



P2 Bulletin

the newsletter of the New York State Pollution Prevention Institute (NYSP2I)

SEPTEMBER 2013

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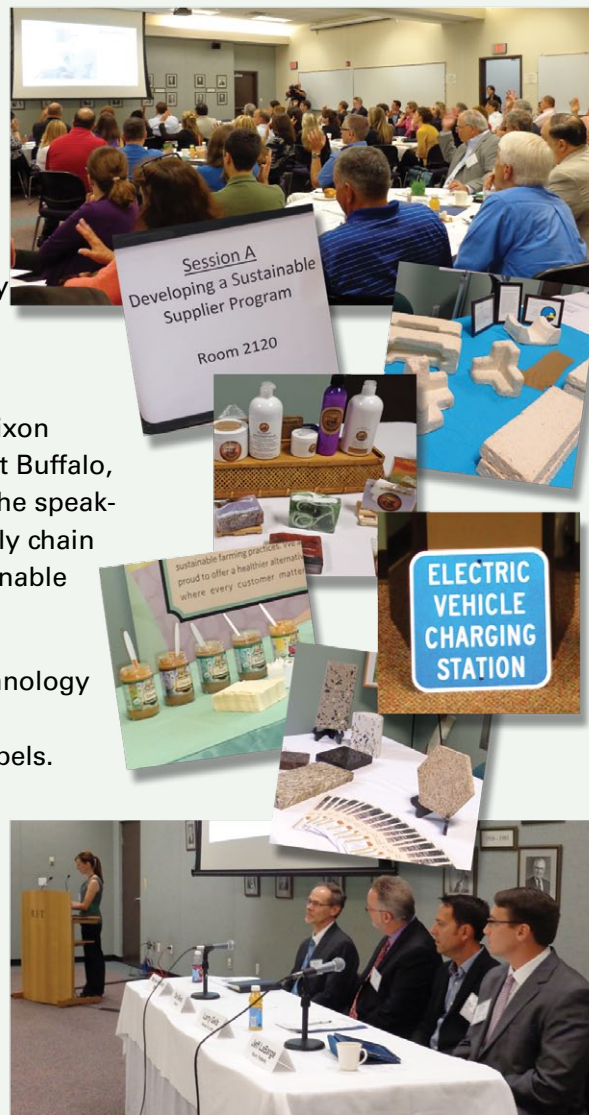
Welcome to Fall 2013! In this Newsletter, you will find updates on our summer events focused on sustainability in the supply chain and the food processing cluster. Read about innovative research at UB focusing on economic development and sustainability in the North Buffalo region. The fall brings us exciting initiatives including our Community Grants Request for Applications, open through October 4th and Greenovate NYS — NYSP2I's 3rd Annual Student Competition. Find information on upcoming workshops on Page 4.
— Dr. Anahita Williamson, Director, NYSP2I

NYSP2I Hosts Supply Chain Sustainability Forum

Suppliers and purchasers from across New York State gathered at Rochester Institute of Technology on July 30th for a dynamic morning of insight, discussion and networking at the Supply Chain Sustainability Forum, sponsored by the New York State Pollution Prevention Institute (NYSP2I) and Nixon Peabody, LLP. The morning was highlighted by keynote speaker, Mark Buckley, Vice President of Environmental Affairs, Staples, Inc., and a panel of sustainability executives, namely Dan Bena, Head of Global Sustainable Development, PepsiCo, Mike McGrath, Supply Chain Social Responsibility Project Leader, IBM, Corp., and Larry Gelb, Director, Global Sustainability, Bausch + Lomb.

Additional break-out session speakers included representatives from: Nixon Peabody, Social Good Business, Once Again Nut Butter, the University at Buffalo, and the NYS Dormitory Authority. Attendees were able to interact with the speakers to further understand how they can contribute to a sustainable supply chain through improved manufacturing, third-party certifications, and a sustainable purchasing program.

This event is a component of NYSP2I's Sustainable Supply Chain & Technology (SSC&T) Program which assists manufacturers in meeting customer expectations such as sustainability scorecards, certifications, and eco-labels. Several businesses currently working with NYSP2I through this program exhibited at the event, including: MCM Stone, Mooseberry Soap, Ecovative Design and Ecologic Solutions. The Forum was attended by over 90 environmental or procurement professionals from industry, academia, non-profit, and consulting. These attendees were able to take away tips on how to implement sustainable practices within their own business and network with other attendees to help promote their business within the supply chain. Forum presentations can be accessed at: <http://www.rit.edu/affiliate/nysp2i/workshop-material-archive>. To learn more about the SSC&T Program, please contact Trish Donohue at (585) 475-7869 or Patricia.Donohue@rit.edu.



Green Initiative North Buffalo Pollution Prevention Research

NYSP2I awards pollution prevention (P2) research and development (R&D) funding annually through a competitive process to its four partner universities which include Rochester Institute of Technology, University at Buffalo (UB), Clarkson University, and Rensselaer Polytechnic Institute. The goal of the R&D Program is to advance new P2 concepts to the stage where economic and environmental benefits can be realized in NY sooner than later. In 2012, four additional research projects at UB were made possible through state funding sponsored by NY State Senator Grisanti to focus on economic development and sustainability in the North Buffalo region. These recent projects at UB are summarized below:



University at Buffalo
The State University of New York

Data-driven Optimization of Buffalo Wastewater Treatment Plants (WWTPs): An Energy Perspective

PI: Rahul Rai; Dept. of Mechanical and Aerospace Engineering

This project investigates methods to increase efficiencies at wastewater treatment plants, which use significant amounts of energy to convert contaminated water to clean water. Based on predicted wastewater characteristics and wet weather conditions, Dr. Rai's team is working closely with the City of Buffalo to develop a model that could reduce energy consumption by 15-20%. Successful development would not only help the City of Buffalo but would also make a significant impact throughout NY State and the country.

Development of Algae Cultivation for Nutrient Recovery from the Nearshore Great Lakes in Buffalo, New York

PI: David Blersch; Dept. of Civil, Structural and Environmental Engineering

Dr. Blersch is conducting research to look at the feasibility of utilizing algae to remove potentially harmful nutrients from natural waterways (such as the Great Lakes) and produce value-added commodities like fertilizer and biofuels. His project looks at keeping our lakes and streams clean while opening up economic development possibilities.

Design, Build and Test an Ultra-High Efficiency Primary Surface Heat Exchanger

PI: Joseph Mollendorf; Dept. of Mechanical and Aerospace Engineering

This project is a joint effort with a local company, Buffalo BioBlower Technologies, to look at developing a more efficient heat exchanger to reduce equipment and energy costs where air-to-air heat exchange is required. An ideal application for these new heat exchangers is in the innovative BioBlower equipment designed to remove biological and environmental pollutants.

Smart Lifeline Systems For Improving Water And Energy Efficiency

PI: Salvatore Salomone; Dept. of Civil, Structural and Environmental Engineering

Dr. Salomone, Director of the Smart Structures Research Laboratory at UB, is conducting research to help save water and energy. Water distribution systems in the U.S. are aging and many pipes in this infrastructure are beginning to leak or fail altogether. The objective of this project is to design and validate a novel monitoring system which will improve water and energy efficiency of communities through early detection of leaks in pipeline infrastructures. The potential impact to help communities in NY and around the country is significant.

Results of the projects will be used to advance these solutions to the next research phase toward application. More information on NYSP2I's R&D Program can be found on our website at <http://www.rit.edu/affiliate/nysp2i/research-and-development>.

Greenovate NYS

3rd Annual NYSP2I R&D Student Competition Request for Applications Now Open!

The NYS Pollution Prevention Institute is challenging college students across NYS to make a difference on their campus or in the community by developing an innovative solution to benefit the environment.

1st, 2nd and 3rd place prizes will be awarded to undergraduate and graduate level teams.

For additional information, visit
www.rit.edu/affiliate/nysp2i/rd-student-competition

If your company is interested in sponsoring
the competition please contact

Kathy Kosciolk at
kathleen.kosciolk@rit.edu
or (585) 475-4325.



Interested in helping your community with a sustainability/pollution prevention project?

The New York State Pollution Prevention Institute Community Grants Program is now accepting applications from community organizations, municipal departments, and other public sector and non-profit entities for support under the Community Grants Program.

All required forms, the Request for Applications and
additional details can be found on our website at:
<http://www.rit.edu/affiliate/nysp2i/community-grants-program>

• • • Applications are due Friday, October 4, 2013 by 5pm EDT. • • •

3rd NYS Pulp & Paper Manufacturing Industry Roundtable

On July 31, 2013, NYSP2I hosted the 3rd NYS Pulp & Paper Manufacturing Industry Roundtable in partnership with Clarkson University and CITEC, Inc.

The goal was to bring together representatives from the pulp and paper manufacturing industry, as well as stakeholders from the technical assistance, research, and economic development communities to identify and discuss the industry's environmental goals and challenges, share best practices and technologies and disseminate information on financial and technical resources.

This year's roundtable, hosted at Clarkson University in Potsdam, NY, was attended by 28 participants,

including six NYS pulp and paper manufacturing companies, and representatives from Empire State Development (ESD), the New York State Energy Research and Development Authority (NYSERDA), the State University of New York's College of Environmental Science and Forestry and the Workforce Development Institute, who co-sponsored the event.

Discussion topics included: technical considerations for recovering water for reuse in the paper making process, the beneficial alternative uses of waste sludge, and details on the available technical and financial incentives and grant programs available

through ESD's Environmental Investment Program and NYSP2I's FlexTech and Industrial and Process Efficiency Programs.

For additional information on NYSP2I's work with the pulp and paper manufacturing industry, please contact Rajiv Ramchandra at rajiv.ramchandra@rit.edu or 585-475-4146.



"The roundtable is an effective medium for open communication ... Such cross-functional interaction provides a much needed opportunity to broadly assess the challenges facing our industry and discuss potential solutions that may be implemented to address them. These roundtables have directly impacted our success in implementing two initiatives that will ultimately improve our viability in the short term."

— Scott Sauer, Mill Manager; Omniafiltra, LLC; Beaver Falls, NY

Sustainability in Healthcare Workshop

On June 13, 2013, NYSP2I hosted a workshop targeting the Healthcare Industry titled *Sustainable Healthcare: Workshop on Sustainable Strategies*. This half day event, held at Rochester Institute of Technology, included speakers that presented on applying lean manufacturing principles in healthcare systems, opportunities for energy use reduction at hospitals and creating and sustaining recycling programs.

The workshop was attended by a total of 25 professionals, including representatives from eight Upstate New York hospitals as well as representatives from the New York State Energy Research and Development Authority (NYSP2I), and the New York State Small Business Development Center (NYS SBDC).

As next steps, NYSP2I plans on engaging with additional healthcare industry organizations in NYS and developing a strategy to further catalyze the adoption of sustainable practices in this industry through direct projects with hospitals.

Additional workshops will be held in the future.

For additional information and to view the presentations from the workshops please visit: <http://www.rit.edu/affiliate/nyssp2i/workshop-material-archive>.

To learn more about NYSP2I's work in the healthcare sector, please contact Rajiv Ramchandra at rajiv.ramchandra@rit.edu or 585-475-4146.

"To me the greatest significance of (these) meetings ... is not only the interaction among the healthcare professionals in attendance, but with the staff and faculty of RIT and the industry experts that (NYSP2I) brings together to speak to us. The interaction I have seen amongst these stakeholders is unique in my almost 40 years in the healthcare industry."

— Glenn Simon, Director of Supply Chain Management at United Memorial Medical Center

NYS Quick Facts

- New York State was ranked 22nd out of 30 states in beach water quality. The quality is measured based on the contents of bacteria, viruses, and other contaminants in the water. (Natural Resources Defense Council, 2012).
- New York State ranks 3rd in the portion of its carbon emissions that come from natural gas – unlike many states, New York uses natural gas to produce electricity, as well as for heating of buildings (U.S. Energy Information Administration, 2013)
- New York's Renewable Portfolio Standard requires that 30% of electricity come from renewable energy resources by 2015; in 2011, 24% of electricity came from renewable energy resources (U.S. Energy Information Administration, 2013)
- New Yorkers produce about 4.5 lbs of trash per person per day! (NYS Department of Environmental Conservation, 2013)

Upcoming Workshops

for expectant mothers and their partners,
new parents, grandparents,
and child caregivers



ENVIRONMENTAL HEALTH AT HOME AND IN THE NURSERY

Choose from two offerings: Oct. 14 or Nov. 4, 2013

Preparing your home and nursery can be overwhelming! With so many options, you want to make sure you create a home that is safe for you and your new baby. Learn how cleaning products, cookware, furniture, mattresses, and paint can affect your health and that of your family by understanding your choices and making more informed decisions.

ENVIRONMENTAL HEALTH AND CHILDREN'S PRODUCTS & TOYS

Choose from two offerings: Oct. 28 or Nov. 18, 2013

There are so many children's products and toys on the market, it's difficult to choose. It's important to understand the products' details and their potential impacts on your health and the health of your baby. Learn how to choose environmentally preferable children's products, including bottles and feeding products, bibs, car seats, personal care products, and toys. Sources for toy testing and product recalls, as well as purchasing tips, will be discussed.

Registration is required.

**Contact Rochester General Hospital for more
information or to register: 585-922-5465.**

**Workshops are held at
Rochester General Hospital
1425 Portland Ave., Rochester, NY 14622**

NYSP2I Hosts

Sustainability in Food Processing Workshop

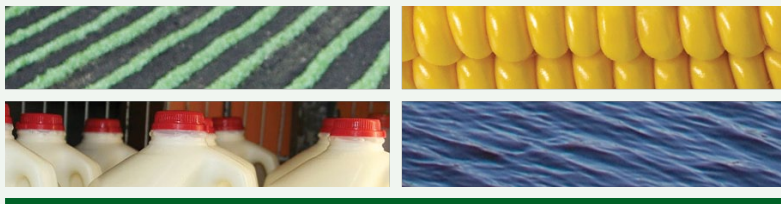
As part of the US Department of Commerce Economic Development Agency's Jobs Accelerator program NYSP2I and the Center for Integrated Manufacturing Studies hosted a *Sustainability in Food Processing Workshop* at RIT, on June 18th.

The 63 attendees learned how local companies are implementing sustainability practices to improve their bottom line and reduce their environmental footprint. The workshop featured case study presentations by NYSP2I staff, Golisano Institute for Sustainability researchers, Ron Rausch, Deputy Commissioner, NYS Dept. of Agriculture & Markets and NYS businesses including: Finger Lakes Grape Seed Oil, LiDestri Foods, Finger Lakes Biochar, Seneca Bioenergy, Synergy Biogas, and EpiPhergy.



Topics included:

- Reducing and Repurposing Solid Organic Waste/Creating new revenue streams
- Water Reduction & Recovery
- Food Waste to Energy
- How to Get Started and Available Programs

Participants also had an opportunity to tour the new Golisano Institute for Sustainability Building. Workshop presentation are available online at: <http://www.rit.edu/affiliate/nysp2i/workshop-material-archive>.



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September 2013 • A publication of the
New York State Pollution Prevention Institute
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