

THE PIPELINE

Fluid for the Pipeline: Braxton Sluder

Volume 21, Issue 2
March 2015



Do you have a backup plan? During one of our programs over the past month, our speaker was unexpectedly stuck in Paris, and we only had 12 hours to prepare. Luckily, with modern conveniences, we were able to host the event with the speaker on teleconference. I'm sure many of you were also impacted by the weather. Our second event over the past month was cancelled due to snow. It was too late to cancel our pizza order, so we donated it to the hardworking crews that were clearing the roads in Kingsport. With flexibility, good outcomes can come from unfortunate events. Remember your process, business, and personal contingency plans AND be flexible to changes.

On a separate note, I am happy to announce that Patrice Riesenbergh has become our new Short Course Coordinator upon the retirement of Mark Shelton. Many thanks to Mark for the excellent work that he performed over many years. Patrice already has great plans for a short course this Fall. Be looking for more information soon. Also, Paul Fanning has accepted the call to become our new Membership and Recognition Committee Chair.



Newsletter Spotlight

Program Recaps

YP Program a Success!

March Program Recap: Fermentation Sciences

Dr. Seth Cohen came from Appalachian State University to talk to our members about Fermentation Sciences. He gave some background for his experience in the field, which includes a B.S. in Chemical Engineer, several years of professional wine production, and an M.S. and Ph.D. in Food Sciences. He has been at Appalachian State University as an Assistant Professor and Director of the Fermentation Sciences Program since 2010. He explained the basics of a degree in Fermentation Sciences, what it entails, and some of the difficulties he encountered in founding the program at Appalachian State. Several pictures were included showing the facilities and pilot scale brewery. He moved on to cover the historical significance of fermentation. This included descriptions of several fermented food products such as cheese, sauerkraut, bacon and cured meats, and kombucha (fermented tea). One of the research projects currently underway in his field is related to cacao bean fermentation, which is a major step in the production of chocolate. Year-round production causes different microorganisms to be active in the open-air fermentation process, leading to different flavor profiles and quality. Researchers are trying to find a stable culture to be added in the fermentation step to get consistent production.

Dr. Cohen was able to show us some chemical insights into beer, especially in relation to hops. There was data comparing craft brewing versus multinational breweries and how the content of alpha acids present in hops that cause bitterness differs between the two types of breweries. The presentation ended with the conclusion of a temperature study showing that room-temperature storage versus cold-temperature storage does not have significant effects on flavor. Dr. Cohen kept the crowd entertained with his humor and interesting insights into the field, and he offered an open invitation for further questions or tours of the facilities at Appalachian State University. Interested parties can view the presentation in full on our website at <http://www.aiche.org/community/sites/local-sections/east-tennessee>. Several extra slides not covered at the program, including information on wine, cider, and yeast, are included in the online version. For more information on the program or on the week-long Brewing Short Course offered by the university, visit their website at <http://fermentation.appstate.edu/welcome>.

February Program 1 Recap: LCA in Review

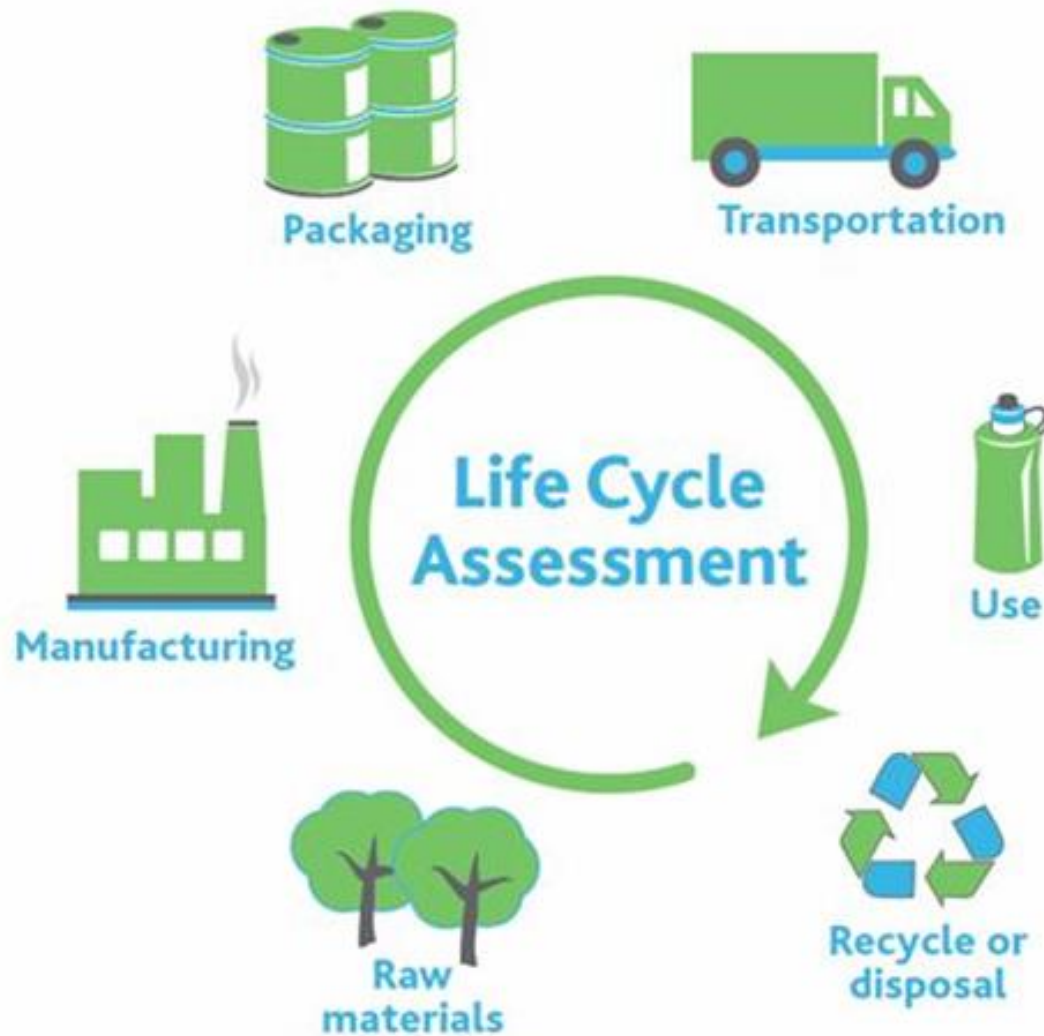
Thank you to the many attendees we had on Monday February, 9th at Dr. Eric Masanet's dive into prospective life cycle assessment (LCA). Remotely presenting from Paris, France, Eric delivered a sweeping look at the potential for breakthrough technologies and the tools used to evaluate them. Eric presented the motivation for technology improvements that will drive carbon reductions worldwide that illustrated both the great challenges and opportunities for industry in the coming century. As a case study we were led through a compelling application of LCA as it is applied to assess the impacts of additive manufacturing. From capital savings to material reduction and innovative design, it was easy to see the potential for such breakthrough technologies especially evaluated through the scientific, data driven LCA methodology. I We hope that everyone took at least one thing away from that meeting, and if there are residual questions, please email Randy randallwaymire@eastman.com or Dr. Masanet at eric.masanet@northwestern.edu. The presentation is available upon request.

We also saw a follow-up conversation on February 24, which dove into Eastman's attributional LCA and explored some great case studies that illustrate how LCA can inform decisions all across the value chain!

February Program 2 Recap: LCA Case Studies

On Monday, Rebecca Glaspie and Randy Waymire presented the concept and practices of attributional life cycle assessment (LCA) from the perspective of Eastman Chemical Company. Through examples of advanced window films and automotive paint shop technology, they illustrated how companies use LCA to evaluate the environmental impact of products and processes in a holistic manner. LCA is unique in that it captures the mass and energy balances over every step in a product's creation and use and translates the data into environmental impacts. As LCA becomes standard in many sectors, the value for assessing the different tradeoffs associated with each new product becomes more important.

This seminar illustrated specific LCA successes for Eastman and was a companion to the prospective LCA techniques that were presented by Eric Masanet in mid-February.



Young Professionals Event Recap

AICHE Young Professionals Committee kicked-off its 2015 events with the team building workshop "Linking Young Professionals" by Joanne Ward, hosted at the Eastman Board room in Kingsport's Chamber of Commerce. The Everest Challenge brought out each attendant's creativity and team skills. The participants had to construct a display representing the challenges and team approaches described in the short documentary of Erik Weihenmayer, the only blind person to ever hike Mount Everest. Everyone enjoyed good food, networking and lots of fun. Thanks to all of those who participated.

For the second quarter, YPC is bringing it on again! After a complete success last year, the Salsa Dancing Event is back and better than ever! Details to come. For more details on YPC events and on how to get involve, please contact Reinaldo Alvarado-Torres. ratorres@eastman.com



The winners of the Everest Challenge and their finished display. From the left: Nicole Perez Gonzalez, Andrew Silva, Daniel Crandall, Katherine Sheridan, and Lindsay Hoggatt

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