



Reproduction permitted for personal use only. For reprints and reprint permission, contact reprints@wistechology.com.

INSIDE WISCONSIN

Emerging Tech Centers on UW campuses can leverage R&D value

Tom Still

September 15, 2009



MADISON - Even the best seeds can take a while to germinate. A case in point is the proposal to open seven "emerging technology centers" on University of Wisconsin System campuses to better serve industry while engaging faculty and student research talent.

The UW Board of Regents accepted a report last week by a special task force that urged investing \$7.7 million in the technology centers, an idea that can be traced back more than six years to "Vision 2020: A Model Wisconsin Economy." Here is what the Wisconsin Technology Council said in late 2002 in its Vision 2020 report:

"Research Centers of Excellence located around the state will be... organized around large-scale opportunities to build high-technology businesses. The Research Centers will focus on applied research that transfers new, public-sector science and technology to the private sector to solve unique problems of a particular industry. The Research Centers will identify disruptive technology that can be expected to force changes in the competitive landscape for Wisconsin's leading industries, thereby helping to prepare market leaders for the coming challenges and to create opportunities for new entrants."

The Vision 2020 report even identified unifying concepts built around research disciplines, such as biology, genetics and computer science, that often work together to form interlocking commercial clusters. Tissue regeneration, personalized medicine, nanometric systems, pharmaceuticals, extreme materials and electronics were some examples.

Roll forward to 2009 and the "Research to Jobs" task force, formed early this year, has recommended launching seven centers and building upon current centers at two more campuses:

- UW-River Falls: Tissue and cellular engineering, launched in early 2009.
- UW-Platteville: Nanotechnology applications, such as carbon nanotubes and graphene, for use in electronics, aerospace, computer and energy fields. This center was launched in late 2008.
- UW-Oshkosh: Super-capacity energy storage for next-generation electric cars and other energy intensive applications.
- UW-Stevens Point: Nanowire and nanostructure manufacturing for applications in solar energy, hydrogen sensors and nanoinstruments.
- UW-Whitewater: Interactive media and distance learning.
- UW-La Crosse: Pharmaceuticals based on medicinal plants and fungi.
- UW-Green Bay: Value-added products from waste, such as paper waste.
- UW-Stout: Plastics and composite materials, in collaboration with UW-Stevens Point.
- UW-Parkside: Biomedical sciences.

What's the value of these centers to the average Jane or Joe? Economic growth is the long-term answer, assuming these centers do what they're designed to do - which is to serve the needs of Wisconsin industry.

Study after study has established links between academic research and development and job creation through what is called "technology transfer," or moving ideas from the laboratory bench to the marketplace. Wisconsin is a state that consistently ranks in the top quartile of states in academic R&D - but it has not matched that performance when it comes to turning those ideas into jobs and economic production. That's why UW System President Kevin Reilly created the "Research to Jobs" task force and asked Carl Gulbrandsen, managing director of the Wisconsin Alumni Research Foundation, to lead it.

Over the past 80 years, WARF has done as good a job as any similar organization in transferring R&D into patents, licenses and economic activity. There are scores of companies in the Madison area that testify to the fact that UW-Madison research has moved from lab to commerce.

But most R&D apples don't fall far from the tree. The national rule of thumb is that most campus spinoff companies land within 50 miles of campus. That's why WARF spawned a related tech transfer office, called WiSys, about six years ago to handle inventions from other UW campuses. The Emerging Technology Centers proposal is an effort to accelerate the transfer of technology from those campuses - and to spur economic development in or near those campus communities.

Executing the plan won't be easy. In addition to the UW System investment of \$7.7 million over five years, about \$3.9 million in industry and private funding will be needed, along with roughly \$4.9 million in federal grants. It may turn out that what industry wants doesn't precisely overlap with the centers. Also, it may be necessary to involve the system's two doctoral campuses - Madison and Milwaukee - in some, if not many, projects.

But the payoff could be big. "We believe that each successful project (produced by an Emerging Technology Center) will result in 10-fold or more returns to the industry and UW," concluded the "Research to Jobs" task force report.

Some critics of the UW System contend its mission is divorced from the needs of private industry in the state. The "Research to Jobs" report is an effort to better align the educational mission of the UW with the needs of industry to stay competitive. It deserves a chance to grow from a seed to a plant that bears fruit for Wisconsin.

Recent articles by Tom Still

- President Obama's health-care plan may stall, but problems won't go away
- For this governor and the next: Ideas for going out, or coming in, with a bang
- Popularity of 'Cash for Clunkers' prompts ideas for personalized federal stimulus checks
- National nuclear medicine shortage could have a Wisconsin solution
- Statewide school testing remake is best for students, educators and taxpayers

Tom Still is president of the Wisconsin Technology Council. He is the former associate editor of the Wisconsin State Journal in Madison.

The opinions expressed herein or statements made in the above column are solely those of the author, and do not necessarily reflect the views of Wisconsin Technology Network, LLC. WTN accepts no legal liability or responsibility for any claims made or opinions expressed herein.

Comment Policy: WTN News accepts comments that are on-topic and do not contain advertisements, profanity or personal attacks. Comments represent the views of the individuals who post them and do not necessarily represent the views of WTN Media or our partners, advertisers, or sources. Comments are moderated and not immediately posted. Your email address will not be posted.

WTN Media cannot accept liability for the content of comments posted here or verify their accuracy. If you believe this comment section is being abused, contact edit@wistechnology.com.

[Contact Us](#) [Privacy Policy](#) [Terms & Conditions](#)

© 2002-2009 WTN Media. All rights reserved. Server colocation and services provided by [SupraNet Communications](#).

Disclaimer: Wisconsin Technology Network, LLC, and its agents used their best efforts in collecting and preparing the information published herein. However, Wisconsin Technology Network, LLC, does not assume, and hereby disclaims, any and all liability for any loss or damage caused by errors or omissions, whether such errors or omissions resulted from negligence, accident, or other causes.