Session	Start-ups/SMEs looking for Finance: Pre-seed/Angel
Title	Upcycling CO_2 into Industrial Microbial Colours
Company	Post Carbon Lab
Speaker	Dian-Jen Lin, Co-founder & CEO
TRL	TRL 6
Keywords feedstock (max 2)	Captured &industrial waste CO_2; Recovered wastewater nutrients
Keywords technology (max 2)	Photosynthetic biotechnology; Microbial colour production
Keywords End-Product (max 2)	Microbial dyes, microbial pigments

Abstract:

Post Carbon Lab is a UK-based B2B industrial biotech company transforming how colours are produced for textile and polymer manufacturing. Our proprietary platform uses non-GMO photosynthetic microorganisms to convert captured industrial CO_2 and recovered wastewater nutrients into a versatile portfolio of petrochemical-free microbial dyes and pigments.

Conventional colour production remains heavily dependent on petrochemical feedstocks, energy-intensive processes and chemical auxiliaries. Our ready-to-use colour formulations are designed to integrate into existing industrial wet-processing infrastructure, with one-step applications that eliminate the need for pre-treatment processes.

With 14 MVP colours developed at TRL 5/6, more than 30 paid commercial pilots, and collaborations across the global fashion and textile supply chain, we have established early market validation. Our sales pipeline is approximately £1.2m, spanning existing and recurring orders as well as new prospective customers who have quantified or projected purchasing intentions. Our comparative LCA indicates up to 97% less water, 83% less energy and 90% less processing time compared with conventional synthetic reactive dye production and application.

We are closing our pre-seed round, with 65% secured and £450k remaining. This final tranche will fund a minimum viable system in demo factory, scale-up to 1,500L photobioreactor production capacity, and development of MVP2.0 with a broader palette including darker shades. It will also support team growth across production, marketing and sales—with 12% of planned expenditure allocated to marketing and sales—as well as IP maintenance and expansion. Together, these investments will strengthen manufacturing readiness and commercial capacity to progress the existing £1.2m pipeline into orders and recurring revenue.

We welcome investment from climate-tech and bioeconomy/biotech funds, angel investors, corporate VCs and strategic industry partners to help scale climate-positive microbial colours and transform industrial waste streams into vibrant colours to facilitate decarbonised & defossilised manufacturing.