

Seeking robust, scalable and economical material processes for textile material production

One of the world leading brands on sportswear and accessories

R&D challenges and priority areas:

- Sustainable alternative feedstocks and raw materials: The sustainability aspect of feedstock and raw materials has a profound impact on the entire supply chain, the industrial economics and the sustainability of the society. We're looking for sustainable alternative feedstocks and textile raw materials such as polymers and fibers, dyes and pigments, and auxiliary chemicals that are carbon neutral or negative, and do not compete with human consumption. Additionally, technologies to convert under-used materials into carbohydrates suitable for syn-bio fermentation are of interest.
- Scalable bioprocessing of biomaterials: Bioprocesses for the production of biomaterials are costly, making bio-based materials less competitive due to high costs. We're looking for biomaterials that are economically scalable and performance competitive, or versatile bioprocessing technologies that are easy to scale, economic and energy efficient.
- Sustainable dye technology: Traditional textile dyeing and finishing processes consume large amount of water. We're looking for water less dyeing technology to reduce the carbon footprint of our products.
- Sustainable finishing technology: performance and functionality are essential for sportswear. we're looking for functionalization technologies that can improve performance or add extra functionality to our products, which are also applied in a sustainable way.
- Bioprocessing and bio-recycling of textiles: Given the immense waste generated by the textile industry, building a circular economy is critical. But with different types of fibers blends, textile recycling becomes complex, and most of the waste ends up in landfills. We're looking for technologies that enable one-pot recycling of textile wastes made with multiple types of polymer fibers. Alternatively, efficient sorting solutions that enable specific recycling are also required.

Specific opportunities and approaches of interest:

- Robust, scalable and economical material processes for textile material production.
- Carbon neutral or negative textile materials
- High performance or functionalized textile chemicals, fibers or finishes

Out-of-scope:

- Responsive materials applicable to textiles

Stages of development preferred:

- Proof of Concept established (at lab, pilot or mass scale).

Types of collaboration preferred:

- Academic
- Start-ups
- Industrial

[SUBMIT OPPORTUNITIES](#)

