ISTC Technical Assistance Program News: May 2022

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ISTC engineer Paul Nielsen stands beside the biphasic solvent system at the Abbott Power Plant.

Technology to absorb CO$_2$ at power plants is promising
by Lisa Sheppard, Prairie Research Institute

ISTC researchers have given the thumbs up to an innovative biphasic solvent system for its efficiency and effectiveness in absorbing CO$_2$ from flue gas in a coal-fired power plant at the University of Illinois.
Illinois General Assembly passes drug take-back bill
Product Stewardship Institute, 4/20/22

Illinois is set to join seven U.S. states with a new law that requires drug manufacturers to pay for and run a statewide take-back program. The bill is now headed to Governor J.B. Pritzker's desk. Once signed, it will ensure every community in Illinois has free, convenient access to safe drug disposal beginning January 1, 2024.

IEPA announces funding opportunity for county solid waste planning
Illinois EPA, 5/2/22

Illinois EPA has announced a new funding opportunity to assist counties and other units of local government in implementing their solid waste planning obligations under the Illinois Solid Waste Planning and Recycling Act (SWPRA). This funding comes as a result of a recommendation from the Statewide Materials Management Advisory Committee Report to the General Assembly that the...
Illinois EPA provide financial support to units of local government to enable them to make meaningful updates to their statutorily required solid waste management plans.

EU unveils plan for ‘largest ever ban’ on dangerous chemicals

The Guardian, 4/25/22

The EU’s “restrictions roadmap” uses existing laws to outlaw toxic substances linked to cancers, hormonal disruption, reprotoxic disorders, obesity, diabetes and other illnesses. The plan focuses on entire classes of chemical substances, including all flame retardants, bisphenols, PVC plastics, toxic chemicals in single-use diapers, and PFAS.

These classes of chemicals will be put on a “rolling list” of substances to be considered for restriction by the European Chemicals Agency. The list will be regularly reviewed and updated, before a significant revision to the EU’s cornerstone Reach regulation for chemicals slated for 2027.
IFS releases global study on sustainability in manufacturing

IFS recently released a research study with technology analyst Omdia to better understand the views of manufacturing companies worldwide about sustainability and the circular economy. The survey polled a wide range of respondents working for manufacturers across North America and Europe (all employed at director, or C Level, and above).

The research covers three key areas:

- investment drivers, such as environmental responsibility and barriers like legacy infrastructure.
- sustainability implementation status, including key areas where companies are currently focusing their sustainability initiatives and level of sustainability maturity;
- the case for the circular economy.
How an access-based business model can tackle waste and protect resources

GreenBiz, 4/8/22

An access-based business model is based on customers accessing the function or performance of goods, rather than owning them. To solve global sustainability challenges, access-based business models will soon need to be applied not only to finished goods, but also to components and materials.
WBCSD launches sustainable packaging framework

by Laura L. Barnes

The World Business Council for Sustainable Development (WBCSD) recently launched SPHERE: The Packaging Sustainability Framework. SPHERE defines sustainability in packaging as maximum circularity and minimum environmental footprint, while avoiding the presence of harmful substances. The framework can be used as a benchmarking tool to identify potential hotspots across a range of packaging at the company level or to evaluate different packaging options for a specific product.
Western States Alliance hosts 2022 Virtual FOG Forum

by Laura L. Barnes

The Fats, Oil, and Grease (FOG) Forum is designed to train wastewater and pretreatment professionals, restaurant owners, plumbers, and others on the latest in FOG issues including upcoming rules and regulations, reporting requirements, data measurement approaches, and the newest technologies.

The virtual training will be held in four parts:

- Wed, May 25, 2022 - 11 am to 2 pm CDT
- Thu, May 26, 2022 - 11 am to 2 pm CDT
- Wed, June 1, 2022 - 11 am to 2 pm CDT
- Thu, June 2, 2022 - 11 am to 2 pm CDT

The registration fee is $150 for the entire event. CEUs will be available in the states of Washington,
Oregon, and Idaho. Please contact Jean Waters at jwaters@pprc.org to coordinate CEUs in other states.

Limited registration scholarships are available for programs servicing rural, communities with a population less than 10,000. You are also eligible if your community is larger than 10,000 residents but provides wastewater treatment service to smaller communities of less than 10,000. Please contact Jean Waters at jwaters@pprc.org to inquire about scholarship opportunities.

View the draft agenda.

Other stories

Aerospace

- Jet fuel from paper industry waste could make airplanes cleaner Anthropocene, 5/12/22
- Scientists develop environmentally safe, frost-resistant coatings University of Illinois Chicago, 3/31/22
- SFO on track to become zero-waste airport Waste Today, 4/25/22

Auto industry

- BMW reveals their new ‘iFactory’ strategy electrive.com, 5/2/22
- Bridgestone’s tires are going circular GreenBiz, 5/17/22
- GM asks suppliers to sign pledge to carbon neutrality Auto Dealer Today, 4/27/22
- Who’s winning America’s electric vehicle race? CNET, 4/27/22
- World’s fastest electric car charger installed in Norway Clean Technica, 5/4/22

Chemical manufacturing

- An examination of sustainable adhesives AZO Materials, 4/7/22
- Chemistry researchers develop tool for safer pesticides George Washington University, 5/3/22
- Environmental protection: Net zero efforts add up Chemical Processing, 4/12/22
- How one chemical maker is reducing its environmental footprint Environment + Energy Leader, 5/17/22
- How to design safe and sustainable chemicals University of Amsterdam, 4/12/22
- Ink manufacturers on safety and sustainability in food packaging inks Packaging South Asia, 4/11/22
ISTC Technical Assistance Program News: May 2022

- Light-powered microbes are super-producing chemical factories Osaka University, 4/11/22
- Light, oxygen turn waste plastics into useful benzoic acid Cornell University, 4/11/22
- Switching to sustainable surfactants Chemical & Engineering News, 5/1/22
- This startup is cleaning up the synthetic chemicals in industrial cleaning products Fast Company, 5/3/22
- UC startup makes advancements in 'green' chemistry University of Cincinnati, 4/18/22

Food & beverage

- Change from within: The efforts of eco-conscious cheesemakers Vinepair, 4/14/22
- Decarbonising food and drink: What are the ‘easy wins’ for small brands? Beverage Daily, 5/10/22
- Del Monte Foods doubles down on upcycled foods by reusing pineapple juice Food Dive, 4/20/22
- How does ‘sustainability’ differ for a brand, distributor, and retailer? Food Navigator, 5/17/22
- Kelp boom hinges on supply chain and carbon market investments GreenBiz, 4/21/22
- Mango industry stresses sustainability The Packer, 4/22/22
- Manufacturers’ tales of going green: 3 steps F&B manufacturers can take to make sustainability pay Food Industry Executive, 5/10/22
- Plant-based oils can neutralize odors at food facilities Food Engineering, 4/6/22
- Report: Food’s future is more complicated than the alternative protein debate makes it seem Food Dive, 4/8/22
- Single-cup coffee with a sustainable twist Food Business News, 4/12/22
- Startup transforms carrot byproduct into crackers Food Business News, 4/19/22
- Stem sell: An often-discarded mushroom part becomes a natural preservative Food Engineering, 4/22/22
- Sustainable food startup kicks off crowdfunding campaign Food Business News, 4/26/22
- Upcycling dairy to produce the 'world’s first' mycoprotein: Valio and eniferBio join forces on Pekilo research Food Navigator, 5/17/22
- Wine industry wants one single standard for sustainability Beverage Daily, 4/5/22

Circular economy

- Apple’s self-repair vision is here and it’s got a catch IFIXIT, 4/17/22
- Colorado set to become first state with right-to-repair wheelchair law Colorado Sun, 5/10/22
- Getting the world clean, one recycled bar of soap at a time New York Times, 5/17/22
- Glencore partners with battery recycling startup Resource Recycling, 5/5/22
- Latest UN climate change report highlights urban mitigation strategies, circular materials management Waste Dive, 4/5/22
- Microsoft publishes independent review of its repair policies Resource Recycling, 5/5/22
- Sunrun signs on to recycle solar panels with Solarcycle pv magazine, 5/5/22
- These rogue glass recyclers want to create new sand for Louisiana’s coast Gizmodo, 5/6/22
- This start-up makes vodka out of CO2 emissions, and it’s backed by Toyota and JetBlue CBNC, 5/16/22
- Tire dumps and aging mattresses may soon be relics of the past Northwestern Institute for Sustainability and Energy, March 2022
- Transforming textiles Chemical & Engineering News, 3/28/22
- Vattenfall unveils Irene blade recycling plans ReNews.biz, 4/20/22

**Climate**

- Indianapolis among ‘front-runner cities’ in World Health Organization climate change project Indianapolis Star, 5/12/22
- Making the invisible, visible: Methane solutions offer down payment on our climate future Rocky Mountain Institute, 4/18/22

**Construction & buildings**

- Four Pillars opens green distillery The Spirits Business, 4/26/22
- HVAC system uses only outside air ASME, 5/4/22
- What we should be considering for circular building design GreenBiz, 4/8/22

**Consumer behavior**

- Food waste is top of mind for climate-conscious shoppers Food Business News, 4/26/22
- These are the products that shoppers will pay a sustainability premium for Winsight Grocery Business, 4/20/22

**Corporate sustainability**

- Google Cloud survey: Execs prioritizing ESG efforts, but struggle to measure progress ESG Today, 4/14/22

**Energy**

- Amid soaring demand for warehouses, an effort to make them greener New York Times, 4/12/22
- Apple suppliers double use of clean energy, avoiding 14 million tons of emissions ESG Today, 4/14/22
- Ecolab sources renewable energy for 100% of European, North American operations ESG Today, 4/4/22
• Ice cream factory is Mars Wrigley's first powered entirely by renewable energy Dairy Reporter, 4/11/22
• It’s time to electrify industry’s process heat — with heat pumps GreenBiz, 4/21/22
• The new efficiency: Sustainability + tech = profitability Industry Week, 4/15/22
• Unilever ‘warms up’ ice cream freezers to help tackle emissions Company news release, 4/5/22

Packaging

• A rocket scientist designed a solution for your moldy strawberries Fast Company, 5/18/22
• As reusable takeout container systems expand, logistics questions abound Waste Dive, 4/20/22
• Big brands targeted for plastic reduction and refill commitments in 2022 proxy season Waste Dive, 4/27/22
• Bottled water giant Bluetriton admits claims of recycling and sustainability are "puffery" The Intercept, 4/26/22
• Coca-Cola United partners with O-I Glass International, 5/5/22
• Diageo partners with ecoSPIRITS for circular packaging solutions Beverage Daily, 4/25/22
• In-store beauty refills are finally going mainstream Glossy, 4/18/22
• Just Salad's sustainability report highlights waste-free dining movement Waste360, 4/20/22
• Keeping up with regulatory trends, business opportunities in sustainable packaging Sustainable Brands, 4/18/22
• Kraft Heinz to test paper-based ketchup bottle with Pulpex partnership Food Dive, 5/11/22
• The rise of food packaging sustainability The Food Institute, 4/11/22
• Walmart launches Circular Connector Drug Store News, 4/12/22
• What do beauty and baby food have in common? They produce a ton of waste Inc., 4/25/22
• What's next for Bumble Bee’s sustainable packaging push Food Dive, 4/12/22

Product design

• Mattel expands sustainable products with carbon neutral toys Environment + Energy Leader, 4/5/22
• Sustainability by design North Carolina State University, 4/18/22

Regulation

• A year in review of industry and government action on PFAS Waste360, 4/4/22
• EPA strategic plan calls for more recycling Resource Recycling, 4/5/22
• EPA to weigh regulating common plastic as hazardous waste E&E News, 5/3/22
• EPR and packaging-reduction bill introduced in New York Resource Recycling, 5/10/22
- European Commission proposes 'greenwashing' ban and new consumer rights [Resource], 4/5/22
- Hawaii's EPR for packaging bill fails to pass before end of legislative session [Waste Dive], 5/11/22
- Industry reacts to passage of Colorado packaging EPR bill [Resource Recycling], 5/17/22
- The FDA's food failure [Politico], 4/8/22
- Washington PFAS law takes aim at consumer goods [National Law Review], 4/5/22
- What's ahead for emerging contaminants: Highlights and recommendations [JD Supra], 4/25/22

**Retail**

- Albertsons unveils ESG framework, sets new sustainability targets [Grocery Dive], 4/20/22
- Costco and Walmart: A tale of two supply chains [GreenBiz], 4/11/22
- Get pumped as The Body Shop adds refill stations to U.S. stores [Triple Pundit], 4/11/22
- How grocers can overcome sustainability hurdles [Grocery Dive], 4/22/22
- 'Packaging free' shopping introduced for supermarket staples in the Netherlands [Packaging Europe], 4/12/22
- Sam's Club outlines new sustainability efforts for its Member’s Mark line [Grocery Dive], 4/19/22
- Wegmans will soon say 'goodbye' to single-use plastic bags chainwide [Grocery Dive], 4/18/22
- What goes into scaling one of Europe’s largest refill trials? [Packaging Europe], 4/8/22

**Supply chain**

- Supply chain sustainability & ethics as an investment [Sustainability], 4/18/22

**Waste prevention**

- 10 pollution prevention methods to implement on the jobsite [Builder], 4/20/22
- How a sponge could help clean up microplastics in Chicago and the Great Lakes [WBEZ], 5/10/22
- How online grocers are ramping food waste reduction efforts [Grocery Dive], 4/14/22

**Tools & publications**

- *Exploring the Development of an Illinois Farm to Food Bank Program* (ISTC)
- *Circular Economy and Sustainability in Manufacturing: Drivers, Barriers, and Benefits* (IFS)
- *The Global Assessment of Private Sector Impacts on Water* (Ceres)
• The Politics of Protein: Examining Claims About Livestock, Fish, 'Alternative Proteins' and Sustainability (IPES-Food)
• Trendline: Sustainable Packaging (Food Dive)

Events

Upcoming

• Jun 14, 2022, noon CDT Complying with SEC-mandated carbon emissions reporting (GreenBiz)
• Jun 15, 2022 11 am-4pm CDT Procurement to accelerate the safer chemicals revolution (Sustainable Purchasing Leadership Council)

On demand

• Trichloroethylene (TCE) Alternatives Project (ISTC)

ISTC employment opportunities

Visit the PRI website to see current job opportunities at ISTC.