



Designing the Future: How young innovators are driving sustainable construction

A survey carried on in 2025 by *Osservatorio Sodalitas* (a Corporate Social Sustainability Observatory) found that young people aged 18–24 are the demographic group most aware of and informed about sustainability challenges. They place particular emphasis on climate action, gender equality, and responsible consumption, and increasingly expect companies to take tangible measures to reduce emissions, enhance energy efficiency, and uphold human rights.

This commitment to sustainability is also reflected in the aspirations and achievements of young professionals entering the construction sector. As an example, we interviewed Sara Guidi, a graduate in Construction Engineering and Architecture from Sapienza University of Rome and winner of Italy's Innovation Hub on Energy Efficiency of Buildings in SECOVE's Applied Research and Innovation National Competition. Her experience offers valuable insights into how the next generation is contributing to a more sustainable built environment.

Sara, sustainability in construction is now a global challenge. What does designing sustainably actually mean?

Designing sustainably does not simply mean applying green technologies or using natural materials. It means adopting a holistic approach that balances three fundamental pillars: the environmental, economic and social aspects.

Today, Europe is calling for a profound ecological transition in the construction sector. This means understanding that every building has a long-term impact, requiring us as designers to have a strong awareness of the context, resources and the future.



Has this approach also guided your academic journey? Could you tell us about your thesis experience and how it ties in with this vision?

I wanted to translate these principles into a concrete project.

My thesis, *Tuko Pamoja: A Climate-Responsive School in Rural Kenya*, supervised by Prof. Ing. Michele Morganti and developed in partnership with the non-profit organisation A-PART ETS, focused on the renovation of a rural Kenyan school through climate-responsive and sustainable design solutions.

The aim was to show how passive design strategies can ensure high environmental quality and thermal comfort without air-conditioning – an issue that is now central to European directives on nZEBs (Nearly Zero Energy Buildings) – while preserving Maasai cultural identity through solutions inspired by local building traditions.

The topic of LCA also features in your work. Why is it so important in the construction sector?

LCA, or Life Cycle Assessment, is fundamental because it enables us to assess a building's environmental impact throughout the entire life cycle of its materials: from the





extraction of raw materials to production, from transport to the use phase, right through to decommissioning or reuse. In the construction sector, this approach is becoming increasingly important, as it enables truly conscious choices to be made, favouring local materials with low environmental impact and low emissions, dry construction systems and the reuse of waste materials. In this way, the project is not merely efficient in the present, but forms part of a larger circular economy framework.

Beyond the technical and environmental aspects, your project stands out for its strong ethical dimension. What is the added value of this initiative?

For me, the project was about creating a dignified, comfortable and sustainable space in line with the principles of sustainability in a fragile context.

From an economic perspective, costs were minimised by relying only on local resources. Social and spatial sustainability, however, were the real driving forces: we designed with the community, not just for the community, involving local unskilled labour in the self-construction processes. The spaces were designed to be flexible and adaptable to different needs over time, while environmental sustainability was ensured through the use of natural, low-emission materials suited to the local microclimate.

In conclusion, why should sustainable design be a topic of interest to everyone?

Climate change means we can no longer design in a standardised way, but must instead design in close accordance with the climate and the specific context in which we live. Living sustainably is not a luxury, but a right and a collective duty: it protects our health, enhances social identities and preserves the planet's resources for future generations.

Because architecture influences the daily lives of all of us. The buildings in which we live, study and work affect our health, well-being, consumption patterns and social relationships.

Designing sustainably therefore means taking on a collective responsibility: to build healthier, more inclusive and resilient spaces, capable of responding to climate change without compromising future resources.



The school as it looks today



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