Session	Start-ups/SMEs looking for Finance: Series A, Series B/C
Title	Predictive biology in action: Transforming biomanufacturing with bitBiome's SENS-AI
Company	bitBiome
Speaker	Ahir Pushpanath
TRL	TRL 4-7
Keywords feedstock (max 2)	Any carbon
Keywords technology (max 2)	Predictive AI
Keywords End-Product (max 2)	All bioproducts

Abstract:

SENS-AI is a revolutionary AI model developed by bitBiome that dramatically reduces the time, cost, and risks of biomanufacturing. Addressing the critical lack of physical data in bio-AI, SENS-AI is uniquely powered by bit-GEM, the world's largest microbial genome database. This database leverages our internationally patented bit-MAP® single-cell sequencing technology to unlock the genomes of previously unculturable microbes directly from nature.

To train SENS-AI, we do not rely solely on natural sequences; we generate proprietary experimental data using bit-EVO, our highly scalable genome engineering platform. bit-EVO creates data 100 times faster, at 1/15th the cost and 1/50th the time of conventional methods. Combining the massive bit-GEM database of unlabelled sequence data with this high-throughput labelled data, SENS-AI applies proprietary algorithms to rapidly design and predict optimal genomic sequences.

SENS-AI brings a true "Big Data" paradigm shift to the industry. It delivers immense commercial ROI by accelerating R&D timelines by 90%, significantly expediting time-to-market, and lowering mass-production costs by 30% through optimized microbial strain design. By transforming bioengineering into a predictable and designable process, SENS-AI accelerates the global transition from petrochemicals to sustainable biomanufacturing.