

# TAKING THE NANOPULSE

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## Welcome to the Nano-Nation Mapping the future of nanotechnology starts here.

BY SCOTT E. RICKERT

If you're a regular reader of my column, you know that I'm no sci-fi writer. We take a monthly trip through the real world of nanotechnology, looking at real products. We talk about the mainstreaming, or more appropriately the "Main Street-ing" of nano.

Well, we've reached another landmark on our trip. There are now nanotechnology organizations in all 50 states, according to the Project on Emerging Technologies (<http://www.nanotechproject.org/inventories/map/>). The headcount top 1,200 and includes companies, universities and government research labs. When you look through the organization names, the vast majority of dots on the map are companies making actual products, not research organizations. Let's take a little tour.

The major nano-metros probably don't come as a surprise. You'll find the usual destinations around the major universities, with the start-ups they've spawned: San Francisco/San Jose/Oakland and the Boston area. But let's look at the others. But the top ten states include New York, Ohio, Pennsylvania, North Carolina and Texas. These are of special interest to me because they represent nanotechnology in the manufacturing heartland. These are places known for making car parts and clothing, steel and calculators, paint and skin cream. That means next door to companies making nano-enabled advanced electronics and biopharmaceuticals, you'll drive up to a company that makes products you'll find on the shelf at JC Penney, Piggly Wiggly and Wal-Mart.

Our little joy ride stays just as interesting as you check out the farther reaches of nano-geography. Head for Olathe, Kansas or Milwaukee, Wisconsin – nanotechnology is there. Stop by Tulsa, Spokane and Richmond. Nanotechnology is there. That fact is, there's probably a nanotechnology organization within about a hundred miles of where you're standing right now. Why aren't you capitalizing on it?

If I've told you once, I've told you a thousand times: nanotechnology products are everywhere. And now I have statistical proof. The list of global nano-products topped a thousand this year, according to the Project on Emerging Technologies. Over 500 of them were from the U.S. – that's over five times the number of any other nation on the list. Bedsheets and degreasers. Cancer drugs and bandages. Flash memory and skin lotion. Advanced batteries and car wax.

And that's just the start. Based on my knowledge of nano-companies and their partners, I predict in the next year that number could increase by a factor of ten. In five years, the increase could be an order of magnitude.

So what's my takeaway? It's time for you to take a look at the nano-map and put your own company on it. Nanotechnology can give real performance improvements to virtually any product. Do you want to kill germs? Conduct electricity? Take out product weight? Add scratch-resistance? Reduce maintenance? Raise environmental standards? Chances are, nanotechnology can provide a solution.

Now take the next step. See who has facilities nearby who might be willing to share knowledge. Look at organizations in similar or allied fields and make a connection. The map includes links to websites for easy data-mining. At the very least, check to see if your competition is already on the list.

The fact is, if you're not ready to go on the nanotech map, you just may find yourself living in a commercial ghost town.

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