

Homework 8
Plastics in a Circular Economy

This week Kate Beers from NIST held a discussion. I also gave a presentation about recycling in the automotive industry.

- a) What is mass balance accounting (MBA) in the plastics recycling industry? Why is this approach appealing to the federal government? Consider the criticisms of MBA such as given in this ProPublica webpage <https://www.propublica.org/article/epa-rejects-mass-balance-plastics-recycling-safer-choice> - [:~:text=A ProPublica investigation in June,less than 1%25 recycled content.](https://www.propublica.org/article/epa-rejects-mass-balance-plastics-recycling-safer-choice) Comment on this critique of MBA. How does this critique of MBA compare with critiques of carbon credits and carbon offset for global warming? A NIST document on Mass Balance Accounting is given at this webpage: <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1500-206.pdf>
- b) List five of the activities of NIST in plastics recycling mentioned by Kate Beers. For each of these activities argue that the government is or isn't the best place for the activity. Which alternative organization might be more appropriate, e.g. universities, industry, other agencies, international agencies, non-government organizations.
- c) Comment on Kate Beers activities with the UN as a government expert on the US delegation to the United Nations Environment Programme to negotiate a legally binding instrument to end plastic pollution. How impactful is this UN effort? Is there a better approach to controlling plastics waste?
- d) Are automotive plastics a major issue for plastics recycling? Why or why not. What is the feasibility of a totally recycled car?
- e) Consider the video on recycling of cars by two methods, <https://www.youtube.com/watch?v=le3Ar6hPzs> Comment on large scale implementation of the first method, the second, crushing method is what is mostly being done. How could automotive manufacturers make the first method more feasible? Would this method require regulations? Could it be brought about through litigation? In the global marketplace for cars could this be implemented?