

Bioplastics Recycling Cluster Talks

Design for Recycling criteria for bioplastics packaging

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Summary of Laura Tirkkonen-Rajasalo's intervention

Sulapac is a materials innovation company co-founded by Laura Tirkkonen-Rajasalo that develops sustainable alternatives to conventional plastics. The company's biobased and biodegradable materials enable businesses to reduce their carbon footprints, eliminate microplastic pollution, and advance the circular economy while maintaining the premium quality standards demanded by luxury brands. These materials are mass-producible and offer an attractive look and feel that appeals to high-end markets.

The company serves multiple industries, including cosmetics, food services, and various other applications, through diverse manufacturing processes such as injection moulding, extrusion, 3D printing, and thermoforming. Sulapac has successfully secured partnerships with prestigious brands, demonstrating strong market acceptance in premium segments.

One of Sulapac's key value propositions is the versatility of end-of-life options for its materials. Depending on the application and available infrastructure, Sulapac products can be reused, mechanically recycled, chemically recycled, or composted, providing multiple pathways within the circular economy. Their Sulapac Solid material, for instance, has been tested for reusable tableware applications and can withstand up to 300 use cycles while remaining dishwasher and microwave-safe, as demonstrated in a pilot program with Burger King.

The regulatory landscape in Europe, particularly the Packaging and Packaging Waste Regulation (PPWR), has significantly influenced Sulapac's strategic direction. Since 2019, the company has taken an active role in EU advocacy, engaging directly with Members of the European Parliament, the Council, and the Commission. Through position papers, proposals, and parliamentary questions, Sulapac has helped shape policy discussions on sustainable materials. These efforts contributed to a shift in the PPWR narrative from negative to more positive regarding biodegradable materials, and crucially, resulted in biodegradable plastics being added to the PPWR's list of recognised recyclable material categories.

However, the regulatory environment has also created new challenges. The PPWR's emphasis on mechanical recycling over composting has pushed companies like Sulapac to demonstrate recyclability rather than relying solely on compostability as an end-of-life solution. This has

required the company to pivot and prove that its materials can be effectively integrated into existing recycling infrastructure by 2035.

From a technical standpoint, third-party validation has confirmed that Sulapac materials can be sorted from mixed waste streams using industry-standard Near-Infrared (NIR) equipment and recycled alongside common biopolymers. The recycling process is notably mild and energy-efficient, provides good yields, and maintains both food contact quality and mechanical properties. While small-scale recycling facilities for biobased biodegradables already operate in the Netherlands and Belgium, a large-scale EU plant is planned to open in 2028, significantly enhancing recycling capacity.

Sulapac actively participates in the standardisation process through involvement in the European Bioplastics task force and CEN subgroups focused on developing Design for Recycling guidelines specifically for biodegradable plastics. The company also engages with national standardisation bodies and collaborates closely with recyclers and packaging customers to ensure that the guidelines reflect practical considerations and compatible packaging features.

Strategic partnerships play a crucial role in Sulapac's vision of achieving recyclability at scale. The company is involved in [ReBioCycle](#), an EU-funded Horizon Europe project aimed at creating a European blueprint for circular bioplastic upcycling solutions. This [consortium](#) includes major industry players and European Bioplastics and focuses on developing novel sorting and recycling technologies through waste-processor hubs in the Netherlands, Italy, and Spain.

Sulapac has two key recommendations for companies navigating the sustainable materials landscape: understand your regulatory environment early in your development process, and actively participate in policy discussions because individual perspectives can make a meaningful difference in shaping the future of sustainable materials regulation.

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