



WPS Insights

This June edition of WPS Insights curates six developments that are shaping the future of packaging across sustainability, materials innovation, and strategic supply resilience.

From breakthroughs in food-grade polypropylene recycling to patented flexible packaging formats, and from PFAS-free paper barriers to renewed investments in aluminum capacity - the packaging landscape is transforming fast. Each story in this edition offers decision-makers a forward view of emerging challenges and market-shifting opportunities.

If you're navigating supply continuity, sustainability mandates, or material innovation, these are signals to act on. Read. Evaluate. Strategize.

Nextloopp: Closing the Loop on Food-Grade Polypropylene

A new push to scale food-grade rPP in North America

Nextloopp Americas, launched by Nextek Ltd., is working to solve a long-standing gap in U.S. recycling: food-grade polypropylene (PP). With less than 10% of PP currently recycled and almost none in food-safe applications, this initiative combines advanced sorting, material innovation, and regulatory coordination to enable true circularity.

Strategic Focus

- Build a closed-loop ecosystem for food-grade rPP.
- Help recyclers obtain FDA Letters of Non-Objection.
- Coordinate with MRFs, converters, and brands across the Americas.

Key Innovations

- AI-powered sorting delivering 97% purity at 5 tons/hour.
- Detachable adhesives and mono-material lids for clean streams.
- Design-for-circularity guidelines to support scale and compliance.



Lessons & Actionables

- Food-grade rPP is key to reducing dependence on virgin plastic and meeting recycled content laws.
- Pilot food-grade rPP adoption across high-volume categories with EPR exposure and brand visibility.



Coveris Launches MAP Trays with 90% Less Plastic

A recyclable tray that balances shelf life, weight and performance

Coveris has introduced BarrierFresh MAP trays for meat and seafood. The trays reduce plastic usage by 90% and maintain a 21-day shelf life with an EVOH barrier film, all while being recyclable and compatible with existing production lines.

Key Features

- Lightweight, stackable, hermetic sealing.
- Single-SKU design with high printability.
- Fully recyclable without sacrificing integrity.

Lessons & Actionables

- Functionality and sustainability no longer need to be trade-offs in high-volume food categories.
- Evaluate MAP tray alternatives for perishable SKUs to cut material footprint and simplify packaging lines.



Northwestern's Graphene Oxide Barrier: PFAS-Free and Compostable

New material tech reshapes the future of paper-based food packaging

Northwestern University has developed a graphene oxide solution that enhances the barrier strength of paper packaging by 30–50%, while eliminating toxic PFAS coatings. The solution is recyclable, compostable and patent-pending.

Key Features

- Water and oil-resistant with minimal material use.
- Compostable and safe for direct food contact.
- Backed by industry partnerships.

Lessons

- Next-gen coatings must meet environmental safety and barrier performance without trade-offs.



Actionables

- Assess compatibility of alternative barrier tech with your existing coated paper formats.

AeroFlexx Secures Patents for Recyclable Flexible Packaging

Patent-backed innovation that merges form, function and material reduction

AeroFlexx has secured U.S. patents for its AeroFlexx Pak, a flexible, recyclable mono-material solution designed to reduce plastic use without compromising performance. The pack combines benefits typically associated with both rigid and flexible packaging suitable for kerbside recycling.

Key Features

- Uses up to 70% less plastic and incorporates up to 50% recycled content.
- Delivers up to 85% reduction in virgin plastic compared to conventional bottles.
- Recyclable mono-material. Meets industry standards for polyethylene-based films and flexible packaging.

Lessons & Actionables

- Intellectual property-backed packaging formats that reduce virgin plastic are gaining ground in global markets.

Actionables

- Assess integration of mono-material flexible formats in global product lines where recyclability and weight reduction are priority goal.





Biodegradable Cheese Packaging from Nestlé Central America

Whey-based bioplastic meets dairy's sustainability challenge

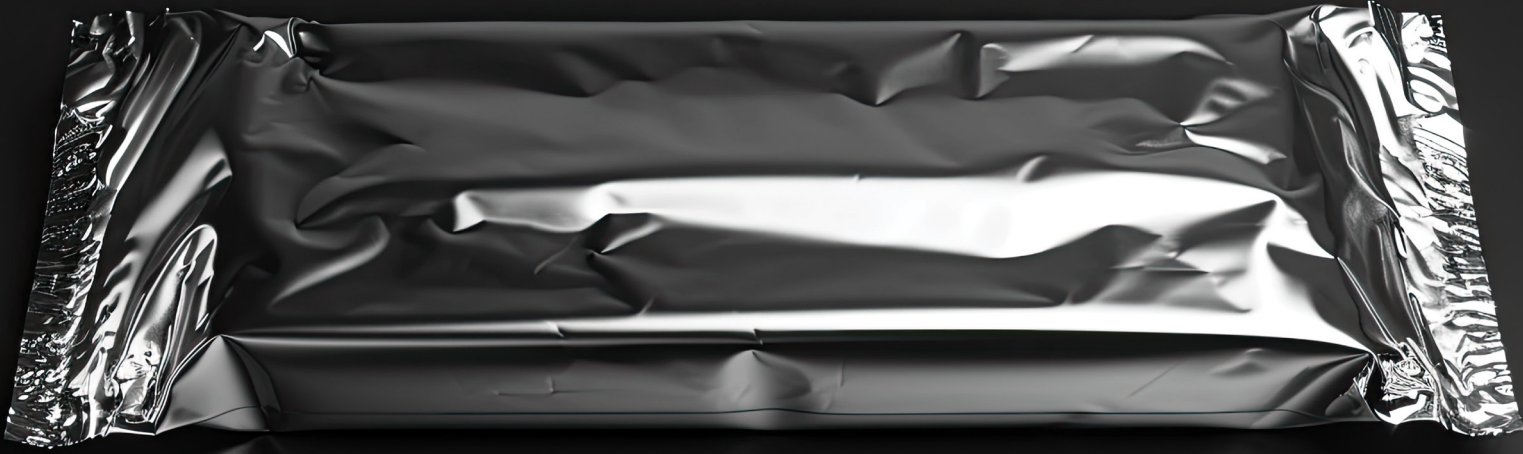
Nestlé's ¡Qué Rico! brand, in collaboration with Ogilvy Columbia, has launched biodegradable cheese wrappers made from cheese whey and PHA bioplastics. Designed to degrade in under 300 days, it exemplifies waste-to-resource innovation.

Key Attributes

- Clear, lightweight film made from dairy by-products.
- Biodegradable alternative to conventional plastic.
- Applicable across dairy and perishables .

Lessons and Actionables

- Biodegradable packaging rooted in food by-products signals a deeper shift where packaging innovation is now tied to waste valorization, material science and consumer-facing sustainability.
- Evaluate feasibility of upcycling internal food or process waste streams into functional, certified packaging formats.



New U.S. Aluminum Capacity on the Horizon

EGA's smelter project may reshape supply for food-grade packaging

Emirates Global Aluminium is planning the first U.S. Aluminum smelter in over four decades. The plant, pending final approvals, would serve packaging-grade ingots for food, beverage and consumer applications, helping reduce reliance on imports.

What's Shaping the Opportunity

- Project to supply sheet ingots and high-purity Aluminum.
- Part of a \$200B U.S.-UAE commercial initiative.
- Potential to create 5,000+ direct and indirect jobs.
- Target sectors include food & beverage, aerospace and automotive.

Insight

Aluminum supply security is being redefined by geopolitics. Domestic capacity expansion, after decades of decline, signals a reshaping of cost structures, trade risk and decarbonization strategy in packaging material sourcing.

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