



Session 7	Scale-up of novel biomaterials and processes, powered by INN-PRESSME
Pitch Title	WOAMY – A way out of plastic foams
Company	Woamy Oy
Speaker	Luisa Jannuzzi
Keywords feedstock	Cellulose, pulp, fibre, biomass
Keywords technology	extrusion, circular innovations, green manufacturing, recycling, biodegradation, anisotropic materials
Keywords End-Product	Sustainable packaging, protective packaging, foams, cushioning, thermal protection, impact protection

Abstract:

The world is drowning in plastic waste. Only fraction of plastic waste generated by the society goes through appropriate waste management. Majority of plastic waste ends up to nature. For example, of all the plastic waste found in oceans approximately 90 % are various plastic foams. Instead of biodegrading, plastics decompose to microplastics in the nature from which they circulate through the ecosystem. Nowadays, remarkable amounts of microplastics are found even from digestive systems of human living in modern societies. Woamy offers a solution to plastic waste problem by introducing a novel bio-based solid foam product FOAMWood® that can replace plastic foams in numerous applications. The production technology is based on extensive scientific research results. The key features of the process are patented.

Woamy has spent the past two years scaling-up the technology towards commercial operation, building its first pilot line in Finland. Presently, we operate the technology on a semi-continuous manner in a relevant environment. In addition, Woamy has demonstrated the market traction through multiple PoC projects in packaging sector applications. The global packaging foam markets exceeding annual size of 17B\$ offer a low barrier market entry point for Woamy. In later stages, Woamy also plans to revolutionize other foam markets with size of 142B\$ involving construction sector, laminated boards, textiles etc.

Woamy is currently raising funds to build a pilot of the continuous production of FOAMWood® in an industrial environment. The funds will also support commercial sales for smaller customer with the current pilot line; proving commercial traction and expanding the customer base. These actions will enable the company to secure investment to build a first commercial scale factory in Southern Finland, with annual production capacity of 50 000 m3. In the longer run, Woamy expects to have rapid growth globally reaching to operating dozen factories in multiple continents and reaching revenue of more than 50M€ in five years after the first pilot factory.