

# Innovative Materials and Polymers

**What are Innovative Materials and Polymers?** These are materials that can replace traditional unsustainable materials in products and help these products fit in the circular economy model better. These materials and polymers can help with the urgent need to reduce the amount of plastics and other harmful materials that are entering the environment.

## Benefits

- Reduce need for harmful single use materials
- Materials made from existing waste decrease landfill intake
- Sustainable production
  - Reduce need for oil extraction to create conventional plastics
  - Less greenhouse gas emissions

## The New Plastic Economy

The Ellen MacArthur Foundation has created this initiative to use systemic collaboration to create alternatives to traditional plastic. By bringing together stakeholders at every step of the process and creating a robust evidence base, the goal is to push innovation forward where it has previously stalled. Some companies involved in this initiative are Unilever, Coca Cola, Pepsico, and MARS.

## Winners of the 2018 New Plastics Economy Innovation

### TIPA

TIPA is an Israeli company that has created flexible, transparent plastic packaging out of fully compostable materials. This packaging is environmentally friendly and has similar mechanical and shelf-life properties as conventional plastic. [Source](#)

### Evoware

This plant-based packaging made of seaweed fully dissolves in water and has no additives. It can be eaten along with whatever food it had inside, such as tea, seasoning, or a sandwich. In addition, seaweed cultivation does not use valuable land space and requires no use of additional water or fertilizer. [Source](#)

### Full Cycle Bioplastic

Full Cycle's bioplastic is produced naturally by bacteria from a mix of raw organic waste, reducing its greenhouse emissions. This bioplastic is the first to have the same protective functionality as traditional multi-layer plastics and at the end of life it can be composted and upcycled into the bioplastic again. [Source](#)

