

Pilot Study on the Transfer of Analytical Fingerprinting Techniques to Public Policy: Olive Oil Fraud Screening and Enhanced Agro-Food Inspection Plans

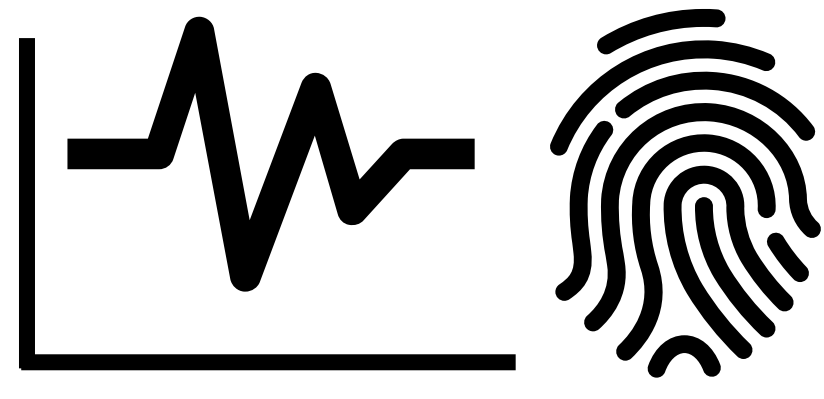
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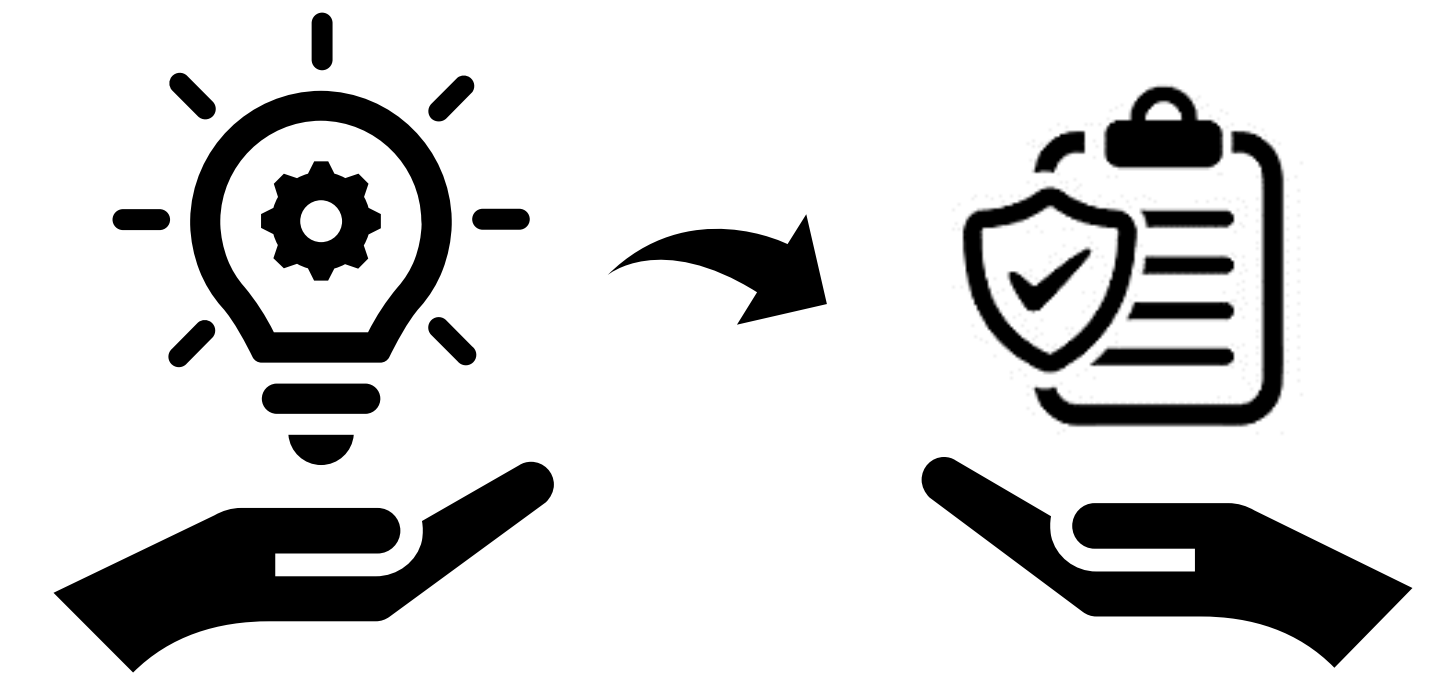
Project Rationale



Innovative **fingerprinting techniques** have emerged as **powerful tools for food authentication**, enabling efficient discrimination between authentic and fraudulent products using complex datasets.



These methods are **well-suited for large-scale screening** programs and align with the growing need for robust food fraud detection strategies.



Transferring scientific results into public policy and inspection frameworks ensure that cutting-edge **research** directly **benefits society**, and the effectiveness of **regulatory systems**.

From Science to Policy: A Pilot Study Powered by FECYT-MCIU

FECYT I+P Call

A national initiative has been launched to **promote collaboration** between **public administrations** and the **scientific community**, foster **evidence-based policymaking**, and support the **transfer of scientific knowledge** into public management.

The Project

Funded under this call, the project **AIMS** to **pilot** innovative analytical **fingerprinting techniques** for **olive oil fraud screening**, focusing on translating scientific advances into public policy **to improve official agro-food inspection** and control plans.

The partners

Public administrations and scientific community, to align research with the practical needs of regulatory authorities and the olive oil sector.

Supporting Public Authority



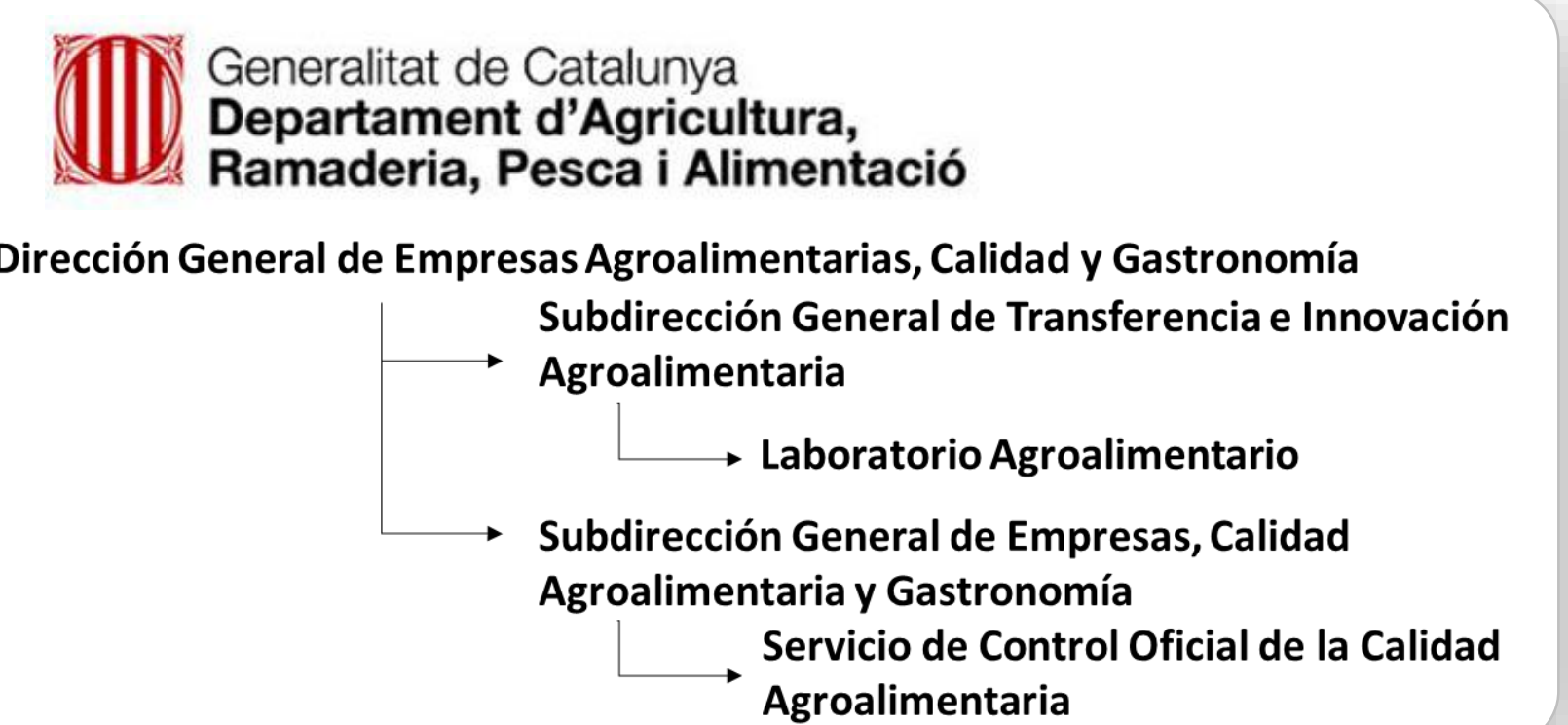
Subdirección General de Control de la Calidad Alimentaria y Laboratorios Agroalimentarios

Research Institution



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Partner Public Authority



The goals

The project will test the applicability of the developed fingerprinting authentication tools in a real-world context, focusing on virgin olive oil control. It focuses on detecting three priority fraud types:



Triglyceride fingerprinting (GC-MS) for detecting **adulterated** olive oils.

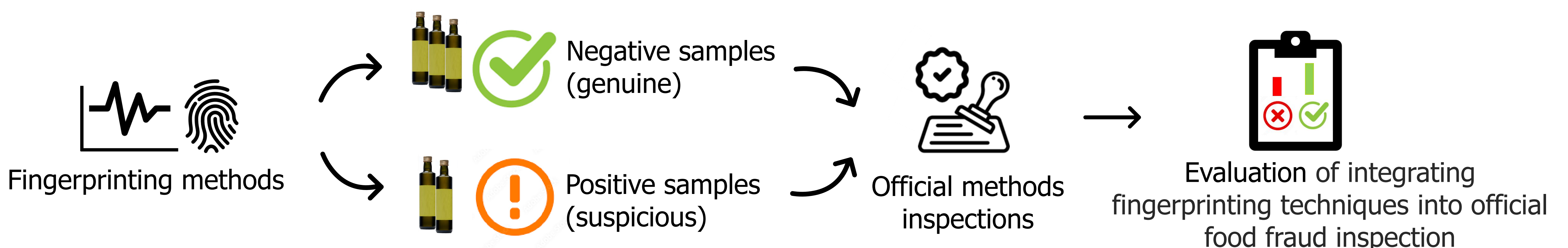


Volatile compound fingerprinting (HS-SPME-GC-MS) to verify the **commercial category** of virgin olive oils.



Sesquiterpene fingerprinting (HS-SPME-GC-MS) to verify the **geographical origin** of virgin olive oils.

The work plan



By integrating risk-based analysis and high-throughput screening strategies, the project aims to assess how fingerprinting methods can enhance the design and effectiveness of official inspection plans. Ultimately, this approach aspires to improve fraud detection, enhance consumer protection, and serve as a model for science-policy integration in food safety and quality.