



**For more information:**

Elli Holman  
Mass Insight  
617-722-4160 x- 14

John Hoey  
UMass  
617-287-7006

Cara Crandall  
Mass Insight  
617-722-4160 x – 10

Cort Boulanger  
Massachusetts High Tech Council  
781-890-6482

## **Massachusetts Technology Road Map Identifies Major Opportunities for Regional Economic Growth**

### **Private Sector Announces Initiative to Organize Strategic Alliances of University and Industry Partners to Capture Federal Funding**

**BOSTON, MA – August 12, 2004** – Mass Insight Corporation, the Massachusetts High Technology Council, and leaders from the state’s research and technology community today unveiled a comprehensive vision for the future of the state’s innovation economy that will serve as a business plan to create and retain more technology jobs in Massachusetts. The follow up to last winter’s first Technology Road Map report, this new section of the study outlines nine Strategic Alliance Opportunities, as well as five networking collaborations that will allow Massachusetts universities and companies to compete for national R&D leadership and new jobs through cross-sector and cross-institutional alliances.

The Technology Road Map focuses on opportunities for major federal funding of R&D alliances and provides a framework for state investment of \$60 million of technology investment funds provided by the economic stimulus bill passed in January by the Massachusetts Legislature. The project dovetails with the work of the Regional Competitiveness Councils created by Governor Romney in February 2003 to identify priority industry clusters and initiatives aimed at creating jobs in each region of the Commonwealth. The study’s recommendation to build stronger technology alliances also furthers the strategy of the Massachusetts Department of Business & Technology to facilitate regional centers of excellence that integrate research, industry, education, workforce, infrastructure and capital.

“This strategic alliance initiative is our opportunity to keep companies in Massachusetts and expand the technology infrastructure we currently have in place,” said Dr. John Armstrong, retired VP of Science and Technology for IBM and Chair of the Technology Road Map Executive Advisory Committee. “It also allows connections to be made between Massachusetts-based companies and partners in other states bringing more jobs to the state.”

Using proposed Strategic Alliance Opportunities – and others that may surface – the goal of the implementation phase of the Road Map study is to develop champions, and preliminary development plans for high impact flagship R&D centers and collaborations. These centers will compete for major federal funding, build the state’s R&D leadership, and produce downstream economic impact in business

expansions and new jobs. The depth and breadth of these opportunities would build on the state's existing core R&D centers.

“Our goals for the Implementation Phase are to facilitate and encourage strategic R&D collaborations,” said William Guenther, President of Mass Insight Corporation. “It is important to promote these high impact proposals to compete for Homeland Security and other federal grants, and the \$60 million in state regional technology infrastructure and matching funds. The private sector leads these efforts in partnership with universities and research hospitals.”

“This Technology Road Map illustrates the exciting opportunities we have to build an innovation-based economy in every region of Massachusetts,” said UMass President Jack M. Wilson. “The challenge for us, as a Commonwealth, is to build consensus about the importance of public/private collaboration and investment so that we can turn these opportunities into real and sustainable jobs.”

President Bush's fiscal 2005 budget proposes \$132 billion for research and development. When industry and privately-funded R&D is added, the total available more than doubles. A portion of this money is invested in academic research projects. Research and development represents 4.5 percent of Massachusetts economic output, nearly twice as high as the national figure.

“We want more good jobs in every region of the state. One of the most important things we can do to create good jobs is empower regional leaders to forge successful technology partnerships among businesses, research institutions and public organizations,” said Barbara Berke, Director of the Massachusetts Department of Business and Technology. “Strategic alliances aimed at strengthening significant regional centers of excellence will attract more federal and industry research dollars and will result in greater economic growth and job creation.”

Mass Insight's work in this next phase will operate on two levels. As part of the broader initiative, the organization has announced **The R&D Clearinghouse** which will promote new R&D alliances that are developing or have been announced in the state. This will be done through a Fall/Winter series of **Choosing To Lead R & D Breakfasts** and the **Directory of Massachusetts University and Nonprofit Research Centers**, which highlights existing and new research centers conducting cutting-edge work.

The second focus of the Technology Road Map project will target four strategic opportunities and involve work groups led by industry and university representatives with common interests in the major technology opportunity and initial project development. Feasibility studies for potential \$50 million collaborative R&D centers will be conducted by the work groups to further analyze federal funding opportunities, project focus and goals, commercial impact, and the role of the partners. The four specific opportunities under consideration are:

- **Nanoscale Fabrication and Advanced Materials** -- Massachusetts is a national leader in nanoscale research that promises to transform both materials and fabrication techniques in a wide range of applications from electronics to medical devices, biopharmaceuticals, sensors, power supplies and textiles. Strength and breadth in both materials and fabrication extend across all the major universities in Massachusetts such as the proposed nanoscale manufacturing center collaboration between UMass Lowell, Northeastern and the University of New Hampshire. With compelling national defense needs in advanced electronics and materials (as exemplified by the U.S. Army Soldier Systems Center (SSC) at Natick Laboratories) and industry driving for similar advances in both areas to sustain growth, a compelling opportunity exists to establish a larger scale collaborative effort to translate research into production-capable systems at the nanoscale.

- **Neuroscience Consortium and Model Drug Development Infrastructure** -- With a global neuroscience pharmaceutical market estimated at \$60 billion and a realization of the increasing societal costs of central nervous system diseases, a number of Massachusetts institutions are pursuing interdisciplinary research to advance neuroscience including Harvard Medical School, UMass, MIT, Partners Healthcare System, Tufts University, Boston University, and Brandeis University. Leveraged by an enabling infrastructure to facilitate the validation of drug candidates emerging from the research, a new consortium can position Massachusetts as a global leader in therapeutics for this most complex human system.
- **Integrated Homeland Security Technology Platform** -- The opportunity exists to create a unique Homeland Security capability by leveraging adaptive command and control capabilities being developed for defense systems with emerging information technology management and communications capabilities at Hanscom Air Force Base to create a model regional integrated emergency response system. As a leader in information technology, communications, sensor systems and systems integration, Massachusetts has strong potential for the university-industry collaborations to compete for Homeland Security funds and develop next generation systems.
- **Ocean Research, Exploration and Development Consortium** -- The Department of Homeland Security (DHS) offers a new source of money for ocean research and development. Combined with the recent National Research Council report calling for a major national effort on ocean exploration as a model for a world-wide program, there is a compelling opportunity to position our region as a national leader. The coastal corridor from Maine to Massachusetts and Rhode Island has a leading cluster of institutions led by the Woods Hole Oceanographic Institute and the UMass School of Marine Science and Technology, MIT and other universities, and many companies involved in instrument development with strength in sensors, ocean instrumentation and underwater vehicles.

Mass Insight will facilitate support, accountability, and consistency in the output from the work groups and the leadership needed to ensure timely completion of the studies.

In addition, Dr. Armstrong, Dr. William Terry, VP of Corporate Research and Licensing Partners Healthcare, Greg Shelton, Sr. VP of Engineering Raytheon Corporation, and William Walsh, President and CEO Sippican, Inc. have extended their involvement in the project by chairing work groups in the development phase of the implementation phase.

Phase II of the report is the latest effort of the Science & Technology Initiative, formed in 2002 by Mass Insight and the Massachusetts High Technology Council, research universities, sector associations and employers to bring together the factions of the state's research and development community and to elevate the public discussion of technology issues. Successful efforts of the SciTech Initiative include advocating for the creation of the first ever Business and Technology officer for the state; the preservation of the UMass five-campus system and president's office; and the development and passage of the \$100 million economic stimulus package by the Legislature and the Governor in January 2004.

“This phase of the study is the next step in the public-private partnership to create a statewide, technology-based, economic development plan,” said High Tech Council President Christopher R. Anderson. “The Technology Road Map leads the way to economic prosperity and jobs for all regions.”

For more information about the Massachusetts Technology Road Map and Strategic Alliances Study, go to [http://www.massinsight.com/scitech\\_roadmap.asp](http://www.massinsight.com/scitech_roadmap.asp).

###