

Sustainable Innovation



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In this dialogue, Dr. Stuart Hart, professor of management at Cornell University's Johnson Graduate School of Management and founder of the Center for Sustainable Global Enterprise and Dr. Gregg Zank, Dow Corning vice president and chief technology officer discuss the link between sustainability and innovation.

Is there an agreed-upon definition of sustainability?

GZ: I think a lot of people tend to gravitate to the three words of social, economic and environmental that, when combined, present a sustainability position for a company. While I agree with this from a high level, I think it's essential for companies to define sustainability for themselves and in their own words. To do this, you must consider a number of factors, including what your company actually makes, how it benefits people globally, what raw materials you use, and what does your environmental "footprint" look like.

SH: I do think there is agreement on a high level of what sustainability means. What I've tried to do is to think of sustainability through a business opportunity lens.

How do you suggest that organizations develop a strategic framework for sustainability?

SH: I think it's worthwhile to think about sustainability in two broad categories: greening strategies and beyond greening strategies. Greening has to do with the continuous or incremental improvement of existing products and processes. Beyond greening is about the initiatives necessary to build tomorrow's opportunity, tomorrow's technologies and markets. Those strategies are beyond greening in that they require wholesale innovation, disruptive innovation, and white space in the organization in order to execute.

GZ: Speaking from Dow Corning's standpoint implementing a framework for sustainability requires a "top-down" and a "bottom-up" approach. Every company has individuals and customers that are energized about specific topics related to sustainability, such as the environment or to social/community responsibility – and you need to leverage that energy. You then take the input from these individuals and combine it with a sustainable innovation vision from the top of the company, which for Dow Corning, starts with our CEO and our executive committee.

This leadership helps define and place an economic framework around sustainability, while leveraging the passions of employees and customers.

What are the essential elements of a sustainable innovation portfolio?

GZ: I think a lot of people never make the connection between innovation and sustainability but they are quite

complementary. For us, a sustainable innovation portfolio starts with listening to the voice and needs of our critical stakeholders: our employees, customers, and the community. Taking that voice of customer approach gives us a sense of the critical problems we can help solve, and we align those needs with our strengths. For example, many of our customers have told us reducing waste, energy usage, and water consumption are critical to them, therefore we're researching both product and process innovations to meet these needs.

SH: We've developed a framework which allows companies to simply evaluate their innovation portfolio on a chart (see below - The Sustainable Value Portfolio). This mapping process categorizes opportunities in two dimensions. This helps you determine where the initiatives are in the company and then uses that as a gap analysis to figure out any shortfalls or opportunities for new initiatives. For example, if we consider the external stakeholder needs of "tomorrow's" market, this points us the "base of the pyramid," which is the huge under-served market of the world.

How can companies benefit from focusing on underserved markets sometimes referred to the base of the pyramid, and could you share any examples?

GZ: The base of the pyramid is a very interesting concept. For us, it relates to emerging geographies, or countries that are generally new to our products and business. In these countries, it can be very tempting for large multinational companies to go in and try to push products and processes that work in developed regions – which generally fails miserably. What is necessary for success is to examine the needs of that particular region – be it infrastructure, business, or health needs – and find opportunities to merge those needs with your technology. Innovation plays into this concept, however, as companies must be willing to consider other changes, such as packaging or sales channels,

in their business to make them suitable for these new markets.

SH: It's also really important to think about how to "leap-frog" wholly new inherently clean technologies to the underserved. If we think about global sustainability that's the only way it really makes any sense. If all we do is extend the current consumption patterns to the 4 billion poor, ultimately it leads to planetary collapse. There are some excellent examples of companies serving the base of the pyramid. I think probably the biggest success has been in the mobile phone area, getting mobile phone service out to rural areas that are off grid often where you don't even have running water or dependable electricity.

Through innovation and business models, it's possible to think about incubating next generation, inherently clean technologies in a way that could open up entirely new market spaces and incubate the technologies of tomorrow.

To listen to Sustainable Innovation podcasts or to download a copy of Stuart Hart's The Sustainable Value Portfolio chart or for more information about Dow Corning go to www.dowcorning.com/sustainability.

For more information about The Center for Sustainable Global Enterprise go to www.johnson.cornell.edu/sgc

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