

Metabolic Boundaries

Connected Landscapes | Noorderlicht Biennale 2025

Beneath the reproductive pulse of futuristic photobioreactors and the unfathomable precision of CRISPR genome-editions, *Metabolic Boundaries* traverses the intertwined realms of bioengineering and the natural world.

Here, millions of years of evolution converge with emerging technologies, dissolving the edges between organic life and human creation.

Algae, Earth's primordial organisms, stabilised ecosystems, producing oxygen and regulating carbon for the Planet we inhabit. Once untamed, these ancestral beings are now engineered to proliferate within glass metabolic vessel—repurposed for food security, pharmaceutical advancements, and renewable energy.

DNA, the code of life, is dismantled and rewritten through CRISPR—promising to treat genetic diseases, enhance monocultures' resilience, agricultural yields, and reshape biodiversity.

Yet, life engineering creates hybridised habitats—spaces where natural and synthetic collide. In these biofactories, ecosystems are disassembled into data streams, their flows transformed into industrialised proceeds.

Through 48 stills and animated sequences, screens unfurl the synthetic confinement of biotechnologies, showcasing “edited” organisms in modular biolabs and weaving multi-sensory narratives of tension between ecology and industrialisation.

Ethical questions emerge: the risks of eugenics, social inequalities, and unforeseen future variations across generations and ecosystems.

Are we crafting symbiotic coexistences with living systems, or spiralling into commodification?

Can biotechnologies heal industrial legacies and re-harmonise with Nature?

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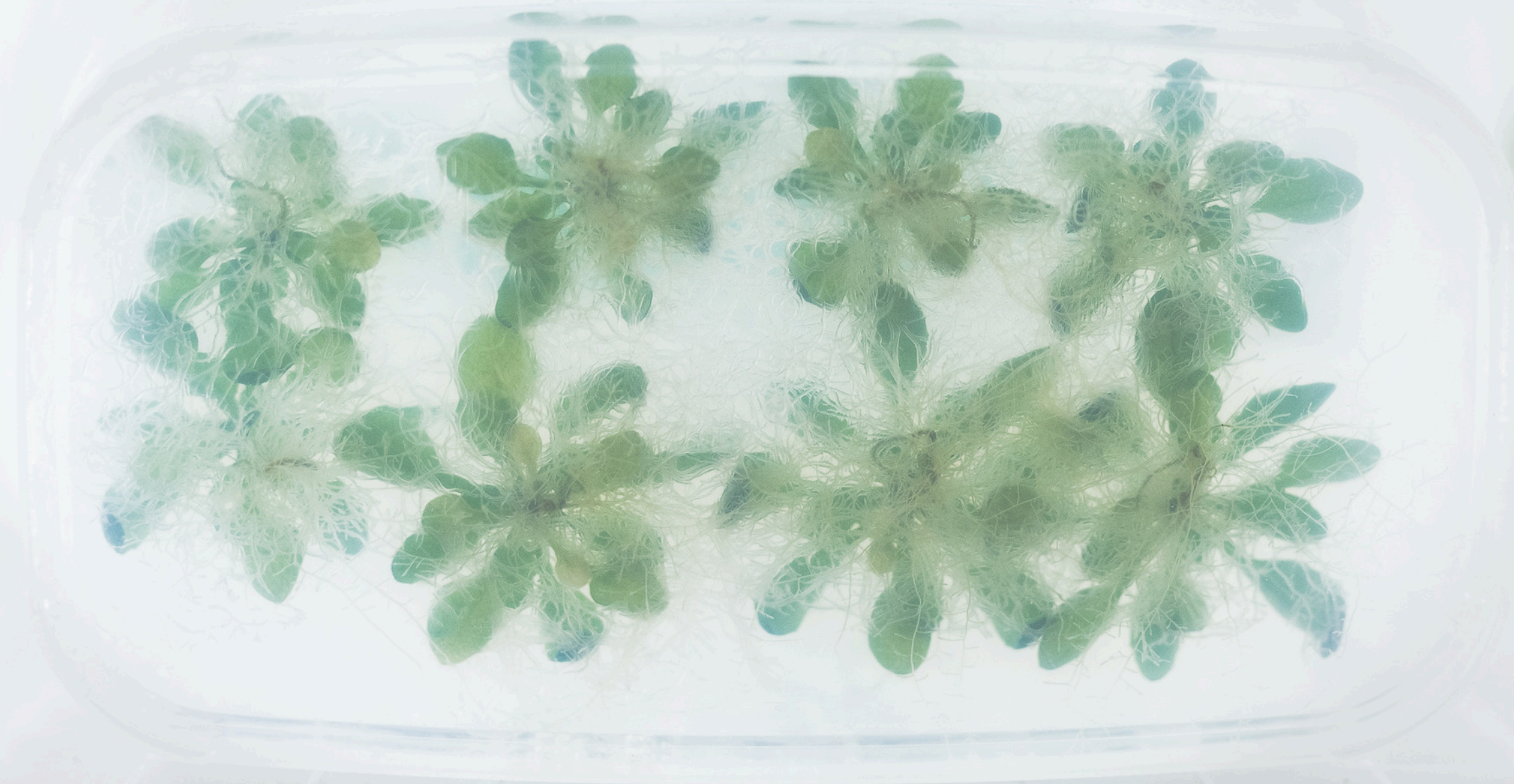














CGI for an installation suggestion, visualising modular, lab-inspired boxes, evoking biotechnological labs. These bio-boxes house immersive screens, weaving dynamic narratives of life's confinement, juxtaposed with images of rigorously "structured" labs. The modular design mirrors hybridised habitats, blurring boundaries between natural and synthetic worlds.

