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EIC INNOVATION PROCUREMENT PROGRAMME

KLIMA-PUR®
case study

INDRESMAT®
INDUSTRIAL RESINS & MATERIALS

with the support of

INCASÒL
Institut Català del Sòl

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PILOT: INDRESMAT SL & Institut Català del Sòl

KLIMA-PUR® | Sustainable Building Renovation, Municipal Infrastructure, and Energy Efficiency

37 OUT OF 37	100% HERITAGE	G to F / D to C	8.9 OUT OF 10
WINDOWS INSTALLED	**COMPLIANCE ACHIEVED**	**ENERGY RATING JUMP**	**USER SATISFACTION SCORE**
100% completed installation of custom bio-polyurethane window frames	Fully met strict municipal historic building conservation laws	Substantial improvement in building energy efficiency ratings for heating and cooling	High rating from building occupants for indoor comfort and noise reduction

PILOT PROFILE

EIC Awardee: INDRESMAT SL

Solution: KLIMA-PUR® PassivHaus Windows

Partner: Institut Català del Sòl (Spain)

Testing Ground: A real, occupied, heritage-protected historic public building managed by Girona City Council

Sector & Challenge Focus: Sustainable Building Renovation, Municipal Infrastructure, and Energy Efficiency

The Challenge

Renovating old public buildings in Europe to improve energy efficiency is difficult when buildings are protected by historic heritage preservation laws. In historic cities like Girona, regulations forbid changing the outer visual appearance of protected buildings. As a result, municipal buildings often retain old single-glazed timber windows that leak heat, resulting in high energy bills, poor indoor comfort, and low official building energy ratings (Grade G for heating).

The Solution

KLIMA-PUR® is an eco-friendly, ultra-insulating window frame system. It uses bio-based polyurethane (an insulating foam made from natural plant oils rather than petroleum). The frames deliver extreme thermal insulation (meeting international PassivHaus low-energy building standards) and can be custom-moulded to replicate historic architectural finishes, providing modern insulation without altering the heritage appearance.

Objectives

The pilot aimed to replace 37 leaky windows in a heritage-protected municipal building with custom KLIMA-PUR® frames. Girona City Council wanted to verify installation feasibility, measure indoor temperature improvements, and confirm 100% compliance with historic preservation rules.

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Constrains

Every historic window opening had custom, irregular dimensions that required precise measurements. The installation team had to work inside an occupied public building without disrupting daily municipal staff operations.

Performance

All 37 planned window units were successfully manufactured and installed with 100% heritage regulation compliance. The building's official energy efficiency rating jumped from Grade G to Grade F for heating and Grade D to Grade C for cooling. Occupants gave the upgrade a satisfaction rating of 8.9 out of 10, confirming improved indoor warmth and noise insulation.

Partner Operational Improvements

Lower municipal energy expenses, improved thermal comfort for public staff, and a certified reference site for eco-friendly historic renovations.

> *"On the one hand, we have helped a start-up like Indresmat evolve its product. On the other hand, the solution implemented in our pilot project has improved the quality of life and comfort for the people living and working there, at no cost... I believe the greatest contribution we made was helping Indresmat accelerate its scalability."*
>
> **— Institut Català del Sòl**

SUCCESSFUL PILOT VALIDATION

The Girona municipal project serves as a flagship European reference site. The City Council and INDRESMAT are using the results to plan further energy-efficiency retrofits across additional municipal heritage buildings.

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