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Some believe the United States lags other countries in clean technology research investing.

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Investments in clean technology thrive

by Brian R. Hook 

What is often referred to as clean tech – technology aimed at developing alternative energy, reducing pollution or promoting conservation – continues to receive new investments despite the ongoing turmoil underway in the financial markets.

Venture capital investments in the sector have tripled during the last five years in the United States. \$766 million went into clean tech in 2002. Last year, the amount totaled \$2.85 billion, according to the National Venture Capital Association.

“The overall trend is absolutely up,” said Mark Heesen, president of Arlington, Virginia-based trade group. “When you look at what we categorize as clean-tech deals, there is no question that we have seen a major shift in emphasis toward this sector.”

The sector, which still only represents 7.5 percent of all venture capital investments, is somewhat hard to define. Heesen said some of the deals have an information technology component, while others have biotech components.

“We are not seeing investments like we are seeing in the IT sector or the life science sector. But I think that those numbers are going to increase,” Heesen said.

“This is an area that seems ripe from a venture capital perspective.”

Favorable conditions include a huge potential market, an industry in need of change, and the government and consumers looking to “go green,” Heesen said.



—Ira Ehrenpreis

“I think everyone is starting to come around to the idea that it is not the established players that are going to solve these problems. It is going to be young entrepreneurial companies nipping at the heels of the larger companies.”

One of the venture capital firms investing in clean tech is Palo Alto, California-based Technology Partners, which manages \$700 million of investment capital.

“As one of the pioneering clean tech funds, Technology Partners has been putting half of its entire capital into clean tech for seven years – long before it was fashionable to do so,” said Ira Ehrenpreis, a general partner of the firm. He said that he expects more venture capital to continue to flow into the clean tech sector in the coming years.

“We’re just at the beginning of a long-term, enduring trend to tackle some of the world’s most fundamental energy and water problems,” Ehrenpreis said.

Seattle-based Imperium Renewables, which was involved in the world’s first commercial test flight using bio-jet fuel earlier this year, is one of the companies that Technology Partners has invested in. Another company is Accelergy Corp, based in Palo Alto. It is working to accelerate the discovery, development and commercialization of advanced materials utilized in the clean fuel and alternative resource application markets.

“We have only begun to see the tip of the innovation iceberg,” Ehrenpreis said.

Investment in clean tech businesses during the first quarter of this year was \$2.5 billion in North American and Europe combined, according to proprietary data collected by Venture Business Research Ltd., a research intelligence firm based in London.

The total was a slight increase on investment of \$2.3 billion in the fourth quarter of last year, but a rise of over 25 percent over the corresponding period in 2007.

“The rise in investment in clean tech comes despite the recent economic slow down and indicates that the sector is continuing to attract significant interest from investors,” said Estelle Lloyd, chief executive officer of the research firm.

Lloyd said that investments in solar and wind technology are overheated. Lloyd said that she does not expect much new investment going into these segments. Instead, she predicted the next winners would be technologies in energy efficiency, technologies helping traditional oil companies be greener, and new green building technologies.

Heesen, from the National Venture Capital Association, said that the United States is behind oth

countries in investing in clean tech research and development.

“We are in kind of an unusual position of playing catch up to other countries,” Heesen said, as opposed to other areas like IT or medical device development.

Clean tech companies are extremely research intensive, Heesen said. “It is going to take a lot longer for a clean tech company to get to a point where it is making money and is able to go public. It is much easier to create a web-based kind of company.”

The clean tech sector is also more regulated than the IT sector, Heesen said. Because public policy has such an impact on the clean tech sector, investors need to know what is happening at both the federal and state level.

“Decisions that come out of these agencies will have a fundamental impact on whether your company can succeed. That is a little different than venture capitalists are used to,” Heesen said. Therefore, he said, it is important for venture capitalists to put government policy at the forefront of their minds instead of as a secondary thought.

A massive flow of research dollars is needed to further fund development of the clean tech sector, Heesen said. He noted that venture capitalists do not invest in basic research and development. Instead, venture capitalists invest in applied R&D.

“We take the R&D that has been germinated in the federal labs and in the universities and help grow companies out of those ideas,” Heesen said.

“If there is not that basic R&D, we do not have anything to invest in.”

Government research money is an integral part of advancing the clean tech sector, Heesen said. Stable tax credits also play an important role. Waiting to see if the tax credits are re-authorized every other year destabilizes the investment environment.

Heesen said that critics often claim that government money artificially props up clean tech companies that would fail without tax credits. But he said that in this sector of the economy big oil and utility companies make it difficult for startups to compete.

“We do think that you need to shepherd these companies in a way to make them successful for the good of the country and from a security perspective,” Heesen said.

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