

# BioEconomy *Update*

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## Gov. Vilsack calls for \$300M

"Iowa is a national leader in a number of biotechnology aspects," Governor Tom Vilsack said in a Sioux City press conference while unveiling a 150-page report that outlines a strategic plan for Iowa's bioscience industry. BIOWA representatives Jeff Stroburg, Brad Petersburg, Georg Anderl, and Ed Williams were invited to participate in the multiple press conferences held concerning this report.

The report, presented by the Battelle Memorial Institute and Technology Partnership Practice, is the second report to be released this year regarding the bioscience industry in Iowa. Both of these reports were commissioned by the Iowa Department of Economic Development.

The first report highlighted areas of strengths, weaknesses, and opportunities for Iowa. This second report sets forth a plan of action and calls for the creation of research and development initiatives costing about \$300 million over a 10-year period. In addition to these initiatives, the plan also requests the development of a \$51 million "strategic investment fund" to help launch high-tech companies in Iowa.

"This multi-million dollar plan will define Iowa as the center of the bioscience industry and will spur the economy by creating thousands of new high-paying jobs," Jill Euken, Industrial Liaison for the BioEconomy Initiative at ISU, said.



Governor Vilsack recently held press conferences to debut the latest report from the Battelle Memorial Institute. Above, Mike Blouin, director, Iowa Department of Economic Development, speaks about the report. Also in attendance (from left to right): Doug Getter, John Forsyth, Gov. Thomas Vilsack (partially hidden), Bruce Tamisiea, Bill Scheitler, Brad Petersburg, Craig Lang, Jeff Stroburg, Jim Gossett, ISU President Gregory Geoffroy, University of Northern Iowa President Robert Koob and University of Iowa President David Skorton.

The report said 16,050 new jobs, in an industry in which pay exceeds the statewide average, would be created by the year 2014. Also, the report predicts Iowa's investment would leverage roughly \$1.5 billion in federal dollars and matching funds from private businesses.

The Institute also set forth recommendations for research directions including increasing research at state universities and creating a position to guide research into new businesses. Also, a part of the plan calls for endowing new research posts at each state university and creating one statewide program to turn university research into industry.

In addition to the report's recommendations for success, the report warns of

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## BioEconomy Initiative on Display

Iowa State University's BioEconomy Initiative was the focus of a recent visit from officials at the National Renewable Energy Laboratory (NREL). Michael Pacheco, director of the National Bioenergy Center (NBC); Eric Jarvis, research scientist at NREL; and David Dayton, senior scientist at NREL; visited Ames on August 11 and 12 in hopes of building a relationship with the BioEconomy Initiative at ISU. Georg Anderl, President of BIOWA Development Association, also participated in the two-day event.

During their two-day visit to ISU, Pacheco, Jarvis, and Dayton toured the ISU campus including the Iowa Energy Center's Biomass Energy Conversion (BECON) facility and pilot plants at the Center for Crops Utilization Research. They also met with faculty and administrators from the BioEconomy Initiative and participated in discussions with faculty regarding the BioEconomy research platforms and the newly developed graduate program in Biorenewable Resources and Technology.

**"This visit from NREL was an outstanding opportunity for us to showcase the work we are doing at ISU in the field of biorenewables."**

*- Robert Brown, Director  
Office of Biorenewables Programs*

The visit to Ames stemmed from a recent trip Stanley Johnson, Vice Provost for Extension, took to the NREL offices. At that time, Pacheco was

very impressed with Iowa's multidisciplinary approach and was anxious to visit Iowa and learn more about Iowa's BioEconomy Initiative.

NREL's Biomass Program focuses on biomass characterization, thermochemical and biochemical biomass conversion technologies, biobased product development, and biomass process engineering and analysis. NREL also works to develop cost-effective, environmentally friendly biomass conversion technologies to reduce our nation's dependence on foreign oil, improve our air quality, and support rural economies.

Pacheco, Jarvis, and Dayton represent the Biomass Program as well as the National Bioenergy Center (NBC). The Center was developed in 2000 to support the Biomass Program of the U.S. This center unifies the Department of Energy's (DOE) efforts to advance technology for producing products from biomass. The NBC collaborates with industrial, academic, related programs, and other efforts to carry out the agenda of the DOE's Office of Energy Efficiency and Renewable Energy.

"This visit from NREL was an outstanding opportunity for us to showcase the work we are doing at ISU in the field of biorenewables," said Robert Brown, director of the Office of Biorenewables Programs (OBP).

According to Pacheco, the recent visit to Iowa confirmed his belief that there are numerous opportunities for collaboration between the NBC and the Iowa BioEconomy Initiative. "There is a close alignment between what Iowa is doing at the state level and what DOE is doing at the national level. In the months and years ahead, we will look for additional opportunities for partnerships and collaboration between the NBC and the Iowa BioEconomy Initiative," he said.

Pacheco also noted that the existing dialogue between NBC scientists and Iowa's researchers is very healthy, and that partnerships between the two groups could certainly help accelerate the development of technology needed to fuel the growth of the bioenergy industry in Iowa and the United States as a whole.

Jill Euken, Industrial Liaison for the BioEconomy Initiative at ISU, also commented, "We believe there are many excellent opportunities for ISU faculty, Iowa manufacturers, and Iowa agricultural producers to partner with the NBC on projects that will result in significant economic development opportunities for Iowa."

### BioIndustry Contacts:

**Team Leader:**

**Jill Euken**

Phone: 712-769-2650

Fax: 712-769-2610

Email: jeuken@iastate.edu

**Project Manager:**

**Tim Sullivan**

Phone: 515-727-0656

Fax: 515-727-0657

Email: sullytt@iastate.edu

**Communications Specialist:**

**Krysta Nibe**

Phone: 515-294-7936

Email: krystajo@iastate.edu

## **A Closer Look: True Value and SoyClean**

The 150<sup>th</sup> Iowa State Fair had much more on display than crowds, corn dogs, and cattle. In fact, Iowa’s biobased industry was highlighted as part of Iowa State University Extension’s booth located under the grandstand. The exhibit, “A House of Carbs” featured many biobased products including SoyClean products.

SoyClean, a biobased business in Brooklyn, Iowa, packages and markets biobased products ranging from BBQ cleaner to graffiti cleaner and white board cleaner. In all, the company currently handles approximately 15 soy-based products. The newest product, the white board cleaner, was released in time for the Iowa State Fair and was used as a demonstration throughout the 10-day affair. The BBQ cleaner also made an appearance at the fair during the Iowa Farm Bureau cook-off. Each entrant received a free bottle of the cleaner.

In addition to appearing at the State Fair, the ISU Extension booth also traveled to the Farm and Field Fest in Boone, and the Farm Progress show in Alleman. The booth highlighted many of the new products, including SoyClean products, derived from corn and soybeans grown in Iowa. The exhibit discussed some of the technologies for converting crops and plant materials into chemicals, fuels, fibers, and energy. A flowchart explained how corn becomes PLA, a building material that can be used to create a blanket or other everyday objects.

The display also included a map of biobased industries in Iowa and a Victorian dollhouse constructed from biobased materials and glues.

SoyClean owner Rusty Clayton, along with Kurt Brannian and four other employees at a Brooklyn hardware store, package and market the SoyClean products. The products are produced at three locations throughout the state and are all composed of

methyl ester, which is used in the production of biodiesel. The products are manufactured at West Central Coop in Ralston, Natural Soy Products in Watkins, and ELM in Plainfield.

Currently, the SoyClean graffiti remover is the best selling product, but the newly released white board cleaner and BBQ cleaner are expected to increase sales. “These products can be purchased online or through retail outlets such as Crossroads Ag Center in Dallas Center,” Clayton said. “We are actively looking for neighborhood retailers who are interested in carrying our product line. We encourage our customers to talk with their local retailers about offering our products.”

In addition to displaying products at the State Fair and recent farm shows, SoyClean is also actively participating in the initial stages of the Federal Biobased Preferred Procurement Program. All SoyClean products are in the process of becoming certified and have been tested for biobased content through carbon 14 testing. The products are now in the BEES analysis stage.

“We are looking forward to the future with these biobased products. Our ultimate goal is to have the products easily accessible to everyone,” Clayton said. More information about SoyClean products, including purchasing information, is available on the Internet at [www.soyclean.biz](http://www.soyclean.biz).

### **Biobased Content of SoyClean Products**

Adhesive Mastic Remover	61%
Barbeque Grill Cleaner	91%
Diesel Fuel Additive	95%
Driveway & Patio Cleaner	91%
Graffiti Remover	61%
Hard Surface Stain Remover	61%
Paint Stripper	61%
Penetrant Lubricant	96%
SoySeal Wood Sealer & Waterproofer	82%
BioSoy (hydraulic oil)	69%
Heavy Duty Hand Cleaner & Moisturizer	92%
Premium Lithium Grease	76%

### **Project Supporters**

The BioEconomy Working Group is a working group of the Value Chain Partnerships for Sustainable Agriculture (VCPA) project funded by the W. K. Kellogg Foundation at Iowa State University. Financial support comes from five key partners: Leopold Center, Iowa Energy Center, Cargill-Dow, BLOWA, and the US Department of Energy.

# BWG Meeting Examines a Biobased Economy

The two-day summer meeting of the BioEconomy Working Group (BWG) focused on defining characteristics of the value chains in a bioeconomy. The first evening, Brendan O'Connell of Yakima Chiefs Hops presented "Value Chain Relationships that Sustain Farmers: Using a Partners Model for Washington Hops Growers." The presentation, sponsored by the BWG and the Leopold Center, highlighted a partners-driven model, where farmers are paid for their costs plus a return on assets.



*BWG members met in small groups and worked to define the value chains in a bioeconomy.*

growing and harvesting hops. While this model was based on hops, O'Connell provided a structure that could work for a biobased industry as well.

The BWG meeting began the next day with Sissel Waage and Eric Olson from The Natural Step facilitating the working portions of the meeting. Group members worked in groups to discuss the characteristics of each link in the value chain for a biobased product. Each group then reported to the entire group at the end of the day.

Other presenters included Robert Kean from Cargill-Dow and Kent Vickre from the Iowa Farm Business Association. Kean

presented the latest from Cargill-Dow in terms of biobased products and production. Vickre presented the tools for farmers that the Iowa Farm Business Association offers.

"We had a very productive two-day session this summer," Jill Euken, Industrial Liaison for the BioEconomy Initiative at ISU, said. "We were fortunate to have some outstanding speakers."

The BWG group will meet again in November. The group will focus its efforts in the next year on implementing two biobased supply chains. Additional group members are welcome. For more information contact Jill Euken, ([jeuken@iastate.edu](mailto:jeuken@iastate.edu)).

## Battelle Releases Report

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several shortcomings. If there is not a statewide advocate, efforts are often fragmented, it said. Also, large budget cuts to technology transfer and research have stalled progress.

The report applauded the \$503 million Iowa Values Fund, an economic development fund aimed at high-tech businesses. It was also recognized that the program was declared null by the Iowa Supreme Court after a dispute between Vilsack, a Democrat, and the Republican-led Legislature. Shortly after the report was released, Vilsack called a special one-day session of the Legislature to end the dispute over the Iowa Values Fund.

The governor is expected to make the plan a centerpiece of his future agenda. "This strategic plan is a blueprint for Iowa's future," Vilsack said in Sioux City. "We know Iowa is on the right track. We also have the ability to create new opportunities with a commitment to sustained investment."

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### BioEconomyUpdate

Facilitated by ISU Extension and CIRAS  
53020 Hitchcock Ave.  
Lewis, IA 51544-4058