

Lecture - Sustainable Materials and Standards

Green Buildings and Sustainable Materials Project at NCSU, funded by NIST

Role-play:

Each student is assigned to one role in a material's life cycle (e.g., metal or plastic, depending on the backgrounds of students):

- A Mining company
- A company processing raw materials (e.g., turn metal ores into metals with higher purity but not final products)
- A manufacturing company that produce final products
- Costumers
- Material recovery facilities
- Waste management company
- Transportation company

Seven students in one group are asked to discuss the following questions:

- What resources are consumed by your company?
- What emissions (to air, water, and land) are generated by your company?
- Do you think your company is the largest resource consumer in your group? Why?
- Do you think your company has the largest resource consumer in your group? Why?
- Do you think your company is the largest resource consumer in your group? Why or why not?
- If you are asked to work with your peers (who serve other roles) to evaluate the sustainability of the material, what would you do? Please list action items one by one.