

Invention Group

You are an **Inventor Working in Polymer Development**

Your Background and Biography

You are an exceptional scientist with a background in chemical engineering. Your love of this field of study stems from your admiration for your father, a chemical engineer who developed synthetic polymers. The inventing bug hit you in college when you got your first taste of laboratory work. You learned the thrill of exploring new ideas in a hands-on, experimental way, and your imagination was fired by the prospect of developing not only new materials but also new uses for existing ones. You also acquired your independent entrepreneurial spirit from your father, who spent weekends and days off from his job experimenting in the basement of your house before founding his own company.

After completing your education with a doctoral degree in chemical engineering, you joined the company your father started. In the 1960s you developed new processes for using plastic polymers as replacements for wire cable. You have many patents and continue to work in the field of polymer chemistry. Your patented inventions allowed for the miniaturization of integrated circuits that enable the manufacture of smaller electronic components and products and have also resulted in numerous polymer products in a variety of forms, including fibers, tubes, and membranes. These products have been used in the fields of medicine, space exploration, textiles, laminated fabrics, and electronics. As an expert in invention and the development of plastic polymers, you are convinced that these materials offer an unlimited range of possibilities that have yet to be fully discovered. You are certain that the continued investment in scientific research and the cultivation of the entrepreneurial spirit will lead to solutions for many of the problems of the future.

You realize that plastics are not perfect, and you're sympathetic to the concerns that environmental activists have about plastics. However, you also know that the benefits far outweigh the risks. Furthermore, you are certain that the same process of scientific discovery that produced plastics can also solve their problems. You've made a personal effort to see that this happens; for your company you have established strategies and methods that aim for environmentally sustainable practices embodying "green chemistry."

Your message for the regulators and other attendees at the public hearings for the new regulations is critical: anything that stifles innovation and entrepreneurialism will damage our economy. More important, these controls may limit or prevent the development of new products with unknown benefits. Your company has not only been at the forefront of innovation; it has also set the standard for modern corporate organization. The nation's future for economic growth and employment depends on sustaining the scientific enterprise.

Your Mission

Your goal at this hearing is to convince the Regulators to include the Invention Group's recommendations in their final regulation. To make this argument effectively, you must

- Complete the assigned readings listed at the bottom of this page;
- Work closely with the other members of your group to develop clear answers to the Regulators' questions;
- Make use of as much specific information as possible to develop strong arguments that the many societal benefits of plastics outweigh the problems and that too much regulation may stifle innovation;
- Read as much as you can about your position and the positions of the other groups; and
- Complete written reflections on your character, interest group, and readings as assigned.

Your Victory Objectives

- **You will receive 10 points** if the Regulators select your group's proposal as the final regulation.
- The Regulators will rank the interest groups by how well their goals are represented in the final regulation. **You will receive between 1 and 5 points** based on how the Invention Group is ranked and how well the regulation reflects your goals.

Sources

Invention Group Sources

- Case Study: The Benefits of Plastic Innovation
- "Interview with Bob Kenworthy," video, vimeo.com/channels/465871

Your Individual Sources

- "Green Chemistry Discovery Could Lead to Safer Plastics", by Brian Clark Howard, *Atlantic*, March 15, 2011
- Select **one article** from the bibliography on *The Case of Plastics* website recommended for the Invention Group. Read the article and write two paragraphs summarizing the article and how it will be useful to you in the upcoming debate.