# LIFE EGGSHELLENCE PROJECT

# (REF.: LIFE19 ENV/ES/000121)

## Egg production companies and ceramic companies join forces in industrial symbiosis to develop sustainable products

### ITC-AICE hosts the first annual meeting of the project LIFE EGGSHELLENCE: A potential raw material for ceramic wall tiles

Castellón, 20 October 2021- The Instituto de Tecnología Cerámica (ITC-AICE) has hosted the 1st Annual Meeting of the European project LIFE EGGSHELLENCE: A potential raw material for ceramic wall tiles (REF.: LIFE19 ENV/ES/000121), which is supported by the European Commission within the LIFE programme and which links two very different production sectors: egg production and processing and ceramics production. The aim of this meeting is to monitor this initiative coordinated by ITC-AICE and involving the company AGOTZAINA, S.L., a manufacturer of liquid egg products, the Portuguese company Adelino Duarte da Mota (MOTA CERAMIC SOLUTIONS Group), and the companies EUROATOMIZADO, S.A. and MAINCER, S.L. from the ceramic sector of Castellón, as well as the University of Aveiro, in Portugal. LIFE EGGSHELLENCE addresses the reuse of waste from thousands of tonnes of eggshells produced each year, in this case in egg processing companies in Spain and Portugal, to incorporate the calcium carbonate contained in these shells as a secondary raw material in ceramic wall tile compositions.

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It has been estimated by the project research team that in Europe around 150,000 tonnes of eggshell waste is generated in egg production companies and is not used in any way: it is sent to landfill. In Spain, 16,000 tonnes are generated per year, while in Portugal, 5,500 tonnes are generated per year. Both countries participating in LIFE EGGSHELLENCE also add the costs of transporting and landfilling this waste, which amount to around 25-60 € per tonne, which would result in additional costs of between 50 and 100,000 € per year.

For this reason, the LIFE EGGSHELLENCE consortium is making progress in order to try to minimise the extraction of virgin raw materials from nature, valorising these types of waste that will give rise to a new product, in this case, wall tiles.

At today's meeting, progress in the technical feasibility of this process was studied, which involves building a device that separates the biological membrane from the eggshell and then incorporating the calcium carbonate of biological origin into the ceramic composition. After the meeting, the participants visited the facilities of the MAINCER machinery company, which is developing this prototype. With construction still to be completed, the first two processes are already in place: a crusher to promote the detachment/separation of the membrane adhering to the shell and a rotary sieve in which practically all the membrane containing the waste is separated.

LIFE EGGSHELLENCE is thus an example of industrial symbiosis oriented towards the circular economy, as it allies two sectors that will generate two new value chains and new business models that can be replicated on an international scale.

The meeting also saw the launch of the LIFE EGGSHELLENCE website which contains all the information and progress: https://www.lifeeggshellence.eu