



Session 2	Start-ups/SMEs looking for finance - series A and series B/C funding
Pitch Title	Innovative technologies for superior production of healthy sugar sweeteners
Company	Bioxytol SL/NovelYeast, ES/BE
Speaker(s)	Saju Varghese
Keywords feedstock	Molasses, Sucrose, Cellulose, Starch from leftover grain processing
Keywords technology	Yeast cell surface displayed enzymatic biocatalysis, Precision fermentation
Keywords End-Product	Edulcose™ (Isomaltulose), Mielitopone™ (Trehalulose) , Healthy sweeteners
Amount investment needed	5-10M Euro
Abstract:	
<p>NovelYeast & Bioxytol SL are innovative SME biotech companies spear-heading the revolution of healthy sugar sweeteners with the power of synthetic biology and precision fermentation. We have jointly developed an innovative yeast based enzymatic biocatalysis platform to transform unhealthy sugar sweeteners such as Sucrose and HFCS into healthy sugar sweetener ingredients for the food industry.</p> <p>Our first product Edulcose™ (Isomaltulose) is produced by precision fermentation using our patented GRAS yeast. The biocatalyst has also been produced as Active Dry Yeast formulation and the process time for the biocatalysis is approximately 2 hours. We have successfully demonstrated at pilot scale (TRL7) the production of Isomaltulose with 98% purity and the ability to recycle the biocatalyst (up to 10 cycles) without loss in production yields reducing OPEX costs tremendously as opposed to the conventional method of using pure enzymes for bioconversion. We are currently looking out for partner companies for contract/toll manufacturing of Isomaltulose for our first offtake partner. The process also generates a by-product liquid sweetener Mielitopone™ (Trehalulose); which is found in the honey of stingless bees and has various possible applications in confectionary. The company is also moving forward with an application to include Trehalulose as a novel food ingredient in Europe. We have been awarded an Eurostars project to accelerate the development of other low-calorie sweeteners using the by-products of the food processing industry as a starting feedstocks.</p> <p>Together we have about 15 FTE employees at our R&D site in Leuven (BE) and Pilot facility (ES) and are looking for worldwide expansion with plans to start a speciality sweetener factory in Belgium and India in FY2025-26.</p>	