The Global Strategy Imperative
by Jack M. Wilson and Robert A. Brown

Massachusetts has employed a simple formula to create a vibrant economy: Rely on the innovations produced by outstanding higher education and healthcare institutions, corporations and individuals to build the enterprises that fuel our economic engine. While this recipe has worked well for a century, it may no longer be enough to secure our economic future.

Increased competition is eroding historical advantages in higher education and research that have been at the heart of our success. North Carolina’s Research Triangle and subsequent investments in the University of North Carolina, North Carolina State and Duke represent one example of strategic success. This public-private partnership quickly garnered major industrial allies -- like IBM and Wachovia Bank -- and federal investment. Research centers like the Research Triangle Institute, North Carolina Biotechnology Center and North Carolina Supercomputing Center also attracted substantial funding and created jobs.

The University of Texas recently announced a $2.5 billion program to expand its scientific research capacity, and last year California voters approved investing $3 billion over a decade to promote stem cell research.

Global competition
Fueled by growing talent pools, lower costs and seamless communication, the competition for knowledge clusters is now global. In Beijing, entrepreneurship surrounding Tsinghua University is generating a growing number of technology spin-offs and corporations are leveraging this environment by opening Beijing centers. The universities around Shanghai, like Fudan and Shanghai Jia Tong Engineering University, have helped transform it into one of the world’s great cities in less than two decades.

Several countries have pursued government-led strategies. Consider tiny Singapore’s investments in life science research and development, as well as their strategy of developing close ties to select institutions in the US and Europe. This effort has attracted both a steady stream of American and European research talent and substantial corporate investment. Singapore is well on its way to becoming a world-class hub in the global competition for talent.

Massachusetts needs a long-term economic development strategy that includes plans for global engagement. Recognizing the importance of globalization, the University of Massachusetts has become a Confucius Center in partnership with the Chinese government and signed joint cooperation agreements with Tsinghua and Wuhan Universities. Boston University has a council working on developing a blueprint for our global future that leverages our history of educational engagement abroad.

Government, industry, higher education alliances
We also need a comprehensive strategy to leverage our assets through cooperation among
government, higher education and industry. We have successes to build on, such as the University of Massachusetts/Northeastern/University of New Hampshire Nanotechnology Center, and the Broad Institute, a collaboration of MIT, Harvard, its affiliated hospitals and the Whitehead Institute, that is bringing the power of genomics to medicine.

**Global Challenge Centers**

But ensuring the Commonwealth’s future competitiveness will require many more of these strategic alliances. It will also require sharp focus. University, industry and government leaders must agree on a small number of areas that hold the most promise for Massachusetts and come together to invest in “Global Challenge Centers” focused on addressing global challenges.

Choosing the focus of Global Challenge Centers will require an analysis of our strengths – which was already done in the 2004 Mass Insight-Battelle Technology Road Map – and areas in which no market leader has yet emerged. Ocean science, and energy opportunities like wind power, flexible solar cells and bio-fuels are possibilities.

Support for research is only the first step in a virtuous cycle that includes technology transfer, entrepreneurship, manufacturing and further research and development. Unfortunately, weakness in any link can break the cycle. The key to this value chain is talent. We must defend our competitive advantage by investing in intellectual capital. In some cases the talent will relocate here; in others we will use collaborations to take advantage of talent located elsewhere.

Massachusetts must confront increased competition on both the global and domestic fronts if it is to remain a vibrant hub of knowledge and innovation. Will we make the long-term investments in strategic alliances and education needed to successfully compete, or succumb to our natural instincts to go it alone armed only with siloed institutional strategies and unenlightened self interest? By working together, we can ensure that the Commonwealth will remain a great place to live, work and learn.

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