Next Generation Energy Technology
Industry and Academia have a meeting of the minds

Industry and University representatives from around the state gathered this month to discuss the topic of Next Generation Energy Technology at the Fourth Annual Industry- Academia Workshop. The Louisiana Board of Regents and Louisiana Experimental Program to Stimulate Competitive Research (LA EPSCoR) sponsored the workshop, which featured industry speakers from prominent corporations across the country such as IBM, BASF Corporation, Sundrop Fuels and Myriant Corporation, among others.

Les Guice, LA EPSCoR Committee Chair and Vice President for Research and Development at Louisiana Tech University, said that the workshop was highly successful in bringing together academic researchers, industry, and economic developers.

“The energy was high, and I was pleased to see our researchers listening and talking to industry about the major scientific and engineering challenges they face,” he said.

Tom Yura from BASF Corporation’s Geismar, Louisiana site noted that by 2050 the population will grow to 9 billion people, and this will create problems as well as opportunities for both industry and academia. Each of the industry speakers spoke to these opportunities. “Sustainability in customer industries will drive our innovations,” said Yura. BASF is spending a lot of time on batteries right now, from batteries for planes to batteries for iPads. “Imagine having to charge your iPad only once a month,” he said, “instead of fighting for a spot in the airport to plug it in between flights.”

“Louisiana is clearly producing a very, very strong talent base.”
Mitch Horowitz, Battelle Technology Group

Right here in Louisiana plans are underway to develop alternative fuels and reduce greenhouse gases. Sundrop Fuels, which is planning to break ground on its inaugural $500 million fuels facility in Boyce, Louisiana in a few months, will be using timber, Louisiana’s number one agricultural crop, to make fuel. The USDA has a research laboratory in Pineville, La., and Sundrop has worked with them on analyzing the wood. “One of its biggest advantages is the oversupply,” said Wayne Simmons, Sundrop Fuels President and CEO. Timber plantations have been grown for hundreds of years in this country, and based on the amount of timber plantation wood that is not being used, you could produce 1 million barrels of fuel a day.

“So, timber can certainly have a pretty big impact.”

Speaking to the academics in the crowd, Mitch Horowitz, Managing Director and Vice President from Battelle Technology Practice, which is working with the Louisiana Department of Economic Development and the Louisiana Innovation Council to develop a statewide strategic inventory of research assets, said that Louisiana is clearly producing a very, very strong talent base. “Some areas need to be advanced and deepened, but you need to find players who want to interact with you, who are thinking about the same problems and start a conversation with them about it,” he said.

Supporting that thinking, Mark Shmorhun, Director of Scale up and Technology Transfer for Myriant Corporation said, “We need universities.” Myriant has a 392,000 square-foot plant at the Port of Lake Providence, La., that is the world’s largest bio-based succinic acid plant. Many of the company’s hires for the plant have been through Louisiana universities, and they look to them to fill these needs.

Looking forward, IBM’s Vice President for Smarter Physical Infrastructure, David Bartlett, said that everything industry does is all

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about how we can reimagine the future, given where technology has brought us today. “It’s a profound moment. One that’s exciting.”

“Much progress is being made that will lead Louisiana to the forefront of energy solutions,” said Associate Commissioner for Sponsored Programs Research and Development, Michael Khonsari. “Industry and academia need to continue to work together. The success of this workshop has shown the benefits of this type of collaborative environment. The BOR and LA EPSCoR will continue to support these types of forums in the future to encourage the necessary connections between industry and academia in Louisiana.”

The BOR and LA EPSCoR are committed to building and expanding the State’s research and educational capabilities in targeted STEM areas (science, technology, engineering and mathematics). LA EPSCoR, supported by both the National Science Foundation and the BOR, works collaboratively through universities, the BOR Master Plan, the Louisiana Department of Economic Development, and the Governor’s Innovation Council to help strengthen STEM opportunities.

David Bartlett, Vice President for IBM Smarter Physical Infrastructure, spoke to over 100 industry and academia representatives about the future of energy in buildings and technology.

### 2013 LA-SiGMA Technical Conference

Students and professors from universities across the state also participated in a one-day LA-SiGMA Technical Conference, which took place the day after the Industry-Academia Collaborative Workshop. A main highlight of the conference was a presentation given by Professor Martha Greenblatt from Rutgers University in New Jersey (pictured at right). She spoke on Tuning the Properties of Low-Dimensional Transition Metal Oxides. LA-SiGMA is a major component of the $20 million NSF EPSCoR Research Infrastructure Improvement Award that was established in 2010. For more information, visit: web.laregents.org.