



Giga Regio Factory - going to the next stage in the market uptake and factory development for more affordable Net Zero-Energy renovations through industrialised solution packages

About the project

Start date : November 2022

End date: April 2025

Total budget: 2,432, 743 €

The Giga Regio Factory project is co-funded by the European Union under the LIFE programme.

Background

In Europe, buildings are responsible for 40% of energy consumption and 36% of greenhouse gases. It is therefore easy to understand the reasons why the European Union (EU) is putting emphasis, attention, pressure, and resources on this issue. The EU is adopting specific directives and implementing medium and long-term policies to achieve the Green Deal's ambitious goal of carbon-neutrality by 2050.

The slow current pace of improving our existing building stock, the limited energy performance of retrofits performed, and the fact that most countries are still connecting new buildings to fossil fuel infrastructure and using carbon intensive construction materials, is not getting us fast enough to cut greenhouse gas emissions from our building stock.

As part of the European Green Deal, the European Commission published on 14 October 2020 a new strategy to boost renovation called "[A Renovation Wave for Europe – Greening our buildings, creating jobs, improving lives](#)". It aims to double the annual energy renovation rates in the next ten years and renovate 35 million of inefficient buildings by 2030. These renovations will enhance the quality of life for people living in the buildings, reduce Europe's greenhouse gas emissions, and create up to 160,000 additional green jobs in the construction sector. The Renovation Wave identifies 3 focus areas:

1. Tackling energy poverty and worst-performing buildings,
2. Public buildings and social infrastructure,

3. Decarbonising heating and cooling.

We need to decarbonise our existing buildings, and there are two ways for it:

- Drastically reducing energy demand, and
- Switching energy source.

In almost all of the cases, a combination of both is the only feasible and sensible way to achieve this.

Life Giga Regio Factory builds on the team's existing knowledge and progress to accelerate the improvement of offers for Net Zero-Energy retrofits that meet the needs and trends of tomorrow. This will be done by taking the best of industrialisation workflow processes to drive their cost down by more than another 25%. The project focuses on support technology and industrial solution development to better retrofit homes.

The project's response

The project has 3 main objectives:

- Develop an open-source tool for the qualification of housings, and a smarter aggregation strategy to launch large-scale collective industrial retrofits at zero-energy level.
- Develop a total solution integrator accelerator, through the coaching of companies that integrate and assemble industrial solutions, so that they can develop 100% of industrialised offers.
- Develop an industrialisation giga factory kit to enable solution providers to scale-up their solutions, so that they can meet massive demand.

Partners involved:

The project is a complementary consortium of 12 partners from Italy, Belgium, Germany, and France.



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