

TAKING THE NANOPULSE

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Some nanotech companies won't make it. And you know what? That's just fine. A consolidation of scientific and business knowledge, experience and resources can be a good thing for the industry.

The Nanotech Economy. Only the strong survive. Do you have what it takes now to be a big winner in small tech?

BY SCOTT E. RICKERT

You know that speech they give to college freshmen? "Look to your left, look to your right. One of you won't be here in four years." I think the same holds true for companies commercializing nanotechnology. For starters, nano-companies aren't any more immune to this tough economy than any other enterprise. If restaurants, banks and electronics superstores are taking a hit, we will, too. Some big companies are already shutting down R&D labs. Some small companies are looking over their shoulders.

And don't be looking for a government bailout. Yes, the bill to fund the National Nanotechnology Initiative is looking good in Congress. And, technology associations, including the NanoBusiness Alliance, are pushing hard to have R&D tax incentives included in the economic stimulus bill. But that won't be a panacea in such a cool business climate.

That means some nanotech companies won't make it. And you know what? That's just fine. While it's painful now – especially for smart, hardworking people – a consolidation of scientific and business knowledge, experience and resources can be a good thing for the industry. Fewer players, each with the critical mass to thrive, could actually benefit us all.

There's a parallel here to another growth-and-contraction story in technology – personal computers. There was a time when you could probably fill a page with the names of computer makers. So many players, lots of ideas, but each elbowing the other to grab time in the limelight. The result? No one could gain significant market share, and the industry remained small. Eventually, a few companies fought their way to the front of the pack and the rest started to fade. You know the names – IBM, Apple, Dell. They survived – and led – an industry consolidation that reduced the numbers, but increased the market power. The supply chain built up around them and simplified. The complexity of uncertainty was removed for end-users. Business boomed.

I predict a similar shake-out in nanotechnology. I don't think the industry will shrink to a Big Three, but there will definitely be fewer, bigger players. Of course, the trick is to ally yourself with one of the winners. How do you do that? Well, like stock-picking, there's no guarantee. But there are questions to ask. Let's look at a few.

Where is the company in the supply chain? The higher up a nano-company is in the chain, the greater value it adds. More and more, nano-materials are becoming a commodity, albeit an expensive one. Companies that make components or systems bring more knowledge, more benefits,

more opportunities to their partners. Align yourself with them.

How long has the company been around? As a 20-year veteran of the nanotech wars, I've seen a lot of companies come and go. Turning a great research insight into a marketable product isn't easy. Join up with a partner who won't be doing it for the first time. Ask specifically how many products they've helped commercialize.

Do they have references? That's Part 2 of the longevity question. Who has the company partnered with? That will be an indicator of their understanding of marketplaces and manufacturing realities. Make special note of their international experience. It's a big world.

Can they (or you) explain the company's technology in 60 seconds or less? There's a lot of techno-jive out there. Real winners can explain the real-world benefits of their products. Multi-billionaire investor Warren Buffet says he's interested in buying only companies whose business he understands. Good advice.

Is the company contributing to growing the industry? People who are investing time and resources in the industry's health are "growing the pie," not just grabbing their piece of it. In nanotechnology, involvement in government affairs remains a bellwether. Companies involved in activities such as EPA regulations and federal and state funding policies are more likely to be around in the long run.

That's my lesson for nanotech hopefuls: get big or go home. When the dust clears – and the economy recovers – you'll still be standing. And standing tall

There is much more to say on this subject. But I would also like to hear from you. What are your experiences right now? What do you think the future nanotech industry will look like? Let me know, and I will share your insight in future columns.

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