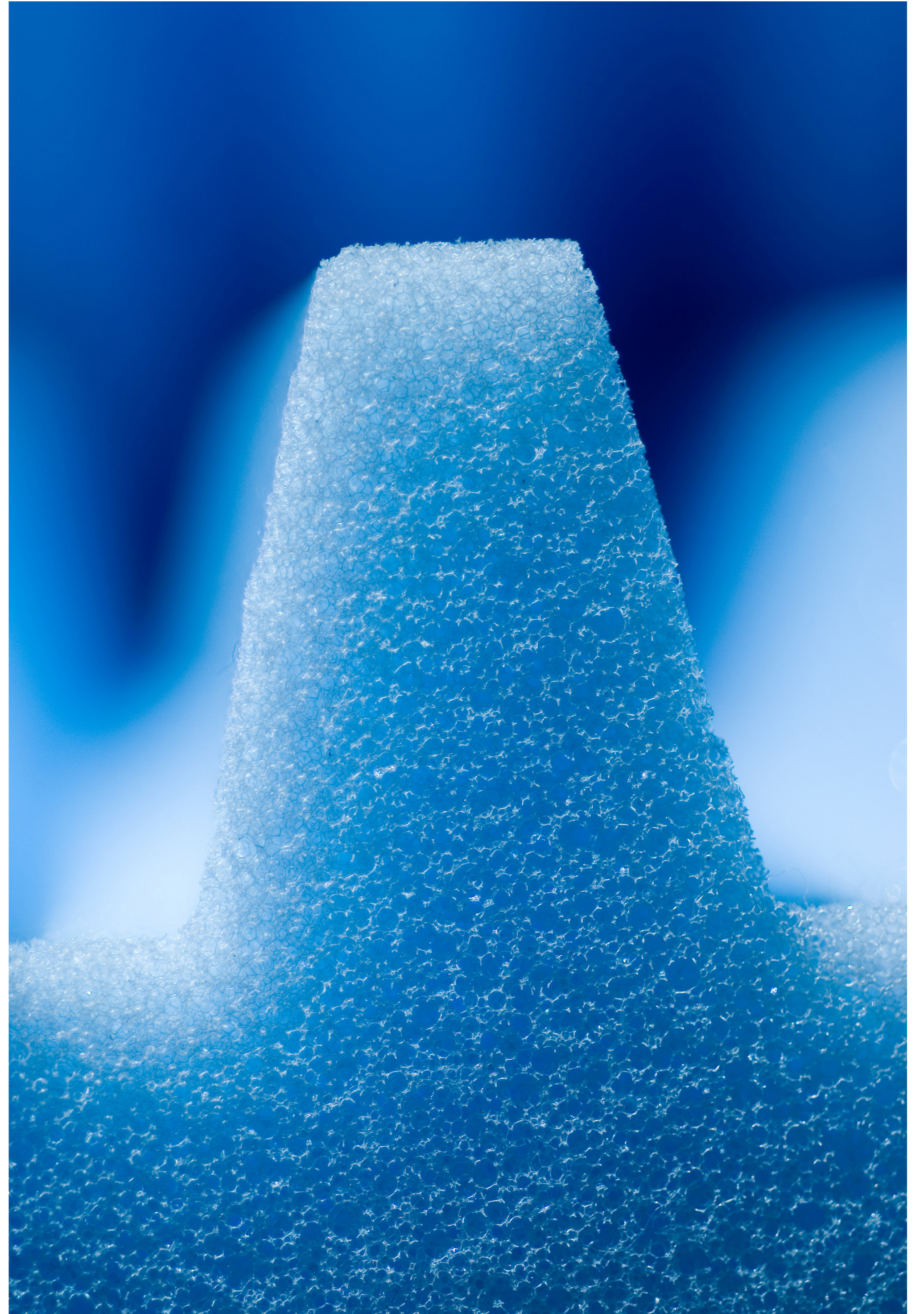


Where is a compostable plastic foam needed?



Abstract

Groam is an aspiring startup at ETH Zurich which is developing a new plastic foam. The solution is made out of agricultural waste and produced by physical extrusion foaming. The resulting foam is bio-based and can be, depending on the application, biodegradable or even home-compostable.

The aim of this thesis is to find out what kind of application Groam's foam is best suited for and what the strategic next steps could be.

The applied methodology is iteratively structured. The Business Model Canvas and the Value Proposition Canvas are central tools used to evaluate each iteration. SWOT and PEST analyses were used to analyze the current situation. The creation of a supply chain overview and a customer segmentation combined with a stakeholder list creates a market overview. Experiments, carried out as interviews, result in qualitative insights.

The resulting recommendation is that Groam should focus on applications where biodegradability is a central function of the foam. Feasible segments are hydroponics and floral foams. Customers always selected a material based on performance then price and then sustainability. Key insights from the customer segments are that promised change from brands on sustainability is a big opportunity for Groam. It helps the designers to choose a material, if they can make prototypes easily and cheap. Certification of properties and good-natured processing properties, such as compostability are highly credited by customers and the producers of foams.

Further evaluation of foam applications with a need for biodegradability is needed. The next steps for Groam are to figure out if a value proposition around biodegradability is resulting in market traction.

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