

CE|views

**Clean Technology's Coming-Out Party**

Ira Ehrenpreis

Clean tech has been described as “the biggest economic opportunity of the 21st century.”

Last year was a banner year for the clean-tech sector. In many ways, clean technology has been the debutante of the venture asset class over the past twelve months with 2006 serving as the sector's coming-out party.

From an inconsequential percentage of venture dollars allocated to this sector in prior years, clean technology now boasts the third-highest investment category within the entire venture asset class. This category, which was not even on the venture radar screen just a few short years ago, has now overtaken the semiconductor sector in terms of dollars being invested – quite a feat given how that the latter category has been a mainstay of venture capital.

Moreover, the clean-tech sector has demonstrated its ability to provide large exits and lucrative IPOs. 2005 was the Year of Solar, with Suntech, SunPower, and Q-Cells ringing in banner IPOs. Last year proved to be the Year of Ethanol, with such companies as Verasun and Aventine going public. Clean-tech companies have utilized the AIM market for several other IPOs. By all accounts, 2007 is shaping up to continue the trend of strong clean-tech exits.

Technology Partners has been investing in this sector since the early 1990s and I became involved with my first clean-tech company more than a decade ago. I have long argued that the reason that Technology Partners invests in clean technology is for the “green,” referring of course to the sector's ability to drive returns for our limited partners – and the exits referred to above bode well for our firm's investment thesis. When we first started investing in the sector, the goal for investment returns was considered at odds with the aspiration to improve society's critical environmental issues.

But for the first time in history, the “greens” have converged. Today, there's now a convergence of social, political, economic, environmental, and entrepreneurial forces collectively driving investment into clean tech. Even Thomas Friedman aptly said that “Green is the new red, white and blue.”

So how did this sector – once ignored by the mainstream investment community – become the new apple pie of venture? Why clean tech? And why now?

While many point to the price of oil as having doubled since 2004 as a fundamental driver behind this newfound attention to clean tech, it is far too superficial to point simply to this factor alone. In fact, only one company in Technology Partners' entire clean-tech portfolio, our biodiesel investment, has even any correlation to the price of oil. Rather, Technology Partners' clean-tech strategy has been to invest across the spectrum of energy technology (which includes energy generation, storage, and efficiency), water technology, and advanced materials.

Perhaps the central driver behind the clean-tech opportunity emanates from the sheer lack of historical investment in innovation in these areas – by startups, by big companies, and by governments alike.

Unlike so many other sectors within high tech, in which venture investment has been at the epicenter of innovation, VCs have long ignored clean tech. Thus, the venture community has not been responsible for innovation in this sector historically.

Large companies in the clean-tech ecosystem have also failed to allocate money toward innovation anywhere commensurate to their high-tech peers. It is not atypical for a high-tech company, whose success is based entirely upon its ability to innovate, to spend 10- 15% of its revenue on R&D. By contrast, energy companies often spend an order-of-magnitude less. Dan Kammen of UC Berkeley deftly argues that a similar contrast can be drawn between innovation in clean tech and in the biotech industry, which spends nearly ten times more on R&D than similarly situated companies in the energy industry. He further argues that this disparity exists not only in the private sector, but extends to government spending as well.

The examples of opportunities that result from this dearth of historic innovation are too numerous to cite in this short piece, but nonetheless demonstrate the breadth of the clean-tech opportunity.

Finally, it would be remiss not to highlight one of the other most profound changes catalyzing the growth of the clean-tech sector – namely, the rise of high-quality management teams. Much in the same way that clean tech has been a magnet for VCs, it is doing the same for experienced, high-caliber entrepreneurs. In fact, it may indeed be the rise of great teams in clean-tech companies that are finally accelerating VC investment. In Technology Partners' portfolio, for example, more than seven of our clean-tech CEOs are prior successful entrepreneurs, several of whom migrated from the tech sector to be a part of the next "new, new thing."

As the Chairman of the 2007 [Clean-Tech Investor Summit](#), to be held in Palm Springs January 23-24, I look forward to this gathering of the who's who of the clean-tech sector to discuss the growth, innovation, and prospects of this emerging area that not only will drive venture returns, but also provide some of the world's most important innovations to address the globe's most pressing and critical issues of our time.

Clean technology is here to stay. Solving the world's fundamental energy and water issues is an ongoing problem. This is an enduring investment theme and one in which we've only just seen the tip of the iceberg – begin to melt.

[Ira Ehrenpreis](#) is a General Partner at [Technology Partners](#), a 20 year venture capital firm located in Silicon Valley, which invests half of its \$250M Fund VII into Cleantech. Ira leads Technology Partners' Cleantech practice and is also Chairman of Clean Edge and IBF's [Clean-Tech Investor Summit](#). He can be reached at ira@technologypartners.com.