The New Creed of Greed

Going Green is Good, But Also Fraught with Near Term Risk

How ***Irrational Greenness*** *Could Result in* ***Unintended Consequences*** *for Consumers, Corporations & Policy Makers in this New Century of Social Responsibility & Sustainability*

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“I am not a destroyer of companies. I am a liberator of them!”

Quote by Gordon Gekko, played by Michael Douglass in the 1987 movie Wall Street

INTRODUCTION

The Greed for Green: Whether it’s Greener Homes, Cars, Computers or Investments, It’s all about Money! Money! Money!

Was *Gordon Gekko* Right 20 Years Ago?

Some people don’t like to talk money. It’s pretentious, personal, and impolite. Personally, I like money. I like the way it feels, the way it smells, the way it can be a surprise in your washed jeans. I also like the way it can grow in an IRA account; and the way it can motivate individuals, businesses and markets; or the way it can help to address a myriad of health, social and environmental issues…we know we have plenty of those.

Money doesn’t grow on trees. At least that’s what my father said a quarter of a century ago. My father was, and remains right. I can’t go out and pick a Franklin, Hamilton or Grant off of my 80 year old Maple tree. However, in a world that is increasingly constrained by carbon and looking at everything to reforestation to use of waste wood products for biofuel production from conversion of cellulosic material, the notion of money not growing on trees is taking on a new meaning. The modern human relationship with the natural world is disingenuous, distant and devoid of long-term social consequence. We’re the ants, marching one by one, building our financial nests but often forgetting that the interplay between money and markets hinges upon the long-term health and vitality of ecosystems.

We have traditionally placed monetary value on the utility that earths natural resources provides us, but not on their depletion, waste or value to produce. What is the value of the earth producing a gallon of petroleum over geologic time? What is the value of a pristine forest land on the top of a West Virginia mountaintop versus the value of coal removed from mining and earth blasting? These are tough questions, often ignored or avoided altogether by government and industry.

However, this is changing. The challenge we now face is how to ensure the greed for green (money and products) does not result in unintended product, market or consumer consequence.

GREED IS GOOD

"***Greed is Good***". That's what Gordon Gekko the billionaire corporate raider said in the 1987 movie 'Wall Street'. Played by Michael Douglass, Gordon Gekko's speech on went on to say, …"*the point is, ladies and gentleman, that greed -- for lack of a better word -- is good. Greed is right. Greed works. Greed clarifies, cuts through, and captures the essence of the evolutionary spirit. Greed, in all of its forms -- greed for life, for money, for love, knowledge -- has marked the upward surge of mankind*".

While only a movie, I like Gordon Gekko's remarks. They are honest and humanistic. They are what embody the human spirit, a raw and naked look into what drives humankind. I'd like to extend Mr. Gekko's remarks by saying, 'greed is the impetus for creating more sustainable products and corporations'. Now – I'm not trying to create the 'gasp heard round the world' here, so before you do so, let me explain. Greed does not have to be a dirty word that is personified in movies as the core ethic of corporations. Greed can be controlled, it can be transparent, and it can be harnessed and used for the greater good. Now I'm trying to get your attention here, so don't get too worked up about my seemingly naïve thoughts on greed just yet.

The greed we will see transform the 21st century of business will be for clean air, clean water, clean energy, and a less destructive way of living in this world as well as treating our bodies and minds. The transformation in our business and political world is upon us. Our greed for green is personified in carbo-conscious foods from Kraft, cleaner energy options from start-up companies like Sterling Planet, more fuel-efficient modes of transportation led by Toyota, and products that make us feel good due to corporate citizenship efforts at Green Mountain Coffee. These companies are feeding our appetite for, and leading our transformation to, a more sustainable world. A greed for a new kind of 'ecological wealth' is upon us, driven not by extremists, but by the very upper-middle class society that got wealthy, in part, on past mistakes of human evolution.

History has a way of repeating itself. At least that's what I've heard, and I believe it is true. In some ways, humans advance themselves, move forward, learn from the past, and move beyond blame, accusation, and inquiry. In many ways however, humans are creatures of habit, pattern, and infestation. At times we are brilliant, innovative, and unique. And at times we have a lapse in judgment, reasoning, and focus. Corporations are like humans. They are fragile, robust, greedy, passionate, caring, intelligent, deceptive, and honorable. You name the adjective that defines a person, and I show you a company that can be defined the same way. People run companies. And, companies sometimes run people. It's like an ecosystem in balance where money, innovation and competitiveness are like the sun, the moon and the tide. There are companies that are market leaders while others lose market share. There are companies that are producers and companies that are bottom feeders.

Today's modern corporation still has a lot to learn. I say this because the corporation, like people, is not perfect. I truly believe that the modern corporation has good intentions. In this era of financial accountability and regulatory oversight, corporations need to demonstrate restraint, good governance, and social responsibility. Corporations are increasingly being held to higher standards by government, non-government organizations, trade associations, shareholders, and society. On any given day the modern corporation has to deal with emerging issues in energy, climate change, and availability of natural resources, healthcare, pension funds and long-term benefits, resurfacing of old environmental liabilities, and a myriad of global issues that seem to rise and fall as dramatically as the Dow Jones Industrials. In the past two decades, the modern corporation has tried to deal with mounting pressures from investors, the street, shareholders, regulators, NGOs, and consumers by designing, manufacturing, and delivering better products. Often corporations are responsive in their product development cycle. For example, Toyota manufactured more fuel efficient automobiles in the wake of the 1970s oil crisis.

Some companies innovate sustainable attributes into products for competitive advantage. Florida Power and Light has been constructing more renewable power generation to round out its portfolio of petroleum generation; Sun Microsystems and IBM are designing more power efficient microchips that enhance performance and extend the battery life for notebook computers to large server farms; and Boeing has developed the 787 Dreamliner passenger aircraft that is 30% more fuel efficient than its competitor Airbus. These are just a few examples of companies differentiating themselves in a new economy greedy way, through the development and launch of greener and more sustainable products and services. Sometimes companies offer these products in response to competitive and social pressures, and other times they are in response to their own product failures and lessons from the past, what I call *unintended consequence*.

UNINTENDED CONSEQUENCES

Unintended consequences happen when products designed to fulfill certain criteria for quality, price, performance, functionality, and aesthetics are able to meet each criterion, but result in unforeseen and damaging conditions to people, planet or prosperity. I do not believe that in 2001 when Sony launched the Play Station in Europe it intended to lose $100M in sales to 1.3 million confiscated game consoles and accessories due to the presence of cadmium in the equipments cables. Of even greater financial consequence, I do not believe that when DuPont developed Teflon in its R&D laboratories some 40 years ago it believed it would be facing a $5 billion class action lawsuit by 2005. Teflon, developed by DuPont, and made using perfluorooctanoic acid, known as PFOA, or C-8, is used in nonstick cookware, fuel systems, firefighting foam, phone cables, computer chips, and clothing. The plaintiffs of the DuPont case want DuPont to spend $5 billion to replace Teflon cookware, initiate a warning/risk label program, and create funds to pay for scientific research and medical monitoring.

In a very recent case, Ford Motor Company is reexamining a closed facility, in Mahwah, New Jersey where they once manufactured millions of passenger cars between the mid 1950s to late 1970s. Concerns over toxic paint sludge and potential correlation with skin rashes, bronchitis and other high incidents of human health issues brought this 25 year old close site back into the public eye. In the early 1980s the USEPA classified the closed Ford site as a Superfund site. By 1994, after years of Ford Motor Company remediation efforts, the USEPA dropped the site from the Superfund list and issued a public notice that no further cleanup by responsible parties was required. The Ford site at cleanup effort at Mahwah may be reopened. If so, the Mahwah site stands to add an entirely new era of environmental legacy site responsibility to this corporate giant. The Ford Mahwah site is a classic example of unintended consequence, and one that is rich in social, economic and environmental complexity. For the Mahwah site, the issue of blame is less relevant than what the local community, Ford, and the government need to work together on and accomplish moving forward. When Ford opened the Mahwah facility in 1955 it also helped to develop nearly 800 acres where homes for Ford workers were built. Ford was the big employer for the region, and enabled economic growth. During its history at the Mahwah site, the company complied with government regulations. In addition, when the USEPA found paint sludge at Ford operated and managed waste facilities it ordered the company to clean it up, as it did. Old environmental liabilities, like the Ford Mahwah site, are scars of our industrial past, reminders that unintended consequences go beyond the simple dumping of waste, as often is the case, they extend decades into the future, affecting the grandchildren of the very folks that once benefited from healthier economic times. There are more than 1,000 Superfund sites still open in the U.S., and enormous number. In 1995 the Superfund has $1.5 billion at its disposal for the clean up and revitalization of environmental hazards. Since then the Superfund bank account has dwindled and is a mere trickle, which is an unintended consequence in of itself seeing that the General Accounting Office estimates that more than $20 billion will be needed to clean up the 142 largest Superfund sites.

We live in a world where resources are becoming constrained, there remain no cures for certain diseases, and where advances in technology have made it cheaper and easier to measure small quantities of pollutants and contaminants. Environmental control technologies have not progressed at the same rate of advancement as environmental detection technologies. We can now monitor air emissions in Ohio from downtown New York City. We can test water for trace amounts of tetrachloride, phenylenediamine, lead, or chromium. Yet we can’t seem to stop endless amounts of SPAM from infiltrating our email systems each day.

A PRIORITY SHIFT IN MONEY, MARKETS & CONSUMERISM

The global market economy is going to get a lot greener. However, the journey to get there will be wrought with risk of potential unintended consequences, unless we learn from our past. Thomas Friedman's book, The World is Flat was an excellent look into where society has evolved to the 21st Century. Where are our constraints? Why has ambivalence ruled over innovation and action? I've heard, read, and watched on the news in the past five years, that epidemics are running rampant in America. Our love of big food, big oil, big homes has made us unhealthy, dependent, and house poor. Not to mention the perils in healthcare, education, social security, and need for enhanced security and emergency preparedness for national disasters. The rich in America have gotten richer while the poor remain poor. The middle class has increasingly grown their wealth, but not without fundamental shifts in family structure and culture. Americans have had greed in the past – a certain love for the here and now, the quick, the immediate, the 24-7 burger place that customizes 32 grams of fat into value meal that can be upgraded to a mega jolt of caffeine for just 30 cents more. Rarely do most Americans think anything of it. We wake up, drive, eat, work, drive, eat, sleep, in a hypnotic pattern. It's as if were dead to the world – unnerved by what is happening around us – at least until our gas prices go up, or someone's heart is clogged, or realize that we need to work for another 10 years beyond age 60 to afford healthcare coverage. *Ambivalent*.

Yet, amid my ugly, and some would say cynical portrayal of American society there is great hope. I see hope throughout our global society. A desire, a greed, for wanting something better. Isn't that what built this country in the first place? The desire for a better world? I'm seeing adolescents and young adults question why we don't have more renewable energy generation installed. I see the same young adults questioning why their grandparents still work or why their parents don't drive hybrid vehicles. I see growth in companies of all shapes and sizes, of more sustainable product offerings, more robust corporate citizenship efforts, and more depth to governance and innovation. I also see resurgence in community, civic pride, and a smaller more family and community-based lifestyle.

These changes in American society are driving corporate culture shifts as well. I believe the next two decades of corporate culture in America will be defined by a clean-up of past unintended consequences, a self-evaluation of value and the near future, and a restructuring and realignment with societal need and demand. It is not by chance that the first letters of this strategy is CSR, which also stands for 'Corporate Social Responsibility'.

Clean-Up
Self-Evaluation
Re-Alignment

Is it possible for a writer to capture the voice of a corporation or a country? There are certain core values rooted American history and society that defined our past, and that have helped establish the modern corporation and government. Many of these "historic" values still exist in American culture and society today. Values, or principles, standards, ideals, ethics, morals – any adjective used to describe the word by which our country was founded and many corporations operate. Every public (and most private) enterprise I'm aware of has a vision statement and set of guiding principles. They come in all different prose, and some companies have ethical standards, environmental principles/policies, and global worker/supplier codes of conduct. All are attempts to govern the way in which business is operated, hoping to ensure fairness, ethics, and oversight. But what gives corporations (or a country) that moral standing and voice? Where does it come from, how is it shaped, and how is it enacted and ensured to infiltrate every aspect of business operations or daily living? In an answer, in a word, is *Leadership*.

The world is on the verge of a new economy. It is one that is being shaped by a myriad of past mistakes, promise for the future, and real-time transaction. The rate of speed at which this occurs is furious. I recall once talking with a former VP of Energy and Environment for GM on the topic of "*what did we do without computers*?". He aptly noted that in the days when carbon paper was used for business transactions and deals, he felt much more thought was put into the exact phrasing of language. He also felt that more time was spent on understanding language and how it affected management, contracts, and the due diligence of a deal. We ended the conversation with some humor on the etiquette of using hand-held devices like Blackberry's. It's a wonder that we've gotten this far without them, but when I see executives, government leaders, and even parents not paying attention to their clients, constituents, or children because a "more important" message is coming in. I'm guilty of this you know. But have come to realize that the most important thing is the person right in front of me. Advanced consumer communication electronics have made the world of business faster and instantaneous, but I don't believe they have made it more transparent or personal.

The long-term success and impact of the new economy will be realized through our ability to create lasting value in our business relationships, communities, and products/services. Like the way individuals in democratic society have a right to liberty, freedom, and pursuit of happiness, people should have an equal right to clean air and water, preserved open space, and healthy communities. However, do we have equal and open access to clean water and air? Is a child growing up in Mexico City less important than a child in Montreal? Is it even possible, in this post-industrial era to have equal access to our natural commons – clean land, air, water?

The new economy is driven in part by the worlds growing population in India, China, and Latin America. As the wealth of these countries grows, so to does their consumption of natural resources. Having drained the low-handing oil fruit, industrialized countries like Japan, Europe, U.S., and Canada are in a race to extend economic prosperity but in ways that maximize current resource use and create new technology and practices that take our traditional resource use out of the equation for the future. The industrialization of China and India will open huge markets for automakers, energy companies, health-care, consumer products, and every category of the modern industrial machine. The advancement of capitalism in these countries comes at a price however. Raw materials, be them, lumber, oil, water, metal ore for steel, are becoming capacity constrained. That means less for industrialized nations – or higher costs. This scenario is playing out right now, and it is just one of several global trends shaping our new economy. The global push is economically driven. As long as there is money to be made – greed will drive the way – and issues of transparency, equity, human rights, and environmental degradation will remain.

Not exactly. As the global economy grows – so too does social advocacy, shareholder resolutions for increased transparency, and the more scrutinizing eye of government and the public. No one is fully blind in this transformation. China for example has set some of the more stringent fuel economy laws on the globe for new vehicles. The growing world is plagued with schizophrenic behavior. On one hand you'd see the cleanest microchip fabrication facilities in the world sprouting up in India and China, and on the other, the filthiest rivers. Growth is good, but smart sustainable growth is better. In many ways the short-term economic need for financial return hinders efforts to advance growth in a more sustainable way. The pressures on Wall Street to have positive earnings is greater than any time in history, as companies sprout, grow, get eaten up, digested, and left for dead. Again – I'm guilty. I like most I know, like to see positive growth in my stocks, mutual funds, and retirement. If it's going the opposite direction I begin to wonder why I'm holding onto the investment. The greed – the raw hunger and drive for more. *Does it matter at what cost to the environment, to future generations, to our values or security in which it comes*?

There are slues of companies that I would put into the category of the 'new economy'. These are companies that have determined that their long term survival will depend not only on how well they make their quarterly numbers – but how they differentiate in a global economy – knowing that business is continually being scrutinized and pressured for *faster – cheaper – better*. These companies are looking at ways to develop products that enter the market quicker, compete on price, and are high-quality – but also offer customers additional values or solutions. For example, in 2005 Boeing introduced its new 787 aircraft that was built with GE engines that were, at the time, 30% more fuel efficient than competing aircraft of that size. This differentiating factor enabled Boeing to realize hundreds of orders for the new 787 because it offered an additional benefit to carriers beyond a traditional quality product. The 787 helped carriers reduce their energy costs, particularly during a time when fuel costs were skyrocketing and when carriers were under great pressure to reduce their own internal operating costs, just to stay in business.

Sector	8 Companies that Are Changing the World	8 Companies that World is Changing
Energy	BP	Enron
Industry Solutions	GE	Tyco
Beverage	Green Mountain Coffee Roasters	Coca-Cola
Transportation	Toyota	Ford
Finance	Goldman Sachs	Merrill Lynch

Sector	8 Companies that Are Changing the World	8 Companies that World is Changing
Retail	Whole Foods	Wal-Mart
Bio/Pharma	GlaxoSmithKline	Merck
Defense	Boeing	Halliburton

As a corporate researcher you get to learn a little more than the average person about a company. Usually the information comes in the form of data, annual Securities and Exchange Commission financial reports, annual reports, shareholder presentations, proxy statements, news releases, and independent research reports. Sometimes however, corporate researchers are fortunate enough to get inside the corporate cranium for a look around. Some corporations are shockingly receptive to outsiders, as if they welcome people to come-in, look around, stay awhile and move on. Others are boarded up like Fort Knox, scrutinizing the most simple of requests, paranoid, and bug-eyed. Corporations have personalities.

I recall meeting the Founder, Chairman, and CEO of Green Mountain Coffee Roasters (NYSE: GMCR) in January 2006 at an industry executive workshop sponsored by the AHC Group. Bob Stiller of GMCR was kind, gentle, humble, and honest. A sense of humility, strong intellect and good humor embodied him. He was also charismatic, charming, enlightened, and respected among his peers. In a word, he was himself. I always found this to be the best kind of leader, those that operated and delegated from within themselves. It provides for an honest and truthful transaction, and elicits others to behave similarly. To that point – companies often take on the persona of their leader – or else they personify the lack of leadership. I like to learn about corporations from their leaders, employees, and customers. The human aspect of corporations says a lot about how they are managed, what they care about, the type of past they've had the future they are shaping. I see that in Bob Stiller, as he has led GMCR to an annual return of more than 20% for more than 5 years running. In addition his firm has led numerous conservation projects in the coffee communities in which they operate, committed themselves to purchasing 100% renewable energy, and secured innovative partnerships to get their product to market. It's about people – relationships – and the creation of more lasting values. That's Bob Stiller – and that's GMCR's. It's also a good reason to look at firms with strong leaders as the one's that will shape the world in this new century.

It's mind-boggling, the frequency and severity of global risks in the past ten years. Consider the following events that have shaped recent history:

September 11, 2001 - the U.S. was attacked by terrorists who killed 2,986 people including 19 hijackers that crashed planes into the World Trade Center towers in New York City as well as the Pentagon in Virginia. A week following 9/11, U.S. Stocks lost $1.2 trillion in value as the Dow Jones Industrial Average stock market index fell 1369.7 points (14.3%) the largest one-week drop in history. Stocks lost $1.2 trillion in value. The global political, business, and social repercussions of 9/11 are enormous, many of which are still being felt and may never fully resolve.[1]

August 14, 2003 – the U.S. experienced the largest electric blackout in history leaving an estimated 50 million people without power for up to 24 hours, and affecting more than 61,000 MW's of electric load. Total economic costs for the blackout have been estimated to be between $4 and $10 billion in the U.S. and $2.3 billion in lost work hours and shipments in Ontario, Canada.[2]

December 26, 2004 – the deadliest Tsunami in recorded history hit the shores of Thailand, India, Indonesia, and Sri Lanka. The catastrophic wall of water killed 186,983 people and 42,883 people remain missing. More than 1.1 million people were displaced as a result of the Tsunami. More than $3 Billion in aid was pledged by Norway, Australia, Germany, United States, Canada, Japan, and the World Bank. An undersea earthquake measuring a magnitude between 9.0 and 9.3 (Richter Scale) originated in the Indian Ocean.[3]

August 29, 2005 – Hurricane Katrina hits the U.S. mainland devastating the city of New Orleans and surrounding cities, counties, and states. A registered Category 5 hurricane, Katrina caused

[1] Source: Wikipedia, http://en.wikipedia.org/wiki/September_11,_2001_attacks
[2] Source: U.S.-Canada Power System Outage Task Force Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations April 2004https://reports.energy.gov/B-F-Web-Part1.pdf
[3] Source: Wilipedia, http://en.wikipedia.org/wiki/2004_Indian_Ocean_earthquake

catastrophic flooding and damage, taking the lives of some 1,604 people, and was also the costliest hurricane in U.S. history at an estimated $75 billion. The Federal disaster declarations for Hurricane Katrina covered 90,000 square miles, approximately the size of the United Kingdom.[4]

August 29, 30, 31, 2005 – U.S. oil prices soar past $70 a barrel while as much as 90% of the Gulf coast production of oil was shut down due to Hurricane Katrina. The Royal Dutch-Shell Group, Chevron, Valero Energy, Exxon Mobil, BP Plc, Amerada Hess, ConocoPhillips and Transocean Inc. either cut production and/or evacuated staff from their Gulf region production, distribution, and operational facilities.[5,6]

October 8, 2005 – A powerful 7.6 magnitude (Richter Scale) earthquake rocked northern Pakistan, killing some 87,350 people according to Pakistan government officials. Economic damages have been estimated to exceed $5 Billion (U.S. $).[7]

November 29, 2005 – Climate change remains a scientific debate, however global industry leaders are announcing the immediacy of change and action to address the future. In a speech on energy security at the Brookings Institute in Washington, D.C., Lord John Browne, Group Chief Executive for BP stated, "…we have to look ahead again, and to invest to meet the needs of tomorrow- the needs of a rapidly changing, growing global energy market and the needs of a world where climate change will be a constant preoccupation[8]…" In addition to executive leader awareness, the topic of climate change is infiltrating popular press and society more and more. The following was extracted from a January 2006 article that appeared in Fortune Magazine and CNN Money, "…most scientists recognized the reality of global warming more than a decade ago; most also agree that humans play a role in the changes. The consensus on climate change has solidified to rival the medical consensus on the dangers of smoking--but in the matter of

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[4] Source: Wikipedia, http://en.wikipedia.org/wiki/Hurricane_Katrina

[5] Source: BBC News, Oil hits new high on storm fears Gas prices hit all-time highs in the US after Katrina struck Crude oil prices have hit fresh highs as fears grow over the extent of damage done by Hurricane Katrina to oil output in the Gulf of Mexico. http://news.bbc.co.uk/1/hi/business/4196240.stm

[6] Source: CBS News. August 29, 2005. "Oil Tops $70 As Katrina Nears Louisiana." http://www.cbsnews.com/stories/2005/08/29/ap/business/mainD8C98OK80.shtml

[7] Source: Wikipedia, http://en.wikipedia.org/wiki/2005_Kashmir_earthquake

[8] Source: Browne, Lord John. November 29, 2005. "Energy Security – Responding to the Challenge". Speech given at the Brookings Institute in Washington D.C. http://www.bp.com/genericarticle.do?categoryId=98&contentId=7012385

climate, public perception has yet to catch up. Like the tourists on Phuket beaches who stood and gazed at an oncoming tsunami because it was outside their experience, society is reacting to the coming wave of climate change without urgency. People still believe that the science is controversial and the threat of climate change far off in the future; and while a few businesses, notably major insurers, have begun to adapt, governments are responding only slowly…the wave is coming, though. The last decades of the 20th century saw an unmistakable and extraordinary warming. During this same period, we suffered by some measures the strongest El Niño in 130,000 years and a swarm of statistically extraordinary droughts, floods, and other weather extremes. In 2005 precedents continued to fall, as wave after wave of tropical Atlantic storms continued right through the end of the year. The hot ocean waters that helped nurture storms in 2005 may also play a role in an intense drought in the Amazon rain forest, normally one of the wettest places on earth…These and other weather surprises make scientists uneasy because they resonate with a new understanding of how climate changes. Just 40 years ago the consensus was that climate shifted from warm to cold and vice versa, smoothly and over many centuries. Since the early 1990s, however, scientists have been coming to see climate change as less like a dial and more like an on-off switch."[9] The debate may play on for years and corporations and countries either in denial or unable to calculate potential risk will become more vulnerable. The uncertainty of climate change risk has insurance, financial, and industrial markets in a frenzy to develop action plans, corporate strategy, and educated hedges.

January 2006 – Avian Bird Flu advances across many countries, concerns of global pandemic increase. Two human cases of H5N1 infection were discovered in January in rural Eastern Turkey. Both cases turned out to be fatal. China reported 10 new cases of H5N1 infection in January 2006 with 7 resulting in fatality. By the end of the month, Iraq had reported its first case of human H5N1, also fatal. By March 2006 the World Health Organization (WHO) confirmed that 7 cases of H5N1 infection also occurred in Azerbaijan, 5 resulting in fatality. The influenza virus, H5N1 was first found to be transmitted from birds to people in 1997. Eighteen people in Hong Kong were hospitalized and six died. Pandemics are not foreign to the world, particularly

[9] Source: Linden, Eugene. January 17, 2006. "Cloudy With a Chance of Chaos Climate change may bring more violent weather swings -- and sooner -- than experts had thought." http://money.cnn.com/2006/01/17/news/economy/climate_fortune/

in the past 90 years. In 1918 the "Spanish flu" (H1NI) pandemic killed more than 500,000 people in the U.S. and between 20-to-50 million people worldwide.[10]

In an increasingly unpredictable and uncertain world, the potential for unintended consequences from irrational products to irrational policies is great. Natural disasters, climate change, man-made hazards, terrorism, and geo-economic and political changes continually shape our behaviors. The examples above are very tangible, extreme, and in some cases horrifying reminders that even with advanced technology, planning, and risk mitigation programs in place, we can sometimes be overwhelmed by the shear size of a catastrophe. As global population increases and as our cities, coastlines become more populated, the potential for significant loss of human life increases as well. Global trends that are influencing corporate strategy and government policy and reform include:

- Growing Natural Resource Constraints
- Increased Potential for Global Pandemics
- Terrorism & Asymmetrical Warfare
- Growing Concern over Climate Change

The graphic on the next page presents how these global trends roll up through the corporation, and are managed by risk, product, and brand managers, and ultimately are led through the governance and leadership capabilities of corporate management and boards.

The globalization of business is being challenged by these global trends. Furthermore, financial analysts are weighing the value of global indicators in their investment decisions. A 2006 study by MERCER Investment Consulting evaluated the perceptions of 157 investment firms worldwide, across eleven global factors.[11] The eleven global factors included the following:

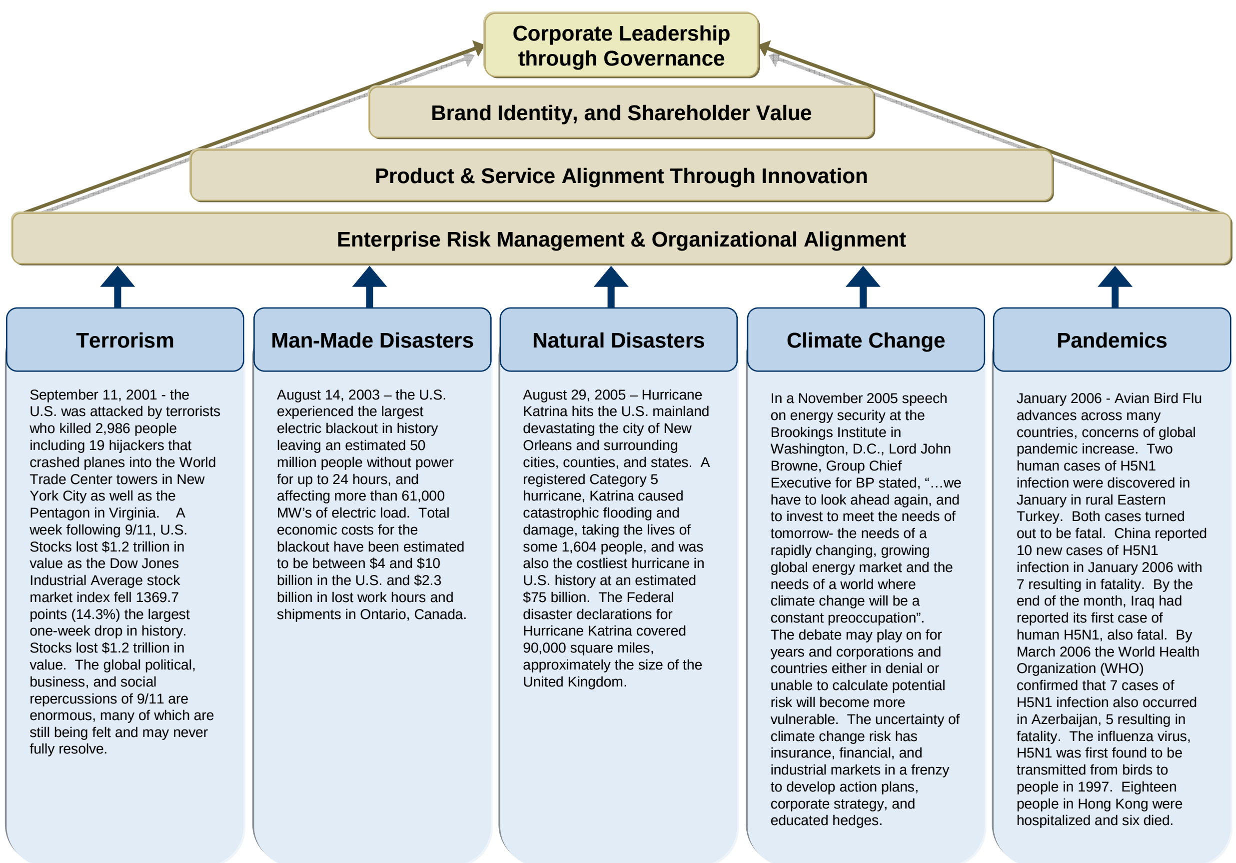
[10] Source: National Institute of Allergy and Infectious Diseases, National Institutes of Health. http://www3.niaid.nih.gov/news/focuson/flu/illustrations/timeline/timeline.htm
[11] MERCER Investment Consulting. March 2006. "2006 Fearless Forecast: What do investment managers think about responsible investment?".

Global Factors Evaluated by MERCER Investment Consulting
157 Investment Firms Worldwide

- Adherence to corporate conventions
- Environmental Management
- Sustainability
- Climate Change
- Globalization
- Terrorism
- Corporate Governance
- Health Issues in Emerging Markets
- Water (use of/access to clean water)
- Employee Relations
- Human Rights

MERCER Investment Consulting termed the eleven factors as ‘environmental, social, and corporate governance’ (ESG) factors. ESG factors are influencers of corporate behavior and change, and are being used by investment analysts in their evaluation, ranking, and investment in companies.

How Catastrophic Risks Affect Corporations in a Global Economy



The MERCER study provided a glimpse into the next 5-years in investment trends, suggesting that ESG factors will become more and more mainstream investment indicators. The MERCER study findings include:

- Globalization and corporate governance are the two indicators considered by the majority of investment managers to have material impacts on near-term and future investment decisions.

- Across all regions of the globe, resource issues and their impact on clean water, climate change, and environmental management will yield material impacts on financial asset performance within the next five years.

- Investment product clients are demanding more integration of environmental, social, and corporate governance indicators of their investments. MERCER noted that, "the integration of ESG analysis into mainstream investment processes is 13 percent in the coming year, rising to 38 percent over the next three years".

The MERCER study is just another example of how social investments have become more mainstream and that ESG factors are being weighed and evaluated on a global scale. Companies are being scrutinized more than ever on their labor, environmental management, governance, and climate change practices and strategies. In addition, the confluence of global terrorism, energy price volatility, and natural resource and disaster risks place increasing pressure on corporate strategists trying to hedge their markets. The enterprise risk management (ERM) function of corporations has been growing in stride with these emerging global factors and indicators of change. ERM managers' jobs have grown in complexity. The amount of diagnostics needed for understanding the dynamics of a global economy is enormous. Understanding energy flow, product flow, resource constraints, the value of different currencies, geo-political instability, emerging markets, pockets of technology know-how, natural hazards, global legal context, and pandemic or terrorism risks are just some of the intricacies involved in ERM evaluations. How does an enterprise navigate this sea of pirates, un-chartered waters with the mercury continually changing? Furthermore how does an enterprise navigate this uncertainty while keeping an eye toward sustainability – a new indicator to monitor for enterprise risk managers?

Globalization is, in my view, equivalent to some physicists' notion of the universe. It began with an outward expansion but will eventually retract like a rubber band. Economies rise and recede, much like the tide. The challenge is to help foster sustainable economic growth, so as not to erode the foundation by which economies have prospered in the 18th through 21st centuries. While it may not be decades away, globalization might actually retract and find comfort in regional scale economies. I say this because too much globalization of product and service dilutes value. Financial value is gained from growth in markets, much as globalization is proving, however dilution of intrinsic value will eventually overcome financial performance. The creep of ESG factors into mainstream stock valuation is one example where intrinsic values are affecting corporate actions and behavior. Eventually, as global economies become more stabilized, the net benefit of price and quality will become marginalized. If economies concept and valuation of wealth are similar, then a more homogenous society will result. This assumes however that new technology, new forms of energy, and other political events do not prove to disrupt the balance of wealth.

Regional economies can retain a certain uniqueness or niche that can get lost in a global economy. The uniqueness for example of Irish culture, heritage, geography, and environment is an intrinsic value. If muddled by the ubiquity of mass culture, it loses value, becoming just another place where a burger is sold, a car is driven, and a cultural identity lost. This new era of globalization is marked with broad questions on ethics, values, identity, and greed. I don't know that anyone has the answer on whether a global economy is a safer economy or if a regional economy can be more economically robust. This is just one persons view that globalization is not the end-all of financial growth. We have options, and have the right to exercise them. We cannot believe that our forward momentum on a global economy will not affect future generations. I'm all for cheaper products, but I'm also all for clean water and air and the conservation and protection of open spaces for future generations, cultural integrity, and preservation of biodiversity. These values are not at odds with one another – that is the essential point in innovation. We have historically profiteered off the low hanging fruit, so to speak, and now have to find innovative ways to create value while preserving valuable intrinsic qualities that make us unique, special, different, and valuable. As globalization serves to marginalize products – people ultimately like what makes them different.

Brouder and Berry (2004) have suggested that financial performance of businesses can be enhanced through “major breakthroughs in competitiveness and innovation as businesses work together on a range of social, environmental and economic initiatives that also benefit the local, regional and international community”.[12] Their research in ‘sustainable business clusters’ builds upon the work of Michael Porter from Harvard Business School in the area of business clusters, or ‘geographic concentrations of interconnected companies, suppliers, services providers, and associated institutions that are present in a nation or region’. *Brouder and Berry* surmise that sustainable business clusters work together on mutual economic value creation as well as sustainable development goals. To this end they define sustainable development benefits to come from transportation, infrastructure, waste management, networking, inputs and suppliers, physical environment, and employment. Long-term social and environmental benefits/outcomes help move or translate a business cluster to a ‘sustainable business cluster’. The inclusion of social and environmental opportunities into the traditional definition of business clusters helps advance corporate strategy, as companies can have a more holistic view of their competition, market, and risk profile and reduce the potential for missed business opportunities or unintended product or policy outcomes. As globalization advances, the notion of sustainable business clusters becomes more paramount to competitive success. The benefits of sustainable business clusteringhelps alleviate certain cost, design, transport, infrastructure, and networking challenges that cannot be fully addressed in larger global systems. For example, sustainable business clustering provides the following advantages[13]:

- **Operational Efficiency** – reduced operating costs or costs avoided due to energy efficiency and/or waste minimization efforts.

[12] Brouder, Ann-Marie and Lorna Berry. February 2004. “Sustainable Business Clusters in the Regions”. Regional Futures Research Report. http://www.regionalfutures.org.uk/newsdigest/sustainablebusclusters_page1453.aspx
[13] The competitive advantages of sustainable business were adopted from the book “World Inc.” by Dr. Bruce Piasecki, see www.worldincbook.com for further information.

- **Product Enhancement** – improving quality or service.

- **Societal & Regulatory License to Operate** – reducing the total costs of compliance, enhancing reputation among stakeholders.

- **Market/Terrain Advantage** – Being the ‘place to work’ and attracting top talent, building better brands, exceeding customer and supplier requirements for service.

- **Sustainable Shareholder Value** – creating profits in the short and long term horizon through innovation, market leadership, operational excellence, and governance and leadership.

While clustering has clear advantages, one of the precursors to realizing sustainable clustering is effective networking, leadership, and communication. So how does this tie into ‘unintended consequences’ and risk management? The key to this discussion on globalization, sustainable business clustering, and attributes of sustainable companies is leadership.

LEADERSHIP – THE KEY TO AVOIDING IRRATIONAL GREENNESS AND UNINTENDED CONSEQUENCES

Leadership is so difficult to define – but everyone knows when they see it. It takes a person to put themselves fully aside for something else. It's a passion, a drive, a love, a desire. Leadership is an attribute that is defined by people – not something that defines us. Managing risk and avoiding unintended consequences requires great tactical teams, perceptive managers, and good tools and diagnostic capabilities. Truly avoiding unintended consequences requires the implementation of leadership principles that assimilate the best data, knowledge, and inputs into strategies that run to the core of corporation **– the soul of the CEO**.

Lincoln, the Consummate Chief Social Response Leader and Executive

A recent New York Times Business page article titled "Companies Giving a Green Office" reported how many large corporations have now added "Chief Environmental Officer" and "Chief Sustainability Officer" to their starting team rosters including the CEO, COO, and CFO.

Chief Sustainability Officers are the new hammers inside corporate mansions, driving efficiency and looking toward new innovation to reduce operational costs while entering into new product markets. Driven by the regulatory and business risks and opportunities surrounding climate change, resource constraints and global competitiveness, modern sustainability officers are both subtle chameleons and fierce lions. They are change agents working against a hundred years of industrialization and know-how, discovering new ways to do business while delivering profits and enhancing shareholder value.

Traditionally thought of as a cost center focused on reducing compliance, environmental and health and safety risks and corporate exposure, this new century's corporate environmental officers are multidimensional strategists that navigate internal and external business opportunities and politics as they work to deliver on the bottom line. In doing so these modern day hero's not only ensure a company is operating within compliance, they create new product, service and market opportunities for greener products and clean production. In the late 1970s and early 1980s corporate environmental efforts were about containment and treatments of legacy wastes and compliance with the law. In the late 1980s and early 1990s corporations became more attune to reducing risks and preventing pollution. In the mid-to-late 1990s corporations adopted environmental management systems, developed eco-efficiency tools and began to look at the life-cycle impacts of their operations, products and materials use. Since 2000 the modern corporation has continued all of its historic environmental, health and safety responsibilities, but has now also evolved to include more corporate social responsibility, sustainability and ethical guidelines in its mission, vision and operations.

No longer a discrete function in the modern corporation, today's environmental officer now has its own trade and executive leadership training groups including AHC Group Corporate Affiliate Program, GEMI, Business Roundtable, and Business for Social Responsibility. In addition there are numerous executive briefing publications like The Corporate Responsibility Officer Magazine and Corporate Strategy Today.

President Lincoln is often referenced for his strong leadership. His experiences and actions throughout his distinguished life continue to teach us how to be better leaders. In World Inc., author Bruce Piasecki examines what makes an effective leader in this new era of social responsibility and corporate environmental strategy. In the chapter titled, *"Developing Leaders We Can Trust"* Piasecki notes, "*It is my view that with the right kinds of social leaders, large multinational corporations can play the key role in solving the long list of challenges facing society in the 21st century*." Piasecki goes on to draw out leadership lessons from Donald T. Phillips book "Lincoln on Leadership: Executive Strategies for Tough Times". Phillips summarized many of Lincoln's leadership strategies including building strong alliances, serving with honesty and integrity, persuading rather than coercing, being a master of paradox, and encouraging innovation. In his storytelling way, in "World Inc.", Piasecki presents how he sees these Lincoln traits in the most impressive and effective executives he's worked with over the past 30 years, including Chief Sustainability and Environmental Officers of major corporations.
I welcome readers to watch firms like Wal-Mart, Nike, IBM, Green Mountain Coffee Roasters, DuPont, Dow, GM, FirstEnergy, Shell, Whirlpool, Honeywell and other global giants in the AHC Group Corporate Network that have elected to have Chief's of environment, sustainability,

energy and social responsibility. These leaders are influencing tomorrow's products and markets as they seek to deliver value to their firms' bottom line, and society's bottom line.

A GREED FOR GREEN: THE TRANSFORMATION TO SUSTAINABLE ENTERPRISES & CULTURE

There is an emerging greed for more sustainable products, services, and society. The greed necessitates from our basic needs – clean air, clean water, availability of food and need for cultural identity. As ecosystem services diminish, as cultural identity wanes, and as the "commons" which nature has afforded us become less common – we will ultimately seek to reverse, retain, and remediate. We've begun this transition and transformation.

A fundamental shift in the way we consume energy, transport ourselves, feed ourselves, and live day-to-day is underway. Growth in clean energy technology for example, has grown dramatically in the past five years. The growth of alternative energy sources from biofuels to wind and photovoltaics has grown between 15% and 55% in the past year alone. Necessity is driving the market, as petroleum resources become more constrained. China is now the worlds 2nd largest user of petroleum products and India is 6th. It is estimated that by 2025, China will use 14.2 million barrels of oil a day, double their 2005 level, and by 2020 India's oil imports will triple to 5 million barrels a day.[14] The emerging economies in these two countries are driving energy consumption patters never before seen in modern society. As a result of increased demand for oil the price of petroleum products is increasing, largely because the supply and reserves are known and that many estimates show that we've already hit the world's peak oil production. As oil prices increase the costs of alternative forms of energy become more affordable. In fact, according to Clean Edge, a leading clean technology research and publishing company[15], "global wind and solar markets reached $11.8 billion and $11.2 billion in 2005 — up 47% and 55%,

[14] Source: Makower, Joel, Ron Pernick, and Clint Wilder. Clean Energy Trends 2006. March 2006. CleanEdge.
[15] Clean Edge, Inc., The Clean-Tech Market Authority, is a leading research and publishing firm that helps companies, investors, and policymakers understand and profit from clean technologies. Since 2001, the company has been providing market research and reports, conferences and events, and strategic consulting services to the clean-energy and clean-tech industry. Clean Edge and its network of partners and affiliates offer unparalleled insight and intelligence. To keep abreast of the latest cleantech developments, access industry reports, learn more about the annual Clean-Tech Investor Summit, sign-up for our monthly newsletter, or find out how we can help your organization, visit www.cleanedge.com. For more information about Clean Edge, email us at info@cleanedge.com

respectively, from a year earlier. The market for biofuels hit $15.7 billion globally in 2005, up more than 15% from the previous year. Multinationals like Archer Daniels Midland, BP, GE, Sharp, and Toyota are partly responsible for stoking these technologies' aggressive growth, leading the way with billion dollar divisions dedicated to solar, wind power, ethanol, and hybrid electric vehicles, among other technologies".[16] This growth is anticipated to continue through 2015. Clean Edge projects four cornerstone alternative energy technologies to grow fourfold in the next decade to a $160 billion market. According to Clean Edge[17]:

- Biofuels (global manufacturing and wholesale pricing of ethanol and biodiesel) will grow from $15.7 billion in 2005 to $52.5 billion by 2015.
- Wind power (new installation capital costs) will expand from $11.8 billion in 2005 to $48.5 billion in 2015.
- Solar photovoltaics (including modules, system components, and installation) will grow from an $11.2 billion industry in 2005 to $51.1 billion by 2015.
- The fuel cell and distributed hydrogen market will grow from $1.2 billion (primarily for research contracts and demonstration and test units) last year to $15.1 billion by 2015.

Greed for oil has created unprecedented demand and reduced supply. In some ways we've squandered a natural resource – using it without question of ecologic, climate, or human impact for decades. Only now, as we see energy price volatilities in dramatic fashion, and increased frequency and impact of natural hazards do we truly begin changing. In the last two decades, fuel economy of U.S. cars and trucks has fallen. Consumer transportation has gotten bigger, faster, and heavier. Congressman Sherwood Boehlert of New York and Chairman of the Science Committee, who announced his retirement in 2006, has been an advocate for higher fuel economy standards. Boehlert noted, "*we can talk all we want about our addiction to oil, but words have to be followed with deeds…it wouldn't be a sacrifice at all…no one really needs that greater power, except specialized vehicles for law enforcement purposes*".[18] I like Boehlert's

[16] Source: Makower, Joel, Ron Pernick, and Clint Wilder. Clean Energy Trends 2006. March 2006. CleanEdge.
[17] Source: Makower, Joel, Ron Pernick, and Clint Wilder. Clean Energy Trends 2006. March 2006. CleanEdge.
[18] Source: Wald, Matthew L. March 30, 2006. "Automakers Use New Technology to Beef Up Muscle, Not Mileage". New York Times. http://www.nytimes.com/2006/03/30/automobiles/30energy.html?_r=1&oref=slogin

comments. It's as if auto manufacturers have been feeding us this image of transportation that is counter to our daily lives.

Let's face up to it. We were sold on the idea the SUV's and big vehicles would provide us with some additional freedom that we don't already have. The ability to climb mountains, scale open rock faces, fish rivers that have never been charted. It's sexy, rugged, and plays to our inner desires. I don't think I've ever been truly off road in any vehicle – except for parking at an occasional camp ground, public park, or monument. In each case a 4 cylinder car would have done the trick fine. For those of us lucky enough to experience the snow season in Central New York, heavier 4-wheel drive vehicles have their benefits. They also have limitations. I've gotten through some of the thickest of snowfalls in a front wheel drive car. I've also gotten stuck in trucks and SUV's. Bigger – faster – heavier – is not what its all cracked up to be for transportation. These days I'd settle for good comfort – good mileage – and low maintenance – something that will last and endure a pack of children, pets, and anxious adults on a roadtrip.

We've been oversold. I think this is the sentiment running now in many product sectors – from big houses to big cars and big food. The U.S. consumer is slowly realizing that our love and greed of "bigger is better" is not healthy, not sustainable, and not economic. As day-to-day realities on fuel prices, food prices, and insurance costs settle in, we begin to question our consumption patterns. I know of many people who are saying that there next vehicle will likely be a hybrid-electric Toyota or Ford. I also know people that are looking into different ways to heat and cool their home. I also see many people changing their diets or not introducing their children to fast food or too much preserved foods.

The greed for green is growing. And inherent in that is the greed for money green. Companies like GE, BP, Toyota, Green Mountain Coffee, Boeing, Goldman Sachs, and Whole Foods are adopting corporate strategies that embrace (1) operational efficiency; (2) sustainable product and service innovation; and (3) longer-term alignment with consumer and societal needs based on a model of balance, health, quality, and preservation. The greed will lead to new products, services, and consumption that is more in check with the realities of global risks, but also consumers growing appetite for more value and less waste.

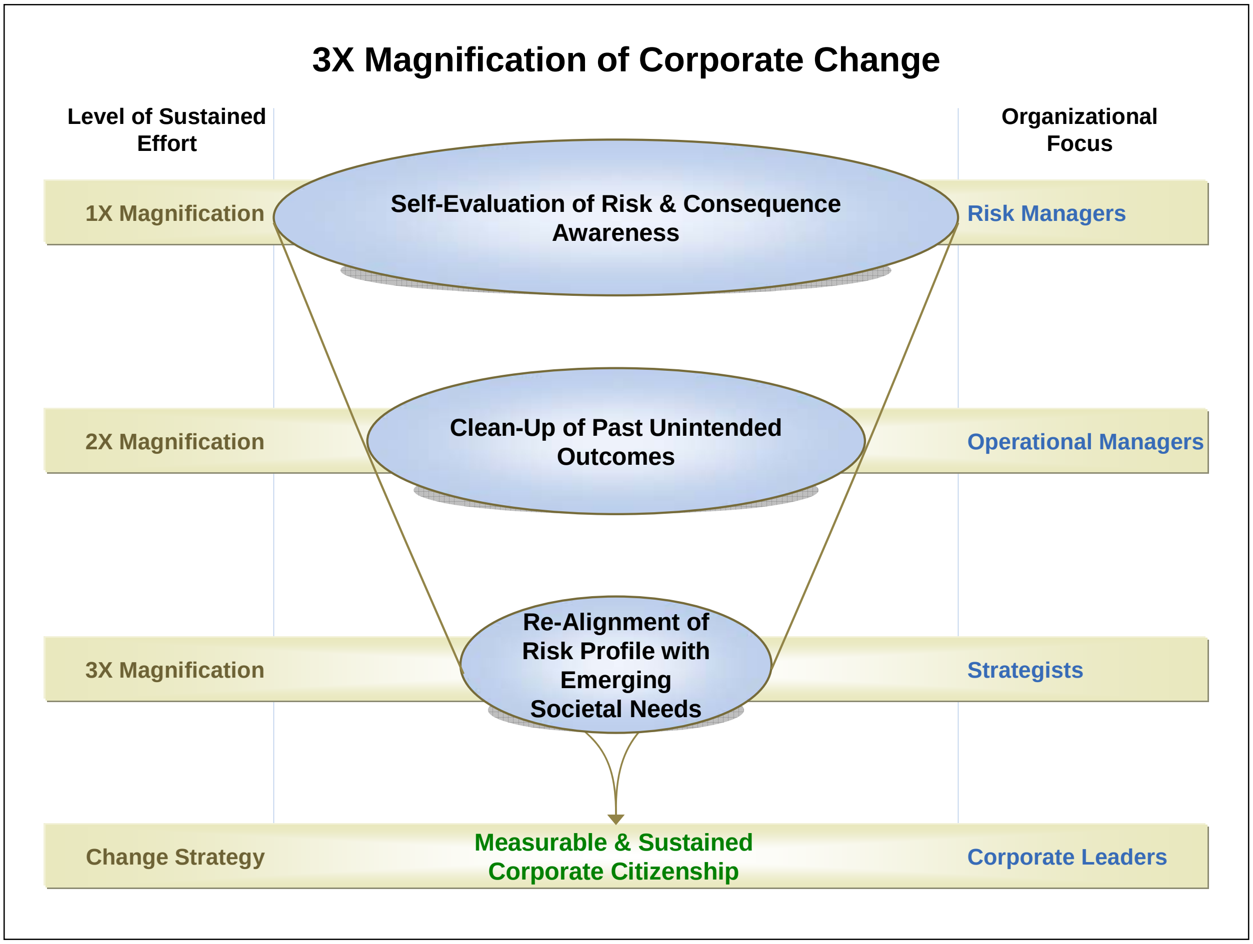
To help avoid unintended consequences of collective sustainable development and corporate citizenship efforts, companies should focus on a 3-pronged strategy of:

1. **<u>Self-Evaluation of Risk & Consequence Awareness</u>** – Looking back on one's product, service, and corporate legacy to learn how you'd managed risk, what worked and what didn't, and what the major elements of consequence have been. For example, have you been reactive to global trends, or anticipatory? Has risk management lead to corporate strategy that translated into bottom line earnings for investors?

2. **<u>Clean-Up of Past Unintended Outcomes</u>** – Taking immediate action to curtail, prevent, and/or remediate risks that have negatively transformed products, services, brand or corporate image. This includes containment of environmental liabilities as well as refinement of products that no longer address societal needs and global demands.

3. **<u>Re-Alignment of Risk Profile with Emerging Societal Needs</u>** – Out with the old and in with the new. Once a self evaluation and clean up has occurred; now you can focus in on corporate strategy for the future. Re-alignment includes making adjustments in product and service offerings, re-evaluating the concept of value, and aligning corporate citizenship efforts with product, service, and brand strategies.

These three elements help clarify the past, act on near-term opportunities to improve, and visualize the future of sustainable development, shareholder value, and sustainable enterprise realization. The graphic below helps to visualize this 3X magnification of corporate change.



Irrational Greenness – Avoiding the Potential Erosion of Reputation from the Desire to Overvalue "Greenness"

Summer has arrived, and so is the warm weather. In some cases, so has the hot air. In other's it's a breath of fresh air. Needless to say, it's been a busy summer. The G8 Summit took place June 6-8, 2007 in Heiligendamm, Germany. During June 2-7, Los Angeles hosted 7,000 people for a record breaking attendance for WindPower 2007 sponsored by the American Wind Energy Association (AWEA). And, during the same week The Economist magazine put out a 15-page report on how business is tackling climate change. One of their features is "Everybody's green now: How America's big companies got environmentalism". I like the title, almost suggesting that big firms finally "got religion".

All major media outlets have been covering the politics, market potential, technology potential of climate change strategies. We see the Senate seeking to raise gas mileage standards, new opportunities for ranking corporate performance on climate strategies and technology options for enhancing electric grid reliability while getting more fuel economy from hybrid vehicles. And if its not enough that climate change is being discussed diplomatically, negotiated into new policies, re-engineered into new products, and given a new line of credit through independent ratings of financial groups – it will make its way to the stage July 7th at the Live Earth global concert to raise awareness.

Live Earth will feature hundreds of performances and stage official concerts at Giants Stadium in New York; Wembley Stadium in London; Aussie Stadium in Sydney; Copacabana Beach in Rio de Janeiro; Maropeng at the Cradle of Humankind in Johannesburg; Makuhari Messe in Tokyo; the Steps of the Oriental Pearl Tower in Shanghai; and HSH Nordbank Arena in Hamburg.

As more green news breaks, as more policies are debated, and as more products are launched – it will become increasingly important to keep a keen eye on what's realistically doable, plausible and possible. It's a gold rush in the environmental and clean energy and technology market – and venture capitalists are financing new ventures like it was 1999. Government policy makers are seeking to balance an old world economy with newer thriving industries that have not had enough market experience (primarily with consumers) to know how to provide incentives, taxes or new policy mechanisms to focus growth.

For some firms, keeping their "greenness" to a respectable level will become important. The erosion of reputation, brand value, market share and stock price is very real – for those firms that risk going to green to fast. There is so much momentum behind this new wave of environmentalism and social responsibility in the market. It's pent up and needs to release. We see it growing for another 3 to 5 years with intensity, but ultimately washing ashore many winners and many losers. Keeping an eye on the "Irrational Greenness" during the next decade will be as important as growing the right firms, technologies, policies, talent and infrastructure.

A few years ago we predicted this avalanche of social and environmental change that is transpiring in government and business. The green revolution has turned in its rose colored glasses and is now looking at the world through some fashionable spectacles. And the vision is grand and clear. Understanding the economic potential to do what's morally and socially right, the world's largest and most prominent corporations are shaping our world with new innovations, products and services that answer public expectation for environmental change. Sure there remain some policy hurdles and market challenges, but it is clear – we have entered a social and industrial revolution worldwide. We're living it. And we're driving a future focused on responsible government and business practices and consumerism. It's healthy. We put on all of this extra CO2 and industrial waste weight over the past 100 years of industrialization; and now its time for a diet; a change in our behaviors; and a change in how we consume goods and services.

So, as you listen in to the global climate change conversation in the next few weeks – either from the global diplomats in blue suits or the global rock stars in blue (but hopefully "green") jeans – keep an open and critical mind toward what everyone is actually saying. Leadership and reputation is about slowing down that big moving train and its constant momentum to the point where irrational exuberance can be better understood and managed.

IRRATIONAL GREENNESS – A RETAIL, CONSUMER & CORPORATE WARNING

The New York Times recently published the article, *"At Home Depot, How Green Is That Chainsaw?"*. The article provides an overview of the emerging clash between environmentalists and product marketers over how "green" some products really are. Jim O'Donnell a manager with the Sierra Stock Fund, a $50 million portfolio of environmentally friendly companies was quoted, "Everybody is in a mad scramble to say how green they are."

Referencing The Home Depot as one of the firms under scrutiny, the article quoted Ron Jarvis, a senior vice president who managers the Home Depot Eco Options program…"In somebody's mind, the products they were selling us were environmentally friendly…Most of what you see today in the green movement is voodoo marketing…If they say their product makes the sky bluer and the grass greener, that's just not good enough."

Mr. Jarvis was referring to the onslaught of criticism that some products listed in his firms 2,500 Eco Options program are not all "environmentally preferable". The movement to reap benefits from "going green" quickly is impeding the ability to accurately verify whether or not a product is truly green. And, what standards exist to certify if products are truly green? Is an outdoor mat for shoes made from bio-based materials more green than one made from recycled plastics? Is an electric chainsaw preferable over a gas chainsaw because it does not use oil or gas?

According to the Home Depot they are working closely with the private certification company, Scientific Certification Systems to "develop new broad-based standards". Scientific Certification Systems will evaluate and "grade" products based upon their environmental impact over an entire product life cycle. They will also investigate the production processes and product end-of-life disposition options as a way of including sustainability metrics into their evaluation process. This certainly adds more complexity and robustness to The Home Depot's Eco Options program. Their challenge will be how best to serve as a gatekeeper between consumers demanding greener products and manufacturers, some of which legitimately produce environmentally preferable products and some of which have simply caught the Irrational Greenness buzz and seeking to reap quick near term profits.

To legitimize the greening of industry and the economy, further standards and qualifications will be required to certify what is green from what is green-washed. Firms like Scientific Certification Systems will become increasingly important in this process, as will consumers, retailers and government. Are mega-retailers like The Home Depot, Wal-Mart, and Whole Foods among others moving to quickly to sell "greener products"? Should the onerous of qualifying and certifying products be on retailers, government, manufacturers or independent rating firms?

As the green market unfolds, the winners, in our view, will be those firms that think through the total supply chain and life-cycle issues associated with their products and services. These firms will also strategically question other questions concerning materials selection, consumption of materials, waste and social equity. Smart firms are beginning to look at sustainability, not just as producing a greener product, but from a total system perspective, ensuring they can claim true environmental and social gains. The smart firms are asking themselves:

- Are green products simply about market differentiation and short term profit?
    - Or is there more to green products from a quality, performance and sustainability perspective?
- How do we legitimately claim our products are green?
- How do we certify them by independent and trusted advisors?
- What is the risk for having labeled a product or service as green when it shouldn't have been?
- Are our products achieving a true social need, or are they only banking green because they are marketed as green?

The winning firms, those that continue to grow and outperform their peers over a long-term horizon, will be those that can legitimately claim their products superior quality, performance and social products. Doing so will require them to heed to the short-term "***greed for green***" that is infiltrating mass consumerism. It will also require a careful evaluation of global risk and leadership that advises product designers to policymakers and consumers on how to avoid decisions based on *irrational greenness* – or the desire to go green to quickly, without evaluating potential unintended consequences of our purchasing, investment and management practices.

About the Author

Mark C. Coleman is a *Senior Associate & World Inc. Case Leader* with the AHC Group, Inc. a management consulting firm specialized in the critical areas of corporate governance, energy, product, and environmental strategy. Mr. Coleman was a major researcher on *World Inc.: When It Comes to Solutions — Both Local and Global — Businesses Are Now More Powerful Than Government*, a newly released book authored by Dr. Bruce Piasecki. Mr. Coleman has worked in government, applied research, industrial and consulting organizations for more than a decade. Throughout his tenure he has been a researcher and practitioner of business solutions for corporate environmental strategy and social responsibility. Mr. Coleman is a graduate of Rensselaer Polytechnic Institute with a Master of Science in Environmental Management and Policy from the Lally School of Management & Technology. Mr. Coleman is also a graduate of Binghamton University with a Bachelor of Art in Geography and Environmental Studies. Mr. Coleman resides in Fairport, NY with his wife Aileen.

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