GUIDEBOOK International student challenge:





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PREFACE

This Guidebook summarises all the information, terms and conditions for students who would like to be involved in the international student challenge UrbanFarm2025.

THE CHALLENGE

The competition is intended for university students eager to contribute innovative ideas to the field of sustainable urban agriculture.

The case study area is located within the **KTH Campus in Stockholm, Sweden**. The challenge invites participants to transform a currently underutilised space on this campus into a dynamic and vibrant environment, where both design and functionality can evolve in harmony. The objective is to create a space that stimulates social engagement, productivity and creativity, benefiting students, researchers, staff and external stakeholders. Additionally, the redesigned area should serve as a hub that captures the attention of the broader public.

Submissions to the challenge welcome ideas that breathe new life into this grey space, aligning with the three pillars of sustainability- economic, environmental and social- to activate the area. Proposals will be evaluated based on their solutions for growing systems, climate management, water and nutrient strategies, integrated pest management, and other sustainable agricultural practices.

The competition will be conducted in English and judged by a diversified panel of academics and international experts in sustainable urban agriculture.

_The Aim

The main aim of the UrbanFarm2025 challenge is to design innovative urban agricultural systems that incorporate progressive technologies for food production in urban environments. It also intends to foster multidisciplinary and international collaboration between students from different universities and institutions.

_Requirements for Participation

The challenge is open to all university students. Teams must consist of students regularly enrolled in a bachelor's or master's degree program. There are no university restrictions- any student can register through the survey linked below under 'Team Registration.'

_Team Registration

Students must complete the <u>mandatory</u> <u>survey</u>, also available on the <u>website</u>, to participate in the challenge. Registration is open until the **12th of March 2025**- the deadline for Round 1 submission (refer to *Rounds and Deadlines*). Teams will be formed based on survey results by the organizing committee and announced as registrations are received. For more details on the challenge, please continue reading this handbook and visit the challenge <u>website</u>.

_Challenge Clarification

The main objective of this year's challenge is to transform this underused area within the KTH Campus, into a vibrant, multidisciplinary space that incorporates sustainable agricultural activities fostering a space for social engagement and recreation. The goal is to redesign this vacant space into a lively and engaging area that complements the atmosphere of the rest of campus. All interventions and innovations implemented in the area must be temporary in nature, such as containers, raised gardens... etc, and will eventually require temporary building permits. Proposals on solutions and ideas to activate this space are encouraged, and below are some key missions to inspire and guide the design concepts:

- 1. Space requalification
- 2. Activate the area
- 3. Increase the safety of the area
- 4. Attract more people to this part of campus
- 5. Provide new services for campus and students
- 6. Increase social integration and campus collaboration
- 7. Food production, recycling, composting
- 8. Design a sustainable meeting space
- 9. Think of a space filled with innovation and research
- 10. Foster digital interaction with activities on the site.

INTRODUCTION OF THE LOCATION

While keeping the overall objectives in mind, it is important to consider the unique characteristics of the location and the key aspects to focus on.

The case study site is situated within the KTH Campus in Stockholm, Sweden- a vibrant academic hub renowned for its emphasis on innovation and sustainability. The campus features a mix of historical and modern architecture, creating an inspiring environment for education, research, and collaboration. Currently, the area is an underused gravel space on the edge of the campus, which many perceive as distant and somewhat isolated. It is often considered unsafe due to inadequate lighting and limited activity. Positioned along Drottning Kristinas väg, a major corridor connecting KTH to the Albanova, Albano, and Frescati campuses, this area holds significant potential to strengthen connectivity across these academic centres if activated effectively.

The site is a 10-minute walk from the nearest public transport and just 5 minutes from the closest restaurant. It is adjacent to a vacant building and a park across Drottning Kristinas väg, with a railway line running behind it, further adding to its sense of separation. Despite these challenges, its strategic location presents a valuable opportunity to transform the area into a dynamic space that enhances connections to neighbouring campuses while addressing concerns related to safety and accessibility.



Figure 1: Map of the KTH Campus with cardinal points. The case study area is demarcated by a red outline on the bottom-left of the map.

_Case Study Description

The case study site, as it stands, is largely abandoned, offering a wide margin for creativity and innovation. To effectively carry out the project, the design proposals should focus on transforming this space into a multifunctional area that integrates agricultural activities to promote productivity, social engagement and recreation.

The site spans approximately 2,500 m² and is a flat, gravel-covered area with a few trees lining the path. It is located on the western side of the KTH Campus, surrounded by Nationalstadsparken, the Royal National City Park. Within the area, there is an inspection well connected to Stockholm City's main sewage system, and utility connections for electricity and water have been extended from the nearest building. The foot traffic in this area is relatively low, consisting mainly of campus residents-namely students, researchers, and their families - along with campus staff. Additionally, occasional pedestrians and cyclists pass by, using Drottning Kristina's väg as a route between the city centre and Brunnsviken.



Figure 2: Dimensions of the case study area.

Currently, a research container operated by '*Green & Growing*' rents land on this site. The company specialises in urban farming, producing and selling salads and spices to Swedish food markets. The container houses a vertical farm that uses a hydroponic system and is connected to the on-site electricity and water supply. While teams are not strictly required to include a container park in their project proposals, the existing research container can serve as inspiration for innovative activities and solutions to revitalise the area. Please note that the container will remain in place but can be moved to a different spot within the site, so proposals should take this into account when designing their concept. Additionally, all structures must be temporary, in accordance with the area's restrictions and regulations.



Figure 3: Photo of the site with the research container.



Figure 4: Inspection well connected to Stockholm City's main sewer system



Figure 5: Photo of site standing from Drottning Kristinas väg.

ROUNDS and DEADLINES

The challenge is arranged in three steps: Round 1, Round 2 and the Grand Finale.

_Round 1: Project Pre-Proposal and Pitch

Round 1 consists of three elements that need to be submitted to the UF Scientific Committee: (1) the project abstract, (2) a short video presentation and (3) the project pitch.

By **March 12th, 2025**, each team must submit the **Abstract** of their project and a **2-minute video** illustrating the design concepts to <u>urbanfarm@unibo.it.</u>

On **March 14th, 2025**, each team will have to present their idea to the UF jury. Here, each team will be allocated a 10-minute slot with the jury. Each session will consist of a **3-minute** PowerPoint presentation, during which each team will expose their project ideas. The remaining 7 minutes will be dedicated to questions, mentoring and final feedback.

_Abstract

The abstract is a summary of your team's project. The abstract must be sent in **word** and **pdf** format, following our <u>template</u>. Abstracts should be sent to <u>urbanfarm@unibo.it</u> by email. The abstract should be a **maximum of 500 words**. Indicate the name, surname, and affiliation of each team member and the name of your team. On the second page, insert a photo of your team: landscape-oriented (1920x1080 px). Please make sure to rename your abstract file as ABSTRACT_NAMEOFYOURTEAM (e.g., for a team called "tomato", please rename files as either *abstract_tomato.docx* and *abstract_tomato.pdf*) before submitting.

_Short Video Presentation

Each team must produce a **2-minute video (MP4)** introducing the team, its approach, and the reasons behind their participation in the challenge. The video must be sent to <u>urbanfarm@unibo.it</u> using a file-sharing software (e.g. WeTransfer). **Before sending it, rename your MP4 file using only the NAME OF YOUR TEAM** (or its acronym).

_Evaluation criteria

- Abstract: up to 10 points
- Team Video: up to 5 points

_Round 2: Final Proposal

The deadline for each team to submit their final project is **April 18th**, **2025**. Each team will have to send:

- 1. the final project proposal
- 2. proof of the concept and/or graphical designs
- 3. final video

_Project proposal

The project proposal describes the whole concept of your project. <u>The template</u> contains all the instructions needed to submit the project. **The use of the template is mandatory**. Send the document to <u>urbanfarm@unibo.it</u> by email. Before sending it, rename your file by using only your TEAM NAME or ACRONYM. The document must be sent in **Word** and **PDF** format.

The final project will be composed of 6 sections, organised as follows:

- 1. General introduction of the project (200 words)
- 2. Agricultural section (600 words)
- 3. Environmental sustainability section (400 words)
- 4. Economic section (400 words)
- 5. Social and educational section (400 words)
- 6. Annexes (max 5 pages)

_Proof of concept

Proof of concept is the demonstration, typically resulting from an experiment or pilot project, that a design concept is feasible. You are asked to provide a demo of key technologies/innovations in the form of a prototype, a video, an architectural model, academic literature or commercially available solutions...etc, depending on the type of innovation. Each team is required to provide a proof of concept for not all, but at least one of the following spheres- environmental, economic, or social- focusing on the area where their innovation is most groundbreaking. Teams should select the sphere that aligns with their most impactful contribution. It is not required to innovate on all criteria. Teams are also allowed to provide multiple proofs of the concept. The document must be sent as a **PDF** file to <u>urbanfarm@unibo.it</u> by email.

_Final video

A video (MP4) **no longer than 4 minutes** where you describe your project and your idea. You can show images, photos, projects, and short clips. The video must be sent to <u>urbanfarm@unibo.it</u> using a file-sharing software (e.g. WeTransfer). **Before sending it, rename your MP4 file by using only the NAME OF YOUR TEAM** (or its acronym). Examples of videos from previous editions, produced by the teams, can be found on each team's dedicated webpage: <u>https://site.unibo.it/urbanfarm/en/urbanfarm2024/teams2024</u>.

_Evaluation criteria

- Overall project concept: up to 10 points
- Agricultural innovation and credibility: up to 10 points
- Environmental sustainability: up to 10 points
- Economic sustainability: up to 10 points
- Social and educational sustainability: up to 10 points

_Online voting

Online voting will be available on the challenge <u>website</u> from April 18th, 2025 to May 15th, 2025. The general audience can vote online for their preferred final team video. 5 points will be attributed to the team with the most voted video. The results of the online voting procedure will be published on May 15th, 2025, on the challenge <u>website</u>. The online voting page will be visible starting from April 18th, 2025.

_Grand Finale

The Grand Finale will take place at KTH Campus in Stockholm, Sweden on **May 20th, 2025**. Each team will pitch their project to local stakeholders and the international jury.

_Pitch

The final pitch should not be longer than **5 minutes**. How to organise the pitch is given to the teams. Each team will present its project to the public and jury and then undergo a 5-minute session of questions from the jury. The jury will evaluate pitches for up to **25 points**, based on the quality of the projects and presentations, and how efficiently the teams could answer the questions.

_The Award

The winning team will receive the "Young Mind Award" of the International Society for Horticultural Sciences (ISHS). This includes a complementary 1-year membership to the ISHS for one year for each of the team members.

_Deadline Summaries and Rating Criteria

	Deadline	Evaluated Material	Score	Assessors
Round 1	12/03/25	AbstractVideo (2min)	15	Scientific Committee
	14/03/25	- 3-minute Pitch	5	Scientific Committee
Round 2	18/04/25	 Full project Proof of concept Final video (4min) 	50	Scientific Committee + International Jury
Online voting for Final Video	15/05/25	- Final video**	5	General Audience
Final pitch	20/05/25	- 5' pitch - 5' questions	25	International Jury

** <u>The final video must be submitted within the Round 2 deadline (18/04/25)</u> for evaluation by the scientific committee and jury. Here, the video is released to the general audience for an extra evaluation.

_The Jury

The jury will consist of a diverse group of experts, professors, and researchers with expertise in urban farming challenges. Jury members will be visible on the challenge <u>website</u> throughout the course of UrbanFarm2025.

AFTER THE CHALLENGE

After the challenge, each participant will receive an attendance certificate. The University of Bologna will publish the materials developed during the competition in an open access book of proceedings, identified by a Digital Object Identifier (DOI), where author names will be duly acknowledged.

_Intellectual Property Rights

Each team has intellectual and industrial property rights to data, designs, information, prototypes developed and submitted or transmitted under this Challenge.

By entering the Challenge, each participant agrees to grant the University of Bologna, as the owner of the challenge, a perpetual, **royalty-free** and irrevocable license of use of the documents, prototypes, materials and information submitted within the Challenge for research and educational purposes, including the production of scientific publications aimed at communicating and promoting the Challenge's results. In addition, each participant agrees to grant to the general public the license to view and use data, designs, prototypes and information submitted, exclusively for the purpose of urban regeneration covered by the Challenge. Furthermore, each participant authorizes the ALMA MATER STUDIORUM - University of Bologna to publish photos and videos taken during the Challenge, including the final event, as well as to publish on its website the names of the participants, the names and identifying signs of the projects for promotional and advertising purposes closely related to the challenge or in other ways considered valid for the dissemination of the results of the competition.

Privacy

The data provided will be processed for the purpose of carrying out the institutional activities of the University and will be stored in accordance with the provisions of the European Privacy Regulation EU 2016/679 and D.Lgs. 196/2003 ss.mm.ii.

The data will be processed by computer and not. The provision of data is required to present Ideas and Projects in the context of this challenge. Such data will be communicated and/or diffused only in execution of precise normative dispositions.

The Data Controller of the data provided is Alma Mater Studiorum - University of Bologna, with registered office in via Zamboni, 33 - 40126 Bologna, in the person of the Rector as legal representative.

Contact details: privacy@unibo.it; scriviunibo@pec.unibo.it

Contact details of the Data Protection Officer (RPD/DPO): privacy@unibo.it.

The Internal Responsible for the reply to the interested party is the Director of the Department of Agricultural and Food Sciences.

As data subjects, participants enjoy the rights set out in sections 2, 3 and 4 of Chapter III of Regulation (EU) 2016/679 (e.g. to ask the data controller for: access to and rectification or erasure of their personal data; to request the restriction of the processing of their personal data; to object to the processing of their personal data; to have the right to data portability).

PARTNERS AND SPONSORS

Organisers:







Promoters:







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