

Giles launches “green” business park *Wheatland Eco-Park in Giles reflects changing character of the region*

by Tim Thornton, March 29, 2011



Caption: NanoSonic president Richard O. Claus

An old silo stands just outside a metal building beside U.S. 460 in Giles County. Just another former farm turned into an industrial park? Not quite.

This is the Wheatland Eco-Park. Certification is being sought for the 30,000-square-foot-building, the first one in the 120-acre industrial park, under the U.S. Green Building Council’s LEED (Leadership in Energy and Environmental Design) program. Every building in the park will meet LEED standards.

The company housed in the building, **NanoSonic Inc.**, is a high-tech operation that makes amazing things. Its coatings, for example, can protect against fire. Yet the company is best known for a bendable, stretchable, nearly indestructible material that conducts electricity. In keeping with the park’s green focus, NanoSonic’s operations are nontoxic and virtually waste free.

“We use everything that we put in,” says Vince Baranauskas, NanoSonic’s director of polymer science and engineering. “There are no by-products in the manufacturing of our materials. ... We’re constantly striving to have something that has a low carbon footprint, a low amount of toxic waste. It makes sense from an environmental and business model.”

NanoSonic, founded by three Virginia Tech faculty members in 1998, moved to Giles County in August after outgrowing its space in downtown Blacksburg. The company chose Giles over several suitors. “This had the combination of available space, the ability to move into our own building instead of sharing a building with someone else,” says NanoSonic President Rick Claus. “We especially liked the fact that the industrial park here was green. None of the other counties had that.”

Giles' commitment to eco-friendly economic development is one of many signs of the change that's taking place in the Roanoke/New River Valley region. Virginia Tech and Roanoke-based Carilion Clinic are spearheading efforts to turn the region, once known for railroads and heavy industry, into a bastion for high-tech and biotech firms.



The Virginia Bioinformatics Institute, the Virginia Tech Corporate Research Center and the recently opened Virginia Tech Carilion School of Medicine and Research Institute are some of the magnets drawing professionals to the region. They're attracted not only by challenging work and good salaries, but also by the area's mountains, forests, rivers, lakes and trails. The region's increasing emphasis on its natural assets, in fact, has helped to spawn a growing number of "green"

companies serving ecology purists and outdoor enthusiasts.

Aric Bopp, executive director of the New River Valley Economic Development Alliance, says the New River Valley has a growing number of high-tech businesses and research operations, and many of the most exciting technologies have a green theme. But Bopp says Giles County is ahead of the curve with its eco-park.

"They are definitely a leader, not only in the New River Valley, but also in the whole state," Bopp says, adding he doesn't know of another locality with a mixed-use development park that requires LEED certified construction.

About a third of Giles County is National Forest land, and 34 miles of the New River run through the county. But that stretch of river has been home to some of the commonwealth's biggest polluters. For decades, heavy industries drove Giles' economy.

"We've kind of changed the direction we're going," says County Administrator Chris McKlarney. "We're looking for high-tech companies."

A desire to keep Giles green isn't the only reason for the change in strategy. Giles simply can't afford the kind of incentives big manufacturers demand. Besides, residents and local officials are leery of depending on big, old-school companies. "You put all your eggs in one basket," McKlarney says, "That's great until something happens to the basket."

So the county aims to attract smaller technology companies like NanoSonic, which has 74 employees. "If we don't do the eco-park, we're just like every other industrial park in the country," McKlarney says.

Fortunately Giles is just one mountain away from Tech. "With the type of companies that are on our doorstep there — that come out of Virginia Tech, the Corporate Research Center — we think it's a good niche for us to be in," McKlarney says.

In addition to its headquarters at the eco-park, NanoSonic does most of its manufacturing in a 10,000-square-foot-building elsewhere in Giles County that used to house a furniture factory.

<http://www.virginiabusiness.com/index.php/news/article/a-green-magnet/>

Its specialty is nanotechnology, the science of very small things.

“It works out that very small things have properties in a lot of cases that are very different from very big things,” says Claus, the company president.

Many of its products are used in the military, such as protective coatings for ships and airplanes. Last summer, Baranauskas sprayed some of the company’s flame retardant on half of a duplex a local fire department was about to burn in a training exercise. Firefighters built matching fires in each side of the building. Less than an hour later, the uncoated side was almost gone. The coated side was largely intact.

NanoSonic also has contracts with the Department of Energy and NASA. Claus says much of the company’s work concerns energy harvesting, energy saving and coatings that improve energy efficiency. For example, “we’re making something that looks about like a big lobster trap,” he says. “When you sink it in the river, it generates electricity.”

The company also makes material that, when stretched by river currents or tidal motion, turns that power into electricity. On a small scale, it might provide power for an isolated cabin. Deployed on a larger scale, it might be the equivalent of an offshore wind farm.

“You could have an energy source that’s sort of like wind power or something like that,” Claus says, “but out of the way.”

While NanoSonic generates big ideas that use very small building blocks, Giles County hopes the company will also generate the kind of interest that will draw other high-tech companies to the eco-park.