



Session	Alternative and Unconventional Feedstocks
Title	Upcycling textile waste to regenerated specialty cellulose
Company	Cellicon
Speaker	Victor Vreeken
Keywords feedstock (max 2)	Textile waste, Cellulose pulp
Keywords technology (max 2)	Dissolution, Regeneration
Keywords End-Product (max 2)	Specialty cellulose, Recycled textile fibers
Abstract:	
Cellicon addresses one of today's largest challenges, which is post-consumer textiles. Due to the complex composition, especially the blend of polyester and cotton, only 1% of this waste stream is recycled. Our proprietary technology enables a clean separation of polyester and cotton textile fibers, allowing an eco-friendly and cost-attractive recycling of both components. The recovered polyester can be spun into new textile yarns, whereas the dissolved cotton can be regenerated into new cellulosic textile fibers as well as into unique specialty cellulose. These upcycled specialties can replace fossil-based materials and bring specific performance benefits in applications as paper, coatings, foams and adhesives. The technology works with every polyester-cotton ratio and keeps the original and valuable polymers in tact. Cellicon is member of two distinct subsidy programs for textile recycling and is working with a launching customer to develop the technology from lab to pilot and subsequent to industrial scale. We have proven that products meet commercial requirements for market introduction	