

Profitable Green Strategies

Insights | Actions | Results

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Sustainametrics provides a suite of advisory services and tools to help small to medium sized businesses and government entities grow revenues and reduce costs by greening their operations, products and services.

Sustainametrics offers a unique combination of:

- 1) comprehensive, systems approach to the entity,
- 2) formal, state of the art

Dear Reader,

Sustainability continues to emerge as a sound way to both increase your revenues as well as reduce your costs of doing business. In spite of the tough economy and the uncertainty in the regulatory policies, the systems thinking approach ingrained in sustainability offers more effective solutions to staying in business during these challenging times.

In this newsletter we touch on: a number of interesting short topics in sustainability and the environment, a follow-up to Urgent Evoke on crowd sourcing solutions to change the world, and a view of green investing from the 'Angel' community. I expect you will find some interesting insights in these articles.

Finally, to help you address your sustainability challenges, find out more about us and how we can help you meet your sustainability objectives.

Chris Yalonis, Managing Partner

→ Short Takes

There are numerous articles and insights related to sustainability that cross our desks every week. A synopsis of several that have caught my attention that may be of interest to you follow below.

What the CFO Will Ask. Every sustainability evangelist runs into someone who controls the purse strings sooner or later. Having the right arguments to overcome the skeptical CFO is good preparation for the inevitable 'pushback.' Kurt Kuehn covers five key element to have in your pitch including reducing costs, improving efficiency, and hedging risks. Read his complete article [here](#).

Ten Small Business Trends and Opportunities. Opportunities are tough to let slip by so understanding the trends that lead to them is important. This article touches on software, DIY marketing, mobile, computing, internet enabled 'personal branding' and more. Read the entire article [here](#).

Sustainable Economy. In a world of limited resources, rising East Asia economies, and climate change risk, many people are recognizing the importance of economic models that integrate sustainability, so that we don't end up a civilization that collapsed because we ran out of resources. Paul Krugman summarized his view of how this might transpire in a NYT opinion piece 'Building a Green Economy' in April. You can read it [here](#). Also relevant is an article by Darcy Hitchcock published in the April ISSP newsletter. You can read her speculations on 'Homo Economicus

sustainability tools and training, and

3) a focus on profit and business value enhancement.

Through Sustainametrics customized approaches, guides, knowledge bases as well as licensable software, a large number of organizations will be able to affordably plan and execute initiatives to reduce their environmental impact, maximize efficiencies, green their products and services, and improve their brand/corporate value and profitability while improving their financial bottom line.

Services

research/planning and assessments

energy/climate program planning

water/carbon/waste reduction

green certifications

eco-market opportunity analysis

Interruptus' [here](#).

Every Appliance a Star? The Energy Star rating hit a pothole in February as it surfaced in a Washington Post article that a majority of appliances were receiving that supposedly 'above average' rating. It's a bit like grade inflation. When everyone gets A's and B's what's the real story? Is everyone getting smart or has grading lost its meaning. Read David Fahrenthold's assessment [here](#).

Green Road Bumps. Boulder, Colorado, leads in many green initiatives including smart grid and community awareness. Yet, one UC researcher notes "What we've found is that for the vast majority of people, it's exceedingly difficult to get them to do much of anything." This is presenting a real challenge in change management and pushing officials to reconsider how forceful persuasion through regulation needs to be. Read more on the challenge of greening a city [here](#).

Natural Gas Has Positive Impact on U.S. CO2 Emissions. The use of natural gas and drop in coal for generating electricity in the U.S. is having a significant impact on reducing the level of CO2 emissions over what was projected a few years ago. The large increase in "unconventional gas" obtained by hydraulic fracturing to release gas trapped in deep shale formations has created a vast new 'cleaner' energy source for the U.S. Environmentalists see the advantage since natural gas-generated electricity has one-twentieth the environmental cost of coal-generated electricity. Read more on the opportunity to use 'unconventional' natural gas [here](#) and [here](#).



Urgent Evoke Revisited

A Crash Course in Changing the World

Last issue I mentioned the crowd sourcing online 'change the world game' called [Urgent Evoke](#) developed by [Jane McGonigal](#). At the time, most of the quests, missions, and imagining challenges were hidden as they were unveiled at one per week over the ten-week period of the experience. I found the Learn, Act, Imagine format a useful way to expose the player to the challenges of fostering a sustainable world through addressing several complex problems that limit our ability to develop our human resources and to find effective solutions.

The ten challenges ([Missions](#)) of the Evoke experience included: 1) social innovation, 2) food security, 3) sustainable power, 4) water crisis, 5) future of money, 6) empowering women, 7) urban resilience, 8) finding and adapting indigenous knowledge, 9) learning how to create a crisis-response network, and 10) extending this first season of Evoke into a second season of learning, doing, and imagining experiences. The missions are complemented by '[Quests](#)' that help frame your identity, motivation, and collaborators in implementing your solutions to the problems you choose to address in your missions. The quests include: 1) developing your identity, 2) finding your motivation, 3) engaging with your environment, 4) provoking amazing stories, 5) cultivating your defining moment, 6) embracing a call to action, 7) overcoming obstacles, 8) creating your identity 'icon', 9) finding your collaborators, and 10) future casting a history of your sustainability efforts. [read more. . .](#)

and strategies for
revenue growth

sustainability training



Angel Investing in Green Tech

Dr. Dean Sirovica of the [Band of Angels](#) kindly agreed to answer a few questions about seed investing in clean or green tech. Dr. Sirovica has been with the Band of Angels for about three years and has invested in several startup enterprises since joining the Band of Angels. He also heads the special industry group on Clean Tech for the Band. [Read more . . .](#)

Q1. What attracted you to the Band of Angels and to leading the Green Tech SIG?

Dr. Sirovica- I had been involved in evaluating startups in technology during my time at Vodafone and wanted to continue to be active in this evaluation and investment.

Q2. What technology do you look for to invest in?

For the clean technology segment, most investments are capital intensive, hence not suitable for seed investors. Software is more attractive given the low capital cost. A service would be another possibility. If for example, someone was developing a new flywheel concept for energy storage, it would likely require a lot of capital to develop and commercialize, so would be less attractive to an Angel investor.

Q3. So is software the only area for Angels in Green Tech?

There are others, but software is the least capital demanding. Others would require engaging traditional venture capitalists at subsequent funding stages. [Read more . . .](#)

We trust that you have enjoyed this newsletter. Our goal is to continue to provide you with useful information, tools, and insights that will help you navigate your transition into a sustainable future for your business.

We encourage your specific inquiries on how we can help you with our 'profitable green strategies'.

Sincerely,

Chris

Chris Yalonis, Managing Partner
Sustainametrics

→ Urgent Evoke Revisited (cont.)

I found that the learning part of each mission to be informative referrals to useful web sites, and descriptions of work in progress on the mission topic by pioneers from around the world. This was a great way to become informed on the mission challenge. The second part of each mission, finding a way to engage what has been learned in a personal action or project, was not always easy. For example, finding a way to charge your mobile device differently could take some creativity, such as my choice to discover how to attach and modify a standard bicycle light generator to be a correct voltage range USB charger for an iPod or cell phone. The idea of course is to transform your physical exercise into some Joules to charge that cell phone and get rid of the wall wart power waster. And this was just a simple ACT compared to what could be done as part of other missions such as 'urban resilience'.

The mission on crisis networking was not a mainstream sustainability topic that I found interesting and useful. It focused on how to establish a 'dark web site' to do all of the background and preplanning for how to deal with a crisis in your business or community or family. It is relatively easy to use Google tools to develop a web site and populate it with information, action plans, communication policy, organization structure, contingency plans, simulating disaster responses, and hosting key best practices such as psychological aid. This is an area that is often overlooked in sustainability though is common in disaster management. It's an area I intend to explore further and should be a consideration for many sustainability initiatives.

Many serious games such as Urgent Evoke have challenges in keeping the attention of the players. I'm sure that by many standards, this first ten-week session qualified as a success given that [". . . more than 18,500 agents \[players\] from more than 150 countries worked together successfully complete more than 30,000 world-changing missions and quests."](#) It does appear that given a total of 20 missions and quests, the average mission/quest completion was about 1.6. My own participation became disrupted after about 4 missions and quests by other concerns but I returned at the end of the first 'season' to review all of the missions and quests.

Urgent Evoke is attempting to create a community that crowd sources innovation and fosters social collaboration on addressing complex problems with simple, often indigenous knowledge-based solutions. Some users questioned how to more effectively understand all that has been discovered given the number of submissions and the 'evidence' provided by the many players of their challenges and accomplishments. This is understandable given the large information bases that crowd sourcing creates. Feedback is an important element of keeping your 'crowd' engaged and I suspect there will be some distillation of the lessons and experiences learned to share with the community. Among these tens of thousands of inspirations and suggestions are undoubtedly many practical solutions that help move us towards a more sustainable future.

I plan to remain engaged in the Urgent Evoke community.

→ Angel Investing (cont.)

Q4. What about government incentives and regulatory uncertainty? Many entrepreneurial business plans count on incentives.

Yet most investments require an 8 year horizon these days. Therefore, it is risky depending upon how long these incentives are needed and how enduring the regulations are. We like to see the incentives being used since they are available, but they shouldn't be critical to success.

Q5. How much do you typically invest?

The typical investment at the Band of Angels ranges from \$10K to \$100 K and occasionally higher.

Q6. What are some of the key lessons about investing in a startup?

The probability of success is very low. Founders struggle with this statistic that suggests their 'baby' is likely to fail. Angels need to understand this reality and consider their exposure to the real risks.

Q7. What kind of success rate do you need?

The Angel investor looks at returns. One sobering reality is that if you lump all of your investments in your portfolio together that made 10 times your investment or less, you will just break even. The 10 times investment return will be necessary to cover all the losses and lower returns of the other investments. You must have made many attractive investments, say 20 to 50, in order to have reasonable confidence that you will achieve those statistics. So we have to develop a large number of attractive deals.

Q8. So if you made that many investments, how many greater than 10 times return investments would you see?

Typically you would see 1 or 2 per ten investments, so you would see somewhere between 2 and maybe 5 successes in 20 investments. It's the rare 30 times investment that makes the Angel see a profit in his portfolio.

Q10. How soon do you typically know whether a company will succeed or fail?

We try to plan for contingencies as much as we can in advance. Companies often run out of money before hitting their anticipated goals. You then have two choices: pull the plug or put more money in. Sometimes you succeed if you end up putting more money in. One caution is that if you have to put more money in, it seems that the chances of that company succeeding actually decrease. However, Angels, like most people, are subject to confirmation bias. That is, we like to believe our investments will succeed and we are often involved as CEO, or Sales, and other key roles so our emotional involvement is often high. If you interview Angels you will get a misimpression of the success rate since many have left the 'game' as a result of the high failure rate of their investments.

Q11. What do you look for in the entrepreneur?

We look to the 3 T's, the first is the **Team** is critically important in order to be flexible in strategy. The next T is the **Total Addressable Market** so that we can have reasonable probability of a 30 times return on investment. Finally, we have the **Technology**, which might rightfully be first in this list. Is there something new that would be disruptive to existing players?

Q12. What about consumers, are they a driver of green tech?

There is a very significant green premium that consumers are willing to pay. My wife is an example of that. And I don't think it will change over time. I think that the consumer green premium will increase as long as the media continues to emphasize the risks of climate change and environment risk.

Q13. Bill Roth (www.earth2017.com) suggests that for a green product to be successful, it must 'cost less, mean more'?

Yes, the lower the premium the more likely the success of the product.

Q14. What about foreign green tech, clean tech entrepreneurs?

Germany and Spain have led the PV solar green tech revolution having accounted for over half of solar sales. Norway is an extreme example of this supported by government regulation and incentives. So we see a lot of interest in entrepreneurs targeting the opportunities where government regulation and incentives are encouraging green tech. Manufacturing of course is occurring in China and India and elsewhere to produce these green products. We are seeing an increasing number of startups are coming out of China. China will have a long-term positive growth impact on the green space.

Q15. What about 'reverse-engineered' low-cost products developed for low-income countries that can be re-purposed into developed countries as low-cost, yet effective solutions?

We see examples of this potential. One company we looked at is developing wind and solar for under-developed countries. We think some of their solutions will make sense for some applications in developed countries.

Q16. What haven't you been asked today that you should have?

Angel stage investing is very interesting since you get to talk to a large number of entrepreneurs that are at the forefront of new ideas coming down the road. The numbers of Angel investors are increasing, the number of enterprises that are following what Angels are looking at is increasing, and the number of structures that support Angel investing are emerging such as web information and forums. It's a good place to start an evaluation of future opportunities and to help shape those opportunities into reality.

Mike Olson