

April 2025

Materials & Packaging

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Technology

DURACELL

[Duracell to Launch Recyclable, All-cartonboard Paper Blisters](#)

Duracell is replacing plastic blister packs with recyclable paper-based packaging, aiming to cut plastic use by 100% and reduce 170+ metric tons of CO₂ annually. The initiative, balancing sustainability and profit, will be highlighted at June 2025 Packaging Recycling Summit.



[Carbon Structures from Oil Byproduct Boost Sodium-Ion Battery Performance](#)

Rice University, Baylor University, and IISER Thiruvananthapuram have developed tiny cone- and disc-shaped carbon structures from oil and gas byproducts for sodium-ion batteries. These innovative shapes enable efficient sodium-ion storage.



[SMX Transforms Plastic Recycling with Molecular Tracking and Blockchain Technology](#)

SMX's system tags plastics with unique molecular markers for full lifecycle traceability and uses blockchain for secure, transparent records. SMX also introduced the Plastic Cycle Token (PCT), a tradable digital asset that incentivizes proper recycling.



Regulation



[India's New Plastic Packaging Guidelines](#)

The Food Safety and Standards Authority of India (FSSAI) has introduced new guidelines for the use of recycled PET (rPET) in food packaging. The guidelines mandate 30% recycled content in rigid plastic packaging from April 1, 2025, and introduce a new logo to help consumers identify products packaged with rPET.



[India To Implement Renewable Energy Consumption Norms](#)

The Government of India aims to implement a new Renewable Purchase Obligation (RPO), mandating state electricity regulatory commissions (SERCs) to specify a minimum percentage of electricity consumption sourced from renewable energy. The goal is to accelerate the integration of renewable energy into the national grid.



[Mandatory Food Waste Recycling for Businesses](#)

England announced a new law that requires all non-household municipal premises to separate food waste, recyclables (plastic, metal, glass, paper, cardboard), and non-recyclables. Businesses generating more than 5 kg of food waste per week must separate it for collection by licensed carriers for composting or anaerobic digestion.



Finance



[Glacier Raises \\$16 Mn to Expand AI-Powered Recycling Robots](#)

Glacier, an AI robotics firm, has secured \$16 million in Series A funding to expand its recycling robots across U.S. material recovery facilities. These robots, capable of sorting 30+ material types at 45 items per minute, aim to enhance recycling efficiency and reduce contamination.



[UK Announces £300M Fund for Offshore Wind and Clean Energy](#)

The UK, during the International Summit on Energy Security (April 24–25, 2025), announced a £300 million Supply Chains Investment Fund to boost domestic offshore wind energy projects. A joint letter from key officials urged industry to support the UK's clean energy goals and "Build it in Britain."



[EPA to Allocate Fund for Food Waste Projects](#)

The U.S. Environmental Protection Agency (EPA) is set to award \$58 million in Solid Waste Infrastructure for Recycling (SWIFR) grants by 2025. The Recycling Education and Outreach (REO) program will provide up to \$39 million for food waste reduction and compost education projects.

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[COM4PHA Project Advances Biodegradable PHA Bioplastics](#)

The project focuses on developing biodegradable bioplastics using polyhydroxy-alkanoates-PHA for cosmetics, food, and agricultural packaging. It aims to optimize PHA formulations, particularly the PHBV copolymer, for industrial applications, enhancing product quality and sustainability.



[Technique to Boost Fusion Reactor Lifespan](#)

The University of Surrey has developed a technique to extend the lifespan of next-generation fusion power plants. Using an advanced microscopic method called plasma-focused ion beam and digital image correlation (PFIB-DIC), researchers mapped hidden weaknesses in welded metals used in reactors.



[Mobile System to Extract Rare Earths](#)

American Resources Corp. has launched a modular, mobile system to extract rare earths from coal and mine waste, transforming environmental liabilities into valuable resources. Through innovative, cost-effective refining, the company aims to boost U.S. critical mineral independence and expand globally.



[OBR Labels EPR as a Tax](#)

The Office for Budget Responsibility (OBR) has labeled Extended Producer Responsibility (EPR) as a tax in its latest economic and fiscal outlook. This reclassification has raised concerns within the packaging industry, which expected EPR payments to be reinvested to improve recycling rates.



[UK Launches Consultation on Carbon Border Tax](#)

The UK, during the International Summit on the Future of Energy Security, launched a consultation on introducing a Carbon Border Adjustment Mechanism (CBAM). The government plans to implement the CBAM from January 1, 2027, which will apply a carbon price to emissions-intensive imports into the UK.



[India Announces New Waste Management Rules](#)

India's Environment (Construction and Demolition) Waste Management Rules, 2025, which will come into effect on April 1, 2026, aim to improve the management of construction and demolition waste by promoting recycling, reuse, and waste reduction through EPR.



[India Launches Plastic Parks Scheme with 50% Project Grants](#)

India's Plastic Parks scheme supports the plastic processing industry with up to 50% project grants (maximum INR 400 million), aiming to boost investment, exports, and jobs while promoting sustainable growth through recycling. Ten parks have been approved nationwide.



[EU Allocates €52 Mn to Boost Solar and Wind Projects](#)

The European Commission has allocated €52 million through the EU Renewable Energy Financing Mechanism to support nine renewable energy projects in Finland and Estonia. These include seven solar photovoltaic projects in Finland and two onshore wind projects in Estonia, adding a total capacity of 445.65 MW.



[Connecticut Awards \\$15 Million for Local Waste Management](#)

Manchester and Coventry, CT, are among nine towns awarded \$15 million in state grants for waste management infrastructure projects. Manchester will use \$4.8 million to enhance recycling programs, while Coventry will receive \$203,000 for a food waste diversion initiative.



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