Biocomposite products in a changing world

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Biocomposite products in a changing world

1. Rise of local manufacturing: Supply chain disruptions and geopolitical risks are accelerating the shift toward regional production and locally available raw materials.

2. Tightening regulations: Stricter requirements on chemicals, recyclability, carbon footprint, and material origin are limiting traditional plastics.

➔ Need for new material solutions: Industry requires materials that combine regulatory compliance, performance, and renewable content.

➔ Biocomposites as an enabler: Locally sourced, safe, and processable biocomposites create new product opportunities in this changing landscape.

KCL
BIOCOMPOSITES

Our offering

Scalable platform that converts natural fibre materials and traceable industrial side streams and into regulatory-compliant, high-performance materials.

Our material solutions **enable industrial-scale 3D printing and injection moulding**, including food-contact-approved applications.

Biocomposite products in a changing world

Our focus areas:

Food-Contact Regulation is tightening – fewer materials available

- A new category of reusable plastic products is emerging.
- Meeting both purity and sustainability at the same time is challenging

– most plastics or bio-fillers can’t achieve both.

Large-Scale 3D Printing grows Industrial

- Local, automated manufacturing is creating a new material category

– one built for large-scale 3D printing where traditional plastics fail.

Nature Line Cutlery reusable tableware

Our pilot factory

Compaunding innovative functional natural fibers into polymer matrix enhancing properties

Supporting circular economy principles including take-back systems and recycling processes for bio composites.

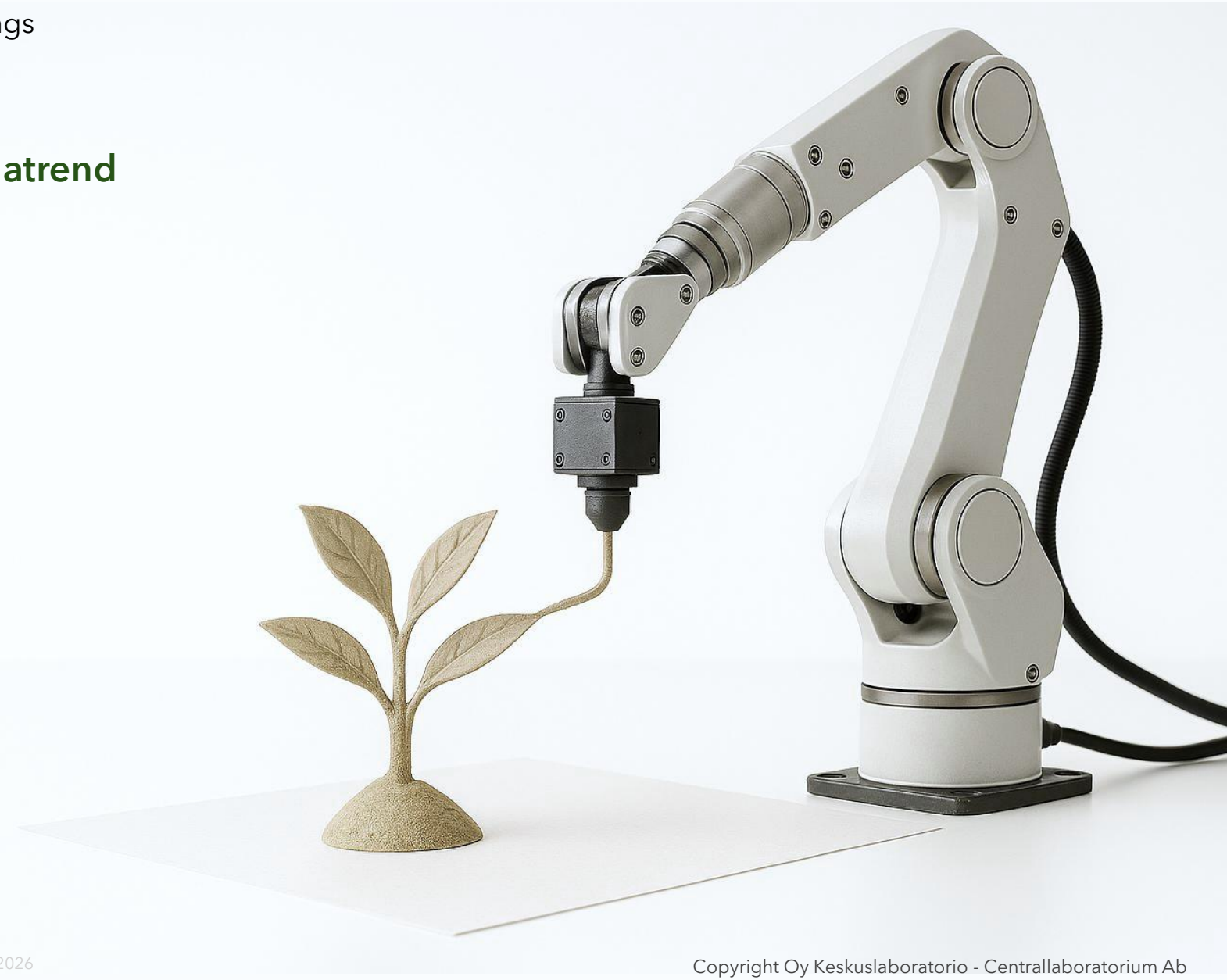
Tracing material flows ensuring transparency and regulatory compliance

The world is changing how it makes things

3D Printing is a global megatrend

Expanding production technology,
not just prototyping

Global additive manufacturing reached $21.9 B in 2025 (~ € 20 B), with the market is **projected to grow to $28.27 B (2026)**, – clear, steady expansion across materials and services.



Source: Wohlers Report 2025 (ASTM) + TBRC AM Market Report 2026

Large-scale 3D printing – a rapidly growing industrial sector

Large-format 3D printing is transforming production by enabling molds, industrial design components, and even furniture. The full potential is still unfolding, with new applications emerging every year.

Starting is fast and cost-efficient, requiring no massive upfront investments.

Picture: REDU

We deliver & install solutions worldwide

We have installed more than **200+** large scale additive manufacturing solutions in over **20+** countries worldwide.

Food Contact Materials

EU regulations are rapidly eliminating non-compliant materials

Case NLC: Validated as the Compliant, High-Purity Choice for Reusable Food-Contact Products

Nature Line Cutlery needed a fully compliant, high-purity, and technically reliable material to meet tightening EU food-contact regulations, where many fiber-based alternatives fail.

After validating sustainability, regulatory compliance, purity, and mass-production performance, they selected our cellulose composite as their preferred solution. **Their rigorous evaluation highlights the technical benchmark needed in this category.**

This case proves our ability to:

- Peet top-tier food-contact standards
- Positions us strongly to reusable solutions

Certified-plastic-level purity

Rigorous industry validation

Benchmark for wider adoption

KCL - Your Partner in Biocomposites

At our facility in Lohja, Finland, we combine advanced compounding technology with proven expertise to deliver consistent performance. With KCL, you get more than materials: we can partner with you through contract manufacturing, tailored formulations, and R&D support from first ideas to full-scale production.

Contact

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