Session	Start-ups/SMEs looking for Finance: pre-seed/angel/seed funding
Title	Phast: revolutionising medical and cosmetic plastic
Company	Phast
Speaker	Dr Andrea Mele
Keywords feedstock (max. 2)	Glucose; fatty acids.
Keywords technology (max 2)	Bacterial fermentation; polyhydroxyalkanoates (PHAs).
Keywords End-Product (max 2)	Medical grade PHAs; medical and cosmetic products.

Abstract:

It is crucial to bring onto the medical and personal care market alternative materials to address these unmet needs whilst not compromising on products performances.

Polyhydroxyalkanoates (PHAs) represent a potential revolution in the field. PHAs are plastic materials naturally produced through a bacterial fermentation process using renewable carbon sources. They are fully biocompatible and bioresorbable in the human body, possess stable mechanical properties and are processable using established methods in the plastic industry such as extrusion, injection and blow moulding, and fiber drawing. Moreover, PHAs offer all the sustainable end-of-life options, being recyclable, industrial and home compostable, and fully biodegradable in all environments without releasing any microplastic.

PHAsT is positioning itself at the forefront of revolutionizing these industries by providing drop-in solutions to fully replace unsustainable products without requiring changes to customers' manufacturing processes.

PHAsT has upscaled a proprietary fermentation process, using proprietary organisms, to produce different medical grade PHAs. This allows us to meet a variety of properties requirements for customers, smoothing their transition to sustainable solutions. Moreover, we validated the processing suitability of these materials within industrial plants by developing bespoke formulations for major companies in the field. Thanks to the material science expertise of our team and by having access to state-of-the-art processing facilities, PHAsT is able to fully map out the requirements of individual products and formulate a solution with same or better properties but fully sustainable with a clear, eco-friendly end-of-life, easily achievable due to the eco-design features of our products.

With several early customers and pilot projects already secured, we are working towards commercialising a pipeline of products starting from Q3 of 2026.