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

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Practice Abstract

Interoperability mechanisms for food supply chains

Description

Food chains are typically complex, and they involve multiple stakeholders and processes from the collection of the raw material to its transformation to generate the final product. Such processes typically involve multiple parties and consist of different steps. The execution and completion of each step is supported by measurements of parameters retrieved using standalone measuring devices or IoT platforms. On top of such processes, a rich portfolio of applications can be designed using process-related data, either to provide information to stakeholders and/or consumers (e.g. in the context of traceability offerings) or to perform fraud validations. The exchange of data among processes, services and applications is challenging due to the different semantics and formats employed or expected by data sources and consumers respectively.

In the context of Watson project, the project team is working on interoperability solutions for modelling parameters and respective values involved in the 6 pilot food chains of the project. The solution leverages and extends ETSI Smart Applications Reference for agriculture and food domains (saref4agri) and H2020 DEMETER Agriculture Information Model (AIM) according to the needs of Watson chains. Interoperability will facilitate the binding of data sources and data sinks for more advanced and rich services, retrieving and transforming ad hoc data to standard-based information.

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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

Worldwide

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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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