

SENSOR-FINT

AN INTERNATIONAL NETWORK SHARES INFORMATION ON
NON-DESTRUCTIVE TECHNOLOGIES FOR FOOD ANALYSIS



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CALL: COST-OC-2019

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BUDGET: 73.973,75€ (FIRST ACTION)

PRINCIPAL INVESTIGATOR: DOLORES CATALINA PÉREZ MARÍN



There is a growing need for the food industry to provide information on the quality, authenticity and safety of the products it produces and markets. The development of spectral sensors and advances in Big Data are gradually transforming the way of approaching food guarantees in the face of critical commercial concerns such as quality and safety. The European SENSORFINT project brings together international researchers and industries in the Agri-food field, creating a network that combines experience in research, instrumentation design, food production and technology transfer to tackle the challenges of the Agri-food sector in terms of food integrity.

SENSORFINT (www.sensorfint.eu) is an open European scientific-technological network that develops technological solutions based on spectral sensors to respond to existing and emerging problems related to the regulation and authentication of food products and processes, in situ and in a non-invasive way (without the need to pre-process the product), building the foundations of new food control, or smart control systems, which address the entire value chain. They almost promote the training of young researchers, improving their

skills and opportunities to be hired on the labour market thanks to cutting-edge training, which will make it possible to transfer and adjust scientific advances to current and future industrial needs. This will, undoubtedly, result in improvements in the competitiveness of the European food industry.

Prof. Dolores Pérez Marín's research group is leading this project and also bringing to the table her experience in NIRS (Near Infrared Reflectance Spectroscopy) technology, hyperspectral analysis, and Artificial Intelligence for food analysis. These non-destructive spectral sensors are a fast digital technology that employs light to predict the quality, safety and traceability aspects of various agri-food products.

The NIRS and NIRS-image spectral sensors do not destroy the food analysed, and do not use chemical reagents, since the sample is analysed directly with

light. In this way, new developments in NIRS instrumentation allow for online analysis of the entire output of a food industry, and not just certain batches. The use of this type of technology, therefore, expedites analysis, is more economical, cleaner, and allows for the massive analysis of production, entailing more robust guarantees of the products marketed.

A research group at the University of Córdoba, coordinated by Professor Dolores Pérez Marín, leads this collaborative project drawing together more than 30 countries and 200 international researchers



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