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## Building A Bedrock for Green Success

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Industry Spotlight

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Today, governments are implementing all kinds of green programs, businesses are making concerted efforts to become more environmentally friendly, and individuals are recycling and reducing their waste and energy consumption all in the name of combating **climate change**.

According to **Dr. Ron Dembo**, Founder and CEO at **Zerofootprint**, there is scientific evidence that we must reduce our **carbon footprint** (the amount of carbon emissions generated by human activities) **very significantly** or risk **rapid global warming**. He explains that if we were living in the U.S. today and didn't reduce on average **28 to 2 tonnes** of carbon emissions annually per person by the year 2050, the earth would heat up **beyond 3 or 4°C** on average worldwide which would be a huge jump in temperature. In fact inaction today would be very costly tomorrow, "it would cost 1% of the world's gross domestic product (GDP) to get there but if we delayed it 10-20 years, it would be 5% of the world's GDP," says Dembo.

Like anything that requires managing, you need to know what you are dealing with before you can take action. According to Dembo, it was rare for firms to be measuring carbon in their operations when he launched his green business in 2005:

"I saw an opportunity to do this through software and the need to engage individuals around carbon because the environment is made up of a collection of small things that we do, that add up."

### **Building Green Awareness**

Starting out as a not-for-profit company, his plan was to develop an important brand and technology that could be turned into for-profit ventures to help fund the not-for-profit side of his business. With locations in Canada, Australia, France and the U.K., they have made headway in all these jurisdictions with the use of **social media** and **new technologies**.

According to Ron Dembo, there is a great opportunity within the growing field of **educating children about the environment**. "We've built a children's carbon calculator, a network for teachers and are currently building a wiki for teachers to grow all their content around environmental teaching." In fact, Zerofootprint's initiatives have been so well received that they are launching them in 100 countries in 10 different languages. Also partnering with seven cities to launch initiatives around the environment to their citizens, they have managed to engage the leaders of those cities to be part of this big network along with some corporations. In fact, a couple of multi-nationals have purchased Zerofootprint's community engagement software to engage their own employees around climate change.

### **Renewable Energy Sources**

Above and beyond the need to build green awareness, there is also a need to convert the masses to **renewable energy sources** like wind, solar and geothermal energies to reduce the amount of green house gases released into the atmosphere. According to Dembo, we are literally sitting on a huge store of renewable energy that we are not taking advantage of. For example "two metres below the earth's surface, the temperature of the earth is at a constant temperature of 12°C worldwide. By piping [hot or cold] water into the ground with tubes, the water will take on the temperature of the earth around it," explains Dembo.

He emphasizes that by taking that energy stored in the earth's crust and reusing it, you are **creating efficiency**.

"I can take 30°C water out of a house, pump it into the ground in summer, and out it comes at 12°C. And now when it's 12°C I can blow hot air over it and it will cool the air so I can create air conditioning. I do this just by pumping the water around these tubes and this enables you to create efficiency that you otherwise could not get."

Dembo estimates that if each household strictly used **geothermal ground cooling and heating**, it would reduce our electrical load for cooling by **at least 50%** and our heating efficiency by **a factor of four** in the winter. He estimates a retail price of an additional \$8000 more on a \$400,000 house could get a home owner geothermal energy with a payback period of just a few years. This would provide a **huge reduction** in green house gases and **a long-term savings** on energy costs. With enough households doing this, he believes it could alleviate the need for more energy generation as each household would reduce its need for fossil fuel based heating and cooling. In fact, a house today could be completely heated, cooled and powered without any fossil fuels as he points to the fact that his own farm uses renewable energy sources i.e. geothermal ground cooling and heating, and solar energy.

### **Bottom-Up Approach**

On a macro level, the Kyoto global initiative according to Dembo is a good example of why there is a need for a **bottom up initiative** rather than only a top down.

"The changes that need to occur are so radical and so immediate that if you look at Kyoto which was started in the 80's, developed in the 90's and has not been fully implemented yet, it's just too long. Just in that period, there has been a huge increase in carbon. That's why a bottom up approach like green credits makes a lot of sense."

**Green Credits**<sup>1</sup> is an innovative and unique program Ron Dembo proposes for governments around the world to reduce the carbon emissions of their citizens and businesses. Instead of using carbon taxes or personal carbon quotas, this program is based on **consumer loyalty reward schemes** where people are awarded green credits for every verifiable action that they take to reduce their carbon emissions. Like the airlines' frequent flyer rewards program, this program provides incentives for people to continually reduce carbon emissions to earn more green credits that can later be redeemed as cash rebates or tax deductions. What makes this program effective is that it brings about the social change necessary to tackle climate change and "links green to healthier cheaper living", says Ron.

### **Dealing with Polluters**

While Zerofootprint is a carbon offset developer, Dembo says that **carbon offsetting** (a way for carbon producers to buy carbon offset credits from emission reduction projects) is very necessary for countries that would never be able to achieve acceptable carbon levels on their own. He believes that offsetting would make a lot of sense and could be a positive force in countries that are developing new sources of energy. For example, in China, "They realize that there is big business to be had in renewables and are using our technology to do it. They are going full tilt with some really negative stuff but they themselves realize the challenges so they have plans for 400 million people living in cities and are experimenting with cities that will be carbon neutral," explains Dembo.

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<sup>1</sup> "Green Credits – A Unique and Innovative Program for Governments to Reduce the Carbon Emissions of Individuals and Business", by Ron Dembo, CEO and Founder of Zerofootprint, March 2008, revised August 2008

To deal with large polluters, he believes that **cap-and-trade** is an effective method as it is really a **mechanism for generating** rather than selling offsets. The idea is that offset credits will be more expensive than the cost of reducing emissions with a solution, so companies will stop buying credits and introduce pollution saving measures. For example, “if you are a big cement company and you produce cement that requires a lot of carbon in its production, you can reduce that amount of carbon by using more fly ash in the cement or use more renewable power to produce it. If I am going to charge you \$100,000 in offsets because you didn’t comply, and it cost you \$50,000 to comply, you’ll comply,” says Dembo.

In fact, large corporations are looking for **pollution saving measures** through technology. According to Dembo, the quality of video conferencing is getting up to a point where companies want to use it instead of flying. For example, “Cisco has ordered its people to fly 50% less this year and to use video conferencing to make up for it. That’s a big cost saving measure for them and is really good for the environment,” says Dembo.

### Green Innovation

While there is a need to combine both top-down and bottom up initiatives, Ron Dembo also recognizes the importance of **continual innovation** to help combat climate change. In 2009, Zerofootprint will be introducing a new product around **making buildings smart** and therefore more energy efficient and less carbon producing. He explains that smart is really about showing people the amount of energy they are consuming. “That in itself is effective and usually produces a **15% reduction** in energy consumption,” says Dembo.

If we are to be successful in combating climate change globally, we can learn from Zerofootprint who have been successful at measuring carbon and driving awareness of green issues through social media and new technologies. Through the massive use of renewable energy sources like **geothermal, solar and wind energies**, it is possible to convert to or build carbon neutral environments and reap the benefits of long-term energy and cost savings. While top-down initiatives like cap-and-trade and carbon offsets are effective for large polluters, it is simply not enough and requires a bottom up approach to involve everyday individuals to bring about the social change necessary to tackle global warming. As the challenge for emission reductions continue, there is a continual need for innovative solutions to help lower our global carbon footprint so that one day living in a **carbon neutral world** will be a reality.

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#### About the Author:

Eleanor Kwan, CSP, is the CEO and Founder of **ShapeYourVision®**. Her company helps companies and individuals optimize their sales performance through strategy consulting, custom sales training and coaching. For more information, visit [www.ShapeYourVision.com](http://www.ShapeYourVision.com).