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Northcoast Seafood in downtown Boston installed 117.6 kW of photovoltaic panels consisting of 674 panels and an inverter, manufactured in Massachusetts, with partial funding through MTC's Renewable Energy Trust.

## Dialogue on energy details, choices, opportunities

### Joint board meeting explores future energy landscape in Massachusetts

**CAMBRIDGE** – In February, the Board of Directors of the Massachusetts Technology Collaborative met jointly with the Governing Board of the John Adams Innovation Institute to discuss the future energy vision and landscape for the Commonwealth.

Dr. Susan Hockfield, President of MIT, joined Gordon van Welie, President and CEO of ISO-



Susan Hockfield  
MIT President

New England; Susan Tierney, Managing Principal of the Analysis Group in Boston; and Mary Smith, Manager of the Energy Supply and Utility Administration at Harvard University, as keynote presenters.

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Don Dubendorf  
Innovation Institute  
Chairman

## A Mind for All Seasons

One-on-one interview with Don Dubendorf, the chair of the John Adams Innovation Institute Governing Board

### WILLIAMSTOWN –

When you talk with Don Dubendorf and ask him a question, don't be surprised if he immediately responds, not with an answer, but instead with a penetrating question for you.

It's not that Dubendorf, a partner with the law firm Grinnell, Dubendorf and Smith, is a strict disciple of the Socratic method. Rather, it's more a measure of his insatiable curiosity and desire to engage in dialogue. He's much more comfortable, he says, conversing with people than in speaking from a podium.



Governor Patrick and two members of his cabinet gather with the Organizing Committee of the Massachusetts Life Sciences Collaborative on March 30th. Left to right: Secretary of Health and Human Services JudyAnn Bigby, Secretary of Housing and Economic Development Dan O'Connell, Governor Deval Patrick, Harvard Provost Steve Hyman and MTC Executive Director Mitchell Adams.

## Changing the 'protein structure' of the Massachusetts Life Sciences industry

### Gov. Patrick announces plans to change state's stem cell research regulations at Massachusetts Life Sciences Collaborative Organizing Committee meeting

**CAMBRIDGE** – The gathering had the feel, one university provost said, "not unlike a meeting of the United Nations Security Council."

Crowded around a circular array of tables in a conference room at the Hotel@MIT on March 30th were the best and the brightest of the life sciences industry in Massachusetts.

There were university presidents and provosts from Harvard, MIT, BU, Tufts, Northeastern and the University of Massachusetts.

There were leaders of major research institutes and medical centers, including Beth Israel Deaconess, Children's Hospital, Brigham and Women's Hospital, Dana Farber Cancer Institute, and the University of Massachusetts Memorial Medical Center.

There were also corporate leaders from Abbot, Biogen-Idec, Merck, Zoll Medical, Haemonetics, Genzyme, and Novartis, as well as representatives from venture capital investment firms.

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“We’re exporting genius in projects, in products, in design, and in human capital, and we’re not getting paid for it.”

Don Dubendorf

Those skills have helped to make him a talented lawyer – as well as an expert facilitator when leading meetings, a role that Dubendorf often finds himself in as chair of the Governing Board of the John Adams Innovation Institute. He has led wide-ranging discussions with key industry, legislative and policy leaders on any number of complex topics, from the intricacies of capturing the revenue stream with commercialization of new technologies to the technical details of wireless technology deployment.

At the most recent quarterly meeting of the full Governing Board, a joint meeting with the Massachusetts Technology Collaborative Board of Directors focused on energy issues, Dubendorf shared center stage with MIT President Susan Hockfield and a host of energy experts examining the energy outlook for the Commonwealth.

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## Entrepreneurs, start your engines

**WESTBOROUGH** – A new state investment program focused on intermediate-scale projects and economic activities is now open to bidders.

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## Wifi Radio Vendor Forum slated for May 1

**WESTBOROUGH** – An all-day Wifi Radio Vendor Forum will be held on May 1, 2007, from 10 a.m. to 4 p.m. at the Doubletree Hotel in Westborough. The event seeks to provide municipalities with an opportunity to learn first-hand more about these technologies.

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## Innovation Institute Investments

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### Expanding emphasis on science and mathematics

**BOSTON** – In partnership with a NASA-funded program to develop a STEM teacher education program, **Wheelock College** is launching a **College Math and Science Education Initiative**, underwritten with a **\$112,000 award** from the Research Center Matching Grant program of MTC’s John Adams Innovation Institute. [Read more>](#)

## Gillett, broadband expert, chosen to lead state's Department of Telecommunications and Cable

**Momentum builds for robust telecommunications infrastructure and competitive, affordable broadband marketplace throughout the Commonwealth**

**BOSTON** – Gov. Deval Patrick’s appointment of Sharon E. Gillett to head the new MA Department of Telecommunications and Cable is one of a series of promising developments on the broadband connectivity front.



Sharon E. Gillett

Gillett, who is a principal at Victory Research, had previously served as chair of the Broadband Working Group and principal research associate for the Communications Futures Program at MIT. She also served as a member of the Boston Wireless Task Force, a group established by Mayor Thomas Menino to develop plans for a wireless network serving Greater Boston.

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## A Mind for All Seasons

**One-on-one interview with Don Dubendorf,  
the chair of the John Adams Innovation Institute Governing Board**

*(Continued from front page)*

“My role is to advance the dialogue,” he said in a phone interview immediately following the meeting, and then, with barely a pause: “What did *you* think of the meeting?”

**Convergence:** *What do you see as the future opportunities and challenges for the John Adams Innovation Institute?*

**Dubendorf:** There are fundamental infrastructure issues with the Innovation Economy that we’ve not solved in the Commonwealth. Broadband connectivity is a perfect example of that. We’ve got to get that done.

Today, there are 31 totally un-served communities in Western Massachusetts, and another 30 under-served. If a community doesn’t have access to affordable broadband, it can’t participate in the knowledge-based economy.

We’ve worked for a long time—more than a decade—on these issues, and we’ve done a good job of identifying the barriers and challenges and potential solutions. It’s time we moved ahead as a Commonwealth with the investments necessary to make it happen.

We’ve learned that we can’t leave broadband issues to be decided by the regulators of the telecommunications services. They haven’t got the job done.

**Convergence:** *How do you see the role—present and future—of the Innovation Institute?*

**Dubendorf:** In the longer term future of the Innovation Institute—and the Innovation Economy, we will need to become more heavily engaged in the process of life-long education. We need to answer questions, such as: How will we populate the intellectual landscape of the future? What will it look like? How will we grow it?

“We’re exporting genius in projects, in products, in design, and in human capital, and we’re not getting paid for it.”

**Don Dubendorf**

In many of the arenas we work in – broadband, marine sciences, energy, life sciences, and securing federal investments in academic research – it is much too important to leave the outcomes to happenstance. The Innovation Institute's role is that of a catalyst and a convener and a midwife.

We have two jobs at the Innovation Institute: to nurture those components of the Innovation Economy that are achievable in the near term, and in the longer term, to ensure that the economic benefits are realized in portions of the state outside Boston—in places such as Brockton, Holyoke, and Pittsfield.

Today, the Commonwealth's Innovation Economy is very Boston-centric, and there are limitations to that.

When we leave behind big areas of the state, we impoverish the intellectual future of the state. A strong economy enjoys as many diverse, geographic locations as possible. It is an investment in high-quality human capital.

***Convergence:*** *What can we be doing better?*

**Dubendorf:** The capture of downstream economic benefits of the Innovation Economy is something that we're failing at right now.

We're exporting genius in projects, in products, in design, and in human capital, and we're not getting paid for it.

And we're not going to fix that with easy answers. At the end of the day, it's endemic to our circumstance. We are not going to be a manufacturing center of choice by industry; our population is aging, our climate is cold, our electricity costs are too high, and housing is too expensive.

The proposed study by Richard Lester at MIT, which will provide a comprehensive look at the Commonwealth's Innovation Economy, may start to give us some answers why we're not harvesting genius, and instead, exporting it at below-market rates. In that sense, we're a bit like third-world countries, exporting our natural resources at low rates.

We need to recognize that one of our most important 'natural resources' is genius and innovation.

***Convergence:*** *What do you see as the promise of the Patrick Administration?*

**Dubendorf:** When administrations change, there's often a sense that they act as if the past didn't exist, that we were without any history. To its credit, the Patrick Administration did not try to start things all over again, it looked at what worked, and it has preserved successful policies.

So far, the Patrick Administration has done a very good job of listening, to engage in matters of policy on broadband, energy, life sciences and marine science and technology. I find all the early moves to be quite positive. I'm

excited about the promise of a new administration.

That said, there's no lack of problems to tackle, all of which need immediate attention.

In terms of energy policy, we're vulnerable. We've got to get very serious very shortly; we have to use market forces to help make policy.

The cost of housing in the Commonwealth is a huge burden on the economy and the Commonwealth's future. It explains in part the loss of talent and genius.

Broadband connectivity should be in the top five policy priorities.

**Convergence:** *To what do you attribute the success of the Innovation Institute in leveraging investments over a relatively short amount of time?*

**Dubendorf:** We have achieved something significant in a short period of time. It comes with a respect that has been earned.

Politics and political significance in Massachusetts is a hardball game. It's not for amateurs; it doesn't come lightly.

A large part of the reason for our success has been the leadership of Pat Larkin. He has a highly refined sense of the needs of the Innovation Economy, as well as a sense of the capacity of the political sector to engage and interact. He has sought out and brought people to the table and engaged with them in dialogue, and he has listened.

He has also demonstrated a kind of intellectual humility about the problems and the opportunities, with the emphasis on the need to solve problems. With Pat, it's not about proclamation, it's more about hard work and intellectual nimbleness and acuity.

**Convergence:** *Does your day job ever get in the way of the work for the John Adams Innovation Institute?*

**Dubendorf:** No. They complement each other. They are a source of mutually sustaining energy. The energy from one sustains the other.

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## Changing the ‘protein structure’ of the Massachusetts Life Sciences industry

**Gov. Patrick announces plans to change state's stem cell research regulations at Massachusetts Life Sciences Collaborative Organizing Committee meeting**

*(Continued from front page)*

There were leaders from industry organizations representing medical devices, teaching hospitals, technology development, and biotechnology companies, as well as the presidents of the Boston Foundation and the Greater Boston Chamber of Commerce.

All are members of the newly formed Organizing Committee of the Massachusetts Life Sciences Collaborative ([www.masslsc.org](http://www.masslsc.org)). Often fierce competitors in the marketplace for ideas, resources and talent, these leaders were now assembled in a unified effort to create a cross-sector collaboration to enhance the competitiveness of the life sciences industry in the Commonwealth.

How impressive a gathering was it? Gov. Deval Patrick attended – and chose the occasion to hold a news conference announcing his plans to reverse regulatory restrictions on stem cell research that flew in the face of legislative intent. “The life sciences should be guided by science, not politics,” Gov. Patrick told the group. “Science should not be held hostage by political agendas.”

The Governor brought the Secretary of Housing and Economic Development, Daniel O’Connell and the Secretary of Health and Human Services, JudyAnn Bigby to be a part of this forum.

Former Senate President Robert Travaglini also spoke, praising the members of the 43-member organizing committee of the newly formed Collaborative. “This kind of collaboration is what we envisioned,” he said, when the Legislature invested resources in the economic stimulus legislation to support the life sciences industry.

The meeting also featured a presentation by Monitor Group on the results of a survey it conducted on a *pro bono* basis of the Life Sciences industry “mega-



*Governor Deval Patrick speaking at the Governing Board meeting on March 30.*



cluster” in Massachusetts. The survey looked at the strengths and weaknesses compared to other life sciences clusters here in the United States and in other countries, and reinforced many of the initial concerns of the Organizing Committee regarding quality of life issues such as affordable housing impacting the ability of Massachusetts to attract and retain the “best and brightest” talent.

The collaboration’s potential to change the climate for the better for the life sciences industry was recognized by most if not all the participants. “We are changing our protein structure,” one university leader told another, in a droll comment that captured the import of the meeting.

**In the months ahead**, the Organizing Committee has developed a challenging agenda for activities. It has identified eight priority areas of focus and developed task forces to work on each. They include:

- Funding for innovation/address “valley of death”
- Increase clinical trials
- Address affordable housing issues
- Improve workforce development and education
- Improve connectivity/transportation
- Increase share of downstream manufacturing
- Improve life sciences business environment
- Address NIH/FDA funding issues

In addition, the Collaborative has been working to create a strong presence at BIO 2007 in Boston, which will be held May 6-9 at the Boston Convention and Exhibition Center. The Massachusetts pavilion will be branded as the “Life Sciences Super Cluster.” In addition, there will be 14 booths representing different life sciences non-profit organizations, as well as three booths for the Massachusetts Tech Transfer Center.

A new report on the Massachusetts Life Sciences Supercluster is being developed by the New England Healthcare Institute, the Massachusetts Technology Collaborative and PriceWaterhouseCoopers.

“Less than two years ago, the Governing Board of the John Adams Innovation Institute met at the Boston Athenaeum with industry leaders to discuss the need to invest in a collaborative culture of predictability and persistence,” said Mitch Adams, executive director of the Massachusetts Technology Collaborative. “Now, we have in place a formidable new cross-sector collaborative which includes Massachusetts’ world-class universities, teaching hospitals and research companies, its biotechnology, medical device and pharmaceutical companies, as well as the many software, venture capital, plastics and IT companies that contribute to the growth and vitality of the cluster. It is a remarkable accomplishment – but the real success will be developing a comprehensive, integrated strategy to grow this supercluster in Massachusetts.”

*Gayle Farris of Forest City Enterprises, Paul Bleicher of Phase Forward, Inc., and Jamshed Bharucha of Tufts University*



*Charles Cooney, Professor of Chemical & Biochemical Engineering at MIT, Faculty Director, MIT's Deshpande Center for Technological Innovation; Former Senate President Robert Travagnini; and Paul Grogan of The Boston Foundation*



*Monitor Group's presentation from Kurt Dassel*



*Lisa Lopez of Haemonetics Corporation, Mark Maloney of Boston World Partnerships, and Kevin O'Sullivan of Massachusetts Biomedical Initiatives*



## Entrepreneurs, start your engines

*New state investment program launched by Innovation Institute, with competitive awards ranging from \$250,000 to \$500,000 to be given twice a year*

*(Continued from front page)*

Proposals are expected from partnerships representing economic development agencies, industry associations, educational institutions, municipal governments and other not-for-profit organizations that meet eligibility criteria.

The funding for the state investment program was provided by the Legislature in Economic Stimulus legislation, with the goal of growing and strengthening industry clusters in regions throughout Massachusetts.

While for-profit businesses are not eligible to receive the grants, the commitment and participation of industry is required and will need to be an essential component of every successful project.

**Dan O’Connell, Massachusetts Secretary of Housing and Economic Development**, offered a strong endorsement for the new investment program, saying that it was right in line with the economic priorities of the Patrick Administration. “This program is about advancing opportunities here in Massachusetts. The outcomes sought are measurable job growth, new business formation, and increased economic activity, including collaborations by and among companies.”

O’Connell said that he very much liked the focus of the investment awards. “It’s not about the money; it’s about outcomes,” he said. “The Innovation Institute is asking that applicants demonstrate a mature understanding of emerging market opportunities, and the barriers and constraints that may inhibit growth in a region or industry cluster,” he said.

Opportunities for Q&A at the Massachusetts Technology Collaborative’s campus in Westborough will be held on **April 27th from 10:00 am - noon** in the **Karl Weiss Conference Center**. If you are interested in attending this session, please **RSVP by clicking here** and providing your name, organization, email, and phone number.

More information is available on the **Project Award Program here**.

**“It’s not about the money; it’s about the outcomes.”**

**Dan O’Connell**

“Our focus is on opportunities to achieve growth and strengthen industry clusters in the Commonwealth’s knowledge-based economy,” said **Pat Larkin, Director of the John Adams Innovation Institute**. “We are asking applicants to describe the unmet need—or the ‘but for’ condition to achieve success that will be met—with the awards.”

Larkin said that the Innovation Institute will use the following criteria when scrutinizing applications:

- Identification and documentation of emerging market opportunities and barriers to cluster or regional growth;
- Broad regional and statewide economic impact;
- Leveraged investments by the public and/or private sector;
- Probability of success; and
- Sustainability.

**Bill Ennen** of the Innovation Institute, explained the rationale of the new investment program. “We believe that a focus on sectors and clusters is a compelling advantage in growing the Massachusetts Innovation economy,” he said. “Our approach to this investment activity is informed by focusing on a specific sector or cluster in order to foster growth – and understanding and identifying the economic conditions necessary for that growth.”

For more information, contact: **Christopher Scranton, 508 870 0312, ext. 1276, [scranton@masstech.org](mailto:scranton@masstech.org)**.

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## Wifi Radio Vendor Forum slated for May 1

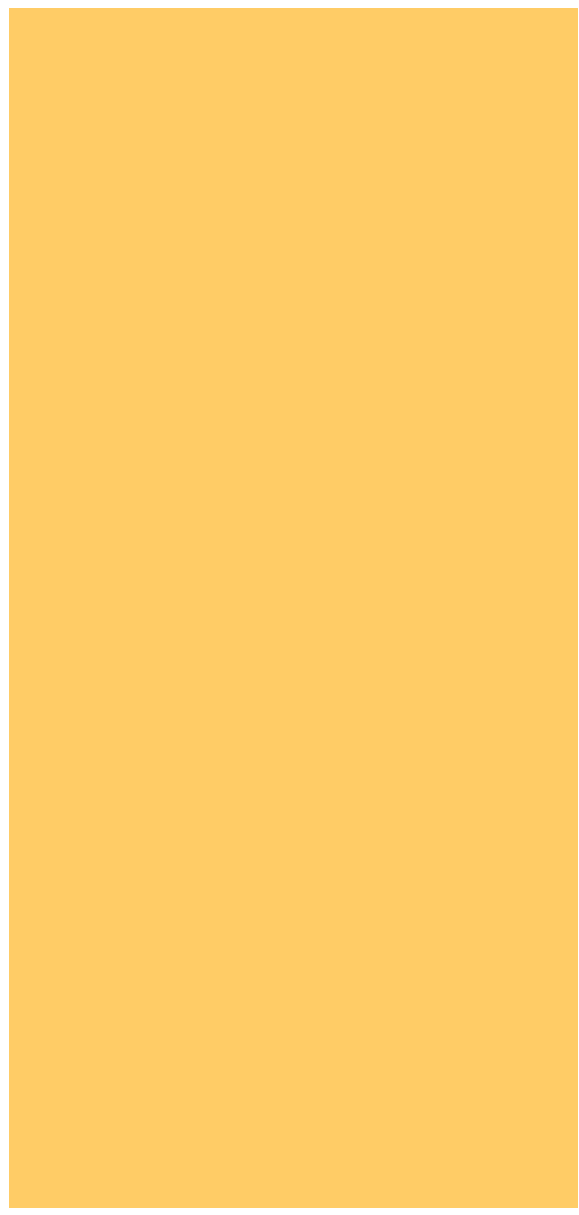
**WESTBOROUGH** – An all-day Wifi Radio Vendor Forum will be held on May 1, 2007, from 10 a.m. to 4 p.m. at the Doubletree Hotel in Westborough. The event seeks to provide municipalities with an opportunity to learn first-hand more about these technologies.

Mary Hart of Cambridge, Kathleen McCarthy of Framingham, and Kevin Stokes of Brookline, members of the Municipal Broadband Working Group, encouraged participation in the event, saying that participation was a way “to collaborate and leverage opportunities.”

Registration for the forum is free, thanks to the support of MTC’s John Adams Innovation Institute and Cisco.

For more information, please contact: Adele Burnes at [burnes@masstech.org](mailto:burnes@masstech.org)

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## Innovation Institute Investments

### New Partnership To Spur Job Growth on Cape

**FALMOUTH** – Efforts to translate R&D into job creation on Cape Cod received a strong boost with the investment of a \$150,000 award to the Regional Technology Development Center of Cape Cod from MTC's John Adams Innovation Institute.

RTDC will use this award to develop an "innovation accelerator"—a repeatable process for translating the world-class marine science and technology research from the Woods Hole Oceanographic Institution and the Marine Biological Laboratory into job creation and business formation. Analysts project that marine science markets will be worth hundreds of millions of dollars as new ocean observing infrastructures are constructed in the coming decade.

The Regional Technology Development Center of Cape Cod was created in 2006 as a not-for-profit economic development organization with \$200,000 in seed funding from Economic Stimulus legislation, along with guidance and support from the Falmouth Economic Development Corporation and MA Senate President Therese Murray.

Under the new partnership, a nationally recognized group of advisory board members will oversee the identification of market needs and the selection of technologies by the RTDC. In addition to WHOI and MBL, Brown University, which manages the intellectual property for MBL, has strongly endorsed the "innovation accelerator" model.

Patrick Larkin, the director of MTC's John Adams Innovation Institute, praised the Senate President for her leadership efforts to create the collaborative framework to enable the region to leverage job growth from world-leading, marine science research centers in Falmouth.

"Leadership by Senator Murray has enabled these two world renowned marine science research institutions to collaborate through the RTDC and capture the economic benefits of the emerging market opportunities." Larkin said.

### Strategic pipeline for medical devices

**LOWELL** – MassMEDIC and the University of Massachusetts Lowell have teamed up to create an initiative known as M2D2 to help bridge a persistent and growing gap in funding sources to convert ideas for medical devices into commercial products. It is being underwritten by a \$150,000 investment from MTC's John Adams Innovation Institute.

The initiative will focus on medical device concepts that meet criteria in both market and technical feasibility. The effort expects to reach a stage when it can evaluate 300 concepts a year, produce prototypes for 40, generate proof-of-concept for 20 and then graduate 10 investment-ready products each year.

In its initial launch, M2D2 will focus on six specific medical device concepts, with the expectation that two will complete the process to investor and commercialization hand-off.

"Moving from concept to prototype is often a major barrier in the medical device sector, because investors are generally unwilling to offer venture support to companies that had not developed a device to at least the prototype level," said Bob Kispert of the Innovation Institute. "The M2D2 initiative will help to establish an infrastructure to support new product and new company formation in the medical device cluster."

## OpenCape: Affordable and Reliable Connectivity

**BOURNE** – The “OpenCape” initiative, which seeks to achieve the deployment of affordable and reliable broadband connectivity for the region, was recently awarded \$150,000 in a regional priority investment from MTC’s John Adams Innovation Institute.

The initiative is now exploring the possibilities of creating a wireless transport backbone that would run along Route 6 from Bourne to Provincetown and along Route 28 from Bourne to Falmouth. The money will be used to design and develop a system, resulting in a proof-of concept and fully-fledged plan to build the proposed digital communications network.

Three local academic and research institutions – Cape Cod Community College, the University of Massachusetts at Dartmouth and the Woods Hole Oceanographic Institution – are working in partnership with the Cape Cod Technology Council to help develop a redundant, high-capacity communications infrastructure in June 2006.

The project seeks to overcome the region’s inadequate infrastructure by using wireless technology, and by aggregating demand for ubiquitous connectivity on a regional basis in order to create the conditions for competitive wholesale pricing.

## Expanding emphasis on science and mathematics

**BOSTON** – In partnership with a NASA-funded program to develop a STEM teacher education program, Wheelock College is launching a College Math and Science Education Initiative, underwritten with a \$112,000 award from the Research Center Matching Grant program of MTC’s John Adams Innovation Institute.

The program goals are to have every student attain scientific and mathematical literacy, regardless of whether they are planning to enter the teaching profession. In addition, for those prospective teachers not majoring in science and mathematics, the program seeks to provide them with a higher level of content knowledge.

The Initiative also seeks to create pipeline programs to identify, recruit and retain promising high school students from diverse communities to become Wheelock College prospective teachers.

“Massachusetts has a well-documented deficiency of teachers in the pre-Kindergarten through sixth grades with proper training in STEM subjects,” said Bob Kispert of the Innovation Institute. “This project addresses the critical need to attract, train and qualify science- and mathematical-literate teachers.”

The program will also create a framework for follow-up efforts to leverage further federal investment and improve the competitive position for funding from additional state and foundation sources.

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## Dialogue on energy details choices, opportunities

### Joint board meeting explores future energy landscape in Massachusetts

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Dr. Hockfield spoke about the potential to create an energy industry cluster, similar to the Life Sciences industry cluster in Kendall Square, in Massachusetts. In the same manner that the “race to the moon” galvanized her generation, Dr. Hockfield said the energy challenges facing our nation can provide the same inspiration for our young students.

“Our future energy challenges are a fantastic opportunity to invigorate the next cycle of the Commonwealth’s Innovation Economy,” she said.

Hockfield said there were new-generation nuclear power plants being designed that were safer and more efficient, responding to a question about the future of nuclear power from Lawrence J. Reilly, the Vice Chair of the MTC Board and Senior Vice President and General Counsel for National Grid USA. Hockfield said the work on those new designs was being conducted in large part at MIT’s excellent nuclear science and engineering program.

However, until there is a solution to the nuclear waste problem, Hockfield predicted that nuclear will only serve as a “transitional power source over the next 20 years.”

In response to a question from Michael Cronin, President and CEO of Cognition Corporation, and a member of both the MTC Board of Directors and the Innovation Institute Governing Board, regarding the future of coal, Hockfield said that in the future coal will certainly be a major fuel source. “The question is how to use coal cleanly,” she said.

The most promising future fuel source, Hockfield continued, may be bio-fuels. She spoke of the MIT-led team that had recently lost a competition to secure a \$500 million bio-fuels center underwritten by BP. “It was a marvelous collaboration. We have the people in place, the ideas in place, the nucleus of a dynamic team,” Hockfield said. Our task, she continued, is to “find other sources of funding to implement the effort.”



**Dr. Susan Hockfield**, President of MIT



**Susan Tierney**, Managing Principal of the Analysis Group in Boston

**Susan Tierney**, managing principal of the Analysis Group in Boston, provided a detailed view of what she deems the “top ten” energy challenges for the region, and the need to not only recognize but reconcile “the multiple concerns of environmental quality, economic development and national security.” She added, “We need to create an environment in which we are willing to accept—if not encourage leaders to make—tough decisions.”

Tierney compared energy prices nationally to those in New England and Massachusetts, showing that the electricity prices for the Commonwealth in 2006 were more than double the national average. A major reason for the spike in prices, she explained, was the decision “to bet on the market” and invest \$6 billion in building 9,000 megawatts of new natural gas-fired electric plants in the aftermath of utility deregulation. These power plants now account for a significant share—more than 30 percent—of the region’s electric capacity.

However, natural gas prices are now close to historical high levels, and there are concerns about the adequacy and price of supplies, Tierney said. The anticipated supply from natural gas fields such as Sable Island in Nova Scotia has not materialized, she said.

“From a policy point of view, we seem to be betting that prices will come down because it’s too tough to make the investment choices we need to make if they don’t,” Tierney said. She warned that the era of cheap energy may be over.

One of the best potential reservoirs of energy for New England is energy efficiency, according to Tierney, and she said that energy efficiency must be considered an essential component of any resource mix.

Tierney also warned against the idea that there was a silver bullet to the region’s complex energy situation. “Each group,” she said, “has its own favorite silver bullet. We use them to shoot each other, and everyone is left dead in the corners.”

**Gordon van Welie**, the President and CEO of ISO New England, Inc., a not-for-profit organization that oversees the region’s bulk power grid and wholesale electricity markets, focused on the looming gap between peak demand for power in New England and new capacity to meet that demand. In the summer of 2006, the peak demand was more than 28,000 megawatts, and there is limited capability to meet increased peak demands with new capacity, he explained.

Van Welie offered a new equation to look at the dilemma, focused on the potential to reduce peak demand, agreeing with Tierney on the importance of investments in energy efficiency. According to van Welie, for every decrease of 1,000 megawatts in peak demand, there is a savings of \$600 million a year in electricity costs.

Van Welie suggested that, in terms of payback, investments that reduced peak



**Gordon van Welie**, the President and CEO of ISO New England, Inc.



**MARY SMITH**, Manager of Harvard University’s Energy Supply and Utility Administration

demand were much more lucrative than investments in new capacity.

**Mary Smith**, the manager of Harvard University's energy supply and utility administration, offered the perspective of being both a provider and consumer of energy. "Energy is a big-ticket item," she said, pointing out that the commercial rates in Massachusetts during 2005-2006 were among the highest in the nation.

Being part of a university community, she said, required developing an approach that was both cost-effective and socially responsible. "The customer, the end-user, needs to become part of any energy solution," Smith said.

**In the invigorating dialogue** that followed, many attendees offered their perspective. David Cash, Assistant Secretary for Policy, representing Energy and Environmental Affairs Secretary Ian Bowles, said that the current energy situation was a great opportunity—"perfect weather" to address the problems caused by high energy prices, increasing threats from global warming, and limited resources and—to implement long-term solutions.

Robert Culver, President and CEO of Mass Development, and a member of the Innovation Institute's Governing Board, urged that the Commonwealth use this energy opportunity to "attract and retain good businesses," with an emphasis on creating new resources for jobs.

Warren Leon, the director the Massachusetts Renewable Energy Trust, seconded the idea of investing in ways to reduce peak demand in the summer, suggesting that a program of more efficient air conditioners might be beneficial.

Mitch Tyson, CEO of Advanced Electron Beams, an early stage company, and a member of the Innovation Institute Executive Committee of the Governing Board, suggested that the Commonwealth look to the manner in which the Innovation Economy has developed its infrastructure and create a similar vision for energy.

Tyson suggested some immediate steps: implement time-of-day pricing for commercial and residential accounts; and require utilities to purchase efficiency before they buy new power capacity.

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## Gillett, broadband expert, chosen to lead MA Department of Telecommunications and Cable

**Momentum builds for robust telecommunications' infrastructure and competitive, affordable broadband marketplace throughout the Commonwealth**

*(Continued from front page)*

In May 2006, Gillett was one of the keynote speakers at MTC's John Adams Innovation Institute Governing Board meeting held at the John Hancock building. At the meeting she detailed the economic importance—the proven cost-savings and economic benefits for communities—underlying the increasing involvement by local municipalities and regions in broadband connectivity. Between 1998 and 2002, communities served by broadband saw significant increases in jobs, in property values, in number of firms, and in industry mix, Gillett found.

"Broadband, wireless, telecommunications and cable are critical to the economic success of businesses and consumers in all parts of our state, from Pittsfield to Provincetown," Gillett said upon her appointment.

MTC's Senior Industry Advisor, Nick Vantzelfde, lauded her selection, saying that Gillett was "an excellent choice to help make sure that communities across the Commonwealth are wired for the 21st century." Vantzelfde provides the state technical assistance and policy advice on the range of broadband initiatives underway in Massachusetts.

In a series of briefings held for legislators and policymakers, Vantzelfde underscored the progress being made by a number of wireless and broadband initiatives underway in Massachusetts to surmount existing barriers to achieve the deployment of affordable, ubiquitous broadband.



**Sharon E. Gillett, the newly appointed head of the MA Department of Telecommunications and Cable, is a broadband expert who has worked closely with the Innovation Institute. She was a keynote presenter at the May 2006 Governing Board meeting.**

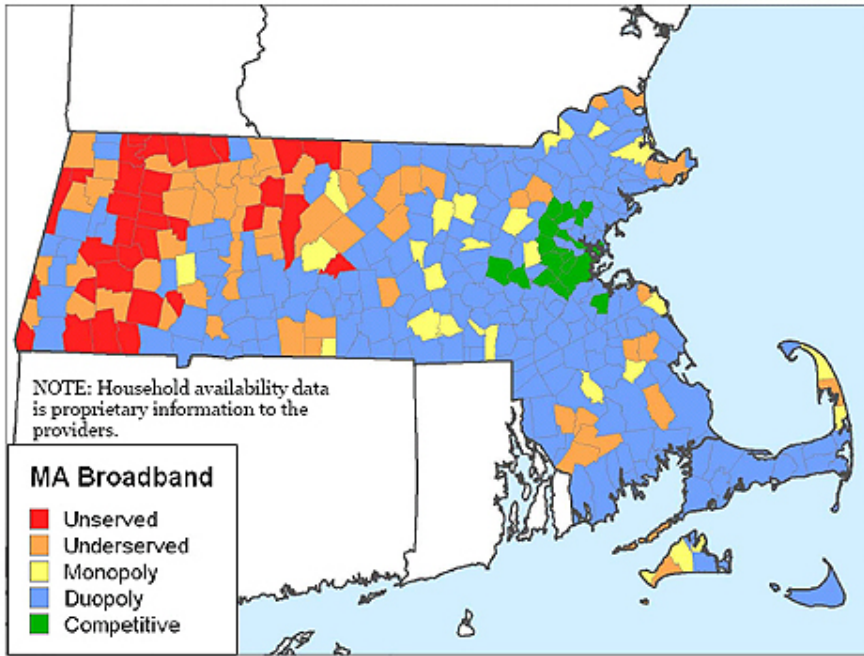
"Broadband, wireless, telecommunications, and cable are critical to the economic success of businesses and consumers in all parts of our state, from Pittsfield to Provincetown."

**-- Sharon E. Gillett**



# Broadband Availability in Massachusetts Municipalities

April 2007



Without state investment in the communications infrastructure to ensure affordable access to broadband connectivity, Massachusetts is evolving into a state of broadband “haves” and “have-nots.” [click here to enlarge](#)

In late March, legislators—including Sen. Stan Rosenberg, Rep. Dan Bosley, and Rep. Peter Kocok—along with Patrick Administration Wireless and Broadband Director Stan McGee—met with the leaders of Pioneer Valley Connect and Berkshire Connect to discuss the findings of their “Connecting Western MA,” an initiative seeking to provide broadband connectivity to 31 un-served and 30 under-served communities in Western Massachusetts.

The strong, consensus message coming out of the meeting was: “Let’s get this done!”

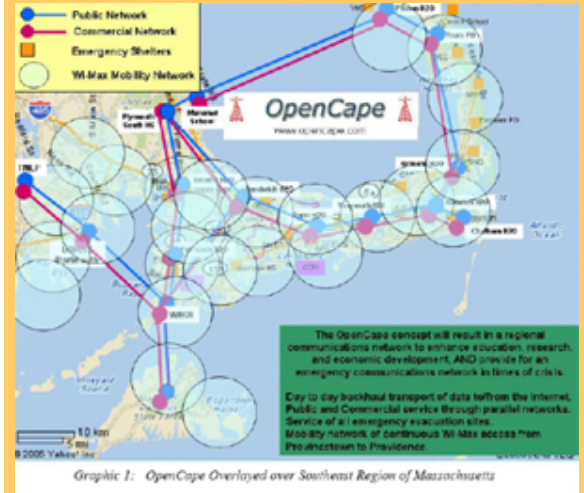
Earlier in that week, the Innovation Institute provided McGee an in-depth briefing regarding additional initiatives on the Cape and in Boston.

- On Cape Cod and Southeastern Massachusetts, the “Open Cape” initiative is now exploring the possibilities of creating a wireless transport backbone that would run along Route 6 from Bourne to Provincetown and along Route 28 from Bourne to Falmouth. The ultimate goal envisioned by the initiative is to provide affordable and reliable connectivity for the entire region.

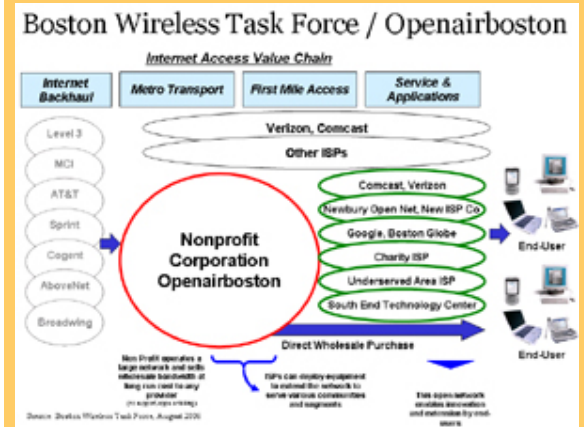
Three local academic and research institutions—Cape Cod Community College, the University of Massachusetts at Dartmouth and the Woods Hole Oceanographic Institution—are working in partnership with the Cape Cod Technology Council. The project seeks to overcome the region’s inadequate infrastructure by using wireless technology, and by aggregating demand for ubiquitous connectivity on a regional basis in order to create the conditions for competitive wholesale pricing.

- In Boston, at the direction of Mayor Thomas Menino, the Boston Wireless Task Force has proposed a plan to create a wireless network for the entire footprint of Greater Boston, developing a revolutionary approach of a non-profit corporation to serve as the business model for a carrier-neutral network. The new entity, which was recently incorporated as Openairboston, seeks to create a new platform of innovation. The initial work was underwritten in part by The Boston Foundation and

MTC’s Senior Industry Advisor, Nick Vantzellfde



The Open Cape initiative seeks to create a wireless transport backbone that would run from Bourne to Provincetown and from Bourne to Falmouth, with the goal to provide affordable, reliable connectivity for the Cape and Southeastern Massachusetts. [click here to enlarge](#)



With ubiquitous wireless services envisioned under the carrier-neutral “Openairboston” model, the flow of information can go back and forth from any enabled device to any application, through any network. These changes provide a platform for innovation, creating constant connectivity that is cheap and ubiquitous – at home, at work, anywhere. [click here to enlarge](#)

by MTC's John Adams Innovation Institute.

"What unites all of these projects is the importance of developing carrier-neutral networks, as well as developing business models that reflect the differing needs of each community," said Don Dubendorf, the chair of MTC's John Adams Innovation Institute Governing Board.

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