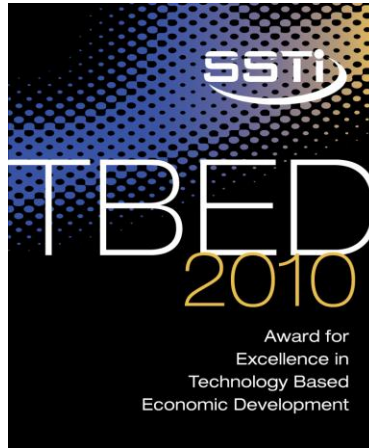


Podcast Interview



Betsy Biemann, President,
Maine Technology Institute
Interviewed by: Rob Ksiazkiewicz, SSTI

*2010 Excellence in TBED Award Winner:
Expanding the Research Capacity*

Mr. Ksiazkiewicz: Hello, this is Rob Ksiazkiewicz with SSTI and this is the fourth and final SSTI Podcast of 2011, wrapping up our interviews with the 2010 Excellence in TBED Award Winners.

I am speaking today with Betsy Biemann, President of the Maine Technology Institute, an industry led publicly funded, non-profit corporation that offers early stage capital and commercialization assistance. MTI's Maine Technology Asset Fund was the 2010 winner of SSTI's Excellence in TBED Award in the category: Expanding the Research Capacity.

Hi Betsy, thank you for being here today.

Ms. Biemann: Well thank you for having me.

Mr. Ksiazkiewicz: First I guess we would like to start out with – could you please give us a brief history and background of the Maine Technology Asset Fund, and how it fits within MTI's overall mission?

Ms. Biemann: Sure, and I would just like to start by saying we were really honored that SSTI recognized MTI and its Maine Technology Asset Fund for its design and impact during its first years, and particularly grateful for the foresight of our legislature and our voters for supporting it. Maine Technology Asset Fund, which I will be calling MTAf, grew out of a couple of initiatives in the mid-2000s. We had our Office of Innovation issue a science and technology action plan for Maine that included recommendations to significantly increase the state's investment in research and development by 2010.

We also had a Brookings Institution Study called Charting Maine's Future that called for more investment in our innovation economy, as well as a special joint legislative committee that I think took some really bold action and called for larger and more strategic investments. The state took these recommendations to heart, as did the voters, and approved a bond initiative of \$50 million for research and economic development, which was later turned into the Maine Technology Asset Fund. That was really a significant investment – Maine is a small state – we only have 1.3 million people. So it was a real step up. The Maine Technology Institute was tapped to administer it because it was consistent with our mission, which is to stimulate the development and commercialization of new technology and to grow our technology clusters.

Mr. Ksiazkiewicz: Could you briefly give us a description of the program and how it works? And if you could list some components you believe are critical in the success of the program so early on?

Ms. Biemann: Sure. The program is a competitive bond funded program that provides grants. In a few cases, conditional loans to either company, non-profit research institutions and university centers. The program was initially established as a \$50 million fund, and that was expanded by an additional \$3 million last year with voter approval. The funding is competitive. It can be used for equipment and for facilities construction and renovation with the focus on enabling new technologies to be brought forward along the research development and commercialization pathway.

I'll give you two examples, because I think it will help folks listening to the Podcast to really understand the power of the program. Ocean Renewable Power Company is an early stage company in Maine that was awarded \$1.2 million in the second round of the program towards the development of a proprietary turban. It's going to be the first grid connected title power system in the country. The loan that they received from the Maine Technology Asset Fund has helped them move that forward and in addition has helped them secure a \$10 million Department of Energy grant as well as several million dollars in private investment to move that company and the product forward. They have expanded now their workforce to I think over 26 people. Six of whom are in Eastport Maine which is in one of the most rural and poorest counties of the state.

Another example is a non-profit research institution, Bigelow Laboratory for Ocean Sciences which is also an organization also in a rural Oceanside community of Boothbay. They're going to be building a new campus in east Boothbay and the very first building of that new campus is being supported by a \$4.4 million grant from the MTAF for their new Center for Blue Bio Technology. That's going to enable the organization to not only significantly expand, but also to start moving beyond research and education to collaborations with companies and industry. That award helped leverage two new federal grants of over \$14 million for construction of then two additional research center buildings. That all together is going to attract approximately \$34 million in new money to that region of our coast over the next five years and double the number of jobs in that community.

Mr. Ksiazkiewicz: I think that you bring up a great point that is really relevant especially with the recent Obama administration pushing for rural development in TBED activities. What do you think are some of the difficulties that MTI faces when working with rural companies? And how do you cultivate relationships between the non-profit research centers, the universities, and the private companies in those rural regions of Maine?

Ms. Biemann: Well I think generally rural states and companies in them are challenged. Because they are longer distances to other important resources, whether it's other companies, vendors and suppliers, whether it is research institutions, etc. We also are challenged by the lack of having a critical mass sometimes in these areas. So what we can do as an organization and as a funder often is to both encourage collaborations since it is so hard to do it needs encouragement. And secondly, to sometimes support financially that collaboration. Through MTAF we were encouraging collaboration because one of the review criteria for all applications was the level of collaboration in a project. We wanted to see if there was equipment or a facility that if there were multiple organizations collaborating to benefit from that infrastructure we were confident that that would be multiplying the impact of the investment. We really saw folks respond to that when they looked at the criteria for their proposals. Although for the first two – not surprisingly, it was their potential economic impact and the quality of the science or engineering in the project. Not too far behind was collaboration.

Mr. Ksiazkiewicz: You mentioned multiple times, the application and review process for MTAF. Could you briefly describe both of those processes and would you just give us a brief description?

Ms. Biemann: Sure. Well the application process was that there were three competitive rounds over a two and a half year period where folks could apply. And as I mentioned earlier, companies, non-profit research institutions, and university centers were eligible applicants. They obviously had to be based in Maine, although partners in the projects could be from outside of Maine. The review process was in several steps. The first step interestingly we benefited very much from our collaboration with the American Association for the Advancement of Science or AAAS. Again Maine is a small state, we needed a pool of technical experts who were familiar with these types of projects and who would be objective and rigorous reviewers. So we partnered with AAAS to identify those

reviewers, and each proposal had three reviewers from other parts of the country or even internationally who reviewed each proposal. AAAS then categorized all the proposals as to whether they were highly recommended, worthy of consideration, or not recommended. And they then proposed to the MTI Board which should be the finalist which would be reviewed. In the review process of the finalist, both AAAS' evaluation and the evaluation of Maine experts identified the 35 who were ultimately awarded grants and loans.

I should note it was highly competitive. We had throughout the three rounds of applications 134 requests for over \$230 million. We were only able to award 35 of those applicants with \$53 million.

Mr. Ksiazkiewicz: I guess one more important question is after a company has been selected, what metrics does MTI track regarding MTAF companies, whether it be a grant or loan? How do you usually publicize these results?

Ms. Biemann: Well in their applications companies were asked to project out what they thought the job creation and job retention impact of the projects would be, the wage ranges, or quality of those jobs, anticipated new products or services coming to the market. Obviously we asked them for potential licenses or patents, projected sales or licensing revenues as well as additional investment both public and private investment that would be leveraged. In some cases even workforce development and workforce related items. So we had a pretty diverse and comprehensive definition of economic impact and we looked for that not only within the project team or the project itself, but also in the larger cluster or community, or industry where that project would be having an impact.

We benefit in Maine when Maine takes evaluation very seriously. We don't have a lot of money to invest, so when we do an R&D related activity we really evaluate it. The state has an annual independent evaluation team that comes in and does an evaluation of all programs and projects that are supported with state money in our innovation economy area. So these projects are part of that ongoing process. The results are then posted online. That independent evaluation team presents to the legislative committee that oversees this area, and the team also presents to the commissioner for community and economic development as well as with the governor.

We also have a link to that report on our website, but because not everybody is a data geek like we are, we also have put together more descriptive materials that talk about the Maine Technology Asset program as a whole and give sort of one page examples of some of the projects so that folks can get a sense of what their bond money is going to achieve.

Mr. Ksiazkiewicz: And finally, do you have any other lessons that you want to leave our listeners with that might benefit them and their TBED organizations in the future?

Ms. Biemann: Sure. I would say there are four. The first one is that you really want to design your program to achieve the outcomes that you're looking for. We wanted to be investing these funds in projects that had strong science, strong teams, and potential for significant economic impact across the state, we wanted to see collaboration, and we wanted to be building on Maine's strength. We wanted to be funding projects that were relevant to Maine's innovation economy and building on our strength. So we very purposefully had those be the evaluation criteria for the applications. The designing the program to really achieve the outcomes you are looking for.

Secondly, very importantly I think, is to have a competitive rigorous and transparent review process. Everything that we did was published. Prior to each round we got feedback from the community. In fact, our first request for applications we had recommended draft of that from that from the Maine Innovation Economy Advisory Board. We put a draft up of our draft RFA on the website and asked for stakeholders to comment, and really evaluated those comments before the Board approved the final request for applications. That I think increased the credibility and trust of the process, the competition, and the rigorous nature of it and the transparency of the process.

Thirdly, again that feedback issue of getting the feedback from the community before, during and after and using then continuous improvement to make the program better each round.

I think finally, based on the early, but significant impact we've been seeing I would say one lesson is if you put together an ambitious program that is intelligently designed and collaboratively designed, and has some of these components, that that investment is going to be paying off if it is

managed appropriately and evaluated. You'll see the kinds of early impacts that we are seeing which are significant for our economy.

Mr. Ksiazkiewicz: I just wanted to thank you for speaking with us today. You've brought a ton of great information that our listeners are really going to enjoy listening to. To the listeners out there, if you would like to learn more about the Maine Technology Institute and its programs, they can visit the website at www.mainetechnology.org. For more information about the awards program please visit SSTI's website at www.sstiawards.org.

I just wanted to thank you again Betsy. It's been a pleasure speaking with you.

Ms. Biemann: My pleasure as well.