



Session	Emerging Innovative Technologies: Novel Fermentation and DSP Innovations
Title	Turning industrial CO ₂ into high-value biomass.
Company	Carbon Harvest Ltd
Speaker	Martin Lawton
TRL	TRL 4 - 7
Keywords feedstock (max 2)	Off-gas Microalgae
Keywords technology (max 2)	Novel bioreactor
Keywords End-Product (max 2)	Polymers/Materials Chemicals
Abstract:	
Carbon Harvest Ltd has developed the BioTron Tower, a modular, internally-illuminated photobioreactor that converts industrial CO₂ off-gas directly into high-value, non-food micro algae biomass — feedstock for bioplastics, industrial lubricants and future SAF precursors. Unlike open-pond or credit-monetised carbon-removal approaches, the BioTron Tower is a closed, compact system designed for on-site retrofit at industrial emitters, targeting product revenue rather than carbon-credit revenue. A 100-litre prototype has been previously demonstrated and now scaled to 1,500 litres, that is currently hosted at the University of Cambridge's Algal Innovation Centre. We now wish to run a staged validation programme — physical performance testing, lightweight process modelling, techno-economic and life-cycle assessment — toward a 4,000-litre demonstration and TRL 6. We are seeking, an industrial CO₂ emitter or biomass off-taker to host real flue-gas validation, and investors for a staged development round following a costed scoping stage. Join us to discuss partnership and co-development opportunities.	