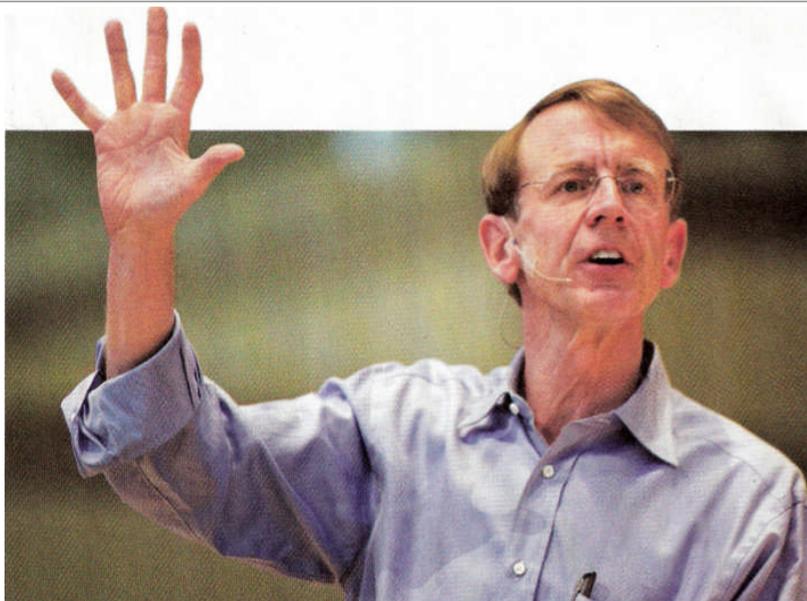


THE MOTHER LODE



VC god John Doerr explains what it will take to score the untold treasures of the green-tech boom.

IF YOU ASK VENTURE CAPITALIST John Doerr how the boom in green tech compares with the infotech boom—and bust—that preceded it, he'll grab pen and paper and draw this chart:

	INTERNET	GREENTECH
Made of:	Bits, pixels	Atoms, molecules
What's at stake:	Finding friends on Facebook	Life on the planet
Capital needed:	LOW Google needed \$25 million	HIGH Hundreds of millions
Time to success:	QUICK 3 to 5 years	LONGER 5 to 10 years
Market potential	LARGE Billions	ENORMOUS Trillions

In other words, green-tech companies won't be built in garages.

Silicon Valley has long been a world apart, with its free-flowing capital, huge appetite for risk, and quick ability to turn a thought into *the* thing. Now the Valley is applying its gifts to green technology. "We're talking about nothing less than the reindustrialization of the whole planet," Doerr says. So the biggest mistake any investor or company could make would be to remain inside the Valley's rarefied air, ignoring the incumbent energy companies that control distribution, have near-total market share, and shape regulations to their benefit.

The new green-tech bunch has

already stubbed some toes in its first dealings with the real world. First Solar Inc. stumbled in European markets because it uses toxic cadmium, which triggered a regulatory avalanche (it has since recovered). Tesla's electric car missed its ship date by a year because it couldn't orchestrate the complexities of its supply chain.

Those that make it in green tech will need to abandon the idea that Silicon Valley already knows everything it needs to know to remake the world. They'll need to understand transmission grids and enter the battles over where they're located. They'll need to confront the massive water requirements for biofuels. They'll need to grapple with the infrastructure required for carbon sequestration. Most important, they'll need to work hard to shape the federal policies and carbon-market structures that will make or break their businesses.

That's why Doerr has taken several of his entrepreneurs to Sacramento in the last couple of years to persuade California legislators to pass mandatory carbon reductions. And it's why he funds companies run by people who have not only two or three advanced degrees but also an understanding of such arcana as fuel-supply chains and congressional politics. "They're going to be more nimble as we get more change," Doerr says. And it is why a company must prove itself before it's

ready for an IPO. "Companies ideally will be in production, at scale, with contracts and guaranteed revenue?"

The most promising companies are already deftly working within the establishment. For instance, CI ena Power, a little geothermal-energy firm in Alaska, partnered with United Technologies to take advantage of its political and marketplace clout. Verenium, a cellulosic-ethanol company, imported its top executive from conventional power production for his connections and wisdom.

Greentech isn't a bubble destined to burst. Energy is as necessary as water and food. In fact, it's the biggest business in the world, with \$5 trillion in annual revenues. Demand for alternative energy is exploding, and it will not only create fortunes but also save the planet. Anyone who doesn't get the differences between the last new thing and the next one will watch this "mother of all markets," as Doerr calls it, pass them by.

Fred Krupp is president of Environmental Defense Fund, a nonprofit that develops market solutions to environmental problems, and coauthor of Earth: The Sequel—the Race to Reinvent Energy and Stop Global Warming, with Miriam Horn.

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