Homework 5

Plastics in a Circular Economy

This week we looked into plastics packaging which is the largest source of single use plastic waste. We also heard from Jeff Snyder Senior Vice President, Recycling & Sustainability, Rumpke Waste & Recycling.

1. Explain why plastics packaging is so widely used in comparison to metals, paper, and glass packaging. Give some examples from consumer products, construction materials, medical supplies, cleaning products, food, e-commerce.
2. Explain how multilayer film packaging is produced. What are the advantages of multilayer films over single layer films? Why are multilayer films difficult to recycle?
3. What are the problems with recycling of Flexible packaging? Do the benefits you listed in question “a” outweigh the problems with recycling? If flexible packaging is landfilled, is there a net life-cycle benefit in terms of carbon footprint to these materials compared to paper or glass packaging which can be easily recycled?
4. Go through the steps necessary to recycle flexible packaging and list the hurdles to each step and how they are being or could be addressed. The steps are 1) Collection; 2) Separation, Sorting and Volume Reduction; 3) Marketing/use of/demand for the product streams.
5. Give some highlights from Jeff Snyder’s presentation to the class. Compare Rumpkee with volunteer organizations like Cincinnati Recycle and Reuse Center, and with companies targeting flexible packaging and non-recyclable packaging like TerraCycle and Hefty EnergyBag. How do their markets and business models differ? Are these organizations competitive or parallel efforts?