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THE BIG IDEA

The Sustainable Economy

by Yvon Chouinard, Jib Ellison, and Rick Ridgeway

The Big Idea

No one these days seriously denies the need for sustainable business practices. Even those concerned about only business and not the fate of the planet recognize that the viability of business itself depends on the resources of healthy ecosystems—fresh water, clean air, robust biodiversity, productive land—and on the stability of just societies. Happily, most of us also care about these things directly.

THE SUSTAINABLE ECONOMY

by Yvon Chouinard, Jib Ellison, and Rick Ridgeway

And yet collectively we have not been making progress on reducing the damage business does to the world. Admirable companies have launched inspiring initiatives, but the negative impacts of business activity continue to grow.

The problem is simple. It's generally cheaper to buy the product that has a worse impact on its environment than the equivalent product that does less harm. Higher cost to planet does not translate to higher price to customer. Of course, this is due to the fact that businesses are rarely obliged to pay for the full toll their operations take on the world. Because many of these impacts have been hard to gauge with

any precision—or to assign to individual businesses with fairness—their costs have remained external to businesses' accounting.

But what if those externalized costs could be quantified and assigned? What if we could get to the point where the lowest-priced T-shirt was also the one doing the least harm to the planet and society? In that scenario, consumers' bargain hunting would align perfectly with business practices that sustain a healthy and just world, and powerful market forces would be put in the service of sustainability's goals. This is not a flash of brilliance on our part—it's what sustainability theorists have said all along. "True

**What if the
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cost accounting” has long been the holy grail of the movement.

Our companies, Patagonia and Blu Skye, have devoted decades to the business of sustainability, and never before have we felt the optimism we feel now. Developments on three fronts, long in the works and now converging, make it not only possible but inevitable that successful business will become synonymous with sustainable business. First, “prices” are now being calculated for many things that had been

our impact?” managers will see those as two sides of the same coin. Sustainability will simply be how business is done.

Putting a Price on the Priceless

The first trend contributing to Sustainability 3.0 is the recent progress on quantifying ecosystem services—that is, measuring, in dollar terms, the value of the myriad beneficial services that natural environments perform. An example is the erosion control provided by mangrove forests: How much would it cost to achieve the same control by other means? Another is the pollination that insects perform: What is it worth to agriculture? The natural world’s services range from the supply of fresh water and clean air to the sequestration of carbon and production of all manner of raw materials. If plant diversity is necessary to support new drug discoveries, what would we pay to have it?

Of course, the bounty of nature is priceless. But the unfortunate effect of our seeing these inputs to well-being as incalculable has been that they are treated as free. That mind-set creates problems when resources turn out not to be limitless or indestructible. A failure to price resources also makes it difficult to think clearly about trade-offs, which many decisions relating to sustainability involve. When inputs and outputs can be stated in like terms (which is to say, dollar terms), optimal solutions can be found.

The importance of quantifying ecosystem services was first acknowledged in the early 1990s, but serious efforts began in 2000. At least two not-for-profit organizations—Conservation International and The Nature Conservancy—and the accounting giant PriceWaterhouseCoopers are currently developing methodologies to value ecosystems. Under the direction of Peter Seligmann, Conservation International has shifted its strategy for protecting wildlands from an emphasis on their intrinsic value to stressing the value they deliver. The organization now has teams working on the arduous task of quantifying the contribution of ecosystems to human life. One product of this effort is a web-based tool called Artificial Intelligence for Ecosystem Services (ARIES), developed in partnership with the Gund Institute for Ecological Economics and with funding from the U.S. National Science Foundation, which allows users to value ecosystems rapidly and on multiple scales, from local to regional to national to global.



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considered priceless; second, capital is flowing into companies known to manage those costs well; and third, indices are being established that allow disparate contributors in a supply chain to converge on sustainability standards. Each of these developments has yielded meaningful gains on its own, but because all three have now reached a certain maturity, we are entering a new, accelerated phase of progress. The dots are connecting, and a whole different picture of how to prosper in business is emerging.

The concept of sustainability has evolved across three eras. In the beginning, it was seen as an operational concern, consisting of largely defensive efforts to reduce companies’ environmental footprints and cut waste. That evolved into a more strategic stance—let’s call it Sustainability 2.0. The focus shifted from cost reduction to innovation, and initiatives began to consider whole value chains. Now we’re in the midst of another overhaul of the concept, in which considerations of impact pervade all the decision making of firms. And as for Sustainability 4.0? The 3.0 era will render the term redundant. Instead of asking either “how can we turn a profit?” or “how can we minimize

Idea in Brief

Like most “holy grail” objectives, sustainability as a firm’s most dependable route to financial high performance has always seemed beyond reach. But three trends, each gathering force on its own, are now combining with dramatic effect:

1. The values of many vital aspects of our world traditionally considered priceless are being quantified, so that they can be factored into economic equations.

2. Socially responsible investing has matured beyond negative screening to become a value-seeking discipline and positive impetus for change.

3. Industries are converging on standard indices by which to rate products’ sustainability and seek improvements throughout their value chains.

Progress in each area spurs progress in the others, to the extent that the long-sought alignment of a firm’s prosperity with the best interests of the planet seems not only possible but inevitable.

In 2011 Dow Chemical pledged \$10 million over five years for a team of scientists from The Nature Conservancy to help Dow develop ecosystem service valuation methods. Dow’s CEO, Andrew Liveris, is determined to operationalize sustainability: “Companies that value and integrate biodiversity and ecosystem services into their strategic plans are best positioned for the future.” The Nature Conservancy will advise Dow on how to integrate ecosystem services valuation into its business practices, and the two organizations will promote this approach with the global business community.

The United Nations and the World Bank are also working on the problem. In 2001 the UN initiated the Millennium Ecosystem Assessment, an initiative that convened 1,360 scientists and other experts from around the world to make trends in the health of the world’s ecosystems more visible. More recently, at the 2010 Convention on Biological Diversity, in Nagoya, Japan, World Bank president Robert Zoellick announced a major project that enables emerging and developing countries to arrive at valuations of what he calls their natural capital, to help their leaders make more-informed development decisions. “The natural wealth of nations should be a capital asset,” Zoellick said, “valued in combination with its financial capital, manufactured capital, and human capital.”

This is not just aspirational talk; serious progress is being made. Some valuations have already been released. The United Nations Environment Programme estimates, for example, that one-third of global food production depends on animal and insect pollination, and the value of this service is \$200 billion annually. The World Bank, in its 2011 report “The Changing Wealth of Nations,” set the estimate for all the planet’s natural resources—its forests, rivers, wetlands, wildlands, farm and grazing lands, minerals, oil and coal, oceans, biodiversity of species—at about \$44

trillion dollars, with \$29 trillion belonging to developing nations.

Real change will come as high-level calculations filter down to individual companies’ bookkeeping. Puma, a sports footwear and apparel brand that is a subsidiary of the French PPR Group (which also includes Gucci, Stella McCartney, and Yves Saint Laurent) announced in April 2011 that it would begin issuing an environmental profit & loss statement that will account for the full economic impact of the brand on its ecosystem. It commissioned PriceWaterhouseCoopers to help develop the EP&L statement, and both companies hope to create a model robust enough to be adopted by others. “This is nothing to do with corporate social responsibility and the green agenda,” Chris Knight, of PwC’s sustainability practice, told *The Financial Times*. “It is hard-nosed economics.”

Calculations and accounting like this will pave the way for companies to internalize costs they have ignored in the past as externalities. Forward-looking corporations will have the information they need to set priorities and make decisions that reduce and mitigate their impacts. It may be hard to imagine such enlightened efforts being undertaken at a scale that would materially reduce the impact of manufacturing and agriculture on the planet’s ecosystems. None of the players that could potentially drive this scale—retailers, consumers, governments—are demanding such action in any organized or sustained way. But another catalyst is emerging that could influence these players and help us reach Sustainability 3.0. This is the second trend, one that is gathering force in the capital markets.

Funding the High Road

Just as important as the progress in ecosystems services valuation have been recent shifts in the world of socially responsible investing. SRI is a familiar

Babel of Ecolabels



term—for decades an established segment of the investment community has believed that it can and should influence corporations to show leadership in environmental sustainability, social justice, and corporate governance practices. What has changed is the orientation of this influence. Until recently, SRI generally focused on screening out the negative aspects of a given company or a sector.

The 1960s brought the first real wave of activism directed at investors. Shareholders of companies like Dow Chemical were pressured to divest or be considered complicit in producing wartime matériel. Later, in the 1970s and 1980s, pension funds took heat for making investments in companies not perceived to be aligned with the goals and values of labor unions. As the rise of mutual funds turned average citizens into investors, niche funds were established to provide assurance to the socially minded that their money was not supporting business activities they found objectionable. Managers of such funds employed negative screens, filtering out “sin stocks” like the purveyors of tobacco, alcohol, gambling, and pornography and later companies with black marks on their labor or human rights reputations. The Ariel Fund, for example, screens for environmental impact, tobacco, weapons, nuclear energy, and lack of diversity. PIMCO’s Total Return Fund III for institutional investors refuses to invest in any company engaging in “the operation of gambling casinos, the provision of health care services, or the manufacture of alcohol, tobacco products, pharmaceuticals, pornography, or military equipment.”

As awareness of SRI’s influence has grown, however, there has been a fundamental shift from a negative to a positive orientation, and to a more sophisticated appreciation of enterprise risk. Investors now see that companies’ water use, carbon emissions, stance toward labor, and supply chain management practices have a material impact on their valuations.

Even as purely qualitative concerns, they have quantitative consequences; managing for greater sustainability can generate cost savings, but it can also identify and eliminate risks, create positive associations with a brand, and help to establish the kind of reputation that attracts talent. So investors increasingly seek out companies with positive environmental, social, and governance performance not because they are morally admirable but because they are more viable in the long run. Accordingly, the preferred terminology has shifted from “socially responsible” to “sustainable” investing.

Companies that want access to such rewards must voluntarily provide a level of transparency into their operations that goes beyond regulatory reporting requirements. Investors rely on sources like the Global Reporting Initiative (a standard used by 2,000 companies worldwide to report their environmental, social, and economic performance) and the Carbon Disclosure Project for insight into corporate practices and results. Both of these initiatives bring businesses to the table with stakeholders to set appropriate sustainability goals based on industry benchmarks and to identify best practices for reaching them.

The Global Reporting Initiative, for example, has documented more than 200 valuable activities that sustainable companies undertake in four areas: governance, stakeholder engagement, disclosure, and performance. Examples include an initiative to achieve zero emissions by a PepsiCo Frito-Lay potato chip factory in Arizona; an IBM facility’s success in cutting annual energy and water use by \$3 million even as it increased output by 33%; a project at General Mills to help broccoli farmers switch from furrow irrigation to a drip method requiring half the water, saving nearly 1.2 billion gallons a year; and operational changes at retailer The Gap that saved suppliers’ employees from excessive overtime hours. When companies use standardized protocols like the Global

A dizzying array of labels has cropped up in response to companies' desire to communicate to consumers their environmental efforts. But the success of ratings like Energy Star show how resoundingly people respond when, in considering products in a category, they are presented with a single rating.



Reporting Initiative to report their progress, investors are better able to evaluate companies' relative performance.

Does greater transparency allow the funds to achieve higher investment returns? In some cases, yes; it is a misconception that if stock-picking is guided by social responsibility, subpar market returns must be accepted. Proof comes from the MSCI KLD Social 400 Index (formerly the Domini Social Index), which over the past 20 years has outperformed the S&P 500 on an actual and a risk-adjusted basis. The creators of the index began by looking at the entire set of the *Fortune* 500 and then stripped out the 250 that fell in the lower half on sustainability performance. They replaced those with comparable stocks from companies with better environmental, social, and governance track records. In other words, the index ignores traditional Wall Street quantitative metrics (cash flows, revenue, and so on) and bases its composition on ESG factors.

Still the perception lingers in many quarters that sustainable investing leads to lower market returns because it limits the universe of securities to draw from. Whenever nonfinancial considerations are taken into account, fewer companies are left in the mix and some financial high performers are specifically excluded. Indeed, the highest performers may well be screened out, given that the easiest way to boost a bottom line is to externalize as many costs as possible to the planet and society. And the competitive disadvantage of doing the right thing can be high in an industry where rivals get away with doing the wrong things. A company that resolves to go beyond what local law requires—by paying employees a living wage, for example, or ensuring factories do no undue harm to river systems—is hobbled by costs that its “leaner” counterparts don’t incur. For these reasons, many would-be social investors have felt forced to choose between maximizing returns and

investing with a conscience. To “vote with your dollars” has seemed an act of altruism.

But here, again, the tide is turning. It’s hard for a company to come out ahead at the expense of society if its practices—depleting essential natural resources, for instance—result in a serious disruption to its business in the long term. Even harder if its decisions come back to bite it in a massive lawsuit, which is far more likely in an age of rising awareness and activism. Today, an exposé of a supply chain—like the ones depicted in Annie Leonard’s “Story of Stuff” web-based documentaries—can spread with a click of a mouse and quickly go viral. Organizations like WITNESS enable ordinary citizens with mobile devices to capture images of negative impacts and add them to a growing pile of evidence. WITNESS calls this “video advocacy” and urges people to “See It, Film It, Change It!” As the parties affected by corporate activity move rapidly from being atomized to getting organized, sophisticated fund managers now see the material risks associated with sustainability issues, and consequently they have shifted their focus from companies with lower expenses to companies better positioned to sidestep the biggest threats investors perceive to their continued growth.

One last consideration driving fund managers toward sustainability-focused investments is hard to prove but widely suspected: Companies taking the lead in environmental, social, and governance matters have better management teams. If that’s true—and the proposition makes sense given that sustainability innovation is complex and requires real talent—it would clearly pay off in many ways.

Surely all these considerations have contributed to the fact that today nearly one in every eight investment dollars goes to a company that qualifies as a socially responsible investment. Investors are seeing more and more examples where even their assumption of higher costs is disproved. By innovating more

closely with suppliers, customers, and others in their value chain, companies in every industry are finding ways to reduce impacts that save money—and not simply by shifting their own footprint to someone else's operations but by cutting the costs incurred and waste produced across the system.

Think back to the first trend, calculating the costs of externalities: The developments in the investing world go hand in hand with it. As more investors recognize the usefulness of a real cost balance sheet—that is, one that includes formerly externalized costs and benefits—the initiatives to value ecosystem services gain relevance and traction. Still, investors would like assurance that the most responsible companies would be those most

likely to succeed in revenue terms. That's where the third trend comes in.

Converging on Value Chain Indices

The last trend of real importance is the work under way to draw up what we call value chain indices. A value chain index (VCI) provides a way to make apples-to-apples comparisons of products on the basis of the impacts that accrue to them at each phase of their journey from raw material to consumed, discarded good. Developed jointly by multiple players in an industry, a VCI draws on objective data produced by life-cycle analysis efforts and covers a range of categories, such as land use, water, energy, carbon, toxics, and social welfare.

Today's Price/Impact Trade-off

OPTION 1

Under today's most common scenario, every link in the value chain externalizes costs. Prices to consumers are kept low as true costs to the planet rack up.

Retailers add to greenhouse gas emissions through inefficient stores, distribution centers, and fleets.

Marketers design non-recyclable packaging; raise carbon footprints by shipping over long distances.

Production facilities economize by requiring excessive overtime of workers, paying sweat-shop wages.

Textile mills spew toxic wastewater from chemical washing, bleaching, and dyeing.

Cotton growers maximize yields through heavy use of fertilizers and pesticides.



OPTION 2

Consumers who care about sustainability choose goods with lower impact but pay a premium, because the goods' makers have taken on costs others ignore.

Retailers invest in raising customers' awareness and appreciation of sustainably produced merchandise.

Marketers source only from producers who provide healthy working conditions and promote workers' independence.

Production facilities are powered by sustainable, renewable forms of energy; they invest in employee well-being.

Textile mills establish processes for recycling and reclamation of cloth.

Cotton growers operate in geographic regions where irrigation won't stress water tables.



This has been the focus of, for example, The Sustainability Consortium, a diverse group of companies, universities, and government organizations working on methodologies for extracting life-cycle assessment data from their supply chains in order to reveal impact hot spots. A VCI uses such data to set realistic parameters within each category and provides a basis for weighing categories against one another to give priority to impacts deemed to have the most negative consequences. In this way, a VCI generates a rating for a specific product that can be compared against a benchmark and offers options for mitigating those impacts.

To understand the importance of today's emerging VCIs, it's useful to note how their antecedents, which were far more limited in scope, have fallen short. For over a decade now, raw-materials buyers and other managers in companies seeking to reduce environmental and social impacts in their supply chains have relied on standards and certifications, often from third parties, that usually address only one impact category. An example is Ikea's use of the Forest Stewardship Council, an independent network of third-party certifiers that accredits sustainable logging and forest management practices. Currently Ikea uses FSC-certified wood in 24% of its solid wood products. To reach its goal of 100% of its solid wood meeting its standards for sustainable logging, it will need to work with additional "preferred sources" that have their own certifications. And even then, it will have to turn to still other certifiers and standards bodies to manage the other impacts of those wood products, from the greenhouse gases emitted by their manufacture and transportation to their end-of-life disposal.

A dizzying array of certifications has cropped up in response to the growing number of companies hoping to manage impacts better and communicate those improvements to their customers. Those standards compete and overlap in multitudinous ways. Value chain indices address that confusion with a single, much simpler and more effective standard for an industry. As with any corporate index, a VCI gains power to the extent that it is applied consistently across most or all firms in a sector, and also applied over time to track relative performance.

The Sustainable Apparel Coalition, a group we are closely involved in, was launched two years ago, when Patagonia asked Walmart to get behind an effort to create a value chain index for our industry. Our companies invited other corporate sustain-

ability leaders in the apparel and footwear sectors, as well as key NGO and academic stakeholders, to tackle the hard work of developing and implementing the VCI. We realized that we would gain more momentum and have more impact if we worked together from the outset. In just 18 months this coalition has expanded to include 40 companies that together represent over 30% of the global market share for apparel and footwear. (For more, see the sidebar "How to Create a Value Chain Index in Your Sector.") In the fall of 2011 the group completed a prototype VCI, and all members have begun road testing it in their supply chains. This initial version uses qualitative indicators to measure impacts across a product's value chain, except in the materials category, where the impacts were measured using quantitative life-cycle data. The next version, on track to be released in the second half of 2012, will use quantitative measurements in all impact categories.

The speed with which this group has aligned itself and moved forward has frankly been astounding. As the tool has taken shape, its potential has become clear; in particular, the design of the tool to provide three distinct views of performance—at the brand level, the factory level, and the individual product level—means that decisions at all levels can now be informed by sustainability considerations.

To appreciate how these three views mitigate impacts, imagine the CEO of a casual-apparel maker in a meeting with the head merchant of the company's largest customer. The merchant declines to place an order, informing the CEO that the brand's overall VCI rating is too low to meet the retailer's standards. Having lost the sale, the CEO tells the VP of design that all products for next season must have cumulatively better VCI ratings. The VP conveys this directive to his team. A designer on the team starts work on a cotton blouse. She begins by specifying traditionally grown cotton, but her design software tells her that the VCI rating for that material falls short of the new sustainability goals. She then selects a vendor offering organically grown cotton, but the score is still low because she has sourced the cotton in western China, where irrigation is drawing down an aquifer faster than rainfall can replenish it. Scanning the VCI tables, she lights upon another option, a vendor in southern India buying from farms that are watered by the region's rainfall. She completes her selection of materials and reaches the sustainability score she and her bosses have targeted.



The companies in the apparel coalition are enthusiastic about the VCI's clear role in helping their executives, managers, and employees make better choices based on fuller awareness of their consequences. But few of the companies in the coalition, as far as we know, foresee how the creation of a value chain index will help to usher in a new era of sustainability.



The Road Map to Sustainability 3.0

What happens when the trends we've just described combine to fuel one another? Breakthroughs of five types—all long sought but only now becoming the natural course of business.

Outcome 1: Valuations of ecosystem services are integrated into VCIs. We described above how VCIs produce ratings of products and brands based on their environmental and social impacts. But what if instead all these impacts could be stated in dollar terms? That is precisely what happens when ecosystem service valuations are applied to VCIs: Not only does the blouse designer in our previous example get a better rating for selecting sustainably grown organic cotton, the VCI also shows her the economic impact of that choice. She will see the “true costs” in dollars of her various options. Not only will her company meet its biggest customers’ demands for lower impacts, its CFO will also have the information needed to compile and share an environmental P&L statement like Puma’s. And as the true costs of manufacturing products become visible, any decisions to lower those costs will be dramatically leveraged to the company’s benefit, because they will likewise be visible to fund managers and bankers.

Outcome 2: Investors learn to rely on value chain indices. Imagine a moment in the near future when VCIs have become prevalent. Will they be of interest to equity fund managers? Yes, of course—in two distinct ways. First, investors will benefit as the “brand view” afforded by a VCI gives them a means of comparing the sustainability performance of publicly traded companies. It will not take long for it to dawn on fund managers that, at any stage in the value chain, a company that earns better ratings than its competitors will be rewarded with business from downstream customers seeking to keep their own cumulative ratings competitive. VCI ratings become harbingers of revenue.

From there, it's a short hop to the second way that fund managers will use VCIs. A sophisticated fund manager, accessing the same VCI tool as our blouse designer, would spot—perhaps faster than the designer would—the fact that her firm's cotton order is more likely to go to India than China. What's more, that investor knows her firm is not the only one making sourcing decisions using this VCI. It's hard to imagine that the savvy fund manager in possession of that insight would not act on it: The obvious move would be to invest in companies involved in sustainable cotton production and processing in India. In this way, developers of new technologies that lower the environmental impact of manufacturing and agriculture will be met with both grateful customers and eager investors.

Outcome 3: Trillion dollar markets open up. As VCI metrics turn into a reliable proxy for value, banks will take notice. It will be evident that a better VCI score helps value chain players grow share while reducing risk—and increases their access to low-cost capital. Indeed the entire financial services industry will respond in creative ways to this new reality, and also to companies’ new ability to value ecosystem services and create environmental P&Ls, as Dow and Puma are doing. As valuations and impacts become more measurable and auditable, basements full of quants at J.P. Morgan Chase will get busy working on related instruments. Consider that, as the true value of clean oceans, rivers, and forests becomes clear and acknowledged by businesses around the world, a multitrillion dollar market becomes visible.

Once this happens, everything changes. Smart money will flow to the ends of the earth in a quest to “go long” on profitable value chains with the lowest all-in cost to the planet, whereas value chains

How to Create a Value Chain Index in Your Sector

A company committed to sustainability but working unilaterally can accomplish only so much. If you really want to make a difference, work together with your partners and competitors to develop a value chain index (VCI). The Sustainable Apparel Coalition's experience suggests steps to get an industry working in concert.

Start with a committed core. Patagonia turned to Walmart, known for market strength but not necessarily sustainability, to help get the ball rolling on a VCI. The two code-named their partnership David and Goliath. Together, they had the credibility and power required to get their sector's attention.

Invite founding members. In the fall of 2009 they sent out invitations to 12 CEOs of companies carefully vetted for their sustainability bona fides. One recipient later said, "When you get a letter from Mike Duke and Yvon Chouinard, with the

logos for Walmart and Patagonia side by side, it's so bizarre that you have to read it." The goal was to assemble a coalition of stakeholders as wide as possible without diluting the vision.

Prototype quickly; then refine. It's important to swiftly establish the right project scope, but the initial VCI tool only needs to be "good enough" to set the stage for refinements. The Sustainable Apparel Coalition (SAC) built on existing efforts in the industry, creating a version 1.0 index that was a "mashup" of

an earlier tool created by the Outdoor Industry Association and Nike's Considered Index. The group was cognizant of antitrust guidelines and avoided discussion of topics such as pricing, costs, and business and marketing plans.

Designate a driver. Because member companies had limited "sweat equity" to contribute, they pooled resources to hire a third party, Blu Skye, to manage governance and drive task completion.

Focus on who will use the index and how. The SAC envisioned that retailers would use its index to compare the sustainability performance of brands they might stock, manufacturers would use it to vet supply chain and other vendors, and designers would use it to specify products and processes least harmful to the planet. So the VCI offers three views: a brand view, a factory view, and a product view.

Define the dimensions of measurement. The SAC's index called for separate measures of various environmental impacts—energy, water, carbon, air, toxics, biodiversity, and land use—and social impacts. It established uniform methods for data collection to ensure apples-to-apples comparability across the sector. Then it weighted the categories against one another so that they could be rolled up into one score.

Make measurement as accurate as possible. The SAC began with the question of what was important to measure, regardless of whether accurate measurements were possible at the time. Rather than abandon necessary metrics, the SAC settled for qualitative evaluations in some areas. But by the end of 2012, a version 2.0 tool will use quantitative life-cycle assessment data to create its weighted ratings.

with high true costs will increasingly be viewed with greater concern, and will be subject to lower ratings and higher costs of capital.

Outcome 4: Comprehensive product ratings guide consumer choices. We have mentioned the problem of fragmentation in ecolabels development. This is a problem in consumer-facing markets as well. According to a recent survey, more than 400 certifications and green marks are already in use, and their proliferation is still accelerating. Together they make for a bewildering set of arbiters.

Companies are now recognizing that consumers respond resoundingly when, in considering products in a category, they're presented with one, uniform rating. Look at the success of the Energy Star rating in appliances. Inspired by that success, but eager to consider more than one dimension of performance (Energy Star looks only at energy efficiency), the electronics industry created its EPEAT standard in 2006 to provide a consumer-facing rating accounting for more than 50 environmental criteria, including use of heavy metals and toxic flame retardants. An-

other positive development is the Good Guide Rating, applied to 100,000 products in 600 categories by specialist teams of chemists, toxicologists, environmental life-cycle assessment experts, and nutritionists. Consumers can search for a product on the Good Guide website or use a smartphone app to scan a product's bar code and see a rating.

Now consider the prospect of one uniform rating equally accessible to consumers but based on a VCI like the one the Sustainable Apparel Coalition has developed. This would combine the appeal of a rating methodology as rigorous as Energy Star's, a set of considerations as broad as Good Guide's, and the coverage of an entire industry's products. Further, given the transparency of the data and calculations involved, consumers could delve deeper into a rating if they chose. Imagine, in other words, a shopper with a smartphone scrolling down to see the subratings in a category of particular importance to her. Perhaps few would actually do so, but the availability of the data would only add to the credibility of the rating.

Outcome 5: Value chain indices inform regulation—and a new era of innovation. Once a voluntary global standard is being used by enough key stakeholders, the alignment will yield the political will for policy measures that ensure that the true costs of products across all sectors and markets are reflected in their price. Even without such alignment (and notwithstanding the failure of the Copenhagen climate conference) we are seeing interesting legislation proposed. Regimes like “cap and dividend”—



which proposes to tax carbon suppliers, raise the price of energy-intensive products and services, and then rebate all those costs back to consumers—would surely drive rapid market-based innovation.

Already, there are laws on the books that advance the effort to internalize externalized costs. The UK’s Climate Change Act, passed in 2008, creates a legally binding framework for greenhouse gas reductions of 24% by 2020 and 80% by 2050, against a 1990 baseline. California AB 32, passed in 2006, requires a statewide 25% reduction of greenhouse gas emissions by 2020 against a 1990 baseline. And Grenelle II, a French law, is already requiring certain consumer products to carry labels that disclose total GHG emissions and two other environmental impacts associated with the product.

It is important to note that Grenelle II hit a snag after its passage in 2010. The law was to go into effect in January 2011, but the French National Assembly postponed implementation following heavy lobbying by an influential economic sector. The initial phase of the law is experimental yet involves 1,000 products made or traded by 168 companies.

Value chain indices like the Sustainable Apparel Coalition’s could provide the data Grenelle II requires. For the French government, with its law already on the books, that would be a godsend; the coalition currently is inviting the French government to participate in the development of its index.

Data, Vision, and Will

The global population is projected to grow from 6.9 billion people to perhaps 9 billion by 2050. Even if we only want things to stay the same, practices must change. It isn’t a question of whether business will radically transform, but only of when and how. Progress will be fastest if we can create a system in which the products that cause the least harm also have the lowest price. But three keys to reaching that goal have been lacking in the past: data, vision, and will.

Today, at least one of those is in place. It is now possible to collect accurate-enough data to assign true costs to goods sold. We see many signs of gathering will, too: The trends outlined here are being driven in large part by passionate businesspeople. That leaves only vision. We believe our road map to sustainable business offers that vision. In a world where true costs are reflected in products, selfish impulses will serve public-minded ones; the investors that seek the highest returns will become those who seek the highest responsibility.

Like most “holy grail” objectives, sustainability as a firm’s most dependable route to financial high performance has seemed beyond reach. But three trends, each gathering force on its own, are now combining with dramatic effect: The values of many vital aspects of our world traditionally considered externalities are being quantified so that they can be factored into economic equations. Socially responsible investing has matured beyond negative screening to become a value-seeking discipline and a positive impetus for change. And industries are converging on standard indices by which to rate products’ sustainability and seek improvements throughout their value chains. Progress in each area spurs progress in the others, with the result that the long-sought alignment of a firm’s prosperity with the best interests of the planet seems not only possible but inevitable. ♥

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Yvon Chouinard is a rock climber and the founder and chairman of Patagonia. **Jib Ellison** is a river guide and the founder of Blu Skye, a strategy consultancy. **Rick Ridgeway** is a mountaineer and a vice president at Patagonia, responsible for the firm’s environmental initiatives.