

Practice Abstract

Portable digital devices to combat honey fraud

Description

Honey ranks 3rd in the world for the most counterfeited food just behind milk and olive oil. Moreover, recent studies conducted by the EU's Joint Research Institute (JRC), concluded that practically half of the honey that is commercialised is suspected to have been adulterated and therefore non-compliant with the EU Honey Directive. According to previous studies, the main unfair practices in the honey sector include:

- adulteration of honey with additional sugars
- addition of low-quality honey to high-priced honey
- mislabelling with respect to the geographical and botanical origin of the honey

The main aim of the Watson honey pilot is to develop and validate low-cost and portable digital devices, based on Near Infrared Spectroscopy (NIR) and hyperspectral imaging (HIS), for the fast detection of fraudulent practices in the Protected Geographical Indication (PGI) Asturian honey in Spain. This novel tool will be integrated into the control and inspection tasks performed by the main control bodies of the PGI. Currently, only minimal controls are carried out, due the time-consumption and high cost of scientific equipment, and destructive nature of the required laboratory analysis. This new device will revolutionise the field thanks to its high sampling and throughput, as well as the fast visualisation of the analysis results. It is also noteworthy to highlight that this authenticity proof device will be complemented by other cutting-edge technologies that support food traceability, such as Blockchain, Digital Food Passport and the Early Warning System. The main target groups for this innovative practice include EU honey operators, honey control bodies, EU consumers and other related organisations such as food clusters, researchers, institutes and technology centres.

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Stakeholders

Food Industry
Food Safety Authorities
Policy Makers
Consumers
Academic and Research
Community
Industry Association
Trade Organizations
Technology and Data
Analytics Experts
Supply Chain Partners

Country

Spain



A holistic frameWork with Anticounterfeit and inTelligence-based technologieS that will assist food chain stakehOlders in rapidly identifying and prevenTing the spread of fraudulent practices



About Watson

Watson is a 3-year project funded by the Horizon Europe programme, aimed at tackling fraudulent practices in the food supply chain. Our interdisciplinary consortium of 47 partners from 20 EU and non-EU countries is collaborating to develop a holistic traceability framework that integrates data-driven services, intelligence-based toolsets, and risk-estimation approaches, enabling food safety authorities to detect and prevent food fraud more effectively.

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**Funded by
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This work was conducted as part of the Watson project, funded by the European Union's Horizon Europe research and innovation programme, under grant agreement No. 101084265.