

## Support for water innovation rated tepid

### Greater commitment needed, experts say

By JOHN SCHMID  
[jschmid@journalsentinel.com](mailto:jschmid@journalsentinel.com)

Posted: July 12, 2008

The Milwaukee area's ambition to become the Silicon Valley of water technology will get a cold shower Monday from experts who warn that the region so far lacks the research funding, entrepreneurial spirit and academic support to become a major player in the global water business.

During the past year, civic and business leaders have begun touting the growth opportunities presented by the region's proximity to Lake Michigan, along with its existing base of 120 companies in water-related businesses and the mounting global need for technologies that can produce safe, drinkable water.

But at Monday's Water Summit at Discovery World, hosted by the Milwaukee 7 economic strategy group, several experts plan to offer data and observations suggesting that the region is in danger of falling behind. For instance, its universities and companies don't appear to produce enough water-related patents to make Wisconsin a research leader in the field, and there has been little cooperation on water technology between its academic and business sectors.

"Unless the community steps on the accelerator hard and soon, placing a bet squarely on the expansion

of this industry . . . Milwaukee will lose the race," says a report prepared for the conference by Sammis White, a University of Wisconsin-Milwaukee professor of urban planning.

"Success will not come without large-scale investment," White's report says. "Furthermore, that investment must be made very soon or others will develop solutions that will beat local researchers and businesses to market, greatly limiting the payoff of the regional efforts to build a water cluster."

Although the recognition of the size and potential importance of the regional water industry is a recent development, water technology has already become the centerpiece of the latest M-7 effort to market the region's economy to the rest of the world.

"This is our stem-cell opportunity," said Julia Taylor, president of the Greater Milwaukee Committee, which is part of the M-7. She refers to the region's water industry as a "nascent cluster."

### Falls far short

White's report, however, notes that the biotechnology cluster that grew out of UW-Madison's stem-cell research "has received several hundred million dollars in state funding and tens of millions in federal and private funding." Investment in water-technology research in the Milwaukee area pales by comparison.

UW-Milwaukee won approval last month to create a graduate-level School of Freshwater Sciences, meant to foster a future pipeline of engineering talent, and it already operates the Great Lakes WATER Institute, which has a \$5.9 million research and administrative budget.

But UWM has limited new investment this year to hiring two new faculty members who will each

Advertisement



A bright idea in online advertising.

PrinterStitial® ads by Format Dynamics.



Print Powered By  FormatDynamics™

devote half of their time to other university departments. If UWM's 2009-'11 budget wins approval, it will add \$1 million for new positions in water sciences.

That falls far short of what the region needs if it aspires to be a hub of water technology, said Franz Hoffmann, a local water-technology executive and chairman of the research committee of the M-7's Water Council.

"It's less than a drop in the bucket," said Hoffmann, president of Procorp Enterprises LLC, a company in the Milwaukee County Research Park that is developing new ways to strip contaminants and unwanted minerals out of water.

And while UWM, Marquette University and UW-Madison collectively employ nearly 90 water researchers and faculty members, "The entrepreneurial aspect of academia is totally missing in Milwaukee," said Hoffmann. His firm initiated one of the rare exceptions, a pilot project with UWM last month involving efforts to strip radium from the City of Waukesha's water supply.

In addition, "No CEOs have an active collaboration with the universities," White said.

The M-7 took an initial step last week to remedy that disconnect. It hired Claus Dunkelberg, a Procorp water-treatment engineer, to help connect the dots between scientists and business leaders and encourage technological innovation. He will work part time in the M-7 role and part time at Procorp.

## Missing link

The missing link between research labs and executive suites shows up in data on patents, which many consider to be a metric of innovation.

In a ranking of states by the U.S. Patent and Trademark Office, Wisconsin came in 15th in the number of patents approved from 2003 to 2007 under the agency's broad classification for water technology, including purification and filtration.

"We don't really distinguish ourselves," said Barry Grossman, a patent attorney at the Milwaukee law firm of Foley & Lardner LLP.

Grossman, who will present the agency's numbers Monday, is a former engineer who is active in the M-7 Water Council.

Local universities "might be generating a lot of really good science. But what they are not generating is patents that can be used in the commercial world," Grossman said.

The rankings are likely imprecise, Grossman cautioned, noting that inventions developed in Wisconsin, for instance, can be credited to other states where parent companies are headquartered. General Electric Co. and its German counterpart, Siemens AG, both have water subsidiaries around Milwaukee, but both have headquarters for their water divisions in Pennsylvania, which appears sixth on the Patent Office ranking.

The patent numbers, nonetheless, should be a wakeup call if the region is serious about spawning new technologies in the \$425 billion global water industry, Grossman said.

The competition is fierce. Singapore calls itself a research "hydrohub" and has attracted major water R&D investments from Siemens and GE. Cities in China and India have been aggressive.

Closer to home, the Michigan Economic Development Corp. launched an effort this year called the Michigan Water Technology Cluster, and Michigan is ninth on the Patent Office water

Advertisement




Print Powered By  FormatDynamics™



rankings. Illinois ranks fourth, behind No. 1 California, No. 2 Texas and No. 3 Florida.

Hoffman predicts that the first region to come up with an energy-efficient way to desalinate ocean water will ride an economic boom.

"We need to move quickly," White's paper concludes, "or our lead and opportunity will be lost."

© 2005-2007, Journal Sentinel Inc. All rights reserved. |

Produced by [Journal Interactive](#) | [Privacy Policy](#)

Advertisement

A bright idea in online advertising.  
PrinterStitial® ads by Format Dynamics.

FormatDynamics™

Print Powered By  FormatDynamics™