



Innovative circular
economy & AI methodology
for sustainable high-energy
performance buildings

SNUG Project Hosts First Summer Research School in Norway to Advance Smart, Sustainable Building Envelopes

[September 2026] – The EU-funded Horizon Europe project SNUG has successfully hosted its first Summer Research School, on Smart Sustainable Envelopes for an Energy Efficient Built Environment. Held from June 22 to 26, 2026, at [Østfold University of Applied Sciences](#) (Campus Fredrikstad, Norway), the intensive five-day event brought together bachelor's, master's, PhD students, postdoctoral researchers, and industry professionals from across Europe and beyond, including Norway, Spain, Italy, Sweden, and India.

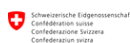
The interdisciplinary program brought together architects, engineers, material scientists, and sustainability experts to address urgent decarbonization challenges in the built environment through four key thematic modules:

- 1. Environmental Assessment and Standardization:** Examining Life Cycle Assessment (LCA), material flow analysis, European standards (e.g., EN methodologies), and policy harmonization.
- 2. Advanced and Renewable Insulation Materials:** Exploring the thermal performance, moisture behavior, durability, and fire safety of bio-based materials (hemp, wood fiber boards, mycelium), phase-change materials (PCMs), aerogels, and full-scale testing/certification methods.
- 3. Digital Modeling and Assessment Tools:** Using generative design, building performance simulation, indoor climate modeling, and hands-on sessions with the SNUG Digital Tool Assistant (DTA).
- 4. Techno-Economic Feasibility and Life Cycle Costing (LCC):** Evaluating financial decision-making frameworks, LCC integration, and circular value chain business models.

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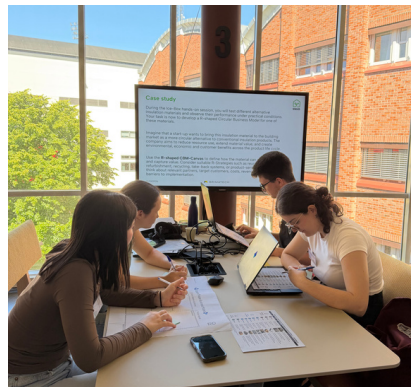


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Hands-On Learning via the CDIO Framework

Organized under the CDIO (Conceive, Design, Implement, Operate) educational framework adopted by Østfold University of Applied Sciences, the curriculum emphasized active learning over purely theoretical lectures.

The week opened with welcome remarks from Susanne Koch Stigberg, Dean of the Faculty of Computer Science, Engineering and Economics at Østfold University of Applied Sciences, followed by a keynote address by Haidar Hosamo (OsloMet) on transitioning to dynamic decision-support systems via digital twins. Throughout the week, participants engaged in hands-on modeling, laboratory visits to the university's Green Research Hub, practical exercises like the ICE BOX Challenge Fredrikstad, and sessions led by international experts from institutions including **AIDIMME**, **CRES**, **Lurtis AI**, **Brimatech Research**, **Austrian Standards**, and the **University of Stuttgart**.



Driving European Innovation in Sustainable Building Design

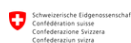
By equipping early-career researchers and professionals with practical tools in digital modeling, advanced insulation materials, and life-cycle assessments, the SNUG Summer Research School marks a significant milestone toward accelerating energy efficiency and circularity across the European building sector.

To discover more details and explore the event highlights, [read the complete blog post **"Smart Sustainable Envelopes for an Energy Efficient Built Environment."**](#)

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SNUG is pioneering sustainable construction solutions, addressing the significant environmental impact of buildings. Through an innovative methodology designed to assist architects and builders in choosing the most appropriate thermal insulation materials and strategies for new construction or renovations, this EU project aims to reshape the construction industry, maximizing energy efficiency, minimizing greenhouse gas emissions and fostering a greener future for buildings and communities.

The SNUG project is an innovation action co-funded by the European Union through the Horizon Europe Program, the State Secretariat for Education, Research and Innovation (SERI), and the UK Research and Innovation (UKRI).

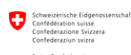
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