



**THE BIOBUSINESS ALLIANCE OF MINNESOTA  
FINAL GRANT REPORT DECEMBER 2011  
STATE OF MINNESOTA  
DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT  
BUSINESS AND COMMUNITY DEVELOPMENT DIVISION  
Re: Special Appropriation Grant Agreement  
SPAP-11-0005-P-FY12**

Report Date: February 15, 2012  
Organization: BioBusiness Alliance of Minnesota

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AGENCY	VENDOR NUMBER	OBJECT CODE	TOTAL AMOUNT
B22100			\$338,200

**INTRODUCTION:**

The BioBusiness Alliance of Minnesota (BBAM) has fulfilled the agreed upon deliverables. The detailed progress is spelled out in this report. Per the reporting requirements of the contract, the report will cover specific requirements, special conditions regarding use of funds and metrics.

To fulfill the agreed upon deliverables, BBAM uses business principles to understand and grow Minnesota’s economy. The three stages are:

- Assess: Accomplished through the Statewide Industry Assessment and through utilization of inventorying tools like BIOMAP
- Plan: Accomplished through developing and implementing a 20-year strategic plan and roadmap, Destination 2025. As will be discussed, this plan became the starting point for many regional strategies throughout Minnesota and across the biobusiness industries
- Implement: Accomplished through the BioBusiness Resource Network

**2011 OVERVIEW:**

The current partnership with the State of Minnesota, Department of Employment and Economic Development (DEED), has led to several key accomplishments and partnerships which will be expanded upon later in the report:

- Assessment Report Update: In 2006, BBAM released the first Statewide Industry Assessment Report, with the goal of providing factual information to clarify Minnesota’s national competitiveness in the six bioscience industries in which the state participates: (1) Animal Health, (2) Biologics/Biopharmaceuticals, (3) Food, (4) Medical Devices, (5) Renewable Energy and (6) Renewable Materials. This report provided data that pointed out Minnesota negative trend lines and led to the creation of Destination 2025. The 2006 findings were also used to break down barriers between life science businesses, organizations and communities across the state to work together to increase Minnesota’s competitive position.

On February 7, 2011, BBAM released an update of the assessment, *Minnesota's Competitive Position in the Biobusiness Technology Industries*. The independent third party report, conducted by Dr. Kelvin Willoughby, utilized U.S. Census Bureau data from 2002-2007. The report demonstrated a generally strong improvement in Minnesota's biobusiness position nationally and against 10 competitor states.

- Destination 2025 Implementation: Destination 2025 (D2025), launched in January 2009, is the overarching strategic plan for BBAM to realize its charter: "The BioBusiness Alliance of Minnesota is an industry-led, action-based 501(c)(3) not-for-profit organization dedicated to the advancement of bioscience-related industries to create jobs for the citizens of Minnesota and to bring together all related areas of the biosciences in a coordinated effort to ensure the long-term health and success of Minnesota's bioscience industry."

The implementation of D2025 gained momentum in 2011 and many of the projects made strong advances to fill critical gaps and better leverage existing assets in Minnesota.

- The BioBusiness Resource Network: the BRN connects the state's life science and business resources to help companies start, expand and relocate in Minnesota. The BRN scorecard is the tracking mechanism for the BRN and can be found in the "Use of Funds" section in this report.

## **2011 DELIVERABLES / GENERAL HIGHLIGHTS:**

The current partnership with DEED led to several key accomplishments and partnerships in 2011, many of which are continuations of projects introduced in previous reports.

### **BioBusiness Resource Network:**

The BioBusiness Resource Network (BRN) is the implementation mechanism for BBAM. The BRN has two parts: projects and support to companies.

The following updates are a sampling of projects:

- Minnesota Angel Network
- International Business Support Center (IBSC)
- International Renewable Energy Technology Institute
- Ag/Bio Industry Development

### **Minnesota Angel Network**

To help professional Minnesota funds lead investments, participate in new growth areas and establish regional seed funds connected to professional due diligence capability and later-stage funding mechanisms (e.g. venture capital funds, investment banking), BBAM launched the Minnesota Angel Network (MNAN) in August 2011.

The Minnesota Angel Network was the result of two years of planning and is supported by BBAM and a consortium of regional investor networks; Minnesota Initiative Foundations, universities and business leaders. The goals are to increase the number of companies funded and increase the dollar amount of angel investments throughout Minnesota. It will also be a critical companion to boost

development of start-up companies and to maximize the utilization of the new Minnesota Angel Investor Tax Credits on a statewide basis.

Twenty-six companies have been invited into the process and are actively participating, and six of the companies have moved through the advisory process to become 'MNAN-Certified'. Three of the six MNAN-Certified Companies have received angel investment and are well on their way to full funding; a fourth has received a term sheet for full funding. Ultimate success will be achieved when MNAN-Certified Companies obtain full funding. On a national average, only one company out of 10 is successful in achieving funding, and in this environment it normally takes six months or more to do so. Most of the companies involved with MNAN have or will seek Minnesota Angel Tax Certification.

The MNAN-Certification advisory sessions are conducted by senior partner level service providers. 780 advisory hours have been donated to date by 156 people.

To date, MNAN has 50 individual angel investors and 20 self-identified angel funds/angel networks as direct members, with an additional 48 angel funds from five states committed to helping syndicate MNAN-Certified Company deals.

#### International Business Support Center (IBSC)

BBAM has formed strategic relationships with regions abroad to exchange strengths and capabilities within the life science industries. These partnerships foster positive business dealings, technology and knowledge transfer and economic expansion. In 2011, BBAM continued to foster relationships with Canada, Japan, Sweden and Saudi Arabia and launched a new relationship with Germany.

Two examples:

- Saudi Arabia: BBAM launched a new relationship in 2010 with Saudi Arabia. In 2011, BBAM led a second delegation of companies to Saudi Arabia. The relationship focused on helping Saudi Arabia solve some of their top national priorities using Minnesota technologies and companies. The companies met with high level investors, academia and government officials seeking partnerships. Currently, due diligence is being conducted by the Saudis. We are optimistic that several of the companies will receive critical early-stage investments from this partnership.
- Sweden: Svebio (The Swedish Bioenergy Association) has teamed up with BBAM in the U.S. to jointly contribute to the increased use of bioenergy in the state.

One goal is to provide assistance to a broad base of stakeholders through Svebio's network and BBAM's life science community in the State of Minnesota, U.S. regarding the optimal use of bioenergy. The partnership also aims to build the position for bioenergy and enhance visibility as well as aligning interests towards biomass-based energies. The project goal is to establish a series of biomass to energy installations in Minnesota. Leveraging this relationship, the following projects are being supported in Minnesota, specifically in the northeast.

1. Supporting the development of a master plan for a demonstration site for Renewable Energy Technologies at the developing Steger Center for Global Sustainability.
2. Demonstration site at Itasca Community College of effective use of modern energy conversion technology for statewide mid-sized commercial facilities and education institutions
3. Development of pellet manufacturing capacity at the Fond du Lac Tribe of Ojibwe.

#### International Renewable Energy Technology Institute

The International Renewable Energy Technology Institute (IRETI) at Minnesota State University, Mankato has made significant progress over the past 12 months.

BBAM continues to lead the private-sector effort in the identification and recruitment of international and domestic companies in utilizing the Institute's services. IRETI recently received Minnesota Department of Agriculture approval as a certified biogas testing lab and is also nearing the completion of ASTM and U.S. EPA certification for emissions testing of various solid fuel biomass heating and boiler appliances. Achievement of these milestones have positioned IRETI to provide value-added services to its private-sector clients in the three areas in which the Institute is focused:

1. Testing and validation of bio-based technologies
2. Research and development
3. Workforce development and training.

In the past year, BBAM has worked closely with eight companies to connect them to IRETI's capabilities. Additionally, BBAM and IRETI are founding members in a new seven-state Upper Midwest initiative titled "Heating the Midwest with Renewable Biomass" to grow awareness and usage of underutilized biomass feedstocks for heating and other biomass thermal applications. In the Fall of 2012, BBAM and IRETI will also present the 2nd Bi-Annual International Bioenergy Days 2012 in Mankato, Minnesota and anticipate 300 domestic and international attendees at this conference and expo focused on technology transfer and market expansion for emerging international renewable energy and environmental technology companies while showcasing Minnesota's assets and leadership in the sector.

#### Ag/Bio Industry Development

BBAM continued to implement tactics from the 'Northeast Minnesota Strategy Study' completed by BBAM in 2009, and a further detailed action plan for bioscience development in the Northeast. BBAM is currently working with local leaders to implement five projects: (1) a woody biomass sustainability value chain analysis, (2) a demonstration site for renewable energy technologies, (3) create a sustainable system for the commercialization of biomass combustion technology to provide heat and electricity, (4) provide a pathway for manufacturers to expand their capabilities into the medical device market and (5) expand medical device manufacturing capability.

A follow-on study "Minnesota's Forest Biomass Value Chain: A System Dynamics Analysis" was published by BBAM in late 2010 confirming and refining the focus of the 2009 report. This white paper can be found at: [http://www.biobusinessalliance.org/Northeast\\_Forest\\_Biomass.asp](http://www.biobusinessalliance.org/Northeast_Forest_Biomass.asp), and

largely confirmed the importance of a healthy forest as well as the need to grow combustible biomass, biofuels, and biobased chemicals markets.

In Q2 2012, BBAM will publish “The Minnesota Roadmap: Recommendations for BioIndustrial Processing” study which is an expansion of the forestry biomass study into a focused roadmap for the entire state’s advanced biofuels and bio-chemicals industry.

In 2011, BBAM convened The BioIndustrial Partnership of Minnesota, a group of industry leaders, academics, and government officials who are committed to realizing Minnesota’s potential as the world leader in the advanced biofuels and bio-based chemicals industry. This project’s focus is statewide, as the metro area, agricultural, and forestry regions all stand to benefit from the industry’s growth.

The roadmap will include recommendations for the growth of the industry that include:

- Ensure availability of funding to emerging companies
- Communicate Minnesota’s competitive advantages to the global industry
- Ensure the production and development of end markets for bioindustrial processing
- Organize industry-led efforts to develop a voice for the industry

The Great Plains Institute was leveraged as a partner in this effort. The project’s sponsors included Minnesota Corn Growers Association, Blandin Foundation, Great River Energy, Fredrikson and Byron, Southwest Initiative Foundation, Amec, Eide Bailey, Boise, Butrolix, and the Kandiyohi Economic Development Commission.

An example of a specific convening activity related to the industry development work was “The Renewable Materials Summit: Emerging Markets for the Upper Midwest” on April 26, 2011 in Moorhead, Minnesota. The planning committee included representatives from BBAM, The Fergus Falls Economic Improvement Commission, The Minnesota Department of Employment and Economic Development (DEED), The Agriculture Utilization and Research Institute (AURI), North Dakota State University (NDSU), and Becker County Housing and Urban Development.

There were 130 business, NGO, and government leaders from across the region in attendance to discuss opportunities for growth in the industry. This provided a forum for education and networking to drive businesses forward.

Additionally, several businesses have been supported in their interest in the application of renewable materials around the Fergus Falls area. To date, one company is actively developing a product line that uses bio-based materials in their product. The company is set to use bio-based foam as an insulator in a current product line.

#### **USE OF FUNDS:**

In addition to the projects outlined in the previous section, BBAM provides support to companies. As is demonstrated in the chart below, BBAM’s client companies are creating jobs in Minnesota.

At the end of each year, BBAM conducts a survey of our client companies. Between 2008 and 2011, BBAM supported 272 companies, of which 79 companies were in 2011. The client companies from 2008 through 2011 created 3,147 direct and indirect jobs based on the findings of the 2011 survey. These same companies raised \$208,657,000 over the same period of time.

Of the companies supported in 2011, three companies were successfully recruited to Minnesota, two have large value funding deals being negotiated with foreign investors, one company is significantly expanding and hiring, one technology license arrangement was made, and two companies are involved with heating plant demonstration projects.

These 272 companies reported that they expect to add 2,776 jobs in the next three years.

Summarizing the actual and predicated jobs created by BBAM client companies, Minnesota will actualize a total of 5923 jobs.

**DONATIONS:**

**BioBusiness Alliance of Minnesota      Cash Donations: January, 2011 through December, 2011**

Donor	Amount
AgStar Financial Services	\$25,000
AMEC E&C Services	\$2,500
Blandin Foundation	\$60,000
Boise Paper Holding, LLC	\$1,000
Boston Scientific	\$50,000
Butrolix LLC	\$1,000
City of Fergus Falls	\$25,000
City of Hutchinson	\$25,000
Company Access Fee (MNAN)	\$5,567
Eide Bailly	\$2,000
Gray Plant Mooty Foundation	\$2,500
Individual Donations	\$2,937
Kandiyohi County	\$25,000
Mayo Clinic	\$50,000
Minnesota Corn Growers Association	\$12,500
Razoo	\$170
Renewable Materials Summit Sponsors	\$9,100
Service Advisors (MNAN)	\$65,000
Southern Minnesota Initiative Foundation	\$45,000
Southwest Initiative Foundation	\$30,000
University of Minnesota	\$60,000
University of St. Thomas	\$10,000
Xcel Energy	\$15,000
<b>TOTAL</b>	<b>\$524,274</b>

**BioBusiness Alliance of Minnesota Work-In-Kind: January, 2011 through December, 2011**

Volunteer Name	# of Hours	Fair Market Value	Donation Amount
Agstar Financial Services	8	\$50/hour	\$400
BeginWell		Per Agreement	\$6,000
Greenstrong LLC	320	\$220	\$70,400
Nilan Johnson		Per Agreement	\$5,711
Brent Shelton	111	\$200/hour	\$22,200
Dave Wagy	906.5	\$200/hour	\$181,290
Kelvin Willoughby		Per Agreement	\$16,000
		<b>TOTAL</b>	<b>\$302,001</b>

**BioBusiness Alliance of Minnesota Earned Income: January, 2011 through December, 2011**

	Amount
Minnesota State Finance – Mankato IRETI	\$16,039
Svebio	\$45,338
Japan Delegation – Osaka	\$4,633
<b>TOTAL</b>	<b>\$66,010</b>

<b>Cash Donations</b>	<b>\$524,274</b>	
<b>Work-In-Kind Donations</b>	<b>\$302,001</b>	
<b>Earned Income</b>	<b><u>\$ 66,010</u></b>	
	<b>\$892,285</b>	<b>TOTAL ADDITIONAL DONATIONS</b>

**SUMMARY**

We believe this report demonstrates significant progress towards the stated goals in our contract with DEED.

BBAM’s work is having impact in every region of the state. Our three stages to our work “assess, plan, implement” approach to economic development is paying off with real jobs being created by the companies we are supporting and through the projects we are leading and supporting.

BBAM continues to find ways to work with our partners across the state. Many organizations and individuals have volunteered their time or have provided significant discounts for their services because they believe in the work BBAM is doing in Minnesota.