

MASSACHUSEIIS
TECHNOLOGY COLLABORATIVE

FY 2014 ANNUAL REPORT

Supporting a vibrant, growing innovation economy across Massachusetts



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Dear Reader.

This Fiscal Year 2014 Annual Report highlights a dynamic year at the Massachusetts Technology Collaborative (MassTech), with the creation or continuation of several major initiatives supporting a growing technology and innovation-based economy. This report summarizes progress in programs designed to expand high-speed Internet access, accelerate the use of health information technologies, support a talented workforce for our innovation economy, and partner with industry leaders and researchers to keep our thriving tech sector growing and competing.

FY2014 saw evolution, expansion, and growth within many key programs:

As the Massachusetts Broadband Institute at MassTech (MBI) completed construction of the *MassBroadband 123* fiber backbone, our efforts to support network operations and usage accelerated. The MBI also began critical planning efforts needed to expand broadband access to the 'last mile,' exploring pathways to reach remaining unserved homes and businesses in Western Massachusetts communities.

In 2012, Chapter 224, a landmark state health care cost containment law, provided new directives and critical resources to the Massachusetts eHealth Institute at MassTech (MeHI). In FY14, MeHI completed work on several key federal grant programs that supported the adoption of electronic health record technology and the state's health information exchange. Following a strategic planning process, MeHI developed new programs under Chapter 224 designed to support communities and providers in using health information technology, with a priority focus on the behavioral health and long-term and post-acute care communities.

As the centerpiece of an increasingly successful Mass Big Data Initiative, the Innovation Institute at MassTech made its first investment out of the Collaborative Research and Development Match Fund into the Massachusetts Open Cloud, a novel cloud computing innovation which leverages many of the state's big data assets. The Innovation Institute also awarded key investments through the Massachusetts Innovation Mentoring Initiative to entrepreneurship organizations driving start-up formation and business mentoring support in regions around the Commonwealth.

We appreciate the support and valuable insight from our many partners throughout industry, government and academia during the past fiscal year. To engage further with us or any of these initiatives, please visit us online at www.masstech.org.

Sincerely,

Pamela W. Goldberg
Chief Executive Officer

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Gregory Bialecki *Chair, Board of Directors*

Secretary, Executive Office of Housing and Economic Development



MassTech: Who We Are

The Massachusetts Technology Collaborative, or MassTech, is an innovative public economic development agency which works to support a vibrant, growing economy across Massachusetts.

Through our three major divisions - the Innovation Institute, Massachusetts eHealth Institute, and the Massachusetts Broadband Institute - MassTech is fostering innovation and helping shape a vibrant economy.

We develop meaningful collaborations across industry, academia and government which serve as powerful catalysts, helping turn good ideas into economic opportunity. We accomplish this in three key ways, by:

FOSTERING the growth of dynamic, innovative businesses and industry clusters in the Commonwealth, by accelerating the creation and expansion of firms in technology-growth sectors;

ACCELERATING the use and adoption of technology, by ensuring connectivity statewide and by promoting competitiveness; and

HARNESSING the value of effective insight by supporting and funding impactful research initiatives.

Our mission

Our mission is to strengthen the innovation economy in Massachusetts, for the purpose of generating more high-paying jobs, higher productivity, greater economic growth, and improved social welfare.



OUR DIVISIONS

MassTech is composed of three major divisions, each with a unique mission that drives innovation and supports a vibrant economy across the Commonwealth.



The Innovation Institute at MassTech was created in 2003 to improve conditions for growth in the innovation economy by:

- Enhancing industry competitiveness;
- Promoting conditions which enable growth; and
- Providing data and analysis to stakeholders in the Massachusetts innovation economy that promotes understanding and informs policy development.

The Institute manages programs which drive support for emerging sectors such as Big Data, Advanced Manufacturing and Robotics, and takes on initiatives to support and develop a talented workforce for the Commonwealth, such as the Intern Partnership program or entrepreneur mentorship initiative.





The Massachusetts Broadband Institute at MassTech (MBI) is working to extend affordable high-speed Internet access to homes, businesses, schools, libraries, medical facilities, government offices, and other public places across the Commonwealth.

The MBI also works to promote broadband usage and adoption by our residents and small businesses.

MBI managed the construction and rollout of *MassBroadband 123*, a 1,200-mile fiber-optic network that has delivered high-speed Internet access directly to over 1,100 key facilities in more than 120 communities in Western and Central Massachusetts.



MeHI, or the Massachusetts eHealth Institute at MassTech, is the state's entity for health care innovation, technology, and competitiveness and is responsible for advancing the dissemination of health information technology throughout Massachusetts. This includes the deployment of electronic health records systems in all health care provider settings and connecting them through the statewide health information exchange, the Mass Hlway.

MeHI oversees programs and makes investments which help accomplish these goals.

The Massachusetts Big Data Report

A Foundation For Global Leadership





MACP

Executive Summary

The Massachusetts Big Data Report

A Foundation For Global Leadership





RANCE

Executive Summary

Massachusetts Big Data

INDUSTRY

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485 companies scross the Mass Big Data Ecceysters

\$20million in federal grants

ITES 2000

368 meet-ups

5,250 patents



OUR YEAR

During Fiscal Year 2014, the Innovation Institute continued to make key investments and address challenges in partnership with industry, academia, and government, tackling unmet needs and initiating longer-term economic opportunities to benefit the state's technology sector. These opportunities included two awards as part of the Collaborative Research & Development Matching Grant Program to support the Massachusetts Open Cloud at Boston University and research in Flexible Electronics at the Raytheon - University of Massachusetts Lowell Research Institute (RURI), as well as three awards for \$150,000 each as part of the Mentorship Initiative, supporting regional projects that address opportunities identified by stakeholders with particular emphasis on organizing and mobilizing mentoring networks to support entrepreneurs.

By the numbers

453	
COMPANIES	

Internship Program: **1,318 potential interns** and **453 companies** have applied and completed registration for the program. Registration and formal agreements are ongoing and continue to increase as the program continues.

\$150K AWARDS

In partnership with the EOHED, The Innovation Institute, as well as a panel of 8 leading practitioners involved in innovation and entrepreneurship-driven economic development from regions and sectors across the Commonwealth, selected three of 22 proposals to receive Mentorship Program awards in the amount of \$150,000 each.

\$28.7 MILLION

The Collaborative Research Matching Grant Program approved awards in the amount of \$7 million leveraging over \$28.7 million in matching funds.

1300 EDUCATORS The 2013 STEM Summit, supported by the Innovation Institute, celebrated its 10th anniversary, with over **1,300 educators, business leaders and policymakers in attendance.**

70,000 ATTENDEES

With support from MassTech, MassDiGi led the state's presence at the 2014 PAX East exposition at Boston's BCEC from March 11-13, 2014. **This year's event attracted over 70,000 attendees** making it the largest gaming show in the country. MassDiGl also held its annual Game Challenge on March7-8, 2014 at the Microsoft NERD Center in Cambridge, MA. **This year's event attracted over 300 registrants, 45 competing teams and 28 veteran game industry mentors and judges.**

100 HOURS With the support of the Innovation Institute, MassCAN, managed by the Education Development Center, successfully recruited 55 high school teachers to take part in the NSF/Code.org 100 hour, year-long Professional Development program for the Exploring Computer Science program which launched in June, 2014. **Thirty-six (36) candidates, from over 100 organizations,** and associations submitted were chosen to take part in the Massachusetts Digital Literacy and Computer Science Standards panel, a collaborative effort to develop State K-12 Computer Science Standards.

200 COMPANIES

The Mass Big Data Initiative sponsored three data-driven events engaging over **200 companies and civic hacking enthusiasts.**



ADVANCED MANUFACTURING

The Innovation Institute is laying the groundwork for broader public-private collaboration in the Advanced Manufacturing sector that will support innovation, job creation and export growth.

Manufacturing Training grants:

Funds were awarded to support the creation of precision manufacturing pilot programs at Metro North Regional Employment Board, Inc. and Greater New Bedford Workforce Investment Board that provide training to unemployed and underemployed individuals, including veterans, minorities and women, and that support the workforce needs of the Commonwealth's globally competitive, advanced manufacturing cluster.

THE MASSACHUSETTS TECH HUB COLLABORATIVE

The state's IT sector collaborative, managed key initiatives to support the growing technology sector, including:

- The Tech Hub Collaborative's 12x12 entrepreneurship initiative wound down in Feb. 2014, with a last count of 21 startups, representing 400 jobs and nearly \$184M in private capital investment. The Tech Hub Collaborative transitioned its focus on startups to prioritize the scale-up of innovative companies and launched a new effort, Mass Scale, to catalyze a culture of growing companies to scale in Massachusetts.
- The Massachusetts Computing Attainment Network, MassCAN, was championed by an industry coalition for a funding appropriation in the 2014 Economic Development Bill, a testament to its importance for the future of the tech sector.
- The Tech Hub Collaborative's branding effort has produced an industry-led brand activation plan as a guide to implementing a new marketing campaign.
- The Tech Hub Legislative Caucus, supported by the Tech Hub Collaborative's Policy Working Group, organized several events, in the State House, at Verizon, the Cambridge Innovation Center, and TripAdvisor.

MASSTECH INTERN PARTNERSHIP

The Massachusetts Technology Collaborative partnered with the Commonwealth of Massachusetts to create the MassTech Intern Partnership, a program designed to connect talented college students and recent college graduates to internships in the state's dynamic technology sector. The program works in close collaboration with leading universities, technology councils, and other tech sector organizations in Massachusetts to recruit students and companies. Since the program was established in 2012, MassTech has received applications from 1,318 prospective students and 453 prospective companies to participate in the program. Of these companies, the majority were in the Software, Internet, Mobile and Health IT subsectors

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of the Commonwealth's tech industry. MassTech continues to make updates to the Intern Partnership portal, including improvements to the web pages and the database user interface.

Students Placed in Technology Internships

As of November 1, 2014, formal agreements have been established between MassTech and 127 companies. Through these matches, we have successfully placed 203 students in internships at these companies. The majority of students placed in these internships were enrolled at schools such as Boston University, MIT, Northeastern University, the UMass campuses, and Worcester Polytechnic Institute (WPI), among others. Registration and formal agreements are ongoing and will increase as the program continues with new funding received through the 2014 Economic Development Bill.

Community Engagement

The Massachusetts Technology Collaborative promoted the Internship Partnership by attending several entrepreneur and internship events, as well as co-hosting the "Massachusetts Technology Internship Celebration" at the Massachusetts Clean Energy Center with Governor Patrick in June 2014. The event celebrated the successful internship programs established by the Commonwealth's quasi-public organizations, noting how these programs have fostered job growth, talent development, and innovation across Massachusetts.

THE MASSACHUSETTS BIG DATA INITIATIVE (Mass Big Data)

Launched by Governor Patrick in 2012, MassBigData supports efforts to develop and provide resources, events and training to strengthen the Mass Big Data ecosystem.

The Mass Big Data Report: In April 2014, the 2014 Mass Big Data Report, funded by the Massachusetts Technology Collaborative and the Massachusetts Competitive Partnership, was announced and released. The 2014 Mass Big Data Report provides an assessment of the relative strengths and weaknesses of the Commonwealth in big data. The report highlights prospects for growth in areas including talent and workforce, industry sectors, and public access to government open data. The report also identifies opportunities to promote and expand the Mass Big Data sector, while enhancing the Commonwealth's position as a global leader. This report includes interviews with 16 key industry stakeholders; the results of the first annual Mass Big Data Survey of over 60 Massachusetts big data companies; an analysis of publicly available federal, state, and university data; and an extensive literature review.

Expansion of hack/reduce: In FY14, the Innovation Institute invested in and partnered with hack/reduce to develop and provide resources, events, and training which strengthen the Mass Big Data ecosystem.

MassBigData.org: The award-winning Massachusetts Big Data Initiative website, MassBigData.org, provides an outlet for sharing big data

initiatives, developments, news, jobs, and events in the region. **Visualizing Transportation Hackathon:** The Innovation Institute sponsored a hackathon in partnership with hack/reduce and the Massachusetts Department of Transportation ('MassDOT'), focused on analyzing and visualizing recently made available datasets to produce insights to help inform the future of transportation in the Commonwealth. Hack/reduce hosted this event on December 13-14, 2013, at their Kendall Square, Cambridge location, and featured an address from Governor Deval Patrick via teleconference from MIT's Future of Urban Mobility Project offices in Singapore. Several of the winning submissions were developed into full-fledged applications.

The 37 Billion Mile Data Challenge: The Innovation Institute sponsored a data-challenge event in partnership with the Massachusetts Department of Transportation (MassDOT), the Metropolitan Area Planning Council (MAPC), Code for Boston, hack/reduce, District Hall, and ZipCar, Inc. The "37 Billion Mile Data Challenge" focused on analyzing and visualizing a first-in-the-nation release of open and anonymized state vehicle registry data to identify relationships and insights in order to enhance transportation planning and operations across the Commonwealth. Winners included the online vehicle data exploration tool "MassEMIT" and an analysis of the disproportionate "cost of driving" burden on urban populations.



Mass Big Data event, hosted at the Massachusetts Green High-Performance Computing Center, Holyoke, MA.



COLLABORATIVE RESEARCH AND DEVELOPMENT MATCHING GRANT PROGRAM

Supporting both the establishment of new research partnerships and the expansion of existing ones across the Commonwealth, the fund provides financial support to Massachusetts universities and not-forprofit research centers affiliated with universities, enabling them to pursue new collaborative research strategies.

Massachusetts Open Cloud: This \$3 million award to Boston University supports a three-year project to build the Massachusetts Open Cloud (MOC) – a public, transparent cloud computing resource that will serve as a shared infrastructure in the Commonwealth for running computationally intensive big data applications. The MOC, managed by Boston University's Hariri Institute for Computing and Computational Science & Engineering, will serve as a vehicle that empowers researchers and companies in regions to explore, develop, and release novel big data and cloud computing solutions, benefiting both the innovators and the users of the technologies as well as subsequent MOC customers.

Raytheon – UMass Lowell Research Institute (RURI): This award will support the advancement of the Raytheon-UMass Lowell Research Institute (RURI), a new, permanent facility for research, development and commercialization in flexible and printed electronics housed within UMass Lowell's Emerging Technologies and Innovation Center (ETIC).

THE INNOVATION INDEX

The 2013 edition of the Index was released on February 10, 2014. This year's special analysis focused on future talent needs of the Commonwealth's innovation economy and included commentary from experts in the tech industry and talent recruitment such as HubSpot's Brian Halligan, John Barrett from Cooke Associates, Inc., Siobhan Dullea from Communispace, and Jim Stanton from the Massachusetts Computing Attainment Network. At launch, the Index Web Portal received more than 600 visitors and the average is approximately 300 per month.

INNOVATION MENTORING INITIATIVE

Through an appropriation made by the Legislature in the 2012 Jobs Bill, the Innovation Institute is strengthening the Commonwealth's Innovation Economy by organizing and building mentoring capacity to enhance regional entrepreneurial networks outside of Greater Boston.

Valley Venture Mentors: Valley Venture Mentors (VVM) provides entrepreneurs with free mentoring support to launch and scale their business. MassTech award funding will not only expand VVM's existing mentoring efforts, but also supplement current services with additional, complementary resources and activities supporting an increase in a sustained, critical mass of innovation and entrepreneurship activity in the Pioneer Valley region.

Merrimack Valley Sandbox: Funds from the Innovation Institute support improving Sandbox's mentorship program by hiring a Director of Mentorship, enhancing its website functionality and database used for mentorship matching, and raising awareness and visibility around the mentorship community and their importance to the region's entrepreneurs.

Interise: Awarded funds support Interise's StreetWise 'MBA' (SWMBA) program, a proven, seven-month certificate program that has been applied extensively in Massachusetts' Gateway Cities as well as distressed communities across the country to support entrepreneurial activity. The funding enables Interise to offer extensive, new mentoring services to 15 established, small business owners, with an emphasis on women and minority entrepreneurs, in the South Coast region.

Sandbox Summit and Deshpande Symposium: The Innovation Institute invested and partnered with the Merrimack Valley Sandbox in support of the Sandbox Summit and the Deshpande Symposium. The Sandbox Summit and the Deshpande Symposium, held at the UMass Lowell Inn and Conference Center in Lowell, Massachusetts, was a national conference embracing the goal of expanding opportunities for successful entrepreneurial efforts to all populations.



Gov. Patrick joined MassTech CEO Pamela Goldberg and David Parker, Executive Director of the Merrimack Valley Sandbox, to announce the launch of the Innovation Mentoring Initiative in February 2014.

INNOVATION INSTITUTE: FISCAL YEAR 2014



OTHER REGIONAL AWARDS

Games Challenge and 2014 PAX East Conference: This award was given to Becker College – Massachusetts Digital Gaming Institute (MassDiGI) to support a Massachusetts presence at PAX East on April 10-13, 2014, and (ii) sponsor the third annual MassDiGI Game Challenge 2014 being held at Microsoft NERD on March 7-8, 2014, which enables the Executive Office of Housing and Economic Development (EOHED) and MassDiGI to organize the Massachusetts digital games industry for maximum cluster development impact at the game challenge and exposition.

TechSandBox "Techubator": This award supported the strategic planning of a proposed, new TechSandBox initiative called "Techubator" - an accelerator-style program to provide an intensive, 6 months of mentoring, education, guidance, and other entrepreneurial support to a cohort of 8-12 high-potential young companies in the region. TechSandBox is located in Hopkinton, MA.

MassChallenge Startup Accelerator: Sponsorship from the Innovation Institute supported an investment in MassChallenge's core team, helping to scale-up and maintain the high-quality programing and opportunities MassChallenge provides to start-ups and entrepreneurs.

Career Connect Mentor Exchange Program: These funds were awarded to the Cape Cod Young Professionals, CCYP, Inc. to support developing the Career Connect Mentor Exchange program (Mentor Exchange). The Mentor Exchange is being designed to address unmet needs for career enhancement and professional development on Cape Cod.

MIT- Scaling Innovative Companies Research: Funding from the Innovation Institute to MIT's Industrial Performance Center (IPC) supported research into how innovative companies grow to scale in the Massachusetts economy and will result in a framework for understanding which types of firms are good candidates for scaling within the Commonwealth.

Gloucester Marine Genomics Institute: This award supported the launch of the Gloucester Marine Genomics Institute (GMGI), a start-up focused on establishing a biotechnology industry in Gloucester, specializing in research in the marine ecosystem.



A student designs a video game at the Massachusetts Digital Games Institute (Mass DiGI) at Becker College in Worcester.

MASSACHUSETTS BROADBAND INSTITUTE: FISCAL YEAR 2014

OUR YEAR

During Fiscal Year 2014, the Massachusetts Broadband Institute at MassTech (MBI) completed construction, testing, and turnover of the *MassBroadband 123* network, supported network utilization and broadband adoption. The MBI also undertook planning and development to formulate approaches and solutions to address the 'Last Mile', e.g. delivering broadband connections to unserved or under served municipalities in the Commonwealth.

By the numbers

950 NEW ROUTE MILES	Installed over 950 new route miles of fiber with 230 additional route miles of leased fiber access;
120 TOWNS	Installed network equipment in nearly 800 facilities located in over 120 Massachusetts cities and towns; Connected over 1100 Community Anchor Institutions (CAIs) , including schools, police and fire departments, hospitals, and municipal offices such as town halls;
\$50 MILLION	Supported and advocated for the passage of the Information Technology Bond bill, which included \$50 million for the expansion of 'Last Mile' broadband solutions to unserved and under served municipalities in the Commonwealth;
\$346K GRANTS	Working collaboratively with Community Development Corporations across the Commonwealth, the MBI provided \$346,000 in technical assistance grant funds to 46 small businesses to incorporate computer and internet technologies into their day to day operations;
46,000 VISITS	MassVetsAdvisor.org, a web portal that provides a one-stop online location to find Veterans benefits and to increase online engagement by Veterans, received over 46,000 visits and 152,000 page views during FY2014.

MASSACHUSETTS BROADBAND INSTITUTE: FISCAL YEAR 2014



MASSBROADBAND 123

In February 2014, the MBI completed the construction and testing phase for the MassBroadband 123 network, and at that time our network operator, Axia NGNetworks USA ('Axia'), began offering services throughout the network. MassBroadband 123 has approximately 1,200 miles of fiber optic cable, delivering high-speed internet access to over 1,100 Community Anchor Institutions at nearly 800 unique locations in over 120 western and central Massachusetts communities. This network provides a vital platform for broadband expansion to residences and businesses throughout these regions. As construction completed in FY2014, MBI increasingly turned its attention toward network sustainability. The MBI worked with Axia, service providers, and key state partners such as the Information Technology Division (MassIT), the Executive Office of Public Safety and Security (EOPSS), and the Department of Elementary and Secondary Education (DESE) to coordinate efforts and transition CAIs onto the network.

During FY14, roughly 300 CAIs ordered services, including nearly half of the connected schools and 70% of libraries. To further support network utilization in newly connected communities, the MBI created a framework to establish a broadband advisory service for municipalities, building on an initiative undertaken by the Franklin Regional Council of Governments (FRCOG). This program provides services which allow communities to assess their telecom needs and develop appropriate broadband plans.

LAST MILE

The MassBroadband 123 network provides the essential platform from which the Commonwealth can develop public-private solutions that will bring connectivity to additional community facilities, residences, and businesses in western and central Massachusetts, commonly referred to as the 'Last Mile'. Throughout FY14, the MBI supported and advocated for passage of Governor Patrick's Information Technology bond legislation, which included up to \$50 million in new capital investment. In preparation for passage of this potential source of funding, the MBI undertook a series of planning efforts to critically analyze the challenges and opportunities for expanding broadband access across the region. This analysis began with the establishment of a "Kitchen Cabinet" process in November of 2013, which enlisted the services of 'Last Mile' deployment experts to advise the MBI and the Commonwealth on best practices and possible approaches. As an outcome from the feedback provided by this group, the MBI performed multiple analyses of cost models and estimates for construction of fiber-based networks, as well as hybrid approaches which consider the potential role of wireless network solutions. In addition, these planning efforts have engaged and will continue to rely upon the cooperation of a broad range of stakeholders, including the Legislature, particularly

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Geoffrey Why (until May 2014), *Commissioner*, Massachusetts Department of Telecommunications & Cable

Director: Philip Holahan, Interim Director, MBI; Deputy Executive Director and General Counsel, Massachusetts Technology Collaborative



Schools such as Longmeadow High School have connected to the MassBroadband 123 fiber network, which has delivered increased connectivity and learning opportunities for teachers and students.



MASSACHUSETTS BROADBAND INSTITUTE: FISCAL YEAR 2014

the Western Mass delegation, regional partners such as FRCOG and WiredWest, regional planning authorities (RPAs), and ultimately Western Mass. communities.

The MBI's primary 'Last Mile' planning focus has been on two types of communities, those without an existing cable or fiber provider ('unserved') and those where a cable provider currently operates but provides service only to a portion of the town's residents ('partially served'). Unserved households in partially-served communities face the same barrier – no option for broadband-level connectivity - as their counterparts in neighboring towns with no cable or broadband provider. In coordination with members of the Legislature, the MBI has created a program to close service gaps in partially served communities.

ADOPTION AND MAPPING

In FY14, the MBI also continued to administer the small business technical assistance program with four (4) regional Community Development Corporations (CDCs), geographically dispersed throughout the Commonwealth. As a result of personnel savings, the MBI was able to extend the length of this program, awarding an additional \$200,000 for the CDCs to provide new technical assistance grants to approximately 25 - 30 additional small businesses.

Two of the CDCs awarded \$62,605 to an additional 9 small businesses, using funds remaining from the original FY12 awards. This program allowed 46 small business and nonprofits to expend \$346,000 in FY14, in support of their projects to incorporate computer and internet technology into their operations.

Mass Vets Advisor activities in FY14 included continued maintenance and improvement of the web portal, with quality assurance reviews conducted by the MBI and MA Department of Veterans' Services (DVS) and promotion/outreach activities. The MassVetsAdvisor.org website received over 46,000 visits and 152,000 page views during FY2014.

In FY14, work by the MBI's Adoption Manager was completed, and a detailed report summarizing successful programs, best practices, and potential funding sources for adoption programs was created. This work will inform policy decisions on potential actions that can be taken in FY15 to further support adoption across the Commonwealth.

The MBI's GIS team completed the 8th and 9th semi-annual broadband availability data submissions to the NTIA, for inclusion on the National Broadband Map. The staff also teamed with the Franklin Regional Council of Governments (FRCOG) and WesternMA Connect (WMC) to begin conducting outreach to communities in western and north central MA to verify and/or improve their broadband coverage maps and address locations used in last mile analysis.



Small Business Technical Assistance: 4 regional CDCs provided grants that allowed 46 small businesses and nonprofits to incorporate computer and internet technology.

MASSACHUSETTS eHEALTH INSTITUTE: FISCAL YEAR 2014



OUR YEAR

In FY14, MeHI completed our obligations under the Federal Health Information Exchange Grant, continued and renewed our support for the Medicaid Meaningful Use Incentive Program, and launched significant new programs supporting Behavioral Health and Long-Term/Post-Acute providers. MeHI also launched the eHealth Cluster Development program and worked with the Administration and Legislature to secure new funding for this initiative.

By the numbers

45 GRANTS	45 Implementation and Vendor Grants managed to completion;
OKAN13	500 individuals educated on HIway efforts through webinars and regional meetings;
500	285 Massachusetts based eHealth companies identified;
EDUCATED	648 REC participants that achieved Meaningful Use;
4606	4,606 Medicaid EHR Incentive pre-audits conducted;
PRE-AUDITS	2,376 Medicaid EHR Incentive applications processed for payment;
	\$55 Million in Medicaid Meaningful Use Incentives distributed;
2376 APPLICATIONS	16 educational webinars held;
PROCESSED	Reached 1,073 Twitter followers;
\$55	98 posts on the MeHI Community; and
MILLION DISTRIBUTED	25 newsletters sent.



HEALTH IT ADOPTION

In Fiscal Year 2014, MeHI successfully completed a 4-year federal health information exchange grant and initiated a transition to new state-supported programs.

When the state health information exchange (HIE), the Mass Hlway, launched in October 2012, MeHI focused our attention to growing its adoption. To catalyze connections and demonstrate the utility of the Hlway, MeHI funded 32 provider grants and 13 vendor grants through a Hlway Grant program. We connected all collaborating organizations to the Hlway (70+ organizations) and helped 11 vendor grantees test their connections on the Hlway. Grantees encountered many challenges along their path to connection. To address these issues and facilitate the sharing of best practices, MeHI conducted the Hlway Fall Forum, a daylong convening event, and the inaugural Hlway Rally, a day-long Twitter event that engaged with participants online, resulting in 285 Tweets, interaction with 61 unique users, and 13 organizations sharing their successful Hlway transactions. We concluded the State HIE Program by performing a grant evaluation, interviewing stakeholders, analyzing our data, and submitting reports to the federal ONC.

MeHI collaborated with the Commonwealth's Executive Office off Health and Human Services (EOHHS) on an HIE Learning Series, which allowed the two organization's collaborative efforts to be shared more broadly via virtual communications channels. We conducted webinars in May and June, titled "Getting Started on the Hlway" and "HIE Perspectives: Drivers, Challenges, and Trends". These webinars will continue monthly into FY15, ending in December 2014.

MeHI also shifted our focus to the broader challenges around health IT adoption and interoperability. As part of our charge under Chapter 224, MeHI chartered two new adoption programs – the Connected Community and eHealth eQuality programs. The Connected Community program aims to get healthcare data into digital format, get it moving among providers, and ultimately have the electronic data impact healthcare for all provider organizations in the Commonwealth. The eQuality Program aims to grow the adoption of health IT among those sectors where adoption is low –the behavioral health and long-term post-acute care communities. MeHI developed a program and staffing plan for each program in FY14.

REGIONAL EXTENSION (REC) PROGRAM

The Regional Extension Center (REC) program continued to support the efforts of Massachusetts providers to implement and achieve Meaningful Use of Electronic Health Records (EHR) systems. Since the start of the program in 2010, the REC has used federal Direct Assistance grant funds to provide consulting services to 3,051 primary care providers, assisting providers in their efforts to achieve Meaningful Use of EHR systems. During FY 2014, 648 primary care providers completed the third and final milestone of the REC program by

achieving Stage 1 Meaningful Use, for a total of 1,995 that have completed all of the REC program milestones.

In October 2013, the Office of the National Coordinator for Health IT (ONC) announced that Regional Extension Centers could apply for No-Cost Extensions for their grant funds. MeHI submitted an application for a No-Cost Extension in December 2013 and received notice of approval from ONC to extend the REC program date for an additional year, through February 7, 2015. While no additional funds are provided with the extension, MeHI now has the advantage of additional time to support providers with Direct Assistance funds.

As part of the No-Cost Extension application, MeHI submitted a Sustainability Plan to use a portion of the REC federal grant funds to develop new eHealth services to continue to support Massachusetts providers with Health IT in the future. The eHealth services outlined in the Sustainability Plan include provider support for Meaningful Use Stages 2 and 3, Privacy and Security, and Patient Engagement. MeHI also collaborated with the REC in New Jersey (NJHITEC) to begin design and development of an on-line provider portal that will be deployed as supporting technology for the new eHealth services. The services and the provider portal will be launched in the fall of 2014.

MEDICAID EHR INCENTIVE PROGRAM

The Medicaid EHR Incentive Program continued to support the state's efforts with accelerating the adoption of certified electronic medical records and assist eligible hospitals and eligible professionals with progressing to the next stage of Meaningful Use. Since the launch of the program in 2011, MeHI has processed EHR Incentive payments for 5,309 Massachusetts Eligible Professionals and for 58 Acute, Critical Access and Children's Eligible Hospitals.

The team worked collaboratively to support MassHealth with program planning and administration of the enrollment and eligibility verification process, attestation and pre-payment process, pre-audits, denials, and program reporting and analysis.

Over the past year, the team focused on three main objectives: 1) educate health care administrators and providers on Stage 1 Meaningful Use requirements; 2) perform 100 percent pre-audits on all EHR Incentive applications to reduce the risk of fraud and/or improper payments; and 3) authorize EHR incentive payments to eligible hospitals and eligible professionals.

The team responded to telephone calls and email inquiries from 700 organizations that are supporting eligible professionals with achieving Meaningful Use. Healthcare Organizations across Massachusetts are experiencing various challenges with progressing to the next Stage of Meaningful Use, with small group practices requiring the most support. The team worked closely with the Regional Extension Center to identify tools and resources available to assist these organizations.

In addition to the education and guidance activities, the team worked

MASSACHUSETTS eHEALTH INSTITUTE: FISCAL YEAR 2014



collaboratively with MassHealth to build out the operational processes to support Stage 2 Meaningful Use.

The main accomplishment was the team's ability to conduct pre-audits on 4,606 EHR incentive applications and process 2,318 eligible professional applications and 58 eligible hospital applications for payment, totaling \$55 million.

eHEALTH CLUSTER DEVELOPMENT

The eHealth Cluster Development effort continued building connections and identifying areas for potential collaboration. The program ultimately secured an investment of \$1 million for direct support of this initiative in the 2014 Jobs Bill.

Activities included:

- Publication of the eHealth Cluster white paper in Fall 2013;
- Support for the 3rd EU-US Business to Business Marketplace and the first Connected Health Week in Massachusetts. Both events have become annual events that will continue to be supported into the future:
- A Venture Capitalist Roundtable on eHealth to identify areas of need; and
- Further identification of eHealth companies in Massachusetts, with more than 285 identified to date.

COMMUNICATIONS AND OUTREACH

In collaboration with the program teams, the communications team led the organization of 5 regional events focused on learning about connected EHRs, the Mass Hlway, and Meaningful Use. The events included break-out sessions for the specific topics. The communications team also planned and organized the Fall Forum, which provided Mass Hlway Implementation Grant participants the opportunity to collaborate and share best practices with other grant recipients. To support MeHI's strategic planning effort, the communications team participated in the organization and execution of two stakeholder roundtables and hosted 16 educational webinars on HIE, Mass Hlway, and Meaningful Use, events which also facilitated lead generation for MeHI's programs.

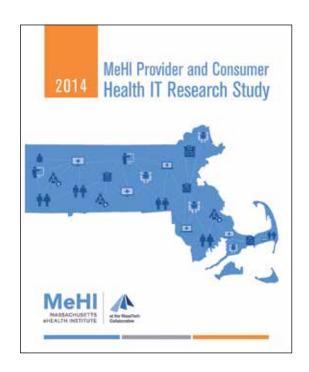
During FY2014, MeHI improved our PR, outreach, and social media activity. During the year, MeHI communications team drafted and published 12 success stories, 25 newsletters and e-bulletins, and 3 press releases. The communications team also posted 98 updates, articles and blogs on the MeHI Community website; as well as 3 articles that were submitted to national trade publications, including *Managed Healthcare Executive, Advance for Nurses*, and *Imaging Economics*. The regional event held in Springfield last fall helped highlight the impact of the Implementation Grants and gained media coverage on several regional broadcast stations, including the regional NBC-affiliate, *WWLP* (Channel 22). We also enhanced our Twitter participation and increased

our Twitter following to 1,073. To improve our presence and presentation, we developed new infographics and 4 videos focused on Health IT in the Commonwealth. The videos are being finalized to be incorporated in our website, which will be redesigned with materials for the new programs in FY15.

At the end of FY14, a new team was created to blend marketing and engagement into the outreach and communications efforts. The goal for this focus team is to increase MeHI's brand awareness and to enhance the promotion of our eHealth assistance programs.

OPERATIONS

The operations team completed a major project to consolidate our healthcare landscape data from three program based Salesforce.com accounts into a single instance. This new system automated a number of routine Medicaid application upload and processing tasks. After it went live on the last day of FY14, it enabled an immediate application processing increase of 30%. During FY15, this new platform will be extended to incorporate new, much needed functionality for the upcoming programs.





Governor Patrick (2nd from left) meets with UK Minister of State for Trade and Investment, Lord Livingston, (First on left) to promote the positive trade and investment relationship between the UK and the Commonwealth. Also in attendance were (L to R), EOHED Secretary Greg Bialecki, Dr. Susan Windham-Bannister, President & CEO of Mass Life Sciences Center, Pamela Goldberg, CEO of MassTech, and Alicia Barton, CEO of the Massachusetts Clean Energy Center. Photo credit: Eric Haynes/Governor's Office.

MASSACHUSETTS TECHNOLOGY COLLABORATIVE: EXECUTIVE



EXECUTIVE

In addition to supporting the work of the organization's key divisions, the Executive team, consisting of the Legal, Public Affairs, and Finance and Administration teams, also managed projects which helped boost the state's innovation economy both at home and abroad. The Executive staff also ensured that MassTech remained a successful and fiscally prudent agent of the Commonwealth.

The Executive staff teams ensured MassTech remained an exemplary steward of public funds in FY14, including through the successful completion of a clean annual audit. In addition, Finance and Administration staff worked to initiate a major software upgrade for procurement management, technology which will help save critical staff time and streamline internal procedures. MassTech also prepared to the launch in the 'Open Checkbook' system in FY2015, increasing financial transparency.

Throughout FY2014, our International Enterprise Initiative worked closely with public and private sector partners to engage technology leaders and public officials around the globe. During FY2014, MassTech supported innovation partnership missions to Asia, Canada, the E.U., Israel, the U.A.E., and Latin America. During these missions, MassTech executives joined delegation members in meetings with foreign government representatives and multi-national or pan-regional organizations, helping introduce these partners to the Massachusetts innovation economy. Through these efforts, MassTech develops a solid foundation that helps Massachusetts companies increase exports, find new customers, and succeed in the global economy.

During the Innovation Partnership Trade Mission to Asia, MassTech worked with Governor Patrick and MassDOT to organize meetings with MIT's SMART program, a collaborative research effort between the university and research organizations in Singapore. The visit focused on how big data and advanced analytics can impact transportation. Also during this mission, MassTech helped spur dialogue around eHealth, convening a roundtable event highlighting the Commonwealth's strong health IT cluster.

Through the trade mission to Canada, MassTech developed strong regional connections in the area of digital gaming in partnership with the Massachusetts Digital Games Institute (Mass DIGI) and the annual PAX East independent game conference. In Quebec, a strong gaming sector exists, and the delegation paid visits to Execution Labs, a gaming incubator, and game development labs run by Ubisoft and Warner Brothers (WB) Games – Montreal.

In Israel, MassTech helped organize a business exchange with 200+ Israeli eHealth executives, an event highlighted by keynotes from the CEOs of Beth-Israel Deaconess Medical Center and Massachusetts General Hospital.

In addition to overseas work, MassTech staff also received hundreds of global visitors to the Commonwealth. As part of these visits, International team members facilitate meetings with MassTech division staff on issues such as eHealth and big data, but also connect visiting dignitaries with key stakeholders in the Massachusetts innovation economy, including executives at local incubator and accelerators, tier-one academic institutions, and regional business and trade groups in the Commonwealth.



Pamela Goldberg, CEO of the Massachusetts Technology Collaborative speaking at the Mass Big Data Event at MGHPCC in Holyoke, MA.



FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Benchmark the State's Innovation Economy through development of the 2013-2014 Annual Index of the Massachusetts Innovation Economy.	Produce and release the Index of the Massachusetts Innovation Economy in the 2nd Quarter of FY14. Engage the Index Advisory Committee to help evaluate the strengths and weaknesses of the existing publication and make recommendations on new content and new media for the latest edition of the Index.	 Release of the annual publication. Engagement / click through data from the portal (Increase average monthly views from 250 to 300+).

The 2013 edition of the Index was released on February 10, 2014. For the month of February 2014 the Index Web Portal received more than 600 visitors and the average is approximately 300 per month and steady.

FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Analyze the growing Massachusetts Big Data cluster through completion of a Mass Big Data Study.	Complete and issue a Mass Big Data Report in collaboration with the Massachusetts Competitive Partnership, providing analysis of the Massachusetts Big Data cluster and its position in the global competitive landscape.	 Completion of study. Government, industry & academic engagement in presented results (3 presentations of Mass Big Data study findings).

UPDATE

Study completed and released in April 2014. Mass Big Data study findings were presented at 5 events in FY14.



FY 14 GOAL FY 14 ACTION MEASUREMENT

Strengthen Industry-Academia R&D Collaborations by administering the \$50M Research Matching Grant Program designed to support scientific discovery and to enhance commercialization and economic development throughout the Commonwealth.

Administer a \$50 Million fund designed to support the creation and expansion of innovation capacity in Massachusetts in partnership with research facilities and equipment at universities. Funds will be awarded through collaboration between the Massachusetts Executive Office of Housing and Economic Development and the Innovation Institute at the MassTech Collaborative.

As this is a new initiative for FY14, performance will be measured by:

- Completion of a review and evaluation of multi-year collaborative research proposals with aim to support cluster growth in the Commonwealth.
- Creation and participation in advisory boards for at least half of approved projects to gather and evaluate information and understanding of what is working and what is not in real-time to help strengthen decision-making.

UPDATE

The Innovation Institute evaluated and reviewed seven collaborative research concepts in 2014. The Investment Advisory Committee recommended funding for two Collaborative Research Proposals in FY14.



FY 14 GOAL FY 14 ACTION MEASUREMENT

Support Technology Sector Cluster Development and public-private collaboration initiatives through the Mass Tech Hub Collaborative.

Provide management support and thought leadership to the Tech Hub Collaborative Executive Committee and its current working groups.

Support the development, execution, and implementation of a new effort to brand and market a modern, updated identity for the Massachusetts tech sector.

Support the 12x12 community of startups, VCs, CEOs, and service providers and assist with project communication and outreach.

Support progress in implementing the Massachusetts Computing Attainment Network (MassCAN), which aims to advance computing education in the state through improved standards, curriculum frameworks, teacher professional development, and broader public awareness of computer science learning opportunities and careers.

Support industry partners and state legislators in organizing the newly formed legislative Tech Hub Caucus on topics of significance to the state's tech sector and relevant to policymakers.

- 50 company/ industry participants in Tech Hub programming.
- 2-3 new startups supported in FY14 by the 12x12.
- 60 new jobs created by the 12x12.

UPDATE

The Tech Hub Collaborative's 12x12 wound down in FY14, after launching 21 startups, representing 400 jobs and nearly \$184M in private capital investment.

The first Mass Scale roundtable convened 5 of the region's tech icons with 15 rising CEOs of growing tech companies to discuss scale-up issues. MassCAN was championed by an industry coalition for a funding appropriation in the 2014 Economic Development Bill, a testimony to its importance for the future of the tech sector.

The Tech Hub Collaborative's branding effort has produced an industry-led brand activation plan as a guide to implementing the new marketing campaign.

The Tech Hub Caucus, supported by the Tech Hub Collaborative's Policy Working Group, organized 5 events—both in the State House and at Verizon, the Cambridge Innovation Center, MassTLC, and Tripadvisor. Event participation has ranged from 50 to over 100 attendees, with representation from 5-10 legislative offices.



FY 14 GOAL FY 14 ACTION FY 14 ACTION

Strengthen the Global
Competitiveness of Massachusetts'
Big Data Cluster through Execution of
the Massachusetts Big Data
Initiative (MassBigData).

Support Hack/Reduce, exploring opportunities to sponsor hackathons, data challenges, and/or app competitions.

Organize a cluster promotion strategy, launch a website, sponsor conferences, and initiate other efforts, including a "Big Data Week."

Support talent retention by engaging rising and recent college graduates with local industry through "TechTreks" industry tours, support to related internships, and other outreach efforts.

Serve as a convener and driver of collaborative progress in identifying, preparing, aggregating and providing access to Open Government Data.

Continue supporting of the development of a Massachusetts Open Cloud service that holds the potential to provide high performance cloud computing resources, along with both software and hardware development platforms, to businesses, research institutions, and non-profits across Massachusetts.

Help identify, engage, and organize leaders in transportation, urban planning, and related data analytics.

MEASUREMENT

- Programming outcomes, including app competitions, hackathons, and access to public data sets.
- Goal of 4 app competitions and hackathons in FY14.

UPDATE

The Innovation Institute supported 25 hackathons and data driven events in FY14.

MassDOT and Innovation Institute staff, working in partnership with other stakeholders, identified and secured a range of open and anonymized transportation data over a seven-month period in support of this event. This data includes "Real-time Traffic Management" data, roadway volume data, highway planned (roadwork) & unplanned (accidents and emergency roadwork) event data and commuter rail data (including train arrival and departure times, ridership 'load counts', and fare data).

• The 37 Billion Mile Data Challenge highlighted the release of a new marquee, anonymized public data set and promoted increased engagement between MassDOT and stakeholder communities across the region. The analytical work done throughout the Data Challenge provided identification of novel patterns and the creation of new tools to assist MassDOT informing its transportation administration and planning efforts.



FY 14 GOAL FY 14 ACTION MEASUREMENT

Support & Strengthen Advanced Manufacturing in Massachusetts

through engagement within the Advanced Manufacturing Collaborative and other related initiatives. Provide management support for the Advanced Manufacturing Collaborative's Manufacturing Innovation Working Group.

Support development of a Massachusetts Center for Advanced Design & Manufacturing (MCADM), organizing industry input into the development of a center that will address industry-identified challenges around identifying and implanting new tools, techniques, and processes that enhance the competiveness of small to medium sized manufacturing enterprises in the region.

Support activities of the Precision Manufacturing Regional Alliance Project (PMRAP) relative to workforce development.

Work regionally to adapt, consolidate and scale lessons learned and best practices to multiple advanced manufacturing clusters in Massachusetts.

- Launch of MCADM
- Ongoing relationship with PMRAP will continue the partnership between industry, vocational schools, state and community colleges to provide trained workers for the advanced manufacturing sector in the Western Massachusetts region.
- Launch of two new cluster based initiatives that address 2-3 technology sub-sectors in advanced manufacturing.
- Debrief with applicant and diagnose in the event of NNMI proposal to evaluate for possible Innovation Institute & state complementary and alternative responses.

UPDATE

The Innovation Institute approved funds supporting the launch of the Massachusetts Center for Advanced Design and Manufacturing in June 2013. MCADM, in partnership with UMass Amherst, The National Center for Manufacturing Sciences, MGHPCC, and UMass Lowell submitted a proposal to the Manufacturing Futures Fund. This proposal was vetted by the MCADM board and informally through the AMC Innovation Working group.

The Innovation Institute provided direct support to the Northeast Advanced Manufacturing Collaborative (NAMC) and the Southeast Massachusetts Advanced Manufacturing Consortium (SMAMC) with field visits and grant oversight.

EOHED contracted with MassTech to have the Institute staff commence support to the following initiatives: organize and support an on-going best practices community of practice forum for practitioners from seven Massachusetts regions who are focused on regional-scale efforts to strengthen the manufacturing sector in Massachusetts; and organize and support the continuation of the Advanced Manufacturing Regional Partnership Academy.



FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Support Regional Economic Growth Strategies including the Holyoke Innovation District and other impactful regional or cluster growth initiatives.	Provide organizing, coordination and project management to leverage economic impact from the Commonwealth's investment in the Massachusetts Green High Performance Computing Center (MGHPCC) through the Holyoke Innovation District initiative. Administer the Regional Priority Grant program, making strategic investments and development partnerships which strengthen clusters or regions. Sponsor and support MassDiGI at Becker College.	Constituent engagement in region. In FY14 it is expected that more than 100 firms and 1,000 individuals will participate in the HID initiative.

In Fiscal Year 2014, the Holyoke Innovation District initiative involved and partnered with over 20 organizations. Constituent engagement continues to increase and positively affect Holyoke and the Pioneer Valley.

The Innovation Institute Mentorship Initiative awarded funds to Valley Venture Mentors, located in Springfield, Massachusetts to support expanding free mentoring support to launch and scale new businesses or, alternatively, determine the infeasibility of potential businesses as quickly as possible for the Pioneer Valley region. The high-quality, effective mentoring delivered by VVM has attracted aspiring entrepreneurs and very high quality volunteer mentors, cultivating and expanding the innovation ecosystem in the region. Valley Venture Mentors have received a 10% increase in applications, and attendance at monthly meetings has increased from 100 to 125 from January 2014 to March 2014.



FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Retain more Outstanding Talent within the Massachusetts Innovation Economy through administration of the MassTech Intern Partnership, with an anticipated goal of 170 interns matched by end of FY14.	Continue to organize, recruit, monitor and evaluate the MassTech Intern Partnership. Prepare and issue a report in January 2014 which describes the program and presents initial results. Evaluate the ongoing need and identify additional funding to support future years of this pilot initiative if appropriate.	 Over 600 students and over 300 companies engaged (benchmark of 400 students and 200 companies from FY13) 100 successful intern matches (benchmark of 70 in FY13). Post Experience participant satisfaction analysis.

Over 1,266 interns and 428 companies have applied to the Intern Partnership Program. (614 students and 127 companies in 2014). As of June 2014, a total of 202 interns have been matched to 100 different sponsors.

A survey of student interns reveal that 92% felt their experience gave them valuable skills and 87% would recommend this internship program to their peers.

A survey of company sponsors shows that 92% are likely to participate in the program again and recommend the programs to others.



FY 14 GOAL FY 14 ACTION MEASUREMENT

Strengthen Regional Mentorship Capacities to enhance new business formations statewide through development and execution of the MassTech Mentorship Initiative. Implement a new initiative that will support enhanced mentorship programs throughout the Commonwealth by investing and partnering with regional projects to organize and build entrepreneur mentoring capacity outside of Greater Boston. Up to five regional awards are planned for FY 2014.

As this is a new initiative for FY14, performance will be measured by:

- Engagement with 15+ members of regional mentorship community.
- Implementation of a mentorship workshop that addresses needs and best practices which will help shape this new initiative.
- Partnership with 5+ mentorship program awardees to enhance regional entrepreneurship.
- Execute focus group at end of program to gather and codify information on best practices and any program shortcomings, lessons learned.

UPDATE

Convened a mentorship roundtable in June 2013 of 14 mentoring stakeholders to discuss priorities for new mentoring initiative. Issued a mentoring RFI that generated 24 responses from organizations across the state that served as input to the RFP design.

Conducted 15 debrief calls with applicants that did not win the competitive RFP awards to share information about the mentoring initiative review process and better understand needs and growth opportunities for individual programs.

The Innovation Institute co-sponsored the 2014 Sandbox Summit in June 2014 that featured a panel on mentoring best practices that highlighted the Mentoring Initiative's competitive RFP winners.

The Innovation Institute selected three of 22 proposals submitted to the Mentorship RFP to be awarded funds. The three competitive awards have been made and are now in implementation phase:

- Merrimack Valley Sandbox was awarded \$150,000 to expand its entrepreneur mentoring program and add a Spanish speaking mentorship
 manager to better serve the largely immigrant communities of the struggling Lawrence/Lowell region.
- Interise, Inc. was awarded \$149,613 to provide intense mentoring and associated executive education to high-potential entrepreneurial businesses in the lower-income Fall River/South Coast region.
- Valley Venture Mentors was awarded \$150,000 to scale-up its mentoring efforts for early-stage ventures and initiate additional start-up
 resources and services in Pioneer Valley/ Western MA.

The Innovation Institute has also continued to support the mentoring ecosystem through other efforts:

- A planning and seed grant of \$50,000 was given to Cape Cod Young Professionals to pilot a new a career mentoring effort to engage students and youth with experienced professionals in the region.
- A \$25,000 planning grant was given to the MetroWest's Tech SandBox to develop a strategic plan for a proposed new science-tech accelerator that would establish new mentor-mentee relationships in the region.
- \$100,000 to MassChallenge as continued support for their enterprise, which is the largest start-up mentoring platform in the state and offers best practice learnings for other programs.



FY 14 GOAL	FY 14 ACTION	MEASUREMENT

Serve as a Global Connector and Resource for the Tech Sector through MassTech's International Enterprise Initiative. Work with partner entities, including the Massachusetts Office of International Trade and Investment, the U.S. Commercial Service, and local consular offices to provide the tech sector access to matchmaking, business development opportunities, and other programming to increase their global competitiveness.

Identify & implement partnership initiatives with regions with which Massachusetts has entered into cooperation agreements.

Support & participate in successful and productive global innovation partnership trade missions, with a focus on fostering connections to benefit the digital technology sector, including big data, robotics, eHealth, broadband, & mobile communications.

- 10 new partnerships formed with organizations or governments which provide value to the MA tech sector.
- New partnership opportunities generated or furthered from 3 existing MOU countries/regions which provide benefit the MA tech sector.

UPDATE

Mass Tech supported innovation partnership missions to Asia, Canada, the E.U., Israel, the U.A.E., and Latin America. During these missions, MassTech executives joined delegation members in meetings with foreign government representatives and multi-national or pan-regional organizations, helping introduce these partners to the Massachusetts innovation economy. In receiving visiting delegations and through these missions, MassTech has forged partnerships and relationships with over 15 organizations and governments that will benefit the digital technology sector and help it to thrive in the global economy.



MASSACHUSETTS BROADBAND INSTITUTE: FISCAL YEAR 2014 GOAL REVIEW

FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Build Middle-Mile Broadband Infrastructure: Provide access to a robust middle-mile fiber-optic network for Western and Central Massachusetts by completing construction on MassBroadband 123, connecting 1,200 key community institutions in over 120 cities and towns.	Operationalize the remaining segments of the MassBroadband 123 network (approximately 30% remains to light in FY14). Complete project close-out with Design Builder and Owner's Project Manager.	1,200 miles of fiber deployed

UPDATE

Construction was completed and the network was turned over to the network operator as of February 2014; nearly 300 CAI's have ordered service.

FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Extend Broadband Connectivity to More Homes and Businesses: Develop and execute public-private solutions which expand broadband connectivity directly to more homes and businesses in Western Massachusetts, with a priority focus on under served municipalities.	Convene coalitions and partnerships to arrive upon specific policy recommendations. Leverage public and private investments. Begin to execute on solutions.	As this is a new initiative, performance measurement will be centered around: • Identifying and accessing funding sources, starting w/passage and enactment of a \$40M capital investment by the Commonwealth. • Development of a last mile strategy with stakeholder engagement and support.

UPDATE

Bond bill passed House in Nov. '13 at \$50M w/\$5M for "partial cable" communities. Senate passed Bond Bill in June '14 (Governor Patrick signed the final bill with \$50 MM in early FY15).

Cost modeling analysis showed clear need for additional sources of funding. Municipal outreach and technical assistance planned. Partial cable communities program being planned.



MEASUREMENT FY 14 GOAL **FY 14 ACTION Monitor Broadband Availability:** Map state broadband availability. Accurate and timely reporting of data Deploy GIS tools to map broadband at the bi-annual submission deadlines Launch the Address File Toolkit, which availability in Massachusetts to better of October 1, 2013 and April 1, 2014. includes an address standardization inform policymaking. database and a crowd sourcing address Maintain 85% response rate of service maintenance application to develop providers required to respond (25 out more accurate reporting around of 29 currently). broadband availability and usage. Create Broadband Adoption Heat Map Identify areas where broadband by 12/31/13. adoption is lower than the state average through development of a Broadband Adoption Heat Map.

UPDATE

Met semi-annual data submission deadlines; submitted on 9/30/2013 and 4/1/2014. The Fall 2013 data was submitted a day early in anticipation of the Federal government shutdown. Both data submissions were accepted as is, without change requests.

The average broadband service provider participation for the two data submissions was 85%. Provider participation also increased from FY13, and fluctuated slightly during FY14 due to mergers and acquisitions. Received data or responses from 29 of 34 providers for 4/1/2014 submission and 27 of 32 providers for 4/1/2014 submission.

MBI did not have direct access to adoption data to create a heat map. MBI reproduced adoption maps created by MA Department of Telecommunications and Cable (DTC). Additional mapping and analysis in support of last mile planning and adoption was performed and both projects are ongoing.



FY 14 GOAL FY 14 ACTION MEASUREMENT

Increase Broadband Adoption:

Support broadband technology adoption and digital literacy among the 600,000 residents (10% of the state's population) currently electing not to adopt, in order that they more fully participate in the digital economy and access the benefits and advantages it can provide.

Enhance and maintain

MassVetsAdvisor.org, helping Veteran and military family populations use the digital portal to access benefits and resources.

Manage and evaluate the small business technology adoption grant program underway with four regional Community Development Corporations (CDCs).

Collaborate with broadband providers to understand their current adoption programs and explore partnerships. Inventory existing programs and best practices at state and national level. Develop Needs Assessments in target

communities.

Develop programs that best meet the needs of the target areas and have the best track record of success if utilizing

existing programs.

Identify funding sources to support

new and expanded programs.

• Maintain Veterans Service Officer engagement > 90% registration.

 Maintain and grown key MVA user and click data.

• Pages/visit > 3

Average duration/visit > 3 minutes

 Monitor key CDC metrics of grants which include increases to staff, increases in on-line sales, or better financial management.

UPDATE

Maintained over 90% engagement with VSO's across the Commonwealth.

Garnered over 46,000 visits and 152,000 page views.

Visitors viewed an average of 3.27 pages per visit, above the benchmark; and the average user stayed on the site for roughly 3 minutes per visit.

Due to MBI personnel savings, the CDC grants were extended through September 2014 and awarded an additional \$200,000. MBI gathered baseline measures for metrics – such as increased staff, sales or efficiency – in the 2nd quarter of FY14. Businesses were interviewed in the 4th quarter of FY14 to gather testimonials. Surveys to gather quantitative and qualitative metrics began in June 2014 These will be compiled in FY15 when complete.

Adoption Manager completed a report summarizing successful programs, best practices, and potential funding sources for adoption programs. This work will inform policy decisions on potential actions that can be taken in FY15 to further support adoption.



FY 14 GOAL **FY 14 ACTION MEASUREMENT** Advance Use & Adoption of the Promote and administer \$2M in HIway 1,000,000 production transactions Commonwealth's Health Information Implementation Grants to catalyze sent over the HIWay. **Exchange:** Connect all types of health connections to the HIway. 450 organizations connected to the care provider practices and hospitals to HIway. the Mass HIway, the statewide Health Connect natural referral circles in 7,500 health care providers connected Information Exchange. geographic regions to the HIway to the HIway. collaboratively through a Community Collaborations initiative. Outreach to laboratories to engage in electronic lab exchange using the Hlway. Begin to develop a consumer engagement & education strategy around secure health record transactions.

UPDATE

On Track:

3,415,546 production transactions sent over the HIway.

Some Progress:

169 organizations connected to the HIway.

~1,400 active healthcare providers listed in the HIway directory.



FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Advance the Adoption & Meaningful Use of Electronic Health Records: Assist Massachusetts providers with acquiring, implementing and meaningfully using electronic health record technology.	Enroll additional providers in MeHI's Regional Extension Center. Through a network of Implementation & Optimization Organizations (IOOs), provide support and carefully monitor providers' progress through the three key adoption milestones. Develop needs assessment and adoption plans for the behavioral health and long term care provider communities.	2,487 primary care providers participating in the REC program reach Meaningful Use Stage 1.

On Track:

Completed provider/consumer research on health IT adoption.

Some Progress:

Assisted 648 providers reach milestone 3 (Stage 1 MU).

Assisted 178 providers in reaching Milestone 2 (go-live on an EHR).

Enrolled additional 107 providers (includes swaps) in the REC program.



FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Advance the Adoption & Meaningful Use of Electronic Health Records by Medicaid Providers & Hospitals: Help Medicaid providers and hospitals adopt electronic health record technology and access federal incentives for EHR adoption.	Under contract with MassHealth, administer the Medicaid Electronic Health Records Incentive Payment Program, including provider outreach, training and education around eligibility, enrollment support, verification, and application support.	 Process payment applications for 3,524 eligible providers. Process payment applications for 25 eligible hospitals.

On Track:

Processed 4606 eligible professional applications.

Processed 79 eligible hospital applications.

Total of 2,318 eligible professionals received payments, totaling \$32M.

Total of 58 eligible hospitals received payments, totaling \$23M.

FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Help Train the Massachusetts Workforce for Advancements in Health Care Technology: Train Massachusetts residents in new skills required for employment in the emerging Health IT cluster.	Establish and operate a workforce development pilot program focused on the eHealth sector in Massachusetts with a community college and/or vocational technical school.	 As this is a new initiative for FY14, performance will be measured by: Completion of a needs assessment. Industry engagement in program development. Participants engaged in a pilot during FY14.

UPDATE

Some Progress:

Convened internal workforce development workshop and external workforce development roundtable and workshop. Concluded, the program will focus on introductory Health IT topics for entry level long term care and home care workers.

Started development of the pilot program to launch in FY15.



FY 14 GOAL	FY 14 ACTION	MEASUREMENT
Support Growth of the eHealth Cluster: Help increase the global competitiveness of the growing health IT cluster in Massachusetts, with a focus on startup companies.	Hiring a Director of eHealth Economic & Workforce Development. Complete a landscape analysis. Convene a series of roundtable/advisory meetings. Organize around initiatives or public policy solutions which can strengthen the sector's competitiveness.	As this is a new initiative for FY14, performance will be measured by: Placing a new Director. Insights and engagement from 50 industry members included in development of the initiative.

Some Progress:

Filled and reopened the Director position.

Convened venture capital roundtable and follow up communications.

Ongoing program support for international programs and promotion for external partners to advance business development opportunities.

Updated and expanded Salesforce database of Massachusetts eHealth firms.

Engaged with over 50 companies.

Worked with the Legislature and Administration to secure a \$1M investment in eHealth Cluster economic development.





ACCOUNTING

	AMOUNT
Revenues	\$34,794,717
Expenditures	\$35,085,534
Assets	\$141,635,027
Liabilities	\$7,261,717

INVESTMENTS AND GRANTS

DIVISION	SUM OF COUNT	SUM OF AMOUNT
Innovation Institute	165	\$6,121,827
Massachusetts Broadband Institute	6	\$7,286,354
Massachusetts eHealth Institute	77	\$1,528,216

THE INNOVATION INSTITUTE: INVESTMENTS AND GRANTS



DESCRIPTION	INVESTMENT	SUM OF AWARD	STRATEGIC GOAL / IMPACT	
R&D Match Award: Investment for a collaborative project between industry and academia to build the Massachusetts Open Cloud	\$3,000,000	1	Identify & Support Emerging Areas of Global Innovation Excellence	
Development of the Global Entrepreneur in Residence pilot program	\$26,000	1	Build and Retain Talent for the Innovation Economy	
Mentoring Initiative Grant: Funding for Interise to provide mentoring services to small business owners, with an emphasis on women and minority entrepreneurs in the South Coast region	\$149,613	1	Build and Retain Talent for the Innovation Economy	
Gateway Cities Innovation Institute Awards Sponsorship	\$5,000	1	Expand our Culture of Innovation	
Project Support to the Massachusetts Computing Attainment Network (MassCAN) for computer science education awareness	\$75,000	1	Build and Retain Talent for the Innovation Economy	
Sponsorship of the annual Massachusetts STEM Summit	\$4,500	2	Expand our Culture of Innovation	
Support expansion of Hack Reduce efforts to develop and provide resources, events and training that drive the objectives of the Mass Big Data initiative and strengthen the Mass Big Data ecosystem	\$100,000	1	Identify & Support Emerging Areas of Global Innovation Excellence	
Support for the Cape Cod Young Professionals to develop the Career Connect Mentor Exchange program	\$50,049	1	Build and Retain Talent for the Innovation Economy	
Support for the MassDiGI Game Challenge 2014	\$15,000	1	Identify & Support Emerging Areas of Global Innovation Excellence	



DESCRIPTION	INVESTMENT	SUM OF AWARD	STRATEGIC GOAL / IMPACT	
Support for Planning and Development of the Massachusetts Center for Advanced Design in Manufacturing (MCADM)	\$5,000	1	Identify & Support Emerging Areas of Global Innovation Excellence	
Support for Department of Defense Hackathon	\$8,000	1	Identify & Support Emerging Areas of Global Innovation Excellence	
Support for the 2014 Creative Economy Summit	\$20,000	1	Identify & Support Emerging Areas of Global Innovation Excellence	
Support for the Holyoke Innovation District initiative	\$87,500	1	Expand our Culture of Innovation	
Mentoring Initiative Grant: Funding to expand Merrimack Valley's Sandbox mentorship program	\$150,000	1	Build and Retain Talent for the Innovation Economy	
Support for the Sandbox Symposium, an entrepreneurship summit	\$20,000	1	Expand our Culture of Innovation	
Support of the MassDOT-MAPC Data Challenge	\$7,000	1	Identify & Support Emerging Areas of Global Innovation Excellence	
Support of the MassChallenge startup accelerator and business development competition	\$100,000	1	Build and Retain Talent for the Innovation Economy	
Mentoring Initiative Grant: Support of Valley Venture Mentors' efforts to increase innovation and entrepreneurship activity in the Pioneer Valley region	\$150,000	1	Build and Retain Talent for the Innovation Economy	
Support for a research study into how innovative companies 'grow to scale' in the Massachusetts economy	\$80,000	1	Expand our Culture of Innovation	
Support the launch of the Gloucester Marine Genomics Institute	\$49,940	1	Expand our Culture of Innovation	

THE INNOVATION INSTITUTE: INVESTMENTS AND GRANTS



DESCRIPTION	INVESTMENT	SUM OF AWARD	STRATEGIC GOAL / IMPACT	
Support the strategic planning of "Techubator" at the Metro West regional TechSandBox	\$25,000	1	Build and Retain Talent for the Innovation Economy	
Working with and providing specialized support to the creative companies participating in MassChallenge 2013 accelerator	\$7,000	1	Expand our Culture of Innovation	
Support the creation of precision manufacturing pilot programs that provide training to unemployed and underemployed individuals, including veterans, minorities and women, and that support the workforce needs of the Commonwealth's globally competitive, advanced manufacturing cluster	\$830,000	2	Identify & Support Emerging Areas of Global Innovation Excellence	
Support across a variety of Big Data initiatives, including website development and support, and increasing public and marketplace awareness	\$198,000	3	Identify & Support Emerging Areas of Global Innovation Excellence	
MassTech Intern Partnership: Match Funding for small and medium tech firm's intern personnel-related expenses	\$648,000	135	Increase the Number of Internship Placements	
International Enterprise: Funding to support and promote international commerce and assist MA businesses to compete successfully in the global economy	\$311,225	1	Market the strengths of doing business in Massachusetts	
THE INNOVATION INSTITUTE	INVESTMENT TO	TAL: \$6,121,82	7 AWARD TOTAL: 165	



MASSACHUSETTS BROADBAND INSTITUTE: INVESTMENTS AND GRANTS

DESCRIPTION	INVESTMENT	SUM OF AWARD	STRATEGIC GOAL / IMPACT
Development and Support for MassVetsAdvisor, the Massachusetts Veterans' Portal	\$17,000	1	Make public infrastructure investments that support regional growth
Broadband Small Business Technical Assistance Offered in Partnership with Community Development Corporations	\$199,998	4	Make public infrastructure investments that support regional growth
Funding to support construction and operations of MassBroadband 123	\$7,069,356	1	Make public infrastructure investments that support regional growth

MASSACHUSETTS BROADBAND INSTITUTE

INVESTMENT TOTAL: \$7,286,354

AWARD TOTAL: 6



DESCRIPTION	INVESTMENT	SUM OF AWARD	STRATEGIC GOAL / IMPACT
Planning Services for the EU-US B2B eHealth Marketplace and 2013 Governor's Health IT Conferences	\$25,990	1	Accelerate use of eHealth Technologies
Development of Instructional/Informational videos for Health IT adoption and Meaningful Use	\$49,557	1	Accelerate use of eHealth Technologies
Funding to conduct a program evaluation of the ONC-funded Last Mile Program and Challenge grants	\$155,260	1	Accelerate use of eHealth Technologies
Funding to develop a research study on healthcare providers and consumers about their health IT needs and attitudes	\$232,388	1	Accelerate use of eHealth Technologies
Health Information Exchange Last Mile Support	\$450,045	3	Accelerate use of eHealth Technologies
Vendor Interface Grants to Help Local Health Providers Share Information Via the Mass Hlway	\$161,661	3	Accelerate use of eHealth Technologies
Purchase of a healthcare contact database to support key programs	\$7,350	1	Accelerate use of eHealth Technologies
Regional Extension Center Provider Direct Assistance Incentives to support Electronic Health Record Adoption	\$148,500	44	Accelerate use of eHealth Technologies
Research and build a database of healthcare organizations and associated contacts in the Commonwealth for use in MeHI programs	\$24,975	1	Accelerate use of eHealth Technologies
Development of the 'Improving Massachusetts Post-Acute Care Transfers' (IMPACT) project	\$218,410	19	Accelerate use of eHealth Technologies
Support and development services for the MDPHnet platform	\$54,080	2	Accelerate use of eHealth Technologies

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MASSACHUSETTS eHEALTH INSTITUTE

INVESTMENT TOTAL: \$1,528,216

AWARD TOTAL: 77





MASSACHUSETTS TECHNOLOGY COLLABORATIVE

FISCAL 2014 LEADERSHIP TEAM

Pamela Goldberg, Chief Executive Officer

Gregory Bialecki, Secretary, Executive Office of Housing and Economic Development; **Chair,** Massachusetts Technology Collaborative Board of Directors

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Christopher Andrews, Chief Financial and Administrative Officer

Maeghan Welford, Chief of Staff

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Judith Dumont, *Director* **(through January 2014),** the Massachusetts Broadband Institute at the Massachusetts Technology Collaborative

Laurance Stuntz, Director, the Massachusetts eHealth Institute at the Massachusetts Technology Collaborative



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MASSACHUSETTS TECHNOLOGY COLLABORATIVE

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