

USA MISSION PROCEEDINGS

19-24.6.2022

DAY 1 /20.6.2022/: After more than 20 hours of travelling we arrived in Williamsburg, Pennsylvania at about 9:00 am

On 20 of June - our first day - A visit to Lycoming County Material Recovery Facility was conducted and new learning about the American way of recycling. After the interesting tour of the premises, Pennsylvania College of Technology held a presentation of their academic and vocational training programs. Then followed by a tour of their many very impressive plastics and machining/manufacturing labs. A great example of perfect and extensive interaction between business and academia.

At the end of the day, a networking session with three local companies took place. All 3 companies were very interested in establishing relations with European companies regarding recycling issues. Thank you to all participants, who made this day so great and inspiring.



Image 1: Visit to Lycoming County Material Recovery Facility

DAY 2 /21.6.2022/: After a 4-hour drive from Williamsburg we arrived in Erie situated on the lake front of Lake Erie.

Plan was to visit Penn State Behrend college.

EU representatives got very informative presentations of the college by Dr. Jason Williams, Dr. Alicyn Rhoades and two professors.

Again, great to learn about the tight cooperation between the college and industry. Industry is allowed to come to the college and have students work on their idea without IPR problems, but on the other hand a large majority of the lab equipment is donated by industry.

Following activity was meeting four local companies working with plastics. They were all very satisfied with the close collaboration with the university and with the good conditions offered by the state of Pennsylvania.

Pennsylvania is the place to be in the USA, if you work with plastics.

Participation in the K-Show in October 2022 was discussed and the partners promised a delegation from Pennsylvania including participants from academia and industry.

The day completed by a very nice networking dinner at Kurt's farm.



Image 2: Facilities at Penn State Behrend college

DAY 3 /22.6.2022/: On 22 June, delegates drove to Akron, Ohio to meet with the Greater Akron Chamber, GAC.

GAC is at the forefront of regional economic development work in collaboration with local and regional partners that benefits all communities, businesses, and residents in their region. GAC stands ready to assist businesses of all sizes by creating a climate that encourages and supports business attraction and retention, job creation, entrepreneurship, workforce development, and diversity, equity and inclusion.

GAC has along with Team NEO and The University of Akron launched the Polymer Industry Cluster Initiative to conduct a deeper examination of the region's polymer industry and develop a framework to leverage its full potential. The goal of this work is to elevate Northeast Ohio's polymer industry into a truly dynamic enterprise that is better positioned for strong, sustainable growth in an ever-changing global economy.

During the meeting with GAC a MoU was signed by Mr. Steve Millard, President & CEO, Greater Akron Chamber and Ms. Dorte Walzl Baelum, PERCY Project Coordinator.

After the meeting we had a meeting at University of Akron. This university has positioned itself as a global leader in Polymer Science and Polymer Engineering and has driven polymers, rubber, and plastic research for decades. During the meeting among others a very interesting lecture on recycling was given by James Eagan, Assistant Professor. Then a very interesting tour of the labs followed seeing various types of microscopes for identification of polymer surfaces and impurities. The tour was given by Mr. Jiansheng Feng, Ph.D.

The last stop of the tour was the National Polymer Innovation Center, which contains several lab. extruders for film manufacturing, which is used in project work in collaboration with industry. The day ended with a wonderful networking dinner with Brian Anderson and Alyssa Carpenter from GAC.



Image 3: Signing of MoU – Ms. Dorte Walzl Baelum with Mr. Steve Millard

DAY 4 /23.6.2022/: Akron, Ohio meeting with the Greater Akron Chamber, GAC.

The first visit of the day was paid to a pyrolyzing plant in Akron. We had a plant tour and learned about their views upon waste handling in the US and how they handle the waste through pyrolysis. They work in pilot scale at the moment but expect to be fully operating in 8-9 months. In the afternoon we visited the Ferriot Inc., a very large injection molder, who produce various large technical items.

As a custom injection molder, Ferriot works with Original Equipment Manufacturers (OEMs) to bring new products to life. With a clamping force of 40 to 2,200 tons, their capacity ranges from small parts weighing a few grams to those weighing 20 pounds. Injection molded parts can be simple or complex geometries for both large and small products.

Ferriot offers many other types of molding besides injection molding such as structural foam molding, gas assisted molding, insert molding, and over molding. A majority of their capacity goes to OEMs and the remaining capacity to their own product line, named American Original Shake and Scallop Siding.

Then followed a tour of an innovation house called Bounce Innovation Hub, where startups are allowed to rent space at a very low cost, and they can stay as long as they want to. Here we met a startup working on adhesives for medical use – bandages to be used on thin skin. The day ended with a cluster networking reception, where we presented the PERCY project and had many good talks regarding recycling with the participating companies and with the mayor of Akron – Mr. Daniel Horrigan.

In conclusion, many good impressions to bring home.



Image 4: Presentation of PERCY project with GAC

DAY 5 /24.6.2022/: 24 June was our last day in Akron, Ohio. In the morning we visited Avient formerly PolyOne in the city of Avon Lake.

At Avient the business is structured to provide the customers operations with the specialized polymer materials, services and solutions they need. Avient is a premier provider of specialty polymer formulations, color and additive systems, packaging solutions, and polymer distribution. Delegates met with Mr. Benjamin Messmore, Senior Technology Manager, who gave a presentation of their company and views on recycling issues.

In the afternoon we visited ContiTech, which is part of the Continental Group – world’s 4 largest manufacturer of tires, braking systems and other applications related to the automotive industry. ContiTech uses its development and material expertise for products and systems made of rubber, poly-amide, metal, textile, and electronic components to combine these with individual services. ContiTech also offers functional and design-oriented living solutions and is always searching for customer-friendly and environmentally-friendly answers – going well and truly beyond its roots as a producer of rubber products. ContiTech is one of the world’s leading industry specialists.

During our visit at ContiTech we discussed recycling issues and learned about their eight sustainability essentials representing the backbone of their sustainability management (Good Working Conditions, Green & Safe Factories, Innovations and Digitalization, Benchmark in Quality, Safe Mobility, Long-term Value Creation, Sustainable Management Practice, Corporate Citizenship)

The visit was finished with a tour of their rubber testing labs and an innovation center which is under establishment.

The final activity of the day was a baseball game between the local team Akron RubberDucks and Harrisburg Senators. During the game, a networking with local companies, Greater Akron Chamber and PERCY was carried out. P.S.: The local team won.

This was the end of a very successful PERCY mission to the US.



Image 5: Visit of ContiTech

NEXT STEPS: Meeting at the K show in Düsseldorf with companies and other representatives from Ohio and Pennsylvania.