Session	Alternative and Unconventional Feedstocks
Title	Pioneers in recycling of mix natural and synthetic fibres
Company	BioFashionTech
Speaker	Fabiola Polli
Keywords feedstock (max 2)	Textile waste, mixed natural-synthetic fibers
Keywords technology (max 2)	Biotechnology, Bio-based recycling
Keywords End-Product (max 2)	Fermentable sugars, plastic fibers

Abstract:

BioFashionTech addresses the global challenge of textile waste through a proprietary biotech recycling solution. Our process enables the transformation of **blended, low-quality, colored, and contaminated post-consumer and industrial textile waste** into valuable raw materials, without the need for energy-intensive pre-sorting or harsh chemicals.

By extracting **cellulose-based and synthetic fibers** from complex textile blends, we recover **fermentable sugars** and **recycled plastics** that can be reintegrated into both **closed-loop systems** (e.g., new textiles, fashion supply chains) and **open-loop applications** (e.g., biopigments, bioplastics, biofuels, insulation materials). This dual pathway increases the flexibility and scalability of the solution across sectors, reducing landfill dependency and reliance on virgin fossil or agricultural resources.

We have successfully completed a **pilot-scale project** demonstrating the technical feasibility of our model. The next step is to **scale operations** to validate the business model, strengthen partnerships across the bioeconomy value chain, and improve the efficiency and sustainability of the process.

BioFashionTech offers a climate-resilient, circular economy solution aligned with EU sustainability goals and key SDGs—reducing CO_2 emissions, water use, and waste. By closing material loops and enabling the valorization of textile waste, we bridge the gap between fashion, waste management, and the growing bio-based economy.