



Life HEROTile Project – High Energy savings in building cooling by Roof TILES shape optimization toward a better above sheathing ventilation (LIFE14 CCA/IT/000939) – aims to innovate construction sector in terms of cooling during summer season, involving partners all around Europe. More info on www.lifeherotile.eu

Life HEROTile Newsletter Project: what's new?

From June till now, a lot of things happened for Life HEROTile!

We are now at the mid-way of the project, the mid-term conference took place at the end of June in Nice and the results that have been reached so far were presented to the public. In July, the roofs with the new optimized tiles were built in Cadelbosco di Sopra and Saragossa (Spain) and the first data on the real scale buildings have been collected.

As in the mockups, the pitched roof with the tiles (Portuguese tiles in Saragossa, Spain, and Marseilles tiles in Cadelbosco di Sopra) developed by the project demonstrated to be more efficient in terms of energy consumption of the building for cooling the indoor space.

In this Newsletter we will read a report on the mid-term conference, an interview with the third industrial partner of the project, Fernando Cuogo from Terreal Italia Srl (in the previous newsletters the interviews with the other two industrial partners – Mario Cunial, Industrie Cotto Possagno, and Christian Pohl, Monier – have been published), and we will see which will be the next meeting for Life HEROTile: the European Ceramic Days in Brussels in November.

To subscribe to the Life HEROTile Newsletter and to be always updated regarding the developments of the project, please visit the **dedicated page of the website of the project**.

The Newsletter is not the only way to communicate and disseminate the results and the status of the project: if you are a fan of Social Networks do not forget to follow us on **Facebook**, **Twitter** and **LinkedIn**!



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**Life HEROTile Mid-Term Conference
Nice, June 2017, 22nd**



On 22nd June, in Nice, within the framework of the Annual Congress of Tiles and Bricks Europe (TBE), there was the Mid-Term Conference of Life HEROTILE, organized by ANDIL and TBE, during which the partners of the project presented the progress of the project to the members of TBE and other stakeholders.

The Mid-Term Conference of Nice started with a welcoming speech by Renault Batier, Director

General of Cerame-Unie; it then continued with the presentation of the project status of the art by the Coordinator Mario Cunial, Industrie Cotto Possagno, by Christian Pohl, Director at Monier Technical Centre Germany and UK, and by Fernando Cuogo, Terreal Italia Srl (the three industrial partners of the project).

In the second part of the conference there was a discussion with the representatives of two organizations which could benefit from the best practices developed by Life HEROTILE: Promotoit Europe, an association with the mission to promote the advantages of the pitched roofs, represented by the Presidente Pierre Jonnard, also the President of the Fédération Française des Tuiles et Briques (FFTB), and Housing Europe, the European Federation of Public, Cooperative and Social Housing, represented by Marco Corradi, who intervened in the conference also as one of the partners, with ACER Reggio Emilia, the company that manages social housing in Reggio Emilia. Also Isabelle Dorgeret, FFTB Director General, participated in the discussion with a presentation on the main benefits of pitched roofs.

Around 40 people attended the conference showing great interest in the innovative tiles developed by the project that allow to improve the energy efficiency of buildings thanks to the enhanced above sheathing ventilation.

Click [here](#) to see more pictures of the event!





Meet Life HEROTile Partners!
Interview with Fernando Cuogo
Terreal Italia Srl

- ❖ **Terreal Italia Srl is one of the industrial partners of Life HEROTile project. Why did you decide to join this research project? What are the expected results for the company?**



SanMarco-Terreal, a reference company in the production of roofing and floor tiles, facing bricks and clay accessories, constantly invests in economic and human resources for the research and development of innovative products and services. We believe in research and innovation as opportunities to advance in the aesthetic aspects, but, above of all, in buildings performance and, particularly, in the sustainability of pitched discontinuous roofs. Therefore, for years, we have been involved in the optimization of the shapes of our tiles for a better ventilation and, more in general, for a better performance in energy consumption of the underlying covering. Thus, we became promoters, in cooperation with other partners, of a research focused on this goal and recognized by the European Union.

- ❖ **Can you describe what are the concrete activities of Terreal in the project and the methods employed in their implementation?**

As I said, Life HEROTile has the goal of reducing the energetic needs of buildings through the development of new and innovative shapes of tiles, able to increase the above sheathing ventilation. The project has, indeed, the aim of developing and propose new solutions for energy saving, particularly in the Mediterranean Region, with the view to reduce and mitigate the impact of climate change.

For instance, it is proved that, during summer in the Mediterranean Regions, solar radiation causes the overheating of the covering part of buildings, and as a



consequence, of their indoor spaces. This implies the need of using air conditioning, at high energy consumption, to reduce the indoor temperature. Moreover, for very known reasons, the overheating of buildings cannot but increase in the future.

The solutions foreseen by Life HEROTile project will have the aim of improving the energy performance of the roof, both for new constructions and for the renovation of the existing ones, to reach the energy efficiency goals, reducing CO₂ emissions and facilitate the adoption by the market of a eco-innovative product.

❖ **What are the features of the Marseilles tile developed for Life HEROTile?**



We have designed a new shape of Marseilles tile, characterized by a high air permeability, by a perfect overlapping and by a better energy performance of the underlying covering, through the reduction of the passive influence of solar light, which determines the improvement of the above sheathing ventilation. The new tiles, produced in our production lines, have been placed in the real-scale pilot building of Cadelbosco (RE). In the

meanwhile, comparative analysis are being undertaken on the mock-ups in Ferrara and Yerucham (Israel), by the team of Prof. Zannoni from the University of Ferrara. These data are the basis for the creation of a software called SENSAPIRO (Software ENergy SAving PItched Roofs), which will be owned by ANDIL. The software will be open-source and free for everyone at the European level who will make a request. Thanks to SENSAPIRO, roof performance will be calculated in relation to the geographical site, the layer slope and the used covering.

❖ **What is the state of the art of the project? What are the next actions?**

The new Marseilles tile developed for Life HEROTile, even if maintains the formal features which traditionally characterized it, has been modified in the details of the profile, above all in the overlapping, in order to increase the air permeability and the underlying ventilation, with a view to generate a better energy efficiency of the covering. Last but not least, even the design has been taken into account and the new tile is characterized by a modern and innovative line.



❖ **Can you tell us the long-term benefits that Life HEROTile will produce?**

First of all, the project has the objective of reducing the energy needs of buildings, in particular in the Mediterranean Region or in Southern Europe. It has been estimated the reduction by about 5% of electric consumption, related to the cooling of buildings in urban areas, a reduction by 25% of the temperature under the roof, by 50% of carbon emissions related to the building and by 50% of the power required to the cooling systems.

The project is compliant with the European energy policies, which have the aim of reducing CO₂ emissions by ensuring energy saving for building cooling (40% of total demand).

As far as the first empirical results are concerned, the analysis on the new tiles and the measures on the related energy savings show an almost doubled permeability of the prototype tiles (Portuguese and Marseilles).



For these reasons, we are very optimistic regarding the attainment of the expected results, taking into consideration the important presence of these two types of tiles in the Mediterranean countries.

The challenges in the construction sectors consist in the creation of sustainable and highly-performing buildings and cities. Besides the habitat wellbeing, the pitched breathable roof made with discontinuous elements, as opposed to the roof with hermetic and sealed closures, becomes, therefore, key and strategic to reach the goal of the reduction in energy consumption of buildings.



Save the date!
Ceramic Days, November 22nd

On November 21st and 22nd, in Brussels, there will be the European Ceramic Days, organized by Cerame-Unie.

Particularly, on 22nd November, a public conference will reflect the current trends in research & innovation in ceramics at European level, taking stock of the progress made by European projects and discussing the key obstacles to increased cooperation in a sector with great potential for innovation but largely composed of SMEs. Two sessions moderated by Peter Woodward will explore this topic with a focus on resource & CO₂/energy efficiency and digitalization & advanced technologies.

LifeHEROTile will be presented together with other European research projects.

For more information: [**comunicare@laterizio.it**](mailto:comunicare@laterizio.it)!

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