



Session	Emerging Innovative Technologies: Novel Fermentation and DSP Innovations
Title	Biomixing, the new standard in agitation and aeration for bioreactors
Company	BIOMIXING
Speaker	INES HERRERO
TRL	TRL 4 - 7
Keywords feedstock (max 2)	Cell/microbial cultures
Keywords technology (max 2)	CFD, fluid-dynamics
Keywords End-Product (max 2)	Agitator aeration
Abstract:	
Biomixing offers optimized bioreactors and fermenters based on the Biomixing Inside Technology. Using concepts from aeronautics, fluid mechanics and numerical simulations, BioMixing has developed a patented agitation-aeration system (Biomixing Inside) that increases the efficiency of fermenters and bioreactors, which are the basic equipment to produce biological compounds (such as pharmaceutical products, probiotics, fermentation processes, cultured meat or milk, biogas plants, cosmetics etc.). Our devices achieve: (1) an increase of oxygen transfer (up to 350%); (2) a reduction of shear damage, and (3) a reduction of energy consumption (up to 40%) when working at the industrial scale. Our offer include: (a) whole bioreactors with the Biomixing inside technology or (b) retrofitting other brands' bioreactors by incorporating our Biomixing inside agitation-aeration system. We also optimize the bioreactor control system and facilitate the scale-up process.	