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GENETIC DIVERSITY



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INNOVATION IN CHEESE MANUFACTURE

Start: May/2017  
End: April/2020

Budget: 430.122 €

## Operational Group:

iCheese –Cynara Innovation for best Cheese.

*iCheese – Cynara inovação para melhor queijo.*

### Practical problem

In Portugal cheese from ewe's milk is produced using cardoon flower extracts rich in enzymes with different coagulant activity. The valorisation and preservation of these endogenous resources depends on the establishment of procedures to ensure reproducibility and quality of the final product.

### Partners

Type:

Research/ Teaching

Agri association

Agri enterprise

Other company

Name:

Universidade Católica Portuguesa; Instituto Politécnico de Castelo Branco; Universidade de Évora; Instituto Nacional de Investigação Agrária e Veterinária IP; Instituto Politécnico De Viseu; Instituto Politécnico de Beja Ancose - Associação Nacional de Criadores de Ovinos Serra da Estrela Centro de Biotecnologia Agrícola e Agro Alimentar do Alentejo; Cataa - Associação Centro de Apoio Tecnológico Agro-Alimentar De Castelo Branco; Sabores e Ambientes Serra Da Estrela, Comercialização De Prod.Trad. Lda

### Project

Objectives:

Innovation of products and processes to empower cheese producers using cardoon flowers guaranteeing the sustainable and safe supply of coagulants contributing for the competitiveness of SMEs in the milk-transforming sector. Wide dissemination and demonstration of the results of iCheese Project.

Expected results:

iCheese will establish:

- Vegetable coagulants (MixEcoCyn 1-6) adequate for each DOP region (Serra da Estrela, Beira Baixa, Nisa, Évora, Azeitão, Serpa);
- An innovative formulation with cardoon flowers from different ecotypes (InovEcoCyn), adequate for different milks (ewe, goat, cow and their mixtures);
- Process and packaging of the flowers to comply with food safety and quality guidelines.

Results so far/first lessons:

The institutions collaborating with iCheese have the knowledge on cardoon plants and their enzyme profiles and their role in clotting of different milks (ewes, goat and cow). Experimental cardoon fields are established in Viseu and Queijo da Serra da Estrela producers have been using different cardoon flowers providing the preliminary data for the selection of the appropriate cardoon ecotypes.

Who will benefit:

Traditional cheese manufacturers (MixEcoCyn) Any cheese manufacturer interested in designing new cheeses (InovEcoCyn).

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