

September 2025

Materials & Packaging

Energy

Waste Monetization



Technology



[nviro1 Redefines Recyclable Packaging with PET Cap](#)

Australia-based packaging company nviro1 has created a patented 100% PET bottle cap, nviroCap, that allows bottles and caps to be recycled together in a closed loop. This mono-material design simplifies recycling, reduces microplastics, and meets regulatory demands for recyclable packaging.



[Device That Generates Electricity from Water and Air](#)

Researchers at IIT Indore developed a device using a membrane of graphene oxide + zinc-imidazole which produces voltage as water moves through microscopic channels and evaporates. It works without sunlight, batteries, or moving parts.



[Recycles Glass Into One Of A Kind Countertops](#)

South Carolina-based Fisher Recycling transforms locally collected glass into custom countertops under its "GlassEco" line. By crushing and embedding color-sorted glass in concrete or resin, the company creates durable, one-of-a-kind surfaces. Recycling 100% of the glass it collects—up to 600 tons a year.



[Policy Recommendations for UK Circular Economy](#)

CIWM's new policy recommendations, published in September 2025, outline ten targeted actions for advancing the UK's circular economy by the next general election. These recommendations respond to current resource and waste challenges while urging cross-government and industry collaboration.



[Regulation For Mixed Battery Storage](#)

Germany proposed a draft regulation to boost battery storage by unlocking subsidies for mixed storage systems. It aims to ease financial hurdles from high grid fees, which currently classify storage as electricity consumers. By improving investment conditions, the move supports Europe's largest battery storage market.



[EPA Announces Intent To Defend PFAS Hazardous Substance](#)

The EPA will defend its 2024 rule designating PFAS chemicals PFOA and PFOS as hazardous under CERCLA, requiring release reporting and cleanup obligations. While holding polluters accountable, the rule may affect "passive receivers" like waste facilities and property owners.



[Xampla Receives \\$14mn Funding](#)

Xampla, a UK-based sustainable materials company, secured \$14 Mn in a Series A funding round led by Emerald Technology Ventures, BGF, and Matterwave Ventures. The funds will accelerate the expansion of Xampla's Morro plant-based materials, which replace single-use plastics found in takeaway boxes, coffee cups, and sachets.



[World Bank Approves \\$500mn Funding for Power Grid Upgrade](#)

The World Bank has approved \$500 Mn for Indonesia's Electricity Network Transformation (I-ENET) program (2025–2032) to modernize grids in Java, Madura, and Bali. Backed by \$491 million from PLN and \$342 million in private investment, it will improve electricity services.



[Temperpack Secures \\$10 Mn Loan](#)

Closed Loop Partners has provided a \$10 Mn loan to Richmond-based TemperPack Technologies, marking their third financing since 2018. The funds will support development of plant- and fiber-based packaging, including on-demand manufacturing tech WaveKraft, to reduce reliance on hard-to-recycle plastics.



Finance

Benori: Sustain Monitor

BENORI

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ENGAGE
technologies corporation

[Engage Introduces New Laser Marking System](#)

The SQ UVT UV laser marking system replaces traditional thermal printing in food packaging by eliminating ribbons and printhead costs. It offers low maintenance, quick startup, and permanent, high-precision marks without heat damage or consumables. This makes it an efficient, eco-friendly, and cost-effective solution.

 **IIT BHILAI**

[Self-healing Polymer For EV and Aerospace Application](#)

IIT Bhilai has introduced a polymer that can repair itself at room temperature after damage, strong adhesion, thermally stable, reusable over multiple cycles. Developed via a (relatively) low-cost scalable process, material has extended lifetimes, lower maintenance, less material waste.

 **RICE UNIVERSITY**

[New Process Promises To Recover Rare Earth Materials Efficiently](#)

Rice University researchers have developed a one-step flash Joule heating process to recover rare earths from discarded magnets with over 90% efficiency. The method, which uses chlorine gas and avoids water or acids, separates rare earth oxides from metals like iron and cobalt in milliseconds, cutting energy use, emissions, and costs.

Regulation

 **Innovate UK**

[WRAP Issues Guidance On Food-grade Plastic Recycling](#)

WRAP has issued new guidance and a challenge test for recycling polypropylene (PP) and polyethylene (PE) into food-grade plastics, tackling contamination challenges. Their three-year study found over 400 chemicals in post-consumer polyolefins, with 20% hazardous. A robust test protocol was created to prove decontamination efficiency.



[India Launches National Geothermal Policy](#)

India's Ministry of New and Renewable Energy has launched its first National Geothermal Energy Policy to tap 10 GW of potential for clean baseload power and industrial decarbonization. The policy promotes electricity generation, heating/cooling, agriculture, tourism, and desalination, while encouraging hybrid projects.



[California's Landfill Methane Rule Proposal](#)

California's updated draft Landfill Methane Rule seeks a 40% cut in landfill methane emissions from 2013 levels by 2030. Covering 190 landfills, it tightens leak response timelines, requires advanced detection tools like laser scanners and drones, remote monitoring.

Finance

 **Aurubis**

[Aurubis Secures €200Mn Loan From EIB](#)

Aurubis secured a €200 Mn loan from the European Investment Bank to expand copper refining in Bulgaria and support recycling investments in Hamburg. The Pirdop facility's copper output will double to 340,000 tonnes annually by 2025/26.

 **ADB**
ASIAN DEVELOPMENT BANK

[ADB Approves USD 53Mn Loan](#)

The Asian Development Bank has approved a \$52.72 Mn loan for Cambodia's Grid Expansion Project to integrate more renewables and meet rising power demand. The project will build 55 km of 230 kV lines between Pursat and Kampong Chhnang, upgrade nine substations, and cut transmission losses.

 **IFC** | International Finance Corporation
WORLD BANK GROUP

[IFC Invests In Twm Group To Spur Papua New Guinea](#)

IFC invested \$10.2M in Papua New Guinea's TWM Group via a kina-denominated loan to develop the country's first integrated waste management facility. The project targets hazardous and industrial waste, promotes public health, sustainable growth, gender inclusion.