

Bolstering U.S. Competitiveness in Science and Technology

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“The World is Flat,” a brief history of the 21st century by *New York Times* columnist Thomas L. Friedman, describes the flattening of the world; what it means to countries, companies, communities, and individuals; and how governments and societies can, and must, adapt to remain competitive in a global economy. In his book, Friedman says, “Because it takes fifteen years to create a scientist or advanced engineer, starting from when the young man or woman first gets hooked on science and math in elementary school, we should be embarking on an all-hands-on-deck, no-holds-barred, no-budget-too-large crash program for science and engineering education immediately.”

Our elected leaders are beginning to rally around U.S. competitiveness in a global environment and are proposing a pathway forward to invest in math and science education, scientific research and development, and technology.

By way of background, congressional leaders asked the National Academies, advisors to the nation on science, technology, and medicine, to define the top 10 actions, in priority order, federal policymakers should take to enhance the science and technology enterprise so that the United States can successfully compete, prosper, and be secure in the 21st century global community. The National Academies created a committee comprised of leaders in higher education, industry and government and, in October 2005, issued a report, “Rising Above The Gathering Storm: Energizing and Employing America for a Brighter Economic Future.” The report focused on four basic recommendations:

- A. Increase America’s talent pool by vastly improving K-12 science and mathematic education;
- B. Sustain and strengthen the nation’s traditional commitment to long-term basic research that has the potential to be transformational to maintain the flow of new ideas that fuel the economy, provide security, and enhance the quality of life;
- C. Make the United States the most attractive setting in which to study and perform research so that we can develop, recruit, and retain the best and brightest students, scientists, and engineers from within the United States and throughout the world; and
- D. Ensure that the United States is the premier place in the world to innovate; invest in downstream activities such as manufacturing and marketing; and create high-paying jobs based on innovation by such actions as modernizing the patent system, realigning tax policies to encourage innovation, and ensuring affordable broadband access.

An executive summary of the report can be found at:

<http://www.house.gov/science/hearings/full05/oct%2020/gathering%20storm%20report%20executive%20summary.pdf>.

The *American Competitiveness Initiative*, a funding plan announced by President Bush in his 2006 State of the Union Address, responds to many of the recommendations outlined in the report. The President's proposed FY07 budget includes funding for the *American Competitiveness Initiative* that will double, over 10 years, investment in innovation-enabling research at three federal agencies: the National Science Foundation, the Department of Energy's Office of Science, and the Department of Commerce's National Institute of Standards and Technology laboratories.

A 27-page booklet on the Initiative is available on the White House Web site at: <http://www.ostp.gov/html/ACIBooklet.pdf>.

Members of the Senate Energy and Natural Resources and House Science Committee have signaled their commitment to advancing and authorizing legislation that will ensure many of the recommendations are implemented this year and for the future. UW System looks forward to working with Congress to advance these proposals -- proposals which will complement the work of WiSys in bringing technological advancements to Wisconsin and the world's marketplace.