

## HEAT4U Project: first promising results

HEAT4U, is one of the most important international research projects in the area of climate change and energy efficiency applied to the built environment, which also falls under the Seventh Framework Programme for Research (FP7) promoted by the European Community. 15 among the most important European organizations in the energy, industrial, and research fields are involved in such project, namely Robur – which is also the project coordinator, - Pininfarina, ENEA, Polytechnic University of Milan, D’Appolonia and CF Consulting from Italy; Bosch Thermotechnology, E.ON and the Fraunhofer Institute research centre from Germany; GDF Suez and Gas Reseau Distribution France from France. The consortium also includes UK-based British Gas, the Polish Flowair, and the Slovenian company ZAG. The overall investment for such effort amounts to close to 10 million Euro. The challenge for this project, which shall continue through to 2014, is to implement the gas absorption heat pump technology – which is currently used for heating condominiums, commercial and industrial buildings, and public administration facilities – also in the area of single-family detached residential homes. What is even more important is the goal of building heat pumps that can be installed in existing buildings, which, according to recent studies carried out by the European Union, account for approximately 49% of the overall energy consumption in terms of primary energy, and for 36% of greenhouse-gas emissions. Gas absorption heat pumps shall also be presented as a means for improving the heating efficiency of the existing residential building stock, which, by itself, accounts for over 60% of the built environment in enlarged Europe.

The first deliverables of the project have been formalized to the European Commission, in advance of the due date. The Consortium HEAT4U unveils the first encouraging results in solving the technological challenges and bringing the absorption technology in the power range of the typical small residential applications, with an efficiency of heat generation higher than 150%. (EN12309).

One of the first deliverables agreed with the European Commission provided confirmation-with a specific experimental study of feasibility- that absorption technology could actually achieve the ambitious objectives of the project. In particular, thanks to a further refinement of the thermodynamic cycle, the possibility of obtaining a capacity of modulation at partial loads of the nominal power has been demonstrated while maintaining the very high efficiencies of generation of the heat available at full power. To the benefit of a proper operation in all conditions, especially in the residential use. As also confirms the preliminary prototype, designed specifically for scientific and technical assessments, other challenge resolved is power density. According to the objectives of the HEAT4U project, the high energy efficiency, the substantial amount of renewable energy and the lack of investment in infrastructure will make the technology of heat pumps to gas one of the most competitive in the heating market.

The HEAT4U Project has the commitment and collaboration of all partners, which are activated depending on the skills on different work packages. A joint commitment aims to achieve field test already by the end of 2013.



Under the EU's 7th Framework Programme for Research



PRESS RELEASE

# HEAT4U PROJECT

HEAT4U is not only this, but a project that includes major dissemination activities. It's already online, in fact, a dedicated website -[www.heat4u.eu](http://www.heat4u.eu)- and has just been activated HEAT4U Logo Contest, a competition for the definition of the logo of the project will involve young students of architecture and design.

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