



Session	Start-ups/SMEs looking for Finance: Pre-seed/Angel/Seed
Title	MULTICARBONIX: from emissions to chemicals
Company	MULTICARBONIX
Speaker	Marika Zegers
TRL	TRL 4 - 7
Keywords feedstock (max 2)	CO2
Keywords technology (max 2)	Microbial electrosynthesis
Keywords End-Product (max 2)	Hexanoic acid
Abstract:	
Picture a waste-to-energy plant. Every day it emits clean CO2 it either vents or pays to bury underground, so that carbon only costs money. Meanwhile caproic acid, a valuable six-carbon fatty acid (2,000-4,000 euro a tonne) used in products from bio-based plastics to cosmetics, is shipped in as palm/coconut oil: a fragile, deforestation-linked supply. At MULTICARBONIX, we envision a chemical industry where CO2 is used as a feedstock. Using microbial electrosynthesis, microbes and renewable electricity selectively convert CO2 into caproic acid in a single step, which no other technology can do. We have proven it at lab scale, with reactors run stably for over three years, and we are now at TRL 4-5. We are the right people to scale it: three founders from TU Delft that have pushed this technology the furthest. The timing is ours too: Europe is tightening rules on imported palm oil, and buyers want a local, palm-free source at a stable price. Our model: we sell CO2 conversion as a service and share the profits. We start with a demo container on the emitter's site, to prove the technology and give partners a return, then scale to a centralised plant with shared downstream processing. And caproic acid is just the start: the same microbes can make a whole family of green chemicals, so we are building a platform technology. We are raising pre-seed and seed funding to build our demo, grow the team and win our first customers, and make CO2 the feedstock of a new chemical industry.	