

NURTURE HUB

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The Nurture Hub is a biodiversity-focused project created by Design students Rafaela Valencia-Dongo and Adelaida Balthazar at IE University. Conceived initially during a Sustainability class led by Manuel Quirós, the project seeks to bring the university community closer to nature through a set of living wooden structures called Growrooms, each filled with native plants that attract essential pollinators such as butterflies and bees. These structures collectively create The Nurture Hub, an interactive ecosystem designed to promote environmental awareness, relaxation, and engagement with the natural environment.

ORIGINS AND PURPOSE

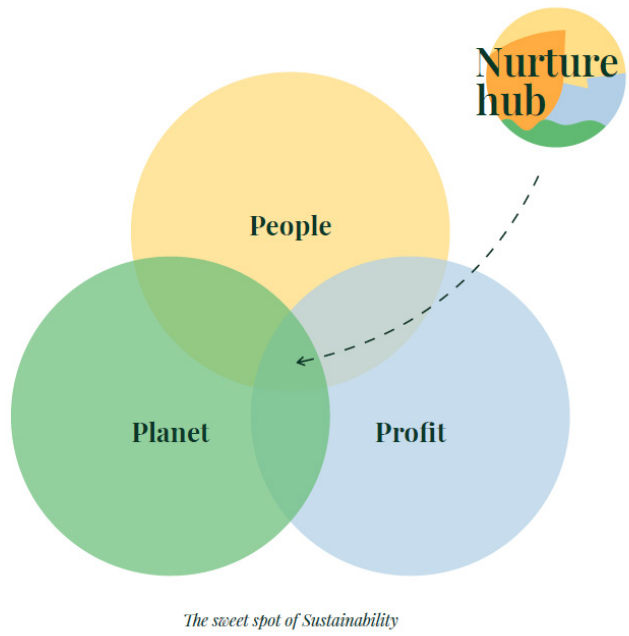
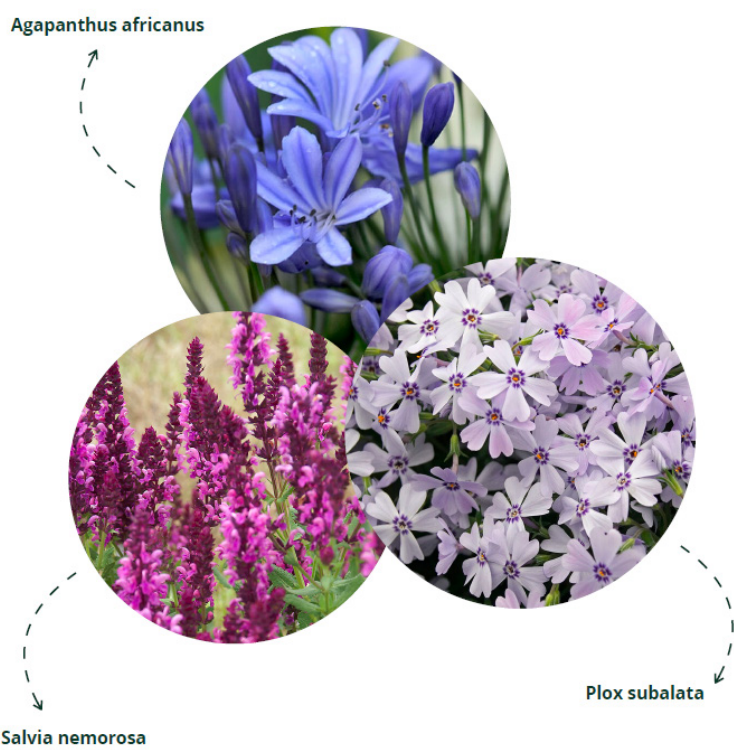
The project emerged from the founders' understanding of design as a transformative tool that shapes daily life, as reflected in the Sustainable Living Report (Design Council, 2020). Motivated by UN Sustainable Development Goal 12 (responsible consumption), they aimed to highlight the essential role of biodiversity in human well being. The decline of pollinators—more than 40% of invertebrate pollinator species are at risk of extinction—was identified as an urgent issue directly linked to harmful human activity. Because 75% of global food crops depend on pollination, the founders felt compelled to create a project that both safeguards pollinators and educates the community about their importance.

Beyond ecological concerns, The Nurture Hub also responds to a behavioral challenge: many students spend most of their time indoors, disconnected from the richness of the surrounding natural ecosystems. The project therefore seeks to foster a sustainable mindset, prompting reflection on personal consumption habits and cultivating a sense of stewardship among students, faculty, and future generations who will inherit the Hub.

IMPACT: PEOPLE, PLANET, PROFIT

The project's impact is summarized through the "3 P's" of sustainability:

- People: The Hub increases environmental awareness, provides educational materials about pollinators, and offers a space for interaction, rest, and ongoing learning. Future students will take over care of the Hub, ensuring its continuity.
- Planet: By reintroducing native plants and attracting pollinators, the Hub supports biodiversity, strengthens natural food webs, and improves soil health. It also serves as a replicable sustainable structure for future environmental initiatives.
- Profit: Although the initial investment was significant, long-term benefits include increased visibility for IE University, potential media attention, and strengthened collaborations between internal departments and external partners.



DESIGN PROCESS AND METHODOLOGY

The founders adopted the Double Diamond design framework (Design Council, 2004), beginning with diverging research activities such as interviews and surveys with students and staff. These conversations revealed a strong desire for environmental change, consolidating the main challenge: to create a space that encourages sustainable behavior, strengthens the relationship between people and nature, and fosters biodiversity.

Following this research, they refined the problem, ideated possible solutions, prototyped designs, and iterated based on feedback. The central design question became: How might we nurture a connection to nature that enhances biodiversity and student life?

CONCEPT DEVELOPMENT: FROM GROWROOM TO HUB

Through benchmarking, the team discovered biophilic design trends and eventually the open-source project The Growroom by SPACE10, developed as a spherical, multi-level greenhouse allowing users to grow plants sustainably in small spaces. This model inspired the creation of IE's Growrooms, which were manufactured using FabLab equipment such as CNC machines and then populated with native plants like Agapanthus africanus, Salvia nemorosa and Phlox subulata.

Each Growroom functions as a micro-ecosystem, contributing to the larger Nurture Hub. QR codes installed nearby provide information for visitors and encourage broader learning.

BUILDING THE HUB: STAGES AND MATERIALS

The project followed five main stages:

- Planning and Delegating: outlining materials, defining stakeholder roles, and sourcing FSC-certified wood and locally purchased supplies to minimize environmental impact.
- Acquiring Materials: securing wood, soil, tools, and native plants; arranging storage; and ensuring materials fit local environmental conditions.
- Construction: using the CNC machine for cutting and assembling wood pieces with volunteer support.
- Assembly: adding soil, planting flowers, and securing the structures to the ground under supervision of maintenance and sustainability staff.
- Sharing: producing marketing content, hosting an inaugural event, and distributing reports to inspire replication of the project in other institutions.

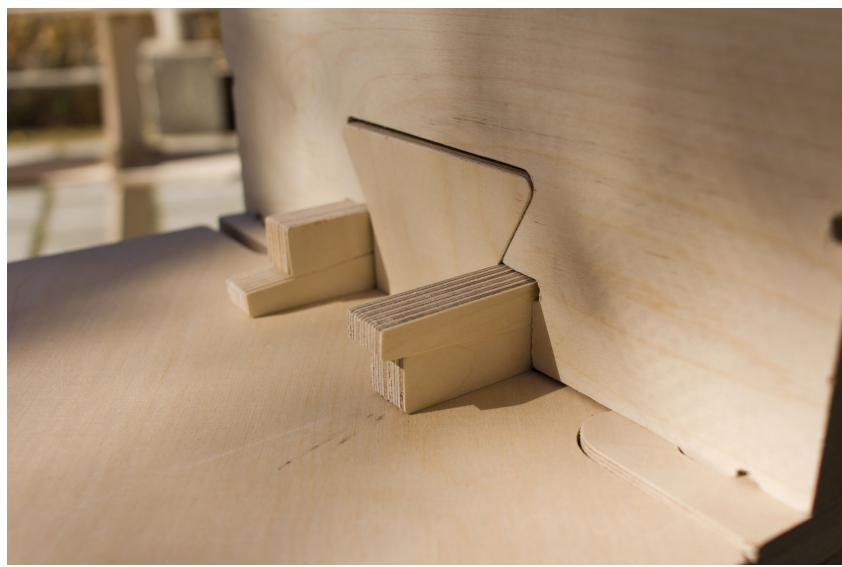
The Hub's creation required a multidisciplinary team including the founders, the FabLab, Campus Life, Maintenance, sustainability advisors, and a visual team.



CHALLENGES AND LEARNINGS

Several obstacles emerged during the project:

- Growroom file errors: corrected by first building small prototypes.
 - Water canalization: since the original design lacked drainage, small holes were added to prevent water accumulation.
 - Structural stability: the lightweight structure was anchored to prevent wind damage.
 - Wood treatment: water-based varnish and rubber paint were applied to protect the wood against moisture and sunlight.
 - Plant selection: required careful research to avoid invasive species and ensure compatibility with local climate and pollinators
 - Legal considerations: any permanent structure may require permits depending on local regulations.
- These insights were documented to assist future institutions in building their own Nurture Hub.



CONCLUSION

The project demonstrates how design can drive environmental transformation and community engagement. The Nurture Hub combines education, sustainability, and collective action to protect pollinators and local ecosystems. It stands as both a physical space and a call to action—inviting future students, universities, and individuals to become active stewards of biodiversity. The founders encourage readers to continue exploring sustainability or even build a Hub of their own: ready, set, nurture.

