



Keynote Session	Leading Pilot Facilities for the Bioeconomy (Pilots4U)
Title	<i>Transforming Waste Streams into Value with Scalable Bioprocessing</i>
Company	Danish Technological Institute
Speaker	Jolanda ter Horst
Keywords feedstock (max 2)	waste streams , food and agricultural residues, brewer's spent grain, fruit waste, rapeseed cake, beet pulp, acetate, CO ₂ -derived
Keywords technology (max 2)	Biorefinery, fermentation, pilots, low-waste
Keywords End-Product (max 2)	Value-added waste
Abstract:	
At our two pilot plants, a biorefinery and a fermentation facility, we focus on helping companies with the development and assessment of processes that utilize a diverse range of alternative feedstocks. The facilities handle various waste streams, including food and agricultural residues such as brewer's spent grain, fruit waste, rapeseed cake and beet pulp, as well as emerging options like acetate derived directly from CO₂. The biorefinery pilot can be used to upgrade and fractionate these inputs, producing fermentable sugars and other intermediates. These outputs can then serve as substrates for subsequent fermentation processes, which employ systems such as filamentous fungi to convert feedstocks into a range of value-added products. By integrating biorefinery and fermentation capabilities, the pilot setup supports the development of resource-efficient, circular bioprocesses. The multi-feedstock approach enables flexible adaptation of processing strategies to different raw materials and facilitates the evaluation, optimization and demonstration of scalable solutions relevant to the bioeconomy and low-waste production systems.	