

## The GO STRAWMAT project will use rice straw byproducts as an efficient and sustainable solution for the construction and renovation of buildings

The STRAWMAT Operational Group is a circular economy project that will produce fireproof materials with thermal insulation properties using rice straw.

La UNIÓ, AGROBELGA, AIMPLAS and Cesefor are developing this new construction system based on this rice by-product that will be reintroduced in the agricultural, livestock and construction sectors.

**Valencia** (9-4-2025).- Currently, rice straw is managed through swiddening (incorporation of the straw resulting from rice harvesting into the soil), controlled burning or its removal. However, these options generate high environmental emissions or are technically and logistically complex. Hence, there is a need to develop new solutions that contribute to improving the performance, competitiveness and sustainability of rice farms by also valorizing the resulting straw.

The STRAWMAT Operational Group focuses on boosting the economic activity of the rice sector through the valorization of the rice straw by-product as an efficient and sustainable solution for the construction and renovation of buildings. Rice straw will be used as a raw material in the manufacture of various fireproof materials with thermal insulation properties that will enable the development of new construction systems for different sectors.

La UNIÓ, AGROBELGA, AIMPLAS, and Cesefor collaborate on this project, which will offer leading solutions in industrialization, sustainability, and energy efficiency. Specifically, the new materials could be applied in new buildings and energy rehabilitation for different sectors such as agriculture, livestock, or construction, thus creating a circular bioeconomy project.

GO STRAWMAT emerges as an opportunity to solve the management of rice straw, especially in areas like l'Albufera de Valencia, where rice fields usually remain flooded after harvesting, complicating its collection. Therefore, the research also includes optimizing the methodology and machinery necessary for collecting the straw regardless of its condition, thanks to a harvesting technology that will allow working with wet straw and improving its conditioning and drying, ensuring its supply to transform it into a material with added value.









The intrinsic properties of rice straw (insulating and fire-resistant properties derived from its silica and lignin content) allow the development of materials that compete with traditional petroleum-based insulating products used in various constructions, such as polystyrene or polyurethane foams, which have low fire resistance.

This project is co-financed by the European Union, through the European Agricultural Fund for Rural Development (EAFRD), and the Ministry of Agriculture, Fisheries, Food, and Environment with a budget of €596,450.20 and a total aid amount of €593,518.08. The aid is co-financed at 80% by the EAFRD and 20% by funds from the General State Administration.

## **About AIMPLAS**

At AIMPLAS, we help companies apply circular economy criteria to their business model and turn the legislative changes that affect the plastics industry into opportunities to improve company efficiency, reduce environmental impact and increase economic profitability. To this end, we do research in areas such as recycling, biodegradable materials and products, and the use of biomass and CO<sub>2</sub> with the aim of developing innovative solutions that help solve current environmental challenges.





The body responsible for the content of this press release is the consortium formed by the partners of GO STRAWMAT, beneficiary of the aid for the execution of innovation projects of general interest by operational groups of the European Association for Innovation in Agricultural Productivity and Sustainability (AEI-Agri).

## **European Commission**

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