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Andrew Hoffman

The Ellen MacArthur Foundation: Accelerating a Circular Economy for Plastic Packaging

As another tedious meeting came to an end, Sander Defruyt was looking for a breakthrough. It was a sun-drenched August afternoon in 2019, and as he sat in his office with a reusable mug of fair trade coffee, Defruyt pondered his organization's next move to reshape the world. As the lead of the New Plastics Economy initiative at the Ellen MacArthur Foundation (EMF), Defruyt was on the front lines of the struggle for a sustainable world by transitioning to a circular economy. The EMF had already made waves central to this mission, but it was looking to build on its momentum and continue to improve an alarmingly unsustainable sector of the economy: plastic packaging. Defruyt, a mechanical engineer with a stint at McKinsey & Company behind him, needed a plan to engage key stakeholders to rethink and redesign the future of plastics. The New Plastics Economy initiative sought to comprehensively transform the market for plastics throughout its entire supply chain. Plastic packaging, in particular, had drawn intense scrutiny from policymakers, advocacy groups, and industry powers. Defruyt's contact list was impressive, and he was confident he could bring together stakeholders throughout the supply chain to make plastic packaging a fundamentally sustainable product. But how, exactly, could Defruyt persuade the disparate stakeholders to rally around a single cause, one that might pose market challenges of its own? Defruyt sipped his coffee. It was time to make a plan.

A Brief History of Plastic and the Packaging Industry

The word plastic comes from the Greek verb "plassein," which means to mold or shape. Although many have come to associate plastic with artificiality, the first plastic produced was made from a base of cellulose.¹ In 1863, a billiards company in New York ran an ad campaign paying \$10,000 to anyone who could find a new material to replace the ivory—a precious and depleting resource—used in billiard balls. In 1869, John Wesley Hyatt made a revolutionary discovery of the first plastic.² His discovery did not rely on limited and potentially controversial resources such as ivory or tortoiseshell, but instead created a new material not constrained by nature. He relied on the polymers in cellulose, chains of molecules, to give his new material the "plastic" ability to be molded. Although his invention did not win the billiards company

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