

## Industrial symbiosis between egg production companies and ceramics: Life Eggshellence presents its results in Madrid.

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Castellón, February 21, 2024. The LIFE EGGSHELLENCE project, funded by the European Union's LIFE 2014-2020 Environment and Climate Action Programme (REF.: LIFE19 ENV/ES/000121) reaches its final stage with the presentation of its results in a final event held in Madrid, with international scope, at the Casa de Europa, with representation from the EU and several people with extensive experience who contributed to raise awareness with living examples regarding industrial symbiosis between different productive sectors, such as, in this case, egg production companies and ceramics companies, and, therefore, to the circular economy, since LIFE EGGSHELLENCE uses the shell waste of egg production companies, rich in calcium biocarbonate, to use this element, used in ceramic compositions and extracted from the earth as a virgin raw material, for the manufacture of ceramic tiles for wall tiles.

LIFE EGGSHELLENCE has been carried out between countries such as Spain and Portugal, involving both companies and research centers. With the help of funds from the LIFE Program, they have been able to demonstrate that it is possible to solve the problems of egg production companies, on the one hand, which dispose of tons of eggshell waste in landfills. This is a problem for these companies, since it represents, on the one hand, waste transportation costs and, on the other hand, it generates nuisances and complaints about the bad odors they give off.

LIFE EGGSHELLENCE has built a machine that separates the biological membrane in the eggshell, and cleans, dries and crushes the shells until they are suitable to become part of the ceramic composition required for the manufacture of tiles, in this case, cladding tiles.

This challenge has been achieved and the results and process have been presented in the opening ceremony with the interventions of Paula Ceballos, representative of the European Commission in Spain, Juan Vicente Bono, president of the Ceramic Industries Research Association (AICE), the leader of the project research, coordinated by ITC, Dr. Francisca Quereda, head of the Ceramic Materials and Technologies Area of ITC.

The session then began with María del Mar Fernández, director of the Spanish Association of Egg Product Industries (INOVO), who presented the current situation of the egg



production sector in Spain, followed by Filippo Ceruli, representative of the European Egg Processors Association (EEPA), who in turn presented the situation of this sector in Europe. Jorge Galarza, from Ingeniería Avícola, gave a lecture on "Sustainability and Sandach in the egg product sector".

After a break, Juan Vicente Bono, president of AICE, spoke about: "The Spanish ceramic tile manufacturing industry", followed by Dr. Francisca Quereda who detailed the project in her presentation: "LIFE EGGSHELLENCE: Industrial symbiosis between the ovoproducer sector and the ceramic sector".

And finally, Dr. Francisca Aran, R&D coordinator of the Footwear Technological Center (INESCOP) who presented: "AVI OVOVAL Bioproducts from the valorization of by-products of the primary egg production industry and its application in strategic sectors of the Valencian Community".

Thus, and with the contributions of these studies whose discourse invites and encourages further research and the adoption of solutions, it became plausible that there are solutions where it is essential to dialogue with other productive sectors and especially with public administrations, in addition to continuing to seek other new resources based on nature, impacting the minimum in its growth and development, which impacts the entire planet.

LIFE EGGSHELLENCE is linked to SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Production and Consumption and SDG 17: Partnerships to Achieve Sustainable Development Goals.

Learn more about LIFE EGGSHELLENCE:

www.lifeeggshellence.eu

