Thematic area

Agro-food Value Chain



Section II Topic 3.2 - Food safety in local food chains



Budget

1.353.817,00 €



Duration



Project

31/ArtiSaneFood

Innovative Bio-interventions and Risk Modelling Approaches for Ensuring Microbial Safety and Quality of Mediterranean Artisanal Fermented Foods

Context

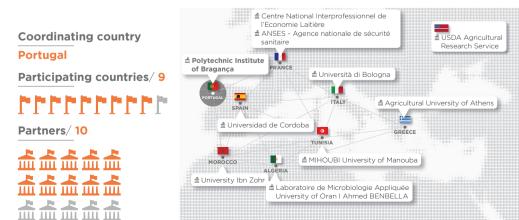
The Mediterranean region is known for being rich in traditional food products, and they constitute not only a vital part of the cultural heritage, but an important engine of many local economies. Thus, Mediterranean artisanal foods must be further valorised to improve their consumption and distribution; which, on the other hand, requires that local producers ensure the quality and safety of their products.

Objectives

The objective of this project is to develop efficient bio-intervention strategies, enhanced process criteria, and an easy-to-use food safety decision support IT tool for participating artisanal food producers, aiming to the reduction and control of food-borne pathogens in 15 artisanal fermented foods of meat or dairy origin produced in Portugal, Spain, Italy, France, Greece, Morocco, Tunisia and Algeria. The project will be developed through an integrated risk-based approach sustained by the concepts of (i) extensive tracking surveys in the artisanal food chains, in order to identify origin, routes of contamination, risk factors favouring pathogens' survival, and technological causes for lack of homogeneity in the quality/ safety of end-products; (ii) biopreservation, whereby functional starter cultures and natural extracts will be assessed as extra hurdles to ensure safety and extend shelf-life: (iii) fate studies of pathogens, and (iv) risk process modelling, for the delineation of the most effective bio-interventions, optimisation of process variables and norms/standards, and design of quality monitoring tools.

Expected impacts

A safety decision-support IT tool will be developed to enable artisanal producers to assess the lethality of their traditional and newly-implement-



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Coordinating institution

Instituto Politécnico de Bragança - IPB



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ed biopreservation-based manufacturing processes against pathogens. Product deterioration will also be delayed, hence reducing the need of chemical preservatives and food waste. Uptake of the novel biopreservation technologies and quality monitoring schemes will bring about more efficient, harmonised and reliable food quality management systems of artisanal foods. Small regional businesses can thus become more competitive, and may reassuringly grow into companies of increased production and enlarged markets and exports opportunities. The producers' ability to prevent food safety incidences that cause economic losses and consumers' loss of trust will be enhanced. New business opportunities for locally-produced plant extracts, and bio-preservation solutions-providing spin-offs can be created.

15 FERMENTED FOODS - CASE STUDIES

- Alheira sausage and Serrano cheese made with raw goat's milk (Portugal)
- Morcilla de Burgos blood sausage and Manchego-style cheese made with raw milk (Spain)
- Squacquerone of Romagna and salame romagnolo (Italy)
- Camembert de Normandie (France)
- Numbulo sausage and Katiki Domokou cheese (Greece)
- Merguez sausage (bovino e pecora) and Jben cheese made with raw goat's milk (Morocco)
- Klila and Jben cheeses made with raw goat's milk (Algeria)
- Kaddid, dehydrated salted sheep meat product, and Leben fermented milk (Tunisia)



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