

GEMIAL PROJECT

AEI-010500-2025-94

Federated digital twin for the food industry

GEMIAL is an innovation project focused on the development of a federated digital twin for the food industry. It integrates IoT, artificial intelligence, computer vision, virtual reality and multi-cloud architecture to synchronise production planning with industrial refrigeration management.



OVERVIEW

GEMIAL is an innovation project focused on the development of a federated digital twin for the food industry. It integrates IoT, artificial intelligence, computer vision, virtual reality and multi-cloud architecture to synchronise production planning with industrial refrigeration management.



EXPECTED IMPACT

The project will boost the competitiveness and sustainability of the sector by reducing energy costs and waste, digitalising processes with Industry 4.0 technologies, and improving operational efficiency and traceability.



MAIN OBJECTIVES

- ✓ Optimise energy efficiency, traceability and sustainability in the food industry.
- ✓ Create a common data framework and a platform integrating digital twins.
- ✓ Use advanced sensing and predictive models to automate data and anticipate energy consumption.
- ✓ Validate the solution in real environments with push and pull production models.
- ✓ Ensure cybersecurity and compliance with regulatory and ESG requirements.



CONSORTIUM

The consortium brings together eight entities with sector knowledge and technological capacity: CLUSAGA and DIHGIGAL as AEI clusters, together with SOLTEC, PANOimagen, GRADHOC, ECO3G, Ignaico González Montes and Coesco Deza / Cocina Culinaria.



BENEFITS

- ✓ Flexible and scalable solution.
- ✓ Reduction of energy consumption and food waste.
- ✓ Improved operational efficiency and removal of information silos.
- ✓ Support for regulatory compliance and the ecological and technological transition.



FUNDING

Project funded under the 2025 call of the support programme for Innovative Business Clusters (AEI) of the Ministry of Industry and Tourism, within the framework of the Recovery, Transformation and Resilience Plan and NextGenerationEU.



Soltec participates as a technology company within the consortium.



COLLABORATING ENTITIES



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