



<b>Session 3</b>	<b>Artificial Intelligence in service of biomanufacturing</b>
Pitch Title	Hybrid modelling of bioreactor to improve yield
Company	Intemic
Speaker	Albert
Keywords feedstock	Biomass, biowaste, glucose, other substrates
Keywords technology	AI, big data, digitalization, process optimization, bioreaction yield
Keywords End-Product	Bioreactor end-products
<b>Abstract:</b>	
<p>Intemic offers an innovative technology based on hybrid modelling, that combines first-principles models with the experimental data from the process to train high fidelity models that represent accurately the bioprocess performance.</p> <p>Through a no-code platform, data flows can be created to synchronize and join different data sources (from sensors, from quality control, from ERP or feedstocks, etc..) and models can be trained to correlate all variables and predict specific KPIs, like reaction yield, allowing to simulate and create scenarios that can help with decision making for the design of experiments and the process upscaling.</p> <p>In the pitch, Albert will explain a project that Intemic did with collaboration with the University of Barcelona, creating a hybrid model of a bioreactor performance using glucose as substrate and optimizing oxygen inlet in real-time to increase yield, obtaining a 30% reduction of operational costs.</p>	