



Session	To-Be-Start-ups looking for Finance: Pre-seed/Angel/Seed
Title	Leading the transition from toxic chemistry to sustainable biology in heavy industry
Company	Nemean BioLabs B.V.
Speaker	Fumi Lesné-Akiyama
TRL	
Keywords feedstock (max 2)	Bacteria
Keywords technology (max 2)	Genetic Engineering
Keywords End-Product (max 2)	Coating
Abstract:	
Heat exchangers are everywhere, from power plants and data centres to our fridge or air conditioner. They work like household radiators, transferring heat from one medium to another, but heat exchangers share a hidden issue: biofouling. Biofouling happens when bacteria adhere to their surfaces and form a biofilm that reduces the efficiency of the system, forcing it to use more energy. This costs the industry billions of euros annually. The two solutions operators currently rely on are copper-based biocides and PFAS-based coatings, which poison our environment and are being phased out by EU regulations. Currently, there is no compliant alternative on the market. Nemean BioLabs is developing a sustainable, bio-based, PFAS-free protective coating for industrial heat exchangers that prevents bacteria from attaching in the first place. Nothing leaches, and nothing is released into the water, so the coating falls entirely outside EU biocide regulation while still stopping biofilm formation before it starts, replacing the toxic, health-hazardous coatings operators use today, while keeping peak system efficiency.	