



Session	Start-ups/SMEs looking for Finance: Pre-seed/Angel/Seed
Title	Pili: Industrialising Fossil-Free Indigo
Company	Pili
Speaker	Guillaume Boissonnat
TRL	TRL 4 - 7
Keywords feedstock (max 2)	Biomass, 2Gsugars
Keywords technology (max 2)	Microbial fermentation
Keywords End-Product (max 2)	Dye, pigment
Abstract:	
Pili is pioneering the world's first fully biobased indigo produced through a single-step microbial fermentation process, eliminating the fossil-based chemistry traditionally used to manufacture indigo for the textile industry. While more than 99% of denim dyes currently rely on petrochemical routes, Pili's technology converts renewable carbon sources, including sugars derived from biomass, into high-performance indigo and pigment intermediates through proprietary engineered microorganisms. The process is designed as a drop-in solution, fully compatible with existing dyeing infrastructure while significantly reducing greenhouse gas emissions and eliminating hazardous substances such as aniline. Building on successful pilot-scale validation, Pili is now scaling production toward industrial fermentation volumes to demonstrate robust, cost-competitive, and sustainable manufacturing. By combining industrial biotechnology, advanced strain engineering, and optimized downstream processing, the company enables a circular and low-carbon alternative for global color markets. Beyond denim, the platform opens opportunities for biobased pigments in coatings, plastics, inks, and specialty materials, supporting the transition from fossil-based to renewable chemistry across multiple industries.	