Not Recycling. Not Downcycling. Functional Upcycling.

The plastic becomes something more useful than it was. That is the definition.

At a Glance

Thermopods are designed to be upcycled into variants. Same Terrapod. Different plant selection. A space needing humidity gets 3 areca palms. A space needing air filtration gets 1 areca, 2 Homalomena. Same module. Different function. [1]

Summary

Functional upcycling means a product designed for one use can be adapted for another use without disassembly or loss of material. Thermopods achieve this through modular design. The Terrapod vessel, soil medium, and integrated sensors are common infrastructure. The plant selection is variable. [1]

For office cooling in March-to-November heat: 3 areca palms per Terrapod, targeting high transpiration and noise dampening. For air-filtration-heavy spaces (hospitals, kitchens): 1 areca palm, 2 Homalomena (Homalomena wallisii, high VOC absorption for low light). Same Terrapod. Different outcome. [2]

For humidity-critical spaces (server rooms, museums): 2 areca palms, 1 anthurium (Anthurium clarinervium, high transpiration, tolerance for cool temperatures). For aesthetic/biophilic spaces: mixed plantings with lower cooling output. The vessel remains constant. The function adapts to plant choice. [3]

At end-of-life, instead of full recovery and remanufacturing, a Thermopod can be repurposed. An office cluster reallocated to a healthcare facility swaps plants for air-filtration species. The Terrapod goes on working. The same physical object extends across 3 to 4 functional lives. [4]

Biothermal Microconditioning is modular infrastructure, not single-purpose hardware. It solves thermal comfort today and air quality tomorrow. The same unit serves both. The embodied carbon of manufacturing is spread across multiple functions, reducing the carbon cost per outcome. Functional upcycling amplifies the climate benefit. [5]

Easy Retrofit. One day deployment. Modular by design. Redeployable. Adaptable. Functional upcycling built in. [6]