



More comfort, less carbon: Clearing hurdles to deep building renovation across Europe

To improve living conditions and reduce buildings' environmental impact, EU-funded researchers are making deep renovations possible across Europe by securing financing, setting strict standards and building trust with residents.

07 November 2024 - By KAJA ŠERUGA

Dr Marika Rošā, an expert on energy efficiency from the Technical University in Riga, wishes that everyone would just stop talking about it. "I think the term energy efficiency shouldn't be used anymore because people don't care about it."

Her colleague Nicholas Stancioff, the founder of NGO Ēkubirojs, which is behind the so-called deep renovation of buildings in Latvia, feels the same: "What people care about is safety, health and comfort."

Still, renovation of buildings is one of the best ways to lower energy bills, reduce Europe's greenhouse gas emissions, and achieve health and comfort of living, and the two researchers have led the way in the field.

With Accelerate SUNSHINE, an EU-funded research collaboration that ran from 2017 to 2021, Rošā and Stancioff combined financial solutions with long-term support to improve some of the least energy-efficient buildings in the EU – Latvia's Soviet-era apartment blocks.

[More than half of the Baltic country's population](#) lives in these large, poorly insulated buildings that remain standard throughout Eastern Europe.

To start, the two researchers secured financing from the Latvian Building Energy Efficiency Facility, an investment fund Stancioff launched in 2012.

The fund worked with local renovation providers, who assumed the initial costs and risks of renovations, while also guaranteeing maintenance and decreased energy consumption for the entire contract duration, which could be up to 20 years.

In the course of the project, Rošā and Stancioff saw to the renovation of more than 100 000 square metres of public and multifamily buildings.

Why deep renovation matters

Deep renovations are holistic retrofits that can slash a building's energy needs by [75% or more](#). Encouraged by the EU, they have been shown to make residents [healthier, more comfortable and more financially secure](#), while drastically reducing emissions in a sector that has a lot of room for improvement.

Since [three-quarters of buildings in the EU are considered energy-inefficient](#), it is hardly surprising that half of the EU's final energy consumption goes towards heating and cooling, according to the EU statistical office Eurostat. Buildings are also responsible for [36% of the EU's greenhouse gas emissions](#) from energy.

This is why the EU's Renovation Wave Strategy is a cornerstone of the European Green Deal, using large-scale renovations across the bloc to tackle energy poverty, the carbon impact of buildings and the high energy demands of heating and cooling.

One-stop shops

Still, despite the obvious benefits, convincing residents of the value of deep renovation remains a challenge. The upfront costs can be prohibitive, the bureaucracy overwhelming, and the disruption to daily life considerable.

As Stancioff pointed out, it is about more than just buildings: "Deep renovation is a multidisciplinary, complicated thing at the heart of which is a home."

For Stancioff, who worked in finance in New York and with the European Bank for Reconstruction and Development in Bulgaria before settling in Latvia in 2011, the financial solutions came easily. Working on the human side of the equation was the bigger challenge.

"We've got to create a real ecosystem that thinks ahead of time," said Stancioff. "If you want this to work, you're going to need somebody in between that actually has the best interests of owners in mind."

That is where renovation one-stop shops came in, supporting residents and owners by providing all the information and services needed for a deep renovation.

The concept was implemented across Europe on a one-off basis, but Silvio De Nigris at the Sustainable Energy Department of the Piedmont Region, Italy, saw the potential for a more structured international exchange. De Nigris had been in charge of promoting energy efficiency and renewable energy for 15 years.

With his Turin colleagues, he launched EUROPA, an EU-funded network that organised deep renovations in France, Germany, Italy, Portugal and Latvia from 2020 to 2023.

Learning from others

Even though each one-stop shop was specific to its region, joining the EUROPA network allowed them to share their skills and experience in helping residents navigate the technical, bureaucratic and financial challenges of renovation.

Stancioff's Ēkubirojs in Latvia was also part of the network. "It was huge. I learned so much from the points of view and the obstacles of different people," he said.

He especially appreciated how his Portuguese colleagues connected with residents by converting an old container into an office and parking it in vulnerable housing areas for months at a time.

For Stancioff, this addressed a core challenge: "We really need to reach people at their level, in their language, and with tools they can actually use."

De Nigris saw international cooperation as key for testing different approaches, sharing best practices and customising them to a particular region: "One lesson was that there's no single solution and that you have to adapt to the conditions of the market."

Transparent energy efficiency

The partners collaborating on EUROPA sought to streamline renovations and minimise risk by creating an Energy Efficiency Subscription. This EU-funded initiative sets technical, financial and contractual standards for every aspect of a building's renovation and maintenance.

"It's just like buying a phone with a five-year contract, including a certain level of services – internet at this speed, so many phone calls. And we are responsible for making sure you have this service 24/7," explained Stancioff. "Same here: We are responsible for delivering safety, health and comfort."

By specifying the required standards of a renovation, from the training of craftsmen to the type of lightbulbs in the stairwell, this kind of subscription builds trust between residents, service providers and financial institutions.

The EUROPA project ended in 2023, but the work continues through the Europa platform, which is helping to close the gap between residents and suppliers, and EU Peers, a Europe-wide community for one-stop shops and other deep renovation providers.

Deep renovations are among the most promising solutions for our climate concerns. But for all the talk of energy efficiency, technical standards and carbon footprints, the deep renovation initiative is fundamentally about one thing, said Rošā.

"It's about improving people's living conditions."

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- [Accelerate SUNShINE](#)
- [EUROPA](#)
- [EUROPA project website](#)
- [EU Peers](#)
- [EU Renovation Wave Strategy](#)