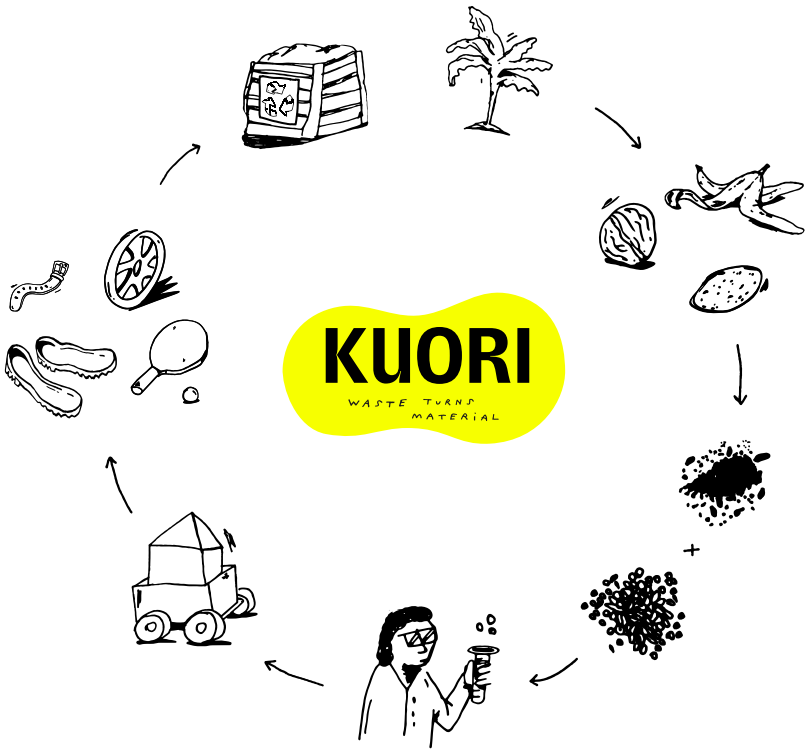
Presskit KUORI

For exterrnal Communication Purposes



Eckhart Anik, 17.03.2025

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Company Portrait

One-Liner

- KUORI is revolutionizing the rubber and elastic materials industry with biobased, biodegradable and recyclable materials derived from food byproducts, towards a circular future without fossil-based products, less microplastic and less CO_2 emissions.
- KUORI develops and supplies biobased, biodegradable, and recyclable materials derived from food by-products. Redefining the rubber and elastic materials industry towards a circular future without fossil-based products, microplastic pollution, and less CO_2 emissions.
- KUORI develops biobased, biodegradable, recyclable, and elastic materials derived from food industry by-products like olive pits and walnut shells. These offer a sustainable alternative to fossil-based rubbers and plastics.

KUORI in a nutshell

- **713 Characters:**

At KUORI, a Swiss B2B Cleantech Startup, we develop and supply biobased, biodegradable, and recyclable elastic materials derived from food byproducts such as olive pits and walnut shells. Redefining the rubber and elastic materials space towards a circular future without fossils, microplastic pollution, and reduced CO_2 emissions. Our eco-friendly alternatives are designed to perform just like conventional plastics while seamlessly fitting into existing manufacturing processes enabling efficient adoption and impactful change. Backed by the EU's Horizon program and awarded Renewable Material of the Year 2023, we just started to transform industries from outdoor to automotive which face growing regulatory and consumer-driven demands for sustainability.

- **500 Characters:**

KUORI, a Swiss B2B Cleantech company founded in 2022, develops and supplies biobased, biodegradable, and recyclable elastic materials derived from upcycled food byproducts such as olive pits and walnut shells. Recognized by the EU's Horizon program and awarded Renewable Material of the Year 2023, KUORI targets industries such as outdoor to automotive, which face growing regulatory and consumer-driven demands for sustainability.

- **250 Characters:**

KUORI, a Swiss B2B cleantech company, offers biobased, biodegradable, recyclable, and elastic materials derived from upcycled food byproducts, replacing fossil-based plastics transforming industries from outdoor to automotive.

KUORI's Mission

Founded in 2022, KUORI's mission is clear: to break free from the world's dependence on fossil based plastics. Rather than accepting the conventional path, we asked ourselves a daring question:

"How can we drastically reduce microplastic pollution?"

Our journey began with an unconventional idea: transforming food sidestreams like olive pits, walnut shells, and banana peels into innovative, biobased, biodegradable, recycable and elastic materials. Imagine a material that isn't just environmentally friendly but also rivals the utility of conventional plastics, all while seamlessly integrating into existing manufacturing proccesses. KUORI's materials are designed to exceed the standards set by conventional plastics, allowing them to seamlessly replace less sustainable options.

Collaboration is the heart of KUORI's strategy, as a B2B enterprise we are proud to collaborate with some of the biggest players in the outdoor and automotive sectors. We are focused on a close

partnership where both parties profit from, KUORI helps their partners to transition to more sustainable practices by developing the best material solution for every partner and product individually, on the other side do we get some valuable insight into the market and what requirements the material needs to have to be competitive and reach industry standards. KUORI's materials are designed to seamlessly replace less sustainable materials.

Process and Material

KUORI is currently developing three groundbreaking material solutions, each at a different stage of development and offering unique properties. While these solutions vary in their characteristics and applications, they share a common, crucial goal: paving the way for a post-fossil plastic industry, by utilizing food sidestreams as second-generation biofillers

BIOWA® is the flagship commercial grade developed and produced by KUORI. This biobased and biodegradable Thermoplastic Elastomer (TPE) is a game-changer for sustainable materials, as it upcycles food sidestreams like olive pits and nutshells into high-performance products. This material offers the flexibility and durability needed for applications such as footwear, outdoor equipment and toys. What sets it apart is its ability to biodegrade the microplastics generated through abrasion during product use, addressing the biggest environmental challenge of traditional plastics. This market-ready material is available in versatile forms such as pellets or filaments, making it suitable for a wide range of industrial applications, including injection molding, extrusion, and 3D printing. KUORI offers a variety of specialized grades to meet your unique performance and sustainability needs.

In summary, all of the problems occuring with fossil-based plastics can be addressed, by using BIOWA

- Reduction of our dependence on non-renewable (fossil) resources like crude oil.
- Reduction of our CO_2 emissions, due to a circular CO_2 flow.
- No release of persistant microplastics into the environment.

Research

Our team of material scientist develops customized grades tailored to client specifications, collaborating with companies to optimize properties such as color, foaming and mechanical characteristics.

Manufacturing Process

KUORI materials are produced using a compounding process that blends biopolymers with green additives and second-generation bio-fillers such as olive pits and walnut shells. The resulting pellets can be processed using conventional methods like injection molding, extrusion, and 3D printing.

Portfolio

Our current portfolio includes:

- BIOWA Pellets for industrial processing
- 3D printing filament (B2C and prototyping)
- Material samples and prototypes (e.g. flip-flop soles, ping pong rackets, shoe components)

Application

The resulting high-quality granules are designed for traditional plastic manufacturing processes like extrusion, injection molding and 3D printing, offering an eco-friendly alternative to conventional plastics for shoe soles, outdoor and mobility applications.

End of Life - Products

At the end of its life, it can be melted down and reshaped into new products, drastically reducing waste. By returning the material to its malleable state, we extend its lifecycle and contribute to a more sustainable manufacturing process.

End of Life - Microplastics

Due to their chemical structure, microplastics emitted due to the abbrasion of the material will disappear thanks to water and enzymes activity.

Source

KUORI uses second-generation bio-fillers such as walnut shells and olive pits, by-products from the food industry that do not compete with food production. These are blended with biopolymers and green additives to create sustainable materials.

Keywords und Glossary

This glossary provides definitions and explanations of key terms that are integral to the discussion of KUORI's sustainable material advancements.

- **Bio-based:** Made from renewable raw materials. The carbon absorbed from the atmosphere can be measured in the material and certified (see EN 16785-1).

- **Biodegradable:** Complete breakdown of the material by microorganisms, with CO2, water, and biomass as end products.

- **Biopolymers:** Biopolymers are polymers that are biologically derived, which means they are produced by living organisms or synthesized from biological materials. Can be directly extracted from natural sources or chemically synthesized from biological monomers.

- **BIOWA:** KUORI material trade name (brand).

- **Compostability:** The ability of the material to decompose in a composting facility within 3 months.

- **Elastomers:** (elastic = stretchable; meros = part) are characterized by high elasticity across a wide temperature range.

- **End-of-life solutions:** Measures and strategies implemented at the end of a product's or system's life cycle to safely, efficiently, and environmentally dispose of or recycle it.

- **R&D**: Research and Development (German: Forschung und Entwicklung).

- **Granulate**: Pellet form of commercial plastics.

- **LCA**: Life Cycle Assessment – an analysis of the environmental impact of a material/product over its entire life cycle.

- **Natural Polymers:** Natural polymers are large molecules that occur naturally in the environment and are produced by living organisms. Extracted directly from natural sources without significant modification.

- **PCF**: Product Carbon Footprint – CO2 equivalent emissions associated with a product.

- **Primary Microplastics:** are intentionally manufactured to be small, they are found in products like toothpastes or in microfibers from synthetic textiles like polyester and nylon.

- **Second-generation feedstock:** Second generation feedstock refers to crops and plants not suitable for human consumption (food) or animal consumption (feed). Second generation feedstock can be either non-food crops (cellulosic feedstock) or waste materials from 1st generation feedstock (e.g. waste vegetable oil).

- **Secondary microplastics:** are formed from the breakdown of larger plastic items, including wear and tear of everyday products like car tyres and shoe soles. But also, from the breakdown of single use products like plastic bags and bottles.

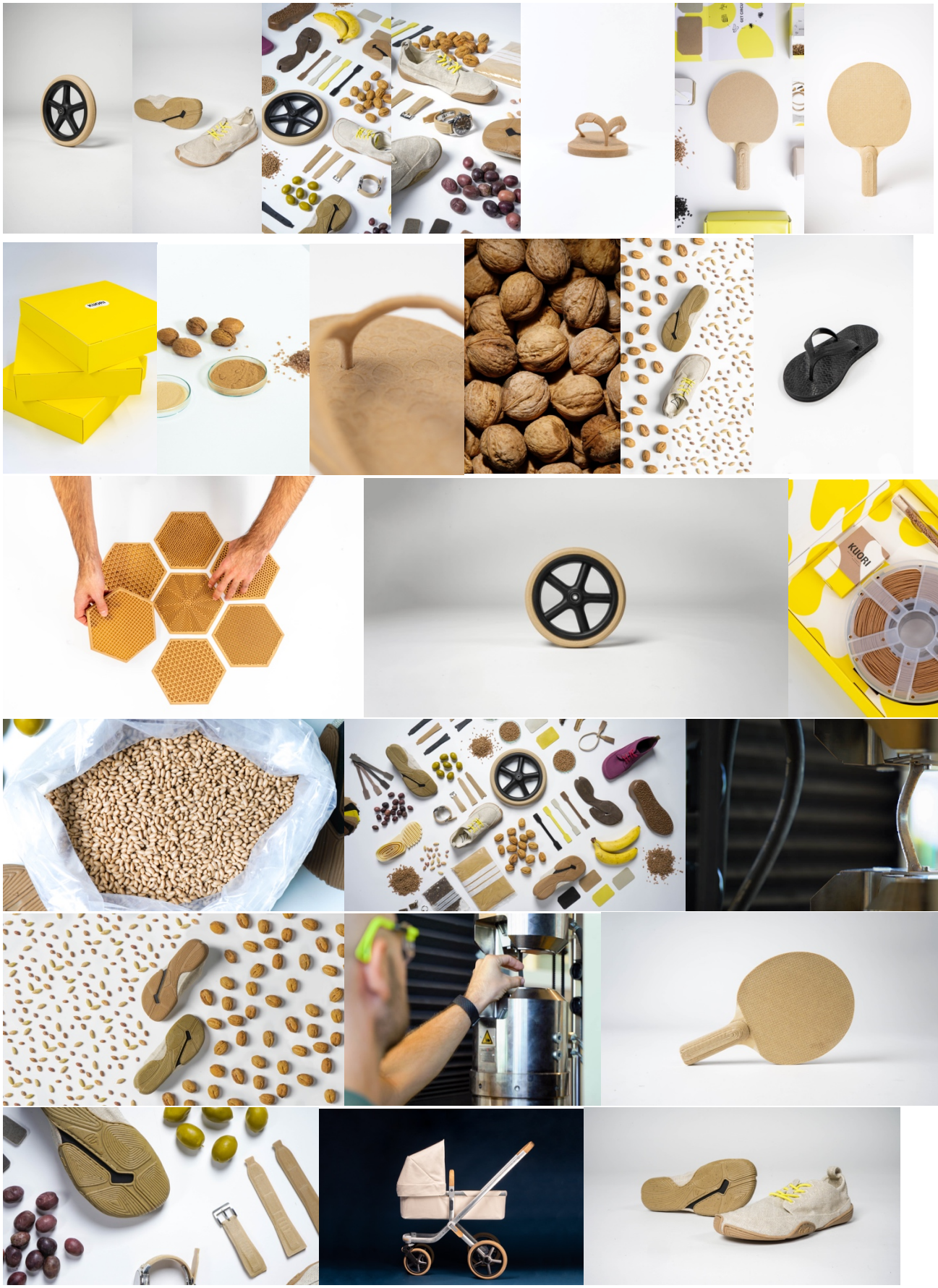
- **Synthetic Polymers:** Synthetic polymers are artificially created from fossil resources like crude oil through chemical processes and include not only plastics but also materials like synthetic fibers (e.g., nylon, polyester), synthetic rubbers, and adhesives.

- **Thermoplastics**: (thermos = warm; plasso = to form) become plastic, or moldable, when heated and return to their solid form after cooling.

- **Thermosets**: (durus = hard) cannot be plastically deformed even when exposed to heat after being molded.

- **TPE**: Thermoplastic Elastomer – a remeltable and thus recyclable elastic material. Rubbers like silicone, natural rubber, and SBR (car tires) cannot be remelted.

Pictures



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