

PRESS RELEASE

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The EU-funded project REHOUSE is ready to demonstrate the innovative and sustainable Renovation Packages

REHOUSE project, focuses on developing and demonstrating eight advanced Renovation Packages. These packages incorporate cutting-edge technologies and sustainable practices, ranging from basic to deep building renovations. The project emphasizes digitalization, circular economy principles, and resident engagement at demo sites to ensure social acceptance. Progress has been made in achieving Technology Readiness Level 6, with preparations ongoing for implementation and market launch. REHOUSE aims to support EU goals in sustainable construction and climate neutrality through innovation and collaboration.

The EU aims to lead innovation in the construction sector and the Built4People European Partnership emphasises the promotion of a "4th industrial revolution" in construction. This industrial revolution includes the introduction of factory-ready technology solutions, the acceleration of the digitalisation of the construction industry and the full integration of circular economy principles into the entire construction value chain.

A key initiative within this strategy is the REHOUSE project, which focuses on the development and demonstration of eight Renovation Packages designed to cover a broad spectrum of building renovations, ranging from basic refurbishments to comprehensive deep renovations. These Renovation Packages incorporate state-of-the-art technologies and sustainable practices, including multifunctional components, prefabrication and off-site assembly techniques, while also prioritizing the preservation of the aesthetic, architectural and historical integrity of the buildings. Additionally, REHOUSE aims to streamline the renovation process by digitising these Renovation Packages to reduce cost and improve efficiency.

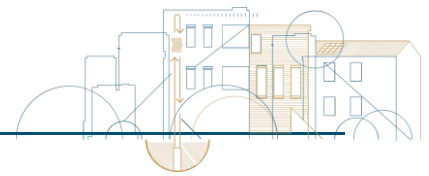
The REHOUSE consortium has now moved closer to these goals. They have made notable progress across various activities and can look back on good preparations for the implementation of the eight Renovation Packages over the first half of the project.

REHOUSE takes a people-centred approach

Residents at the four demonstration sites have been actively engaged in various social innovation activities since the project's inception. This approach allowed the thorough analysis and assessment of requirements and end-user needs, ensuring their input was considered during discussions aimed at securing acceptance of the Renovation Packages upon deployment in the buildings. Social task forces were established at each site to maintain communication with residents before, during, and after construction, enabling the integration of the social context, stakeholder needs, and requirements into each project. Tailored social activities and a comprehensive Social Life Cycle Assessment (S-LCA) plan were developed for each site. These insights will inform the implementation phase of the Renovation Packages, fostering greater civic engagement and active participation through continued social innovation efforts throughout the demonstration phase.

The Renovation Packages reach the Technology Readiness Level 6

Each component of the Renovation Packages starts at a medium level of maturity and progresses through research and development to reach a stage where it can be demonstrated in an operational environment. This sets the stage for the final market launch and full system validation.



Work on the Design, Specifications & Digitalisation of the eight Renovation Packages is making great progress to bring them to **Technology Readiness Level 6** (TRL 6).

A taxonomy has been developed to categorise these packages and detailed their specifications. For all Renovation Packages, performed modelling activities, including Building Information Modelling (BIM) and preliminary simulations have been done and advanced testing methods for validation at TRL 6 and drafted guidelines for their industrialisation and integration are under development.

To evaluate the performance of the Renovation Packages an **evaluation framework** with specific Key Performance Indicators (KPIs) has been established. It includes selected testing methods for their validation prior to their deployment at the demo-sites and defined monitoring programs for demo-site activities. The creation of a Digital Building Logbook has started through the definition of the detailed specifications and integrated services and will accompany the demonstration of the Renovation Packages in the four demo-sites.

Preparations for the demonstration of the eight Renovation Packages are on their way

With the technical diagnosis of the demo sites being now complete, the design and planning phases for implementation are underway. These steps are crucial for ensuring the successful execution of construction activities, the optimal functioning of the Renovation Packages, and ultimately achieving TRL 7 by the project's conclusion.

To reach TRL 9 at the project end the partners work on a **pathway definition to the market** of the eight Renovation Packages and further four key exploitable results. The partners have made important progress on the clarity on the **key commercial results** with regards to ownership and next steps in IP Management. To support the gap between project and market entries public funding instruments, a better knowledge of necessary stakeholders, and the basis of defining business cases and models was set.

The REHOUSE partners have been participating and will participate at strategic important events to raise awareness to the project approach, to the Renovation Packages and first results. Recently a **network of building renovation projects has been initiated**, all funded by the Horizon Europe Programme for Research and Innovation. This will support the impact of the generated results.

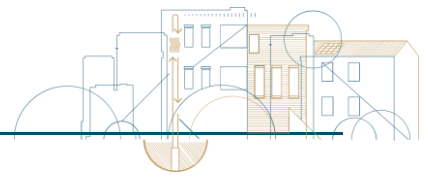
By implementing planned strategies and innovations, REHOUSE not only supports the EU's endeavour to be a leader in sustainable construction, but also contributes to achieving the EU's climate neutrality targets.

Meet us at the 12th annual edition of Sustainable Places (SP2024) conference in Luxembourg from 23rd to 25th September 2024: [SP2024 - Sustainable Places \(SP\)](#)

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Picture:



Picture illustrates the planned actions at the demo-site: [Margherita di Savoia in Italy](#). © Arca