



Textile

Textile waste is a rapidly growing environmental issue: it is a growing concern, with over **92 million tons** of textile waste produced each year globally. In Europe, around **5.8 million tons** of textiles are discarded annually, and less than **1%** of all textiles are recycled into new clothing. Fast fashion, overproduction, and limited recycling options contribute significantly to the problem. Textiles often contain synthetic fibers that take decades or even centuries to decompose, releasing harmful chemicals into the environment.

However, textile waste also presents an opportunity for **innovation**. By designing solutions that rethink the life cycle of fabrics, promote sustainable practices, or transform waste into valuable resources, we can help reshape the fashion and textile industries for a more sustainable future.

The challenge

The teams are required to design one or more **circular and fully recyclable products** that tackle the growing issue of textile waste. A particular focus on the materials is required, as they need to be carefully chosen in order for the products to be continuously reused, repurposed, or recycled with zero waste.

How can design contribute to reducing the environmental impact of textiles and promote a more sustainable future for fashion? To work on this challenge, the teams could focus on different approaches, leveraging different types of materials or digital technologies.

- **Design for Circularity:**
Focus on creating products that can be continuously cycled through reuse, remanufacturing, or recycling processes, ensuring no materials end up as waste.
- **Design for Longevity:**
Develop products that are durable, easy to repair, and adaptable, so they remain in use longer and avoid premature disposal.
- **Design for Disassembly:**
Ensure that products can be easily taken apart, allowing for the efficient recovery of materials and components for recycling or reuse.
- **Design for Zero-Waste Production:**
Use techniques and patterns that minimize or eliminate material waste during the manufacturing process.
- **Design for Multi-Functionality:**
Create products with multiple uses or that can transform to meet different needs, reducing the overall demand for new products.