

MEZeroE Idea Contest

The Multifunctional Façade Challenge

Sponsored by Focchi SpA

Guide for Applicants



Table of Contents

1. Introduction	3
2. The Value of Visual Representation.....	3
3. Objectives of the Event	4
4. The Multifunctional Façade Challenge with Focchi SpA	4
5. Understanding Multifunctional Façade Systems.....	4
6. Challenge Theme	5
7. Who can Participate	6
8. Submission Criteria	6
9. Examples of Feasible Ideas	6
10. Timeline	7
11. Winner Announcements and Awards.....	7
12. Evaluation Criteria.....	7
13. Prizes & Opportunities	8
14. Intellectual Property	9
15. Submission Guidelines for Participants.....	9
16. Submission Deadline & Where to Submit	10
17. Additional Notes	10

1. Introduction

The Innovation Consulting Idea Contest is a structured open innovation challenge designed to engage students and young researchers in the development of sustainable and innovative solutions for the European building stock. As part of the MEZeroE ecosystem, this competition will provide a platform for fresh ideas that align with the broader mission of accelerating the adoption of nearly Zero Energy Building (nZEB) solutions.

The contest aims to encourage creative yet feasible solutions that can be widely applied to large-scale buildings in Europe. Participants will be required to submit drawings and/or renders that effectively communicate their ideas. These submissions should focus on solutions that enhance energy efficiency, sustainability, or digital integration within the building envelope.

2. The Value of Visual Representation

Visual representation is a key component of the Innovation Consulting Idea Contest, ensuring that proposed innovations are clearly communicated and can be easily understood by both technical and non-technical audiences. By visual representation, we aim to:

- **Enhance Idea Clarity** – A well-illustrated concept allows evaluators to grasp the technical feasibility and application of the idea more effectively.
- **Showcase Creativity** – Visuals help participants demonstrate the aesthetic and functional aspects of their innovation.
- **Strengthen Public Engagement** – High-quality visuals make it easier to promote winning ideas across social media, industry publications, and MEZeroE outreach efforts, amplifying visibility for participants.
- **Facilitate Industry Adoption** – Companies and stakeholders are more likely to engage with ideas that are presented in a visually compelling and professional manner.

Participants are encouraged to keep visuals simple yet clear, ensuring they effectively convey the core aspects of their proposed innovation.

Visuals that can be used

Drawings, Sketches, Renders, AI-Generated Images, Video Renders, etc. Anything that can showcase your idea clearly. We encourage participants to be as creative as possible.

3. Objectives of the Event

The objectives of the Idea Contest are to:

- Engage students and young researchers in sustainable building envelope innovation.
- Promote realistic and applicable ideas that align with MEZeroE's mission.
- Generate visual materials (renders/drawings) that can be used for outreach and social media engagement.
- Provide industry recognition and incentives through cash prizes, diplomas, or exposure.
- Test and refine the Open Innovation Event Management service within the OIS3 framework.

4. The Multifunctional Façade Challenge with Focchi SpA

The Multifunctional Façade Idea Contest, in collaboration with Focchi SpA, invites students to explore how the building envelope can become a dynamic, intelligent system that actively contributes to energy efficiency and indoor comfort.

Participants are asked to design a multifunctional façade system that integrates smart technologies such as IoT sensors, sun-shading elements, BIPV, and embedded heating/cooling systems. The objective is to rethink façades, that can do more than just shield the building. They can sense, interact, and optimize.

Rather than focusing on technical construction, this challenge centers on artistic expression and user experience. Participants should focus on designs that:

- Integrate smart systems to monitor and react to environmental conditions
- Support energy efficiency and user comfort through intelligent responses
- Offer visual and functional clarity while hosting complex functionality

This is not an engineering task. You won't need to prototype anything. Submissions can be made using any visual format, such as hand sketches, digital illustrations, 3D visualizations, AI-generated imagery, or collages.

5. Understanding Multifunctional Façade Systems

A multifunctional façade system combines physical components with embedded technologies to create a responsive outer layer of the building. These facades go beyond traditional façades that

provide passive protection and focus on aesthetics. They become active systems that manage light, temperature, airflow, and energy.

Key features of multifunctional façades include:

- **Smart Integration:** Sensors and actuators adjust systems in real time based on external/internal conditions
- **Energy Production:** BIPV and other technologies allow the façade to generate electricity
- **Climate Control:** Embedded heating/cooling components optimize indoor comfort
- **Adaptive Shading:** The façade responds dynamically to sun, weather, or occupancy

This contest is your opportunity to imagine how design, modularity, and smart systems can work together to transform the building skin into a living, intelligent interface between humans and their environment.

6. Challenge Theme

"Modular Façades that Sense, Interact, and Optimize"

Entrants will design an original façade system that embodies the principles of intelligence, adaptability, and sustainability. The goal is to demonstrate how integrated technologies can elevate the role of the façade from passive envelope to active system.

Effective submissions will:

- Clearly illustrate how different technologies (e.g., sensors, shading, BIPV) work together
- Consider both environmental performance and user experience
- Show how modular components enable maintenance, upgrades, and flexibility
- Provide a visual concept that explains the façade's layers and logic

The design may be inspired by nature, geometry, architectural concepts, or cultural influences. What matters is that your façade is multifunctional and innovative.

7. Who can Participate

- Students or young researchers
- Teams of students or young researchers (max 3 people)
- One submission per team/person

You must be either a current university student (Bachelor's, Master's, Doctoral, or Postgraduate Diploma level), or have completed your most recent degree or diploma within the past 2 years.

Please note: You will have to upload proof of this (transcript, certificate, enrollment form, etc.) and include it in your .zip file.

8. Submission Criteria

Participants must submit a visual and descriptive representation of their idea, ensuring the concept is clearly conveyed and technically reasonable. Submissions must include:

- **1-3 Visual representations** of the proposed pattern and/or final product (free format: sketch, render, AI-Generated, technical diagram, etc.).
- **Concept Description (Max 300 words):** Explain the concept, idea and impact on user experience.
- **Technical Feasibility (Max 300 words):** Outline how the concept could be implemented with current or emerging technologies.
- **Sustainability Impact (Max 300 words):** Outline how the design can contribute to energy efficiency or environmental quality.

9. Examples of Feasible Ideas

- Modular panels with embedded solar cells and shading fins that reorient based on sun angle
- A kinetic façade with moving elements that respond to wind flow, reducing heat load and enhancing comfort
- AI-generated patterns that optimize glare reduction while maintaining visual harmony

The aim is to show the imagined outcome and user impact through compelling visuals and descriptions.

10. Timeline

The contest will be open for submissions between the 7th of July and 8th of September at 23:59. GMT+1.

Phase	Dates
Contest Launch – Submissions Open	July 7 th
Submission Deadline	September 8 th
Evaluation & Jury Review	September 29 th
Winner Announcement & Awards	October 17 th

11. Winner Announcements and Awards

The award ceremony will be held on October 17th, and all participants will be informed of decisions by email.

12. Evaluation Criteria

Evaluation criteria will include:

1 – Poor | 2 – Fair | 3 – Good | 4 – Very Good | 5 – Excellent

Evaluation Criteria	Description	Scoring Guide (1-5)
Innovation & Creativity (30%)	How novel and forward-thinking is the idea?	1 – The idea is generic, lacks originality. 2 – Some new elements, but mostly existing concepts. 3 – A moderately creative concept with some innovative features. 4 – A strong, well-developed innovative approach. 5 – Highly original and groundbreaking, offers significant innovation.
Feasibility (30%)	Can this idea be implemented with realistic resources and current technologies?	1 – The idea is highly impractical or unrealistic. 2 – Major technical or cost barriers prevent real-world application. 3 – Some feasibility concerns but could be developed with adjustments. 4 – Technically feasible with reasonable industry adaptation.

		5 – Fully feasible, scalable, and ready for real-world application.
Impact Sustainability (20%)	on How well does the solution contribute to energy efficiency and sustainability goals?	1 – Limited or no sustainability impact. 2 – Some sustainability considerations but not well-integrated. 3 – Moderate sustainability benefits, with potential improvements. 4 – Strong sustainability focus with measurable benefits. 5 – Excellent sustainability impact, contributing significantly to nZEB and environmental goals.
Presentation & Clarity (20%)	How well is the idea communicated through drawings/renders and the written description?	1 – Poorly explained, unclear visuals, lacks structure. 2 – Some key elements missing, difficult to understand. 3 – Generally clear, but some areas need refinement. 4 – Well-structured, good visuals, and detailed explanation. 5 – Exceptionally clear, professional, and visually engaging.

Final Scoring & Selection Process

- Each submission will receive a total score out of 100 based on the weighted evaluation criteria.
- In the case of a tie, priority will be given to the most innovative and feasible solution.
- The highest-scoring entries will be shortlisted for final review and selection by the jury.

This evaluation method ensures that submissions are fairly assessed based on their originality, feasibility, sustainability impact, and clarity of presentation.

13. Prizes & Opportunities

The winner of the contest will receive a €1,000 cash prize, awarded by Focchi SpA.

In addition, participants whose work receives particularly high evaluations may be:

- Invited to collaborate with Focchi for further development of their design
- Offered an internship or project opportunity to bring their idea closer to real-world application



These opportunities are optional and will be based on the industrial partner's interest in selected entries. All finalists will receive public recognition across the MEZeroE platform.

14. Intellectual Property

Each participant shall retain full ownership of the intellectual property rights to their submitted ideas until the conclusion of the contest. By submitting an entry, participants grant MEZeroE and Focchi S.p.A. a non-exclusive, royalty-free, worldwide license to use, reproduce, display, publish, and communicate their submission for the following purposes:

- Promotion and dissemination of the contest and its results.
- Exhibition through public events, websites, social media, reports, or publications.
- Demonstration of innovation within the MEZeroE and Focchi communities.

For the awarded idea(s), participants agree that Focchi S.p.A. shall have the right to acquire full ownership of the idea upon award confirmation. Ownership transfer will be formalized through a separate agreement, under which the participant will assign all rights, title, and interest in and to the awarded idea to Focchi S.p.A., subject to fair recognition of the participant's contribution as set forth in the contest regulations.

In the absence of such an agreement, participants will retain ownership of their ideas. Participants acknowledge that submitting an idea does not impose any obligation on MEZeroE or Focchi S.p.A. to exhibit, share, develop, or commercialize submissions.

15. Submission Guidelines for Participants

To participate in the Idea Contest, participants must submit a structured proposal that effectively communicates their concept, feasibility, sustainability impact, and scalability. Submissions should be concise, visually engaging, and clearly structured, aligning with the evaluation criteria.

Participants must submit use the **MEZeroE Idea Contest submission form**.

The following sections will be filled out in the form:

Concept Description (300 words maximum)

A clear explanation of the idea and its purpose, including:

- What inspired the design?



- Where and how might it be used?
- How does it interact with occupants, produce energy, reduce heating and cooling demand, etc.?
(The façade does not need to do all these things. Participants should choose 1-3 clear attributes)

Feasibility (300 words maximum)

A short explanation of how the concept could work using existing or emerging technologies. This does not require technical drawings—just a thoughtful reflection on practical use.

Sustainability Impact (300 words maximum)

A brief description of how the design could reduce heating and cooling demand, produce clean energy, minimize the need for artificial lighting, improve occupant comfort through IoT, etc.

Visual Submission (4 images OR 3 images + 1 video)

- 1-2 images that show the perforation pattern
- 1-2 images or mockup that shows how it might appear in a space
- Accepted formats: JPG, PNG, or PDF (max size: 10MB)
- May be hand-drawn, digitally created, AI-generated, or rendered — all creative formats are welcome.

16. Submission Deadline & Where to Submit

- **Deadline:** September 8, 2025, 23:59 GMT+1
- **Submission:** Using the form available in [this link](#).
- **What to submit:** Participants will submit the submission form, visuals, and proof of university enrollment (or other) as a single .zip file

17. Additional Notes

- **Team Submissions Allowed:** Up to 3 members per team.
- **Multiple Entries:** Each participant/team may submit one entry only.
- **Plagiarism Policy:** All work must be original; plagiarism will result in disqualification.
- **Intellectual Property:** Participants retain the rights to their ideas but allow MEZeroE to showcase the submissions for research and outreach purposes, including MEZeroE and consortium partner websites and their social media channels.