



Session	Emerging innovative technologies: Novel fermentation and DSP innovations
Title	Low Intensity Pulsed Ultrasounds to enhance fermentation productivity.
Company	Yeastime Start Up S.r.l.
Speaker	Pierfrancesco Mazzolini
TRL	TRL 8-9
Keywords feedstock (max 2)	Feedstock agnostic
Keywords technology (max 2)	Low intensityultrasounds
Keywords End-Product (max 2)	Fermentation capacity
Abstract:	
EFESTO is Yeastime's patented platform based on low intensity pulsed ultrasound. A retrofit unit applies the stimulus from outside the vessel, accelerating microbial metabolism without touching the strain, the recipe or the process. Primary fermentation runs up to 30% faster, unlocking 10 to 15% additional annual throughput from existing assets at zero CAPEX for the customer. The platform is commercial today, CE certified, installed in craft breweries, validated across more than 100 industrial trials up to 80m3 reactors, with organoleptic neutrality confirmed by independent laboratories through GC-MS, electronic nose and electronic tongue analysis. Customers pay through a value-sharing model on the capacity they gain, not for hardware. Brewing is the beachhead, the mechanism is organism-agnostic. Paid pilots with global yeast and biomass producers are extending our reach to biomass, precision and lactic fermentation, where faster cell growth and sonoporation-assisted downstream processing cut batch time and recovery cost. Three patent families protect the technology through 2042. Yeastime is raising a €3.25M seed round to complete industrial validation above 100m3 reactors and bring EFESTO to the fermentation-based protein and ingredient industry. One platform for multiple fermentations.	