Session	Microbial proteins and microbial oils transition players
Title	High-efficiency recovery of microbial oils: from lab to pilot
Company	Bio Base Europe Pilot Plant
Speaker	Elodie Vlaeminck
TRL	TRL 4-7
Keywords feedstock (max 2)	oleaginous microorganisms
Keywords technology (max 2)	microbial oils
Keywords End-Product (max 2)	downstream processing

Abstract:

Microbial oils offer a versatile alternative to conventional fossil or vegetable oils and can be produced efficiently through fermentation of diverse oleaginous microorganisms, yet recovering these intracellular lipids remains a challenge. At Bio Base Europe Pilot Plant, we have developed a proprietary method that integrates optimized pretreatment and separation techniques for efficient microbial oil recovery, incorporating continuous processing and resource recycling. Designed for industrial scalability and successfully scaled up to 15 m^3 within the FUELPHORIA project*, the method has achieved microbial oil recovery yields exceeding 80% across different microorganisms, with final product purity above 95%.

Bio Base Europe Pilot Plant offers this microbial oil recovery technology as a ready-to-use solution, adaptable to our client's specific fermentation broths and recovery. With such in-house expertise in emerging technologies, in addition to our bioprocess development and scale-up services, we support our costumers in their transition towards a viable industrial bioprocess.

* https://www.fuelphoria.eu