

Joint Action Project

Sustainable Plastic Materials

This project involves implementing a set of trials to: produce materials (with the same properties as plastics) that come from renewable, bio-based feedstock; scale new recycling technologies; and build a circular value chain to keep more sustainable materials in play.

Amazon and NREL teamed up through the BOTTLE Consortium to develop a novel, lower-emissions recycling technology for mixed polyester plastics (Estercycle™), which includes PET as well as a mix of bio-based, biodegradable plastics.

Results

The trial results aim to demonstrate the performance of the new materials and recycling technologies and address key performance issues, with the goal of enabling them to scale and eventually replace the conventional plastics value chain.

The big picture

The Climate Pledge launched a series of collaborative projects to help tackle some of the planet's biggest climate change challenges alongside the best in the business. These joint action projects bring signatories together to enable and scale a solution that aligns with the pillars of the Pledge and leads to measurable results.

Learn more at theclimatepledge.com/jointaction.

About BOTTLE Consortium

BOTTLE™ is a U.S. Department of Energy multi-organization consortium focused on developing new chemical upcycling strategies for today's plastics and redesigning tomorrow's plastics to be recyclable-by-design.

Learn more at bottle.org.