

STW Consulting

<u>Team Member Name</u>	<u>Year</u>	<u>Major</u>
Palmer Moore	4 th Year	Finance
Adam Lieb	3 rd Year	Integrative Science
Brenna Boer	3 rd Year	Marketing
Jessie Chen	3 rd Year	Accounting & Finance
Ruhaan Pius	3 rd Year	Finance

Advisor: Johan Bodaski, Ph.D.

Topic Title: Reengineering Plastics: Combatting a Broken Disposal System

Audience: Executive Leadership Team at Coca-Cola

Sustainable Development Goal

SDG #12 – Ensure sustainable consumption and production patterns.

Executive Summary

In 2019, the estimated amount of plastic sent to landfills in the U.S. was enough to fill over 22 SoFi Stadiums. Plastics can take up to 1,000 years to decompose, and their consumption only continues to grow. Coca-Cola, one of the world’s largest beverage companies, accounts for approximately 11% of global branded plastic pollution. As plastic waste accumulates in landfills, communities near disposal sites face disproportionate impacts, and governments are increasingly adopting “polluter pays” policies and bans on certain plastics. However, plastics are integral to modern life, supporting affordable packaging, transportation efficiency, and everyday convenience. Coca-Cola’s distribution model relies on plastic, yet the downstream consequences of that model generate growing legal, financial, and ethical pressures.

In response, the Coca-Cola system has prioritized recycling-focused sustainability initiatives and is committed to increasing the recycled plastic content of its primary packaging to 30-35% globally by 2035. However, this strategy depends on post-consumer recovery systems that remain structurally limited. Only about 9% of plastic is recycled globally, and recovery rates have stagnated despite years of investment by Coca-Cola. We recommend that Coca-Cola shift its focus to invest in biodegradable production additives. These products, integrated during manufacturing, accelerate the decomposition of plastics with minimal changes to existing production systems. Compared with other biodegradable materials, these additives are designed to enable plastics to break down in landfills. By changing plastic composition, Coca-Cola can directly mitigate long-term waste accumulation, reduce regulatory exposure, and ease financial risk associated with plastic persistence. Adoption positions Coca-Cola as a proactive leader in sustainability, aligning long-term corporate strategy with evolving consumer and societal expectations.