RADIANCE (Robotic, Automated and DIgital solutions for improving building renovAtion and New Construction Efficiency) launches to advance robotic and digital innovation in building renovation across Europe

Madrid, Spain. 20 January 2026 – A new Horizon Europe project, **RADIANCE**, officially started in September 2025, bringing together cutting-edge robotics, automation, and digital technologies to transform building renovation and construction processes across Europe. Funded under the Horizon Europe programme, **RADIANCE** will run for 48 months, from September 2025 to August 2029 , with a total budget of almost 4 million euros. The project is coordinated by the Universidade de Vigo (Spain) and brings together a multidisciplinary consortium of 14 partners from Spain, Portugal, France, Poland, Finland, Norway, Germany, and Switzerland, combining expertise from universities, research centres, technology providers, and construction companies.

Building renovation plays a central role in Europe's transition towards climate neutrality, safety, and resource efficiency. However, renovation works remain complex, labour-intensive, and often exposed to safety risks, limited digitalisation, and fragmented workflows. **RADIANCE** addresses these challenges by developing and validating robotic, automated, and digital solutions that improve inspection, diagnosis, safety, planning, and execution of renovation and construction activities.

The project integrates a wide range of technologies, including aerial and ground robotics, non-destructive evaluation tools, artificial intelligence, digital twins, and human–robot collaboration systems. These technologies will be tested and assessed in real renovation environments, ensuring that solutions are practical, scalable, and aligned with the needs of industry and workers.

Through its validation scenarios, **RADIANCE** will demonstrate how digital and robotic tools can support safer working conditions, enhance decision-making, optimise construction logistics, and improve overall efficiency throughout the renovation process. By grounding innovation in real-world settings, the project aims to accelerate the adoption of advanced technologies within Europe's construction sector.

RADIANCE places strong emphasis on collaboration and knowledge exchange. By bringing together research organisations, technology developers, and construction stakeholders, the project will generate evidence, methodologies, and insights that support future deployment, standardisation, and replication across different European contexts. In doing so, it contributes directly to EU priorities such as the Renovation Wave, the Green Deal, and the digital transformation of the built environment.

Project partners

The **RADIANCE** consortium is composed of 14 partners from 8 European countries:

Universidade de Vigo (Spain, coordinator), Universidade do Minho (Portugal), Université Gustave Eiffel (France), Łukasiewicz – Poznań Institute of Technology (Poland), VTT Technical Research Centre of Finland (Finland), SINTEF AS (Norway), TECNALIA Research & Innovation (Spain), Fraunhofer-Gesellschaft (Germany), Contactica (Spain), Probot Oy (Finland), Misturas Obras e Proxectos S.A. (Spain), Skanska S.A. (Poland), ETH Zurich (Switzerland), and Infrastructure Management Consultants GmbH (Switzerland).

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Together, these organisations combine complementary expertise in robotics, digitalisation, construction engineering, safety, and innovation, enabling **RADIANCE** to address renovation challenges from a holistic and multidisciplinary perspective.

More information

More information about the **RADIANCE** project, its objectives, activities, and future results is available on the official website: https://radianceproject.eu/ . The project can also be followed on LinkedIn, BlueSky, and YouTube, where updates, news, and insights will be shared throughout its duration.

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