

In brief

Economic Development



UMASS AND FIDELITY COLLABORATE ON IT WORKFORCE DEVELOPMENT

To friends and supporters of the University of Massachusetts:

Study after study has shown that the greatest constraint on the Commonwealth's continued economic growth is the shortage of skilled labor, particularly in the area of information technology (IT).

As the state's public research institution, the University of Massachusetts has a special role to play in helping the state meet its workforce needs. We educate more than 60,000 students annually and have over 200,000 of our alumni in the state's workforce. Moreover, in contrast to other universities in the state, more than 90 percent of our students come from Massachusetts, and over 80 percent of our graduates stay here to work after graduation.

While the University has a rich tradition of collaborating with Massachusetts companies, we are especially pleased with the new partnership we have developed with Fidelity Investments, one of the state's leading employers and corporate citizens. Our two great institutions have joined forces to help address the IT workforce shortage in Massachusetts.

Fidelity has recently announced a pilot program to provide scholarships to qualified undergraduate students studying computer science and engineering at UMass campuses. Fidelity and UMass will pilot the Fidelity Technology Fellows

Program in hopes of increasing both the quality and quantity of talent pursuing careers in IT. In a related program, dozens of our high-performing students were chosen by their faculty to participate in the Fidelity Technology Exploration Program, a four-day shadowing experience designed to introduce undergraduates to the use of technology in a corporate environment. Fidelity is providing leadership and financial support to help redefine our IT curriculum. Fidelity and UMass researchers are exploring new avenues of collaboration using technology to create business solutions, and Fidelity has named "relationship managers" for each UMass campus to facilitate future collaboration.

We are especially appreciative of the efforts of David Weinstein, Fidelity's Chief of Administration, and Don Haille, President of Fidelity Systems Company, in making this partnership a reality. All of us at the University look forward to a long and mutually beneficial relationship with Fidelity. Such partnerships are good for the University, good for business, and good for the Commonwealth of Massachusetts.

William M. Bulger
President
University of Massachusetts

In This Issue

Meeting the Workforce Needs of the Commonwealth 2

Helping Massachusetts Firms Stay Competitive 4

Technology Commercialization and Entrepreneurship 5

Benchmarking the State of the Economy 6

Key Contacts 7

Upcoming Events 8



"We believe the new Fidelity Technology Fellows program with UMass represents a big step in building a pipeline of much-needed IT workers."

DON HAILLE
President, Fidelity Investment Systems

UMass Lowell Dean Honored by Mass Telecom Council

UMass Lowell Dean of Engineering Krishna Vedula has been honored by the Massachusetts Telecommunications Council as its "Workforce Development Leader of the Year." The award was made in recognition of the dean's work in addressing the state's engineering shortage through his founding and organization of the Engineering in Massachusetts Collaborative and his development of initiatives such as the Analog Devices Scholar/Intern Program. He was honored, along with leaders of the state's telecommunications industry, at the Council's annual dinner on March 7.

Contact: Krishna Vedula, Dean of Engineering, UMass Lowell (978) 934-2576

Fidelity Establishes "Fidelity Scholars" Program at UMass

Fidelity Investments, through the Fidelity Foundation, recently announced the Fidelity Technology Fellows Program at UMass as a key element of its partnership with the University on IT workforce development. The pilot program will provide scholarship assistance to UMass undergraduates in computer science and electrical engineering at the Amherst, Boston, Dartmouth, and Lowell campuses. Fidelity scholars will also be eligible for Fidelity intern and co-op program opportunities.

Contact: Karin McCarthy, UMass Donahue Institute, Office of the President (617) 287-7039

Textron Taps UMass Lowell to Fill Training Needs

UMass Lowell has developed a workforce training partnership with Textron Systems of Wilmington, Mass. Through the efforts of Lowell's Division of Continuing Studies and Corporate Education, the campus has developed a program to meet the specific needs of Textron employees. The program includes a six-course electronics technology certificate program offered on-site in Wilmington, as well as a "CyberEd" program that allows employees who travel or have family commitments to continue their education uninterrupted. Given the success of this initial effort, Textron is now exploring with Lowell the potential for offering more certificate programs in business management and computer science, and a master's degree in electrical engineering.

Contact: Jacqueline Moloney, Dean of Continuing Studies and Corporate Education, UMass Lowell (978) 934-2943

UMass/Raytheon Unite to Promote Engineering in High School Curriculum

In an effort to address the shortage of available engineers in the workforce, UMass faculty and Raytheon administrators have joined forces to prepare high school students for careers in engineering. Company staff will work with faculty from all five campuses, along with middle and high school teachers in 24 school districts across the state, to develop curriculum models that integrate engineering and technology. The initiative is being funded in part by a \$400,000 contribution from Raytheon.

Contact: James Hamos, UMass Office of the President (617) 287-7114

Putnam Investments Partners with UMass Dartmouth on Major Internship Program

The Charlton College of Business at UMass Dartmouth is partnering with Putnam Investments in a new internship program involving 25 students. The partnership allows students to learn in the classroom and apply their knowledge in the real world of business. Students are enrolled in a 140-hour training course delivered by Putnam Investments. The course provides an overview of the securities market, customer service, and corporate practice. At the end of the program, students passing Putnam's test will be hired to work with the company during the summer. Upon graduation, students will have the opportunity to continue on as full-time employees.

Contact: Ron McNeil, Dean of Business and Industry, UMass Dartmouth (508) 999-8432

UMass Donahue Institute Establishes Career Transition Center in Stoughton

The UMass Donahue Institute recently created the Career Transition Center (CTC) in Stoughton. The center will provide re-employment and training services to approximately 225 workers dislocated by the closing of the Ferrera and Sons food processing plant. The program aims to retrain authorized workers and place them in jobs at or near their former salaries. Funding for the center was awarded through a U.S. Department of Labor National Reserve Funds grant in the amount of \$1.3 million.

Contact: infor@careerworks.org

I-495 Center Initiates Professional MBA in Westborough

The University's new Center for Professional Education has recently launched a Professional MBA Program in Westborough. The program, offered by the UMass Amherst Isenberg School of Management, utilizes selected faculty from business schools at Amherst, Boston, Dartmouth, and Lowell. The P-MBA is a highly competitive, fully accredited program designed for working professionals in the I-495 high-tech corridor. The center also offers graduate and undergraduate courses in information technology at Westborough.

Contact: Barbara Macaulay, UMass Center for Professional Education (508) 616-7909 or macaulay@donahue.umassp.edu

UMass Lowell Expands Scholar/Intern Program with Industry

Building on the successful model of a Scholar/Intern program developed with Analog Devices, the UMass Lowell College of Engineering has secured commitments from several additional companies for 20 new scholar/interns. Selected engineering students will each receive a scholarship, tuition and fee waiver, and winter/summer paid internships to support their education at UMass Lowell and prepare them for careers in engineering. Raytheon, M/A-COM, Lucent Technologies, Freudenburg-NOK, and Albany International are among the firms that recently committed to this program.

Contact: Krishna Vedula, Dean of Engineering, UMass Lowell (978) 934-2576

"The new UMass P-MBA program will be a real asset to the 495 Technology Corridor."

JEFFREY M. LEGER
Vice President,
Global Training
and Development,
EMC

HELPING MASSACHUSETTS FIRMS STAY COMPETITIVE

Massachusetts Industries Join FAA in Funding Development of Fire-Safe Materials at UMass Amherst

The Center for UMass Industry Research on Polymers (CUMIRP) in Amherst recently won a three-year extension from the Federal Aviation Administration. The FAA's \$900,000 will be matched by \$300,000 in industry support to develop new polymers that will help save lives in airline crashes. Experts estimate that passengers could have ten times longer to escape a burning aircraft with greater use of fire-safe materials. Seven faculty from UMass Amherst, led by Professor Richard Farris, worked on the initial grants, which have totaled over \$2 million. Massachusetts firms, such as GE Plastics, Solutia, Inc., and the U.S. Army Soldier Command Center in Natick, are joining industry leaders from around the country in this effort.

Contact: Jim Capistran, UMass Amherst
(413) 577-1518 or
capistran@polysci.umass.edu

State Agency Invests in STEP Water Treatment Firm

The Massachusetts Community Development Finance Corporation's Venture Capital Fund recently gave a \$250,000 boost to AWT Environmental, Inc., of New Bedford. Founded in 1990 by Craig Lindell, AWT builds small-scale, decentralized wastewater treatment systems using a biological filter. Lindell estimates that the cost of his systems, which are installed all over New

England, is as much as 50 percent less than that of a conventional sewage system. AWT was one of the first companies to receive assistance from the Massachusetts Strategic Envirotechnology Partnership program, a unique collaboration between the UMass system and the Executive Office of Environmental Affairs. STEP promotes technology-based solutions to Massachusetts environmental problems. AWT is currently developing a remote monitoring system with Dr. Gilbert Fain and Dr. Lee Estes of UMass Dartmouth.

Contact: Robert Dluhy, UMass Dartmouth
(508) 999-9121 or rdluhy@umassd.edu

Family Business Center at UMass Dartmouth Assists Local Businesses

Since 1995, the UMass Family Business Center at UMass Dartmouth has been providing technical assistance and promoting research and teaching for family businesses in southeastern Massachusetts. During the academic year, the center offers to its membership a series of programs, featuring national experts on family business matters. Members also have access to University faculty and the Southern New England School of Law, and are afforded the opportunity to build relationships with and learn from other families in business. The center is a joint public/private venture designed to combine practical business knowledge with the University's resources.

Contact: John Bullard, UMass Dartmouth
(508) 999-8895

MassBedrock Digital Library Launched

The Massachusetts Business and Economic Development Reference On-line Center, known as "MassBedrock," is now available at <http://www.massbedrock.org>. This digital library of business information is designed for those planning, starting, and doing business in Massachusetts. Created by UMass Amherst library professionals, MassBedrock offers a browseable catalog of reviewed Web sites, a searchable index to the contents of Web sites, and numerous Web pages collected by type. Links to Massachusetts agencies, public libraries, and librarians provide additional assistance for the business researcher. Project staff worked with the Center for Intelligent Information Retrieval in the Computer Science Department to develop the digital library database.

Contact: Christine Turner, UMass Amherst
W.E.B. DuBois Library (413) 577-1026 or
cturner@library.umass.edu

*A complete list of University
contacts for the STEP Program
appears in Key Contacts, page 7.*

Technology & Commercialization & Entrepreneurship

University Moves Up in National Rankings for Technology Licensing

The University of Massachusetts has continued to rise in national rankings of American universities for technology licensing. In the FY 1998 report by the Association of University Technology Managers (AUTM), UMass ranked 43rd nationally in the amount of revenues received from licensing technology, with \$2 million. This represents a significant leap from 56th in FY 1997. Technology licensing is managed by the University's Office of Commercial Ventures and Intellectual Property (CVIP).

Contact: Bill Rosenberg, CVIP (508) 856-1626

Another Record-Breaking Quarter for CVIP

The University's recently released report for the second quarter of FY 2000 indicates continued progress and growth for the technology licensing program. Results include 29 faculty invention disclosures, 16 patent applications, 22 patents issued, 7 licenses executed, and \$3.3 million in license income. In addition, the Office of Commercial Ventures and Intellectual Property assisted in the negotiations for 8 sponsored research agreements, yielding \$367,000 in industry R&D to the University. The number of patents issued and the amount of licensing income received during the past quarter represent all-time highs for the University.

Contact: Bill Rosenberg, CVIP (508) 836-1626

UMass Worcester and Microbiotix Negotiate Licensing Agreements

Through licensing agreements with UMass, Worcester-based Microbiotix, Inc., has secured rights to technologies that will identify and develop novel antibiotic agents to inhibit bacterial DNA replication. These new antibiotics will be used to address the increasing problem of antibiotic-

resistant bacterial infections. This technology is based on the pioneering research of Microbiotix founding scientists Dr. George E. Wright and Dr. Neal C. Brown, while at the UMass Medical School. Dr. Brown continues his antibiotics research at UMass in ongoing collaboration with Microbiotix, located in the Massachusetts Biotechnology Research Park adjacent to the UMass Medical School campus. As part of the licensing arrangement, UMass has secured a minority equity stake in Microbiotix and a sponsored research agreement.

Contact: Mike Henry, CVIP (508) 856-5494 or michael.henry@umassmed.edu

UMass Amherst Establishes UMass/Five College Entrepreneur Club

The UMass/Five College Entrepreneur Club, known as Entreclub, was launched in February. The program is sponsored by the Amherst campus's Office of Economic Development and Mass Ventures, with the support of the UMass Alumni Association, the College of Engineering, and the Isenberg School of Management. The Entreclub involves alumni and community entrepreneurs in economic development and student-venture mentoring. It is open to the Five College community (UMass, plus Amherst, Smith, Mount Holyoke, and Hampshire Colleges). The program hosted a kickoff event early in the semester, followed by a team-building meeting and educational seminars. Events will culminate in the spring in a business-plan competition with a \$10,000+ prize.

Contact: Jaymie Chernoff, UMass Amherst chernoff@admin.umass.edu and <http://www.entreclub.org>

Benchmarking the State of the Economy

President Bulger Named to Governor's Economic Development Council

Governor Paul Cellucci has named UMass President William M. Bulger as an ex officio member of the governor's new Economic Development Council. The council, co-chaired by Lieutenant Governor Jane Swift and Fidelity's Chief of Administration David Weinstein, is charged with developing economic policy and legislative recommendations for the administration. President Bulger will chair the committee on workforce development. UMass faculty and staff will provide research and analytical support.

Contact: Tom Chmura, Vice President for Economic Development (617) 287-7021

Alan Clayton-Matthews Elected President of NEEP

UMass Boston Professor Alan Clayton-Matthews has been elected president of the New England Economic Project (NEEP). NEEP is a member-supported, non-profit and non-partisan economic forecasting organization that has earned the reputation as New England's leading economic forecasting group. NEEP's members include businesses, government groups, and academic institutions from across New England. Dr. Clayton-Matthews is also a major contributor to *Massachusetts Benchmarks*, the quarterly economic journal published by the University in cooperation with the Federal Reserve Bank of Boston.

Contact: Alan Clayton-Matthews, UMass Boston (617) 287-6945

Spring Issue of *Benchmarks* Journal Released

In the spring issue of *Massachusetts Benchmarks*, Professors David Terkla and Betty Diener of UMass Boston evaluate the Commonwealth's environmental industry. UMass Dartmouth's Clyde Barrow highlights the economy of southeastern Massachusetts in the regional focus. Alan Clayton-Matthews of UMass Boston writes about the state's economy. This quarter's poll results reveal how Massachusetts voters view global warming. *Benchmarks* staff highlights findings from the latest *Index of the Massachusetts Innovation Economy* by the Massachusetts Technology Collaborative. *Benchmarks* can be read on the Internet at www.massbenchmarks.org.

Contact: Steven Landau, UMass Donahue Institute (617) 287-7040

UMass Medical School Opens New Health Policy Center

The UMass Medical School recently opened its expanded Center for Health Policy and Research (CHPR) in a new facility in Shrewsbury. Through the center, University staff and faculty are developing a national model for working with state officials to improve health and health care for the most vulnerable citizens of the Commonwealth. The center will also contribute to the peer-reviewed literature and seek extramural funding for academic work related to its state health policy activities. CHPR is home to the Robert Wood Johnson Foundation Workers' Compensation health initiative, a \$6 million national grant program support-

ing innovation and improvement in the delivery of medical care to injured workers. The new center is funded through a \$1 million state grant and multiple federal and foundation grants. More information about the center is available on the Web at www.umassmed.edu/healthpolicy.

Contact: Jay Himmelstein, Center for Health Policy (508) 856-4456 or Jay.Himmelstein@umassmed.edu

Three UMass Industry Studies to Be Released

Three industry studies have been completed by UMass industry analysts and are expected to be released this spring. Professors David Terkla and Betty Diener of UMass Boston have examined the environmental industry. The economic impacts of the textile and apparel industries have been evaluated by Professor Clyde Barrow of UMass Dartmouth, and Professor Dan Georgianna of UMass Dartmouth has assessed the impacts of the maritime industry in the Commonwealth.

Contact: Steven Landau, UMass Donahue Institute (617) 287-7040

ECONOMIC DEVELOPMENT

PRESIDENT'S OFFICE

Tom Chmura
Vice President for Economic Development
UMass President's Office
One Beacon Street, 26th Floor
Boston, MA 02108
Ph: (617) 287-7021 Fax: (617) 287-7044
E-mail: tchmura@email.umassp.edu

J. Lynn Griesemer
Executive Director of the UMass Donahue
Institute and Associate Vice President
for Economic Development
One Beacon Street, 26th Floor
Boston, MA 02108
Ph: (617) 287-7045 Fax: (617) 287-7022
E-mail: griesemer@external.umass.edu

UMASS AMHERST

Jaymie Chernoff
Director of Economic Development
UMass Amherst
Goodell Building, Box 33293
Amherst, MA 01003
Ph: (413) 545-4516 Fax: (413) 577-1500
E-mail: chernoff@admin.umass.edu

UMASS BOSTON

John Ciccarelli
Assistant to the Chancellor for
Economic Development
UMass Boston
McCormack Building
100 Morrissey Boulevard
Boston, MA 02125
Ph: (617) 287-7893 Fax: (617) 287-7725
E-mail: j.ciccarelli@umassp.edu

UMASS DARTMOUTH

Paul Vigeant
Alumni Director and Special Assistant
to the Chancellor
UMass Dartmouth
285 Old Westport Road
North Dartmouth, MA 02747-2300
Ph: (508) 999-9143 Fax: (508) 999-8773
E-mail: pvigeant@umassd.edu

UMASS LOWELL

Louis J. Petrovic
Director of External Funding,
Technology Transfer and Partnering
UMass Lowell
One University Avenue
Lowell, MA 01854
Ph: (978) 934-2577 Fax: (978) 453-6586
E-mail: Louis_Petrovic@uml.edu

UMASS WORCESTER

Joseph F. X. McGuirl
Executive Director, CVIP
UMass Worcester
365 Plantation Street, Suite 130
Worcester, MA 01655
Ph: (508) 856-1626 Fax: (508) 856-1482

Key Contacts

MASSACHUSETTS STRATEGIC ENVIROTECHNOLOGY PARTNERSHIP

DIRECTOR

William Brah
UMass Boston
(617) 287-7723
william.brah@umb.edu

CENTER FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY

Larry Ambs
UMass Amherst
(413) 545-2539
ambs@ecs.umass.edu

NATIONAL ENVIRONMENTAL TECHNOLOGY FOR WASTE PREVENTION INSTITUTE

Chad Nelson
UMass Amherst
(413) 545-2842
cnelson@tei.umass.edu

ENVIRONMENTAL BUSINESS AND TECHNOLOGY CENTER

William Brah
UMass Boston
(617) 287-7723
william.brah@umb.edu

ADVANCED TECHNOLOGY AND MANUFACTURING CENTER

Robert Dluhy
UMass Dartmouth
(508) 999-9121
rdluhy@umassd.edu

CHELSEA CENTER FOR RECYCLING AND ECONOMIC DEVELOPMENT

Amy Perlmutter
UMass Lowell
(617) 887-2300
amyp@chelseacenter.org

CENTER FOR ENVIRONMENTALLY APPROPRIATE MATERIALS

Charles Pace
UMass Lowell
(978) 934-3199
charles_pace@uml.edu

Office of Economic Development
University of Massachusetts
One Beacon Street, 26th Floor
Boston, MA 02108
Address Service Requested



Upcoming Events

May 2-3

BankBoston Conference Center, Boston

Second Annual Northeast Conference on Electronics Enterprise, "Launching the E-Millennium"

"Launching the E-Millennium" is the topic for the second annual conference sponsored by the Interdisciplinary Center for Electronics Enterprise located at UMass Amherst. The conference will feature a mix of industry presentations, academic research, and tutorials. For registration information, contact Marla Michel at (413) 545-3651 or marla@cs.umass.edu.

May 3

7:30 AM to 9:30 AM, Location to be announced

Engineering in Mass Collaborative (EiMC) next Semi-Annual Meeting

Featured speaker will be David Driscoll, Commissioner, Massachusetts Department of Education. For more information, call Pamela Jahngen-Provencal at (978) 934-2572.

May 11

5 PM to 7 PM

Information Session: UMass I-495 Center for Professional Education

The new UMass I-495 Center for Professional Education will be holding information sessions throughout the spring for individuals and organizations interested in new programs in Information Technology and the Professional MBA. These programs are designed for working professionals and will be offered at the campus of the Massachusetts Technology Collaborative in Westborough. For more information, call (877) 274-4495 or e-mail 495info@umassp.edu.

June 14-15

Copley Plaza Hotel, Boston

Environmental Capital Forum

The Environmental Business and Technology Center located at the UMass Boston College of Management is conducting an Environmental Capital Forum. Up to 14 early-stage companies, chosen by a committee of leading investors in this industry, will present their business plans to individual, professional, and corporate investors. For more information, contact Nicholas Gill at (617) 287-7857.