



Biodegradable ingredients for consumer & personal care products

The Project

Synthetic polymers like acrylates, polyethylene, acrylic copolymers, etc. are an integral part of personal & consumer care formulations. They are used as liquid polymers & solid microbeads. Liquid polymers (thickeners, stabilizers, and film formers) are used to control the formulation of the product and give them a gel base. Solid microbeads are used as e.g., fillers and exfoliants. Most of these two are fossil fuel-based, non-biodegradible, & end up in the water, bodies or in our food chain.

Our solution is biodegradable ingredients to replace synthetic polymer and microbeads. With the help of several years of R&D know-how, we have been able to generate plant-based cellulose microbeads in micron size and rheology modifier/hydrogel with transparent features.

The Team

Location: Fraunhofer IAP/Potsdam-Golm, BIOWEG/Quakenbrück

Members: Kay Hettrich (Scientific coworker, IAP), Bert Volkert (Head of

department, IAP), Prateek Mahalwar (CEO, Bioweg)

AHEAD Infos Batch: 01.2022 Phase: 1 (SDG) Track: SpinOff

AHEAD

The Business Model

Unique Selling Proposition:

Replace microplastic and non-biodegradable polymers from cosmetic and

consumer care with cellulose based biodegradable solutions

Unfair Advantage: Full functionality while keeping the full biodegradability

(according to EU standards 60% degraded after 28 days).

Revenue Model: Production

Venture Readiness Level

VRL	Ideation	Incubation	Traction	Growth	
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Technology Readiness Level

	TRL	1	2	3	4	5	6	7	8	9
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The Side Facts

Customer Focus: B2B

Searching For: co-founder, investors

Industry Tags: Personal & household goods, (health care, food & beverage)

Technology Tags: Ethical consumption, clean tech, zero waste, new materials