



Authenticity and traceability of high value Greek beef from Imathia, utilizing digital technology and genetic identification



The Problem

While Greek consumers prefer localized meat products (often going out of their way to acquire them), approximately 72% of consumed beef meat in Greece is imported. This number highlights the lack of trust as well as proper information consumers have, regarding the authenticity and origin of these products. This situation constitutes obstacles to the sustainability and competitiveness of local livestock farmers. It is important that consumers prefer localized meat products that are verified and can be traced especially when the preferences of the next generation of consumers are formulated.



Figure 1. Herd of cattle.

AuthenBeef Overall Objective

AuthenBeef is geared to achieve high quality and sustainable meat products in the region of Greece. The project will provide transparency regarding the authenticity and traceability of these products using an e-platform based on blockchain technology. AuthenBeef aims to implement and advance a system to add value to localized meat products, emphasizing their superiority and promote the sustainability of livestock farmers in the region of Macedonia.

The Project

AuthenBeef will support the implementation of tracing procedures throughout the supply chain of beef meat from “farm-to-fork”. For this purpose, AuthenBeef will develop an e-platform based on blockchain technology that will provide information from and to all relevant stakeholders. This e-platform when scaled can aid regulatory bodies to better monitor the beef meat market.

The Approach

AuthenBeef will perform industrial research for the development of information tools and applications, regarding cattle breeding, production facilities, standardization of meat and its derivative, and usage of biotechnology methods to genetically identify and verify the authenticity of the meat with respect to the origin of the animals. A multivariable overview of the institutional framework and critical and critical analysis of the available livestock for select areas (Central Macedonia and specifically Imathia) will be performed.

The project will aim at the development of protocols for the recording and evaluation of data for the creation of a knowledge database and the evaluation of the authenticity of meat products using laboratory protocols for genetic identification tests developed for this purpose.

Finally, the project will develop and optimize the “AuthenBeef” platform for the recording, authenticity depiction, and validation of meat products in the region of Central Macedonia. Pilot testing of the platform for the traceability of beef meat will be performed. Finally, environmental, technical, and financial evaluation and financial evaluation of the sustainability of the platform will be performed, as well as dissemination actions and feasibility studies.

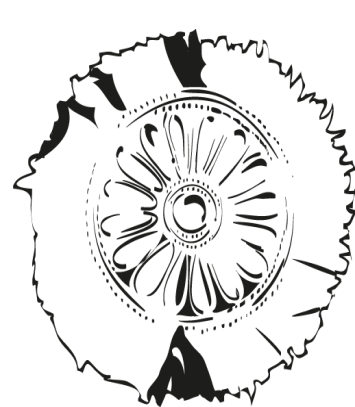
The Pilot Case

A pilot project will be used as proof of concept for the viability of the e-platform. The usage and feedback provided by stakeholders will be assessed, to promote the success of the project and its promotion to the market. The pilot project will take place in the region of Imathia with the help of local production stakeholders throughout the supply chain of beef.

Expected Impacts

- Better availability of authenticity criteria for beef meat, including region of origin, animal race, livestock farming methods, maturation time, nutritional elements, proposed usage, environmental footprint. These data will become available to consumers in real time, leading to better management and more efficient marketing of the meat products. Consumers can better recognize the identity of meat products, thus creating conditions for the growth of local livestock farming.
- Greek meat products will gain added value and increased sustainability due to the traceability and transparency data available to consumers.
- Support the local food industry by improving recognition and preference of beef meat produced in Greece.
- When scaled the e platform can be used by regulatory bodies to better control, track and trace the meat market.
- Addressing and minimizing cheating actions regarding food security and origin (place of origin, nutritional values).

The Project Partners



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