OLEUM: A European Funded Project

The OLEUM Project: An Overview of New In-house Validated Analytical Methods

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The EU H2020 OLEUM project aims to better guarantee olive oil (OO) quality and authenticity by improving detection and fostering prevention of olive oil fraud. To solve the actual gaps, thus enhancing the competitiveness of the OO market both within and outside the EU, OLEUM is developing innovative and revising existing analytical methods, sharing relevant results (OLEUM Databank) and establishing a wide community of institutions involved in the olive oil sector (OLEUM Network).

During these first three years of the project several analytical methods have been developed and in-house validated. Some of these, such as a portable system for the rapid determination of free acidity and a fluorescence spectroscopic method to determine bioactive compounds, are about the control and evaluation of the oil quality, others concern the verification of its authenticity. In particular, two different approaches, based on chromatographic techniques (Flash-GC E-Nose and SPME/GC-MS) with a chemometric data elaboration, have been developed to verify the geographical origin of virgin olive oil.

This lecture will present an overview of these methods highlighting their advantages, in-house validation performances and innovative potential.