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TCS > TECH > NANOTECHNOLOGY

Are We There Yet?

By Glenn Fishbine

Nanotechnology deals with the creation of valuable commodities fabricated one atom at a time. The ultimate dream of nanotechnology is to create legions of inexpensive self-replicating microscopic machines that can be directed to fabricate or modify virtually anything using ambient materials. Building a house from a pile of sand, or reconstructing every cell in the human body to ensure eternal youth are among the dreams of nanotechnology. However,



present products seem more focused on stain resistant fabrics, corrosion resistant paints, and a host of fascinating, yet unproven possibilities.

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Unfogging the Future

Two years ago, I signed a contract with John Wiley & Sons to write <u>The Investor's Guide to Nanotechnology & Micromachines</u>. Wiley gleefully handed me over to one of their editors who would guide me through the process. He started defining how he expected me to review stocks as a group, small-cap, mid-cap, the ones most interesting to investors, and derive a model for ranking companies into various investment categories, development stages, with a vigorous treatment of their.... My laughter broke up his monologue. "What's wrong?" he asked.

It took me a while to stop choking with laughter. "Well," I said, "the big companies are IBM and Intel, and no one's going to pick them because of their nanotechnology R&D. The mid-caps don't exist, and the 4 small-caps will probably be dead by the time the book is published—and I hesitate to discuss the private companies and the non-profits with no public stock to trade"

He said, "but we have a contract for you to write a book! Who's the audience?"

"Well," I said, "I don't do your marketing, but surely, you could target the accredited investors? There's a coupla million of them."

He paused a bit and said, "We don't target accredited investors."

With that auspicious start, we went down the path of writing an investor's guide to a nascent industry that had virtually no investors and few companies, yet in nine months we gave birth to a credible guide to an industry with nearly 1,000 players on the threshold of becoming believable. Having earned in excess of \$0.60/hour for the effort, I now stake claim to being one of the planet's experts on nanotechnology investment, such as it is.

In the ensuing two years, everything has changed... and nothing has changed. The number of investible nanotechnology companies on the verge of death has grown 20-fold from the 4 lonely spirits I tracked at the beginning. The number of dancing-bear companies has dropped to close to zero—and by

all that's holy, there are several reputable venture capital firms actively placing money with truly promising startups.

On the other hand, if you want to personally invest, there's still IBM and Intel, and well, maybe Sumitomo and Samsung, each investing some fraction of a percent of their R&D into nanotechnology. The government is still the major investor in the "industry." And the over-the-counter stocks? Well, a few IPOs have come and gone—think pink sheets, or a few companies on NASDAQ struggling to redefine themselves.

With approximately \$2 billion into the global investment in nanotechnology, the number one profit maker is Harper Collins, which recently released Michael Crichton's *Prey*. The number two profit makers, as Josh Wolfe of Lux Capital keeps reminding us, are the nanotechnology conference organizers. If enough of you buy my book, I'll become the number three profit center behind Harper Collins and nanotechnology conference organizers, albeit by a factor of 1,000 less in performance.

But for the savvy investor, his time has yet to come. If you meet the SEC qualifications to be an accredited investor, you can invest in a number of specialized investment funds managed by quality funds managers helping some good companies get off the ground. Governments are expanding the infrastructure necessary to make nanotechnology, however you define it, a viable and emerging economic force. Private investment now rivals, almost, government investment. So is this the time to invest? If you put your money into the right funds, you will make money. But if you want to pick the right company, you may have to wait a few years to find out.

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