines material well-being as much or more than physical quantity of output (especially in the more developed economies).

Goodwin goes on to point out:

It is not inherent in market systems that they will orient towards social goals. It is a half-truth that market capitalism is the best economic system yet invented. The other half of the truth is that, when markets are allowed to work as though they were self-contained systems, operating within a vacuum, they become increasingly self-destructive, because they degrade the social and environmental contexts in which they exist, and upon which they are entirely dependent.<sup>9</sup>

These ideas have huge implications for packaging, the backbone of today’s free market system. Too many of today’s packages, and the consumer goods inside, have been allowed to remain market viable simply because they have not had to carry their true weight — their true costs for resource impacts, transportation impacts (greenhouse gas loads, plus fuel extraction and refinement), human health and its economic impacts, and so on.

For an industry that exists on the sheer volume of units produced, how will producers survive when people start to ask fundamental questions like, Can we each be happy without having more and more stuff? Can we create more economic activity without creating stuff (service-based vs. manufacturing-based economy)? Can the activities we value happen without owning stuff at all? Is stuff really the problem, or is it just the way we perceive and produce stuff? And, if we’re in the business of making and selling stuff, how can we key into new ways of thinking to help drive true innovation, especially when customer satisfaction is a moving target? (Want to know more? Watch Free Range Studio’s *Story of Stuff* at [storyofstuff.com](http://storyofstuff.com).)



Change will come not by just thinking outside the box, but by throwing the box out the window and looking at the space it left behind. Was it needed, will we miss it or some part of it? Was it done well? What impacts did it make? Was making it an investment in our future? Did it add to natural capital (resources each nation naturally possesses) — or was it simply a drawdown of our account? Is it possible to “create more good,” as systems thinking pioneer William McDonough is often heard to ask?

With maybe a few exceptions, nobody wakes up in the morning calculating how to trash the planet. Instead, our daily lives are a series of choices, each minuscule in its individual impact. But when multiplied billions of times, day after day and year after year, the impact is enormous.



Your product in its natural environment

So far what we’ve been doing is “successful” because of, or in spite of, our choices. The funny part about being successful, though, is that it can turn you into a one-trick pony, creating a huge disincentive to change. Capital investment in one production system or reliance on one material type or resource flow, as is common for capital intensive packaging businesses, locks a firm into a narrow operating model. Though the rewards are great when the timing is right, there’s no guarantee it can go on forever — be sustainable in the original sense of the word. But in the general scheme of evolution, the species that can adapt quickly are the ones that survive.

### **Nearly All New Products Fail**

The old ways of popping out this week’s brilliant ideas and then churning them out by the gazillion despite the consequences still works great. Or does it? The store shelves are bulging with “brilliance,” each SKU fighting with their neighbor to be the lucky one to go home with the consumer. Brimming with choice, and competition, there is a generally accepted industry rule of thumb that nearly 70 to 90 percent of all new products fail. Why?

The simplest answer is that the whole selling environment is changing. Or maybe the old products aren’t as good as they could be. In addition, consumers are becoming better educated. From nutrition facts, to advocacy groups, to instant information access through the Internet the days of dumping “whatever” out there (at least in the developed world) are over. Finally, there are simply more of us, not only to sell to, but to compete with. As the days of the one-trick pony draw rapidly to a close, products must not only do everything they promise, but must offer more to cut through the noise of the competition.

This concept of offering you more is no better exemplified than in sustainable products. These products are produced to not only meet a need, but depending on the product, are; healthier, more energy efficient (save you run-time dollars), more resource efficient (meaning you can make more selling units per resource unit), and have minimal impact on the waste stream compared to their less conscientious competition — making these products in general better for both the consumer and society at large.

So why aren't all products already sustainable?

As noted before, few people wake up devising ways to trash the planet. Our choices have become a death by a thousand cuts. Manufacturers, their creative service vendors, and the consumer all play a part in this scene, and fear is one of the key factors why change is slow to arrive: fear felt by the consumer that the unfamiliar product isn't as good (or what they're used to) coupled with fear of wasting their ever-stretched dollar, fear felt by the manufacturer that the consumer won't accept the new product, and fear by the manufacturer's creatives of being fired (losing the account) for stepping too far out of the norm.

Yet innovation is about embracing fear and using it to your advantage. Fear is good, and fear is a powerful motivator. In the PricewaterhouseCoopers LLP 2002 Sustainability Survey Report, respondents indicated it was fear that *not* adopting green business practices would have an adverse effect on consumer perception, and so, negatively impact their market share.

In their 2007 Cause Evolution & Environmental Survey, Cone LLC (coneinc.com) a strategy and communications agency, found of the people responding:<sup>10</sup>

- 93% believe companies have a responsibility to help preserve the environment
- 91% have a more positive image of a company when it is environmentally responsible
- 85% would consider switching to another company's products or services because of a company's negative corporate responsibility practices

One of the not so quietly mumbled fears within industry is that if it does not adopt sustainable business practices, they will be legislated into action any way — and certainly not in an advantageous way. The farsighted recognize this and stay ahead of this curve to be best positioned for the inevitable.

## What Does Change Look Like?

So if change is inevitable, what will it look like?

What is sustainability? To answer that in a packaging context, let's step back and look at the bigger picture in a systems context.

The world is a very complicated place, so it's no surprise the packaging industry is too. Add to that the business of implementing sustainability, which is asking us to literally reexamine at the way we do everything, that covers an even greater mix of industries and disciplines. Naturally, everyone will want their voices heard, and their bottom lines respected. This is such an important question — defining "What is a sustainable package?" — the Sustainable Packaging Coalition (SPC) made it their top-most priority before embarking on further efforts.

The SPC looked to create a set of goals, not mandated rules. Their general idea was that if you define the solution, the problems will take care of themselves.

The SPC criteria for a sustainable package have eight clearly defined points, but really only ask these simple questions:

- Does it make us or the planet sick? Don't do it!
- Can we use renewable resources — energy as well as materials — and then use them again without going back to virgin sources?
- Are we doing it efficiently, considering all true costs (supply chain eco-ness, materials use, loop participation, social impacts, and so on.)?

### **What Is Sustainability?**

Goals and ideas used to define what a sustainable package or product might look like, are not a full definition of what sustainability is. So again we ask what exactly is sustainability?

The simplest answer is one that's been kicking around for some time, but was formalized in 1987 by the World Commission on Environment and Development (the Brundtland Commission):

Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.<sup>11</sup>

This most basic idea has been at the core of human society since settled communities began. Ideas like "Don't eat your seed corn" and "Do unto others as you'd have others do unto you" form the core of sustainability thinking, are concepts that have been getting overlooked in our collective push to the future.

*"Don't eat your seed corn."* Applying these fundamental ideas to today, "Don't eat your seed corn" means do not use-up what you need to keep the system going. With that in mind, one can quickly

pull an example from sustainable forestry practices. Traditional clear-cutting is a very efficient and low-cost way to harvest wood, treating wood like annually tilled wheat rather than what it really is, the slow-growing cornerstone of an area's survival system. Sustainable forestry practices using planting, growing, and harvesting methods that mimic nature though, have allowed for healthful and profitable ecosystems, proven over generations.

*"Do unto others as you'd have others do unto you."*

This idea is perfectly illustrated by the new directives companies are pushing back onto their suppliers. In addition to the Wal-Mart scorecard, setting new benchmarks for packaging,<sup>12</sup> making the whole of the packaging industry review what they're doing, Wal-Mart also announced plans to measure the energy use and emissions of the entire supply chain for seven product categories, looking for ways to increase energy efficiency.<sup>13</sup> Eventually this initiative is expected to include other products (if not all) carried by the company. It would be no surprise then that other Big Box retailers as well as Consumer Goods Producers have begun implementing similar benchmarks for their vendors as well.

Put simply, companies are demanding of their suppliers the same criteria for ethics and foresight that consumers and legislators are demanding of them. Rather than simply accepting whatever a company feels like selling, retailers (and other commercial buyers) are now saying to their suppliers, "Do unto us as others would have us do unto them."

### **What Sustainability Is Not**

Sustainability is not a tax on production. It is the end to hidden subsidies, and the beginning of assigning

true costs. The best illustration of that in current terms is producer (or user) pays policies. Here, those people who use and benefit from a thing or service, pay the full load for it — from the impacts of collecting the raw materials all the way through processing at end-of-life.

In his article for the Sierra Club, “Sustainable Consumption: Why Consumption Matters” author Dave Tilford points explains:

Over 2,500 economists, including eight Nobel Prize winners, support the notion of market-based mechanisms for environmental solutions — like carbon taxes and emission auctions, where polluters pay for the right to emit, develop, or use nature’s services. In addition, though many economists are hesitant to question our current measurements of economic growth, a small but active number believe only a *true cost accounting* of economic activities will give us an accurate figure of the state of the economy.

These *true cost* economists note that, as the GDP climbed 3.9 percent in 1998, the cost to taxpayers from loss of wetlands and their economic services (like water filtration) climbed 3.7 percent. From 1973 to 1993, the GDP rose by 55 percent, while real wages dropped by 3.4 percent nationally. The emerging field of “ecological economics” is beginning to question these accounting incongruities.<sup>14</sup>

One can easily ask, Is paying the full cost of creating, using, and disposing of a product, a tax or just the end of the free ride? What could be more fair than saying, “If you want it, you must pay?”

Sustainability is also not a trade barrier. Setting standards for health, whether applied to the product itself (e.g. banning lead paint in toys), or for our collective

health (e.g. wood certified not from rainforests or old growth forests), sets the stage for eliminating goods globally that don’t have our collective long-term interests at heart. Insisting trading partners not create goods in a way (or with materials) — that have been outlawed at home — is hardly an unreasonable request.

## **Tearing Down the Tower of Bable**

Sustainability is quickly becoming the common language for business. Unlike the never ending stream of business fads that get CEOs all excited but leave middle management cringing — now management, marketing, design, engineering, production, procurement, and logistics can all sit down at the conference table and at least start a project on the same page. Though each discipline still has their own language and motivations, the conflicting babble that was the norm of conference rooms everywhere is becoming united in some sort of vision, with shared goals and ethics. Coming now from a similar place of understanding, marketers understand they need to have a clear and verifiable need for demanding oversized package facings. Designers now know, that if they want to specify a given decorative material or technique, the impacts of that choice must have sound reasons — simply being “pretty” or “different” isn’t enough. Buyers, along these same lines, understand that if the packaging engineer keeps telling them to ask vendors to avoid certain materials, that guidance has serious implications that must be heeded, no matter how attractive “other stuff” that’s “cheaper” may sound.

Another advantage found in using sustainability as part of a company’s core ethics has been to increase employee satisfaction, thus reducing turnover. Everyone wants to feel good about the work they do.

What we are seeing is the very beginning of one of the most amazing times since the dawn of the industrial revolution. Today, we have the opportunity to do nothing less than completely remake everything we do, but get it right this time, rather than just stumble into it. From the biggest buildings and whole communities, to a simple box — every new project is an opportunity for innovation. Every new innovation is an opportunity for increasing market share, or adding to natural capital (putting back natural resources we've blasted through). Every change we make in the market and how we manage resources is an opportunity to redefine the way we will live over the next hundred years and beyond. Sustainability is hope, it's exciting, and it's a complete paradigm shift. For those willing to get in there and go for it, there has never been a better time to create real, lasting, and positive change.

Even the longest journey starts with one small step. As consumers and lawmakers push for solutions, all eyes are turning to designers for answers. The time for a leisurely stroll has past — now it's time to hit the ground running.

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**Today, we have the opportunity to do nothing less than completely remake everything we do, but get it right this time, rather than just stumble into it.**

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## **The Next Great Era of Design**

In the Western world, those at the dawn of the Industrial Revolution (1800s) found themselves coming out of an era where production was the domain of the craftsman. Ordinary objects were artful, durable, and meant to be respected for their function and value as a needed object. Everything was hard to come by, and once a thing outlived its primary function, new uses were found for its elements. Nothing was wasted. As mass-produced goods started to come on the scene, much of the decoration added by craftsman was reproduced in the factory-made product to let the consumer know that even though the thing wasn't handmade, it still had value. This era was the age of Industrial Arts.

As the pace of life accelerated we entered the era of streamlined design, form follows function — Bauhaus, prairie style, mission style, mod, pop, futuristic — smooth elegant lines, bold shapes, fun, playful, sleek, streamlined. All of these ideas made up the palette of choices in the new age of Industrial Design.

But something happened as life raced though the 1900s. As the century screamed to a close, form and function became slaves to price and quantity. Quality, aesthetics, fit and finish — all were abandoned to hit that ever lower price. But that wasn't all that was abandoned. Integrity, fair-play, stewardship — these ideals got tossed by the wayside too as companies leveraged loopholes and backdoor subsidies found in lax environmental regulations, inhuman worker laws, and artificially cheap energy that was openly subsidized or did not carry full environmental and health impact costs. Poverty became ever more entrenched for most, even as living standards improved for many, while whole eco-systems were collapsing and there was nowhere to go but down.

Thankfully, that's not the end of the story. Today we're watching the dawn of a new era. In September 2007 a [sustainableday.com](http://sustainableday.com) blog entry noted:

The IDSA (Industrial Designers Society of America) has come full circle to openly embrace sustainable design since once supposedly banning environmental design legend Victor Papanek from the society for speaking up against the damage that the industrial design profession has done.

... In this age of mass production when everything must be planned and designed, design has become the most powerful tool with which man shapes his tools and environments (and, by extension, society and himself). This demands high social and moral responsibility from the designer.

As we merged into the new era and the us vs. them ideas from the green vs. mainstream days started to find new direction, a flurry of articles came out titled "Green is Dead." If you paid the slightest bit of attention though, it was pretty obvious they were out to create shock and nothing more. Once you got into the articles, you would come to discover that green as a late twentieth-century "movement" was not dead per se, but was finally maturing from a rabble of unshaven idealism to real and actionable strategies for sustainable living and business. A place to actually be, rather than a place to simply dream about. For the working designer committed to "green" in practice, the image of the radical green proponent made selling the concepts of sustainability nearly impossible in the early days. Afraid to seem too "alternative," too "out there," and too far from the norm, clients instead continued to produce products they knew were not forward thinking simply for fear of losing market share.

Today, the concepts of sustainability — not "greenness" alone — are being integrated into business models and product strategies across the board. Rather than being legislated into action, businesses — not limited to the fringe faithful, but big corporations — are actively looking at their total impact and opportunities (triple bottom line) as triggers for increased competitive advantage, creative levers, profitability, and of course, as a tool to increase positive consumer perception and market share.

Green as we knew it needed to ascend to the next level. It was being perceived as exclusive rather than inclusive, "only for the true believers," limiting the further integration of its actionable principles.

If green were dead, as the articles claim, then its legacy is not only living on, but thriving — and moving closer to the reality green had originally hoped for. Not through calls for the immediate dismantling of capitalism — but through thousands of actions taken every day, by regular people, who recognize opportunities to make positive incremental changes. These changes are made for a variety of reasons — some ethical, some legislated, and some profit driven, but all with an eye on sustaining a positive advantage.

As with any maturing system, there will come a day when we won't have to talk about sustainability. Not because it's dead, but because it's simply just another part of good business. Governments, companies, designers and consumers are waking-up to embrace new products, services and ideas that deliver on the promises they make. Things that aren't just all surface beauty, or brief functionality, but truly innovative and useful. And, most importantly, they were created with all stakeholders in mind — including ones not destined to be born for some time yet.

So though it's not "official," and even the idea of naming a design era is a Western-centric one, plus we certainly have a long way to go before it's done, there are many that are not shy in saying the early twenty-first-century is marking the next great era of design — sustainability.

### **How to Avoid Change**

"Those of us who have spent years working towards sustainable prosperity, trying to move investors and corporate leaders to take action to address major environmental and social threats, have often felt like Sisyphus of Greek mythology — destined to spend our lives rolling a huge boulder uphill. Today, it is possible to survey our progress and feel that we have reached a point where that boulder is not going to roll back down the hill," Mindy S. Lubber, president of Ceres notes.<sup>15</sup>

For the change agents out there steeling themselves up for the long haul, pulling those resistant to change into the new era kicking and screaming will be a task with us for some time. Entrenched interests hate change. Ending slavery, women's suffrage, universal equal rights, were all "crazy" ideas that reactionaries swore would doom civil society if they became law. Yet society prospered, becoming better by being able to fully benefit from the talents and contributions of all their citizens. With tongue planted firmly in cheek, Dennis Salazar in a December 2007 *sustainableisgood.com* piece, asks antisustainability reactionaries and laggards alike to consider these helpful tips as they look for ways to dig in their heels to resist shifting to a world that benefits more than the select few:

1. Refuse to consider thoughts and opinions other than your own. If you are right and everyone else is wrong, why bother?
2. Remain glued to the status quo. After all if what you have been doing works, why take a chance on changing anything?
3. Reject any idea that even remotely sounds like compromise even though sometimes that is the best way to accomplish progress.
4. Resist any new technology unless it is absolutely perfect and supports your position. "See, I told you it wouldn't work" can be so satisfying.
5. Ridicule anyone who appears to be profiting from their work in sustainability, especially if their margin appears to exceed your own.
6. Repel anyone seeking knowledge or help. Everyone knowing as much as you do cannot be a good thing.
7. Resign yourself to the fact that the environmental problem is too large to be fixed. Seek new goals that are easier to achieve!

---

#### **Glass Plus: Refill Pouches**

**Glass Plus made a bold step for this category by delivering all of their product's function in a light, slim form. Like a seedpod that "goes away" once its usefulness is at an end, Glass Plus created a dissolving refill pouch for their product. In keeping with their resource reduction effort, these pouches come packaged in a materials-minimal, self-standing, recyclable paperboard sleeve.**

**When compared to a common refill bottle, and with minimal explanation, the consumer easily understands the advantages gained from reducing materials, volume, and weight. Additional environmental savings are found as well in the reduction in the number of plastic spray bottles needed to serve repeat customers. Retailers find the form attractive too as they can fit more refill-product selling units per shelf and restocking cycle.**

**REFILL**  
**2 Triggers**  
**FOR THE** **Price of 1**

**Glass Plus**

**Glass & Multi-Surface Cleaner**  
**Nettoyant pour verre et multisurfaces**  
**Limpiador de vidrio y superficies múltiples**

**Great on Stainless Steel and Granite**  
**Idéal pour l'acier inoxydable et le granite**

100% Dissolvable!  
 100% Soluble!  
 Se disuelve un 100%

11 mL

64 FL. OZ. (2 QT) 1.8L

**CAUTION:**  
 KEEP OUT OF REACH OF CHILDREN  
 EYE AND SKIN IRRITANT

**ATTENTION:**  
 IRRITANT POUR LES YEUX ET LA PEAU  
 Éviter le contact avec les yeux et la peau.

**PRECAUCION:**  
 FUERA DEL ALCANCE DE LOS NIÑOS  
 IRRITA LOS OJOS Y LA PIEL  
 Evitar el contacto con los ojos y la piel.

**No Ammonia**

**Glass Plus**

**Glass & Multi-Surface Cleaner**  
**Nettoyant pour verre et multisurfaces**  
**Limpiador de vidrio y superficies múltiples**

**Great on stainless steel and granite surfaces**  
**Idéal pour les surfaces en acier inoxydable et en granite**

**No Ammonia**  
**Sans ammoniac**

32 FL. OZ. (1 QT) 946 mL



### **It's the Other Guy's Problem**

One of the things heard over and over from those slow to embrace change is, "We're not changing until the other guys does, or he'll have an unfair advantage." In their defense, this is absolutely true. As long as the true and full cost of impacts for the things we make and the way we make them are not managed by enforceable law, someone is going to cash in on that hidden subsidy. To the other guy however, you are the "other guy" expected to make the first move.

The problem, of course, is that if everyone is waiting for the other guy to act, no one will. Keeping the whole system stagnant often makes the consequences much worse than if everyone had just done their bit to begin with. In game theory the idea of waiting for the other guy is part of the "prisoner's dilemma."

Two prisoners are arrested for the same crime. Put in separate cells, unable to get their stories in line, the guards try to coax each to implicate the another. If neither goes along with the guards, they will both receive a sentence of just one year. If one accepts the deal and the other keeps quiet, then the squealer goes free while the quiet one gets ten years. But if they both implicate the other, they each get five years.

If one prisoner wants to attempt to get out of responsibility and get off scot-free, he will try and put all the blame on the other guy, even though he risks the other guy doing the same. Even if each conspirator assumes the other would crack, they would still be better off implicating the other, as they would get only five years each rather than maybe get ten years alone for keeping quiet. A rational person acting in their own self-interest would always betray his fellow prisoner. Yet that puts them both in jail for five years, when, in theory, they could have had only a year each

if they had both just kept quiet. In other words, if they had taken a chance and done the hard thing rather than try and stick it to the other guy, the outcome would have been better for the two as a community.

In a September 2007, *Economist* article, "Playing Games with the Planet," the author argues that the pessimistic among us would assume that the international response to climate change (and so sustainability in general) will go the way of the prisoner's dilemma. Going on to note, that rational leaders will always neglect the problem, on the grounds that others will either solve it, allowing their country to become a free rider, or let it fester, making it a doomed cause anyway. The author concludes the world would be condemned to a slow roasting even though global impacts could be averted if everyone simply cooperated and took on a share of the load no matter what.<sup>16</sup>

The article goes on to cite a study by Michael Liebreich of New Energy Finance, a research firm. This study draws on game theory to reach the opposite conclusion. The game in general changes dramatically, Liebreich points out, if players know they can play more than once. With this expanded option, players have an incentive to cooperate with their opponent to maintain good favor in later rounds.

Liebreich's paper cites a study by Robert Axelrod and William Hamilton, which highlights three elements for successful repeat play: First, players begin the game cooperating; second, they should deter transgressions by punishing the offender in the next round; and third, rather than hold grudges players should cooperate with misbehaving players again after imposing an appropriate punishment. This strategy made it possible to foster sustained cooperation rather than a collectively destructive cycle of sticking it to the other guy.

With this new insight into game play and its possible implications for negotiating action on sustainability issues, the article notes:

Mr. Liebreich believes that all this holds lessons for the world's climate negotiators. Treaties on climate change, after all, are not one-offs. Indeed, the United Nations is even now trying to get its members to negotiate a successor to its existing treaty, the Kyoto Protocol, which expires in 2012. Many fear that the effort will collapse unless the laggards can be persuaded to join in. But the paper argues that rational countries will not be deterred by free-riders. They will continue to curb their emissions, while devising sanctions for those who do not.<sup>17</sup>

Due to the complexities involved in sustainability in general and all the details that would need to be covered to mandate specific change, establishing basic codes of ethics is becoming part of the total strategy for holding players accountable for their actions — even if specific laws do not yet exist. Codes of ethics give both players and governing bodies tools by which to judge transgressors, as well as a means to prod those who would try to get a free ride. Covering more turf than any one law, codes of ethics help pull all of the intricate and scattered threads into one more manageable guide. For the more farsighted companies, codes of ethics have become essential tools to get ahead of legislative action, allowing them more time to better manage inevitable change. They also provide benchmarks for improvement to use as a way of maintaining and increasing forward progress, and to promote (and maintain) positive consumer (or investor) perception. Codes of ethics help companies show in a tangible way: “We’re not there yet, and we have a way to go, but these are our goals, and this is what we’ve done so far.”

## Taking Responsibility and Thriving

Codes of ethics for design have a long history. From ancient Babylon, the Code of Hammurabi is one of the best preserved (ca. 1760 BCE). Enacted by the sixth Babylonian king, Hammurabi, the laws are numbered 1 to 282 and are inscribed in Old Babylonian cuneiform script on the eight-foot stela.<sup>18</sup> Numbers 229 to 233 applying to designers state stiff penalties for compromising production integrity with an *eye for an eye* being the running theme, and *personal guarantee* meaning much more than today's platitude:

If a builder build a house for some one, and does not construct it properly, and the house which he built fall in and kill its owner, then that builder shall be put to death.

Imagine what products would be like if these laws were applied today. Perhaps we would be a lot less far along progresswise, or maybe we would have positioned ourselves in a much more thoughtful way. Doing things more thoughtfully is the idea behind the precautionary principle.

### Precautionary Principle

Many of the concepts that form the foundations of the precautionary principle have been around for some time. Long used aphorisms like “An ounce of prevention is worth a pound of cure,” “Better safe than sorry,” and “Do no harm,” still in today's Hippocratic Oath for doctors, are accepted as part of humankind's collective “common sense.”

At a 1998 meeting of scientists, lawyers, policymakers, and environmentalists at Wingspread, headquarters of the Johnson Foundation, the precautionary principle was summarized this way:

When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.<sup>19</sup>

This idea is most often applied to impacts on human and environmental health — highly complicated systems with very unpredictable interactions. Release of radiation or toxins, massive deforestation, reduction in biodiversity or wholesale ecosystem collapse, and use of ozone depleting fluorocarbons causing globally borne adverse impacts all imply:

... a willingness to take action in advance of scientific proof [or] evidence of the need for the proposed action on the grounds that further delay will prove ultimately most costly to society and nature, and, in the longer term, selfish and unfair to future generations.<sup>20</sup>

The core of this concept embraces man's ethical responsibility to maintain the health of natural systems, and acknowledges the fallibility of humankind. In the absence of perfect understanding, an ounce of prevention (or forethought) is worth a pound of cure.

In 1982 the UN General Assembly adopted the World Charter for Nature, marking the first international endorsement of the precautionary principle.<sup>21</sup>

### **World Charter for Nature**

Reaffirming the fundamental purposes of the United Nations, in particular the maintenance of international peace and security, the development of friendly relations among nations and the achievement of international cooperation in solving international problems of an economic, social, cultural, technical, intellectual or humanitarian character,

#### *Aware that:*

- (a) Mankind is a part of nature and life depends on the uninterrupted functioning of natural systems which ensure the supply of energy and nutrients,
- (b) Civilization is rooted in nature, which has shaped human culture and influenced all artistic and scientific achievement, and living in harmony with nature gives man the best opportunities for the development of his creativity, and for rest and recreation,

#### *Convinced that:*

- (a) Every form of life is unique, warranting respect regardless of its worth to man, and, to accord other organisms such recognition, man must be guided by a moral code of action,
- (b) Man can alter nature and exhaust natural resources by his action or its consequences and, therefore, must fully recognize the urgency of maintaining the stability and quality of nature and of conserving natural resources,

#### *Persuaded that:*

- (a) Lasting benefits from nature depend upon the maintenance of essential ecological processes and life support systems, and upon the diversity of life forms, which are jeopardized through excessive exploitation and habitat destruction by man,
- (b) The degradation of natural systems owing to excessive consumption and misuse of natural resources, as well as to failure to establish an appropriate economic order among peoples and among States, leads to the breakdown of the economic, social and political framework of civilization,
- (c) Competition for scarce resources creates conflicts, whereas the conservation of nature and natural

resources contributes to justice and the maintenance of peace and cannot be achieved until mankind learns to live in peace and to forsake war and armaments,

Reaffirming that man must acquire the knowledge to maintain and enhance his ability to use natural resources in a manner which ensures the preservation of the species and ecosystems for the benefit of present and future generations,

Firmly convinced of the need for appropriate measures, at the national and international, individual and collective, and private and public levels, to protect nature and promote international co-operation in this field,

Adopts, to these ends, the present World Charter for Nature, which proclaims the following principles of conservation by which all human conduct affecting nature is to be guided and judged,

### **General Principles**

1. Nature shall be respected and its essential processes shall not be impaired.
2. The genetic viability on the earth shall not be compromised; the population levels of all life forms, wild and domesticated, must be at least sufficient for their survival, and to this end necessary habitats shall be safeguarded.
3. All areas of the earth, both land and sea, shall be subject to these principles of conservation; special protection shall be given to unique areas, to representative samples of all the different types of ecosystems, and to the habitats of rare or endangered species.
4. Ecosystems and organisms, as well as the land, marine, and atmospheric resources that are uti-

lized by man, shall be managed to achieve and maintain optimum sustainable productivity, but not in such a way as to endanger the integrity of those other ecosystems or species with which they coexist.

5. Nature shall be secured against degradation caused by warfare or other hostile activities.

Over the years, the precautionary principle has been at the heart of many groups' codes of ethics, as well as government's environmental policies, especially in the European Union. The European Commission's new EU regulatory system for chemicals REACH (Registration, Evaluation and Authorisation of CHemicals) explicitly cites these principles as a basis for decision making whenever the scientific data are insufficient. Virtually unknown in the United States for years since its formal inception, it's now gaining ground. In December 2001 the New York Times Magazine listed the principle as one of the most influential ideas of the year, citing the intellectual, ethical, and policy framework the Science and Environmental Health Network (SEHN) had developed around the principle as an example.<sup>22</sup>

Working its way into United States public policy, in 2003 the city of San Francisco passed a precautionary principle purchasing ordinance, with Berkeley following suit in 2006.<sup>23</sup> Encompassing everything from cleaning supplies to computers, this ordinance requires the city to weigh the environmental and health costs of its annual purchases.

Items in the ordinance not only touch on solid sustainability principles and put them into practice, but begin to implement farther-reaching ideas like accounting for true costs (the cost of all impacts along a supply chain, not just direct impacts of a single good or service).<sup>24</sup>

On the corporate side, adoption of the precautionary principle can be seen in the 2006 Chemicals Strategy for The Body Shop International, a UK-based cosmetics and personal care products company:<sup>25</sup>

The Body Shop is committed to creating desirable, sustainable and safe products, which are inspired by nature. Our products are based on ingredients from natural sources wherever possible, but will contain synthetic chemicals where they are necessary for the quality, safety or efficacy of products and where no suitable natural alternatives exist.

The Body Shop is careful to select chemicals that have a good safety and environmental record. We will also manage the use of chemicals in a responsible manner by applying the precautionary principle. We will continuously review and update our criteria and guidelines for the development of new products, and will implement action plans for the timely and realistic phase-out of relevant chemicals from our formulations. For example, in recent years we have made the decision to move away from using phthalates, even though these ingredients are legal and considered safe for use by our industry and its regulators.

We wish to be responsive to new developments and conduct regular reviews of our use of chemicals against the latest regulatory and environmental research from around the world, and engage with stakeholders and customers to help inform our strategy and action plans.

We believe in open communication and communicate our position to our product suppliers, label our products in accordance with the highest standards and we will produce public annual updates on our position and progress.

We do not believe in double standards.

The Body Shop operates in 54 countries, and develops products and packaging to the same high standard regardless of country of sale. If we phase out or ban an ingredient, it will be phased out or banned from all The Body Shop® products in all markets.

### **The Hanover Principles**

As complex as the planet itself, sustainability cannot be approached in a one-size-fits-all way. Different industries have different opportunities, as well as unique obstacles. Ultimately it's not important how we get there, as long as we're all moving in the same direction — and doing it sooner rather than later.

Like the precautionary principle, the Hanover Principles<sup>26</sup> were created to provide a guide for designers, planners, governmental officials, and all involved in setting design priorities for humanity, nature, and technology. Commissioned by the city of Hanover, Germany, as the general principles of sustainability for the 2000 World's Fair, the Hanover Principles, in consort with the Earth Charter and Blue Planet 2020 plan, are intended to serve as the basic tools for the development and improvement of humankind, and as part of a commitment to once again live as part of the earth. The principles ask us to:

1. Insist on the right of humanity and nature to coexist in a healthy, supportive, diverse, and sustainable condition.
2. Recognize interdependence. The elements of human design interact with and depend upon the natural world, with broad and diverse implications at every scale. Expand design considerations to recognize even distant effects.

3. Respect relationships between spirit and matter. Consider all aspects of human settlement including community, dwelling, industry, and trade in terms of existing and evolving connections between spiritual and material consciousness.
4. Accept responsibility for the consequences of design decisions upon human well-being, the viability of natural systems, and their right to coexist.
5. Create safe objects of long-term value. Do not burden future generations with requirements for the maintenance of vigilant administration of potential danger due to the careless creation of products, processes, or standards.
6. Eliminate the concept of waste. Evaluate and optimize the full life cycle of products and processes to approach the state of natural systems, in which there is no waste.
7. Rely on natural energy flows. Human designs should, like the living world, derive their creative force from perpetual solar income. Incorporate the energy efficiently and safely for responsible use.
8. Understand the limitations of design. No human creation lasts forever and design does not solve all problems. Those who create and plan should practice humility in the face of nature. Treat nature as a model and mentor, not an inconvenience to be evaded or controlled.
9. Seek constant improvement by the sharing of knowledge. Encourage direct and open communication between colleagues, patrons, manufacturers, and users to link long-term sustainable consideration with ethical responsibility, and reestablish the integral relationship between natural processes and human activity.

## **Kyosei**

During most of the Edo Period (1603 to 1867) Japan closed itself off to the world, suffering no invasions but also forgoing outside trade. Due to this self-imposed isolation, old skills as well as new ideas for resource management for this island nation became of the utmost importance. Nothing was to be wasted, and everything must have purpose.<sup>27</sup> Over the years, *Kyosei*, the idea of living and working together for the common good, is a traditional Japanese concept that has been applied to a variety of subjects from biology to business. More recently it has become synonymous with corporate responsibility, ethical decision making, stakeholder involvement, and user and producer responsibility. A specific code of ethics, called the *shuchu kiyaku*, has direct roots in Confucian writings.<sup>28</sup>

Confucian writings are deep and vast, and were highly influential in the evolution of ethical codes and principles in Japan. The following is a short list of some observations regarding Confucian philosophy:

- Reciprocity should be practiced throughout one's life. In short, one should treat others the way you would like to be treated.
- Virtue, not profit, should be the goal of the superior man.
- There should be a balance between self-interest and altruism.
- We do not exist in isolation; we are part of a larger and more complex family (literally and figuratively) where harmony can be achieved by acting appropriately with one another.

## The Caux Round Table

The Caux Round Table (CRT) is an international network of principled business leaders working to promote moral capitalism, where sustainable and socially responsible prosperity can become the foundation for a fair, free, and transparent global society. The CRT was founded in 1986 by Frederick Phillips, former president of Philips Electronics, and Olivier Giscard d'Estaing, former vice-chairman of INSEAD, as a means of reducing escalating trade tensions. At the urging of Ryuzaburo Kaku, then chairman of Canon, Inc., the CRT began focusing attention on global corporate responsibility in reducing social and economic threats to world peace and stability.<sup>29</sup>

Formally launched in 1994 and presented at the UN World Summit on Social Development in 1995, the CRT Principles for Business articulate a comprehensive set of ethical norms for businesses operating internationally or across multiple cultures. The principles emerged from a series of dialogues catalyzed by the Caux Round Table during the late 1980s and early 1990s. They are the product of collaboration among executives from Europe, Japan, and the United States, and were fashioned in part from a document called *The Minnesota Principles*. The principles have been published in twelve languages, reprinted in numerous textbooks and articles, and utilized in business school curricula worldwide. The principles are recognized by many as the most comprehensive statement of responsible business practice ever formulated by business leaders for business leaders.

The Caux Round Table believes that the world business community should play an important role in improving economic and social conditions. Through an extensive and collaborative process in 1994, busi-

ness leaders developed the CRT Principles for Business to embody the aspiration of principled business leadership. The CRT Principles for Business are a worldwide vision for ethical and responsible corporate behavior and serve as a foundation for action for business leaders worldwide. As a statement of aspirations, the principles aim to express a world standard against which business behavior can be measured. The Caux Round Table has sought to begin a process that identifies shared values, reconciles differing values, and thereby develops a shared perspective on business behavior acceptable to and honored by all.

These principles are rooted in two basic ethical ideals: *kyosei* and human dignity. The Japanese concept of *kyosei* means living and working together for the common good enabling cooperation and mutual prosperity to coexist with healthy and fair competition. *Human dignity* refers to the sacredness or value of each person as an end, not simply as a means to the fulfillment of others' purposes or even majority prescription.

Following is an excerpt from the *Caux Round Table Principles for Business*. The full document is available at [cauxroundtable.org](http://cauxroundtable.org).

### **Principle 1.**

#### ***The Responsibilities of Businesses Beyond Shareholders Toward Stakeholders***

The value of a business to society is the wealth and employment it creates and the marketable products and services it provides to consumers at a reasonable price commensurate with quality. To create such value, a business must maintain its own economic health and viability, but survival is not a sufficient goal. Businesses have a role to play in improving the lives of all their customers, employees, and

shareholders by sharing with them the wealth they have created. Suppliers and competitors as well should expect businesses to honor their obligations in a spirit of honesty and fairness. As responsible citizens of the local, national, regional and global communities in which they operate, businesses share a part in shaping the future of those communities.

### **Principle 2.**

#### ***The Economic and Social Impact of Business***

##### *Toward Innovation, Justice, and World Community*

Businesses established in foreign countries to develop, produce, or sell should also contribute to the social advancement of those countries by creating productive employment and helping to raise the purchasing power of their citizens. Businesses also should contribute to human rights, education, welfare, and vitalization of the countries in which they operate.

Businesses should contribute to economic and social development not only in the countries in which they operate, but also in the world community at large, through effective and prudent use of resources, free and fair competition, and emphasis upon innovation in technology, production methods, marketing, and communications.

### **Principle 3.**

#### **Business Behavior**

##### *Beyond the Letter of Law Toward a Spirit of Trust*

While accepting the legitimacy of trade secrets, businesses should recognize that sincerity, candor, truthfulness, the keeping of promises, and transparency contribute not only to their own credibility and stability but also to the smoothness and efficiency of business transactions, particularly on the international level.

### **Principle 4.**

#### ***Respect for Rules***

To avoid trade frictions and to promote freer trade, equal conditions for competition, and fair and equitable treatment for all participants, businesses should respect international and domestic rules. In addition, they should recognize that some behavior, although legal, may still have adverse consequences.

### **Principle 5.**

#### ***Support for Multilateral Trade***

Businesses should support the multilateral trade systems of the GATT/World Trade Organization and similar international agreements. They should cooperate in efforts to promote the progressive and judicious liberalization of trade and to relax those domestic measures that unreasonably hinder global commerce, while giving due respect to national policy objectives.

### **Principle 6.**

#### ***Respect for the Environment***

A business should protect and, where possible, improve the environment, promote sustainable development, and prevent the wasteful use of natural resources.

### **Principle 7.**

#### ***Avoidance of Illicit Operations***

A business should not participate in or condone bribery, money laundering, or other corrupt practices: Indeed, it should seek cooperation with others to eliminate them. It should not trade in arms or other materials used for terrorist activities, drug traffic or other organized crime.

In industry, Canon first announced its kyosei corporate philosophy in 1988. Their environmental



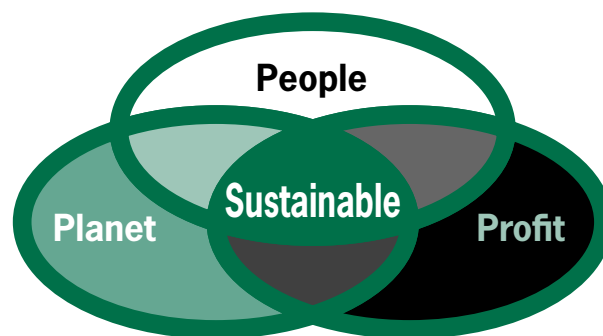
initiatives include a global recycling program for cartridges, and Certification under their ISO 14001 Certification Initiative. Canon’s corporate Web site presents their position:<sup>30</sup>

The world is undergoing a major transformation from a “throwaway” to a “recycling” society. Not satisfied with the progress made to date, Canon is making progressive efforts for the next generation, including the creation of a total cyclical system unifying the development, manufacturing and sales functions, while supplying products that are increasingly friendly to the environment. Canon will continue its quest to become a truly global corporation by fulfilling its environmental responsibilities.

“Canon is a company devoted to the environment and sustainability. As an organization, we are guided by the corporate philosophy of Kyosei — all people, regardless of race, religion, or culture, harmoniously living and working together into the future,” said Joe Adachi, president and chief executive officer, Canon USA, Inc. “With this philosophy at our core and adhering to high-performance standards, such as the ISO standards, we are continuously improving our environmental assurance and performance in all business activities to have the least impact on our environment and burden for future generations.”

### **The Triple Bottom Line**

Everyone’s heard the complaint “We’d like to go eco, but are afraid our customers won’t buy it,” or the flat-out “Green doesn’t sell.” That might have been true once, but not anymore.



**Visualizing the Triple Bottom Line.**

Sociologist Paul Ray reported in his groundbreaking study of consumer attitudes — “The Cultural Creatives: How 50 Million People Are Changing the World” — that about a quarter of US adults fit into a segment he tagged “Cultural Creatives.” The power of this group to act on personal ethics as a purchase decision making tool, and to be willing to speak-out about product impacts as well, are becoming hot-button issues in today’s boardrooms. How those practices are spilling into, and influencing, other consumer groups and society in general is a wave forward-thinking businesses are keen to get ahead of.

Cultural Creatives consider themselves strongly aware of global warming, rainforest destruction, overpopulation, and exploitation of people in poorer countries. They want to see more positive action on these problems, and are more than willing and able to buy and invest according to their values — sustainability values. It’s these values, and the devastating effect a tarnished image has on brand equity, that is causing the greatest concern for brand owners. Businesses, take note: Consumer activism works — and conveniently.

In Europe, consumers responding to rate increases for trash removal staged a revolt. Rather than tote home packaging that would need to be disposed of on their dime, they repacked purchased items in

reusable containers from home, leaving the original packages piled at the end of the checkout line for the store to deal with.

This quiet revolution was an example of attitude changes that led to the creation of producer responsibility laws there. But rather than simply rolling over and absorbing the new costs, or blindly pushing the problem down the distribution chain, firms started selling their waste to the expanding recycling industry as a valuable resource — turning a disposal liability into a profit center. In addition, more attention was paid to reduce packaging and product needs overall, increasing per-unit profitability.

In the best of all worlds, according to general sustainability models, goods would be produced and consumed locally. In the real world, that's not how it works. We live in a global economy, and not all communities are able to produce all of the goods they need. But the fact that we're transporting goods outside the reach of our own laws doesn't mean manufacturers can, or should want to, produce products and waste with reckless abandon. Even the most conservative study will show there are sound bottom line arguments to be made for achieving profitability and positive image goals through basic sustainable business practices.

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**Everything we do makes a statement on how we feel about the environment on some level. What are your products saying about you?**

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## **The Price Behind the Sticker**

Beyond the general view of landfills bursting at the seams, ills related to packaging abound. Consider forests laid bare by clear-cutting to produce packaging that is used only once before being tossed in the bin. Marine animals, starved to death by a plastic six-pack ring binding their mouths wash up on what were once pristine shores, their corpses rotting amid soda bottles and tampon applicators. Not all award-winning design is viewed in a gallery. Is being part of the flotsam and jetsam the place you're introducing your brand to a new audience?

It's estimated it costs as much as five times more to win customers back than it did to attract them in the first place. Even if the actual figure is a fraction of that, it makes good economic sense to take great care with the image you're conveying to your customers, past, present, and future.

Everything we purchase, produce, deliver, and sell makes a statement on how we feel about the environment on some level, and ultimately the consumers served. What is your packaging saying about you?

In a September 1999 *Economist* article, the author notes:

Companies with an eye on their “triple bottom-line” — economic, environmental and social sustainability — outperformed their less fastidious peers on the stock market, according to a new index from Dow Jones and Sustainable Asset Management.

This Triple Bottom Line is known by many names: TBL, 3BL, People, Planet, Profit (the 3Ps), and Ecology, Economy, Equity (the 3Es). All describe the idea of the major forces of our world that must be served to achieve sustainable balance given our current

market models. Formal coining of the phrase Triple Bottom Line has been attributed to John Elkington in 1994, and later expanded on in his 1998 book *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*.<sup>31</sup> The concept of the Triple Bottom Line requires that a company's responsibility be to "stakeholders" (all people involved in or impacted by a venture) rather than shareholders (only those who profit from the venture). According to stakeholder theory, rather than the business of a business being to maximize shareholder (owner) profit — ventures should be looking to benefit all concerned — workers, management, shareholders, and the communities and firms on the supply chain. Triple Bottom Line ideas go much further than those that deal with purely environmental impacts.

After the 2007 ratification of the International Council for Local Environmental Initiatives (ICLEI), Triple Bottom Line criteria for urban and community accounting became the dominant framework for public sector full cost (true cost) accounting. There then developed additional UN standards to focus on natural capital and human capital needs to assist in assigning values for Triple Bottom Line accounting and ecological footprint reporting.

"People + Planet + Profit" is one of the most common Triple Bottom Line heuristics to neatly describe the complex interactions of sustainability and business demands. It doesn't matter how eco a business is, if it's not profitable, it cannot sustain its efforts or its positive impacts in that market sector.

**People** (*human capital*) refers to equitable and beneficial business practices: how a company treats its workers, their community, and the region in which it operates. A Triple Bottom Line venture tries to benefit the many groups it interacts with and impacts,

and works to not exploit or endanger them. The "People" section of the Triple Bottom Line would see "upstreaming" of a portion of profit from the marketing of finished goods back to the original producer of raw materials. Fair Trade too is a core part of this section. A Triple Bottom Line venture would never knowingly use child labor, would pay fair salaries to its workers, would maintain a safe work environment and tolerable working hours, and would not otherwise exploit a community or its labor force. A Triple Bottom Line venture will often participate in "give back to the community" efforts revolving around health care and education. Quantifying the "People" portion of the Triple Bottom Line is a relatively new effort as it's extremely subjective. The Global Reporting Initiative (GRI) has developed guidelines to enable corporations and NGOs to report on the social impact of a business.

**Planet** (*natural capital*) refers to a venture's environmental practices. A Triple Bottom Line venture embraces the core concepts from the precautionary principle, "Do no harm" would be the simplest operative phrase. Natural capital is a term closely identified with the Natural Capitalism economic model outlined by Paul Hawken, Amory Lovins, and Hunter Lovins in their 1999 book, *Natural Capitalism: Creating the Next Industrial Revolution* (natcap.org). A Triple Bottom Line venture looks to minimize its ecological footprint by carefully managing its consumption of energy and materials inputs, reducing manufacturing waste, as well as assuring that waste is not (or ever less) toxic before disposing of it not just in a legal manner, but with an eye on next level and long-term impacts as well. Ethical "cradle to grave" planning is the minimum framework for Triple Bottom Line manufacturing businesses. Life cycle assessment of all components to determine true environmental impact and costs is key. This includes looking at impacts from the growth or

mining of raw materials, to manufacture, to distribution, to eventual disposal by the end user. Companies going one step further, consider a Cradle to Cradle™ approach, looking at the same cradle to grave impacts, but also consider remanufacture and material afterlife opportunities and impacts.

In today's materials handling model, the cost of disposing of nondegradable or toxic products is borne by the communities the things finally end up in. In a Triple Bottom Line scenario, any venture that produces and markets a product would be responsible for it all the way through to final disposal. As the full costs for impacts are borne by the company ultimately profiting by the venture, Triple Bottom Line companies would avoid ecologically destructive practices such as overfishing or unchecked use of nonrenewable resources. Paying close attention to environmental sustainability is more profitable for a business in the long run, as costs for clean-up or restitution would be paid in inflated dollars. With impact costs far exceeding profits from taking actions with only the short term in sight. Arguments that it costs more to be environmentally sound are usually disproved when time, depth, breadth, and ripple-through of impacts are permitted to be fully accounted for. The first question one must always ask when countering the cost questions is, Are you measuring for the long-term health of the company, or just looking as far as the next quarter? Reporting metrics for sustainability are becoming more standardized internationally and are more tangible than metrics for social impacts. Respected reporting institutes and registries include: The Global Reporting Initiative, Ceres, Institute 4 Sustainability, and others.

**Profit** (*monetary capital*) is the goal shared by all business, regardless of their ethics. The idea of profit within a sustainability framework, needs to be seen as the economic benefit enjoyed by all stakeholders, not just the company's stockholders. It's the idea that only a healthy company, earning ethically derived profits, can truly be seen as a contributing member of its community, and society at large. A company operating at a loss, or burdened with huge liabilities even if its base operations make money, not only earns no income for its owners, but has no resources to help support anything else (tax dollars, corporate giving, wages, and so on). The company is in essence, simply a drain on resources both economic and environmental.

**Which side of the bottom line are you on?** In MeadWestvaco's Stewardship & Sustainability Statement, John A. Luke, Jr., chairman and chief executive officer says:

Stewardship is central to MeadWestvaco's vision for the future. We strive to preserve and enhance our resources through a commitment to sustainability and a steadfast dedication to integrity and innovation in all that we do. At MeadWestvaco, we take seriously this obligation to our environment, to our employees, customers, and shareholders and to the communities in which we live and work. And we feel that we've earned our reputation as a good corporate citizen.

We're proud to be a global leader in stewardship and sustainability — as recognized by our inclusion in the Dow Jones Sustainability World Index for the past four years. This honor reflects our deep commitment to corporate responsibility, which we believe includes:

### ***Environmental Responsibility***

Sustainably managing the forests that supply basic materials for many of our products, minimizing our environmental impact, and respecting the earth, air and water that surround us.

### ***Social Responsibility***

Safeguarding our employees' health and safety, ensuring that our products and services are safe and reliable and striving to be a good neighbor in the communities where we operate.

### ***Economic Responsibility***

Promoting global prosperity and economic opportunity — for our shareholders, customers, employees and business partners and for every community we touch.

In the end, our commitment to these principles of stewardship and sustainability is more than a set of policies and procedures. It's an indication of our core values — as a company and as individuals — and a key part of our continuing efforts to improve the way we do business.<sup>32</sup>

## **Transparency and Honesty**

Companies at the forefront of sustainability today have a history of commitment to their message. Not resting on their laurels, they continuously address their impacts as part of their operating strategy. The idea that it's cheaper to nip problems in the bud as opportunities and technologies arise, rather than deal with huge calamities later, is a key element in making long-term sustainability sustainable.

For those new to sustainability the simple plan of action should be to use the opportunity for creating trust (and foster brand loyalty) by actually being trustworthy. Although no one can address all issues

overnight, everyone can make a genuine pledge to do what they can now, while they continue to address the rest as technology, economics, and opportunity afford.

## **Ceres**

Pledging to do what they can now, and taking verifiable steps to show progress toward a more sustainable future are the member companies of Ceres. Ceres (pronounced "series") is a network of investors, environmental organizations and public interest groups working to address sustainability challenges.<sup>33</sup>

*Mission: Integrating sustainability into capital markets for the health of the planet and its people.*

In 1989, Ceres introduced a bold vision, where business and capital markets promoted the well-being of society as well as the protection of the earth's systems and resources. Bringing together investors, environmental groups and other stakeholders to encourage companies and markets to incorporate environmental and social challenges into everyday business. By leveraging the collective power of investors and other key stakeholders, Ceres has achieved dramatic results over the years.

Ceres launched the Global Reporting Initiative (GRI), now the de facto international standard used by over 1200 companies for corporate reporting on environmental, social and economic performance.

Ceres member Nike became the first global apparel firm to disclose the names and locations of its contract factories worldwide in 2005. Ceres member Dell Computer agreed in 2006 to support national legislation to require electronic product recycling and "takeback" programs, and Ceres member Bank of America announced a \$20 billion initiative in 2007

to support the growth of environmentally sustainable business activity to address global climate change.

Over the years Ceres has brought together Wall Street and corporate leaders along with the United Nations to address growing financial risks and opportunities posed by climate change. These groundbreaking meetings have produced plans seeking stronger analysis, disclosure, and action from companies, investors, and regulators on climate change.

Ceres publishes cutting-edge research reports to help investors better understand the implications of global warming. Among those are *2008 Investor Summit on Climate Risk Final Report, Managing the Risks and Opportunities of Climate Change: A Practical Toolkit for Investors, Mutual Funds and Climate Change: Opposition to Climate Change Begins to Thaw, Investor Progress on Climate Risks and Opportunities, Corporate Governance and Climate Change: The Banking Sector.*

### **Ceres Principles**

In the Fall of 1989, Ceres announced the creation of the Ceres Principles, a ten-point code of corporate environmental conduct to be publicly endorsed by companies as an environmental mission statement or ethic. Embedded in that code of conduct was the mandate to report periodically on environmental management structures and results. In 1993, following lengthy negotiations, Sunoco became the first Fortune 500 company to endorse the Ceres Principles. As sustainability ideas matured and gathered more support, Sunoco has been joined by an ever-growing list including Fortune 500 firms as well as smaller groups that have adopted their own equivalent environmental principles.

By adopting the Ceres Principles or similar code, companies not only formalize their dedication to environmental awareness and accountability, but also actively commit to an ongoing process of improvement, dialogue, and comprehensive, public reporting. Jeffrey Swartz, president and CEO of The Timberland Company, a Ceres member firm, explains in their 2006 CSR Report:

Publishing a statement of accountability is necessary, but not sufficient. If we write a report and fail to initiate a conversation, we have missed an opportunity. And if our report represents our only venue for engagement, then we have failed. An engaged community — a convening of stakeholders committed to environmental stewardship, community strength, global human dignity, and the quality of life for our workers and those citizens with whom we are privileged to serve — is my intent. Our process of reporting is not “us” to “you.” This report is a forum for you. React, respond, challenge, commit. I commit back to you that we will listen and act.

### **Overview of Ceres Principles**

#### ***Protection of the Biosphere***

We will reduce and make continual progress toward eliminating the release of any substance that may cause environmental damage to the air, water, or the earth or its inhabitants. We will safeguard all habitats affected by our operations and will protect open spaces and wilderness, while preserving biodiversity.

#### ***Sustainable Use of Natural Resources***

We will make sustainable use of renewable natural resources, such as water, soils, and forests. We will conserve nonrenewable natural resources through efficient use and careful planning.

### **Reduction and Disposal of Wastes**

We will reduce and where possible eliminate waste through source reduction and recycling. All waste will be handled and disposed of through safe and responsible methods.

### ***Energy Conservation***

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

### ***Risk Reduction***

We will strive to minimize the environmental, health and safety risks to our employees and the communities in which we operate through safe technologies, facilities, and operating procedures, and by being prepared for emergencies.

### ***Safe Products and Services***

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

### ***Environmental Restoration***

We will promptly and responsibly correct conditions we have caused that endanger health, safety or the environment. To the extent feasible, we will redress injuries we have caused to persons or damage we have caused to the environment and will restore the environment.

### ***Informing the Public***

We will inform in a timely manner everyone who may be affected by conditions caused by our company that might endanger health, safety, or the environment. We will regularly seek advice and

counsel through dialogue with persons in communities near our facilities. We will not take any action against employees for reporting dangerous incidents or conditions to management or to appropriate authorities.

### ***Management Commitment***

We will implement these Principles and sustain a process that ensures that the Board of Directors and Chief Executive Officer are fully informed about pertinent environmental issues and are fully responsible for environmental policy. In selecting our Board of Directors, we will consider demonstrated environmental commitment as a factor.

### ***Audits and Reports***

We will conduct an annual self-evaluation of our progress in implementing these Principles. We will support the timely creation of generally accepted environmental audit procedures. We will annually complete the Ceres Report, which will be made available to the public.

For the full content of the Ceres Principles go to: [ceres.org](http://ceres.org).

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### **Aveda: Uruku Lipstick**

**Ceres member, Aveda, brings together the sustainability concepts of recycled, reuse, natural, and renewable into their Uruku Lipstick packaging system.**

**Here, their molded pulp outer package is made from 100% recycled newsprint, with a soy-ink printed 100% postconsumer recycled (PCR) content paper sleeve. The accessory case is a blend of 30% flax shives (a crop residue) and 70% polypropylene (containing 90% PCR). The lipstick cartridge is made of up to 65% PCR aluminum.**

**Internal components are made of recycled polystyrene with 88% PCR content. The system itself is modular, with the idea that the refillable cartridge delivered the consumable and is sold separately from the more durable accessory case.**





## **A Taste of Things to Come**

Looking ahead at what will be expected for all quality ventures serving the packaging industry, Packaging Strategies, creator of the Sustainable Packaging Forum, one of the first packaging industry events dedicated to applied sustainability, will be taking it up one more level to include “Transparency of Reporting” as a key component for speaker, exhibitor, and host selection. In this, another industry first, the 2008 Sustainable Packaging Forum has established a “certification/reporting” process that then will help ensure the sustainability claims of speakers, expo participants, and even forum hosts and sponsors have been vetted and verified.

The process, which will be monitored by the Sustainable Packaging Forum Advisory Board, will lend objective, third-party credibility to those suppliers who exhibit at the expo and who desire to draw enhanced visibility to their technologies, processes, and services. The reporting criteria for each expo exhibitor and forum host will be published and made available to forum attendees.

Volunteers from top-tier retailers, heads of “Global 100 Most Sustainable” companies, brand owners on the leading edge of sustainable packaging initiatives, respected NGOs, esteemed academics, and highly sought-after sustainability and supply chain consultants make up the forum advisory board. The board helps direct content for the forum and will be an integral part of the speaker, exhibitor, and sponsor certification/reporting process. Packaging Strategies director David Luttenberger notes:

Up to this point, there has been a well-established and trusted group of eco-professionals to draw from, all with long track records in sustainability.

But in recent years, the market has simply exploded with new technologies, new materials, and new faces. In order to assure these new players are coming from the same place of integrity we’ve depended on from the pioneers in our industry and to be sure we’re providing the best possible quality product for our event attendees, setting “Transparency of Reporting” criteria is the only equitable and reliable way to allow us to maintain our quality standards.

As sustainability relies on quality of information to actually be sustainable, information providers, as well as industry regulators, will be looking ever more closely at all sustainability claims to ensure things are as they are purported to be.

## **Making the Business Case**

In addition to statistics tracking performance showing superior performance by Dow Jones and Sustainable Asset Management, in October 2007, Innovest Strategic Value Advisors released The Carbon Beta and Equity Performance study. The study evaluates the relationship among climate change, companies’ ability to manage the associated risks and opportunities, and their financial performance. Innovest notes this is the first study to take this approach, and lays the foundation for further research and investment products. This review of 1,500 companies found that there is a strong, positive, and growing correlation between industrial companies’ sustainability in general, and climate change in particular, and their competitiveness and financial performance.<sup>34</sup>

Historically, though many have understood the need for embracing larger sustainability issues, tangible

action has been slow to get rolling. Innovest suggests there have been a number of reasons for this, some of which include:

Investment professionals have long believed that company resources devoted to environmental issues are either wasteful or actually injurious to their competitive and financial performance and therefore to both the performance of the companies themselves and investor returns.

Until recently, there has been a dearth of robust, credible research evidence and analytical tools linking companies' environmental performance directly with their financial performance.

Innovest points out that since there is now growing and incontrovertible evidence that superior overall environmental performance can in fact improve profitability, as well as reduce risk levels — with this in mind there is little doubt that these is now sufficient motivation to get companies to address their impacts as part of their long-term strategic plans.

As background for the study, Innovest states:

Few environmental issues pose as real, significant, and widespread a financial threat to investors as climate change. International policy responses aimed at cutting greenhouse gas emissions, together with the direct physical impacts of climate change will require investors and money managers to take a much closer look at how their portfolios might be affected by company "carbon" risks and opportunities.

In their report, Innovest asks investors and other fiduciaries to assess their portfolios for carbon risk for a variety of reasons including:

There is increasing evidence showing that superior performance in managing climate risk is a

useful proxy for superior, more strategic corporate management, and therefore for superior financial performance and shareholder value creation.

In the longer term, the outperformance potential will become even greater as the capital markets become more fully sensitized to the financial and competitive consequences of environmental and climate change considerations.

For those in industry these ideas have already started to work into the decision-making process. The Wal-Mart scorecard that has set new benchmarks for packaging is only one criteria-set in one part of their operation. Today, as more and more verifiable data and tools to handle it become available, we're seeing a variety of new initiatives, from carbon footprint metrics to verified resource and supply chain integrity. All are being implemented to help companies better — and more quickly — identify partners willing and able to help them reach their own sustainability goals.

"How companies perform on environmental, social, and strategic governance issues is having a rapidly growing impact on their competitiveness, profitability, and share price performance," said Dr. Matthew Kiernan, founder and CEO of Innovest in a February 02, 2005; *Sustainability Investment News* article from SRI World Group. In the bigger picture, one of the attractive things about adopting sustainability practices as part of a company's larger strategic plan is risk management. It is no surprise then, that some of the companies first to invest serious time and effort in understanding and using sustainability criteria for long-term business strategies were insurance companies and insurance underwriters. As sustainability practices mature and develop, providing tangible historical data to reflect on, the question is bound to

come up, Were the companies that resisted change the ones that could only operate with the help of hidden subsidies funded by the well-being of future generations? Companies too now should be asking themselves — “How much more, in inflated future dollars, will it cost us to change if we wait?”

## Packaging and Sustainability

In December 2007, *Packaging Digest* and the Sustainable Packaging Coalition (SPC) released the results of a joint survey looking at the state of sustainability and packaging, and to use as a benchmark of current attitudes and practices. The survey showed that “sustainability is a hot button for the industry, and its impact is likely to grow in the coming years.”<sup>35</sup> Drawn from the SPC membership, as well as subscribers to *Packaging Digest* and *Converting* magazine, the respondents represented a cross section of today’s packaging industry, with the biggest share coming from consumer products goods companies (CPGs), followed by materials manufacturers, converters, machinery manufacturers, packaging services, and retailers.

Looking at the survey data, 73 percent reported that their companies have increased emphasis on packaging sustainability over the year leading up to the survey. This is no surprise given the timing of policy changes by the world’s biggest retailer, Wal-Mart, to focus on sustainability in general and packaging in particular in this time frame and the full adoption of the EU Directive on Packaging and Packaging Waste. The data also indicates that while awareness surges packaging businesses have generally been slow to incorporate sustainable business practices, particularly in the United States where sustainability

directives are not as deeply and federally mandated as they are in other countries.

In the December 2007, *Packaging Digest* article announcing the survey, editorial director John Kalkowski comments on the difficult position packaging firms find themselves in: “Modern lifestyles, which demand longer product shelf life and create intense competition among brands, have been major drivers for increased usage of packaging, now seen as a leading contributor to waste streams. Pressure is mounting on the industry to act now.”

The article goes on to say

... sustainability is reaching new levels of awareness across the industry, especially among companies with more than 1,000 employees and those with formal, written sustainability policies, where 46 percent of respondents rated themselves as “very familiar.” Still, only 21 percent of all respondents claimed they were very familiar with the issues of sustainability in packaging. Nearly 40 percent said they were “somewhat familiar,” while 10 percent said they were not familiar at all.

Kalkowski notes that unlike typical surveys that take on a classic bell-shaped curve with early adopters forming the foot of the curve, swooping up quickly to mainstream adoption swelling to form the body and peak, with an equally quick slope down to the laggards forming the other foot of the curve, the survey data illustrated a trend toward slower adoption rates spreading out over a much longer period. Kalkowski goes on to note that early adopters are implementing sustainability practices in different areas across the whole of their business, taking a more in-depth systemic approach.

Change in general seems to be a big issue, with about a third of the Packaging Digest/SPC survey respondents expressing concerns about the raise in current raw materials prices as well as how to implement sustainability practices using their existing infrastructure. Moving to sustainability in general sparks similar concern as being forced to change due to purely economic factors. In a capital and process-intensive industry like packaging, these concerns are understandable. But fear of change should not be considered a viable option or as The Economist article discussing implementing sustainability practices and “the prisoner’s dilemma” points out, the world will be condemned to a slow roasting, even though global impacts could be averted if everyone simply cooperated and took on a share of the load in the first place.<sup>36</sup>

In his talk at the 2006 Sustainable Packaging Forum, Tyler Elm, at that time sustainability director for Wal-Mart, noted that the move toward a more sustainable business model for Wal-Mart was originally initiated as a defensive strategy — to reduce operations costs, liabilities, and exposure. Wal-Mart is, after all, a very large target. But as they dug deeper into what sustainable business practice really meant, they discovered instead of a defensive tool, it was a powerful *offensive* strategy. Risk and exposure were reduced or eliminated as they got in front of issues before they become problems or additional costs. And systems or operations that were costs under the old way of doing things, were now generating income.

Wal-Mart’s online Environmental Overview states:

Ecologically responsible business practices result in significant gains for our customers, associates, and shareholders. For example, by inventing trucks that get twice the mileage of our current vehicles,

we will radically reduce emissions and fossil fuel, but we’ll also save millions of dollars at the pump.<sup>37</sup>

Here we can see that rather than just simply demand the lowest cost at any price strictly from the goods they sell, Wal-Mart is looking to leverage a variety of opportunities within their own organization to maintain the price structure their customers expect, while still serving the need to maintain a viable profit structure.

In a February 7, 2008, Reuters article, “*Wal-Mart to Pay More for ‘Greener’ Goods,*” author Nichola Groom details Wal-Mart’s policy changes. To incorporate sustainability in both operations and product offerings, and meet aggressive impact reduction and efficiency goals, Wal-Mart is openly saying they are willing to pay more if need be, for products that last longer, hurt the environment less, and better addresses stakeholder issues not reflected in previous pricing structures. The article notes Wal-Mart feels that adding sustainability to the mix does not absolutely need to result in automatic increases in their end retail prices. It quotes Matt Kistler, Wal-Mart’s senior vice president of sustainability:

Bad quality products create waste, and so having tighter standards on the social side, on the environmental side, and on the quality side will reduce waste... We are looking at a very small amount of dollars, and the savings in the supply chain that we are finding because of sustainability in some cases will more than offset the incremental costs of what we are paying for a better quality item.

In 2004, Wal-Mart launched a company-wide, long-term initiative “to unlock” their “potential.” Leaders from nearly every part of Wal-Mart formed entrepreneurial teams focusing on areas such as packaging, real estate, energy, raw materials, and electronics waste. These teams partnered with environmental

consultants, non-profit organizations, and other groups to help examine Wal-Mart's business practices "through the lens of restoration and sustainability."

Wal-Mart goes on to reflect:

What we are learning about our footprint on the environment is both shocking and inspiring. Despite our excellence in efficiency, commerce creates a lot of waste. Fortunately, we've identified plenty of opportunities that, if captured, can transform our entire industry. Because we're experimenting in many areas, we expect to make mistakes along the way.

Wal-Mart has established three aggressive goals for their sustainability efforts:

- To be supplied 100 percent by renewable energy;
- To create zero waste; and
- To sell products that sustain our resources and environment.

In the service of their sustainability efforts, Wal-Mart acknowledges:

What gets measured gets managed. Our teams are developing sets of common sense metrics that hold us accountable for the goals we're setting. We will share these metrics on this Web site once they are established.

It would be fairly easy to dismiss sustainability efforts as only the turf of Wal-Mart sized giants. They are, in any discussion, the elephant in the room that simply cannot be ignored — plus a little action on their part has huge ripple-through impacts. But cost and environmental impact savings, consumer advocacy groups are happy to point out, are accessible to the individual as well as the corporate giant. And it is

in fact the actions and ethics of the individual that help drive corporate-level change.

After all, corporations are simply collections of individuals acting as a group. Asking ourselves, "How will history judge us," means understanding what drives individual choices — then using that knowledge to empower individuals to make good decisions — is the first step on this journey. With all eyes turning to industry professionals for answers, we have the opportunity to completely remake everything we do — but get it right this time.

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### **One Laptop per Child: Cultivating Equality in the Information Age**

**"One Laptop per Child is about the transformation of education. It's about access, equity, and about giving the next generation of children in the developing world a bright and open future." — Walter Bender, president, Software and Content.**

**Making laptops accessible to developing nations' children, the OLPC challenge was to create an affordable machine, that was rugged, durable, and child-friendly. This is no child's toy (though it is a lot of fun): it's an opportunity to bridge the information divide for their whole village.**

**OLPC designers carried the attention to detail all the way through packaging, creating a simple yet highly effective package, sensitive to the end user's community — recyclable, lightweight, resource minimal, and made from renewable resources. Learn more at [laptop.org](http://laptop.org).**



A black and white advertisement for Speedo swim goggles. The top half shows the product packaging, which features a circular window with a black background. Inside the window, three athletes are shown from the chest up, wearing goggles and standing in water with splashes around them. The Speedo logo is prominently displayed in the upper left of the window. Below the logo, the text 'Adult Professional Swim Mask and Goggle' is written in a bold, sans-serif font. Underneath that, 'Anti-fog Max Lenses | UV Protection' is written in a smaller font. On the right side of the window, the names and achievements of three athletes are listed: '5-TIME OLYMPIC MEDALIST NATALIE COUGHLIN', '4-TIME OLYMPIC MEDALIST IAN CROCKER', and '8-TIME OLYMPIC MEDALIST MICHAEL PHELPS'. The bottom half of the image shows a close-up of the goggles themselves, which have large, clear lenses and a black strap. The goggles are shown from a slightly elevated angle, highlighting their sleek design and the texture of the strap.

**speedo**

Adult  
Professional Swim  
Mask and Goggle

Anti-fog Max Lenses | UV Protection

5-TIME OLYMPIC MEDALIST NATALIE COUGHLIN  
4-TIME OLYMPIC MEDALIST IAN CROCKER  
8-TIME OLYMPIC MEDALIST MICHAEL PHELPS

## Case Study: Winterborne

Winterborne, a Chatsworth, California, based packaging solutions company, has been converting plastics and paperboard into clamshell blister packs, carded blisters, folding cartons, point-of-purchase displays, and a variety of other forms for decades. Their clients are mostly durable consumer goods makers and include well-known brands such as Microsoft, Toshiba, Samsung, LG Electronics, Seiko, Speedo, and Leatherman.

Almost ten years before PVC clamshell issues became part of mainstream buzz with items like CBS News' "Wrap Rage," or the current wave of companies adding PVC to their materials phase-out lists, Winterborne had begun the process of developing a better way to serve their clients' needs. The 2005 introduction of a special bundled version of Microsoft's Xbox 360 entertainment system for Sam's Club stores represented the first appearance of Winterborne's EnviroShell® clamshell packaging alternative.

Designed and developed using solid systems thinking ideas like Cradle to Cradle to help guide the process, Winterborne knew they needed to do more than simple material replacement, or just make the package easy to open. They looked at energy, water usage, greenhouse gas emissions, and recyclability, as well as consumer-related issues like look, feel, and access to product, all while paying attention to theft and stacking issues their clients needed addressed.

The basic form of EnviroShell®, a trapped blister between two layers of paperboard, is not a radically new idea. Converters have been making "foldover" blister cards for decades. Winterborne though, knew

how much weight the structure could carry would be the key to addressing head-on, one of PVC clamshell's long-held advantages. They then took their concept one step better by adding levels of recyclability and recycled content use, that clear clamshells of any kind have yet to achieve.

Using different combinations of mini-flute corrugated and various weights of preprinted liner boards, EnviroShell® integrates a 100-percent postconsumer recycled PET blister sealed between two pieces of recycled corrugated paperboard. Additional advantages over traditional clamshell packaging include glare elimination with beautiful edge-to-edge color and a cleanly finished edge, heat-activated water-based seal (a proprietary feature), size efficiency, and durability. The paperboard component (the bulk of the package) is fully recyclable in most markets, with easy separation for recycling. Visually the EnviroShell® package has a high-quality feel, yet Winterborne notes the package is cost neutral to traditional plastic clamshells. Important to big box retailers, it also passes theft-prevention requirements as well as being capable of withstanding stacking weight loads found in palletized point-of-purchase displays.

In 2007, Winterborne received *Converting* magazine's Innovator Award for Sustainability, as well as the Sustainable Packaging Forum's Sustainable Packaging Leadership award. In 2008, Wal-Mart recognized Winterborne's efforts with a first of its type award for their EnviroShell® packaging. Part of Wal-Mart/Sam's Club preferred packaging provider group, Winterborne was the first packaging supplier to be recognized.