Engage4BIO

Biodegradable Vases

The Project

Repurposing waste into sustainable plant containers

- Academic project developed at the University of Porto
- Collaboration with local businesses, including *Flores de Joaquim Santos* (floriculture supplier)
- Addresses plastic waste in floriculture, gardening, and horticulture industries
- Repurposes organic waste from floriculture, restaurants, and carpentry
- Materials: dried plant fibers, wood residues, and other organic matter
- Three-phase process:
    - Phase 1: waste collection and initial prototyping
    - Phase 2: material testing and optimization for strength and drainage
    - Phase 3: shaping through molding, folding, and industrial sewing
- Developed biodegradable pots that support plant health and water flow
- Adaptable for scalable, low-impact production
- Promotes circular economy and practical alternatives to single-use plastics
- Applicable to agriculture, floriculture, and food industries

Designer – Adônis Evangelista

- Brazilian designer based in Porto, Portugal
- Focuses on sustainability, circular economy, and waste transformation
- Combines creativity with material innovation to reduce environmental impact
- Background in design and sustainability from the University of Porto
- Sees design as a tool for positive change and responsible resource use
- Driven by a vision of a more conscious, efficient, and regenerative future

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

Consortium :

ZSI

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