Engage4BIO

Sustastic Effects project

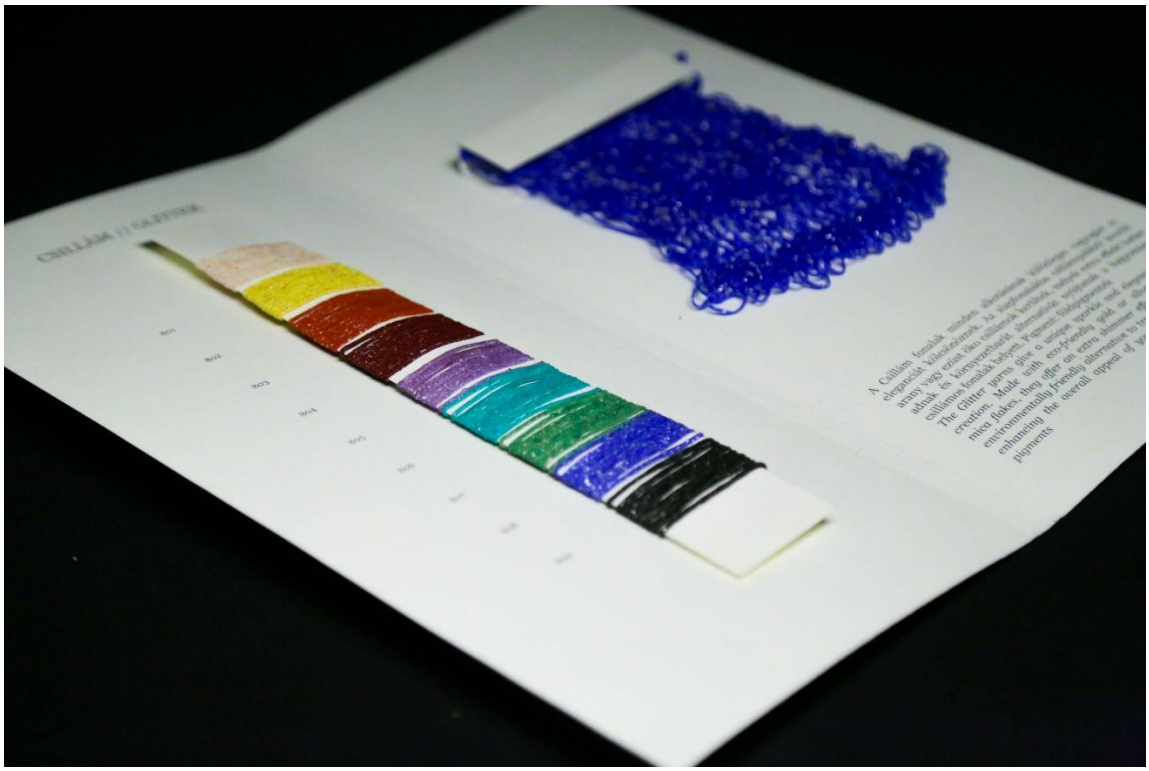
The Project

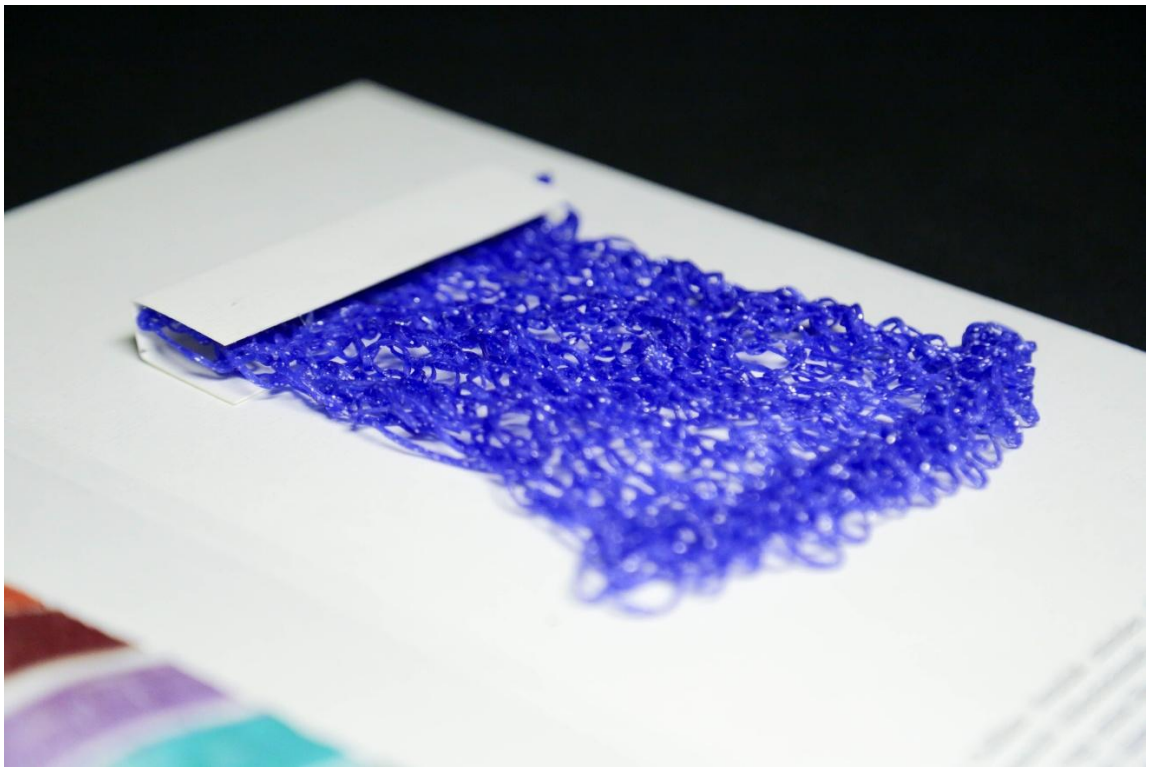
Eco-friendly yarn alternatives for a plastic-free textile future

- Research-driven exploration of sustainable effect yarns to replace plastic-based fibers
- Focus on alginate-based yarns, derived from renewable sources
- Compiled a catalog of 100+ experimental bio-yarn variations
- Project builds on and contributes to open-source biodesign knowledge
- Early dyeing methods used spices, vegetable powders, and kitchen waste broths
- Textures and effects created using mica, poppy seeds, and physical reshaping
- Shifted to mica powder and soil pigments for longer-lasting, eco-friendly color
- Prioritizes durability, water-repellency, and improved usability
- Aims to provide viable, circular alternatives for the textile industry
- Project is ongoing, with continued focus on refinement and shared knowledge

Designer – Nóra Gulya

- Textile and material designer committed to sustainability and innovation
- Develops eco-friendly, circular alternatives to conventional textiles
- Works with bioplastics, experimental yarns, and natural material processes
- Advocates for open-source design to accelerate systemic change
- Sees design as a key driver in building a waste-free, responsible industry
- Combines functionality, aesthetics, and low-impact material sourcing
- Dedicated to reimagining the value and lifecycle of everyday materials





Funded by the European Union

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> “Multi-stakeholder engagement to strengthen regional bioeconomy value-chains”

Consortium :

ZSI

WAGENINGEN UNIVERSITY & RESEARCH

APRE Agenzia per la Promozione della Ricerca Europea

bay Bay Zoltán Nonprofit Ltd. for Applied Research

EAEA European Association for the Education of Adults

Moholy-Nagy művészeti egyetem university of art and design budapest

ArtEZ

CLIC

business upper austria

Metropolia University of Applied Sciences

Panormitanae Studiorum Universitatis Siciliae

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www.engage4bio.eu

info@engage4bio.eu

@Engage4BIO