

## Who will be the green VC giant?

Aaron Ricadela

*Former Silicon Valley allies are going head-to-head to pick the startups aiming to revolutionize clean tech.*

For nearly two decades, John Doerr and Vinod Khosla worked together at Kleiner Perkins Caufield & Byers, forging one of the most lucrative partnerships in the venture capital business. The gravel-voiced Doerr scored the high-profile hits, including Netscape Communications, Amazon.com (AMZN), and Google (GOOG), while the confrontational Khosla backed little-known communications equipment startups such as Juniper Networks (JNPR) and Cerent (CSCO), with similarly explosive returns.

Now the former colleagues are competing to fund the most promising startups in clean technology, a potentially lucrative but risky field many believe could lead to Silicon Valley's next boom. Doerr, still at Kleiner, helped shift his firm's focus from information technology to green investments a few years ago, with help from partner Bill Joy, former chief scientist at Sun Microsystems. Khosla, who left Kleiner five years back, just raised \$1.1 billion from partners and institutional investors, giving his Khosla Ventures the heft to compete for the most capital-intensive deals. "These guys are in a race" for the most important green deals, says Paul Deninger, vice-chairman at investment bank Jefferies & Co. (JEF)

Kleiner is the established giant. The firm has raised a total of \$5.9 billion since its founding in 1972 and, in addition to Doerr's hits, helped launch America Online (TWX) and Genentech (DNA). Still, the firm is a relative newcomer to green investing. Khosla has been dabbling in such deals since he started his outfit in 2004. With his fresh capital, he is on the hunt for the most ambitious startups. "Our specialty is risk," says Khosla. "Forget [hitting] singles. Lay it out there and take a swing. You may not get a very high percentage of hits, but you get a high slugging percentage."

Khosla's approach is to winnow losing ideas quickly before they consume too much cash, gambling that the surviving startups can score big. Whereas most venture capital firms budget for product-development milestones by the companies they invest in, Khosla Ventures uses metrics that forecast how much it will cost for startups to remove technical risks, tackling the toughest problems first. "We've developed a few tricks," says Khosla.

Take Calera, a startup launched by Stanford University. Its goal is to reduce emissions by making cement that traps CO<sub>2</sub> gas during manufacture. Khosla figures there's a 10% chance his firm can make 100 times its eight-figure investment and a 90% chance the company will fail. That's precisely the kind of prospect that draws his attention. "Sometimes we tell an entrepreneur, 'Your project does not have enough risk for us,'" he says. "They look at you kind of funny."

Many of the startups Khosla has backed aim to collect power from the sun, harvest it from the wind, or extract it from the earth. Soladigm makes glass windows that can lighten or darken to heat or cool rooms, and GreatPoint Energy converts coal into natural gas. Others are trying to invent more efficient motors and batteries. EcoMotors International in Troy, Mich., for instance, makes light, powerful diesel engines.

Kleiner is making similar investments. Its deals include hybrid sportscar maker Fisker Automotive, smart grid company Silver Spring Networks, and Bloom Energy, which is developing a fuel cell that can convert natural gas into hydrogen fuel.

Both companies say this is a friendly competition. In fact, Khosla and Kleiner have co-invested in several deals. "I spend more time with [Doerr] now than I did when we were at Kleiner," Khosla says. Still, he acknowledges that both want to be first to find and build the world's most influential green-tech startups.

The competition could help speed the development of green technologies. Although the industry is perceived to be full of promise, it's fraught with challenges, too. The field is marked by high startup costs, powerful customers and competitors, and government regulations that can change unpredictably. Venture capitalists scaled back their clean-tech investments during the downturn, putting \$1.6 billion into such startups during the first three quarters of 2009, vs. \$3.1 billion during the same period in 2008, according to PricewaterhouseCoopers and the National Venture Capital Assn.

So far this year only two North American clean-tech companies, Canadian geothermal outfit Magma Energy and battery maker A123 Systems (AONE), have gone public, and there have been just nine acquisitions worth more than \$10 million in the market, according to investment bank Jefferies. Funding energy companies "is a difficult and new experience for many VCs," says Adam Grosser, a general partner at venture firm Foundation Capital.

Both Khosla Ventures and Kleiner have made losing bets. The firms invested in ethanol maker AltraBiofuels, which late last year closed one factory and suspended production at another after raising \$170 million. Ethanol producers have stumbled due to overproduction and demand that declined as the price of gasoline fell. Khosla Ventures wrote off the investment and lost money. "If people want instant gratification, they're going to be disappointed," says Ted Schlein, a managing partner at Kleiner Perkins.

Patience may well pay off. Entrepreneurs say Khosla, now that he has deep pockets to go along with his aggressive investment approach, could help develop a new generation of green startups. "[Vinod] can add tremendous value by giving people very direct advice about what does or doesn't make sense," says Andy Bechtolsheim, who co-founded Sun with Khosla in 1982 and is now chief executive of startup Arista Networks. "He wants to bet not just on significant ideas, but ideas that can change the world."

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