

# HEALTHY BUILDINGS DESIGN COMPETITION

# 20 25

Design  
competition for  
students specialized  
in the built  
environment



HEALTHY BUILDINGS  
design competition

# BRIEF

# Scope

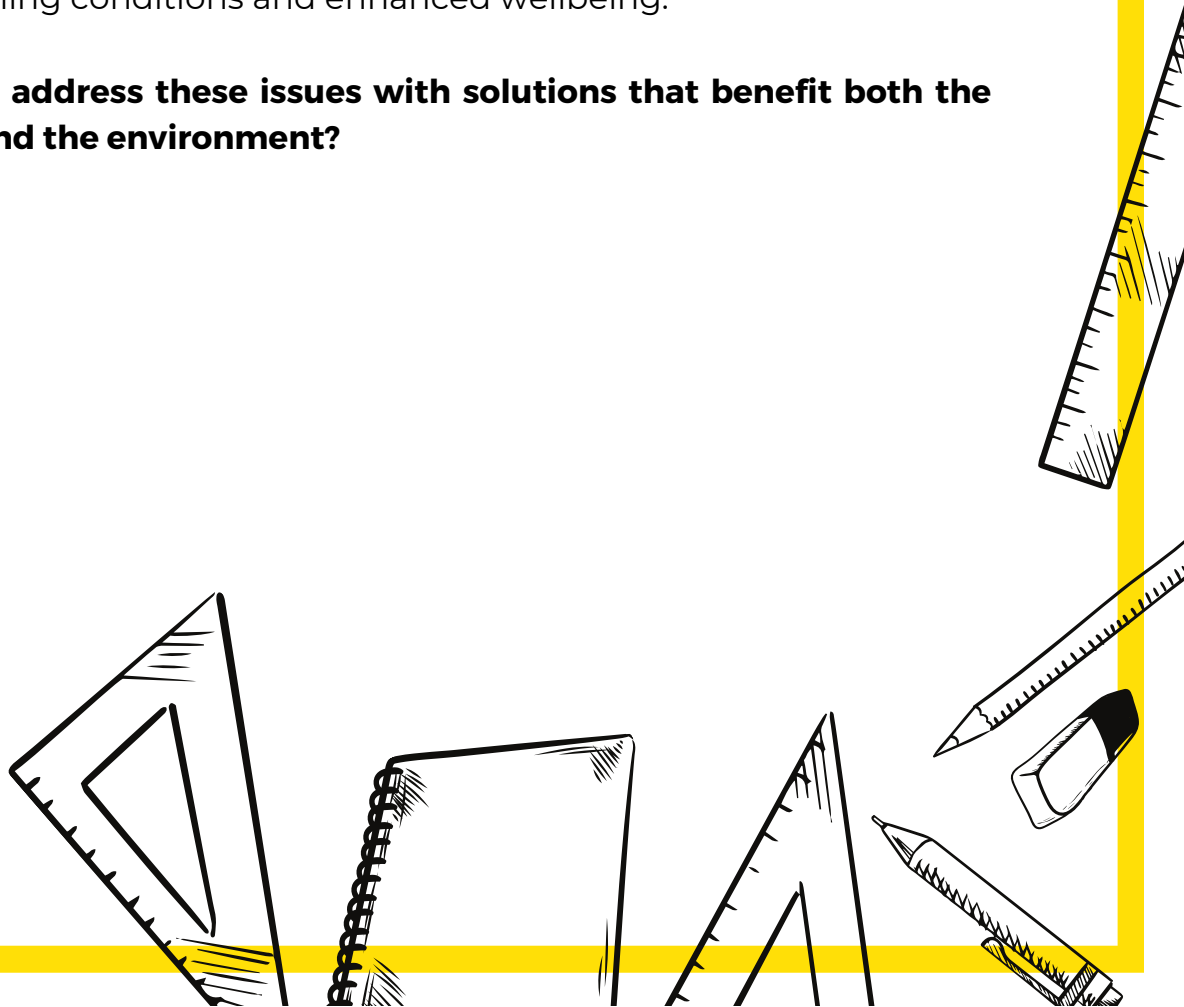
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The building sector is accountable for about 40 % of the global energy consumption and CO<sub>2</sub> emissions in the UE and is therefore a major contributor to global warming. We all have a responsibility to improve the way we build our buildings, making them healthy for both people and the planet.

REHVA has partnered with VELUX on making a student competition to inspire the next generation of the building sector to start making the change. As part of VELUX's sustainability strategy 2030 a promise is made, to show how to build sustainably, and inspire others to do so. Sustainability is more than just environmental impact. It is also the indoor environment and the architectural qualities of a building.

This time the Healthy Buildings Design Competition focuses on schools. Many schools across Europe were built in the 1970s are in dire need of an upgrade. Some have been renovated in the past years but many still lack care and attention. There is a need for redesigning existing schools in a new way to meet the demand of different types of users, to comply with the necessity for comfortable, healthy, sustainable and resilient buildings, and not least, to provide the children and teachers with optimal learning conditions and enhanced wellbeing.

**How can we address these issues with solutions that benefit both the occupants and the environment?**



# The competition

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The REHVA Healthy Buildings Design Competition 2025 wants to encourage and challenge students within the fields of building design, building physics and building facilities to explore the theme of design healthy schools. Students will be given the task to imagine a desirable renovation scenario for an existing school, with focus on people's well-being as well as the well-being of our planet.

Through this design project, they will improve their understanding of indoor environmental quality, while exploring the impact of future climate changes and sustainable buildings. The competition celebrates the privilege of being a student by encouraging participants to use their curiosity and to think "out of the box" in their approach of future sustainable schools.

**All teams that participate will receive a certificate for their participation.**



# Who can participate?

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The competition is open to any student of architecture or engineering – as individual or (better) as a team, as long as the following conditions are met:

- At least one of the team members must be attending a university in a REHVA member country, see on the REHVA Website: <https://www.rehva.eu/about-us/members>
- All team members must be enrolled at a university at least during the competition period, June 2024 throughout January 2025



We strongly encourage the participation of **multi-disciplinary teams** that consist of students of different backgrounds (architecture, building physics, HVAC technology, etc.).



## Webinars

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During the competition period a series of webinars will be held on relevant topics.

The participation is voluntary but will be inspirational for the participants. Among the speakers you will find the jury members and other relevant researchers and architects.

The webinars will mainly be held in the afternoon in the time span of 16-18 on weekdays. A list of the dates will be available on the competition website in spring 2024 and will be communicated directly to the registered participants.



The background of the slide features several overlapping architectural drawings. On the left, there is a detailed floor plan with various rooms, corridors, and structural elements, accompanied by numerous numerical dimensions such as 120, 150, 210, 250, 330, 360, 4820, and 4790. On the right, another drawing shows a different section or detail of the building, with dimensions like 136, 150, 1740, 190, and 4820. The drawings are rendered in black lines on a light grey background, creating a technical and professional atmosphere.

# The project

Imagine that you have gotten the task to renovate an old school. But the task is not only adding paint, new desks and a few plants. The task is to transform the school into an inspiring learning environment, and at the same time a school that is not only used during daytime but also during the afternoon and evening for recreational activities for the local community. Perhaps the local library is also hosted at the school. Study rooms are also used by office workers and the classrooms are used for social events and clubs outside school hours. The playground and sports facilities are also used by the people of the local community.

The project will be the renovation of a real school near the site of the CLIMA 2025 conference location, in the Milan area. The participants will be asked to re-design the building to make room for different uses and to include as much of the existing building materials as possible in the renovated building. The comfort and well-being of the occupants and our planet are in focus. Students will be asked to carry out building simulations for e.g. energy, LCA, indoor climate and daylight.

There will be possibilities to arrange study trips to the area, access to building drawings (not models, as no 3D models were used in 1970s), information about the materials etc. Simplifications might be made to reduce the complexity of the real building and site.

**More details about the location and the requirements will be shared later.**

# Submission

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When the registration opens (beginning of 2024), you will receive the complete project description as well as detailed information on the submission requirements. The projects must be submitted digitally and only by the person who has registered (the team contact person). The deliverables will include a poster (landscape orientation), which will be presented on the website after CLIMA 2025. The jury evaluation is performed online, and you should make sure that your project presents itself digitally. All documents and presentations must be in English.

If your project is among the nominees, you will be invited to give an oral presentation of the project at the finals at CLIMA 2025. You will also be asked to prepare a 3 to 5-minute video presentation of the team and the project for online communication.

## Criteria

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The jury (jury members will be announced in mid-2023) will evaluate the projects in accordance with the following criteria (the list is not prioritized):

- How well the project is researched and documented
- How well the project addresses general contemporary and future challenges
- How well the project addresses the challenges specific to the building site
- How convincing the project is in terms of enhancement of the health, comfort and learning performance of future occupants
- The aesthetics quality of the design
- Clever uses of architectural features to improve building performance
- The quality and useability of the building
- How convincing the project is in terms of estimated sustainability and climate resilience
- The overall level of creativity and innovation
  - The technical justification of the solutions and the results of their energy efficiency.
  - The overall graphic presentation of the project
  - Affordability and replicability, how realizable the solution is considering available technology and products

For the nominated projects, the quality of the **oral presentation** is also included in the criteria.



The design competition is hosted by REHVA.

VELUX Group is the sponsor and primary partner providing ideation, resources and funding.

Other parties can be involved if both REHVA and VELUX Group agrees.

Level of involvement can be endorsing or active participation.

It is essential that all partners and sponsors share the overall ambition and goals for the design competition.

## Schedule

SAVE THE DATES!

September 2023	March 2024	October 2024	March 2025
First public announcement	Registration opens	Submission period opens	Submission deadline; project upload
March to April 2025	April 2025	June 2025	June 2025
Jury meeting – evaluation of all submitted projects	Announcement of nominees and online exhibition	Presentations by nominee teams at CLIMA 2025	Winners announcement at CLIMA 2025

## Prizes

The winning team will receive € 5000, 2nd place € 3000 and 3rd place € 1500. *REHVA is not liable for tax payments etc. in the participant's local country.*

The nominee teams will get free access to the CLIMA 2025 conference (a maximum of two team members) as well as up to three nights of hotel accommodation. Travel costs to and from Milan are not covered.

The nominee teams will earn a chance of seeing their project featured in the REHVA Journal.



# Winners announcement

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Nominees will be informed within one week after the jury vote (planned for 1st of April 2025). All submitted projects will be displayed online on the competition website after the nominees announcement at

[www.healthybuildingsdesigncompetition.com](http://www.healthybuildingsdesigncompetition.com)

The winning teams will be announced on the website following the announcement at the CLIMA 2025 conference. Winners will also be announced on the REHVA website and other relevant online media.



## Public announcement

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The teams are and will stay intellectual owners of their ideas and designs; Nevertheless REHVA and VELUX Group will have the right to publish the different competition outcomes, but must always mention the names and rights of the teams involved. Communication on and photos and films of winners, winning projects and honourable mentions may be released to architectural magazines, newspapers, webpages and other relevant media after the winner' announcement.

By entering the Competition, the participants accept that REHVA and the VELUX Group may publish and disseminate the submitted projects, photos and videos of the participants in analogue and digital form.

**Further information, specification and  
inspiration will be available on  
[www.healthybuildingsdesigncompetition.com](http://www.healthybuildingsdesigncompetition.com)**

