



Session	Start-ups/SMEs looking for Finance: pre-seed/angel/seed funding
Title	Enabling circularity for rubber: Let's start with tires
Company	Akin Solutions BV
Speaker	Ieva Palubeckaite PhD
Keywords feedstock (max. 2)	Rubber, Tires
Keywords technology (max 2)	Fermentation, Imaging
Keywords End-Product (max 2)	Recovered rubber
Abstract:	
The global rubber industry faces a critical sustainability crisis. Of the 1.5 billion tires discarded annually, only 12% are truly recycled, with most relegated to low-value applications. This €40 billion market is under intense pressure from EU regulations, stringent circularity mandates (Euro 7, EPR), and the urgent need to address tire-derived microplastics. The fundamental barrier is that conventional recycling methods destroy molecular integrity, preventing high-value reuse. Akin Solutions has developed breakthrough biotechnology that enables true rubber circularity through two synergistic innovations. Our proprietary rubber degrading enzyme cleaves the rubber polymer backbone with unprecedented uniformity, liberating high-molecular-weight rubber fractions whilst producing other valuable co-products, not just enabling circularity when it comes to rubber but improving profitability for recyclers. Complementing this, our molecular imaging technology provides unprecedented spatial visualization of rubber composition, enabling rapid reformulation and material quality certification.	