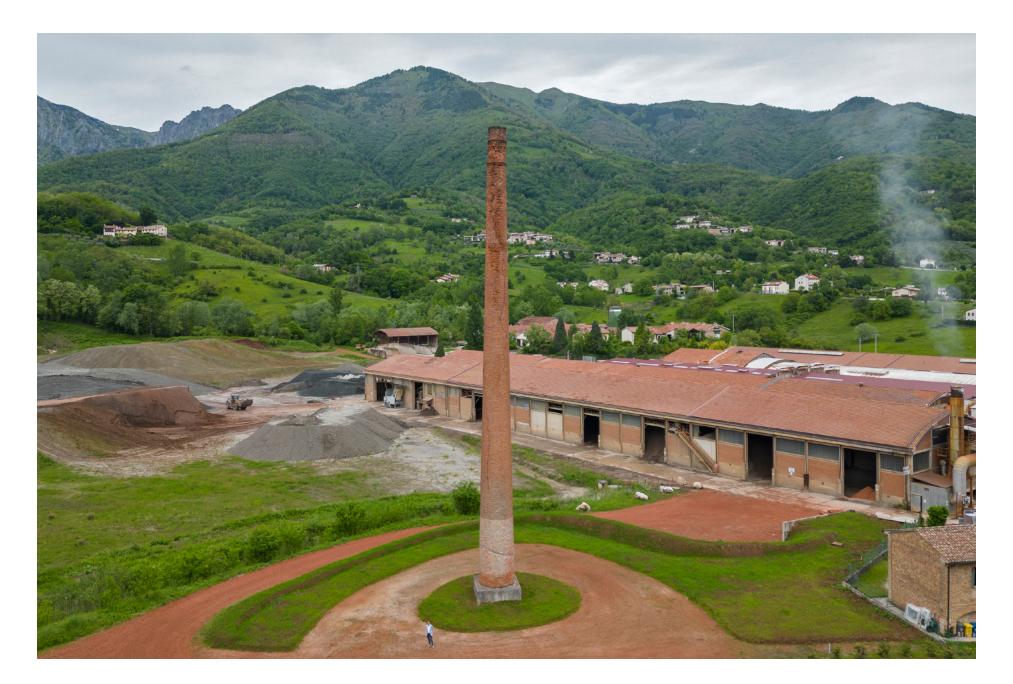# Italian green creativity

By Bruno Zanzottera

Villapaiera (Italy). One of the designers at Clivet, a company that makes heat pumps, does simulations with augmented reality.

Mario Cunial, director of research and development at the E-coppo company in Possagno in the province of Treviso, photographed at the foot of the old factory's chimney. In the background, one of the factories and a quarry from which they extract material. The company produces roofing tiles with photovoltaic panels inserted into them to make the roofs of homes in historic centers efficient yet aesthetically less invasive than classic photovoltaic panels.

How italian entrepreneurs are driving the shift to sustainable homes

As the drastic effects of climate change unravel fast worldwide, humanity is forced to reconsider many facets of modern life – including how we build our homes. 40% of carbon dioxide emissions that contribute to global warming are a result of how we build or operate our homes. Over the past few years, the European Union has been pushing its member states to cut pollution, and that includes making European homes more sustainable. While this transition might be straightforward in some areas of the bloc, in Italy, it's less so –many of the 12 million inhabited homes across the country's 7,901 towns are either old or cheaply built. In 2020, as European Union governments launched initiatives to help citizens with this transition, Italy introduced the Superbonus, a tax break worth 110% of the investment for climate-friendly renovations. Italians jumped on it, but the colossal initiative was riddled with corruption and clunky bureaucracy. However, the injection of capital and interest into the sector also allowed farsighted entrepreneurs to experiment with and fund exciting new projects to bring Italy into a more sustainable future.
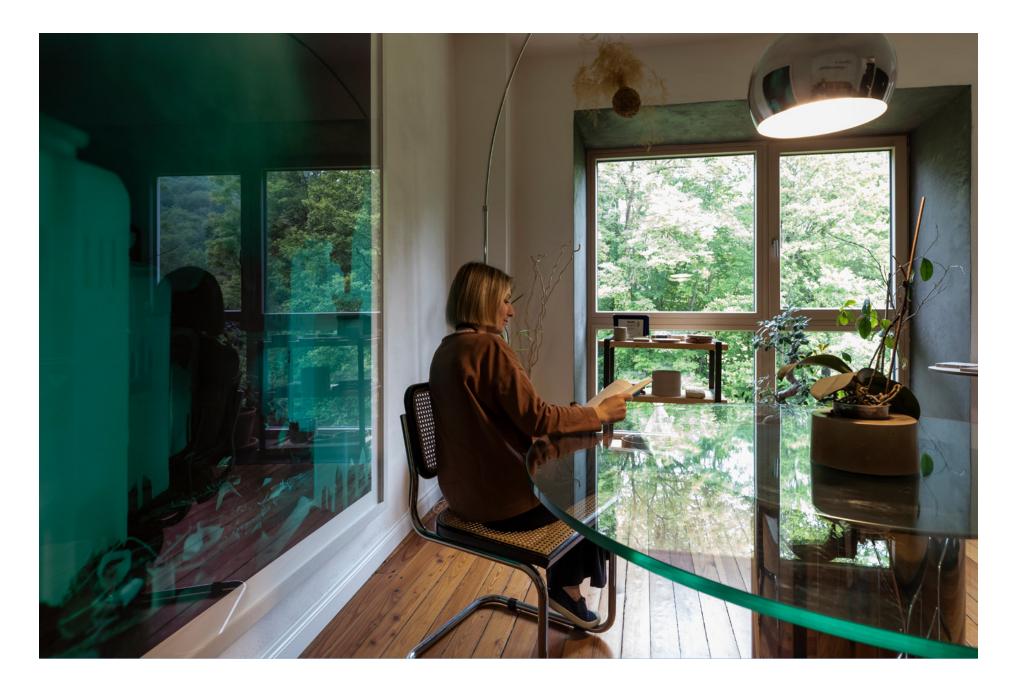
Milan (Italy). Tests on heat pumps being carried out at the Re-Lab laboratory associated with the Politecnico of Milan.

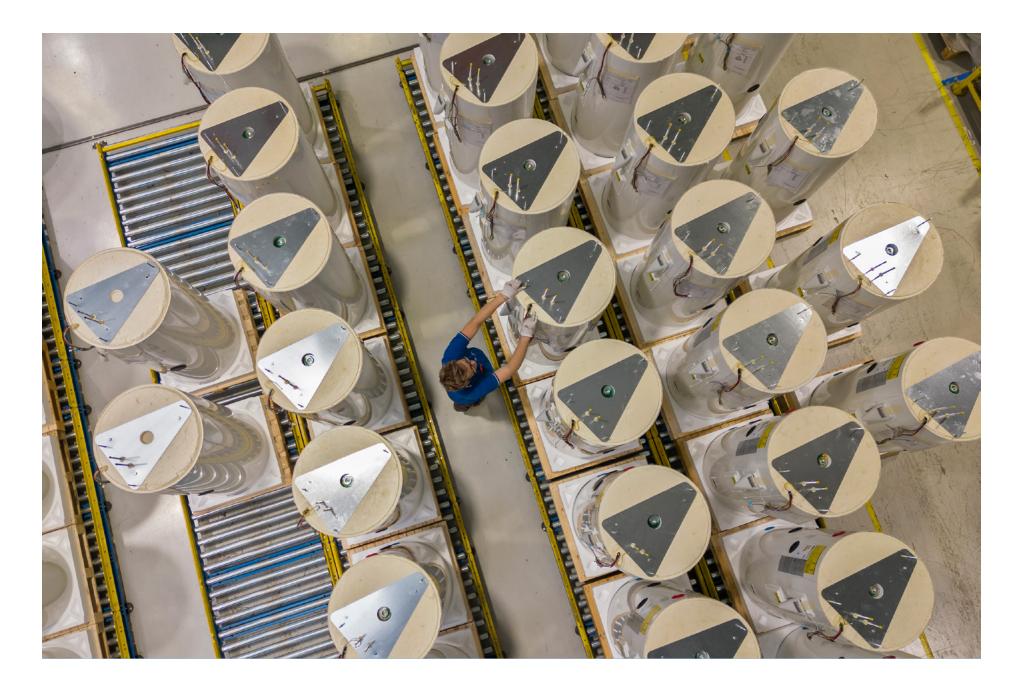Andorno Micca (Italy). Housing insulation materials made from rice by-products by the Rice House company.

Andorno Micca (Italy). Tiziana Monterisi, co-founder and owner of Rice House, a company that uses rice by-products to make insulation materials for homes, photographed at the company headquarters in Andorno Micca in the province of Biella.

Province of Treviso (Italy). The roof of a building with tiles made by the E-coppo company in Possagno in the province of Treviso; the tiles have small photovoltaic panels inserted in them.
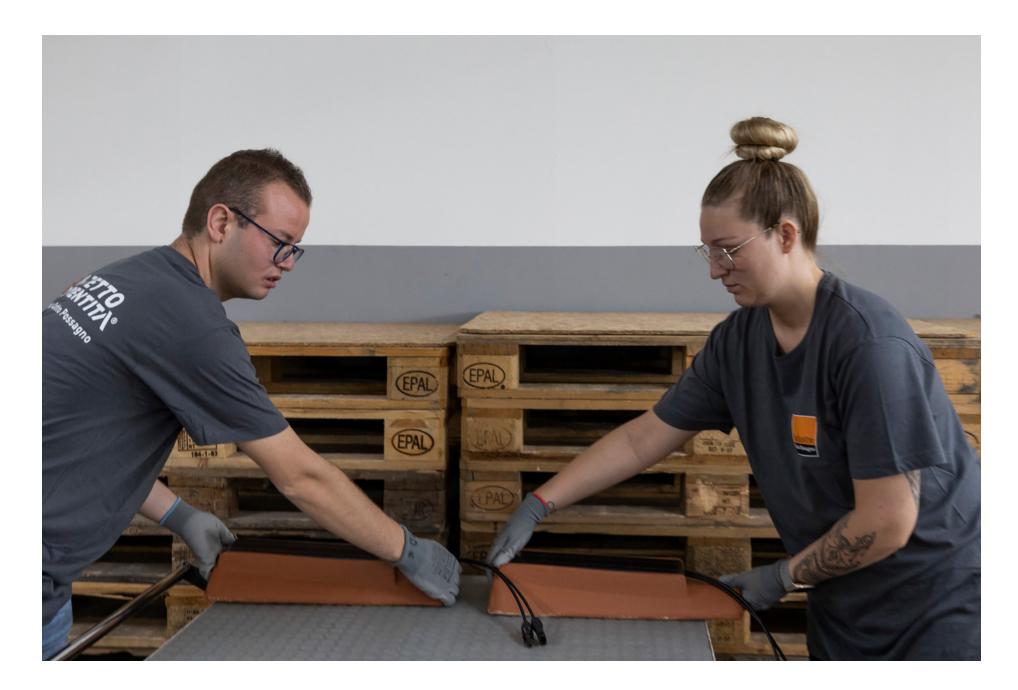
Possagno (Italy). Mario Cunial, director of research and development at the E-coppo company in Possagno in the province of Treviso, shows one of the roof tiles made with the insertion of a small photovoltaic panel.

Villapaiera (Italy). Production of heat pumps at the Clivet factory located in Villapaiera, in the province of Belluno.
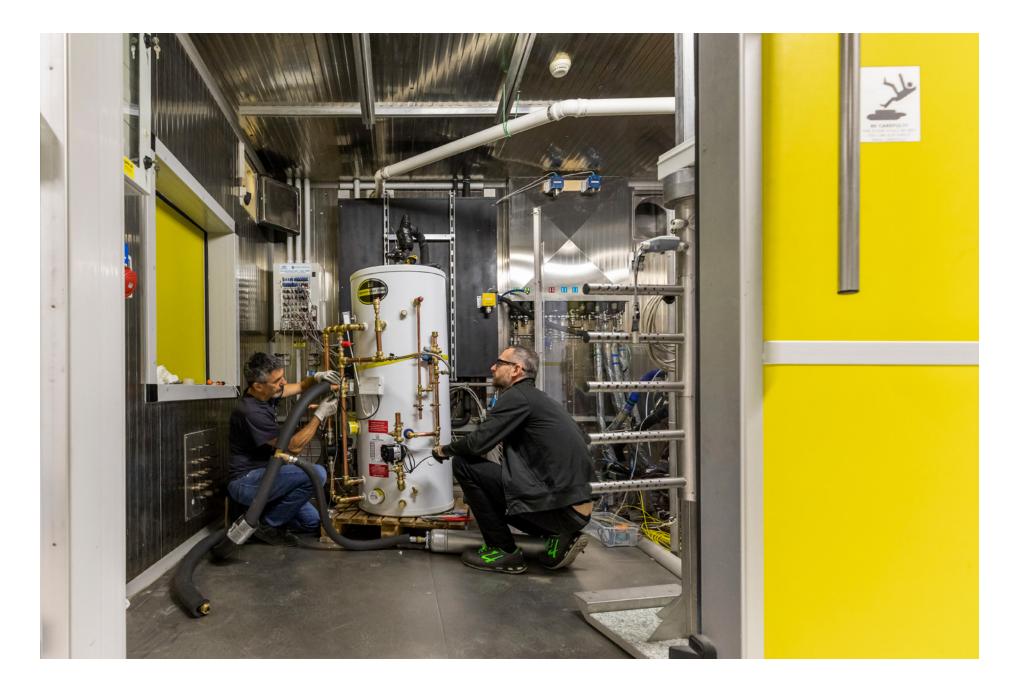
Cascina dell' Angelo, Rovasenda (Italy). Rice by-products at the Garlanda farm owned by Stocchi brothers & Co. The by-products are used by the Rice House company to make insulation materials for homes.

San Vito (italy). Angela and Marco, members of the Themis cooperative, working on E-coppo roof tiles. The cooperative employs young people with disabilities or other challenges, and among the various jobs they do is assembling the roof tiles with the photovoltaic panels made by E-coppo.

Andorno Micca (Italy). The Rice House headquarters, a company that uses rice by-products to make insulation materials for homes. The house, built using their insulation materials, is very energy efficient and requires no heating in the winter.
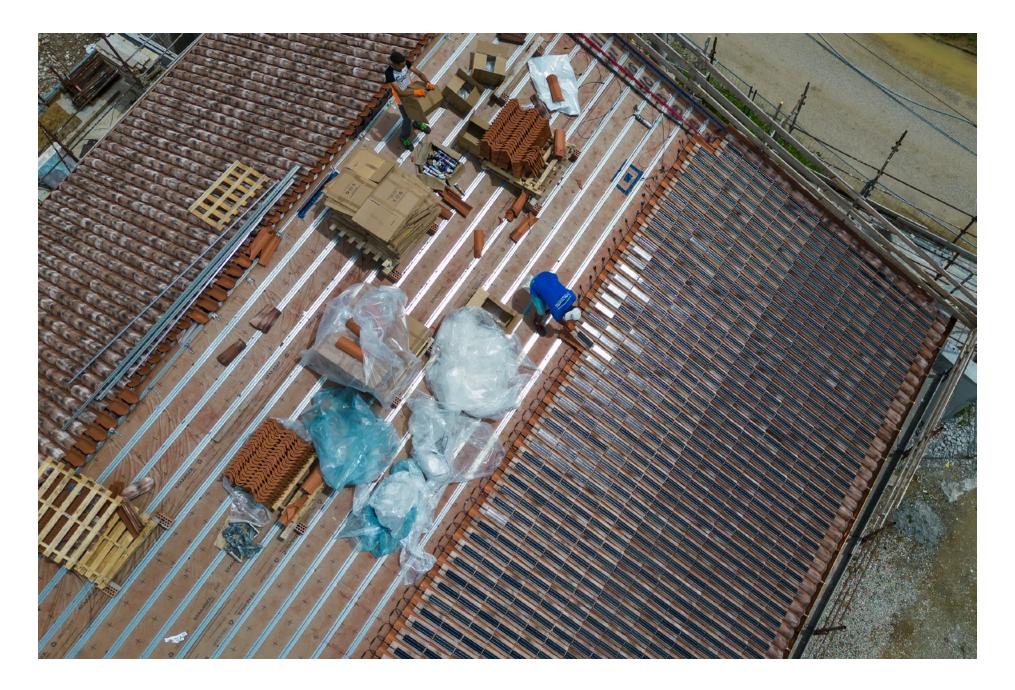
Milan (Italy). Tests on heat pumps being carried out at the Re-Lab laboratory associated with the Politecnico of Milan.

Villapaiera (Italy). Detail of the copper pipes in a heat pump produced by the Clivet company in Villapaiera in the province of Belluno.

Andorno Micca (Italy). Tiziana Monterisi, co-founder and owner of Rice House, a company that uses rice by-products to make insulation materials for homes, photographed at their company headquarters in Adorno Micca in the province of Biella.

Province of Treviso (Italy). Laying a roof with E-coppo roof tiles that have small photovoltaic panels inserted in them.

Province of Belluno (Italy). The owner of an energy-efficient eco-friendly home heated with a heat pump made by the Clivet company.
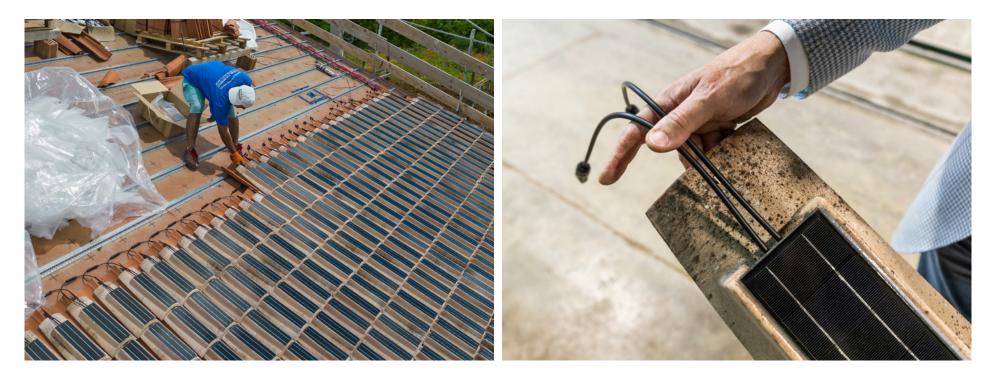
Cascina dell' Angelo, Rovasenda (Italy). Rice warehouses at the Una Garlanda farm owned by Stocchi brothers & Co. Rice by-products are used by the Rice House company to make insulation materials for homes.

Andorno Micca (Italy). Insulation material for homes made from rice by-products by the Rice House company.

Villapaiera (Italy). Production of heat pumps at the Clivet company in Villapaiera in the province of Belluno.

Andorno Micca (Italy). Alessio Colombo, co-founder and owner of Rice House, a company that uses rice by-products to make insulation materials for homes, tests the placement of the material with a colleague in the attic of the house that is their headquarters.

Province of Treviso (Italy). Laying a roof with roof tiles from the E-coppo company; the tiles have small photovoltaic panels inserted in them.

Possagno (Italy). A detail of a roof tile with a small photovoltaic panel inserted in it, produced by E-coppo in Possagno in the province of Treviso.

Andorno Micca (Italy). Lunch break at the headquarters of Rice House, a company that uses rice by-products to make insulation materials for homes.

Cascina dell' Angelo, Rovasenda (Italy). Rice fields after planting and before flooding at the Garlanda farm owned by Stocchi brothers & Co. Rice by-products are used by the Rice House company to make insulation materials for homes.

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