

Entrepreneurship for a Sustainable Future

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Good Morning. Thank you President Schlesinger for that kind introduction and for inviting me to this beautiful place and fascinating academy. Last evening I had a lovely meal with Professor Cohen, Cheryl Kiser and Emily Weiner and I was so impressed by Babson's thinking about social entrepreneurship and by the energy of this place. I am honored that Babson invited me to kick off its Fifth Annual Energy and Environmental Conference with the very promising emphasis on Entrepreneurship for a Sustainable Future.

Friends and colleagues who know me, I think, would describe me as annoyingly optimistic about a sustainable future. After all, in the long run, everything only gets better. But I, like so many, have had my optimism bruised of late. Indeed, as we begin our day thinking through how innovation and entrepreneurship can play a pivotal role in shaping a sustainable energy future, I think we have to stare at the events of the last month and ask ourselves some foundational and fundamental questions.

Ironically, the last time I was asked to speak on the topic of sustainability, the seeming unstoppable spewing oil in the Gulf of Mexico led me to explore the relationship between sustainability, complexity and the core values we bring to our corporate enterprises. I asked how we could build our economies around complex solutions for energy production for which we had no answers when the inevitable unthinkable risk became reality. I concluded that we humans have to come to a deeper respect for the mysteries of the earth — mysteries over which we have no control — as we contemplate the “sustainability” of our planet and our species.

Today we are only starting to come to grips with what the ferocity of the earth quaking and the ocean sucking itself in and hurling its pent up energy at the land has wrought. The horror of the biblical annihilation of a peaceful and highly organized people is only trumped by the effect of the earth's power to negate our most ambitious attempt to control nature — the splitting of the atom.

One of my dearest friends is an avid climate change advocate. She dedicates her life to shaping policy to control the emission of carbon into our atmosphere. She confessed as we talked about the nuclear disaster in Japan that she had recently concluded that nuclear power would have to be a significant energy of choice in order to sustain our highly electrified planet. What now, she said, and we say.

On Sunday, the Washington Post ran a major editorial titled: “Clamping Down on Coal”. It noted that as the radiation levels outside the Fukushima Daiichi plant rise, so do the value of the stocks of American companies that mine and export coal. The re-emergence of coal is on the horizon. At the same time, the Post chronicled the efforts of politicians on both sides of the Congressional aisle to thwart the regulatory efforts of the EPA to limit CO2 emissions — wringing its editorial hands that this fuel source was far too risky to the people's health. But, it offered no alternative to the status quo.

Efforts to curb global warming have stalled — cap and trade legislation failed and there is no consensus on taxing carbon. Meanwhile, investment for renewable energy fell even while global temperatures last year reached the record high of 2005.

What now?

Back to Japan: Japan is the third largest economy in the world. It is the fourth largest exporter and the fourth largest importer in the world. This all from a country that is smaller than the state of California — but it relies on a source of power that now appears to be unsustainable. I would submit that this is not only because the aftermath of the Tsunami is itself catastrophic; but also — and maybe more fundamentally — because the deeply embedded values and fears of its people — the very culture of Japan — has been defined by the horror of Hiroshima and Nagasaki. Even if the Tokyo Electric Company is able to stop the radiation leaks, and recover operationally and financially from this disaster, one wonders whether the people can go on with a threat that seems existential in its scope.

So, what does this teach us? It tells us that sustainability is about long term value creation that must be true to the deeply held values of the people for whom the value is being created. It tells us that, in this space, the drive toward “green” energy must be about both the technology and the people, cultures and communities that it will power. And the power, itself, cannot sow the seeds for the destruction of the very value it purports to deliver over the long term.

Another friend of mine recently urged me to read, if I hadn't back then, [The Clock of the Long Now](#), a 1999 book by Stewart Brand, author of the Whole Earth Catalog and co-founder of the Global Business Network. I urge you to do the same. Without using the word “sustainability”, he defined it: “The main problem might be stated,” he wrote “How do we make long-term thinking automatic and common instead of difficult and rare? How do we make the taking of long term responsibility inevitable?” This was ten years ago that he noted that “Civilization is revving itself into a pathologically short attention span. The trend might be coming from the acceleration of technology, short-term horizon perspective of market-driven economies, the next election perspectives of democracies, or the distractions of personal multi-tasking. All are on the increase.” (This before

Facebook and Twitter!!). His proposal to build a clock that would keep time for a Millennium — the building of which would alter the notion of both time and how to mark it — has become the Long Now Project — a fascinating exploration of how engineers attempt to make concrete what is surely abstract.

But Brand's book is really worth the read to get a context for thinking about long term, sustainable value. In particular, I commend his discussion of the "Order of Civilization". He persuasively argues that healthy societies both honor and abide by deeply held values and culture — which are foundational and long term — even while engaging in commerce and fashion — which by their nature are fast paced and fleeting in time. He interestingly sees infrastructure as that layer of a society that mediates between the two.

Heady stuff but it resonates with me. Verizon builds networks. High speed, low latency, fixed and mobile networks here in the US and across the world. We are the Internet backbone traversing the oceans of the world, delivering the internet as well as 21st century commerce to businesses in 150 countries. And we have built the fiber and 4G networks here in the US that are the most advanced on the face of the globe. These platforms are the infrastructure that will allow both the transmission of the culture and values of the societies that they connect as well as the development of the commerce and fashion that will fuel the growth of economies here and globally. Most importantly, the networks carry the information and are the platforms that enable the technologies that will reengineer and reinvent our future — including our energy future.

In our 2011 Corporate Responsibility Report, to be published next month, our CEO, Ivan Seidenberg writes: "Communications is by definition a deeply social enterprise, and the belief that what we do — connect people and communities, provide great products and services, and invest in innovative technology that fuels commerce and drives growth — is inherently valuable lies at the heart of our company's mission. Our approach to corporate responsibility derives from this fundamental belief, which gives it integrity and connects it to what we do in the marketplace every day."

Professor Michael Porter of the Harvard Business School sees this notion of "shared value" as the next phase of the corporate responsibility evolution. His article "Creating Shared Value: How to Reinvent Capitalism and unleash a wave of innovation and growth" is a must read in this space and echoes in so many ways Brand's older articulation of long term value. Good corporate citizens focus on long term value creation and must, by definition, do at least two things: take a disciplined approach to sustainability and focus on aligning the company's profit motive with solving society's more urgent needs. Those unmet needs represent pent up demand, hungry customers and new revenue streams.

At Verizon, we get it. Our sustainability efforts are organized around ensuring that the very networks that are the platform for re-engineering our economies are themselves efficient. We have set a year over year goal of 15 per cent energy

efficiency improvement in our networks and systems; we are ensuring that all those devices we sell into the market are recycled and reused and we are working in a very disciplined way to improve the energy efficiency of our buildings and of our fleet — the third largest in the country, with more than 39,000 vehicles.

Indeed, we are enormously proud that tomorrow, President Obama will highlight our clean energy vehicles at an event associated with the important speech he delivered at Georgetown University yesterday on America's energy security.

In that speech, the President urged us — one more time — to reinvent our energy future. He talked about why and how we can become energy independent and reminded us of the hard choices we have to make.

Of course, the entrepreneurs and MBA students in the room spend every day thinking about those choices and are here today to share ideas about solutions. And while I suspect that you do not think of Verizon as an energy company, we believe that we can contribute to the conversation. In the spirit of "shared value", we believe that we can put our networks to work to help enable the long term sustainability of the planet.

Verizon has been at work on a vision for the Smart Grid — or actually for a "Smart Energy Ecosystem." To us, the discussion of smart grid is about cultural change, a new way for society to understand energy use and where energy comes from.

Today's centralized energy networks have not changed much since they were first created. Yes, there have been continual advances. But the grid remains largely a one-way system — providing electricity to businesses and households on demand. Flip a switch; the power is there. And in many respects, this one-way system has been a singular success. It has, thus far, delivered abundant, affordable energy that has transformed our lives and driven our economies. Demand has risen over 400% since the 1940s. Customers seem to have a never-ending appetite for electricity.

But as we just discussed, there is deep concern that the power sources that are currently suitable for large scale electrification carry risks that may prove to be too great. This, together with the aging nature of the grid, has led many to conclude the current path for the electricity industry is unsustainable.

The electric grid needs a digital transformation and two-way communications in order to improve the efficiency, delivery and use of electricity. And to provide the information to users about where and from what source their energy is derived.

The energy ecosystem is a broader concept than the "Smart Grid." We prefer talking about a "smart energy ecosystem", because it reminds us that we have a system that is comprised of discrete modules that will enable smart consumers. The grid is an essential module or component in a smart energy system. So are

“Smart homes.” So are “Smart Buildings.” “Smart Transportation Systems” are components — especially as we contemplate the electrification of vehicles and highways.

You are the inventors of those modules; you are creating the innovation that will allow consumers to make energy choices on cleaner, more efficient ways to fuel their lives. And it is our networks that will connect it all.

In a project that reflects this approach, Verizon Wireless is providing the telecommunications network that will connect the digital meters, signs and media players that will be used in Envision: Charlotte, a first-of-its-kind, public-private collaboration to make the commercial buildings in Charlotte’s urban core more energy efficient.

Using digital energy technologies connected by Verizon Wireless’ 4G LTE network, Duke Energy will gather and aggregate energy usage data from about 70 participating buildings in Charlotte’s 1.94 square mile I-277 inner-belt loop. The information will then be streamed to large interactive lobby-level screens provided by Cisco.

Building tenants will see the nearly real-time commercial energy consumption data for the community and suggested actions they can collectively take to reduce the energy usage in their buildings.

To date, business and local government leaders controlling more than 12 million square feet of space have expressed a commitment to participate in Envision: Charlotte in an effort to reduce energy use by up to 20 percent and avoid approximately 220,000 metric tons of greenhouse gases by 2016. The organizations include: Bank of America, Wells Fargo, The city of Charlotte and Mecklenburg County, and Duke Energy.

These are the kind of partnerships that we believe will be game changers. Consumers and coordinated communities and clusters of businesses will be empowered to lead the change we need. One can imagine the day when communities and individuals can make informed decisions about the kind of energy they prefer through information provided throughout a nationwide grid that works like the internet today. Consumers could order up the clean, alternative energy of their choice from anywhere on the grid. Our network — the infrastructure of the 21st Century — can be the mediator between commerce and values.

I look forward to listening to the stories of the entrepreneurs here today as we imagine the future. And as we do, we need to be mindful of our responsibility to the deeply held values of those we seek to serve. We need to move quickly to address the urgent imperative of our time — providing the power to maintain our standard of living and grow our economy. But we have to think in terms of the

Long Now. We need to find solutions for the long term. Let's respect what we do not know, be vigilant about the risks we take and anticipate the unthinkable. Let's ensure that our land, our air, our seas, our drinking supplies — our people — will be preserved and conserved for a millennium.

And let's find the way to a sustainable energy future. Thank you.