

GUIDEBOOK

International student challenge:



CONTENTS

PREFACE	3
THE CHALLENGE	3
_ The Aim	3
_ Requirements for participation	4
_ Team registration	4
_ Challenge Clarification	4
INTRODUCTION OF THE LOCATION	6
_ Case Study Description	7
ROUNDS and DEADLINES	10
_ Round 1: Project Pre-Proposal and Pitch	10
_ Round 2: Final Proposal	11
_ Online voting.....	12
_ Grand Finale.....	12
_ The Award.....	12
AFTER THE CHALLENGE	14
_ Intellectual Property Rights	14
Privacy	15
PARTNERS AND SPONSORS	16

PREFACE

This Guidebook summarises all the information, terms and conditions for students who would like to be involved in the international student challenge UrbanFarm2026.

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 **Metropolitan Area of Barcelona, Spain**. The challenge invites participants to transform a social housing area in the neighbourhood of Sant Cosme into a dynamic and vibrant environment, where both design and function can evolve in harmony. The proposals will have to focus on agricultural and architectural solutions with the objective to create a space that stimulates social engagement, productivity, and creativity, benefiting residents and even the establishment of businesses. 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 diverse panel of professors and international experts in sustainable urban agriculture.

The Aim

The main aim of the UrbanFarm2026 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 coming from the University of Bologna Alma Mater Studiorum in Italy, the KTH Royal Institute of Technology in Sweden, and the Universitat Autònoma de Barcelona, in Spain.

Requirements for participation

Teams must be composed of university students regularly enrolled in one of the following courses:

1. **Smart Horticulture** (International Master in Horticultural Sciences), University of Bologna Alma Mater Studiorum
2. **Urban Farming** (International Master in Horticultural Sciences), University of Bologna Alma Mater Studiorum
3. **Master students at KTH** Royal Institute of Technology.
4. **Urban and industrial ecology** (Interdisciplinary Studies in Environmental, Economic and Social Sustainability), Universitat Autònoma de Barcelona.
5. **Sustainable Built Environment** at the Faculty of Engineering, Cairo University

Team registration

Students must fill in the [survey](#), available also on the [website](#) by **February, 27th 2026**. The survey is mandatory to participate in the challenge. Teams will be created according to the survey results by the organizing committee and announced on the 2nd of March 2026.

For more information about challenge conditions please continue reading this handbook. Further information can also be found on the challenge [website](#).

Challenge Clarification

The main objective of the challenge is to transform a social housing area within the Sant Cosme neighbourhood in the Municipality of El Prat de Llobregat (Barcelona), into a vibrant, multidisciplinary space that incorporates sustainable agricultural activities fostering a space for services, social engagement, and recreation. The goal is to shed potential stigma involving social housing by also giving residents control over their surrounding area and the chance to access fresh and healthy food. 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. Increase job creation for locals
5. Provide new services to improve food system and value chain in the area
6. Increase social integration and collaboration
7. Food production, recycling, composting

8. Design a sustainable market space/ space of diverse activities
9. Avoid reducing any natural areas and if possible, increase access and interest for different age groups
- 10 Foster interaction with existing stakeholders and initiatives in the area

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 municipality of El Prat de Llobregat in the neighbourhood of Sant Cosme, which was built in its entirety as social or public housing in a 7-phase process. Within this specific neighbourhood we can find the 7th phase on the left side, being the latest addition to the construction and renovation plan finalized in 2005.

El Prat de Llobregat is a municipality in the metropolitan area of Barcelona, located at the mouth of the Llobregat River along the Mediterranean coast. It's well known for hosting Barcelona–El Prat Airport, one of Spain's busiest. The town combines industrial activity, natural spaces like the Llobregat Delta, and its closeness to the agricultural park.

Sant Cosme is known for its strong community identity and history of social activism. Built in the 1960s to address housing shortages, it has undergone significant urban renewal in recent decades. Today, Sant Cosme is recognized for its cultural diversity and active local associations shaped by a long history of resilience, yet it continues to face a complex set of struggles that affect daily life for many residents. Economic vulnerability remains one of the most persistent challenges: a significant share of households have limited income, which restricts access to opportunities and reinforces cycles of social disadvantage. This economic strain also influences food habits. With few local shops offering fresh or healthy produce, many families must travel outside the neighbourhood to buy basic ingredients, while others rely on cheaper, less nutritious foods. As a result, food insecurity and diet-related health risks, such as obesity and diabetes, have become pressing concerns.

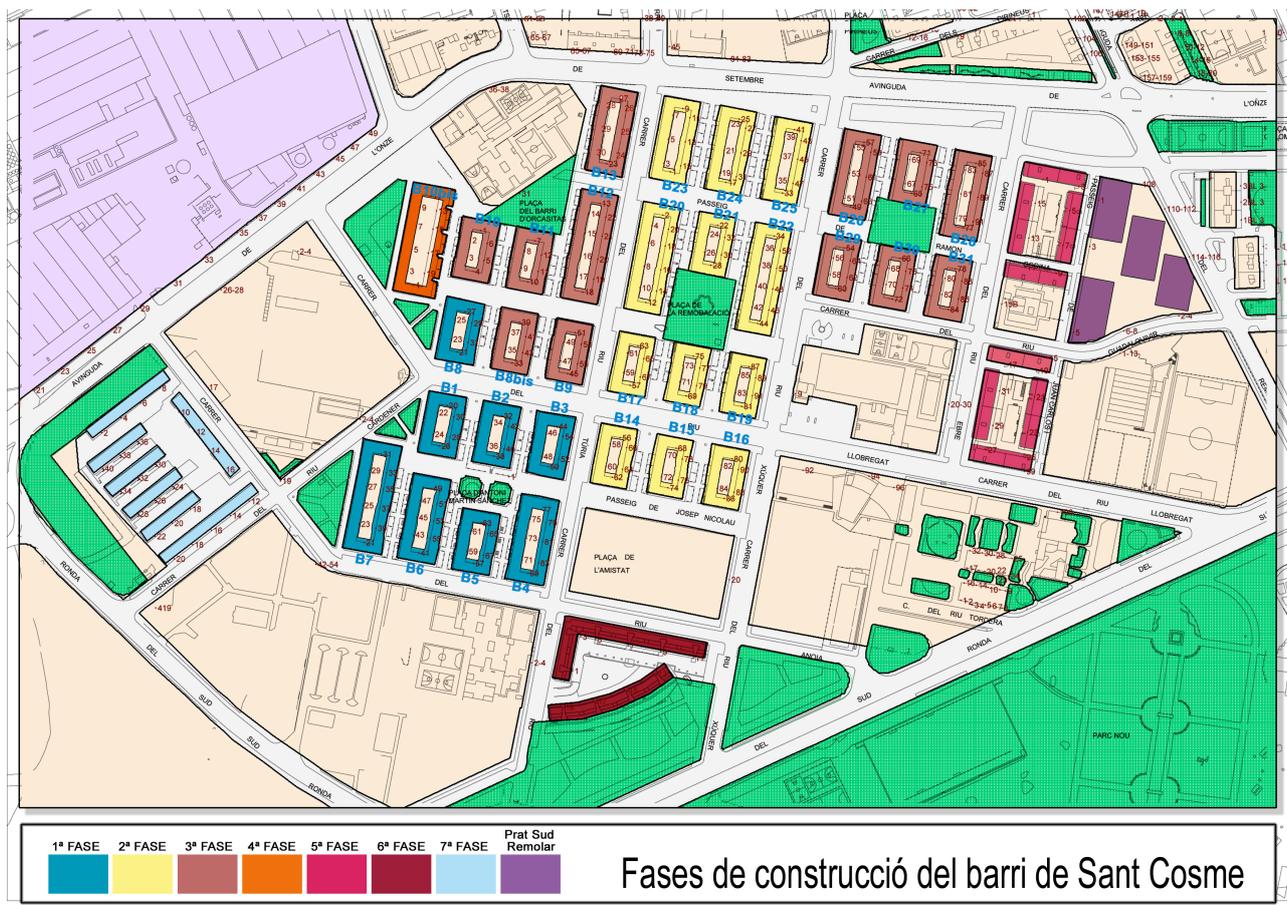
Urban improvements over the past decades have brought better housing and public spaces, but social vulnerability continues to shape Sant Cosme's reality. Community initiatives, including projects aimed at strengthening food access and local participation, are active and important, yet the structural issues they respond to remain deep-rooted.

Another source of difficulty is the neighbourhood's relationship with safety. Police operations targeting drug-related activity, along with occasional incidents of violence, contribute to an atmosphere of insecurity that weighs on residents and complicates community-building efforts. These tensions coexist with a strong sense of identity and solidarity among many neighbours, who continue to engage in local projects and collective initiatives.

Overall, Sant Cosme is a community balancing longstanding challenges with ongoing efforts toward renewal. Its struggles—economic precarity, limited access to healthy food, and concerns around

safety—intersect and reinforce one another, but so do the neighbourhood’s strengths, reflected in the commitment of local groups working to improve quality of life and build a more equitable future. The “7th phase” or “seventh phase” is described as the last area to be renovated within the neighbourhood and includes the area sometimes informally called “sector 801.” It was ostensibly meant to provide re-housing to the most vulnerable families — those who had been left out of earlier rounds of relocation.

Figure 1: Map of Sant Cosme, with a color-coded representation of the phases of reconstruction. The case study area is coloured in light blue left side of the map (7th phase).



Case Study Description

Sant Cosme is a neighbourhood characterised by a strong concentration of public services and a notably limited commercial presence. Although a weekly street market takes place every Thursday morning—focused mainly on clothing and accessories—the area struggles to sustain regular commerce. One of the key obstacles to commercial viability is its low residential density, which reduces the potential customer base. A study conducted with the AMB on healthy eating also revealed a lack of establishments offering fresh, local and healthy products, despite the city’s proximity to an agricultural park.

Public services, by contrast, are abundant. The 2004 Neighborhoods Law triggered a major wave of investment that led to the creation or improvement of numerous facilities: the courts, the headquarters of Aigües del Prat, fire services, the Local Police station, the Mossos d'Esquadra station, and the Julio Méndez sports centre. A Municipal Information Office was also established, alongside the Casal Cívic Comunitari Delta and various other socio-community spaces. As a result, Sant Cosme has become one of the city's hubs for public infrastructure.

In terms of urban services, the waste-collection system was upgraded in 2025 with the introduction of smart containers activated by personalised cards, allowing the monitoring of organic waste disposal and enabling residents to benefit from tax reductions. Although this system functions well in most of the neighbourhood, some areas are still awaiting installation and continue to experience uncontrolled dumping near containers. Energy transition initiatives are also under way. Schools across the city, including those in Sant Cosme, have been equipped with solar panels, and a new park has been created on land near Can Monés, forming part of a broader plan to develop local energy communities—a process still in its early, resource-intensive stages.

Within this broader context, the seventh phase of Sant Cosme consists of seven blocks, twenty-five staircases and 140 homes, housing around 700 residents—approximately ten percent of the neighbourhood's population.

Figure 2: Map of the area.



The perimeter of the proposed target space is 510.11 m with a total area of 16014.31 m², containing the 7 housing blocs, parking spaces and an open space area with trees and park benches.

Figure 3: Map of the area with the measured perimeter.

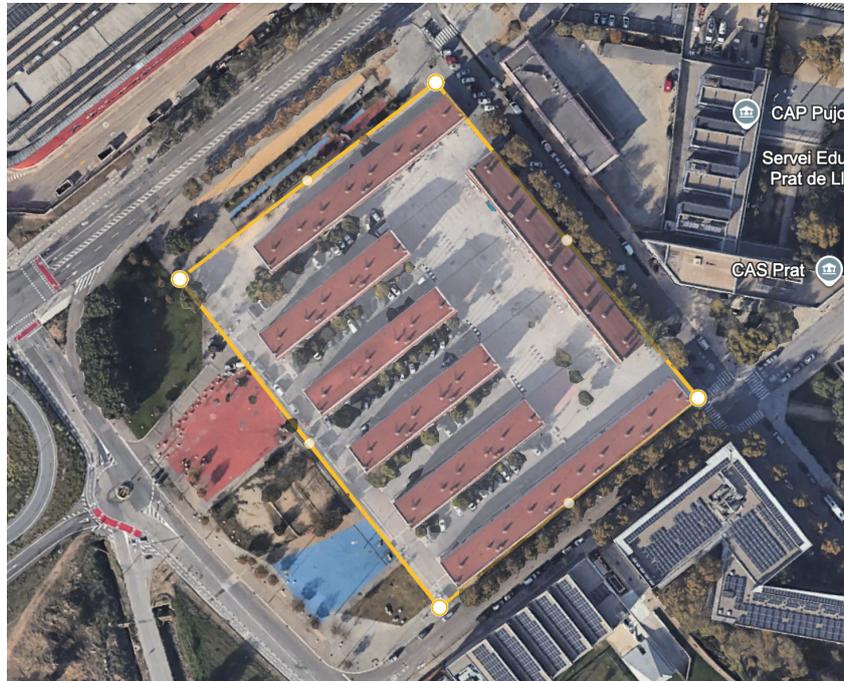


Figure 4: 3D image of the seventh-phase area from the northern angle.



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 20th, 2026**, each team must submit the **Abstract** of their project and a **2-minute video** illustrating the design concepts to urbanfarm@unibo.it.

On **March 24th, 2026**, 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 [template](#). Abstracts should be sent to urbanfarm@unibo.it 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 before submitting.

Short Video Presentation

Each team must produce a **2-minute video (MP4) landscape oriented** introducing the team, its approach, and the reasons behind their participation in the challenge. The video must be sent to urbanfarm@unibo.it 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). The video will be upload by the organizing team on our [YouTube page](#).

Evaluation criteria

- Abstract: up to 15 points
- Team Video: up to 5 points

Round 2: Final Proposal

The deadline for each team to submit their final project is **April 27th, 2026**.

Each team will have to send:

1. *the final project proposal*
2. *the final 4-minute video*

Project proposal

The project proposal describes the whole concept of your project. [The template](#) contains all the instructions needed to submit the project. **The use of the template is mandatory.**

Send the document to urbanfarm@unibo.it 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)***

Video

Every group must submit a **horizontal (landscape oriented) 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 urbanfarm@unibo.it 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).

Evaluation criteria

- Overall project concept + annexes: 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 [website](#) from **April 27th, 2026 to May 15th, 2026**. 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 revealed on the day of the Grand finale. The online voting page will be visible starting from **April 27th, 2026**.

Grand Finale

The Grand Finale will take place at the UAB Campus in Barcelona, Spain on **May 22th, 2026**. Each team will present 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.

_Rating Criteria

	Deadline	Evaluated material	Score	Assessors
Round 1	20/03/26	Abstract + Video	15	Scientific committee
	24/03/26	3-minute Pitch	5	Scientific committee
Round 2	27/04/26	Full project	50	Scientific committee + International Jury
Online voting	15/05/26	Final video	5	General audience
Final pitch	22/05/26	5' pitch + 5' questions	25	International Jury

_The Jury

The jury will consist of a diverse group of experts, professors, and researchers with expertise in urban farming challenges. The names of the jury members will be revealed on the challenge [website](#) throughout the course of UrbanFarm2026.

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).

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:



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

UAB
Universitat Autònoma
de Barcelona



Promoter:



The activity has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101084198 and from the UK Research and Innovation under Project Ref. 10082340