Co-funded by the European Union

GREEN SKILLS FOR CITIES

Short-Term Programme Results

Report

WU, IAAC & UNIGE

October 2024

WU Wirtschaftsuniversität Wien Vienna University of Economics and Business

Advanced Architecture Group | Iaac

Università di Genova

alda European Association for Local Democracy

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1. FOREWORD

"Green Skills 4 Cities" (G4C) aims to establish a transdisciplinary educational platform targeted at the development of skills in the field of Nature-Based Solutions (NBS) implementation in cities. The project brings together trainers and learners from the fields of botany, technology, design, and economy as well as cities involving them in an unique transdisciplinary learning environment aiming at the development of curricula targeted at working in the public sector.

The Short-Term Programme develops a one week training aimed at creating lifelong learning. The aim is to introduce participants to the key concepts related to urban sustainability and the implementation of nature-based solutions. Through practical exercises, the learners will gain a greater understanding of theory. The learners take part in a transdisciplinary theoretical module and a practical module, developing a project addressing local urban challenges.

Green Skills 4 Cities is a project co-funded by the Erasmus+ Programme of the European Union and developed by the Institute for Advanced Architecture of Catalonia (IAAC), Università di Genova (UNIGE), Wirtschaftsuniversität Wien (WU) and ALDA.

2. OVERVIEW

2.1. OBJECTIVES

- To learn knowledge from disciplines outside your own - design, business, botany and technology.
- To design nature-based solutions for El Parque de las Glories, Barcelona, in cross-border and transdisciplinary teams.
- To develop a 3 minute pitch selling the nature-based solution to a municipality/public body

2.2. EXPECTED OUTCOMES

- 3 minute pitch
- Product Design & Digital Prototype
- Business Model Canvas
- Innovative Patentable Element to be incorporated into the design

3. WORKSHOP AGENDA

Below is a breakdown of how the workshop was structured across the five days. The first two days were dedicated to developing a theoretical understanding, while the final three days were focused on the learning by doing practical activity. As the workshop was conducted in a hybrid format, there is an additional column to demonstrate whether the activity was carried out online or offline. When connecting online, Zoom was used with breakout rooms, allowing participants to connect in their groups.

Day 1 - Theoretical Module

DESCRIPTION
Brief Check-in with host institution
Deadline to submit self assessment questionnaire

Day 2 - Theoretical Module

DESCRIPTION	Online/Offline
Welcome and Ice breaker Activity	Offline
Workshop Introduction	Online
Introduction to chosen site	Online
Coffee Break	Offline

Activity Planned by Institution - Design	Offline
Lunch	Offline
Activity Planned by Institution - Business	Offline
Coffee Break	Offline
Activity Planned by Institution - Botany & Technology	Offline
Wrap up	Offline

Day 3 - Practical Module

DESCRIPTION	Online/Offline
Welcome & Energiser	Offline
Discipline working time	Offline
Lunch	Offline
Co-working session online - Learners present their findings from the morning	Online
Ideation group working session	Online
Wrap up	Online

Day 4 - Practical Module

DESCRIPTION	Online/Offline
Welcome & Energiser	Offline
Discipline working time -Trainers available to answer doubts	Optional
Lunch	Offline
Co-working session - Design development	Online
Wrap up - learners present their latest developments	Online

Day 5 - Practical Module

DESCRIPTION	Online/Offline
Welcome & Energiser - Pitch a Random Object	Offline
Discipline working time -Trainers available to answer doubts	Optional
Lunch	Offline
Final Pitch Preparations	Online
Final Presentations	Online
Closing & Certificate Presentation	Online/Offline

4. STUDENT WORK

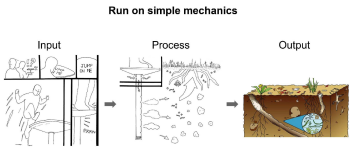
Giving Nature a Voice is a modular structure that can be aggregated to create a variety of forms and house plants and biodiversity. Sensors embedded with the plants monitor watering, nutrient needs, water and salt stress. This data is then converted into music, bringing awareness to the plants' wellbeing.
Developed by Ruobing Chen, Marta Pianta, Patrick Schüssele, Aleyna Gültekin, Federica Lorusso, Maddalena Landi.

Group 2 focused on redeveloping an abandoned site and turning it into an intervention zone that can host biodiversity and educate children. Playful

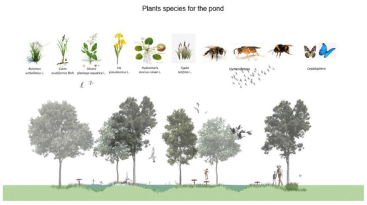
mushroom interventions serve a dual purpose by pumping oxygen into the ground and acting as playground equipment for children. Sensors will monitor the soil health.

Developed by Jayashree Chandrappa, Clara Conte, Saurabh Kudligi, Jannatun Nowshin, Gabriele Oneto, Louise Kwok.

Green Innovation Challenge Group 2



Green Innovation Challenge Group 2

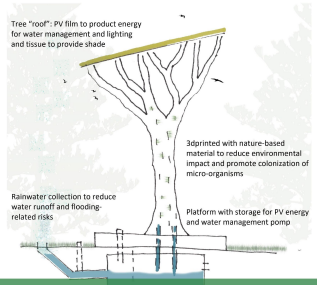


Green Innovation Challenge Group 2

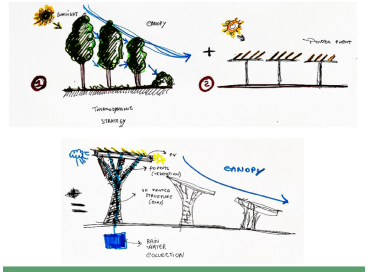
Super3 tackled the challenge of extreme heat to provide additional shaded zones in the central field of the park. These tree structures provide shade while collecting solar energy from PV cells as well as rainwater. In addition, the 3d printed structures promote colonization of microorganisms due to the printed texture.

Developed by Raffaele Schiavello, Amjad Ali, Noémi Karácsonyi, Sabina Javanli, Francesca Mosca, Ana Nestorovic, Anastasija Vidović.

Green Innovation Challenge Super3

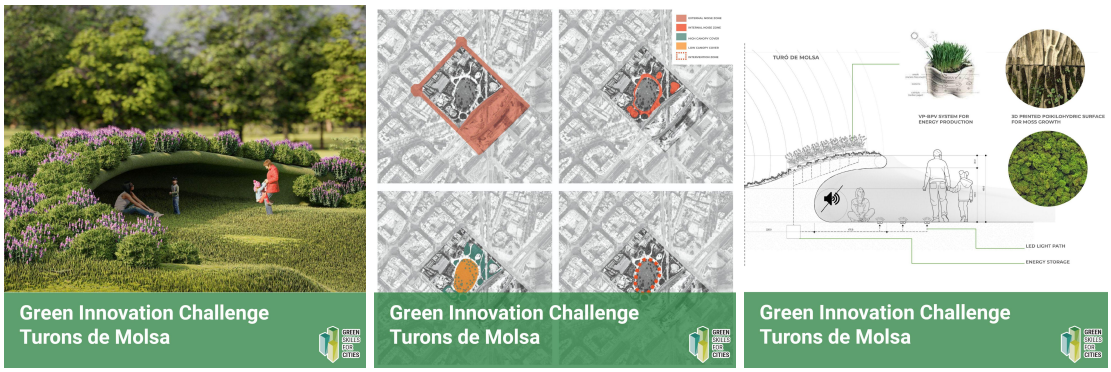


Green Innovation Challenge Super3



Green Innovation Challenge Super3

Turons de Molsa are a series of moss hills integrated in the perimeter of the central field. The 3D printed structure houses a biophotovoltaic system that powers small LED lights. The design is aimed at providing relief from the sun while generating energy from the moss.
Developed by Santwana Malakar, Cristina D'Anna, Simone Nardo, Gabriel Teixeira, Caterina Battaglia, Cynthia Lehner.



5. CONCLUSION

The results obtained in the 3 days of practical activities demonstrated that innovative nature-based solutions can be achieved and ideated in a short period of time, when different expertises' are brought together. While the set up of a cross-border and transdisciplinary workshop also posed its own challenges, the learners appreciated the opportunity to work with other students across Europe.

Some key learnings from the implementation of the programme:

- Transnational workshops are feasible, but require a lot of planning and improvisation to deal with challenges.
- Balance of group personalities is required to ensure fluid conversations and ensure teams communicate effectively.
- The breakout function of zoom aided in giving learners the opportunity to connect in their groups. In general this worked well; however, it was a challenge when all the learners were in the same room.

- 3 days to work on a practical solution could have been extended. By the third practical day students were more engrossed in their topics, but then the workshop was already ending. A suggestion would be to have all the theoretical knowledge shared before and have one week dedicated to the practical exercise.
- Getting to know transnational group members online is challenging. To support this further, more online team-building exercises can be planned.

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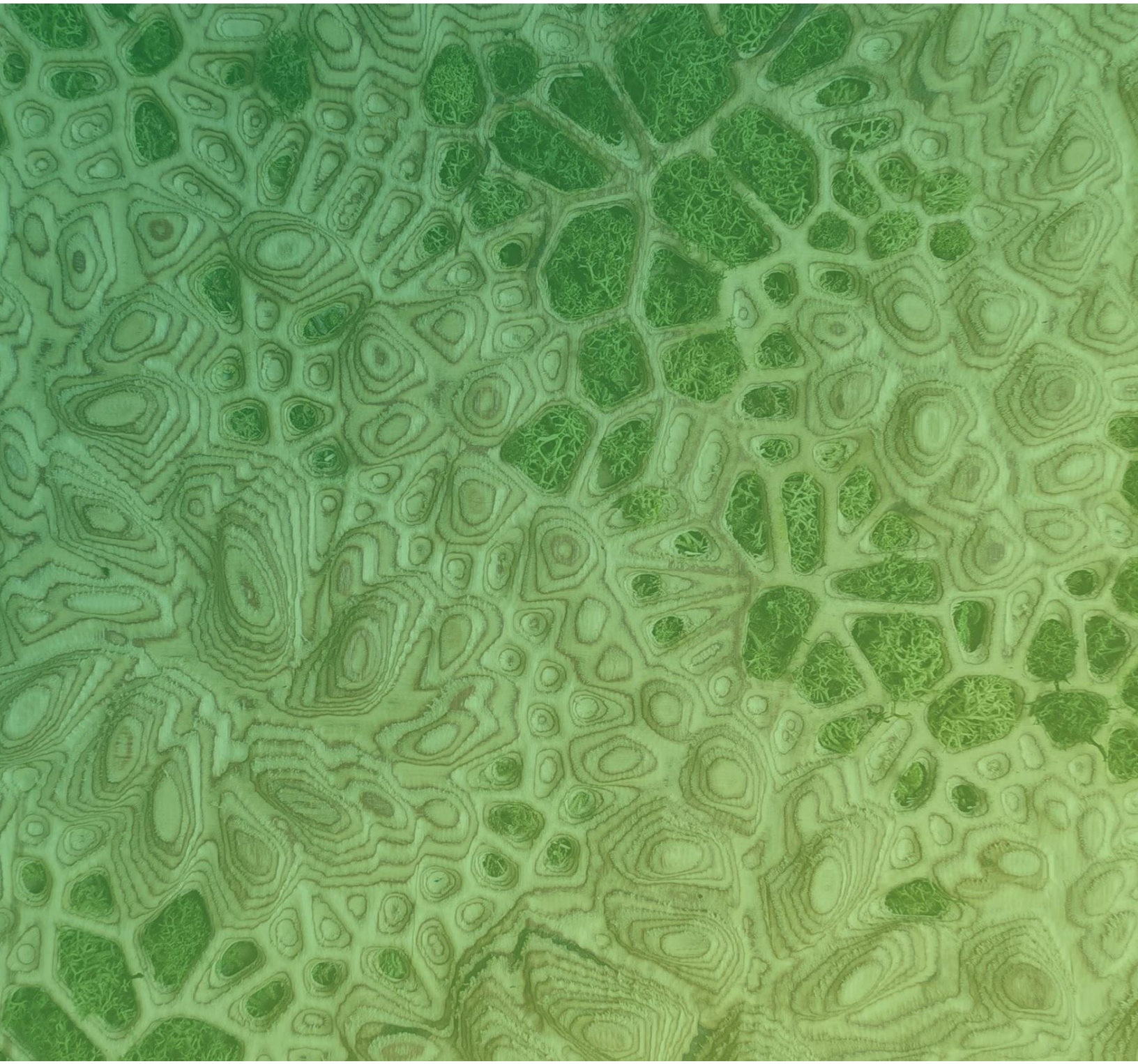

Green Skills 4 Cities, 2022-2023

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